

AMERICAN BUILDER

Including "BUILDING DEVELOPER" and "HOME BUILDING"

A SIMMONS-BOARDMAN PUBLICATION

Vol. 49.

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No. 4

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AMERICAN BUILDER

Including "Building Developer" and "Home Building"

BERNARD L. JOHNSON AND CHARLES G. PEKER, *Editors*



BUILDERS *Who Build*

A GOOD deal of publicity is given in our newspapers to projects sponsored by well-meaning folks who aim to supply homes at moderate prices for working men of small income.

One of the latest is a project to build large apartment houses in New York City which will rent at the rate of \$20 per room per month. These houses are being especially designed for the so-called "white collar" man who has a salary of less than \$50 per week. It is quite obvious that families with such an income cannot afford to pay rents like this.

This scheme is almost on a par with the well-meaning and beautiful project at Forest Hills, New York, of the Russell Sage foundation. Model homes were to be created for working men, but when they were "created" a very high class community had been built, suitable only for those having an income of \$10,000 or more per year.

Different association speakers are wont to talk depreciatingly of the "common builder" and the awful "speculative builder."

When our country was faced with the serious dilemma of a housing shortage, the speculative builder provided housing in sufficient volume until the demand was met. Had the problem been left solely to the theorists, we today would be still in a worse mess of housing shortage than we were ten years ago.

There is an old saying that it is easy to sit in the gallery and pass remarks, and it seems that this appropriately applies to the house building situation as well.

Monthly Tax Collection

SUBSTITUTION of monthly tax collection for the existing annual and semi-annual method is recommended in a report of the Public Relations Committee of the United States Building and Loan League, recently completed and about to be mailed to the membership following an exhaustive study of the subject.

The report is signed by Henry S. Rosenthal, of Cincinnati, as chairman, and M. George de Lucas, New Orleans; Fenton B. Turck, Jr., New York; John F.

Mahr, Oklahoma City; Milton B. Schayer, Denver; Lee C. Stidd, Portland, Ore.; and Charles S. Moore, Atlantic City.

Commenting on the report, Willard K. Denton, vice-president of the Railroad Cooperative Building and Loan Association of New York, a director of the League, declared the plan is assured of the overwhelming endorsement of the League membership.

"There is no good reason why the taxes themselves cannot be placed on a monthly basis," the report asserts, "and many reasons why they should. The utility of the plan to home owners is obvious. Instead of having to accumulate a surplus during the twelve- or six-month period between any two tax paying dates, the home owner could make out a check monthly and mail it to the tax collector's office. As a monthly expense, it would be on a par with gas, electric, and telephone charges, and could easily be anticipated and provided for. There would be no last minute scramble to arrange for a loan from the bank, or from a friend or relative, and, hence, less likelihood of heavy penalties as the result of delinquency."

Advantages Seen

An increased "tax consciousness," with a closer citizen supervision of governmental expenditures, would be one by-product of such a system, the report suggests, pointing out that "there may be opposition, of course, from the politicians, who will say that monthly bills will entail a much higher collection cost." This objection is met with the suggestion that if such were the case business houses would not depend on a monthly collection basis; the present system, the report contends, is the more expensive from the public's viewpoint, since government loses the use of the money during the between-payment dates.

Annual and semi-annual tax periods are bad in a general economic sense. They necessitate the piling up of funds over long periods, and the sudden withdrawal of these funds from the banks, with an inevitable disturbance of the even flow of credit. Operating on a monthly budget, city governments would be much less likely to have to borrow, or to degenerate into the

condition so well typified by Chicago at the present time.

Such a course, the report concludes, would make home ownership much more popular, since taxation next to payment of mortgage and interest, is the largest single expenditure involved in home ownership.

Second Half Should Be Better

WITH the completion of the first six months of 1930, it is interesting to get together the building and construction contract figures as reported and see how they compare with the building volume of recent years.

At this writing the total June figures, of course, have not been announced; but assuming that June will duplicate May, as it has done very closely on the average for the past five years, we have \$2,494,955,000 as the total for construction contracts of \$5,000 and over, awarded in the first six months of this year in the thirty-seven states east of the Rocky Mountains. Since 10 per cent should be added to this figure to cover the Pacific coast states, and a further allowance added for unreported home building in the smaller cities and rural communities and to cover the many contracts of less than \$5,000 each, all of which we estimate conservatively as 50 per cent of the reported residential buildings, we arrive at \$3,074,000,000 as the true total for the first six months of 1930. This is 21 per cent under the first six months of last year and 26 per cent under the average of 1925 to 1928, and spotlights the fact that the building industry has been slower than expected in getting back to normal.

Yet this makes the outlook better for the second half of the year; since depreciation, obsolescence, fire loss, population growth, and other factors that continuously call for building improvements are going right along, with the result that what is not built now will have to be built later on.

Breaking down the figures for the first six months of 1930 into the several classifications, we find the following:

Residential Buildings	\$ 988,631,000
Commercial Buildings	466,266,000
Industrial Buildings	322,687,000
Educational Buildings	199,173,000
Hospitals and Institutions.....	84,355,000
Public Buildings	76,735,000
Religious and Memorial Buildings.....	68,750,000
Social and Recreational.....	72,393,000
Public Works and Utilities.....	795,010,000

Total Construction First Half of 1930.....\$3,074,000,000

Studying the records for five years back, we find that the two halves of the building year have yielded practically identical volumes of building activity. The average of all contract figures for the five years 1925 to 1929 shows a variation of only 3½ per cent between the first six months and the second six months. However, as to the present year, we believe that conditions are shaping, though slowly, to produce a considerably larger volume of home building and other building activity in the second half of 1930.

What Is Needed

IN every locality there should be an organization of the local builders, architects and material men. These should be local chapters of a national organization that, because of its large membership, would compel recognition of its problems and bring about necessary reforms of abuses by commission or omission.

The AMERICAN BUILDER will lend its aid and do what it can to help form such an organization. There is an old saying that is truer than ever right now as far as the building industry is concerned and that is, "In Union there is Strength." Builders, organize!

Yours for the Asking

IF you don't believe it, count 'em. There are 11,000,000 homes lived in today which were built twenty years ago,—old-fashioned houses occupied by modern people with all the desire and taste for all the newer and better ways to turn a house into a home!

"A new roof, new windows, a new entrance door, a sleeping porch, a breakfast room, a playroom for the kids up in the attic, an added bedroom, a second bathroom, a garage—look in and around those old houses! Staunchly built to last a century, but hopelessly out of date, they offer you a hundred chances to find

money in the old walls and keep you and your men busy all year 'round.

"The first thing you've got to do is to modernize yourself. You must go out and SELL. You're in competition with the radio, the automobile, the trip to Europe. Money is in the banks and money is being spent, don't forget that! To have some of that spending spill over on you, you've got to go where it spills—in the owner's home. You must *compete*—not complain. You must show those

..... at least one-quarter of the entire population of the United States receives directly or indirectly a substantial part or all of its income from construction. In other words, the livelihood of at least one out of every four of you—including men, women and children—depends upon construction to maintain American standards of living.

—Dr. Julius Klein,
Assistant Secretary of Commerce.

owners what can be done, how *you* can do it, and how *they* can afford it. Show them how to work with the bank, the building and loan association. The days of watchful waiting are past in the building business."

In these words William T. Huntsman, Jr., sales manager of the Cromar Company, sketches the money making opportunities of today in home modernizing. Outside and inside these old houses need the expert services of the practical and experienced jobbing contractor. A check-up of current building permits shows that AMERICAN BUILDER subscribers are giving much of their time this year to the modernizing of residential and business buildings. They are finding that it pays to get out actively to solicit such work and to offer constructive suggestions out of their experience to assure a complete and satisfactory modernizing job.

Longer City Blocks

RADICAL lengthening of our present typical city blocks is strongly advised as a measure for cutting down the costs of home ownership in a resolution adopted recently by the board of directors of the National Association of Real Estate Boards.

The resolution puts the Realtors of the country on record as favoring residential blocks 1000 feet or more in length. The general use of the motor car now permits a radical lengthening of blocks in residential areas. The following reasons make advisable this increased length in laying out blocks in residential districts:

1. Substantial economies in the use of the land can be obtained. Longer blocks mean reduced street area in relation to total area.
2. Frequent crossings invite personal accidents, delay traffic, and increase the problem of traffic and pedestrian supervision.
3. Longer blocks not only aid in speeding up traffic movement but also contribute a semi-suburban effect of beauty.
4. Reduction of the number of side streets results in saving to both the home buyer and subdivider. The burden of side street paving and utilities costs is decreased by fewer side streets and more land is utilizable as a result of such planning.
5. Maintenance and lighting costs of streets can be reduced.

The Association commends the suggestions for longer blocks to the consideration of local real estate boards, city planning commissions and city planning engineers. It is recommended that the long block be platted parallel to prevailing traffic directions. Provisions may be made for cross walks or pedestrian ways in the center of extremely long blocks. Hazards to patrons of transit or bus lines may be reduced by locating stops at the middle of blocks.

The Architects Convene

THE American Institute of Architects held its 63rd convention in Washington from May 21st to 25th. Representatives from the Institute's chapters in all parts of the country attended, also a number of guests.

Outside of the general business, election of new officers, etc., interest centered in two main topics:

First, the trend to Modernistic design.

Second, shall the architect advertise?

A number of architects spoke in favor of the modernistic styles, while others wanted to slay the insidious monster. A good natured controversy ensued, but even the dyed-in-the-wool classic style advocates had to admit that out of the numerous wonderful and some terrible attempts a new and beautiful style of architecture will evolve which will depend on mass instead of detail for its distinguishing features.

The newer forms of materials will be used to show their true beauty and adaptability, instead of being disguised to represent something else, and in design the real structural work will be emphasized in the facades.

The discussion of advertising waxed long and violently, for and against. Many members who were against advertising were more than a little surprised to learn from some big advertising men, who were fortunately present, that advertising is an art that can, in a dignified way, help out various professions as well as business enterprises.

An advertising convention was being held in Washington at the same time, and a number of building material advertising men attended the A. I. A. convention, and on the subject of advertising they were able to give architects a number of valuable pointers which will set them to thinking about the advisability of doing group advertising to lay properly before the public the value of an architect's service.

One speaker suggested that the word "pyschonomics" would be a better one than advertising, which to many is only associated with patent medicines or food products.

At the closing session of the convention Robert D. Kohn, of New York, president of the New York Building Congress, was elected president of the American Institute of Architects, succeeding C. Herrick Hammond, of Chicago, state architect of Illinois and president of the Institute for the last two years.

Other officers were chosen as follows: First vice-president, Ernest John Russell, St. Louis; second vice-president, Horace W. Peaslee, Washington; secretary, Frank C. Baldwin, Washington; treasurer, Edwin Bergstrom, Los Angeles.

These regional directors were named: South Atlantic Division, Franklin O. Adams, Tampa, Fla.; Sierra Nevada Division, Frederick H. Meyer, San Francisco; Gulf States Division, M. H. Furbringer, Memphis, Tenn.

HELP WITH FINANCING

and Secure the Building Order

FROM time to time American Builder will publish descriptions of different ways of financing home and other building projects. The great trouble builders have is to steer prospects through a method of financing that will enable them to go on with the building of a home.

MOST families who feel the urge of home ownership usually are renters. They are paying rent regularly every month and it is no hardship for them to do it and in addition to this they are putting a little money aside, but the gross amount thus saved does not total up to the amount necessary above what our financiers term a good safe first mortgage—that is, 50% to 60% of the total value of the land and the building on it. The securing of the amount of money necessary above the mortgage is also a hard problem to overcome.

A second mortgage is the usual way out, but the cost of this is unfortunately too often beyond reason. When times were good and houses scarce the price of this mortgage was overlooked by the home seeker in his anxiousness to have some place in which to live.

At the present time things have changed, the house buying public are now "shopping," that is, looking for the best buy in location, construction, style and cost of financing.

Today a builder to be a success must be a hustler and a good merchandiser. Customers are not standing in line asking "please build me a home."

Besides the technical service that a builder renders he should be able to give some definite facts on how to finance a building. He ought to know and be able to advise prospects on where to get the largest first mortgage, not only from regular loaning institutions but from private parties who desire to make a safe dependable investment of some of their funds.

Take a small house job, for instance: The house costs \$8,000 to build. The owner has a piece of property free and clear, valued at \$2,000. Above this he has very little cash as he has just finished paying the installments on the lots. Now, here is a case where a building can be financed. Leaving the owner to depend on the regular channel of securing a second mortgage would either increase the cost or defer the erection of the building for a number of years until he could have saved up enough cash to make up the difference between the first mortgage and the cost.

On a job of this size an average builder would make about \$750 net. Should he let the opportunity go by or strive to get the order by showing how the financing can be arranged?

The prospective owner is, of course, paying rent. Now if he was relieved of this and placed in a house of his own, the amount of rent could be applied to the repayment of the loan. In other words, the prospect is in good condition to go ahead with building because he will be able to take care of the payments after the house exists.

There will be no trouble in getting a \$6,000 mortgage. There still remains an item of \$2,000 to be bridged. A second mortgage can be secured but a few hundred dollars premium is demanded.

The builder has a talk with the material dealer and they have a talk with their local bank. The result is that the material dealer will accept notes from the owner for \$1,500 and the builder will take \$500 in notes, making up the \$2,000. The bank agrees to discount these short term notes and renew them as they come due, the agreement being that the notes would be reduced as rapidly as possible.

Now, here was a practical example of raising necessary cash, the lack of which would have held back a good building contract. The deal went through just because the builder used some practical common sense and everyone profited. The builder could have his cash, so could the lumber dealer, and the bank was also making a profit.

As soon as the owner was in the house and was relieved of his rent burden he could begin to pay off the amount of the notes, just the same as he could reduce a second mortgage, but at a great saving in cost.

Complaint is being made that the high cost of financing has been holding up small residential construction. This is true, but on the other hand there are always means of solving the problem if the parties involved would get together and talk over the matter and look for a solution before going first to a shyster mortgage lender.

Of course, contractors are interested in other types of construction besides houses. A contractor needs profits and the more contracts he secures the more profit he will make. The story of a small community will be interesting and show in another way how finances can be handled.

THE residents of a small town desired a community house. They owned a desirable plot of land for the purpose worth about \$4,000. The idea, when it was purchased, was to use it for a future community house. Plans were prepared by a local architect and the builder who was also a resident of the community made a bid for its construction and the matter was brought before the people of the community. The directors in charge of the community advised obtaining a mortgage but the builder came to the rescue by suggesting that he saw no need to go outside their own community for finances. If everybody in the community had faith in this idea and wanted the community house, why could they not themselves raise the money and save the expense of outside financing?

This suggestion, as finally worked out, enabled the directors to issue a number of \$10 colony notes. These were promissory notes bearing 6% interest and payable on demand. They were sold to the residents of the town at \$10 each. They secured a good investment and were satisfied with 6% interest. They knew how the money was being used and had faith in the project.

Repayment of the notes was promised as soon as

(Continued to page 98)

HARRY MITTLEMAN



How I Make 25% Profit

"Leave Out the 'Step Children' When Planning Apartments" is the Advice of

HARRY MITTLEMAN

Successful Portland, Ore., Builder and Operator of Apartment Buildings

THERE are no "step-children" in the apartment houses built and operated by Harry Mittleman, Portland financier, who within the past six years has built 14 apartment buildings valued at approximately \$4,000,000 which are yielding him 25% net profit.

Mr. Mittleman states that it is clever planning that brings back the profits.

"Those apartments located in the more undesirable parts of the buildings are provided with *more space* and *extra advantages* to offset the disadvantages of less light, ventilation, and less cheerful outlook. Apartments facing the inside court, for instance, require something extra to compensate for the inconvenience of hearing and seeing everything that the tenants across the court may be doing. Consequently, *without addi-*

tional cost, we provide these apartments with two bedrooms instead of one, a nice little entrance lobby, extra closet room, and in some of our newer buildings a separate, double ventilated breakfast room instead of a dinette.

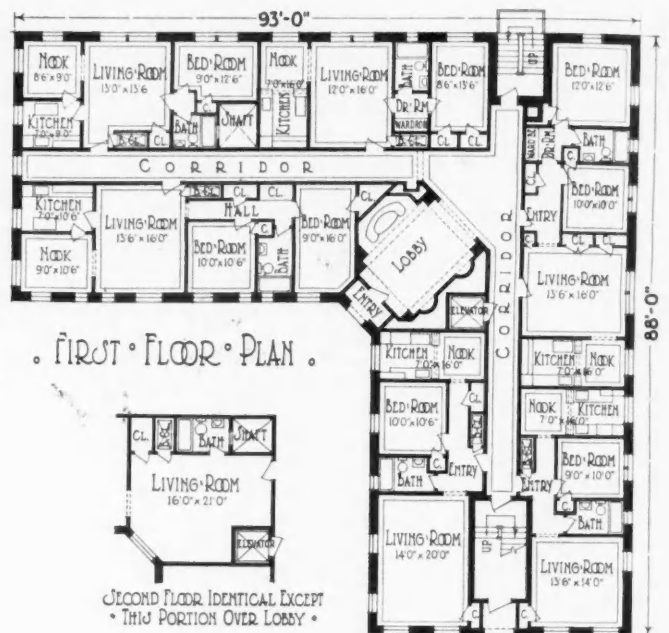
"Another apartment house 'step-child' is the side apartment, which usually has a tendency to depreciate a building's income, because of the lack of corner facing rooms, and consequent omission of cross ventilation. To these apartments we give larger, more ornamental living rooms, as well as considerably more closet space, items that are keenly appreciated by people of good taste whose means do not permit such accommodations in the choicer parts of the building.

"In the planning of all buildings," he goes on, "I



The "Portland Rose," One of the Harry Mittleman Buildings, Is an English Tudor Style Structure, of Red Brick and Cast Stone, Containing 27 Apartments Besides the Bachelor Rooms, and Has a Valuation of \$180,000; Elmer E. Feig, Architect.

Below Are Presented the Basement Floor Plan, Showing the Bachelor Quarters in the Basement, and the Main Floor Plan, with Change for Upper Floors.



have given special attention to providing ample sized living rooms, liberal ventilation, and plentiful closet space, since it is the lack of these three things that people decry most when living in apartments."

The minimum sized living room in the Mittleman building is 14x16 feet. An average Mittleman living room is 18 x 20 feet in dimensions, while maximum sized living rooms are 24 feet long and 30 feet wide, the rental yield for both furnished and unfurnished apartments averaging \$25 per room, out of an \$18 to \$40 range.

Newer Mittleman structures are "L" shaped, with a large, square landscaped court. "True, we waste a lot of space this way," he says, "but by appealing to the best types of people, keep the buildings fully occupied, and at a somewhat better rental than obtained from our older buildings, which are built flush to the sidewalks.

"We plan building entrances as small as possible," he says, "in order to conserve space for rental purposes, but we deem it good business to provide story and a half, or two story lobbies of attractive design, finding that the element of *height, rather than breadth*, creates a feeling of magnitude that leaves a lasting impression. Where a full two-story lobby exists, ornamental balconies, with wrought iron rails, contribute another deft touch, adding another note of the homelike luxury that we strive to maintain in all of our buildings."

In his every move, however, Harry Mittleman provides a decided *advantage to offset every disadvantage*, and in this instance he recovers even more than the loss

of rental revenue resulting from the additional space given to the lobbies, by placing a series of single-room bachelor apartments in the basement.

"These 'singles,'" he says, "provide the same facilities for the tenant as a bedroom in a good hotel, without private bath or cooking privileges. Since we rent them at a nominal price, they prove very attractive to single men and business girls, who find in them more comfort and luxury than in the average hotel room, and securing the privacy, the lack of which often makes hotel life objectionable."

There are some dozen to dozen and a half of these "singles" to a building. They are from 12 to 14 feet wide, and 16 feet long, and are each provided with a wall type lavatory. These rooms have convenient access to a large bathroom, finished in colored glazed tile, as well as to a separate shower room, while convenient side entrances make it possible for tenants to come and go without inconvenience. "When rented furnished we provide good carpet, a davenport bed, decorative tables, lamps, sufficient arm chairs, cushions and all the finer details that make a room a home," Harry Mittleman informs.

How often the apartment house manager has heard a prospective tenant of a moderate priced apartment decry the lack of space for furniture placing! "Where in the world will I put my piano?" is one of the first objections, while another is the old, familiar, "Why, there's only one way I can place my davenport." In Mittleman apartments, however, neither of these com-

plaints arise, since living rooms are planned with special thought to the possibilities of furniture arrangement. "We offer at least two davenport changes," he says, "and give special attention to the spacing of doors and windows, so that other pieces of furniture will be equally well taken care of." Each living room is provided with as many windows as possible, typical examples in the newer buildings containing two to four pairs of steel casement windows each. Extra wide window ledges, some of which are fully 16 inches deep, offer tenants attractive locations for flower pots, vases, or the various pieces of bric-a-brac that the average housewife enjoys in her home. "The 'L' shaped buildings make it possible to place extra large living rooms in the corner of the 'L', with full length French doors opening to little balconies," he says.

"Ample supply of electric light outlets," he explains further "is another important phase of our living room qualifications, inasmuch as the modern trend for several lamps, in addition to radios, appliances, etc., demands many more places for plugging in connections than formerly."

Many of the living rooms have artistically designed electric fireplaces; some have extra clothes closets; and all have roller beds. Where wall paper finish is provided, beautiful panelling contributes still more to the spacious aspect.

Another outstanding Mittleman apartment feature is their generous built-in facilities. A typical kitchen contains besides the spacious drawers and cabinets on either side of the sink and drains, a complete wall of built-ins, which includes a broom closet as well as commodious shelves, drawers and utensil compartments. Mechanical refrigeration is included among the built-ins, a metal lined storage box of generous size being in most cases

built next to the sink drain boards, which are the acid resisting flat rimmed types, often with ornamental finish of colored glazed art tile, while toe-space beneath the built-ins supplies another attractive feature.

Dinettes are finished in beautiful wallpapers, and separated from the kitchens by means of a pair of artistic buffets, with arched, leaded glass doors, above which are spacious silver drawers. All apartments have individual ironing boards, placed either in kitchen, dinette, breakfast room, or sometimes even in the bedroom, while in some of the newer buildings many of the apartments



A Living Room in the "Portland Rose" Apartments. Rentals average \$25.00 per room per month for both furnished and unfurnished. Above is shown the two-story lobby.

contain separate breakfast rooms, opening into the living rooms by means of an arch.

Floors and borders in Mittleman bath rooms are in three colors of ornamental glazed tile, along the modernistic trend. White enameled iron lavatories of the wall type are paired with built-in steel medicine cabinets, some of the newer structures containing a special innovation by way of concealed indirect lighting for shaving convenience. Bathtubs are of recessed type, five feet in length, while toilets are of the wash down bowl style with flush valves.

A typical Mittleman apartment of later design contains a 6 by 3 closet in the bedroom, one or two extra

of laundry trays located well in the center of the room where there is full daylight. Each laundryroom has an electric washer and an electric mangle, and a long, spacious table for sprinkling and folding clothes. In addition there is a drying room 8 feet wide and 20 feet long. Before placing her clothes in this room to dry the housewife hangs them on a roller rack or clothes horse, which is some four feet wide and 15 feet long. She then shoves the rack into the dry room, turns on the heat, and within 30 minutes her washing is completely dry.

Basements contain separate rooms for the heating plants, oil burning equipment being used to provide



To Recover the Loss of Rental Revenue Resulting from the Story and a Half and Two Story Lobbies That Mittleman Apartments Possess, Harry Mittleman Places a Series of Single Room "Bachelor" Apartments in the Basement Which Give Single Men and Business Girls the Accommodations of a Hotel Room, with the More Desirable Privacy. There are from 12 to 18 singles in a building.

closets in the living room that are 4.4 by 2 each, in addition to the bed closet, and, besides a 4 by 2 closet in the hall there is a complete six foot wide wardrobe, with half a dozen cedar drawers, clothes hamper, hat compartments and several deep drawers.

Special care for satisfactory ventilation is another feature contributing to the popularity of Mittleman apartment buildings. "Poor venting has turned many people from the apartment house mode of living," he says, "and it is not unusual to find one vent running straight through from the lower floor to the roof; which, in the event there are three or four apartments one above the other, forms a perfect telephone system as well as a direct channel for charting cooking odors.

"We have overcome this objection," he goes on, "by venting separately from each apartment to the attic, where the vents then join and run directly to the roof. Thus the vent from the kitchen of the lower floor is distinct and separate from that of the tenant above. We also provide extra insulation to eliminate noises, not only in the side walls, but through the ceilings and floors as well, a factor too often overlooked in attempting to cut down cost of construction."

Another outstanding feature contributing to maximum occupancy is the modern laundry accommodations in the basement. Laundry rooms are approximately 50 by 20 feet in dimensions, and have four double sets

thermostatically controlled steam heat. Abundant storage facilities give each tenant easily accessible space for trunks and baggage, while separate compartments for package delivery bear the number of each apartment. Manager's apartments, located in the basement, have the same facilities as fully appointed apartments that are rented, with the omission of hardwood flooring.

Woodwork throughout the Mittleman buildings is soft old growth yellow fir, finished either in ivory enamel or driftwood gray. Floors are all of oak, while lobbies are of either mosaic tile or composition tile formed in large, colorful squares. But seldom is sand plaster used, all texture being either brocaded or jazz finish, with two and three tone finish along the modernistic trend. All buildings are provided with automatic elevators, having beautifully designed cabs in colorful muralart finish, giving the effect of leather panels, the newer ones containing an automatic signal that keeps a red light burning while the elevator is in motion.

Mittleman apartments all comply with the Portland ordinance, which requires a four-foot yard for a one-story building, with one foot additional for each extra story, and courts from seven feet in width up, according to the building's height. All stairways are lighted by full sized windows. Radio aerials are strung in the attic between the ceiling and roof, with provisions for

(Continued to page 91)

ADS

that brought in

REMODELING ORDERS

By FRED E. KUNKEL

EVERY builder knows that one of the most satisfactory jobs and one yielding the best profit is that which comes from home renovating, rather than new construction which is generally a matter of bidding for contracts. The home improvement business not only makes satisfied customers, but frequently this type of customer recommends other profitable customers for service and so helps to build up a growing business.

The building contractor who goes after the home improvement business, therefore, through good newspaper and direct mail advertising is in a position to get the business and more of it.

A. Eberly's Sons, Inc., of Washington, D. C., found that one way to get more building jobs was to start a home improvement service of their own. This firm does plumbing and heating, tinning and roofing, and sells and installs heating systems, and is able to boast of being in one location for eighty years, being established in 1849 at a time when the Capital City was hardly more than a good sized village with not a street paved, or lighted, nor gas, electricity, telephones, street cars, or automobiles.

This old time firm now has

several different added departments to handle all types of home renovation which bring in more business, including carpentering, cement work, painting, papering, plastering and electrical work; in short, everything that concerns the home comforts of the property owner. The business has been departmentalized as follows:

Mr. Ashby is in charge of the carpentering department, Mr. Lawrence is in charge of the paper hanging and painting department, Mr. Prince is in charge of the electrical department, Mr. MacIntosh is in charge of the tinning and roofing department, Mr. Flood is in charge of the plumbing and heating department.

A. Eberly's Sons, Inc., have succeeded in winning a nice share of the home improvement service to be had by going after it through sales promotion plans which include attractive advertising, and by continuously hammering at the doors of Mr. and Mrs. Public with the ads running in such small space as two columns by fifty lines. But these ads are run three times a week in the local newspaper of largest circulation, and their cumulative effect has proven most gratifying.

"We have achieved very satisfactory results from this adver-

tising," says B. J. Smith, president of the firm. "We are trying to reach the people that want or can use this type of service, and along the lines that we are so well qualified to render. This advertising also brings in business for all our lines so that we can find out whether a man is in the market for a new gas stove, or a heating plant in the cellar or whether his plumbing needs overhauling, or whether he has a leaky roof, or needs a new front porch.

"As a result of this advertising we have had many people come in in person to talk over our plan of home renovation. Others have telephoned us to have a representative call, while still others have written in inquiring about our service as a result of this advertising. The contacts thus obtained have opened up business for us in all lines."

The advertising used in the daily newspapers features a complete home reconditioning service with the outstanding maximum prominently displayed in good type that "no job is too large, and none too small" for the firm to handle. They also emphasize the fact that when they do the work, the property owner only has one bill to pay which includes the financing, and that no ready cash is required, convenient terms being arranged.

From time to time these ads tell a convincing short selling story, such as illustrated in the few specimens reproduced here.

The mailing list, consisting of names of every customer for whom the firm has ever done any work, is also put to good use and attractive three-fold circulars and printed letters are sent out to the trade with an inquiry postcard enclosed, ready to mail.

Form letters are also used featuring the picture of a telephone and the firm's telephone numbers in a prominent location, by way of suggestion to call up for estimates.

These letters were printed and read as follows:

**"TO OUR FRIENDS
AND PROPERTY OWNERS:**

For eighty years the name of 'Eberly's' has been known most favorably to the people of Washington.

Some time ago we inaugurated a new department or service—that of reconditioning homes. It met with such instant appeal and universal satisfaction with many of our customers that we cheerfully extend to you the same service. It matters not the nature of repairs. Our men are especially skilled in

every department and every job carries with it our positive guarantee.

We also have a special payment plan whereby we can put your house in perfect condition and arrange the payments on easy monthly terms to suit your convenience.

We wish you to become familiar with our service, and are taking the liberty of thus acquainting you. Read the following pages carefully and then let us give you an estimate on such work as your home may require. It will be cheerfully given and will not place you under the slightest obligation.

Return the inclosed postal card or phone Main 6557, and our representative will call any hour you say."

Another letter which was sent out to the trade read as follows:

"We wish it were possible to have a personal talk with you and impress upon you exactly what we mean when we admonish you to have your work done now.

In just a few weeks the rush will be on and our phones will be ringing constantly—people wanting their heating plant overhauled, the roof repaired, the house painted, or possibly some papering which must be done at once.

While we have a large staff of mechanics and try to give every job prompt attention, it is exceedingly difficult during these rush periods; and try as hard as we may, some person must wait.

All of this can be avoided if we can have YOUR ORDER NOW. The work can be done promptly and you will not be annoyed by delays. Possibly you are waiting till you can pay cash for the work. This is not at all necessary; you require no immediate cash. We will do the work and arrange the payments over just as many months as you wish (up to three years if necessary), retaining your note right here and charging you only at the rate of 6% per annum on deferred payments.

Your name and address on the attached card or a phone call will bring our representative to see you and we will

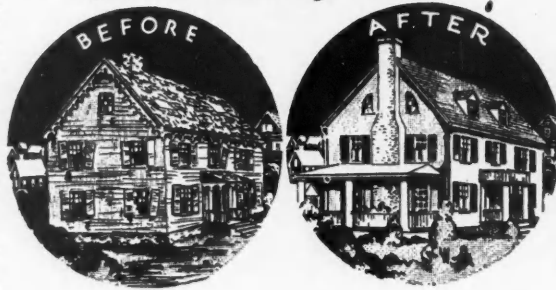
give you an estimate and full particulars."

The firm has a very simple bookkeeping method for handling its deferred payments. The owner simply signs a note and the firm handles it like a bank would, sending out notices when payments are due and when payments are credited they are entered on the note. This simple finance plan eliminates a lot of unnecessary bookkeeping.

WHAT methods are YOU using to promote home modernizing and new home building in your town? If you have a good idea—pass it along!

—THE EDITORS.

Reconditioned by the "Eberly Plan" !



Let Us

RECONDITION YOURS

Our Department Store of
Mechanical Trades is an
Innovation

No Ready Cash Required

ONE BILL—ALL SETTLEMENTS WITH US DIRECT

Reliable For Eighty Years

A. EBERLY'S SONS, Inc.

718 7th St. N.W.

District 6557

To Make Building Securities More Liquid

Real Estate Bonds to be put on Chicago Board—New York Trial Success



Mark Levy

HERE is good news for the building industry which will lighten the financial horizon. A new Securities Exchange starts operations in Chicago this month which will, it is predicted, assist materially in the

marketing of real estate bonds, and so help to solve the problem of financing the construction of large apartment and other types of buildings. This service is not confined to Chicago, but applies to the country at large.

This new Securities Exchange, acting in cooperation with the Chicago Real Estate Board and the Chicago Curb Market, will set up safeguards which only sound projects and proper financial plans can pass. The plan now put into operation will enable these sound projects to have their securities—both stocks and bonds—listed on the Chicago Curb Exchange, giving them a liquid value, so that investors can, at any time, realize on their investments in these projects without waiting for the expiration of the amortization or mortgage term.

The announcement of the plan for this new Securities Exchange was made by Mr. Mark Levy, vice-president of the Chicago Real Estate Board and senior member of the firm of Mark Levy and Brothers. His plan calls for a 50% first mortgage bond issue; the balance to be provided by a 25% cumulative preferred stock issue and a 25% common stock issue, all to have trading values on the Chicago Curb Market. These securities, since they are listed, would qualify under "Blue Sky" laws of Illinois.

There is also good news for the builders of small residential building projects if further plans of Mr. Mark Levy and his associates can be worked out. The plan announced above applies to projects from \$250,000 up. However, it is the intention also to procure the necessary legislation to enable the grouping under one financial issue of a number of smaller building projects, with individual values as low as \$10,000 each—the stock and bond issue to cover the entire group.

Explaining this further, Mr. Levy said:

"Additional safeguards will be provided for real estate securities since any issue which is listed on the exchange must have met the requirements of both the Chicago Real Estate Board and the Chicago Curb Exchange Association, the first being expert on real estate and the second on finance.

"The board requires that detailed profit and loss statements, showing the revenues, expenses and earnings of a property must be produced to have the property listed. The records must show earnings large enough to take care of maintenance and operating costs, pay interest on bonded indebtedness, dividends on proffered stock, provide for amortization and retirement of indebtedness,

and leave a surplus applicable to the common stock

"Two independent appraisals of the value of the property, one of which must be by the Chicago Real Estate Board if the property is in Cook County, must also be submitted. All appraisals submitted must conform to the standards of appraisal practice of the National Association of Real Estate Boards. In the case of first lien interest bearing securities there is a requirement that they shall not exceed 65% of the value of the property."

The Curb Exchange then has its own requirements about financial statements, legal obligations, etc., which must be conformed to before the securities will be listed on the market.

Charles Edwards, the president of the New York Exchange, which has been in successful operation for the past six months, estimates that not less than sixty-two and a half billion dollars have been invested in real estate improvements and the underlying land within the past five years in the United States.



How to Give the Old House a Modern Look

EVERY American community has its houses—many of them—that have become old before their time: not because they are incapable of good service, but because they lack good architecture, have been neglected outside, are of bad-fashion inside, need modern conveniences and equipment, and are repellent without and dismal within.

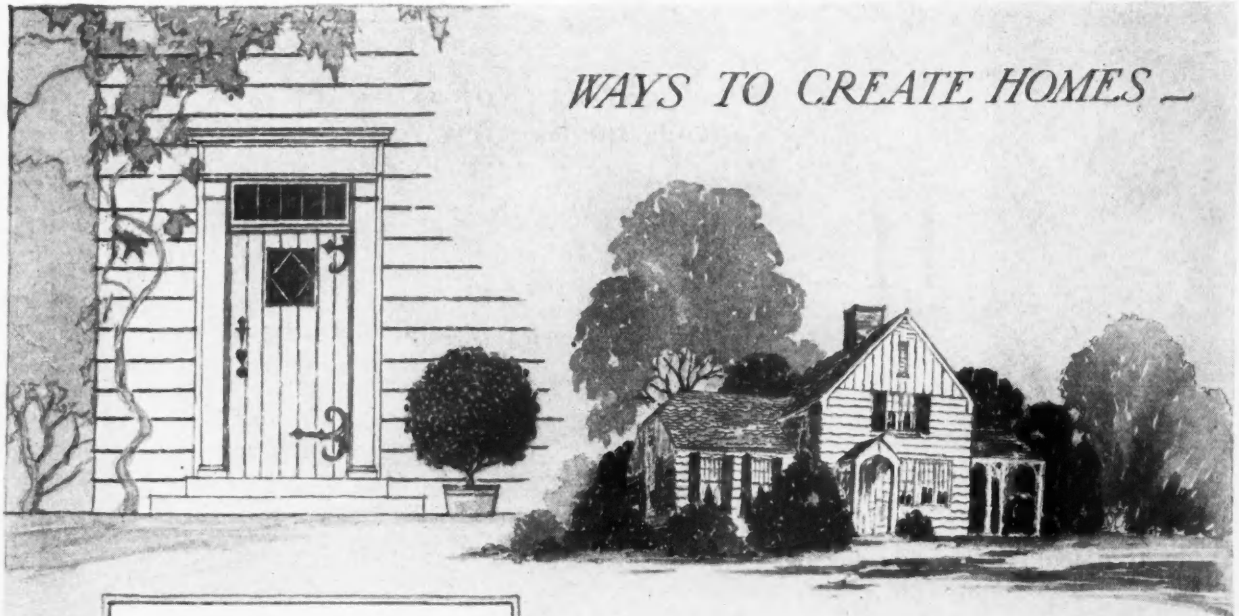
Such a house does not make a happy home or elicit the admiration of prospective purchasers. . . . But the old house should not and need not be discarded or wrecked. It has sentimental associations: family traditions and fond memories cluster around it. Moreover, it can be made a material asset instead of a liability—often at small cost.

Every owner of an old house confesses the need of modernization. . . . What he requires is a suggestion, an activating idea, that will convert vague contemplation into realization.

To meet this requirement, the experts of the National Lumber Manufacturers' Association have chosen a number of old houses typical as to shape, height and general appearance. These they have carefully studied, and new designs have been developed for each. These are presented in this series. They will serve as suggestions applicable to thousands of old houses. The individual application may easily be determined according to personal preference, location, and cost, in consultation with the lumber dealer, builder, carpenter, or architect.

These architectural suggestions are attractive and practical. On the following four pages appears two old houses, together with several sketches showing the architect's suggestions for transforming these old houses in different ways.

HOW TO GIVE THE OLD



FROM THIS PLAIN HOUSE



WE used to call this good old common style an "upright." They dot the countryside by the tens of thousands. They are successfully modernized, as suggested above and opposite.

HOUSE A MODERN LOOK

BEAUTIFUL HOMES

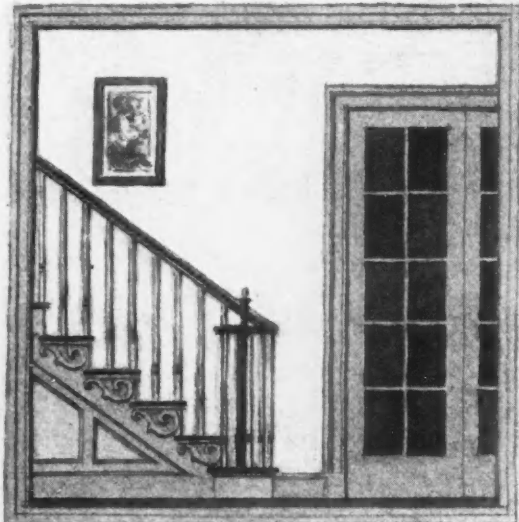


A. L. KUNDZIN - H. L. VIRNELSON

THE old upright is too stiff and awkward—give it WINGS! The lines need to be lowered and broadened; porches and one-story additions produced the desired results on these old homes.

SKETCHES SHOW HOW TO

AN ORDINARY HOUSE



A BIT OF THE NEW INTERIOR



A FAMILIAR TYPE

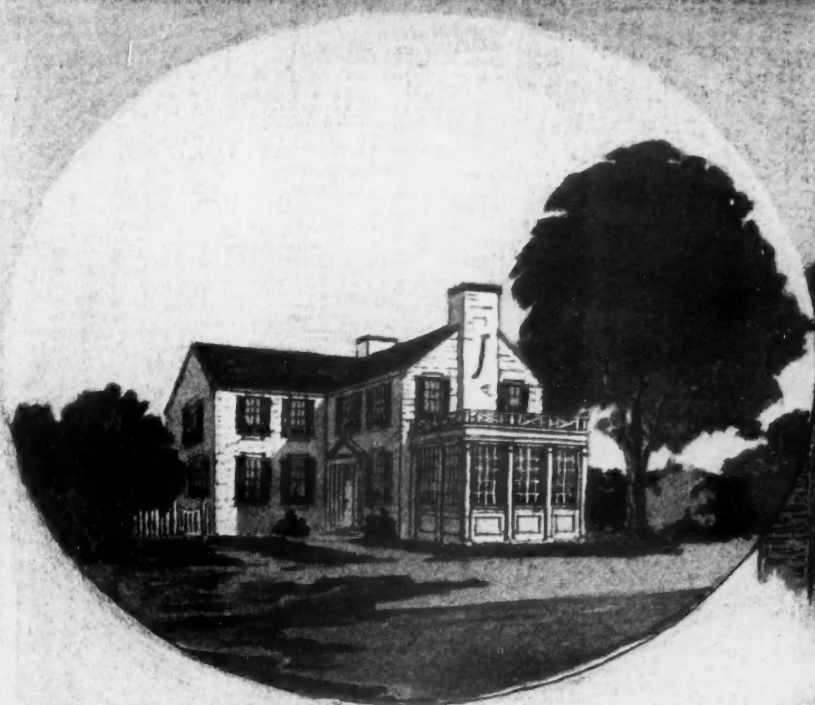


BECOMES A HOME LIKE THIS, OR

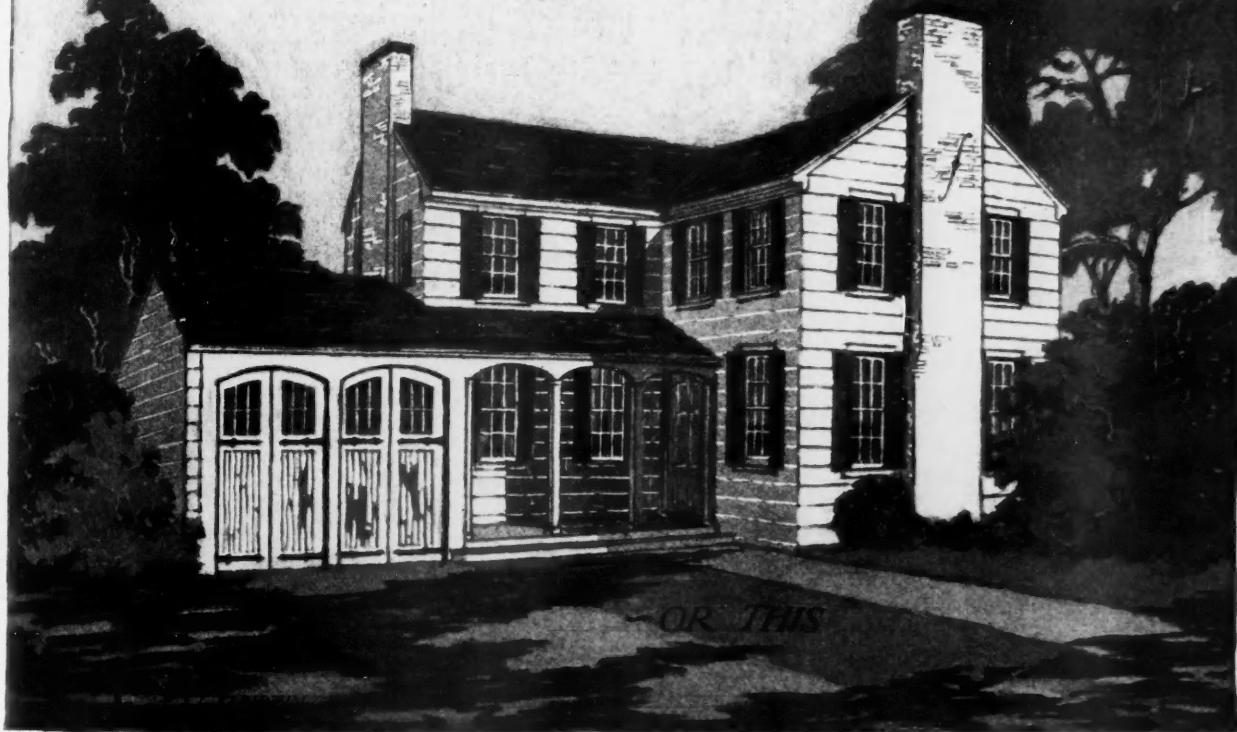
THE architects of the National Lumber Mfgs. Assn. have rendered builders a real service here, by showing how "to make something" of the thousands of substantial houses of this type.

MODERNIZE AN OLD HOUSE

IN THREE TRANSFORMATIONS

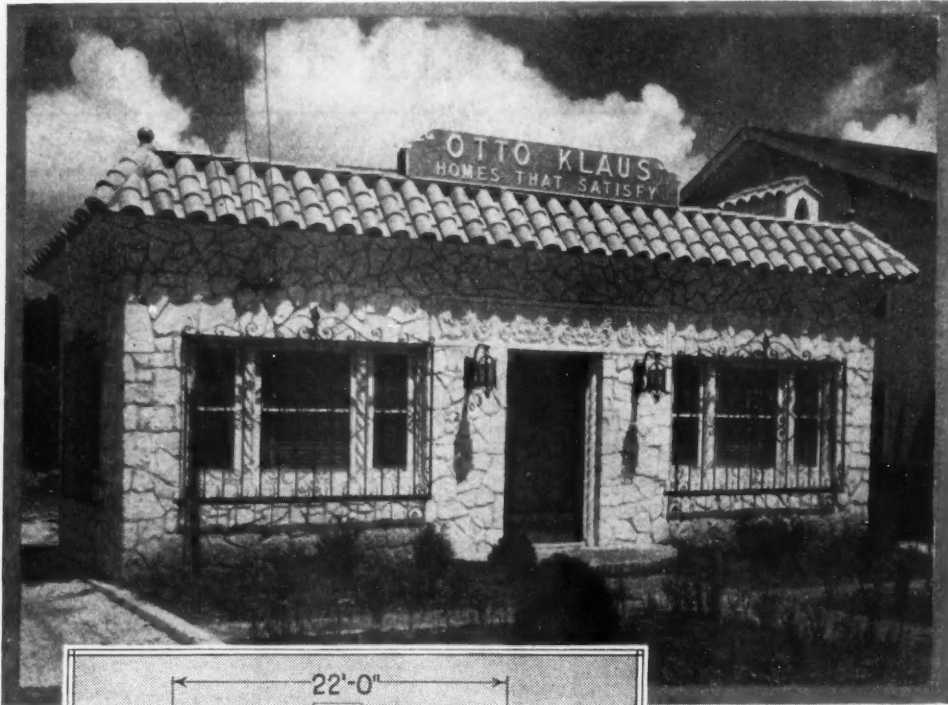


~ LIKE THIS ~



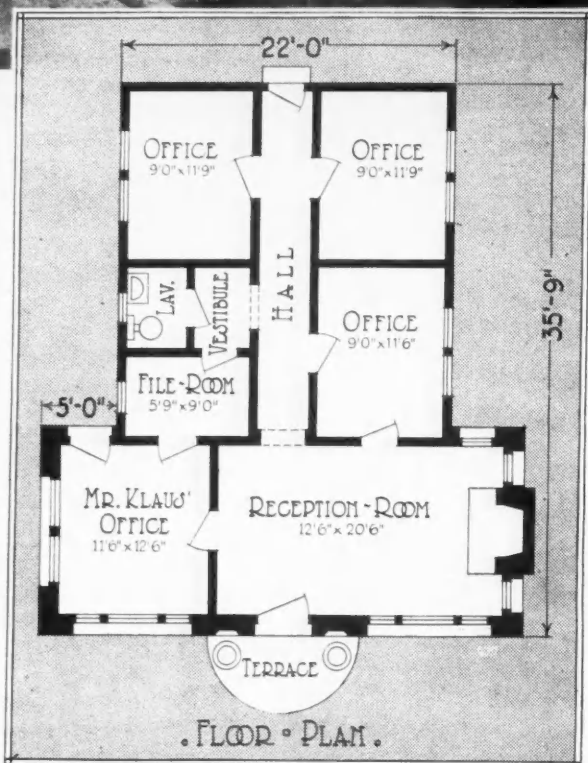
~ OR THIS ~

MORE expense is involved here to make these stately homes out of the old "upright and wing" pictured opposite; but the results justify the cost. These old houses are usually well built.



Sales Office of Otto Klaus, a San Antonio Home Builder

Albaugh & Steinhomer,
Architects



A UNIQUE builder's office home was completed last year in San Antonio, Texas. Contrary to the usual practice of locating such offices in temporary quarters on a development where the builder has a construction program in progress, this San Antonio home builder chose a location for a permanent structure on Broadway out by the city park in one of the better residential sections.

His chief reason for choosing this location over a temporary one in one of the districts where his building programs were being worked out was that streams of automobiles, belonging to the most substantial people of the city, were continually passing the location he chose.

He had been in Chicago a short time before he began his office building and had noticed the effec-

Like a Fine Home

tive advertising use made of a pretty, little office building of a lumber company, placed on one of the principal streets. It was in one of the best residential districts, and the motorist came upon it by night with a feeling of glad surprise, for there it stood with its windows aflame with soft light.

Then it was that he conceived the idea of going out on Broadway and building such a place as would be a real advertisement of his business at the same time that it would afford comfortable office surroundings.

The builder developed his dream into a pleasing reality. The front of the building in native Texas rock with its iron-grilled windows and Venetian lanterns, swung opposite the central iron-grilled door, is such as to attract and hold the attention of even the most casual observer.

The first reaction that such an attractive exterior produces on a patron is bound to be favorable, and when the visitor has entered, the effect is heightened. He finds himself in a commodious reception room. A fireplace gives a home-like touch to the room. The windows are tastefully draped, and the room is furnished in such a way as to meet effectively the challenging inspection of the most fastidious woman.

As women are more and more the deciding element in the building and the buying of homes, it is meet that the reception room be furnished completely and so well that they find visiting there a pleasure.



Reception Room and (Above) the Office of Otto Klaus, San Antonio Home Builder.



Above and to Right
—Three-Car Base-
ment Garage, Brent
Arnold Home, Lou-
isville, Ky.

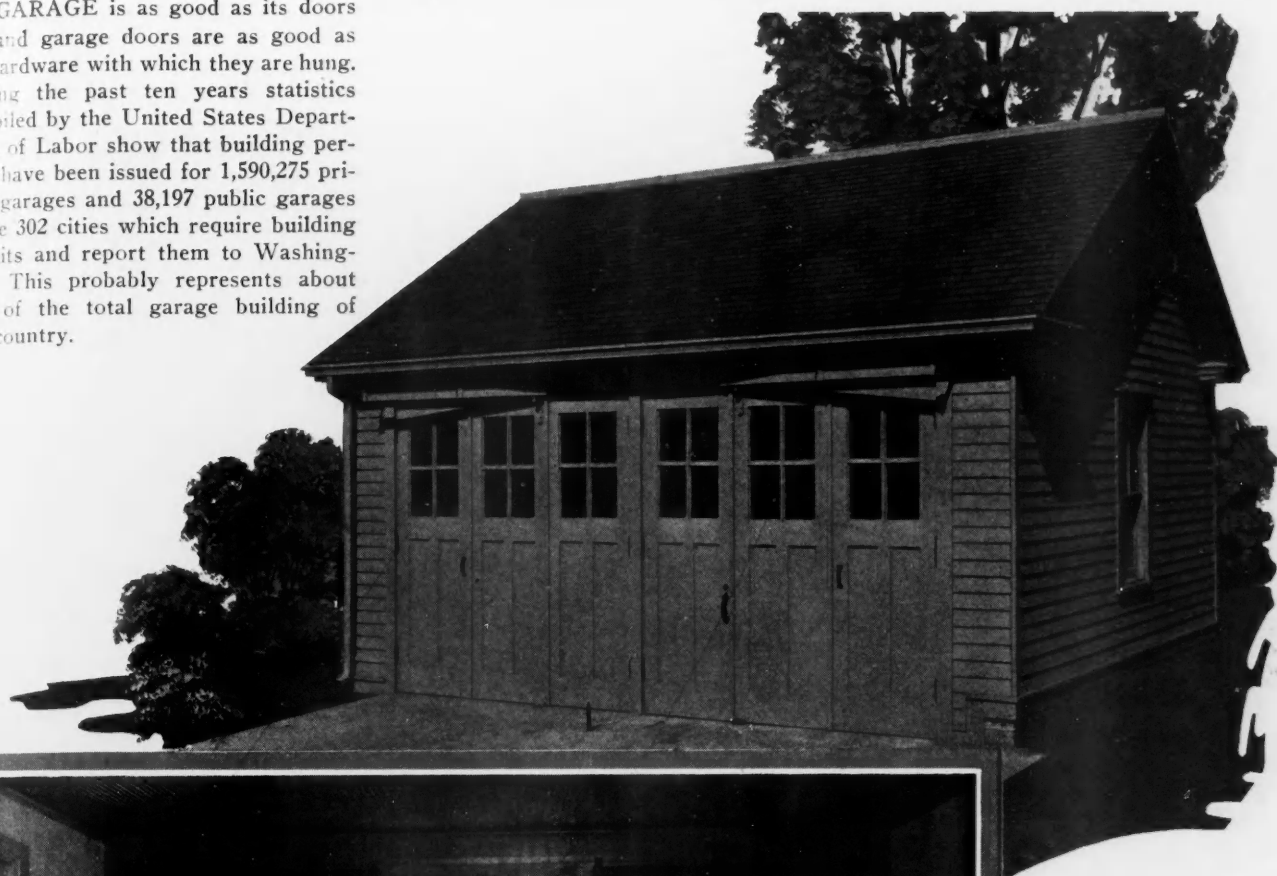
Below — Attached
Garage, A. C. Rehm
Home, Glen Ellyn,
Ill.



It is the style today to make the garage or motor-room a part of the home; and the builder with foresight provides space for more than one car. A great many families now operate two automobiles, and the indications are that three and four cars to the family will soon be common. Before choosing garage door hardware, study and compare all types.

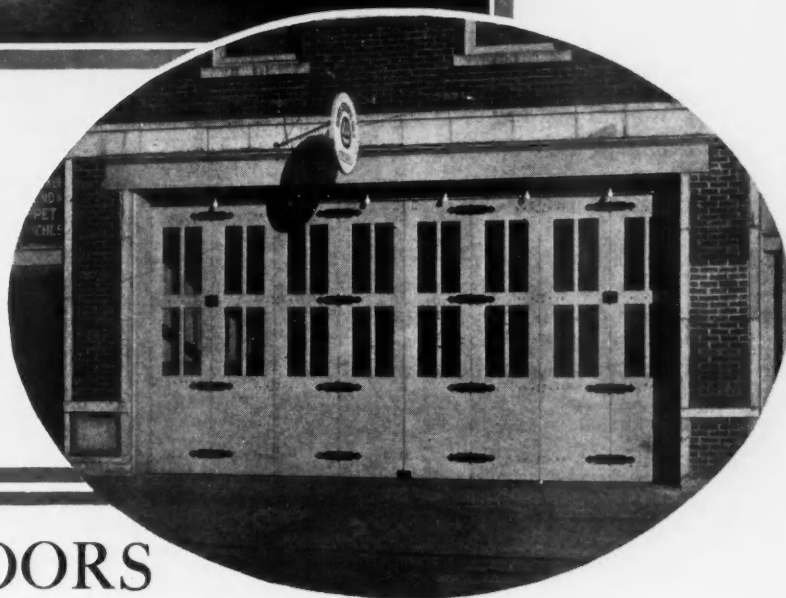
A GARAGE IS AS

A GARAGE is as good as its doors and garage doors are as good as the hardware with which they are hung. During the past ten years statistics compiled by the United States Department of Labor show that building permits have been issued for 1,590,275 private garages and 38,197 public garages in the 302 cities which require building permits and report them to Washington. This probably represents about half of the total garage building of the country.



Doors That Slide and Fold Are Installed to Work Either Inward or Outward, and Are Equally Successful for Small Private and Large Public Garages.

In supplying the hardware requirements for this tremendous volume of garage building, the manufacturers have developed and perfected many smooth-working hinge and hanger combinations for garage doors which will fill an opening up to 30 feet without a center post and will make a storm-tight and burglar-proof closure. When open they fold back into small space, entirely out of the way.



GOOD AS ITS DOORS



A Suburban Apartment

IT is highly appropriate that the Kingsway Apartments, in Haddonfield, N. J., a suburban community with a distinctly Colonial background, should be in the true Colonial spirit. And the true Colonial spirit has been retained to a surprising degree in this modern type of building, a type unknown to the Colonial period. It was designed by Clarence E. Wunder, Architect, of Philadelphia, who has been responsible for many outstanding apartment buildings in the East.

The building consists of four stories and basement. The foundations are of reinforced concrete, while the exterior walls are faced with brick with cut stone trimmings. The floors, throughout, are supported on steel columns and girders.

An attractively planned entrance with ornamental gate and Colonial portico, leads up to a spacious entrance hall and lobby, artistically furnished in Colonial style.

Each apartment has been planned with unusual regard for the comfort of the occupants. The design has made possible the unusual feature of every apartment being a corner one. The choice of apartments ranges in size from a spacious unit of foyer, living room, dining room, kitchen, two bedrooms and bath, to a small unit consisting of foyer, living room, dinette, kitchenette, bedroom and bath.

A spacious hall on each floor leads to the various apartments,

each of which has two separate entrances, one for the living portion and one to the kitchen. The separate service entrance and stair are typical of care used in planning this building for the convenience and comfort of the tenants.

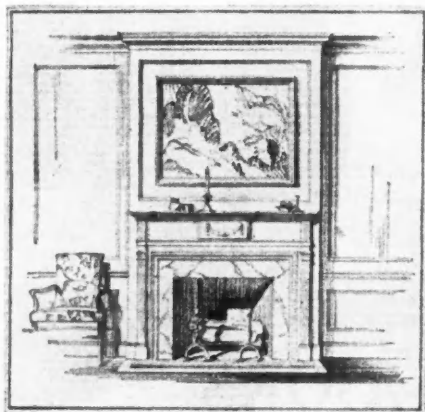
Among the features of special appeal are the sound-proof floors and walls with gypsum block partitions. The roof, too, is insulated with a well-known type of fiber-board insulation to assure a cool building in summer and a warm one in winter.

This thorough insulation materially reduced the cost of heating the building, and it is figured that within a few years the saving effected will more than pay for the cost of the insulation used, to say nothing of the added comfort it affords the tenants. Another advantage

obtained by this insulation, which was also used between the floors, was sound deadening. Noise in an upper apartment is completely excluded from the apartment below.

Hardwood floors are used throughout apartments except in the kitchens and bathrooms. The kitchens are floored with linoleum, while the bathrooms all have tile floors and walls, with built-in tubs and showers and fixtures of the latest type.

All windows are equipped with metal weatherstrips and provided with shades, screens and awnings. The much desired color-scheme kitchens, each with a gas stove, kitchen cabinet and electric refrig-



Stately Fireplace Detail

erator, are carefully planned for saving steps. Aerials are provided in each apartment for radio connection.

In the basement a children's playground and gymnasium are provided, and the windows in these are glazed with a special glass which admits the health-giving ultra-violet rays. The basement also includes separate storage rooms for the tenants and a spacious laundry with automatic clothes driers for the use of all the tenants. Self-operating, automatic elevator service is also provided, and one of the four fire escapes serves each apartment to assure safety.

As the building itself occupies but half the property on which it is built, the remaining portion has been planted with gardens and contains fine old shade trees, making a delightful private park for the tenants.

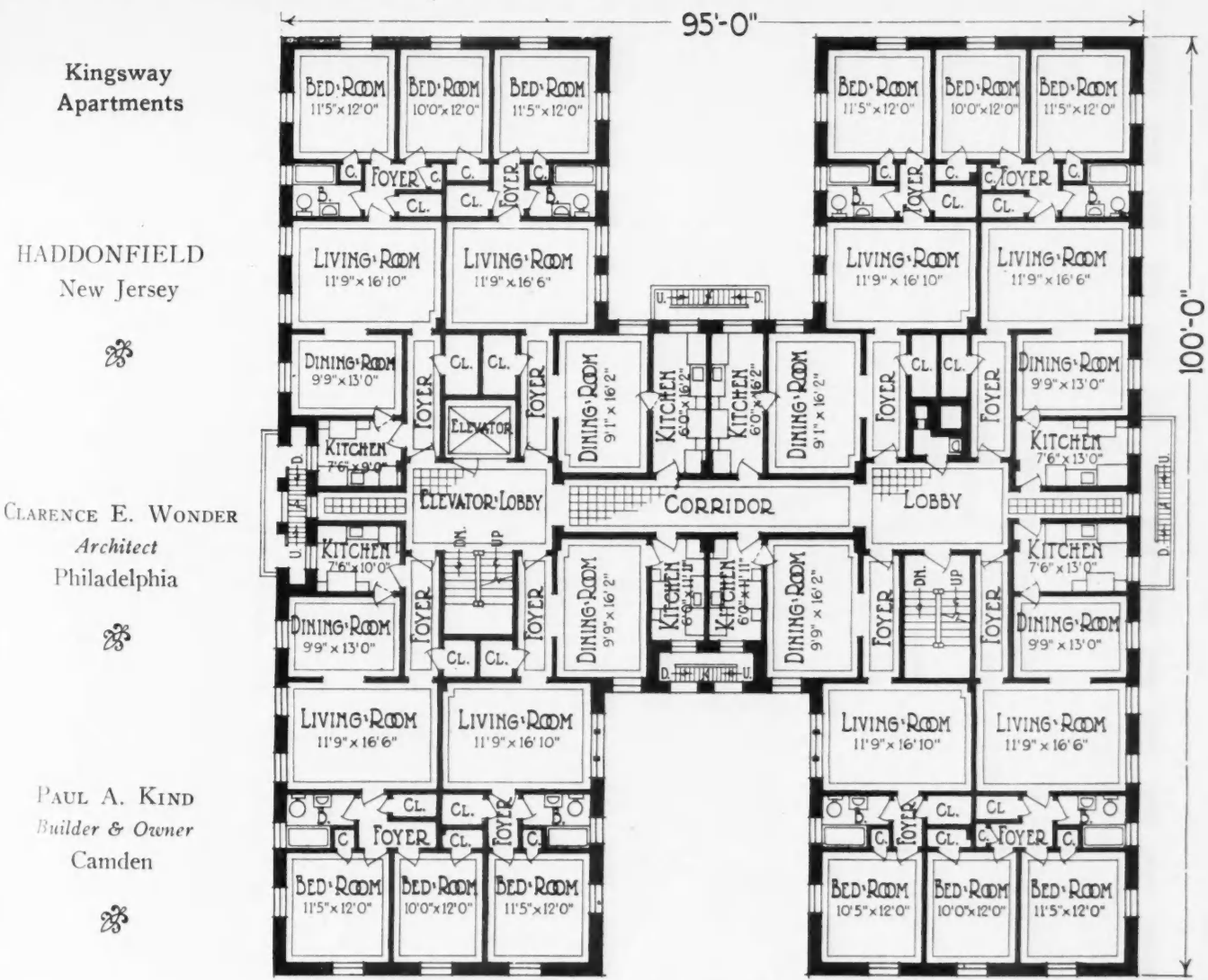
This garden feature is characteristic of the modern suburban apartment. The day has past when it was considered satisfactory for the suburban apartment to occupy the entire area of the building site, and an equal division of the ground between building and park is now quite common, while in some cases the building occupies even less than half the ground area.

While the Kingsway Apartments were designed to lease at moderate rentals, these rentals include all service, gas for cooking, electricity for illumination, hot water at all times, and incineration service for the disposal of garbage and waste papers. The vacuum heating plant assures also an abundance of heat.

Built-Up Beams Pass Tests

BUILT-UP wooden beams, made by fastening together two or more planks of like width with nails, bolts or similar devices, have unquestionable advantages as compared with solid beams. They may be constructed of smaller lumber which is readily available and easily and quickly seasoned and they contain fewer shakes, checks and other defects. This is the conclusion reached as a result of general observations of built-up members and of tests at the Forest Products Laboratory, U. S. Forest Service, of built-up beams composed of planks free from defects, according to an announcement from the Forest Products Laboratory. It is understood, of course, that the built-up beams will be placed so the load will fall on the narrow faces of the planks.

The opinion has often been expressed that where two or more boards or planks are used together and loaded so as to deflect or band equally, the stiffer pieces will take the greater share of the load and will, therefore, fail before the less stiff pieces. It is true that the stiffer pieces will take the greater load. Tests show, however, that a plank of high stiffness will normally bend slightly farther before it fails and will withstand a larger maximum load than a plank of low stiffness. In other words, beams built up of planks without defects, such as knots, will tend to fail in the less stiff rather than the strongest planks and beams built up with planks containing defects will break first in the plank having the more serious defects, regardless of the load which is being sustained by any one plank.



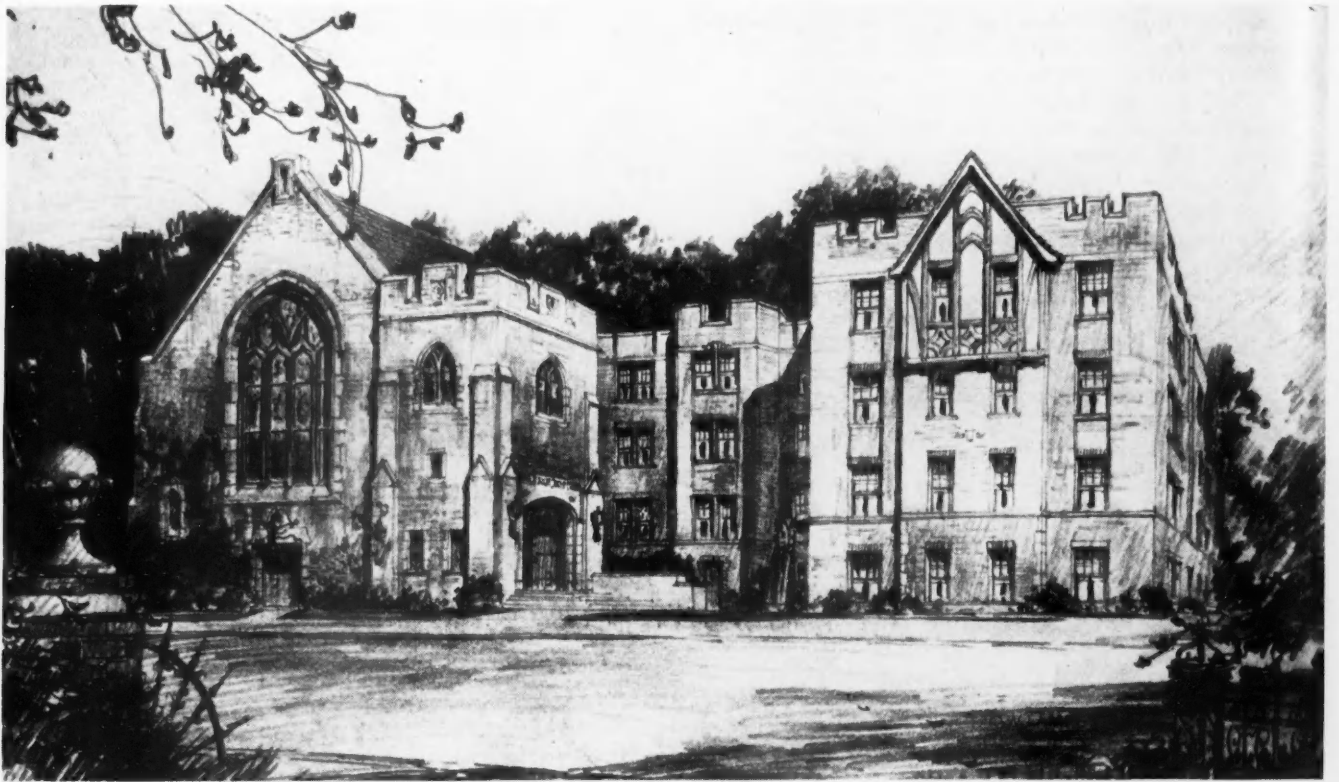
. TYPICAL . FLOOR . PLAN .

Kingsway
Apartments

HADDONFIELD
New Jersey

CLARENCE E. WONDER
Architect
Philadelphia

PAUL A. KIND
Builder & Owner
Camden



Church *Plus* Apartments

Rentable Annex Will Pay for New Church Building

THIS new church building in Chicago has the feature of an apartment house annex, the rental revenues from which will be sufficient for the maintenance of the church property and will, in time, pay off the entire mortgage.

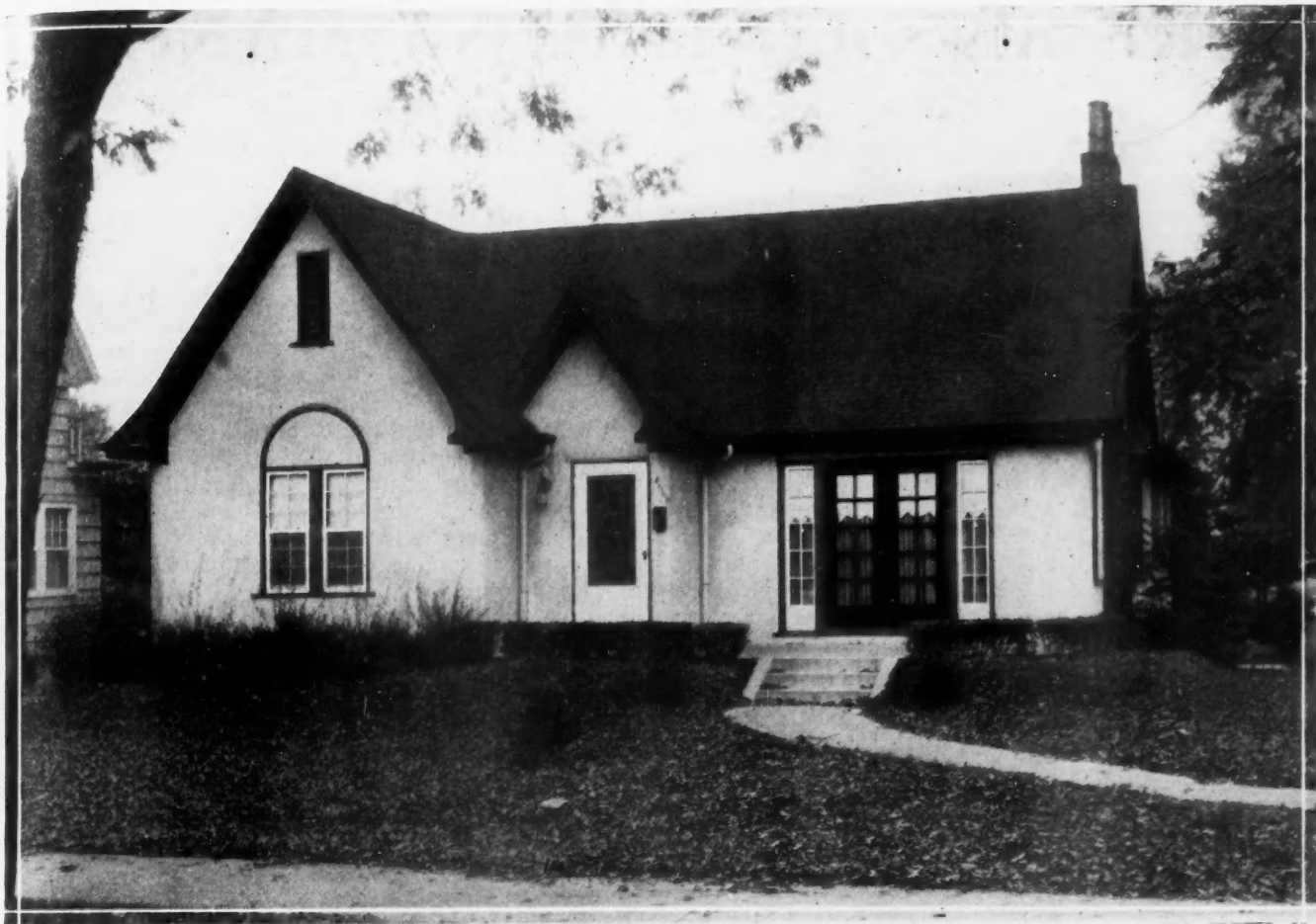
The building was designed by C. W. Lampe & Company for the Humboldt Park Evangelical Church at Mozart Street and Shakespeare Avenue, and the architects have succeeded admirably in the difficult task of harmonizing in one structure the two types of buildings. The project comprises church and gymnasium combined with a thirteen apartment building.

The church auditorium has a seating capacity of three hundred fifty people, which includes the ninety seats in the balcony. Below the auditorium and directly accessible from the side street is a gymnasium which permits the playing of basket ball, indoor, and various other sports. This gymnasium is also used as a Sunday school room.

In the apartment section the pastor's apartment is located directly adjoining the church proper. The balance of the apartments are developed along the lines of efficiency units. At the present writing these are one hundred per cent rented.



• TYPICAL • FLOOR • PLAN •



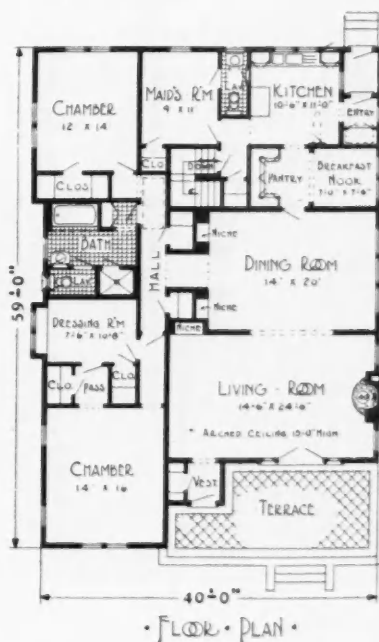
STUCCO FOR THE ENGLISH COTTAGE

A Charming Design with Its Interior Attractiveness Greatly Enhanced by a High Arched Ceiling in the Living Room.

Service to Home Builders

Throughout this magazine we present many building designs. A variety of home plans are included, selected from many parts of the United States and designed by various architects of standing.

The "American Builder" will gladly serve its readers by bringing them together with these architects if any further information or plans are desired for any of these designs. Address the American Builder Home Planning Service, 105 West Adams Street, Chicago, or 30 Church Street, New York City.



LIKE AN OLD ENGLISH MANOR

This Spacious Residence Sets a Standard for the Design of Homes Both Large and Small Which All Can Follow

AMONG the many beautiful homes to be seen in the Kennedy Heights District, of Cincinnati, Ohio, the residence of Mr. Perry Kline is outstanding as an example of American domestic architecture. Though, as the title suggests, this house is reminiscent of the old manor houses for which England is famous, it possesses many features which mark it as distinctly modern and American.

Built throughout of brick, this house presents a sturdy appearance which, together with its size, and its simple but graceful lines, commands respect and admiration. The design is one which blends perfectly with natural surroundings and as time and the skill of the landscape architect provide a background of trees and shrubbery it will appear to even better advantage.

Something of the perfection of detail which has been carried out in this home may be observed in the interior view reproduced below. Here is a vista looking from the living room, through the reception

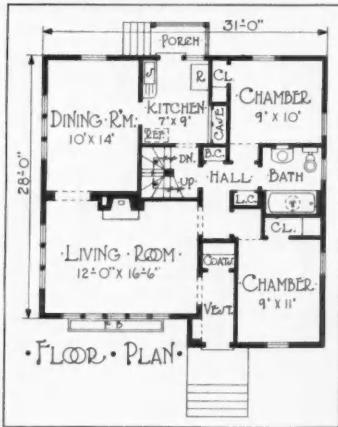
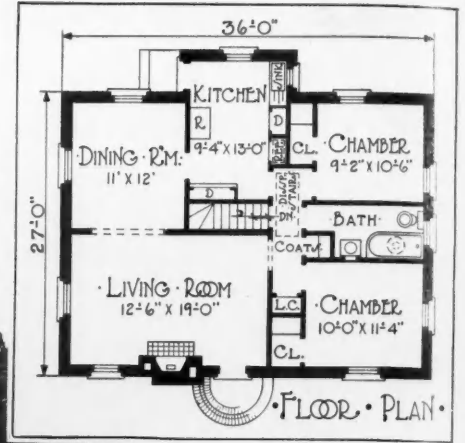
hall, into the dining room. It displays a free use of graceful wrought iron railing, a beautiful plank floor in random widths, lighting fixtures of distinctive design and a striking tile floor in the hallway.

While much of the effect of this beautiful home is the result of expensive materials, fixtures and equipment, even more it is the result of artistic simplicity, a thing that may be utilized, with the same results, in the small and less costly home. And so, even for the prospective owner of a small home, this residence offers many suggestions which can be followed to good purpose.

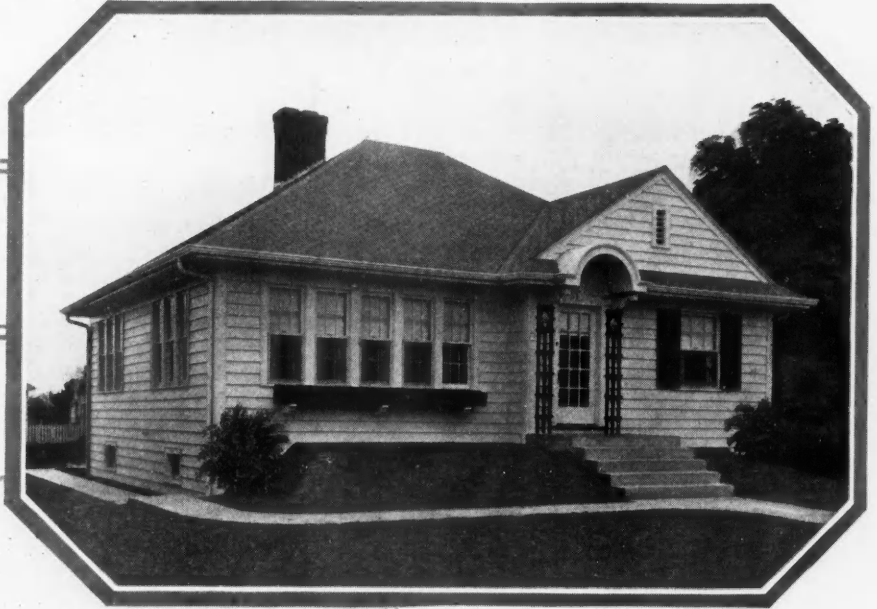
For example, the exterior displays little in the way of expensive ornament but much in the way of correct proportion, balance and line. Those things are equally available to the small home builder. They are the product of the trained architectural mind and the architectural service which can produce them is not an expensive luxury but a real economy in the construction of any house. The exterior view and floor plan diagrams are on the page opposite.



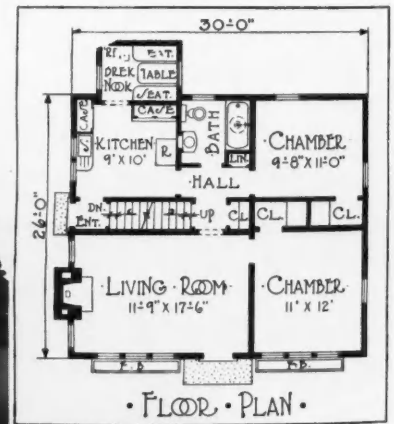
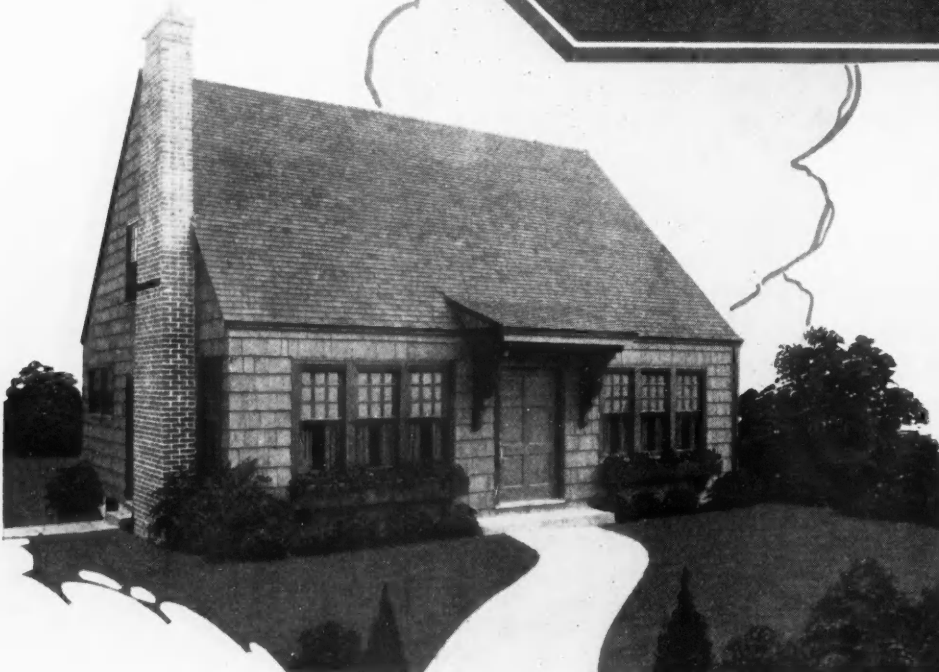
A Vista Looking from the Living Room, Through the Reception Hall to the Dining Room Beyond, Reveals Much of the Fine Detail Which Marks the Perry Kline Residence (Page 73).



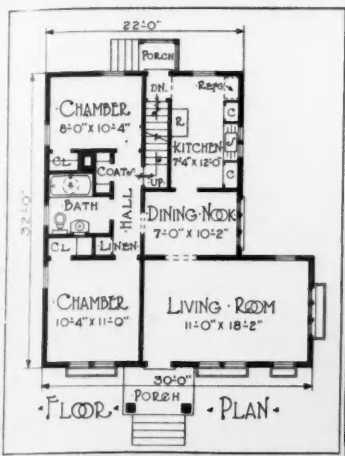
Stepsaving—Quick Selling.



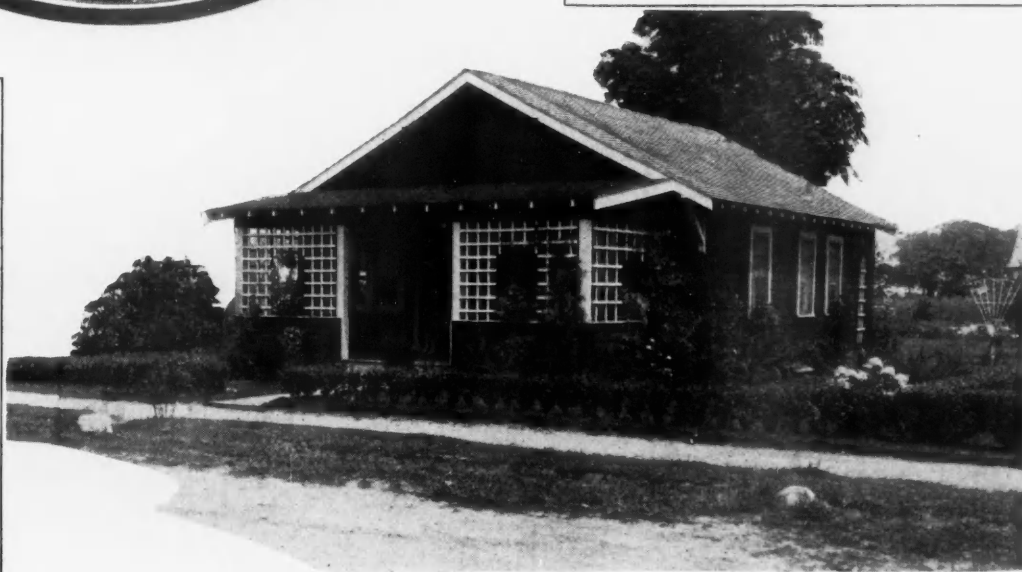
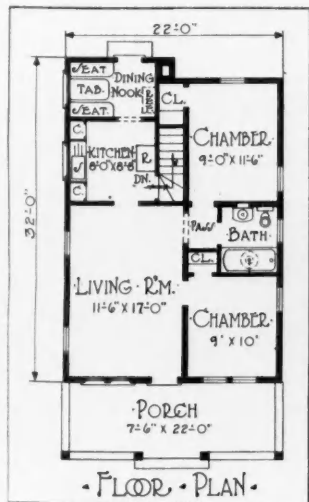
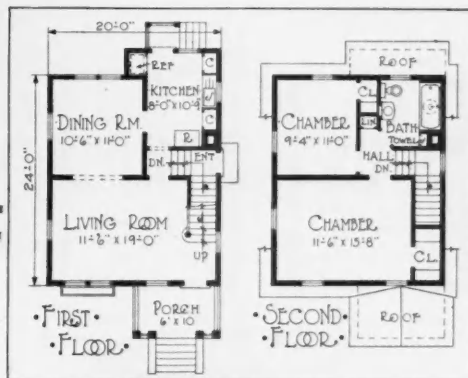
Smart but Inexpensive.



SMALL HOMES PICTORIAL



These Go Well on Narrow Lots for Summer Cottages or All the Year.



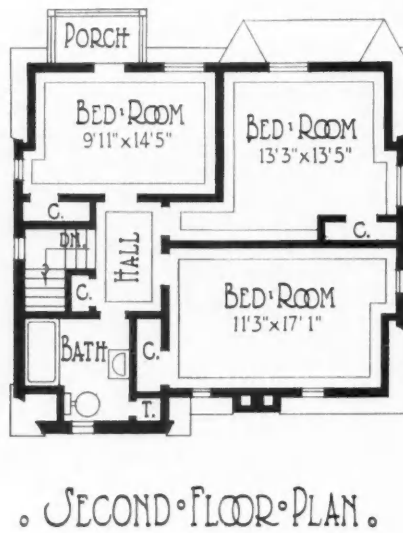
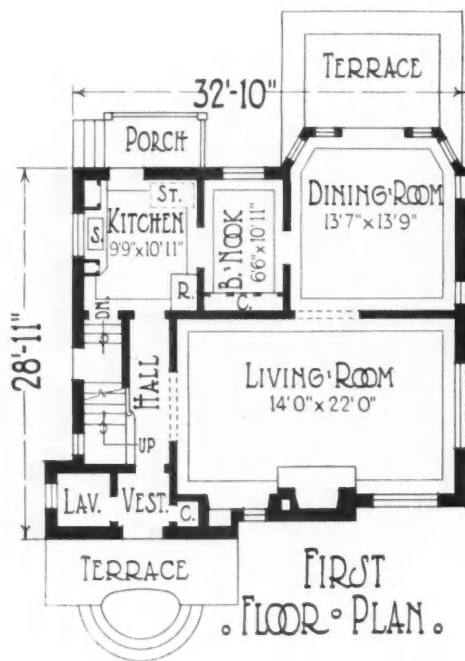
SMALL HOMES PICTORIAL



MILLER-STROM CO., Inc., Architects and Builders, Detroit, Mich.

WELL ARRANGED SIX ROOM HOUSE

Here is a Plan which Utilizes Every Inch of Space to the Best Possible Advantage and a Remarkably Appealing Exterior Design.

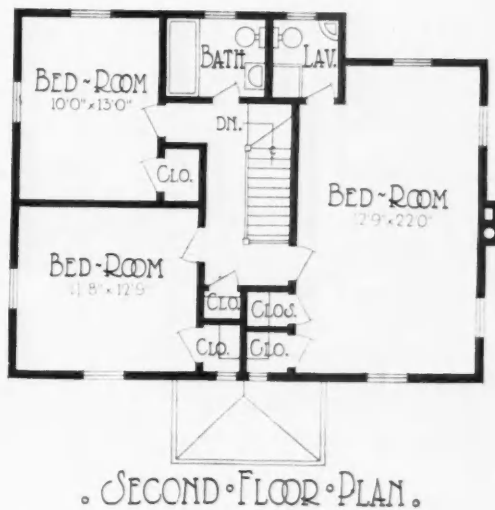
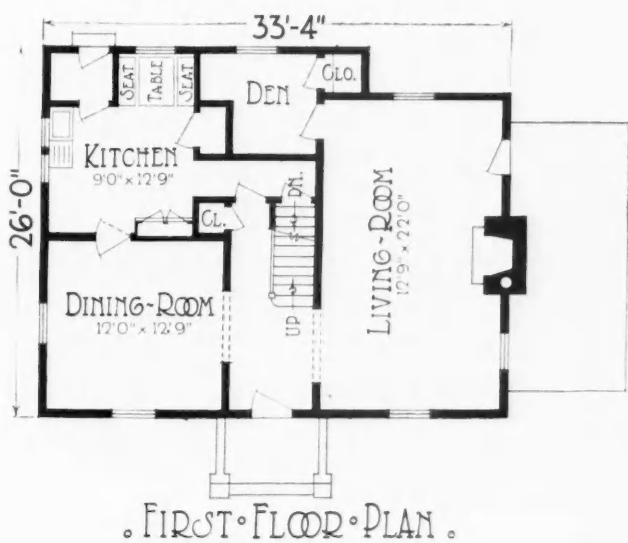




FRED LICHTENBERG, Architect, Yonkers, N. Y.

A SIMPLE DESIGN IN STUCCO

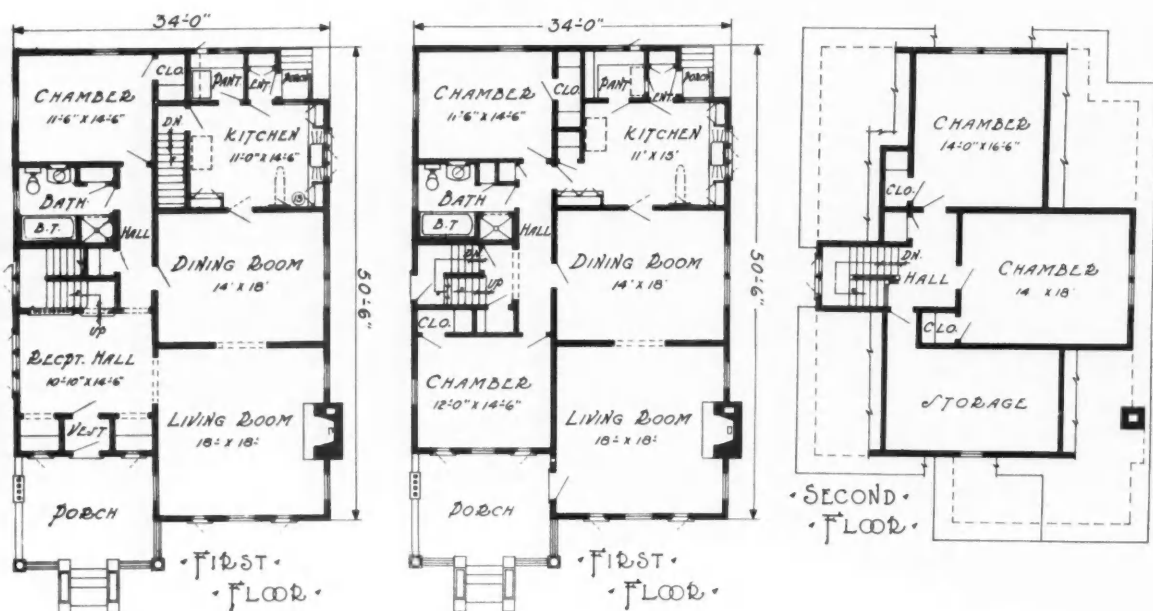
With Either Frame or Masonry Construction Stucco Finish Can Be Adopted to Achieve the Textures and Colors Now So Much Desired





ALTERNATIVE FIRST FLOOR PLANS

Either of the Two First Floor Plans May Be Used for This Home, Making a Six Room or Seven Room House as May Be Desired

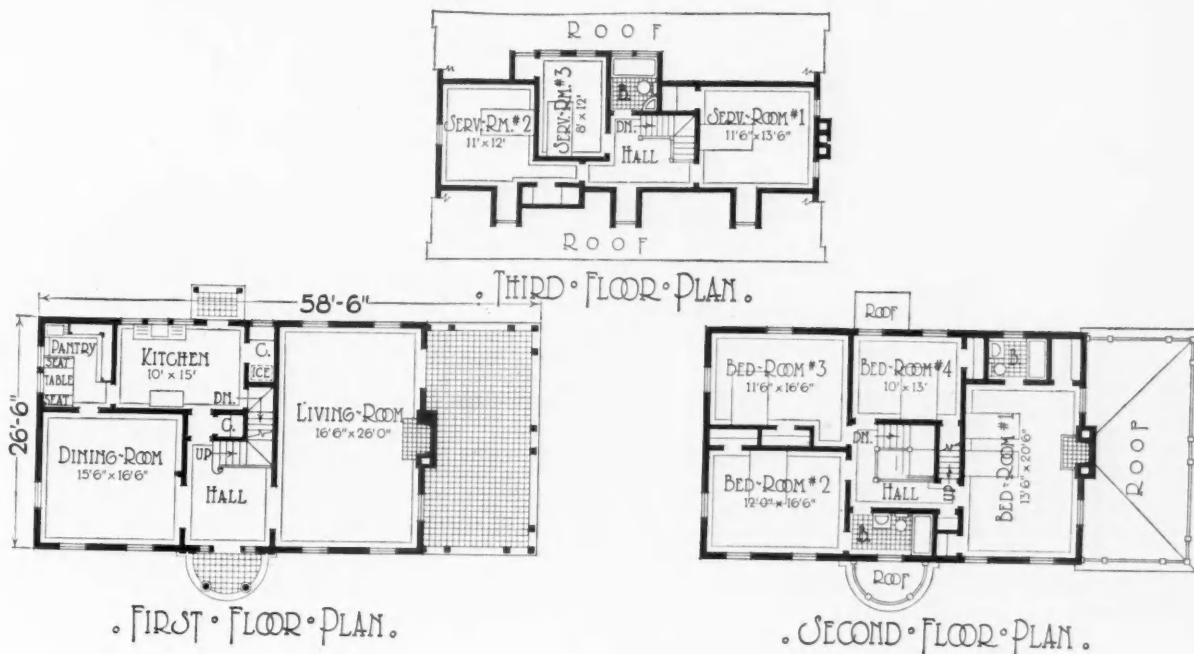


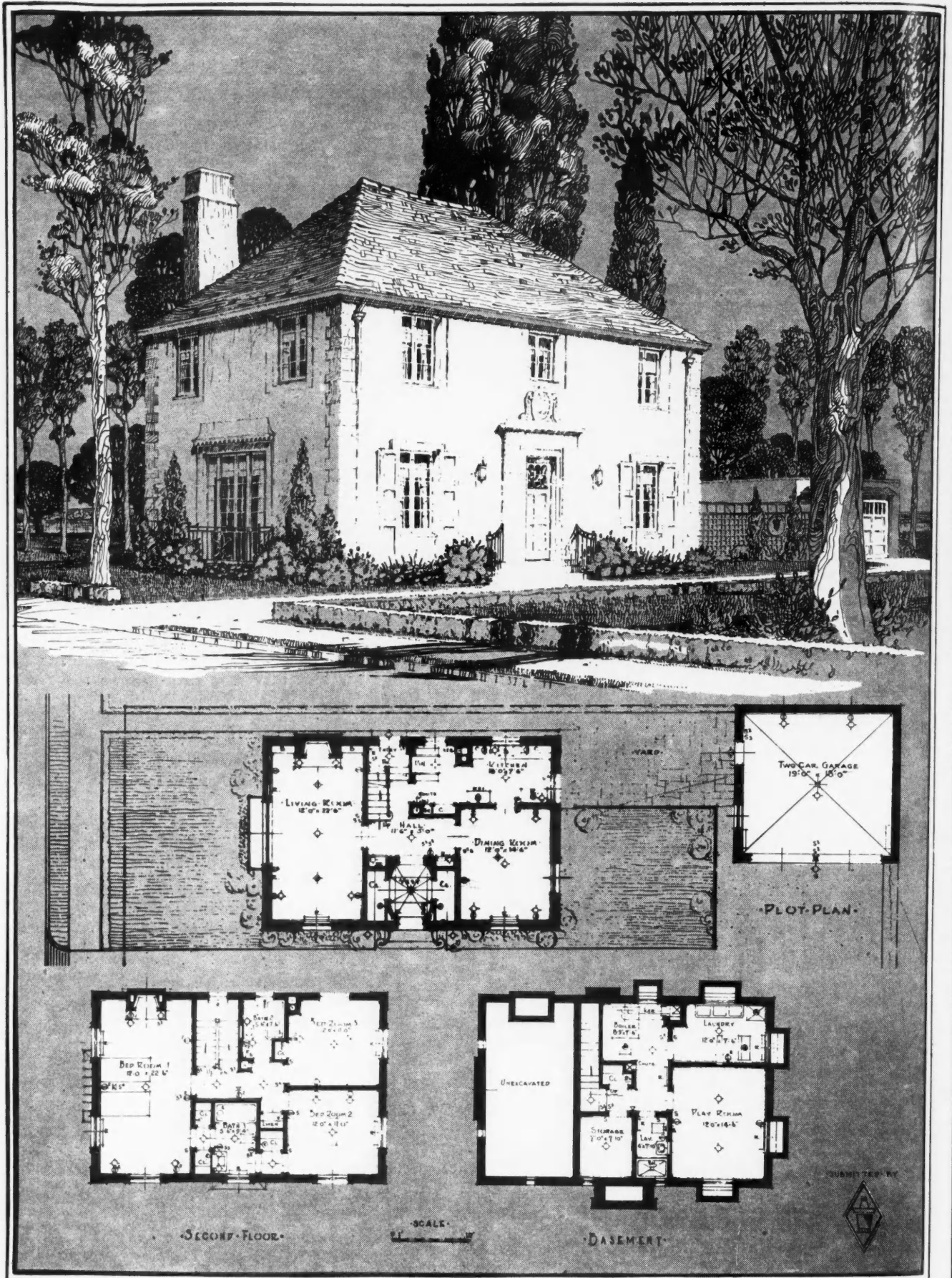


R. C. HUNTER & BRO., Architects, New York City

A REAL COLONIAL MANSION

Here Is a Beautiful Example of the True New England Colonial One Which Justly Deserves the Title of Mansion

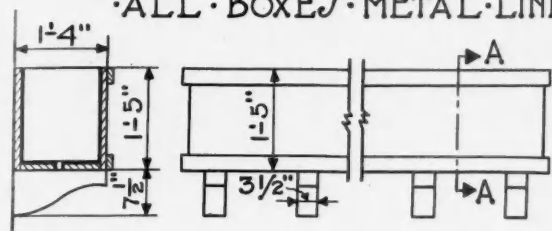




This Design by Carlos D. Barragan and Earl Purdy, Architects, New York City, Was Awarded First Honorable Mention in the 1929 National Better Homes Architectural Competition, After Winning the \$500.00 Regional Award.

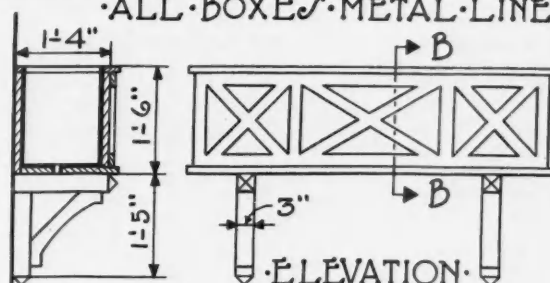
FLOWER BOXES

ALL BOXES METAL-LINED.

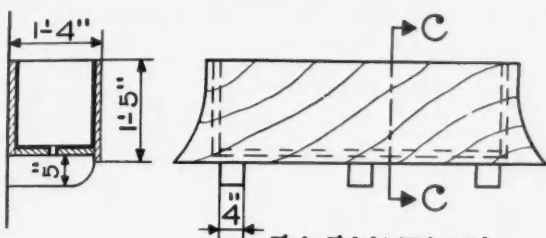


SECTION A-A · ELEVATION ·

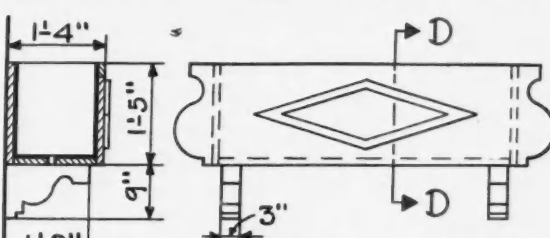
ALL BOXES METAL-LINED.



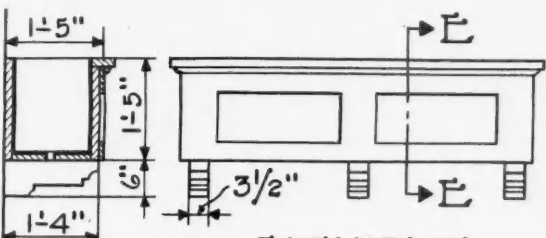
SECTION B-B · ELEVATION ·



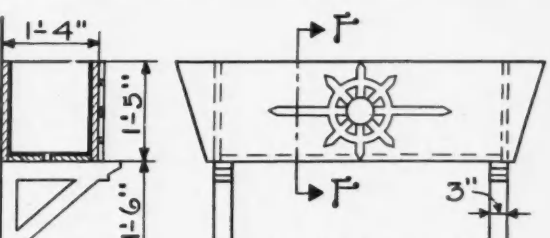
SECTION C-C · ELEVATION ·



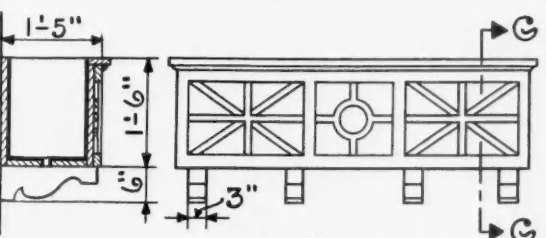
SECTION D-D · ELEVATION ·



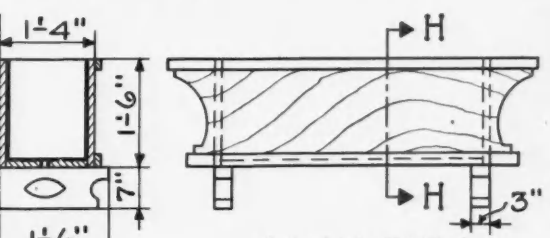
SECTION E-E · ELEVATION ·



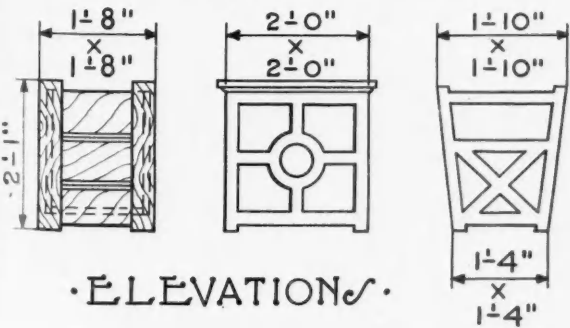
SECTION F-F · ELEVATION ·



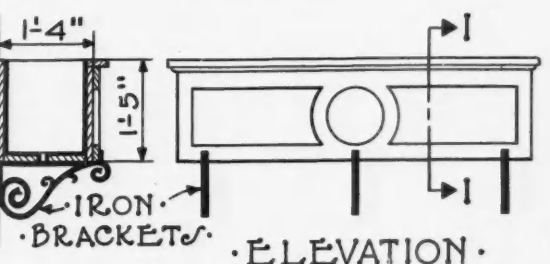
SECTION G-G · ELEVATION ·



SECTION H-H · ELEVATION ·



ELEVATIONS ·



SECTION I-I · ELEVATION ·

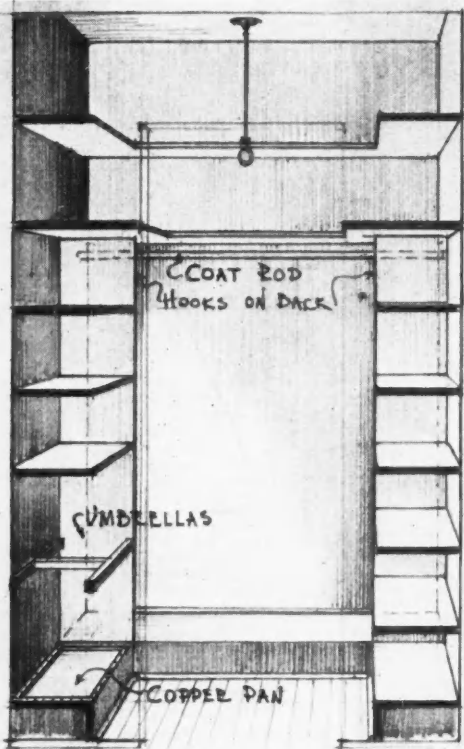


When Planning the New Home the Client Appreciates Something Artistic and Distinctive in Flower Boxes. Here are some original designs, prepared by the "American Builder" Architectural Staff as suggestions.

Details of Closet Shelving

Prepared by Eldred Mowery and Richard G. Kimbell

of The National Lumber Manufacturers' Association



COAT CLOSET

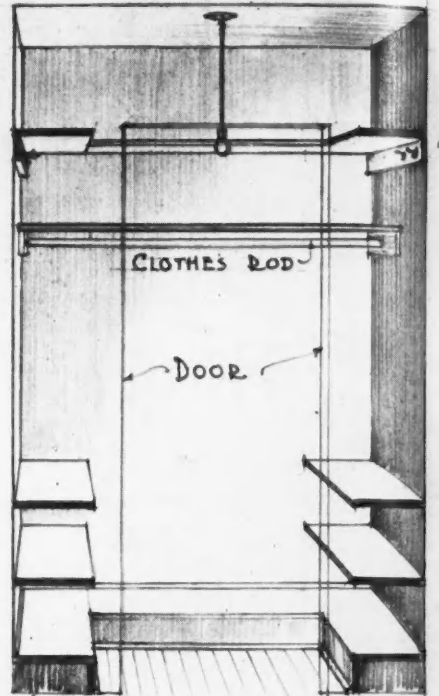
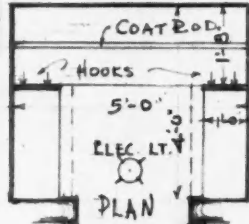
SCALE FOR SECTIONS 3/8"=1'-0"

THE USEFULNESS AND CONVENIENCE OF A CLOSET IS INCREASED BY ARRANGING SHELVING FOR EACH PARTICULAR PURPOSE.

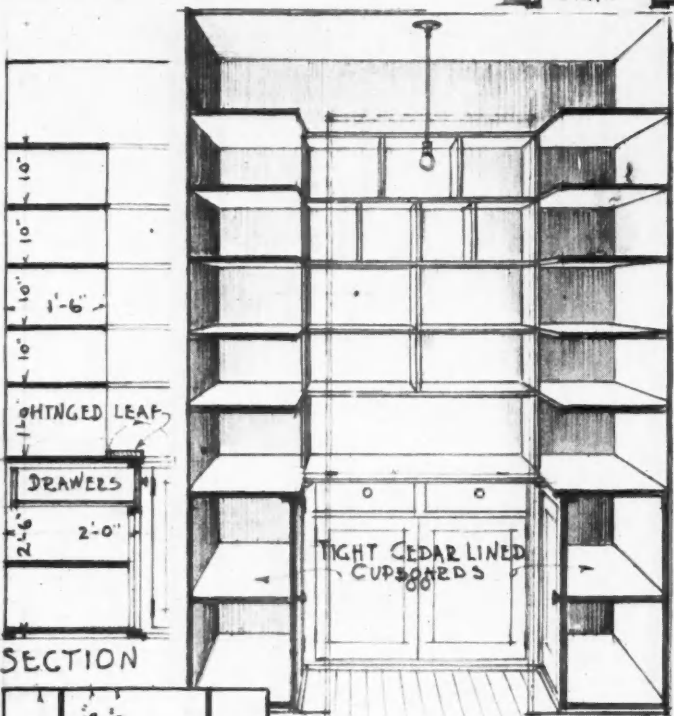
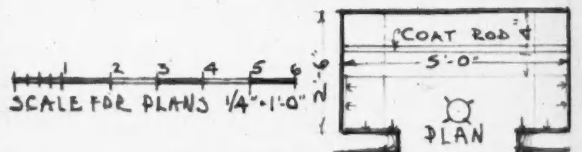
A HEIGHT OF 10" SHELF TO SHELF IS SUFFICIENT FOR ORDINARY PURPOSES AND WILL OFTEN PERMIT AN EXTRA SHELF.

THE LOWEST SHELF FOR SHOES, ETC., MAY BE CLOSED IN UNDERNEATH WITH A BASE BOARD. THE CLOSET WILL BE NEATER IN APPEARANCE AND EASIER TO CLEAN.

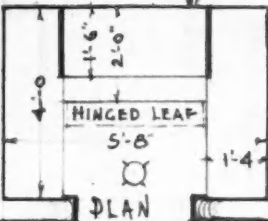
THE HIGHEST SHELVES SHOULD BE USED FOR STORAGE AND ARE MADE MORE AVAILABLE IF LOWER SHELVES ARE SUBSTANTIALLY ARRANGED TO STEP ON.



BED ROOM CLOSET

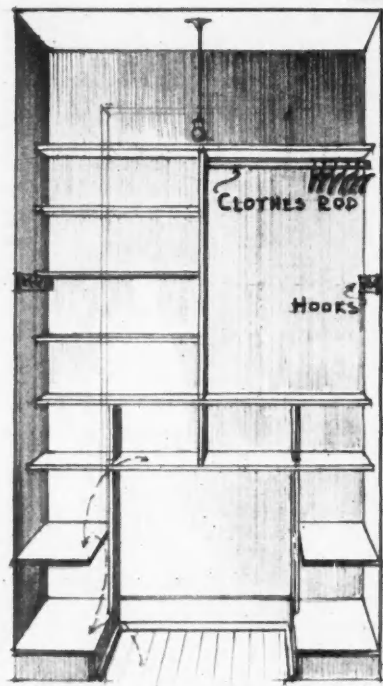


SECTION

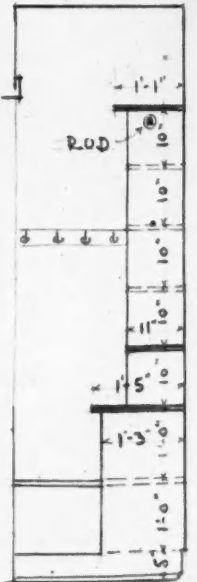


LINEN CLOSET

HINGED LEAF FOR SORTING LINEN. MOTH PROOF CUPBOARDS FOR WOOL. CORNERS FOR EXTRA BEDDING ETC. SHELVES DIVIDED FOR DIFFERENT ARTICLES.

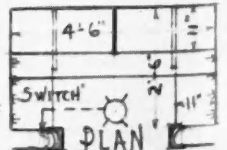


SECTION



CHILD'S CLOSET FOR TOYS AND CLOTHES

LOWER SHELVES PROJECT IN STAGES SO CHILD MAY CLIMB SAFELY TO REACH HIGHER SHELVES.



SHELVING ARRANGEMENTS FOR CLOSETS

Dealers Sell Steel Sash

Peter Van Zylen Sold Both the Architect and Owner on the Advantages of Steel Windows for the new Grand Haven (Michigan) Sanitary Dairy



The Grand Haven Sanitary Dairy Is Equipped Throughout with Steel Windows Because the Building Material Dealer Sold the Product He Handles, Instead of Merely Taking an Order.

THERE was a time when it was considered entirely satisfactory for a commercial or industrial building to be strictly utilitarian in appearance if not actually ugly. But that time has passed. Business competition, together with civic pride, has created a demand for commercial and industrial buildings which are attractive in appearance.

By means of good architecture this attractive appearance has been achieved with no loss of utilitarian value and with little expense. The investment is proving profitable and what an improvement it is making in the appearance of our cities!

An interesting example of the new order of things is to be seen in the new building of the Grand Haven Sanitary Dairy, at Grand Haven, Mich. This building is a real ornament to the street on which it stands. At the same time it is so designed as to serve its practical purpose most efficiently. One of the important requirements in a dairy building is ample light and ventilation. They have been assured in the case of the Grand Haven Sanitary Dairy by

the use of steel sash in comparatively large sizes.

This steel sash installation is a really noteworthy feature. The sash used were not originally specified but Peter Van Zylen, Grand Haven lumber and building material dealer, is a "live wire" salesman, as every dealer should be, and it did not take him long to sell the owner and architect of this building on the advantages of using the type of steel sash he handles. He has done the same thing on a lot of other jobs, too, which is one of the reasons why he is making an outstanding success of his business.

The particular points on which Mr. Van Zylen sold the architect and owner were the adaptability of these sash to the job; the overhead ventilating system by which they can be opened at the top without permitting rain to beat in; the simplicity of installing screens in the ventilators; and the economy of their puttyless glazing. The latter feature eliminates the necessity of employing a glazing expert either for the original glazing or for replacing broken lights of glass at any time.



THE AMERICAN BUILDER ALL-FEATURE HOME

Complete Working Plans

Handsome Six-Room Colonial Home of Brick Presented in One-Eighth-Inch Scale Drawings

MENTION of a Colonial house usually brings to mind a white frame dwelling with green shutters at the windows, but brick is equally appropriate to the Colonial style and there are still many fine old brick Colonials standing in the Eastern States which testify to the fact. A design of this type has been selected for the All-Feature Home, this month, and the AMERICAN BUILDER Architectural Staff has prepared complete working drawings which are reproduced on the four pages following this.

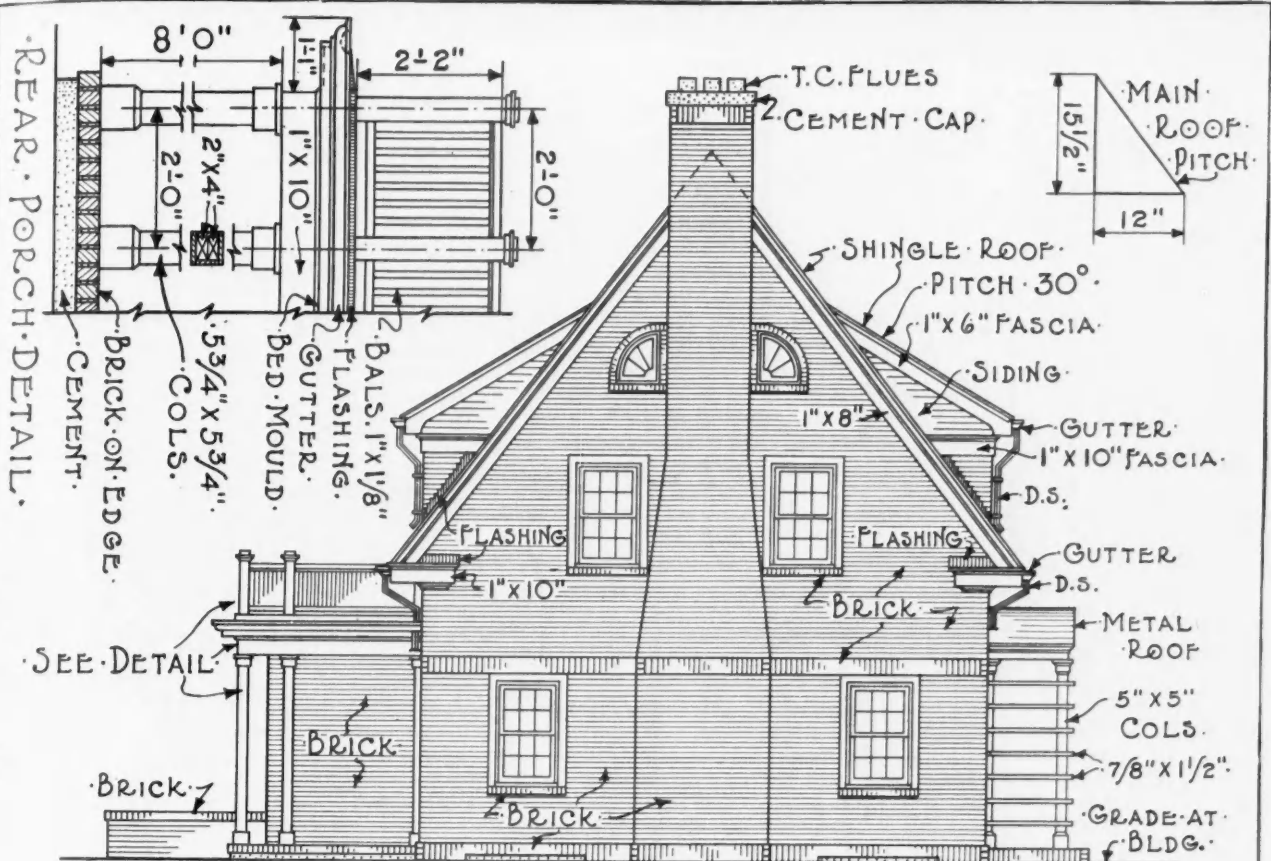
This house contains six rooms, a very practical size, roomy enough for the average family but not so large as to involve a great amount of work in its care. On the first floor there are three rooms, living room, dining room and kitchen. There is also a

breakfast nook off the kitchen, a lavatory in the rear entrance vestibule, and a central stair hall, typical of the Colonial design, with a coat closet and a passage leading to the rear.

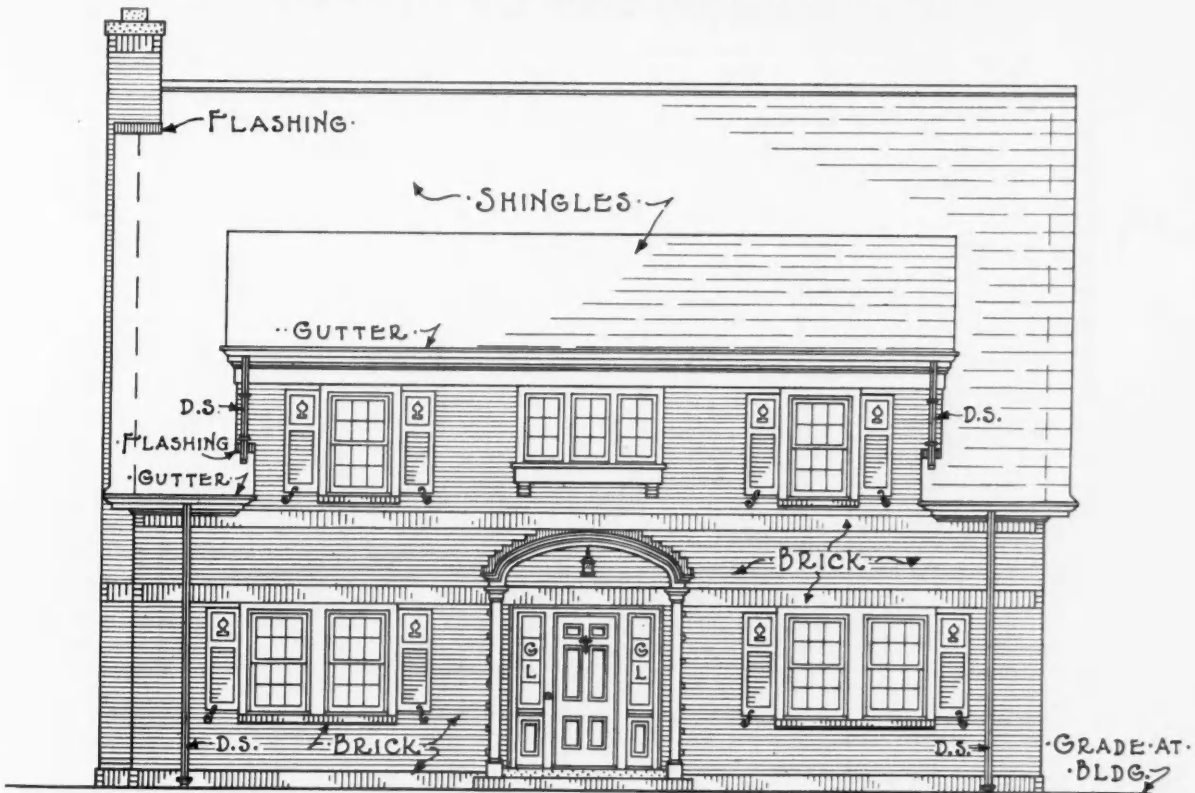
Above stairs are the other three rooms, a large master bedroom and two smaller ones, all of which have excellent cross ventilation and ample closet space. Two of the bedrooms have two closets each. Of course there is a bathroom on this floor and a linen closet in the hallway. In the hallway also is a stair leading to the attic space but it takes up no room for it is of the disappearing type. When not in use it lifts up into the attic with a panel fitting closely into the ceiling. It can be easily and quickly pulled down into place when needed.

NEXT MONTH

Complete Working Plans of an Eight-Room English Home Finished in Stucco.



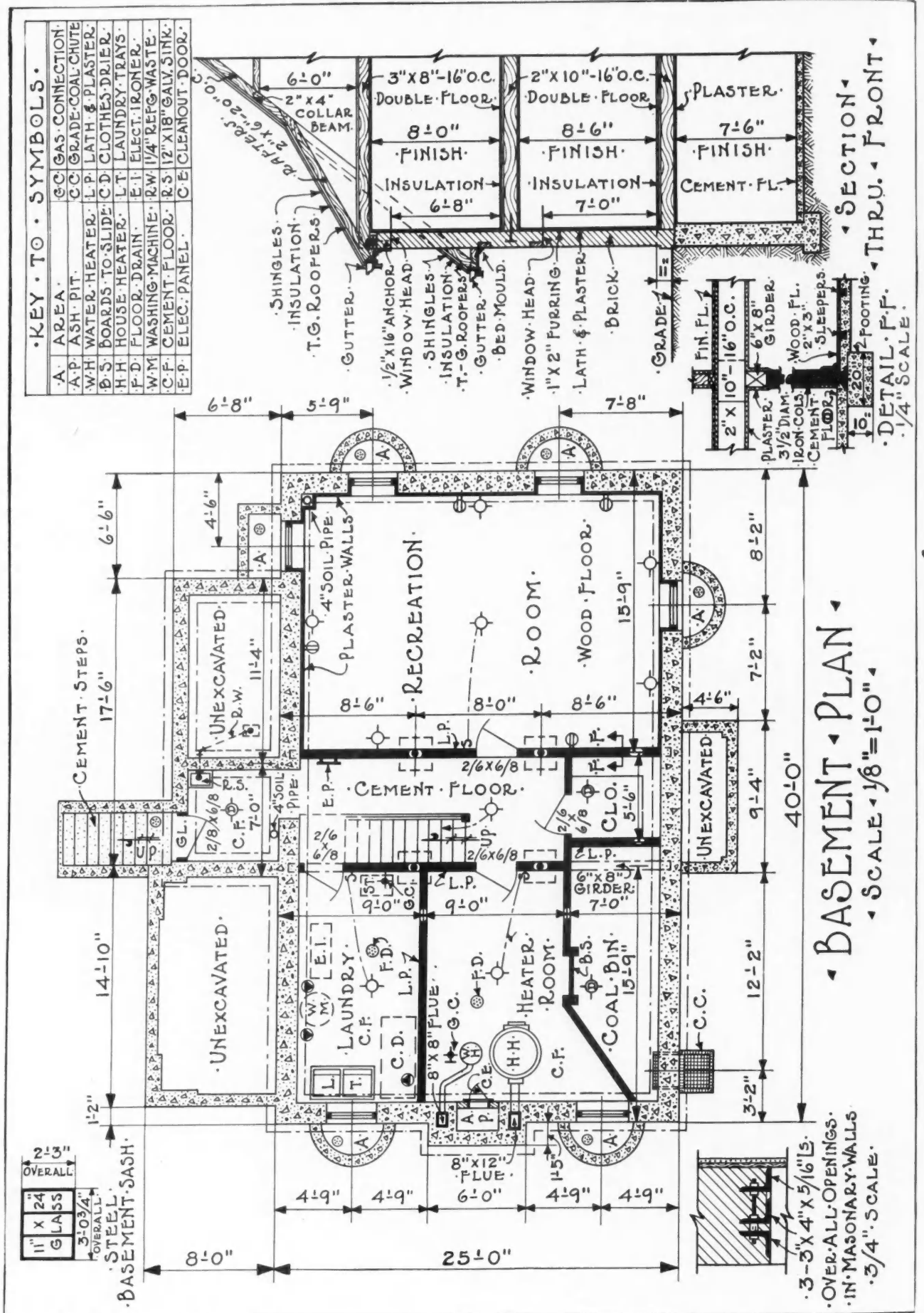
LEFT SIDE ELEVATION



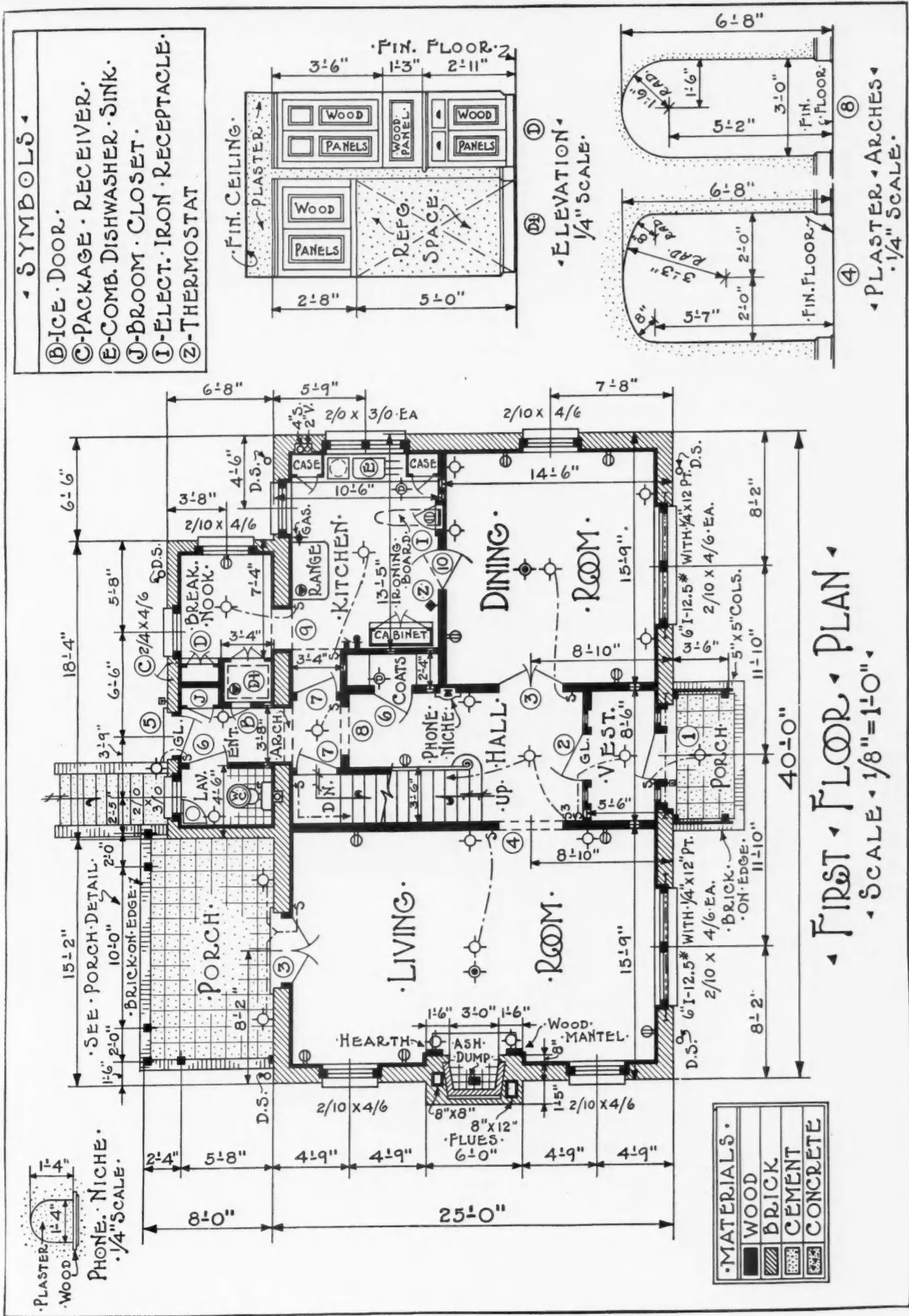
FRONT ELEVATION

SCALE 1/8" = 1'-0"

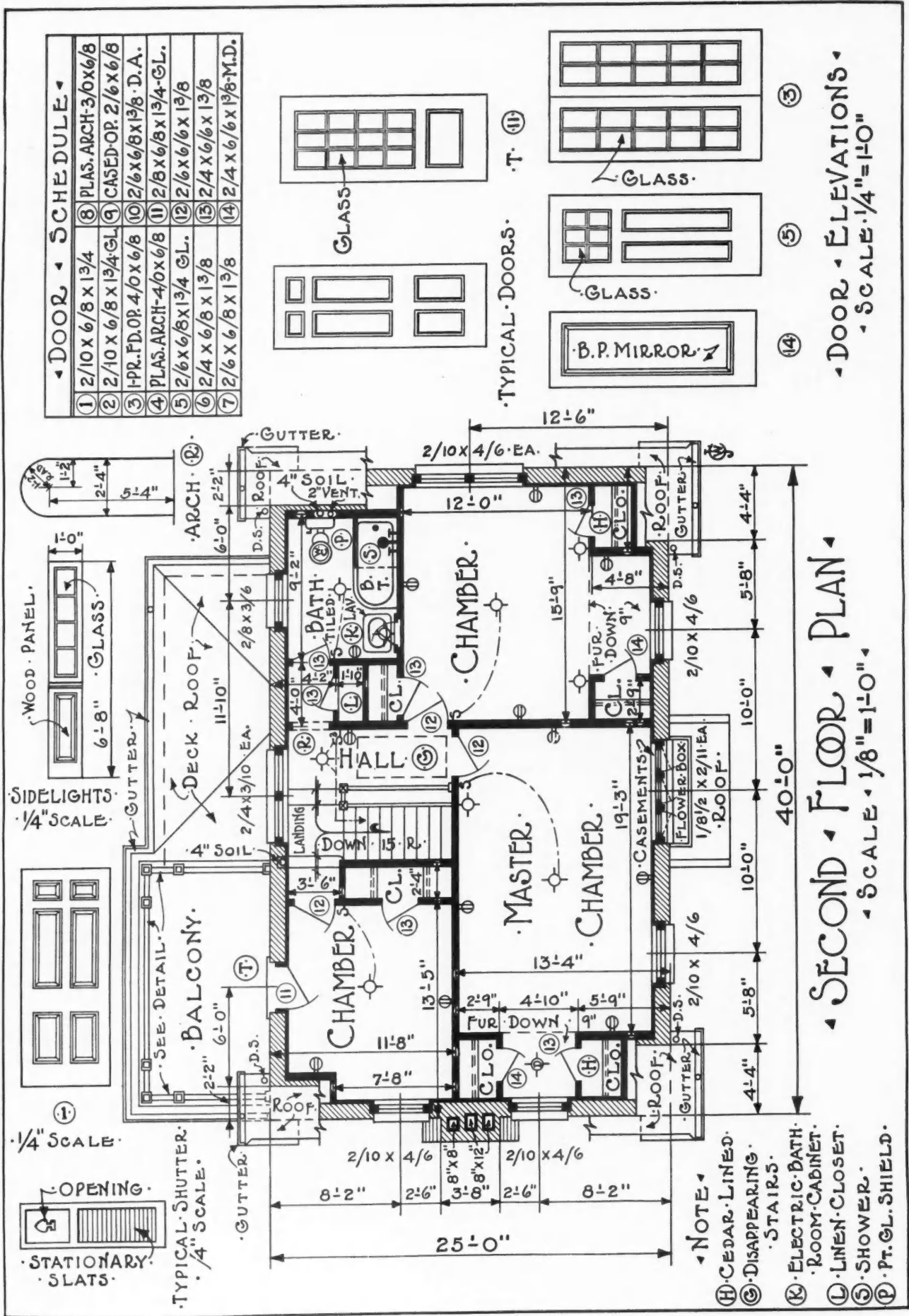
These Elevation Drawings Show the Treatment of Brick Work and Trim and Also a Detail of the Rear Porch.



Our All-Feature Home Has a Basement of the Modern Type with an Attractively Finished Recreation Room.



This First Floor Plan Is Quite Simple but Remarkably Convenient and the Equipment Is Amazingly Complete.



Besides the Second Floor Arrangement This Drawing Shows a Number of Details of Doors and Shutters for the All-Feature Home.

Law for the Builder

Contractor's Liability for Injury to Adjoining Property

By LESLIE CHILDS

AS a general proposition of law, a contractor may only be held liable for injury to adjoining property which is caused by his negligence in doing his work. And, under this rule, if injury to adjoining property results from the nature of the work the contractor is engaged in, his employer will usually be held responsible.

However, we have a very different situation where a contractor undertakes to protect his employer from liability for injury to adjoining property during the progress of work. It follows, in such a case the contractor may be held liable for injury to adjoining property, even though he has not been negligent, and though the injury was the result of the nature of the work he undertook.

There is an important point of building law involved here that should never be overlooked by contractors, when they are called upon by owners to assume liability for injury of this kind. And, as an illustration of the application of the rule above to a situation of this kind *Allen v. J. G. McDonald Chocolate Co.*, 218 Pac. 971, may be examined with interest and profit.

Contractor Assumes Liability

In this case the Campbell Building Company, a firm of building contractors, undertook to construct a building for the McDonald Company upon ground owned by the latter. The contract was cost plus, and provided that the Campbell Company should receive as full payment the exact cost of the building with a profit of \$5,000. In addition, the contract carried the following stipulation in respect to the liability of the Campbell Company for accidents that might arise during the progress of the work; and its duty to protect workmen and others:

"Light, watch, and inclose dangerous places; provide strong scaffolding; employ only careful workmen; and use diligence to obviate any accident or injury to persons or their property upon the building, the owners of adjoining premises, streets, or alleys, during the prosecution of the work, and until those improvements are finished and accepted; discharge any claim of this character, and the contractor must relieve the owner of any responsibility in this connection."

In erecting the building, the Campbell Company excavated for the foundation close to an adjoining building owned by Mrs. Allen. This resulted in serious damage to the latter's property, that did not appear until after the Campbell Company had completed its work. For the injury suffered, Mrs. Allen brought the instant action against both the Campbell Company, as contractors, and the McDonald Company, as owners.

This action was founded upon the contention that in performing the work the Campbell Company, had removed the lateral support from the Allen building, and this appears to have been the cause of the damage to the building. And, under the evidence, it was clear that Mrs. Allen was entitled to damages for the injury suffered.

However, there was no evidence of negligence on the part of the Campbell Company in performing the work, but the damage resulting to the Allen property

appears to have been caused by the very nature of the work undertaken. In this situation, the important question for consideration was as to who was liable, the Campbell Company, as contractor, or the McDonald Company, as owner.

The Campbell Company denied liability, on the ground that no negligence on its part appeared. The McDonald Company pointed to the terms of the contract and contended that the other was liable, regardless of just how the damage to the adjoining property arose. In passing upon the question raised, the court reasoned as follows:

What the Court Decided

"The contract contemplated and required the excavation actually made by the contractor. The parties to that contract must be presumed to have understood, and known that, if in doing that work they removed the lateral support of an adjoining building and the building should be injured, both the McDonald Company and the Campbell Company would be responsible to the owner of the injured building for the damages sustained.

"The language of the contract, and that of the specifications which were made a part of the contract, considered in connection with the nature of the work required by the specifications, leads to but one conclusion. That conclusion is that it must have been within the contemplation of the parties that the Campbell Company would be responsible to the owner for injury of the nature claimed to have been suffered by Mrs. Allen and which the jury found that she did suffer.

"There is no question of negligence now before this court. There is no substantial evidence that the Campbell Company was guilty of any negligence in making the excavation. It may be, and is, contended that the injury sustained by Mrs. Allen was the result of doing the work and not chargeable to any negligence or other method in the performance of the work.

"We are not called upon to determine whether, under a state of facts such as that in the absence of contract, the Campbell Company would be primarily liable. We are determining in this case that by the express provision in the contract the Campbell Company undertook and agreed to save the McDonald Company harmless against any claim of that nature. * * *

In accordance with the foregoing reasoning, the court held the Campbell Company, contractor, primarily liable for the damage to the adjoining property. Not on the theory of negligence, but, as we have seen, for the reason that the contract to hold the owner harmless rendered it liable for damage to adjoining property, regardless of the fact that such damage resulted from the nature of the work.

In the light of the facts and holding of the foregoing case, it is obvious that a building contractor may well watch his P's and Q's in signing an obligation of this character. If a contractor desires to assume such sweeping liability, it is nobody's business but his own. At the same time, he should only do so with his eyes open to the possible extent of his liability.

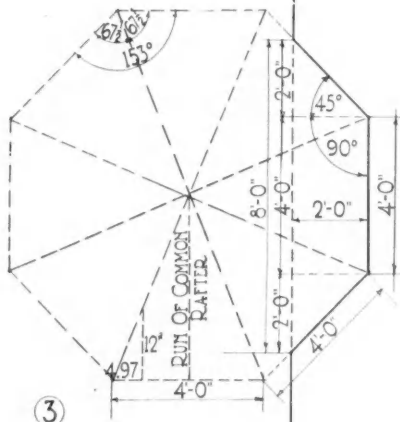
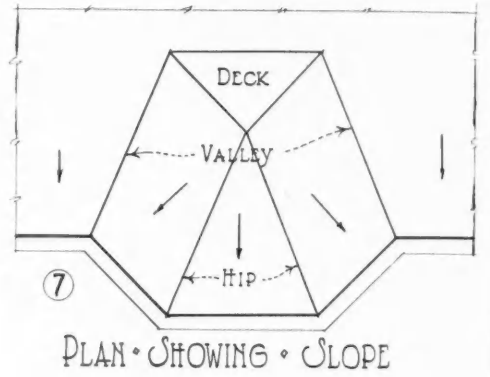
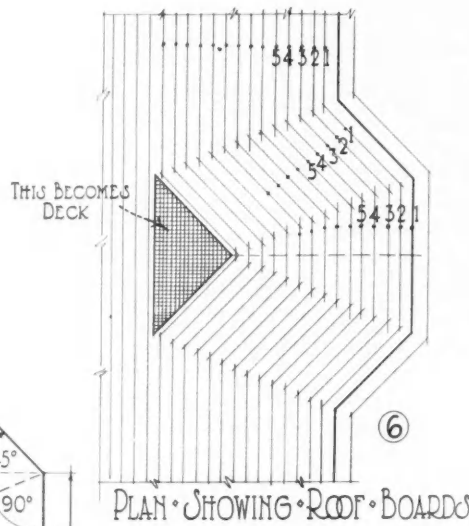
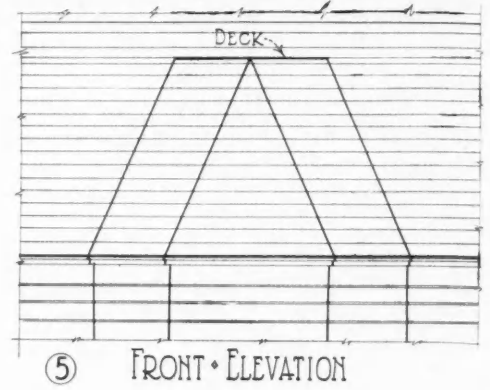
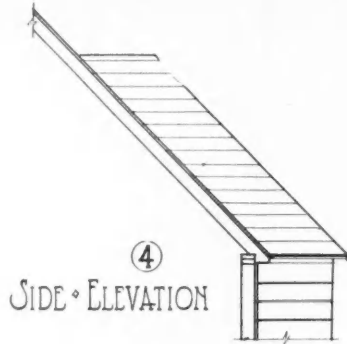
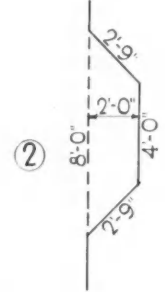
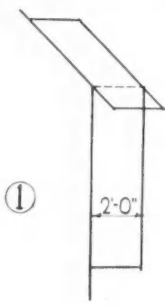
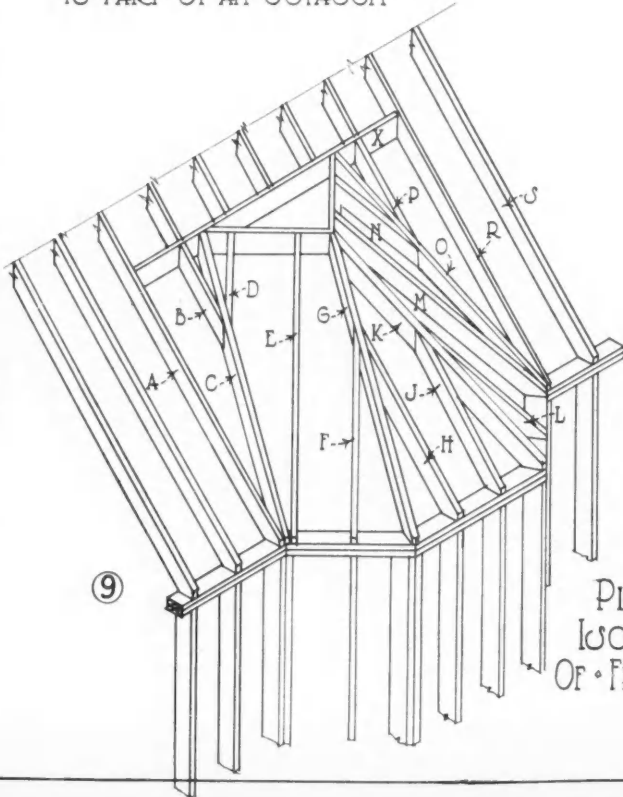
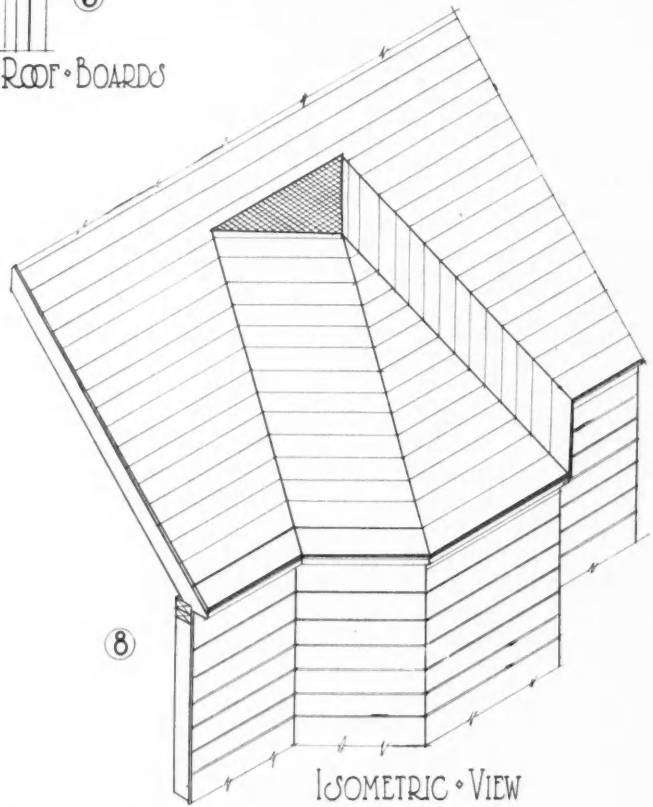
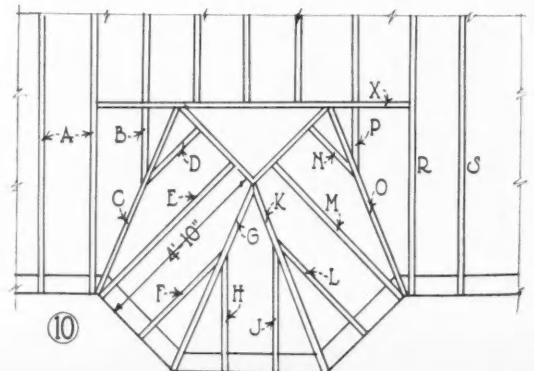


DIAGRAM SHOWING THAT BAY IS PART OF AN OGTAGON



PLAN AND ISOMETRIC OF FRAMING



How to Roof a Bay Window

A Tricky Craft Question and Its Answer Made Plain

By JOHN T. NEUFELD

A SUBSCRIBER has sent us the two sketches shown in figures 1 and 2, and asked us to illustrate the framing for this in the AMERICAN BUILDER. It is not very clear as to what type of roof was intended over this bay, as different builders might put on different kinds of roofs. Leaving all artistic ideas out, and following strictly roof-framing rules, we would obtain the solution as given hereafter. Figure 3 shows that the plan given in the problem is part of an octagon, and for that reason, we shall treat it in this solution as an octagon bay. This illustration also shows the angles for the octagon.

Assuming next that the sheathing is run parallel to the eaves, and that the shingles shall run in even courses, we will proceed to solve for the shape of the roof. In figure 6, the eave line is shown in heavy line. From this line, spaces have been laid off equal distances apart, and at right angles to the eave line. Then lines were drawn through these points established to resemble the roof boards. The points at which these lines cross indicate the points at which the boards should join, and the lines for the hips and valleys. Part of the roof thus becomes a triangular deck. Figures 4, 5 and 7 show the plans and elevations of the roof, developed for the bay. The next thing in question would be the framing of the rafters. This is shown in figure 9. The illustration merely shows one method of framing. Very often the main plate would be run through the main roof built as though no bay were attached. The bay roof would then merely be built over the sheathing of the main roof.

Octagon Rafters Reviewed

A discussion on the calculations for the octagon rafters was given in the July, 1929, issue of this paper. However, some of the main points will be reviewed here. The tangent, or the length of the plate at right angles to the run of the common rafter, is 4.97 inches for every twelve inches of the run of common rafter. This gives us a chance to figure the run of the common rafter where we do not have this given. The solution is as follows:

Length of plate is 4'-0".

One-half of this length is 2'-0", or 24".

$$\text{Run is } \frac{24}{4.97} \times 12 = 58", \text{ or } 4'-10".$$

The following table can be used for figuring out octagon rafters:

OCTAGON RAFTER TABLE

Pitch—	Rise per Foot Run	Length of Common Rafter per Foot Run	Length of Hip Rafter per Foot Run
One-sixth	4 inches	12.65 inches	13.59 inches
One-fourth	6 inches	13.42 inches	14.30 inches
One-third	8 inches	14.42 inches	15.26 inches
Three-eighths	9 inches	15.00 inches	15.80 inches
Five-twelfths	10 inches	15.62 inches	16.40 inches
Eleven-twenty-fourths	11 inches	16.28 inches	17.03 inches
One-half	12 inches	16.97 inches	17.69 inches
Two-thirds	16 inches	20.00 inches	20.61 inches
Three-fourths	18 inches	21.63 inches	22.20 inches

PROBLEMS.

1. Assuming a one-half pitch roof, find the length of the rafter "G."
2. What is the length of rafter "E"?
3. Give the cuts for the Hip rafter.
4. Give the cuts for the Common rafter.

SOLUTIONS.

1. The rafter "G" is a hip rafter. The length per foot run is 17.69". Run is 4'-10", or 4.83 feet. Length is $17.69 \times 4.83 = 85.44"$.
2. Rafter "E" is a common rafter. Length per foot run is 16.97". Run is 4.83 feet. Length is $16.97 \times 4.83 = 81.96"$.
3. Plumb and seat cut use 13 and 12. Side cut use numbers 15 and 9.
4. Plumb and seat cut use 12 and 12. Side cut use 5 and 12.



How I Make 25% Profit

(Continued from page 56)

quick installation by merely plugging into the outlet in each apartment, which leaves all buildings free from the defacement of outside aerials.

The "Portland Rose" apartment building illustrated, containing 27 apartments, in addition to the bachelor apartments in the basement, is an English Tudor style structure, made of red brick and trimmed with cream cast stone. Located near the hills, in the heart of the hospital district, this building has special appeal to professional people who find the real atmosphere of home in its beautiful garden court, artistic rockeries and rare old shrubbery. Its vertical trend emphasized by narrow ribbons of the cast stone, and high and narrow windows, which are not so narrow, however, as to sacrifice the beauty of the interior. Situated on a corner, it has a diagonal entrance through a court 65 feet square. An all-metal stairway in the court provides direct access to the roof, and while in reality a fire escape, it is built like a regulation stairway with hand rails and risers, to permit women and children to use it without fear.

This building has an imposing two-story lobby, in modernistic design, overlooked by a wrought-iron railed balcony. Recessed nooks to accommodate a davenport and two formal period chairs give more floor space, and also add novel character to this part of the building.

Apartments in the "Portland Rose" have entrance lobbies, and separate breakfast rooms with three pairs of casement windows. Living rooms are mainly 18 by 22 feet in dimensions, with four pairs of casement windows each, those living rooms located at the corner of the "L" containing wide French doors opening to small balconies. A special excavation to admit full length casement windows to the manager's apartment, and the bachelor rooms that face the court, has been beautified by means of a natural rockery, the base of which drops full seven feet below the level of the court. The apartments range from two to five rooms each, and in several of them separate breakfast rooms, opening to the living rooms by arches, replace dinettes.

How Dan Does It

A Department for Passing "Life Savers"
Along to Other Builders

\$2 for an Idea

Dan is an ingenious cuss. Nothing ever stumps him. He always knows the way out when he runs into a tough problem out on the job or in the office. Dan is editor of this Department and will pay \$2.00 each for every good idea he can use here to show and tell other builders "how to do it." Send him a rough sketch and a short description of what the tough job was and how you handled it.

Address Dan-Do-It, care of American Builder, 105 W. Adams St., Chicago, Ill.

Handy Measurement Table

It often happens that it is necessary for the carpenter to work from engineer's figures, which are in feet and hundredths of a foot. The average carpenter does not care for mathematics and hasn't time to do the figuring to change the fraction into inches, therefore, the accompanying table ought to be of use to these carpenters.

The table makes it possible to read off the hundredths of feet in inches instantly. To use it, find the fraction given in the table, then read the number of inches at the top of

	1In.	2	3	4	5	6	7	8	9	10	11	12
	.08	.17	.25	.33	.42	.50	.58	.67	.75	.83	.92	1.00
1/8 In.	.01	.09	.18	.26	.34	.43	.51	.59	.68	.76	.84	.93
1/4	.02	.10	.19	.27	.35	.44	.52	.60	.69	.77	.85	.94
3/8	.03	.11	.20	.28	.36	.45	.53	.61	.70	.78	.86	.95
1/2	.04	.12	.21	.29	.38	.46	.54	.63	.71	.79	.88	.96
5/8	.05	.14	.22	.30	.39	.47	.55	.64	.72	.80	.89	.97
3/4	.06	.15	.23	.31	.40	.48	.56	.65	.73	.81	.90	.98
7/8	.07	.16	.24	.32	.41	.49	.57	.66	.74	.82	.91	.99

With This Chart It Is Possible to Read Off Hundredths of a Foot in Inches.

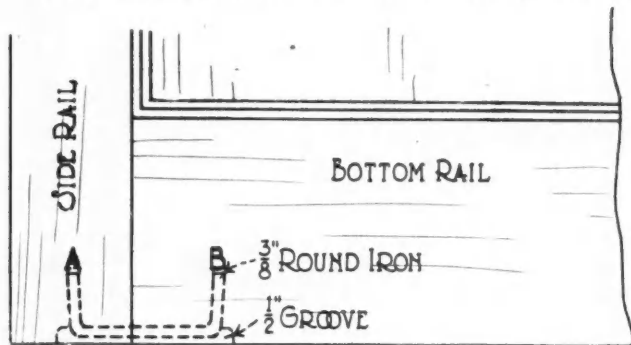
the column and the fraction on the same line at the left. For example, to change .55 feet to inches, find .55 in the table. Directly above at the top of the column you will find six inches. On the same line at the left you find 5/8 inches. Adding the two, .55 feet equal 6 5/8 inches.

This table is not absolutely accurate, but is close enough for any carpenter work, and is quite simple and handy.

J. FAHNENS, Box 365, Suisun, Cal.

Tight Joints in Doors

The sketch shows my method of closing open joints on doors and keeping them closed. Take a 3/8-inch iron



When Driven Into the Holes as Shown the Iron Rod Pulls the Opened Joint Tight and Holds It.

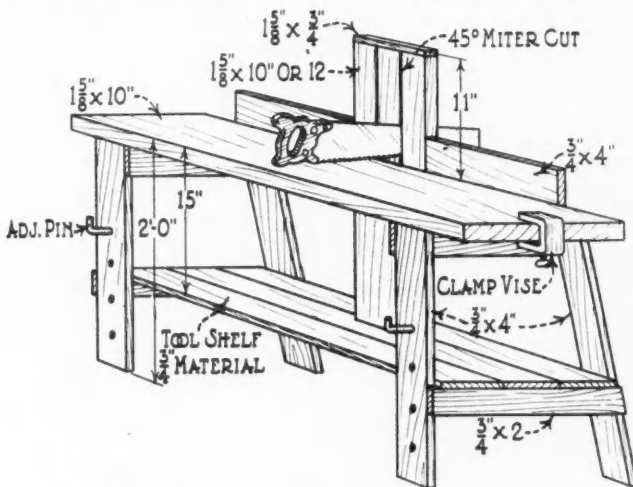
rod and bend it into the shape shown at A and B. A piece about 10 inches long bent up about 2 1/2 inches at each end is the best length. Have the ends A and B about 1/8 of an inch from perpendicular—that is, so that the "U" shaped piece is wider at the top than at the bottom.

Bore two 1/4-inch holes in the door, one in the end of the side rail and one in the bottom rail, or top rail, as the case may be, as shown. Start the holes the same distance apart as the distance from A to B, when the joint is slightly spread. Then drive the "U" shaped piece into the holes. It will draw the joint perfectly tight and hold it permanently.

There should, of course, be a groove about 1/2-inch deep and wide in the door to receive the rod and not allow it to protrude. This can be made with a gouge or chisel.—John L. Steel, Wellston, Ohio.

A Convenient Finisher's Bench

Several years ago I made a finisher's bench like the one shown in the sketch, and have passed the idea along till it is now used by quite a number of people. Since I have



A Bench of This Type Will Be Found Very Convenient in All Kinds of Trim and Baseboard Work.

never seen the idea in print, it might be good to pass along to the readers of the AMERICAN BUILDER.

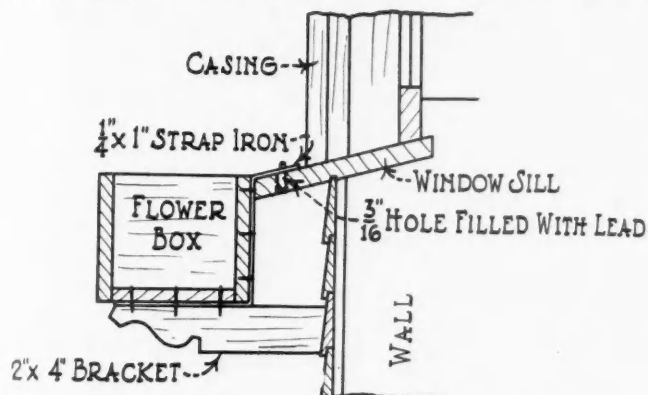
Very little explanation is needed, as the sketch shows the construction of this bench clearly and its many uses will be apparent to anyone who does trim work. The clamp vise is an essential feature. There is ample room on the tool shelf for all necessary tools. The miter cuts are in the upright at the back and take the place of a miter box.

This bench has also been called a base jack because of its great usefulness in putting on baseboards.

SYLVESTER V. WEAVER, 1725 Arrow Ave., Indianapolis, Ind.

Hanging Window Boxes

THE sketch shows a way of hanging window boxes which makes them easy to remove, and requires no brackets on the wall to rot out. Drill a $\frac{3}{16}$ -inch hole almost through the sill and fill it with white lead. Screw a $\frac{1}{4}$ -inch lag into the hole within $\frac{3}{4}$ of an inch of the head and saw off the head.



Window Boxes Hung in This Way Can Be Instantly Removed and There Are No Brackets to Rot the Wall.

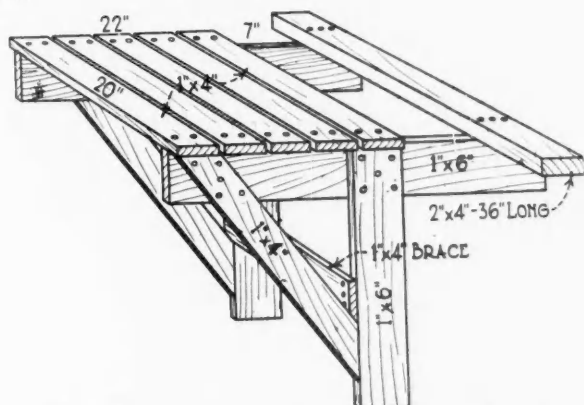
Next take a piece of strap iron, $\frac{1}{4}$ inch thick and 1 inch wide, and bend it as shown. Drill a $\frac{3}{16}$ -inch hole in this for the lag screw and holes to receive screws for attaching to the bottom of the box. Two pieces of strap iron are enough for each box and, of course, there must be a lag screw in the sill for each strap.

Cut two pieces of wood in an ornamental bracket style, as shown, and fasten these to the ends of the box. The ends toward the wall should be cut to fit against the wall. These are not fastened to the wall, but serve as braces. The box can be removed at any time by merely lifting the straps off the lag screws.

A. H. OLSON, 51 E. Main St., North East, Pa.

Window Jack Is Useful

HERE is a sketch of a window jack, as I call it, which I find very helpful in replacing broken window glass and nailing flashings on the tops of outside window casings. I have often used two of them, where two windows were on the same level, for a scaffold by placing a plank from one to the other.

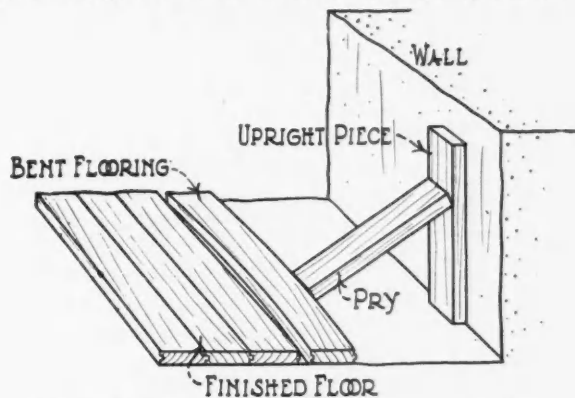


This Device Is Very Handy When Working Outside a Window and Assures Perfect Safety.

This jack is pushed out of the window from the inside and the two by four cross-piece remains inside, holding the jack very solidly. If the inside of the casing is finished, an old piece of inner tube can be nailed onto the ends of the two by four to protect the finishing against marring. I hope that others will find this as useful as I have.—H. J. Buehler, 1557 Sullivant Ave., Columbus, Ohio.

To Lay Warped Flooring

IN laying flooring, pieces that are badly bent can be used satisfactorily by the following method: Take two short pieces of waste material. Place one of them against the wall, as shown in the sketch. The other piece should be about two inches longer than the distance from the bent piece of flooring to be laid to the wall. Place this piece with one end against the bent flooring and the other against the upright piece as a pry, and drive the bent flooring into place, ham-



A Few Taps on the Pry Will Force the Bent Flooring Into Place for Nailing and Save Much Material.

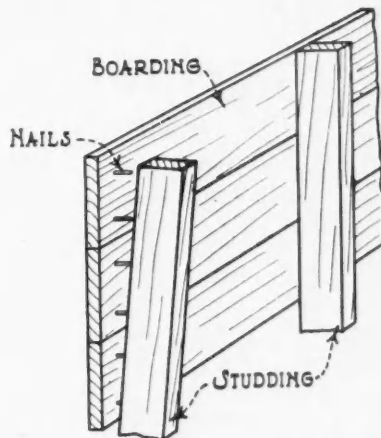
mering the pry, and nail. For laying the next strip of flooring the pry piece can be cut off a couple of inches and used again.

WERNER KRAATZ, 85 Holland Ave., White Plains, N. Y.

For Stripping Concrete Forms

IN building concrete forms, the common practice is to use common six-penny box nails to attach the sheathing or boarding to the studding or supports. In stripping the walls after pouring, the boards are taken down and laid on a saw-bench, where the nails are driven back and pulled with a hammer. This is a waste of time.

I have found it much quicker to use six-penny finish nails for the sheathing. In stripping, after removing the studding, and while the boards are still in place, grasp the projecting nails with a pair of pliers and with a sharp twist pull the heads through the sheathing. This is quickly and easily done and the boards are then ready to be piled up for re-use.



When the Studs Have Been Removed, Pull the Nails Through the Sheathing with a Pair of Pliers.

This method saves one handling, a lot of hammering and splitting of lumber, and requires only a fraction of the time used in driving the nails back and pulling them with a hammer.

L. M. HODGE, 4039 Edgehurst Ave., Los Angeles, Cal.

LETTERS TO THE EDITORS

This Department is for the use of our readers. Here you can feel free to express your own ideas on any subjects of current general interest to the building industry. No anonymous letters will be published; nor will the editors be responsible for what is said here.—Editors American Builder.

Warns of Too Liberal Terms

TO THE EDITORS:

Muskogee, Okla.

Your editorial in the June number, "Modern Trends in Home Financing," contains many suggestions which challenge the consideration of the Building & Loan manager. But should he seek to follow the advice given therein, he is confronted at once by some obvious facts and conditions that cannot be overlooked.

The first and most important of these is *real estate owned*. That is the first very difficult hurdle just now in any attempt to liberalize home loans.

If loans which have been made at 60 per cent of a fair estimated value is resulting in more possessed property than can be carried with safety or profit, and which cannot be sold without too great loss, would it be either wise or honorable to increase the per cent of value of such loans? Yet, one of the pressing problems of the Associations of the whole country today is to keep up the morale of the home buyer to go on and pay out, and own his home rather than surrender it. This is true even though he had an investment of 40 per cent of his own money in it at the start.

The depreciation in the value of real estate and overbuilding in many localities is responsible for most of this. This overbuilding adds another problem to the Associations having to take over property—the reduction of rentals below sufficient revenue to pay even the interest on the loan, much less the taxes, repairs, and special improvement assessments.

Should the Associations go on making excessive loans and in a larger number than the community can absorb merely to stimulate material buying and construction employment?

When they do, they depreciate the values of the homes on which they already have loans, thereby reducing their own security and dealing unfairly with the borrower who has already patronized them. To make loans for remodelling, improving, repairing is at all times a desirable thing. But to make loans for new constructions that are not needed, on inflated amounts, could only result in undermining their own institutions.

The safety of Building and Loan Associations is one of their greatest assets. The borrower is just as much interested in the safety of such Associations, into which he is paying for a long term of years, as the investor who furnishes the money for him to borrow. Let an Association overbuild its community, and be forced to take over large amounts of real estate and the golden stream which must flow into it to keep up the work of home ownership will stop.

As you suggest, the Building and Loan Associations must keep abreast with the times. They must even keep ahead of the times, but they can well afford to let the other fellow do the excessive loaning, and for terms of too great length, and reap the disaster which will inevitably follow—returned property in need of repairs, delinquent as to interest and taxes, and unsalable without great loss.

The AMERICAN BUILDER may rest assured that the Building & Loan Associations, through their managers, national and state leagues, are studying every problem and will co-operate

with the expectant home-owner, the material men, the builder and the country generally to the fullest extent consistent with safety. It would be disastrous to go beyond that.

R. P. HARRISON,

President Oklahoma Building & Loan League.



Some Bathroom Scales Questions

TO THE EDITORS:

Chicago, Ill.

If possible, we would like to receive some expression of opinion from practical builders regarding two problems which concern us as manufacturers of bathroom or health scales.

The first problem is in reference to the leaving of adequate spaces in bathrooms for a portable type of floor scale.

Within the past two years, bathroom scales have become increasingly popular but manufacturers of them are sometimes handicapped in their sale of them because there is no room in the bathroom to use such a scale. On the other hand, we believe that many apartments have not been rented because prospective renters see that no space has been left for the use of a bathroom scale which they have already purchased. Thus the problem is a mutual one. We believe that architects and builders should carefully consider this matter in designing bathrooms.

The second problem consists of a demand which is starting to arise covering the installation of a bathroom scale as standard equipment in a bathroom as a convenience to the renter and also as a means of securing earlier rentals of an apartment because of this unique device.

If however, a bathroom scale is to be installed permanently in a bathroom, the question at once arises as to the method of installation. Three methods of installing such scales have been suggested to us.

First. Leave a well in the floor of the bathroom in which the scale can be set. This seems to be open to the objection that it is difficult to construct this and also will collect water which will ruin or at least greatly disfigure the scale.

Second. We have been called upon to furnish several installations of scales wherein a steel rod was attached to the bottom of the scale with lugs projecting on each side perhaps one inch. These lugs were then bolted into the floor. This makes a permanent installation but one which is somewhat unsightly and it makes the floor difficult to clean.

Third. We have also made several installations wherein opening was left in the wall near the floor, scale was fitted to a bracket so that it could be let down to the floor when in use and pushed into the wall when not in use. As all bathroom scales are approximately eight inches in height, the wall must naturally be considerably thicker than this dimension which makes it difficult to adapt this method to most buildings.

Undoubtedly many of your readers have been confronted with these two problems as stated in this letter and it would be greatly appreciated if some discussion could be aroused which might lead to their solution. We are very eager to work with the builders, a great many of whom have expressed themselves as interested in making permanent installation of bathroom scales.

HANSON SCALE CO., R. D. MOCK, Sales Manager.



International Building Problems Discussed

THE fifth International Congress of Building and Public Works was held at Central Hall, Westminster, London, May 26 to 30, under the auspices of the National Federation of Building Trades Employers, the Federation of Civil Engineering Contractors of Great Britain and the patronage of the British Government. George Mowlem Burt, President of the International Federation of Building and Public Works, presided. Thirty-five countries were represented by delegates, those from the United States being:

John M. Gries, chairman, Chief of the Division of Public Construction, Department of Commerce, Washington, D. C.; Louis K. Comstock, Chairman L. K. Comstock & Co., New York City; William J. Doyle, Jr., Doyle & Co., Philadelphia, Pa.; A. P. Greensfelder, Fruin-Colnon Contracting Co., St. Louis, Mo.; John W. Harris, Treasurer Hegeman-Harris Co., Inc., New York City; Edward G. Lang, Director Department of Public Works, Pittsburgh, Pa.; Gerhardt F. Meyne, Contractor, Chicago, Ill.; Truman S. Morgan, President F. W. Dodge Corp., New York City; David T. Riffle, President National Association of Building Trades Employers, Pittsburgh, Pa.; Col. Edward A. Simmons, President American Builder Publishing Corporation, New York City; Col. William A. Starrett, Vice-President Starrett Brothers, Inc., New York City.

Noble Foster Hoggson, President of Hoggson Brothers, New York; Michael J. McDonough, President Building Trades Department, American Federation of Labor, Washington; and Lt. Col. George Walbridge, President of Walbridge-Aldinger Company, Detroit, who had also been designated, were unable to attend.

Reports on the following subjects were submitted and discussed: Rationalization; Development of Co-operative Spirit in Industry; Financial and Credit Facilities;

Workmen's Houses; Apprenticeship; Safety Measures; Scientific Research; Conditions of Contract; Recognition of Craftsmanship; Education and Training.

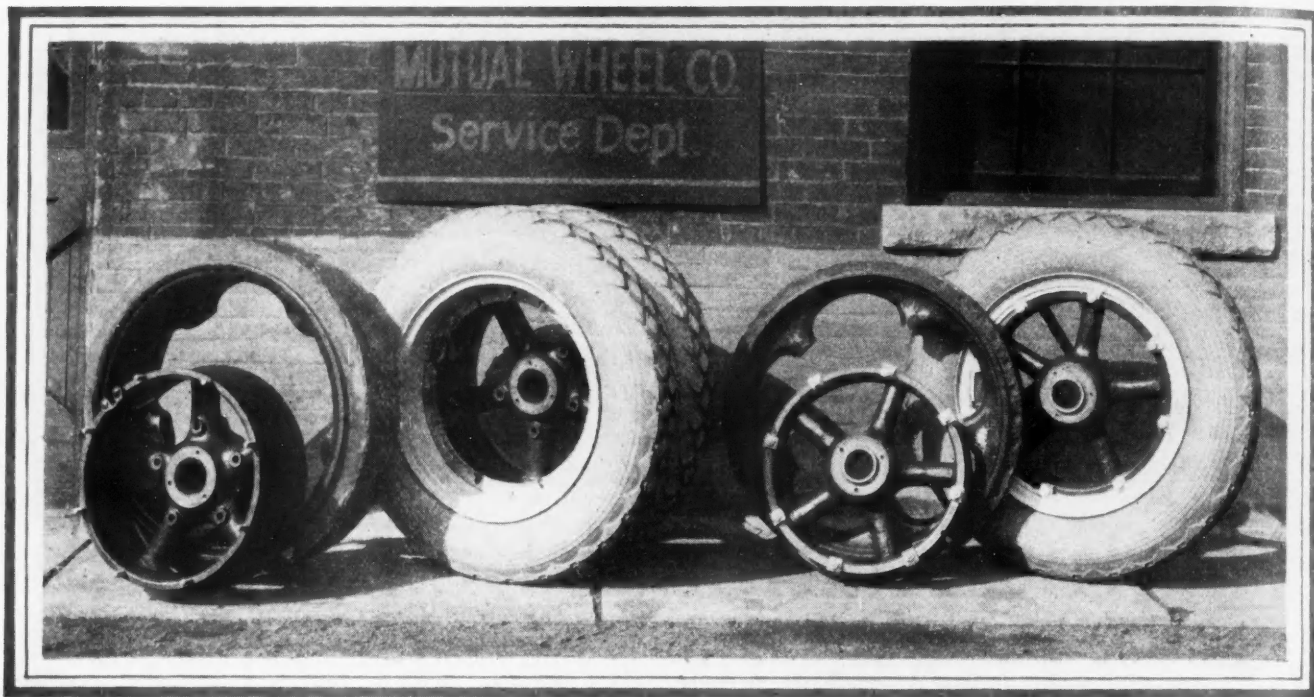
The afternoon of the last day (May 30) was given over to moving pictures having to do with building construction, shown by delegates from Belgium, Germany, America and Great Britain. The first-named described a patented foundation pile. The German film portrayed typical houses for workmen in that country. There were two from America—one by Col. William A. Starrett, Starrett Brothers, New York, showing complete details of construction of the Bank of Manhattan Building, 40 Wall Street, New York City, and the other by John W. Harris of the Hegeman-Harris Company, New York, describing a number of well known office buildings in America, including those of the Chicago Tribune, Chicago, and American Radiator Company, New York, the latter being a "talkie." Between the two from America was one showing details of construction of the ten-story building of the Chemical Foundation, London. The film shown by Mr. Harris was especially interesting.

At the closing session a number of resolutions were passed. They dealt with rationalization; credit facilities; workmen's houses; apprenticeship; scientific research; conditions of contract; and education and training.

The entertainment features consisted of a variety entertainment and moving pictures, two different theatres, a reception by H.R.H., the Duke of York, K. G., and a banquet. May 29 was given over to visits to a cement works near Gravesend and to Hampton Court Palace. Following the close of the convention, some of the delegates took advantage of an eight day tour of inspection of industrial and public works at Birkenhead and Liverpool; Glasgow; Edinburgh; Newcastle; Leeds and other centers.

Three Rules for Better Service From Truck Tires

By FRANK W. FOX



Wheel Changeover Showing Old Solid Tires on Original Felloe and Spoke Ends. In front of solid tires are the rebuilt wheels and single pneumatic tire felloes.

PERHAPS in the reader's experience, tires for trucks have been one of those "thorns in the side", always irritating but too small compared to other problems to command that limited period of undivided attention necessary to a complete and lasting ending of the tire problem.

For it is the tire industry's contention, backed by the experience of thousands of users that, in this year of 1930, tires are being built to give maximum and uniformly satisfactory service and here are a few of the simple rules which can bring to you such results.

- 1.—Buy the right type of tire.
- 2.—Buy the right size of tire.
- 3.—Buy with the right provision for proper care of your tire equipment.

The Right Type of Tire

In explanation of Rule 1, it perhaps is unnecessary to explain that there are four basic types of tires in the large sizes used on trucks and buses—solid, cushion, high pressure pneumatic, and last, the newcomer, balloons.

Solid and cushion are similar in outer appearance, though the latter type is generally higher and dissimilar in internal construction because the cushion has an inner circumferential cavity extending from the base approximately midway to the tread surface. The chart shows the effect of the cushion construction by les-

sening the impact of this type on the road and consequently the vibrations and shocks transmitted to the vehicle and its load by a wide margin below that of solid tires.

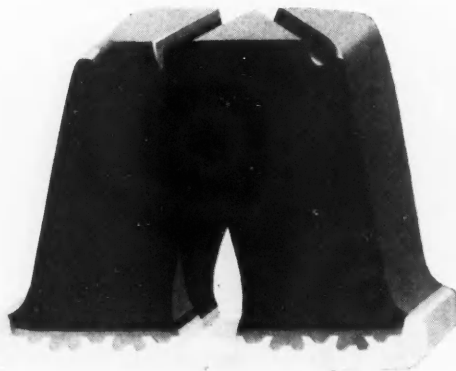
Again, high pressure pneumatics excel cushions on this same point and are in turn "out cushioned" by balloons—the type developed in the past four or five years, since balloons have proved such superior equipment for passenger cars.

Other factors in selection of the type of tires are maximum speed possibilities (indicated on the Cushioning and Speed Chart) and traction. In both these respects, the ranking is exactly the same; solids, the oldest type, having the lowest speed limit and least traction, while balloons have the speed of this modern age with the sure-footedness that makes for speed with safety.

So measure your transportation problem by these "yard sticks." Buy the type that has adequate reserve in those respects in which your service is most exacting and then you will have made a good start toward freedom from tire trouble.

The Right Size of Tire

Ever since tires were first made, there has been a load limit beyond which the maker knew it was not wise to burden each size and load charts have always played a prominent part in tire literature. But often the buyer felt that such load limits were absurd, so he tried the tires out under 10 per cent, 20 per cent, 30 per cent and



Cross Section of the Cushion Type of Truck Tire.

higher overloads. At first, nothing happened, so he decided he was right and from then on he read about the wonderful tire mileages others were getting, but somehow no matter what make of tire he selected, those "good" tires did not fall to his lot.

Tires, like humans, have a life expectancy—measured not by years but by ton-miles. And as the penalties of fast driving are arteriosclerosis, nephritis, et cetera—likewise overloading your tires is certain to develop breakdowns and blowouts.

Tire manufacturers test their tires constantly under overloads and do not adopt a new construction until it has proved itself free from weakness or lack of balance. Such a tested construction is then surely able to give a fair return on its price to the buyer who will be satisfied to take his ton-miles in portions of the size recommended in the load tables. Overloading overdistorts all types of tires, causing excessive internal strains, excessive heating and ageing of rubber compounds and excessive wear of tread rubber—all these conditions reduce the normal service regardless of type.

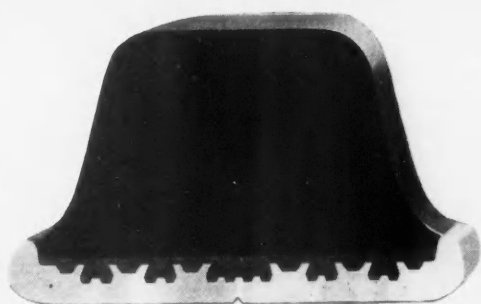
Buying the right size of tire—determined by actually weighing your maximum loads, wheel by wheel—leaves that reserve strength provided by the makers for the unusual shocks and strains of road irregularities, sudden stops, etc.—the tires carry the load with one hand free, so to speak, with which to ward off danger. This rule is the one most often broken by tire buyers—consequently the one which costs them most in lost ton-miles. Give right size tires one good, honest trial and you'll fire the driver that overloads.

Proper Care of Tires

Given the proper type of tire and the proper size, the matter of care becomes an easy task. Tires of proper type and size will run for their normal life with a minimum of attention but proper care is nevertheless a necessity if the utmost in service is to be received from them.

In the case of solids and cushions, this consists chiefly of care in application—proper centering on the felloe of the wheel and the use of extension rings to support overhang of base bands which extends more than 1/4 inches beyond the edge of the felloe. When in service, tires should be inspected regularly for cuts along the edges of the tread which should be trimmed to prevent enlargement and for metal objects or stones embedded in the rubber which should be removed.

When non-skid tread designs of some makes of solid and cushion tires are worn down, they may be renewed by regrooving with special tools made for that purpose. Flat spots caused by skidding with locked wheels, misalignment or other wheel irregularities can also be removed by a special trimming machine which restores the tire to a perfect circle, eliminating "bumping." Otherwise, removal before worn down to the normal limit would



Cross Section of the Solid Type of Truck Tire.

be necessary. Removal of worn tires at the time when their reduced cushioning, through wear, fails to give adequate protection to the vehicle and its load is economy and a point of proper care too often overlooked.

As for pneumatic tires, both high pressure and balloon, careful application, which involves removal of rust and bent places from the rims, the use of good tubes and valve cores, insertion of flaps—smoothly and properly centered, and finally, inflation to the correct pressure, is the first item of proper care.

Most important in the care of pneumatics is regular attention to maintaining proper pressure at all times. This includes daily or at least biweekly inflation as well as checks on the road of tires used in long distance service. Due to internal heat, the pressure tends to rise for the first hour or two of sustained operation, and to avoid trouble the extra pressure must be released.

This latter practice is just as necessary and the drivers should regard it in the same light as the refilling of the radiator, gas tank and oil supply on the road. Failure to avoid over-inflation when tires are heated to high temperatures by rapid and continuous flexing on long hauls may lead to complete failure by blowout during even the first day's use of a tire. When the tire has become cool at the end of the trip, the pressure, which will then be below normal, should be again raised to the recommended figure.

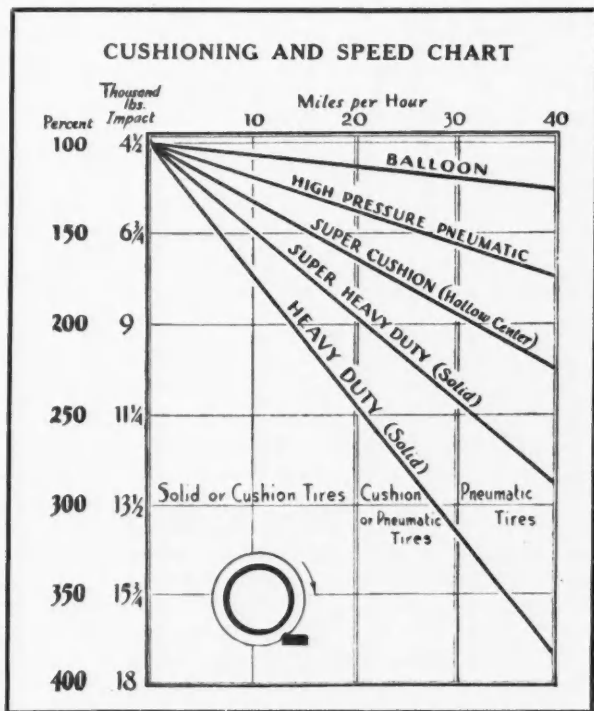
Under-inflation of pneumatic tires affects them just as overloading does from the standpoint of excessive distortion and flexing. Sidewall breaks, due to the bending action concentrated in the shoulders, are probably the most common causes of premature failure of pneumatic tires.

Resistance to this type of failure is an even more difficult factor for the manufacturer to build into his product than adequate strength of carcass to confine the recommended pressure and to absorb road shocks, for an average size truck or bus tire at 30 M. P. H. flexes 300 times a minute.

Tires must flex millions of times in their normal life and proper inflation is essential to restrict this flexing to the degree which experience has proved to be safe.

Inspections of treads for foreign objects embedded in the rubber and for small cuts, which if neglected tend to enlarge, should also be regularly made every week or two. "A stitch in time saves nine" and a number of small repairs can be made more cheaply than a single large one, while neglected small injuries may develop into injuries too large for repair, losing thousands of miles of potential service.

Matching of dual pneumatics used on crowned roads to distribute the load on the wheel evenly as possible between the two tires will add materially to tire mileage. The inner tire on crowned roads should be one that is worn down somewhat more than the outer tire or it will carry extra load, which tends to cause rapid tread wear.



This Chart Shows the Cushioning Effect of the Various Types of Tires at Varying Speeds and Loads.

These major items of proper tire care, as well as the many minor items, will have proper attention only if definite responsibility is fastened on some individual. Whether this person is the tire dealer from whom the tires are purchased or someone in the operator's own employ, this work should always be entrusted to a tire expert. Adequate facilities for proper tire care involve a fairly heavy capital investment but the returns on this investment are more than sufficient to pay handsome dividends in tire mileage if a definite and regular plan of tire care is followed out.

Change Alone Is Constant

Since the above heading is true, many truck owners in the past year or two have found that even though after analysis they had had their trucks fitted with tires of the right size and type properly serviced, and immediate results were satisfactorily low tire costs and freedom from trouble, this situation did not long continue. Further analysis showed that operating conditions had changed and so further adjustment of tire type, size or care were necessary to offset these changes.

Many cases of this kind have been due to increasing speed and hauling range of the service given by these vehicles. Trucks formerly in local service at normal speeds have been changed to interurban operations where speeds are higher or increasing business has prompted heavier loads. So there has been a constantly increasing number of changes in tire equipment from solids to cushions or to pneumatics, either high pressure or balloon, the cost of which can quickly be recovered by greater operating efficiency.

On the other hand, costs may be increased without offsetting advantages for the owner by changeovers made when the old equipment is adequate for the job or if the change is to pneumatics from solids when cushions would be satisfactory. Consequently analysis should precede any decisions on changeovers. Consult the tire dealer or manufacturer's representative, who are in close contact with tire problems at all times and will be able to serve in the capacity of your specialist.

Help with Financing

(Continued from page 52)

possible. Each year a certain number of the notes would be paid off. An annual fair, plus a number of dances, would be held in the community house and the proceeds used to reduce the debt.

At the annual meeting all of the numbers of the outstanding notes were marked on cards and these thrown in a box and mixed up. A child was selected to take out 50 of these cards. This \$500 worth of notes was paid off. The holders of the notes secured their one year's interest and many of

them were dissatisfied to give up the notes. The next year, \$1,000 worth of the notes plus the interest was cleared off. In a few additional years the entire debt was wiped out. There was no mortgage, no fuss and no dissatisfaction.

Just imagine going through with the financing of such a building job along established lines. The additional cost of lawyers, title search, examination by inspectors from the loaning company, etc., all saved by a builder's common sense suggestion. We are glad to say that he secured the contract for the job and made his profit. He earned it!

Now, what was done in this community can be accomplished in hundreds of others. There are plenty of jobs floating around, if we would only get to work and do a little thinking of how to finance them many of the jobs would be ours.



Unemployment 4 Per Cent Less

Figures for May as Compared with Those of April Indicate Trend Toward Normal Building Activity

A DROP of 4 per cent in May figures for unemployment in the building trades, prepared by the American Federation of Labor, as compared with April figures, is taken as an indication of a gradual trend toward normal conditions in the construction industry.

City—	April Per cent	May Per cent
Atlanta	5 dec.	15 dec.
Baltimore	1 dec.	1 dec.
Birmingham	4 inc.	19 dec.
Boston	7 inc.	7 inc.
Buffalo	7 inc.	4 dec.
Chicago	4 dec.	2 dec.
Cincinnati	1 dec.	2 dec.
Cleveland	12 dec.	4 dec.
Denver	9 dec.	14 dec.
Detroit	3 inc.	2 dec.
Jersey City	2 dec.	1 dec.
Los Angeles	8 inc.	no ch'ge
Milwaukee	3 dec.	8 dec.
Minneapolis	1 inc.	9 dec.
New York	5 inc.	8 dec.
Omaha	8 inc.	4 inc.
Paterson, N. J.	3 inc.	15 dec.
Philadelphia	2 inc.	4 dec.
Pittsburgh	2 dec.	4 dec.
San Antonio	1 dec.	21 dec.
San Francisco	1 dec.	5 dec.
St. Louis	6 dec.	4 dec.
Seattle	3 dec.	1 dec.
Wash'gton, D.C.	3 dec.	1 inc.

Unemployment in the building trades last month was 36 per cent as compared with 40 per cent in April and 41 per cent in March.

Only three cities listed show an increase in unemployment in the building trades—Boston, 7 per cent; Omaha, 4 per cent; and Washington, 1 per cent—while notable decreases in unemployment were shown in three southern cities, two in the middle west and two in the east, as follows:

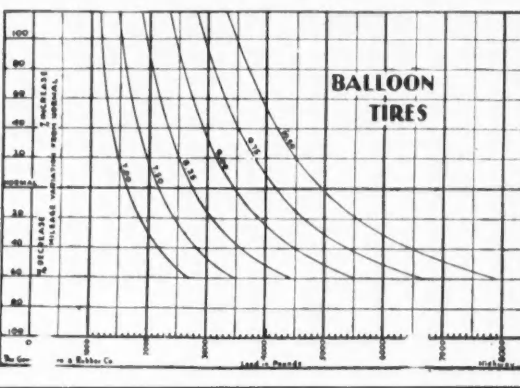
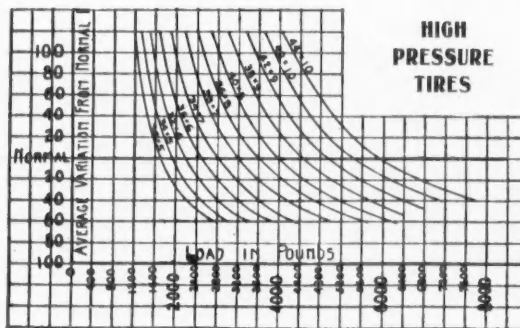
Atlanta, 15 per cent; Birmingham, 19 per cent; San Antonio, 21 per cent; Denver, 14 per cent; Milwaukee, 8 per cent; Minneapolis, 9 per cent; New York, 8 per cent; Paterson (N. J.), 15 per cent.

The above table shows the increases and decreases registered in April and May from the preceding month.

EFFECT OF OVERLOADING ON PNEUMATIC TIRE TREAD WEAR

The amount of load on a tire governs to a certain degree the rate of tread wear. This variation, due to load (all other factors remaining the same) is shown on the charts below. The chart may be used to show that oversize tires will give additional mileage to more than offset the extra initial cost.

For example, if the present equipment is a 36x6 tire on which a load of 2,800 pounds is being carried, we look on the chart to see where the 36x6 line crosses the 2,800 pound line and find at the left that the tread will be worn out in 22% less mileage than would be received with the tire loaded to 2,200 pounds, its recommended maximum. With 2,800 pounds load 38x7s will give 32% more than normal mileage or 54% more than can be expected from 36x6s. As the difference in price is considerably less than 54%, a lower cost per mile would be obtained by the use of oversize tires.



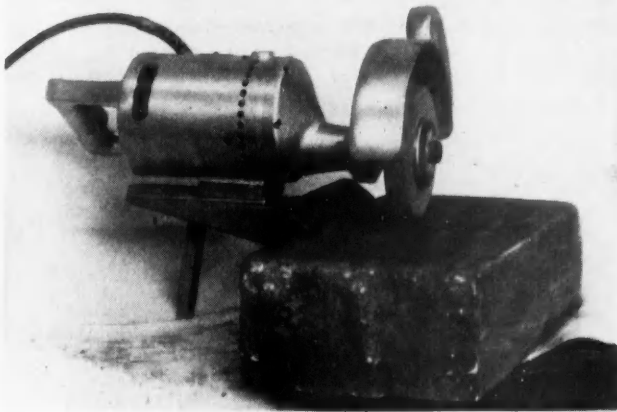
What's New in Contractors' Equipment

For further information in regard to any item described in the "What's New Departments" address American Builder Information Exchange, 105 W. Adams St., Chicago

Machines for Cutting Drip Grooves

A WELL known company manufacturing a high grade line of power tools, including buffers, drills, nut-setters, screwdrivers, grinders, sanders and polishing machines, hack saws, and stone cutting, grooving and drilling machines, has developed a special carriage which extends the field of usefulness of its groovers.

This special carriage makes it possible to cut drip grooves in stone sills much more rapidly and satisfactorily than it can be done by hand. For this purpose a special beveled wheel is used. The same outfit, with a straight-faced wheel, can be used to cut grooves around the edges of marble slabs. The carriage is adjustable both in and out, and up and down.



Stone Groover Mounted on a Special Carriage for Cutting Drip Grooves in Stone Sills.

Since it is necessary to cut drip grooves on the underside of all window sills, to prevent water getting into the walls of the building, this carriage proves a real economy wherever a number of stone sills are to be installed.



Compact Paint Spray Unit

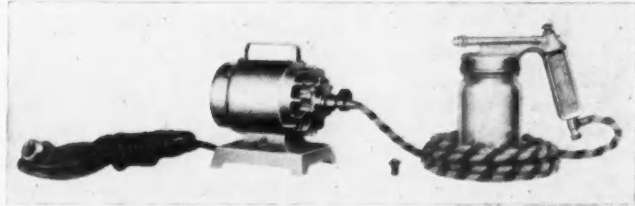
THIS new spray-painting outfit provides in one compact, easily portable unit of ultra-modern design splendidly efficient equipment for all light duty work. Its price is low, but it offers surprising capacity and dependability.

The light weight and compact size of this outfit give it a truly universal utility. It occupies no more space than an electric chafing-dish. The specially designed air compressor and 1/5-h.p. universal electric motor which drives it, weigh but 5¼ pounds. The spray gun weighs but 1¼ pounds, and does not tire the arm even with long continued use.

The spray-painting outfit embodies specific features which give it surprising capacity and efficiency for a spray outfit of its type and price. The high air pressure produced by the powerful little motor and the advanced design of the pressure feed spray gun produce a complete, fine atomization of the material and assure the superior results achieved by big capacity outfits. Easy adjustments of the air cap of the gun enable the operator to atomize perfectly any of the various paints, lacquers or other material that may be in use.

Two air caps give a choice of round spray or a full fan

spray several inches wide. The atomizing efficiency of this spray gun makes it possible to use practically any kind of painting or finishing material. It will also spray insecticides



One Compact Unit Suitable for All Light Duty Work and Easily Portable.

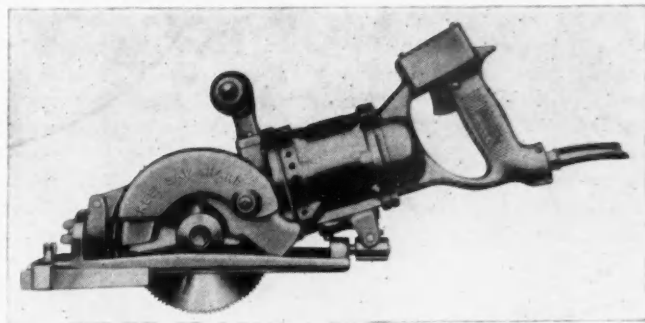
and disinfectants effectively. The pint size glass container has standard Mason jar thread. Ordinary Mason jars can be used for extra containers.



New Model Electric Hand Saw

THE illustration shows a new model electric hand saw which has recently been added to a well known line of electric tools. It is made in three sizes, 6-inch, 8-inch and 10-inch blade diameter. This saw has been developed to increase production sawing of all kinds of wood and, with the use of an abrasive disc to cut slate, marble, asbestos, transite, tile, porcelain and similar materials.

The saw is driven by a universal motor operating on either direct or alternating current. It conforms to the most modern safety practices, incorporating an automatic safety switch and automatic telescopic guard. The safety switch starts the saw when the trigger is pulled, but cuts off the current the instant the trigger is released. The telescopic guard automatically opens as the saw enters the work and closes over the blade when the cut is finished, affording the utmost protection to the operator.

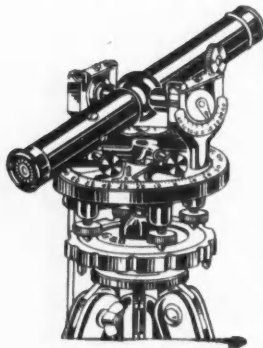


A New Electric Hand Saw Made for Six-, Eight- and 10-Inch Blades.

These saws are fully adjustable, having thumbscrew adjustments for regulation of depth of cut, width of cut and a graduated adjustment for beveled cuts, all at the operator's finger tips. The depth of cut is adjustable to a maximum of 1¾ inches for the 6-inch blade, 2½ inches for the 8-inch blade, and 3½ inches for the 10-inch blade. Each saw is packed in a compact case for shipping or carrying to the job.

Level-Transit Improved

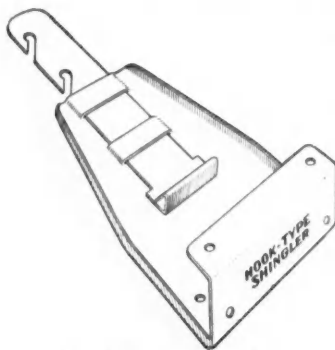
ONE of the leading manufacturers of instruments has recently made a number of important improvements in its builders' and contractors' convertible level-transit. These improvements include a shifting center; six-piece, high-grade lens system; vertical arc; machine engraved horizontal circle, and 10-minute, easy reading vernier; ground level vial with divisions marked on the glass; simple provision for detachable compass; and an extension tripod. All parts are made to gauges and are easily replaced.



Several Improvements Have Been Made in This Builder's Level-Transit.

This instrument possesses a patented feature which utilizes the wyes for both level and transit position without any extra parts, permitting the exclusive feature of a simple, easy and quick set and check-up at all times. The price of this improved instrument is quite reasonable.

Steel Bracket for Shingling



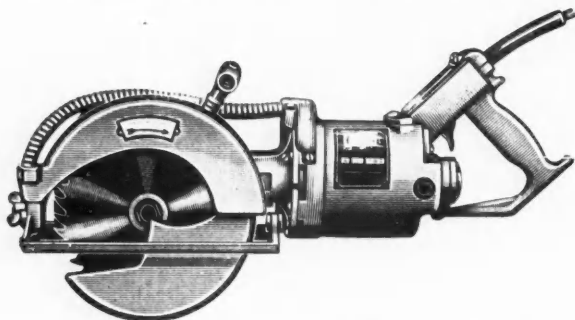
The New, Galvanized, Stamped Steel Roofing Bracket Does Not Mar Asphalt Shingles.

A PROMINENT manufacturer of roofing brackets has added another item to its already complete line. This is a hook type shingler which is a stamped steel bracket, galvanized, designed to hold effectively a 2 by 4 for a stop in roofing work. It is particularly adapted for applying asphalt shingles and is so designed as not to mar the surface. This shingler has an adjustable nail strip which is quickly attached and detached.

Improved Electric Hand Saw

THIS portable power saw is built for hard continuous satisfactory service. It is a thoroughly tried and tested quality product. It is designed to satisfy the demand for more power, greater speed, longer life, and smoothness in operation in electric hand saws. It is guaranteed in every respect as to material and workmanship. For power and safety it is exceptional.

The saw is operated by a powerful 110-volt universal electric motor. 220 or 250-volt motors may be had if so ordered.

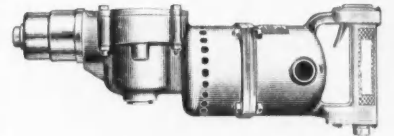


An Electric Hand Saw That Is Built for Hard Continuous Service.

The price includes one saw, two combination rip and cross cut blades, one steel carrying case, one Alemite gun and one wrench. This saw is offered in two models which differ only in cutting capacity. One model affords a maximum cut of 2½ inches with an eight-inch blade, the other cuts 2¾ inches with a nine-inch blade.

Electric Hammer Line

ONE of the well-known tool manufacturers has purchased and is now marketing a line of electric hammers. This is a light weight, well balanced line in which a patented mechanism delivers powerful blows to the cutting tool without transmission of the shock to the motor, housing or operator. They are equipped throughout with ball bearings and all parts of the mechanism are made from special alloy steels.



These Electric Hammers Are Available in Two Types for All Kinds of Drilling in Masonry.

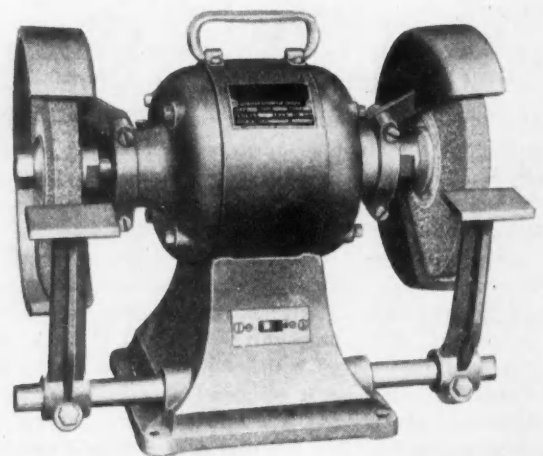
The line includes two types. One of these weighs only 10 pounds and has a capacity of 1¼ inches in concrete. Its length over all is 16¼ inches. It delivers 2,500 blows per minute. It is powered with a universal type motor and can be furnished for 110, 150, 220, or 250 volts, as specified.

The second type has a capacity of two inches in concrete and weighs 22 pounds. It can be supplied for all voltages the same as the other model.

These hammers are particularly suited to drilling in concrete; brick or stone for expansion shields; drilling through walls, floors and foundations; chipping for electrical fixtures and pipes; chiseling wood or steel, and vibrating castings and forms.

New Portable Grinder

TO complete its line of portable grinders, a well known manufacturer of electric tools has announced a new seven-inch bench grinder for sharpening all sorts of edged tools and light grinding. It is a compact, sturdy, ball bearing grinder with the ball bearings mounted in dustproof housings.



A Compact, Sturdy, Ball Bearing Grinder Which Operates Smoothly at All Speeds.

It is exceptionally smooth running and vibrationless at all speeds due to its dynamic balance. It is furnished complete with grinding wheels, adjustable tool rests, wheel guards, switch and cable and is available for all voltages and currents.

Improved Type Level-Transit

THE new model level-transit shown in the illustration has recently been announced and is of particular interest to contractors and builders because of certain patented features it incorporates. These features include a 12-inch telescope



A Transit - Level with Special Features Appealing to the Builder.

with a magnifying power of 25 diameters, enabling the operator to read the figures on an ordinary rod at a distance of 1,200 feet.

By a simple and quick method the telescope can be changed from the level to the transit position, permitting a tilting of 46 degrees above and below the horizontal line.

A shifting center enables the operator to shift the entire instrument over a given point without disturbing the adjustment.

The standards are made of steel-like bell metal cast in one piece with the base. This is an entirely

new construction and insures easy and permanent adjustment.

This manufacturer's rental-purchase plan enables a contractor to buy this latest model instrument with a small cash payment and the balance in convenient monthly payments.

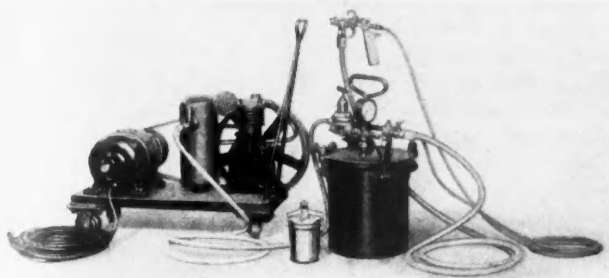


Two New Painting Units

A WELL known manufacturer of all types of spray painting equipment has announced two new units. One of these is a portable outfit which has been designed to meet the requirements of master painters, decorators and builders who need an outfit for medium and small painting jobs, all kinds of buildings, and for refinishing furniture and store and office equipment.

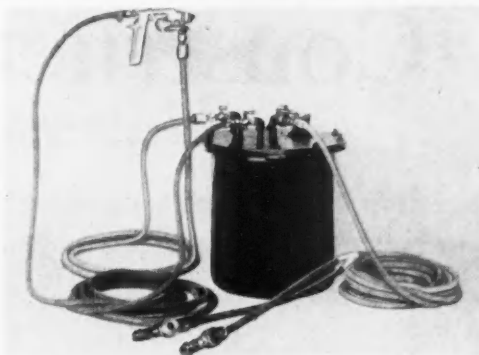
This unit is easily portable by one person, yet it is of sufficient size to produce quality work at a surprising speed. It operates economically from any light socket. The air compressor unit is belt driven and connected to a ½ h. p. General Electric motor. It has an air displacement of 3½ cubic feet of air per minute. The unit is equipped with a spray gun, two gallon pressure material container and the necessary lengths of air and material hose.

The second unit operates without an air compressor, receiving its air pressure from any automobile, truck or tractor engine. By simply removing two spark plugs from the cylinders of the motors, inserting the two air pressure valves, starting the motor and allowing it to idle, there is produced a free passage of air on the downward stroke of the piston. The upward stroke compresses the air drawn in and supplies it to the spray gun in ample volume and pressure for good results.



New Portable Paint Spray Unit Operating from a Light Socket.

This outfit is suitable for applying paints, lacquers and varnishes to all surfaces. It is a complete unit equipped with a container which accommodates a five gallon can of



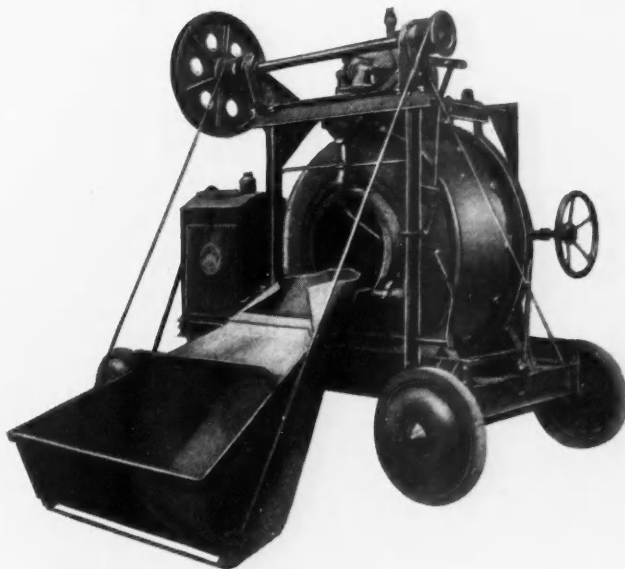
This Paint Spray Unit Requires No Compressor, Operating from the Cylinder of a Truck or Automobile.

paint; a check valve on the container; 25 feet of air hose; 25 feet of material hose between the gun and container; and a spray gun attached to a quart size, detachable pressure cup. The double valve hook-up has 25 feet of ⅜-inch air hose with "Y" connection and two 3-foot lengths of hose with valve connections on each end to attach to the engine.



Concrete Mixer Improved

THE old model 7-S mixer of one of the well known mixer manufacturers has been redesigned with changes and improvements based on the suggestions made by contractors. When the new model was planned contractors were asked for suggestions and their ideas were cleared through the company engineers.



A Well Known Concrete Mixer Improved by Expert Engineers Along Lines Suggested by Contractors.

The contractors asked for large capacity, long life, light weight, simple operation, and lubrication, plenty of speed, improved water control such as found in the larger mixers and portability. The present model is built according to these specifications.



"Time Means Profits" is the title of a pamphlet issued by the International Cement Corporation, 342 Madison Ave., New York.

What's New in Construction Materials

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Waterproofing Compound Controls Setting of Concrete

AFTER being used with complete success for more than 15 years in Europe, South Africa, Australia and the Orient an important cement waterproofing compound has just recently been introduced into this country and is already attracting widespread attention because of its remarkable effectiveness. This is a product of Swiss origin used for waterproofing concrete and cement without removing the water pressure.



Seepage Through Concrete Is Easily, Quickly and Permanently Stopped with This Compound.

This compound causes portland cement, cement mortar, and cement concrete to set in any given time from a few seconds up to normal, the time being absolutely under the control of the user. It will set cement or cement concrete under either still or agitated water in a few seconds and within a single hour produces

a tensile strength up to 100 pounds per square inch.

The compound is made in several different types suited to different uses. The normal setting types are used for waterproofing cement plastering or cement concrete where there is no actual seepage, only dampness. They can also be applied to lime plastering, natural and artificial stone and brickwork.

The quick setting types are used to stop seepage or gushing through concrete. They will cause a cement rendering to adhere and set on a surface over or through which water is running without having to remove the water pressure, and will cause a cement or cement mortar to set in, remain in, and completely seal a hole leak or joint in a structure through which water is pouring under pressure without having to remove the pressure. The work done under such conditions is permanent and actual experience has shown that waterproofing done with this compound remained perfect after 10 years or more.

This waterproofing also gives immunity against the corrosive action of seawater and other weak chemical solutions, including the acids formed in ground water, and prevents sweating, efflorescence and fungoid growths. Cases involving the protection of concrete against strong chemical solutions require special treatment and are given special service by the manufacturers of the compound.

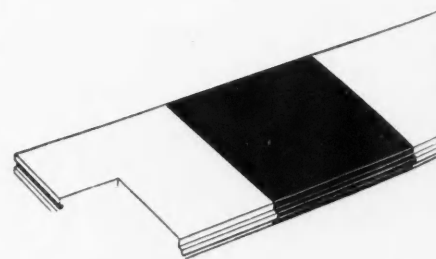
It is stated that in the years this material has been used

it has never known a failure and it is used constantly for the solving of the most difficult water problems in concrete work of all kinds.



Distinct New Rubber Flooring

A RUBBER floor, not merely a floor covering, is molded in a board 10 feet long by 6, 8, 9, or 12 inches in width by $\frac{1}{4}$ or $\frac{3}{8}$ inches thick, with tongue and groove on sides and ends, with an expansion or separating joint between each block, also a cushion back for resiliency.



Moulded Rubber Flooring, Not Merely Floor Covering, Is Not Affected by Expansion and Contraction.

The expansion joint is for the purpose of compensating for any expansion or contraction without disturbing the joints.

The tongued and grooved feature also makes it possible to always have even joints on the surface and allows materials to be installed on either wood or concrete base without an additional cost for surfacing. It prevents any possibility of the rubber coming loose from the subfloor, making a water-tight joint.

Any combination of colors can be used to form attractive pattern designs.

A feature of this type of rubber flooring is in the ease of installation—a workman laying one board having 12-inch squares has installed ten square feet with practically the same amount of labor and time that is required to set a single 12x12-inch block.

The product and method of producing same are covered by several patents, with other patents pending.



Outlet Locking Rings

THE locking ring illustrated may be attached to all single convenience outlet plates. When used according to directions, it makes a permanent connection between the cap and the receptacle. They cannot pull apart from twisting or pulling cords. The cap is easily locked in place by turning to the right the swivel bracket, as shown in the illustration.



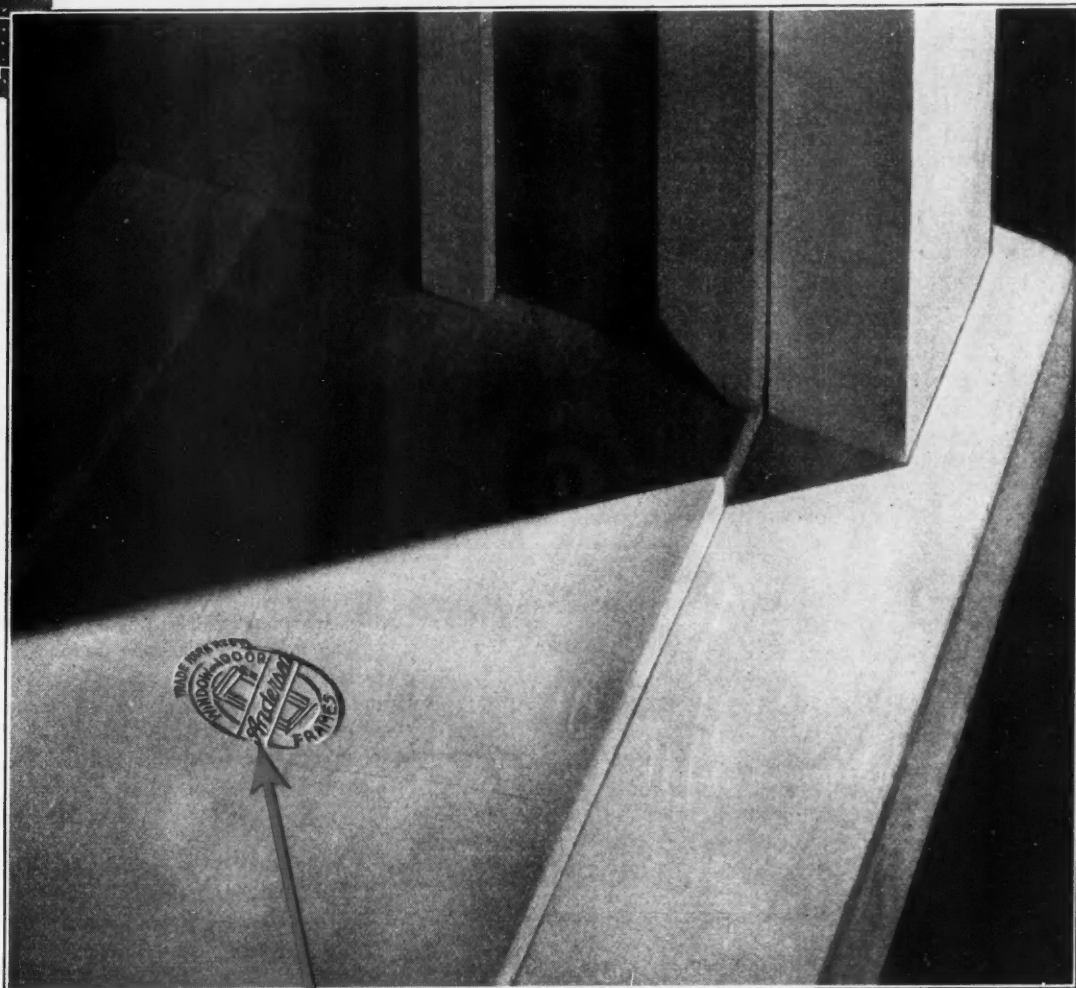
A Locking Ring Which Prevents Cap and Receptacle Pulling Apart.



Johns-Manville Corporation, 292 Madison Ave., New York, has issued a booklet, "It Saves, It Builds, It Insulates," illustrating the use of Johns-Manville insulating board.



Each day more builders are using New Andersen Master Frames to cut labor costs



The new Andersen Master Frame (solid sill) showing diecut circle trade-mark, guarantee of quality. This frame also made in sub-sill type.

BUILDERS are actually cutting labor costs as much as \$1.00 per opening with the new Andersen Master Frame with the new locked sill-joint.

Also they get better construction because of the patented locked sill-joint, the wide blind stop, the steep sill slope—the many other exclusive Andersen features.

Note these facts: The Master Frame, of genuine white pine, is complete. You can set it up in 6 minutes.

You can fit all sash and cut all trim at the bench. These frames are accurate—jamb cannot bulge or buckle. Master Frames do not leak. Pulleys are noiseless; pulley cords do not jam.

Builders get quick service because there are 3,500 Andersen dealers, including one near you. Write us for his name. Andersen Frame Corporation, Bayport, Minnesota.

Andersen MASTER Frames

OF GENUINE
WHITE PINE



FOR WINDOWS
AND DOORS

BAYPORT

MINNESOTA

FOR WEATHERTIGHT INSTALLATIONS — USE ANDERSEN SPECIFICATIONS

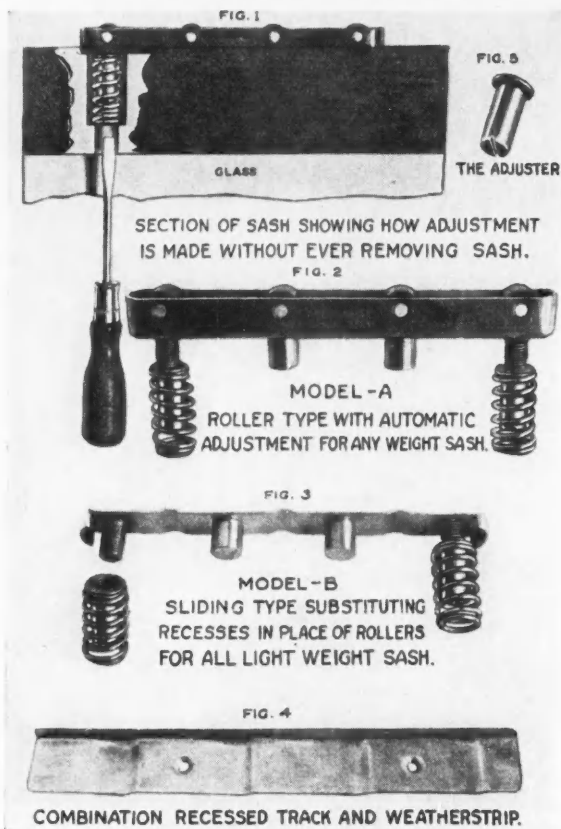
WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Better Sash Holders

THE illustrations show, quite fully, the construction and operation of a new type of sash holder which is a distinct advance in the development of perfect window operation. This sash holder eliminates all weights, cords and pulleys and the ordinary box frame and also weatherstrips the window. It is made in two types, with rollers for heavy sash, and with a sliding strip for light weight sash.

The combination, recessed track and weatherstrip, Fig. 4, is applied to the window frame and forms a track against which the sash slides. The pressure of the rollers in the roller type, or the recesses in the sliding type, into the recesses in this strip, hold the sash at any point.

The roller portion, Fig. 2, or the sliding strip, Fig. 3, is set into holes bored in the edge of the sash. When the sash is installed, the rollers or recessed sliding strip bear against the sliding strip on the window frame. The tension



Adjustable Sash Holders for Light or Heavy Sash Are Efficient and Economical and Weatherstrip the Windows.

of this pressure is adjustable, as shown in Fig. 1. Only a screw driver is needed for making the adjustment.

These sash holders not only eliminate cords, weights and pulleys, but also save in construction costs because box window frames are unnecessary. The solid frame keeps out the cold air and dirt which ordinarily filter in around the window frame. The sliding strip on the frame is an effective weatherstrip.

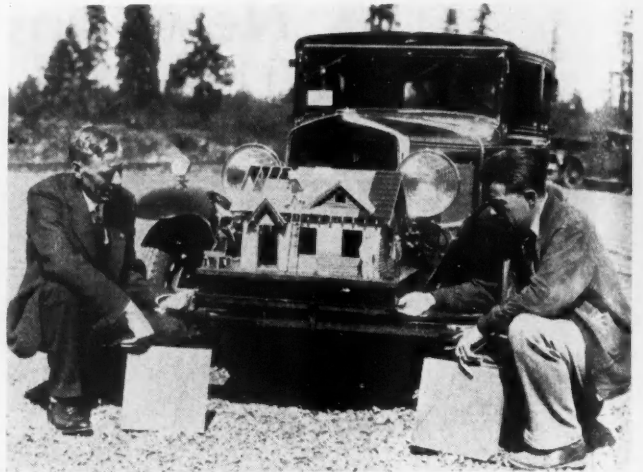
A New Insulating Material

MADE from 100% wood base without any adhesive binder, a new insulation material has been produced which embodies all of the best features of insulation plus unusual structural strength, water-proofing and fire resisting qualities.

The method of manufacture involves the use of sawmill waste, principally Douglas Fir from the forests of the Pacific Northwest. The clean wood and bark is disintegrated into long fibre by the application of steam and hot water. Then

by a patented process it is pressed into board with the fibre so interlaced that it has extraordinary structural strength with many times the natural insulation value of the wood.

Tests have been made both at the experimental plant and



This Model Shows the Wide Range of Use for the New Fiber Board Insulation.

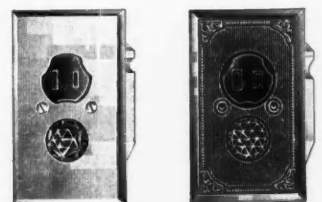
in nationally known laboratories using for the purpose a specially constructed testing device termed the "Hot Plate System", which proved conclusively that, after several hours of intense heat applied to the lower of two iron plates between which the board was placed, the temperature of the upper plate had reached only about one third that of the lower heated plate. The new insulating material has also demonstrated a remarkable resistance to expansion, contraction, warping or buckling.

The uses of the new insulation product are wide and varied and include sheathing, roof insulation, plaster base, and for all building purposes requiring this type of material. It will be produced in standard sizes 4 feet wide and in lengths to 12 feet, also lath 10 inches and 12 inches by 40 inches.

Outlet with Signal Combined

THE accompanying illustration shows two new electric outlets which have recently been placed on the market.

These outlets combine a flush receptacle with a bull's-eye signal which remains lighted as long as the current is on. They are especially suitable for wiring kitchens, dining rooms, laundries, bedrooms and other rooms where various electric appliances are used. They guard against the hazard of heating appliances being left "On." They are made in



These Outlets with Bull's-Eye Signal Are of Brass and of Molded Bakelite.

two styles as shown. One style has a brass plate, the other a molded bakelite plate with a ribbed surface and art border. Both are neat in appearance and harmonize with the room decorations. They offer one more selling feature for the well-equipped home.

"Isolation" is the name of a periodical published by the Korfund Co., Inc., 235 E. 42nd St., New York, the first issue of which appeared in April of this year. It is "a publication devoted to the study and application of sound-proofing of buildings and the isolation of machine vibration" and contains various articles written by experts in this field.



Watertown Builders Supply Company, 418 Arsenal Street, Watertown, Mass.—
another company which uses Goodyear Tires exclusively.

It stands to reason you can haul more

BUILDING MATERIALS *on Goodyears*

Everybody wants long service from tires. Everyone wants freedom from trouble. Everyone wants safety—and a low cost per mile.

It stands to reason that the tire which meets these requirements best is the tire that will be most widely used. And *more tons are hauled on Goodyear Tires than on any other kind*—which is another way of saying that more truck owners find Goodyear Tires

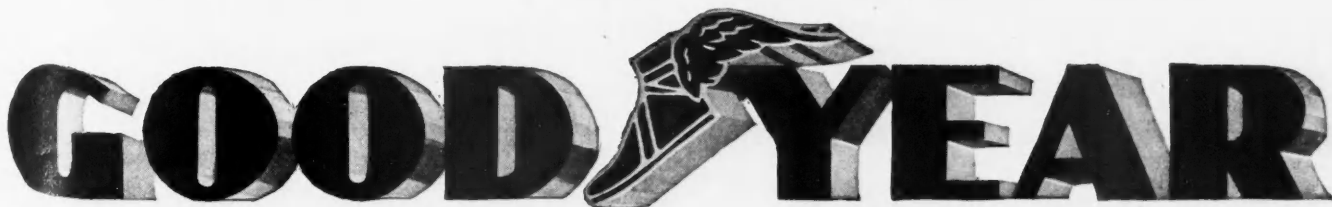
best suited to their requirements.

Goodyear builds a special tire for dump truck service. Extra broad of tread—reinforced on sidewalls—it's a mighty tire for hauling around excavations. It has traction that pulls through where other tires mire down. It stands the scuff and jab of rolling over curbs and beams. On slower trucks, many use the Goodyear Super Heavy Duty Cushion—and

trucks that want to make extra speed on the open road and still have powerful traction are adopting the new Goodyear Truck Balloons.

• • •

Goodyear Truck Tire Service Station Dealers can give you accurate recommendations for the right type and size of tires for your kind of hauling. It will pay you to know what they have to offer.

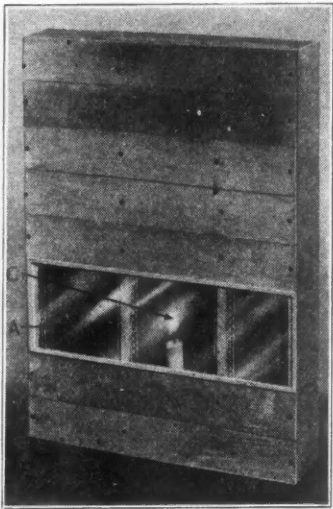


ON YOUR NEW TRUCKS SPECIFY GOODYEARS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Insulation Stops Air Circulation

A NEW insulating material, recently placed on the market, is being sold not only on its low conductivity but also on its ability to stop the vertical circulation of air within the walls. Vertical circulation of air partially nullifies the actual insulation efficiency of insulating materials because the warmed interior air passes up through the wall and escapes through the roof. Some method of stopping such circulation is necessary to get the full benefit of insulation and in the case of this new material the insulation itself provides for the stopping of vertical circulation.



This Test Show How Header Plates Used with This Insulation Prevent Vertical Air Circulation

This material is a fibre board which, when applied, is in the form of a hollow I-beam. Header plates are placed between each section of insulation to prevent vertical circulation. The effect is graphically illustrated by the test shown in the accompanying illustration.

A wall section is built and a portion of the outside sheathing is replaced with glass for observation. A lighted candle is placed between the sheathing and the insulating unit. When the header plate is placed on top of the insulating unit the candle is snuffed out because the header plate cuts off the circulation of air. The same effect is obtained when these units are used in an actual wall construction.



New Coated Wall Fabrics

THE latest color combinations and a variety of new designs prepared by some of the leading artists of the country appear in the 1930 coated fabric wall coverings



A Motif from Cleopatra's Temple, One of the New Designs in a Line of Coated Fabric Wall Coverings.

recently brought out by a well known company. This company's new sample book, which is considerably larger than the 1929 issue, contains 67 new numbers of which 41 are new dull numbers and 26 are additions to the glaze line.

The new line meets the requirements of interior decoration, in durable coated fabrics, from basement to garret. The range of color and pattern extends from a striking rough plaster design in natural color, to multicolors in modern motifs suitable for living quarters, and delicately tinted flowered patterns for the bedrooms.

Two new numbers adapted to a variety of uses are in the popular orchid and green. Conspicuously effective creations are a large scenic pattern in neutral gray characteristic of the modern adaptation of the colonial, and a diamond-shaped floral design suitable for living room, dining room or bedroom.

A modernistic block and triangle pattern, effectively balanced in neutral brown, is offered for the living room. Another interesting pattern has as its motif a design taken from Cleopatra's Temple on the Nile. Still another shows the Directoire influence.

For the more conventional decoration of the bathroom and kitchen, the new line includes additions to the tile designs in color, and a marble block design suitable not only for the bathroom but the kitchen wainscoting as well. The new "Fish Wainscoting" in blue and white affords a more elaborate vehicle for bathroom decoration.



Modern Store Fronts

MODERN, properly designed store fronts create business for store owners, and every city and town has a number of stores which could be made far more prosperous by the installation of a suitable store front. This offers an opportunity to the wide-awake builder who will sell the idea to these store owners.

The contractor has the co-operation of an organization which is fully equipped and experienced in furnishing store front designs and all materials, including structural steel, millwork, glass, marble, copper setting, kick plates and everything complete.

All that is necessary for the contractor is to furnish this company a rough sketch showing dimensions and he will be supplied with blue prints to show the merchant customer how the store will look when remodeled. Expert store front designers prepare these blue prints, adapting the design to the special requirements of the business for which it is intended. This design and engineering service is free to the contractor.

A variety of combinations of materials and design are available so that any job, from the modest conventional type to the most elaborate and expensive, can be handled with equal attention and satisfactory results.



There Is an Opportunity for the Contractor in Modernizing Store Fronts.



FOR NEAT BRICKWORK

THE mason can do neater, cleaner brickwork with Brixment than with any other mortar.

Because Brixment makes an unusually rich and plastic mortar which sticks to the brick and doesn't slop over the face of the wall.

Brixment is manufactured to harden a little more slowly than portland cement. This enables the mason to strike the joints conveniently, neatly and uniformly before the mortar sets up. Louisville Cement Company, Incorporated, Louisville, Kentucky.

CEMENT MANUFACTURERS SINCE 1830

BRIXMENT

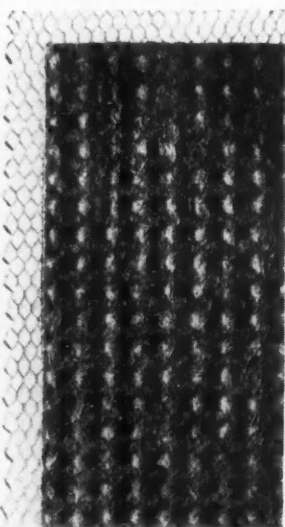
for MASONRY and STUCCO



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Fiber Board and Metal Lath

A NEW building product which combines a well known insulating material with a metal plaster base has been announced recently. Metal lath has been combined with insulation in such a way that the two can be handled and installed as one unit.



Fiber Board and Metal Lath Combined as Insulation and Plaster Base.

A layer of fiber board supplies the insulating value of the new product. To the board is attached diamond mesh metal lath which serves as a permanent and rigid base for plaster. Although these two products have been combined as far as handling is concerned, they are held separate in such a way that no plaster comes in direct contact with the insulating material. Consequently, the insulating value of the board is not impaired.

The manufacturers point out that since metal lath is recognized as a plaster base for its permanence, its fireproof qualities, its elimination of unsightly plaster stripes, and for a rigidity which reduces danger of cracking, the new product will make an important contribution to better building practices. Architects say the idea is most logical and practical and that the combination of an insulating material with metal lath should encourage better and more permanent plastering jobs.

The insulating board is a well known material manufactured from the long fibers of the flax plant.



Gun Applied Calking Cement

HERE is a gun calking cement of unusually high quality. This cement is made up on an oil base. When the cement is applied with the gun, a thin skin forms on the surface of the cement which prevents further evaporation. The oils keep the cement pliable indefinitely. It never hardens, it cannot crack, it cannot pull away. It expands and contracts under various weather conditions.



It is a Simple Matter for Any Workman to Apply This Calking Cement with a Gun.

Twelve colors are offered by the maker. These colors were worked out to give the greatest variety for the carrying out of color schemes and plans by builders, contractors and architects. The colors found to be most desired are black, white, slate, gray, cream, buff, natural, red, maroon, brown, chocolate and green. Special colors to match any unusual or special trim can be furnished

That application is easy is clearly shown by the illustration, showing an inexperienced workman applying the material

to a window frame. Calking with a good cement keeps out cold in the winter, as well as winds and drafts. Frost and dampness do not get a chance to harm the building. Dust dirt and soot cannot find their way into the interior, soiling walls, decorations and furnishings.

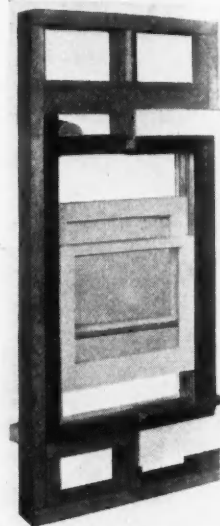


Improved Double Hung Sash

THE window construction shown in the accompanying cut has been designed to eliminate the ills existing in double hung windows. It provides a method of using better construction with entire freedom of design without discarding the old ideas which have proven themselves.

New style windows provide for the use of a two by four frame, the two by four jambs of which act as the cripple or short studs which are generally used in the framing of window openings. This construction uses sash balancers or certain types of sash sustaining devices and results in the elimination of weight pockets, weights and cords and the attendant air leaks around the frame and through the pulley openings.

The two by four jambs are not ploughed for parting stops, as the patented metal jambs in which the sash slide are one piece and provide the metal parting stop as well as the weatherstrip beads. The edges of the jambs are turned up so that the sash are nested in a metal runway and the sash do not come into contact with the blind stop or the inside finish stop. There are no sticks due to paint, as the sash do not come in contact with any of the surrounding wood.



A Construction Said to Eliminate Trouble in Double Hung Windows.

The head and sill are weatherstripped with narrow strips and the standard hook strip is used on the meeting rails. The result is a very tight weatherstripped window. The cost of this complete opening will not exceed the cost of the present weight and cord hung window, it is stated.



Panic Exit Latches Improved

A LEADING manufacturer of self-releasing panic exit devices has recently announced a new series of latches which it is claimed reaches a new peak of efficiency and reliability. The new line embraces devices of great simplicity and strength, both of these qualities tending to decrease maintenance costs to the minimum. In spite of these advantages, selling prices have not been increased.

One type of this new series of devices is particularly interesting at this time, due to the growing use of fire towers or wells in large buildings. This type has been especially designed for listed and labeled hollow metal and metal clad paneled single acting hinged doors, and the devices have been listed as Standard by the Underwriters' Laboratories.

Now, for the first time, it is possible to utilize a self-releasing exit latch on hollow metal doors leading to fire wells or towers, with the entire operating mechanism of the device concealed within the door, the only visible parts of the device being the cross bar and lock case. This is a particularly important improvement on double doors of hollow metal, and gives a very handsome and effective trim.

Although they have been introduced only a few months, these new concealed devices are being very widely used on important buildings, the new Chicago Civic Opera House being one well known structure in which they have been used.

Exclusive **REID-WAY**
FEATURES = { *faster*
better
sanding

Reid-Way exclusive features are more than selling talk. They are actual construction features which have been developed through years of experience. Wherever we have found an opportunity to improve the machine we have done so—and Reid-Way users reap the benefits.

Consider these important facts—only one moving part—the sanding drum. No gears or belts to wear out. Precision control feature insures accurate work and prevents digging into the wood. Special abrasive sheets give a continuous smooth cutting surface—no chatter. The cutting surface of the Reid-Way Whirlwind Sander extends practically the full width of the machine—it works right up to the baseboard on both sides.

In addition, the easy convertibility of the Reid-Way is worthy of your consideration. It performs four different jobs and does them all well. Bench Sanding, Edging, Floor Sanding and Floor Polishing.

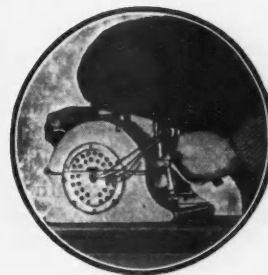
If you want a really efficient sander—one that will save you money by eliminating costly hand work—get a Reid-Way Whirlwind Sander.



← *Bench Sanding*

← *Edging*

← *Floor Sanding*



← *Floor Polishing*

THE REID-WAY CO.
 2913 First Avenue
 CEDAR RAPIDS, IOWA

Reid-Way Company,
 2913 First Avenue,
 Cedar Rapids, Iowa.

Gentlemen: Please send me circular describing the new Reid-Way Whirlwind Sander.

Name.....

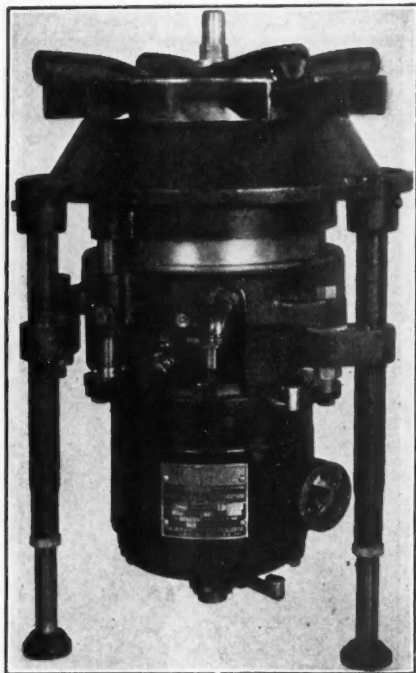
Address.....

What's New in Equipment for Buildings

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Large Capacity Oil Burner

ONE of the latest products in the oil burner field is a new model burner which has a capacity of 7,500 square feet of radiation compared with the 2,500 square feet capacity on other burners.



Increased Capacity Is Secured in This New Oil Burner by Improved Design.

One of the features is the burner head which combines in one casting the functions of an oil atomizer and impeller. During operations the oil is carried by centrifugal force from the oil trough up through the four passageways inside the head. It is then discharged from the openings at the outer edges of the head in atomized form. Air is drawn through the adjustable air gate by means of blades on the under side of the burner head and impelled to the edge of the hearth. Other features are: rotary type of operation principle; a

1/6 horse power motor; upper and lower sleeve bearing with a thrust ball bearing.

It is a noiseless burner with complete automatic operation by means of a control system consisting of an assembly, pyrostat, thermostat and heat limiting control.



Automatic Garage Door Openers

AUTOMATIC door operators, for both public and private garages, are an improvement which has a value far in excess of the cost. For the public garage, the automatic operator is controlled by push buttons, any number of them, located at convenient points inside the garage. When a customer drives up to the garage, it is not necessary for one of the men to stop his work and take valuable time to go and open the doors. Merely pushing a handy button does it and the doors are closed in the same way, without loss of time. This not only saves the time of the mechanics but also affords the customer, who does not have to wait to get in, a real and appreciated service.

These automatic controls are operated by small electric motors which cost only a few cents to operate. They are so geared that the doors can not slam and damage either woodwork or the glass and so that they afford an effec-

tive lock. They are adapted to all types of garage doors, in or outswinging doors, double and three fold doors, sliding doors, straight lifting and overhead doors. They are simple in construction and give long service at little expense for maintenance. They can be installed by any mechanic.

A junior control is a low priced unit suitable for private garage doors and is priced within reach of any car owner. The control is by means of a key inserted in a post placed conveniently beside the driveway and by a push button in the house.

You drive into the driveway, insert the key and the



Automatic Garage Door Openers Afford Control from Any Number of Remote Points.

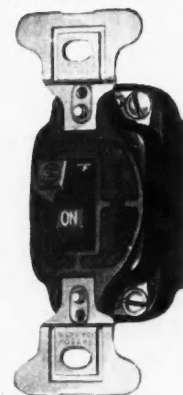
doors are opened automatically and the garage lights turned on. You drive into the garage, walk to the house with the yard still lighted, press the button in the house and the lights are turned off, and the garage doors closed and locked automatically. Convenience, and elimination of the risk of entering or leaving a dark garage at night, are accomplished in an inexpensive way.



Rubber-Mounted Toggle Switch

A NEW totally enclosed, toggle type flush switch with rubber mounted mechanism for exceedingly quiet operation has recently been announced. The mechanism is mounted directly upon two soft rubber pads. Included are such features as totally enclosed mechanism to keep out dust, dirt, etc., long life non-stubbing contacts, compression type lubricated spring, extremely simple mechanism and Thermoplax, cold-moulded insulating material for body and base.

The quick acting mechanism results in instantaneous contact as soon as the lever is moved. The lever is made to operate easily with any type of switch plate. This switch is made in single and double pole, three and four way types, furnished with either black or brown operating levers and standard mounting throughout. It is designed for use wherever quiet operation and enclosed mechanism are required.



A Toggle Switch That Is Quiet in Operation.

Wedge Joints MAKE PINE CRAFT FRAMES WEATHER PROOF

PINECRAFT Wedge-Joint Frames just can't be anything but tight! The wedge-shaped tongue and groove does the trick. Self-aligning, the groove makes it quicker than ever to nail up a frame . . . so tightly that the units just seem to knit together into a single weather-resistant piece!

PINECRAFT POINTERS

PINECRAFT weather-proofing includes a double wedge-joint between the pulley stile and blind stop—and single wedge-joint between blind stop and casing. No auxiliary blind stop is needed.

PINECRAFT frames have a new and improved drip cap and the latest type pulleys—either Dillon Jam-proof or Grand Rapids No. 18, lacquer or zinc finishes.

PINECRAFT frames are full 25/32" thickness; two grades, in genuine Idaho white pine, Ponderosa Pine, or any combination of the two.

PINECRAFT prices are pleasingly low—thanks to manufacturing economies developed during the 25 years of experience that has established the PINE-CRAFT plant as the world's largest producer of pine sash and frames.

PINE CRAFT
WHITE PINE SASH CO.
SPOKANE

*Write For
Descriptive
Folder*

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Electric Refrigerator and Range

EFFICIENT, compact electrical devices are constantly being created for the convenience of the apartment dweller. The latest is a combination electric refrigerator and



An Electric Refrigerator and Electric Range in One. Compact unit for small apartments.

electric range, which occupies only a little more than four square feet of kitchenette floor space.

Consisting of an oven equipped, two-burner, electric range, fitted snugly over the top of a compact electric refrigerator, the combination was designed for the New York type apartment, the kitchenette of which, under the building code, must not exceed 30 inches in depth and 10 feet in width.

Over-all dimensions of the new unit, which derives current for both heat and cold from a

single electric outlet, are 55¼ inches high, 26½ inches wide, 23 inches deep. The oven, which is at the right of the cooking top unless otherwise specified, is 12½ inches wide, 13½ inches high, and 17 inches deep. The cooking top is at a convenient height, 43 inches above the floor. The range is finished in gray and white porcelain. The refrigerator, finished in cream white duco or in gray and white porcelain on steel, has a food storage capacity of three cubic feet and shelf space of 5½ square feet. Two ice trays, with a capacity of 24 cubes, 2½ pounds at a freezing, are provided. Temperatures within the refrigerator are not affected by the heat of the range as three inches of special insulation separate the two.



Compact Dining Unit

THERE is a wide range of usefulness for the new equipment illustrated in the accompanying pictures, not the least of which is that of dining equipment for the modern small apartment, especially the one room apartment. As may be seen from the first of the three views, this piece of furniture, when closed, occupies no more space than a small serving table. When open it offers ample table space for four people and five can be accommodated by placing a chair at the end.

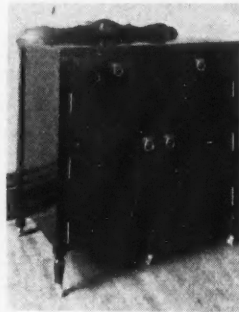
The table top measures 28¾ inches wide by 40½ inches long. It is supported at the extended end by an auxiliary leg that slides out with the table and forms a firm, strong support. The seats fold up against the doors and both table and seats are entirely concealed when the cabinet is closed. The construction is simple, there is nothing to wear out, and it is remarkably strong.

The cabinet contains a surprising amount of space for buffet use where linen and china may be kept while the drawers above will hold the silverware. The cabinet top measures 22½ inches by 36 inches, which is in addition to the size of the table. It makes an excellent side table at meal time.

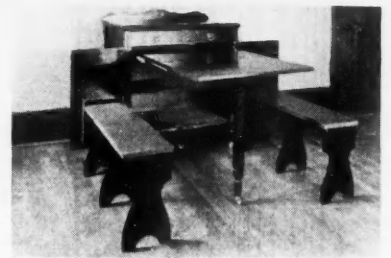
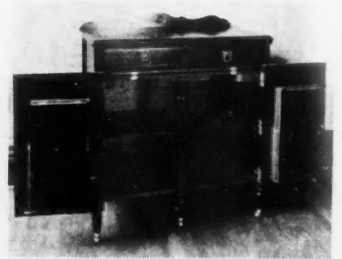
Between meals, with a cover on the cabinet top, and a piece of ornamental bric-a-brac or perhaps a radio, this cabinet has all the appearance of a handsome piece of living

room furniture and in fact looks very much like cabinets such as are often used for radios.

This cabinet makes excellent equipment for the breakfast nook of any home as well as dining equipment for the very small apartment. It is a convenient side table and breakfast table for the kitchen. It can be used in hotels for room service. In fact, it will be found useful in any home. It can be used either as a separate piece of equipment or can be built into the wall as desired.



For the Small Apartment, Breakfast Nook or Kitchen This New Unit Is Inexpensive, Attractive, and Highly Useful.



Latch for Secret Doors

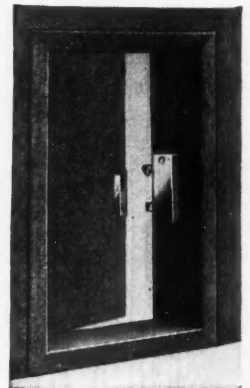
THE accompanying illustration shows a concealed door latch for use on secret doors, of closets, cabinets, cupboards, etc. With this latch installed no hardware is visible and no push button is necessary. To close the door it is only necessary to push on it lightly. To open the door push on it hard. The door moves less than ¼ inch and when the pressure is released swings open.

This latch is screwed right on the door stop or let in if desired. A channel strike is furnished to be screwed onto the door without cutting. Shrinking or swelling of the door will not affect the latch as long as the door swings free. If the door is to be operated from both sides a handle is placed on the back of the door. The latch is furnished in various sizes to fit various size doors and in wrought brass for the smaller sizes and cast brass for the larger sizes.

The same company also makes a friction catch for cupboards, cabinets, closets, wardrobes and refrigerators. This catch is made in three sizes for various size doors. It prevents warping of new doors and doors already warped are drawn back to normal by its action. It prevents rattling and the entrance of dust and remains effective even after the door has shrunk considerably.



The Johns-Manville Corp., 292 Madison Ave., New York, has published interesting booklets on tile flooring and Floridene stone.



No Hardware Is Visible When This Latch Is Used.

STYLE—They SELL!

For a Quarter of a Century the *AMERICAN BUILDER* has led the way down the path of the years to greater and better building. And NOW—in celebration of our SILVER ANNIVERSARY—Twenty-five years of service to the Building Industry—we offer to our friends this new conception—“THE AMERICAN BUILDER YEAR BOOK OF MODERN HOMES.”

Illustrated in This Book Are Homes Designed by Over 100 Architects in Period Styles as Follows:

- Early American
- New England Colonial
- Dutch Colonial
- Southern Colonial
- Colonial Types
- Tudor
- Georgian
- English Types
- Norman
- Italian
- Spanish
- Modernistic

— Also —

- Specifications of Residence
- Details of Residential Construction
- Useful Rules, Tables and Data

AMERICANS are a home loving people. It is the ambition of every family to own a home. Because of higher standards of living, they want strictly Modern Homes, and they are willing to pay for them. The builder who can carry out their ideas is the one who will get the building order.

PERIOD STYLE HOMES NEVER BECOME OLD FASHIONED. They are always a safe investment. Houses following correct period styles are always salable at a good price. Our book, MODERN HOMES, is designed to make it possible for the builder to show a prospective home owner the distinctive characteristics of period architecture. The text and illustrations explain important matters about interiors and exteriors, together with appropriate fittings and furnishings.

In addition, it contains AN ILLUSTRATED SPECIFICATION FOR RESIDENTIAL CONSTRUCTION. The specification is in a form that may be changed by a word here and there and by omitting certain sections. A complete house specification can be prepared in only a few minutes time. Everything has been listed—it is the most complete form for a house specification ever published. Every builder owes it to himself to secure his copy without delay.

ACT PROMPTLY IF YOU WANT YOUR COPY OF THIS BOOK!

\$5 includes the Book and American Builder 3 Years **\$4** includes the Book and American Builder 2 years **\$3** includes the Book and American Builder 1 year

You Can Save Money by Ordering American Builder for More Than One Year!

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Gentlemen: Find \$..... to pay for..... year's subscription to the big New AMERICAN BUILDER—with which I am to receive, post-paid, a copy of your New “American Builder Year Book—Modern Homes.”

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IMPORTANT! Building publications are required to show occupations of subscribers. Please help us to properly classify you by Checking in the space at right, the line of business in which you are most active. If none of the classifications listed cover your occupation, please state your business on line below.

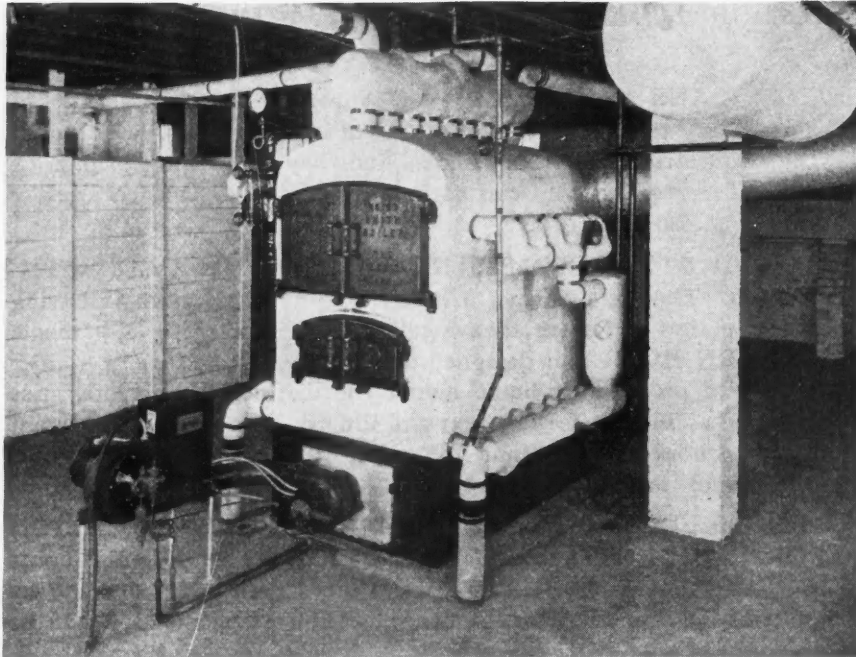
My Business is.....

PLEASE CHECK OCCUPATION

- Builder (Contract or Speculative)
- Sub-Contractor
- Construction Supt. or Foreman
- Carpenter
- Engineering and Public Work Contractor
- Architect or Engineer
- Real Estate Operator
- Banker, Bldg. and Loan, Insurance
- Building Material Dealer
- Machinery and Equipment Dealer
- Manufacturer or Producer of Building Materials
- Library, Club, College, School or Reading Room
- Home Owner, or Expect to Build

Test Shows Oil Heat Economy

HERE is actual proof of the economy of oil heating when furnished by a high class burner. The oil burner shown in our illustration was installed during 1929 in the home of the late W. W. McClench, at Springfield, Massachusetts, after an actual record had been kept of the cost of firing this same boiler with coal and heating the domestic hot water supply with gas. The oil burner shown is one which has an arrangement for heating the domestic hot water sup-



In the Basement of This Springfield, Massachusetts, Home, an Actual Money Saving Was Made by the Oil Burner Shown in Illustration, Compared with Operation of the Same Boiler with Coal in the Preceding Winter. The total saving with oil heat amounted to \$214.00.

ply the year round, eliminating the cost of gas for this purpose. Actual results of the test with both coal and oil are shown below:

1. Frame residence.	
2. Steam—one pipe.	
3. Radiation—sq. ft.	1072
4. Boiler 8 sec. #27	
5. Heating Surface	109.5
6. Ratio	8.8
7. Pounds coal burned per sq. ft.	51.5
8. Total coal burned.....	25 tons—\$400.00
Gas for hot water.....	100.00
	<hr/>
	\$500.00
9. 4353 Gal's Oil @10c.....	435.30
10. Saving janitor	150.00
11. Total saving over coal.....	214.70
12. Gal's Oil per sq. ft.....	4.06
13. Cost per sq. ft—oil.....	.406

It will be noticed that the boiler in this basement is thoroughly insulated, as is the hot water tank, hung by chains from the overhead joists.

It will also be noticed that the oil used cost ten cents per gallon, whereas ordinary straw colored fuel oil in 100 gallon lots, costs, in the Chicago district, but eight cents per gallon and heavier fuel oils cost even less. The coal used cost \$16.00 per ton, which is a fair price for range size anthracite near the eastern seaboard but would cost \$2.00 per ton more in the Chicago district. From these figures, it would appear that, had this comparison been made as far west as Chicago, the oil economy would have been greater, and, if made still farther west, where fuel oils are lower in price, the results would have been even more favorable to oil.

Incinerator for Estates

BOTH from the sanitary and the economic point of view, the disposal of waste on country estates is an important problem. Kitchen refuse stored for any length of time is a sanitary hazard. Dry rubbish accumulated in the basement is a fire hazard. Dead leaves, cuttings from infected trees and bushes, left-over vegetation from gardens, constitute a hazard to trees and vegetation.

The burial of refuse is costly and often leads to contaminated streams and wells. Burning in the open is attended by objectionable smoke and fire hazard.

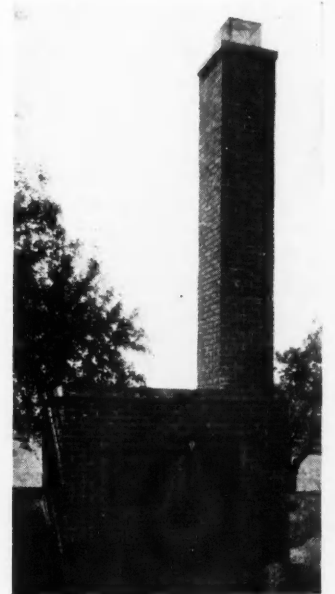
Because of the satisfactory results from its home incinerators, one well known manufacturer has made a study of this problem and is producing incinerators specially designed to meet the needs of country estates. Waste disposal on estates was found to be an entirely different matter from waste disposal in apartments and hotels. The proportion of kitchen garbage to dry combustible material was found to be greater and the moisture content higher.

The incinerator for the estate has been in successful operation for several years, but has been withheld from general offering until its worth was definitely proven. It is suitable for public schools, small boarding schools, wayside tearooms and similar places. It provides a sanitary and economical system of waste disposal anywhere that the daily accumulation of waste does not warrant heavy duty incineration equipment, but cannot be handled by ordinary home incinerators.

This equipment consists of a brick chamber lined with firebrick, capped with a waterproof roof and equipped with a brick or steel chimney. It embodies a cast iron rubbish grate, a firebrick garbage hearth, a patented bypass flue, a secondary combustion chamber and a settling chamber.

Combustible rubbish, papers, boxes, crates, etc., in fact, all dry materials are charged directly onto the cast iron grates. Wet garbage, cans, bottles, etc., are dumped onto the brick hearth through the charging door. The dry rubbish is ignited and the hot gases pass over the top of the wet rubbish. The heat from the burning rubbish evaporates the moisture in the garbage and assists in its complete incineration.

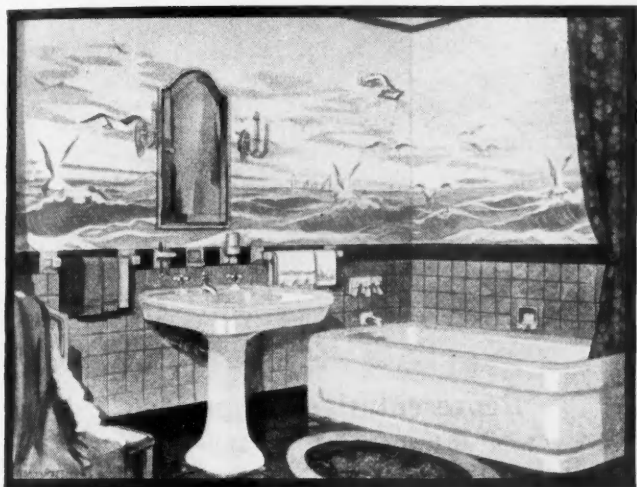
These incinerators are made in various sizes to meet various conditions, and may be installed anywhere, in the open, in a basement, shed or wherever desired. Where such equipment is required a company representative investigates the individual problem without obligation and recommends the proper equipment.



This Incinerator Is Specially Designed to Meet the Special Incineration Requirements of Estates.



WALL-TEX SCENICS
mean bathroom beauty
with economy



GIGANTIC ADVERTISING CAMPAIGNS have made your customers conscious of their bathrooms. They want beauty, color and luxury. You have not been able to give it all to them. The cost has been beyond their means.

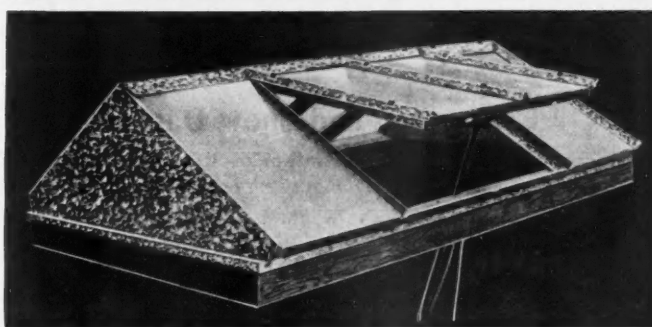
Now you can give them what they want! Every one can afford the new Wall-Tex Bathroom Scenics. These marvelous panoramic patterns are a durable coated fabric impregnated with the finest quality oils and pigments. Easily washed clean, Wall-Tex remains bright and fresh after years of service.

The design is a marine motif enlivened with sea-gulls. The design repeats every 54 inches and can be carried horizontally around the room. The colors are lovely. Green, orchid, cream and blue are offered on different bases in dull and glazed numbers. Investigate! You will be delighted and your clientele enthusiastic.

Architects, builders and decorators should send us a letter or post-card requesting samples, information and booklet, "The Modern Trend in Wall Coverings."

COLUMBUS COATED FABRICS CORPORATION, Dept. D-7-30
 Formerly The Columbus-Union Oil Cloth Company
 COLUMBUS, OHIO

WALL-TEX
 Durable Fabric Wall Covering



Style No. 35-1S

Paper Profits
come true!

Contractors who buy WILLIS skylights are sure of the profits they have counted on. WILLIS takes the guesswork out of skylight installation. Labor problems are effectively prevented the minute you send in your order. Any of your ordinary workmen can put in the skylight with only a hammer and screw driver. He can make double quick time, too, because there is no trimming or fitting to be done. Every WILLIS is completely set up and inspected at the factory, then shipped knocked down—your certain guarantee of a perfect, trouble-free installation.

WILLIS skylights come in twenty styles. Designed to give the greatest amount of light with perfect ventilation. Water-tight, of course, even without the use of putty unless a little dust is objectionable. No rain or snow gets through. Rigid construction makes sagging, bending or buckling impossible. Special designs built to your own specifications. You pay no more for these WILLIS advantages—they're priced no higher than the ordinary kind. Send for catalog today.

Style No. 35-1S (pictured above). Ventilator in gable ends is of movable parts to open and close at will. The hinged portion of the movable sash is raised and lowered by a skylight lifter that may be operated from the floor below. The lifter employed is self-locking.

On all sizes 3' 0" x 5' 0" and larger with the exception of size 4' 0" x 4' 0" it is necessary to operate a section of the side only.

This is only one of the 20 WILLIS styles.

WILLIS MFG. CO.
 Dept. 128 Galesburg, Illinois

WILLIS

News of the Field

Convention and Show Dates

- July 9-11, 1930**—National Association of Real Estate Boards, Annual Convention, Royal York Hotel, Toronto, Canada.
- July 28-29, 1930**—United States Building and Loan League Convention, Grand Rapids, Mich.
- Oct. 13-17, 1930**—American Gas Association, Annual Convention, Municipal Auditorium, Atlantic City, N. J.
- Oct. 28, 1930**—American Institute of Steel Construction, Inc., 8th Annual Convention, Pinehurst, N. C.



Purchase Brogan Agency

THE purchase of all the capital stock of G. W. Brogan, Inc., Advertising Agency, Towson, Md., has been announced by Wilbur VanSant, president of VanSant, Dugdale & Corner, Inc., of Baltimore, Md. The sale follows the death of Grahham Brogan, who was killed in an automobile accident. It creates in Baltimore the largest advertising agency south of the Mason and Dixon Line, it is stated. The announcement also states that the entire executive organization and staff of G. W. Brogan, Inc., will become a part of VanSant, Dugdale & Corner, Inc.



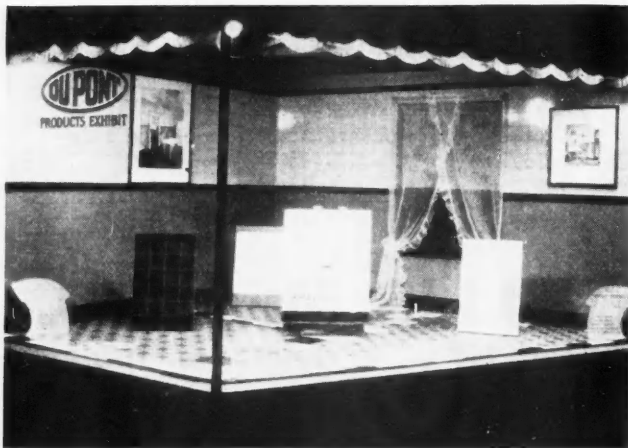
Open Cleveland Office

THE Stanley Works, New Britain, Conn., has opened a sales office in Cleveland, Ohio, at 1404 Builders Exchange Building, under the direct supervision of Mr. Sheridan McClelland, who is district sales manager and responsible for trade relations in the states of Ohio, Kentucky, West Virginia, New York and the city of Pittsburgh.



Waltile Displayed at Atlantic City

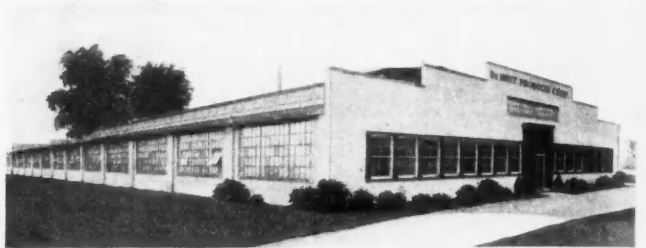
AN accompanying illustration shows an exhibition of Waltile, an enamel finish asbestos tile made by the Ambler Asbestos Shingle & Sheathing Co., of Ambler, Pa., in the boardwalk window of the DuPont products exhibit at Atlantic City, N. J. While the colors used in this tile can not be even suggested by a black and white illustration, the effectiveness of the display is instantly apparent. The beautiful and lasting finish of this tile has been obtained by the Ambler company through the co-operation of the DuPont organization.



Display of Waltile, by the Ambler Asbestos Shingle & Sheathing Co., at Atlantic City.

De Walt Occupies Larger Factory

ON May 1, the De Walt Products Company, of Leola, Pa., moved into a new factory at Lancaster, Pa. Since this company was organized five years ago last December, increasing business has required two previous expansions of manufacturing space. The new factory building was purchased from the Rowe Mfg. Co., to save the time which would have been required for a new building and was completely renovated and executive offices added. It provides 36,000 square feet of floor space with railroad sidings.



New Factory of the De Walt Products Corp., at Lancaster, Pa. Made necessary by rapid business expansion.



Representatives Appointed

THE Chain Belt Company of Milwaukee, Wisconsin, announces the appointment of two new distributors in the construction equipment division. The R. B. Everett Company of Houston, Texas, will distribute its complete line of construction equipment, and the J. D. Adams Manufacturing Company of Indianapolis, Indiana, will act as exclusive distributors in the Indianapolis territory for its new champion Rex paver and the Rex road pump.

This company has also announced the appointment of the Corbin Supply Company of Macon, Georgia, as representatives for its complete line of chain and transmission equipment.

THE Porter-Cable Machine Company of Syracuse, New York, has announced the appointment of W. A. Marschke, one of the designers of the Marschke grinder, as its Indiana representative for sanders, grinders and saws. The Briggs Machinery Company, 124 Second Ave., Pittsburgh, has been named as the Porter-Cable representative in the Pittsburgh territory.



Johns-Manville Buys Stevens

THE Johns-Manville Corporation, New York, has announced the purchase of the assets and patents of the Stevens Sound Proofing Company, of Chicago, manufacturers of patent structural products for sound insulating in walls, floors and ceilings, and for constructing anti-vibration platforms under machinery.



Building Plant Addition

H. D. CONKEY & COMPANY, Mendota, Ill., is building an addition to its plant which will double its production capacity on the manufacture of overhead traveling cranes, and crawler cranes. The addition is to be used for the fabrication of materials only and will be equipped with the most modern tools for steel fabrication.



BAKELITE LAMINATED WALL COVERING decorates this lobby

No other hotel walls get harder service than those in the elevator lobbies. Wall coverings that are entirely satisfactory elsewhere, fall short here. The architects of the Hotel St. George, Brooklyn, N.Y. wanted a wall covering as colorful and cheerful as wall paper, but as easy to wash down as polished marble. They found it in Bakelite Laminated.

In the same hotel the architects used black Bakelite Laminated for wainscoting and baseboards in several public rooms of modernistic design, and for the wainscoting, counter tops and cashier's desk in the cafeteria and lunch rooms.

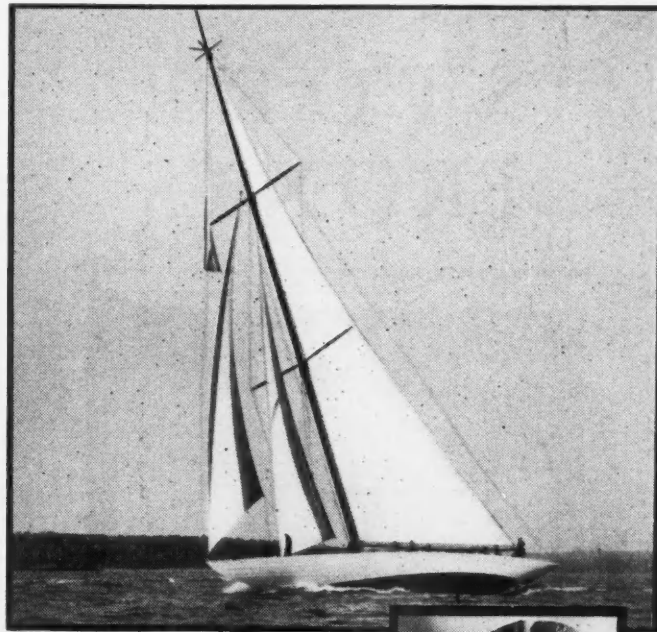
This new trim and wall material is made in a number of attractive designs, in reproductions of various hardwoods, and in black and plain colors. It is hard, smooth and very strong, and may be washed clean as often as required. It never needs refinishing as it does not stain or discolor. The Bakelite Laminated trim material and wall coverings for this job were made by Formica Insulation Co., Cincinnati, O. They will gladly send you full particulars and samples of their materials.

BAKELITE CORPORATION, 247 Park Ave., New York
CHICAGO OFFICE, 635 West 22nd Street
BAKELITE CORP. OF CANADA, LTD., 163 Dufferin St., Toronto

BAKELITE

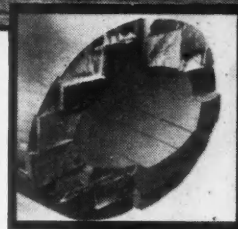


THE MATERIAL OF A THOUSAND USES



The America Cup Defender "Enterprise"

Hundreds of pieces of wood *in the* Cup Defenders' masts—held together solely by



Section of hollow mast

CASCO GLUE

the Strongest Adhesive known

The masts of all the America Cup Defenders, varying from 150 to 168 feet in length, are masterpieces.

Of hollow construction—built of hundreds of pieces of finest spruce—spliced and glued—each mast is designed to be tremendously strong—(they must withstand a pressure of 170,000 pounds)—and all are glued with

CASCO WATERPROOF GLUE

CASCO was chosen for this important job because hollow masts have been glued with CASCO for years—and a CASCO glued joint is stronger than the wood itself. CASCO is the modern glue—a dry powder that is mixed with cold water and used cold. It glues practically everything—wood to wood, metal, glass, cardboard, cloth, leather or paper—and glues it permanently. The countless uses of CASCO make it invaluable everywhere.

Most hardware, paint and lumber dealers sell CASCO in convenient sizes. If not obtainable locally remit direct to us and we will ship CASCO postpaid.

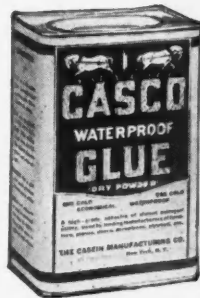
Trial Box 10c. Half-pound Can 40c. One pound Can 65c.
Also 5, 10, 25 and 50 pound packages at lower prices for quantity

Dealers—Send for Sales Plan.
Manufacturers—Consult us on your glue problems.

THE CASEIN MANUFACTURING COMPANY OF AMERICA, INC.

205 East 42nd Street New York

Mail coupon for Trial Package and new folder of CASCO uses

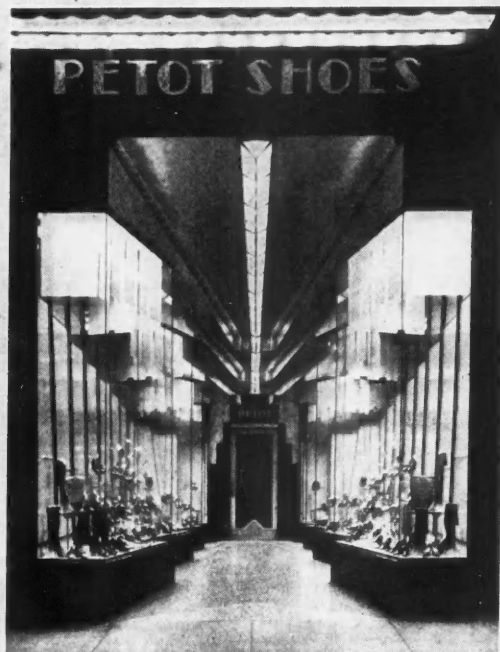


No Heating
No Odor
No Waste
CASCO is unequalled
--as a glue
--as a size
--as a binder

THE CASEIN MFG. CO.
OF AMERICA, INC.
205 East 42nd Street, New York
Enclosed find 10c (stamps only) for which send me your Trial Package of CASCO WATERPROOF GLUE.

Name.....
Street.....
City..... State.....
Hardware, Paint or Lumber Dealer's Name (Please include)

STORE FRONTS



Through years of experience, Kawneer craftsmen have acquired the art of rendering in metal (cast, drawn and extruded) distinctive and efficient store fronts of any size or design. Write for book of outstanding installations.

Kawneer
BRONZE
STORE FRONTS

THE KAWNEER COMPANY, NILES, MICHIGAN
KAWNEER MFG. CO., BERKELEY, CALIF. (SUBSIDIARY)
Manufacturers of
RUSTLESS METAL STORE FRONTS, WINDOWS and DOORS

Distribution Reorganized

NINETEEN wholesale electrical supply companies doing a total annual business of \$60,000,000 with branches in sixty cities, have been organized by the Westinghouse Electric & Manufacturing Company into a single system under the name of the Westinghouse Electric Supply Company.

Previous to the reorganization, these companies were owned by the Westinghouse Commercial Investment Company, a subsidiary of the Westinghouse Electric & Manufacturing Company, but conducted business under their own names and with their own corporate organization.

Each unit will continue to carry on its business as it has in the past and with the same management. One of the objectives of the new system is to secure greater efficiency in the distribution of electrical products and to this end central reserve warehouses are being established.



Elevator Shafts Insulated

SAMUEL CABOT, Inc., 141 Milk St., Boston, Mass., has announced a new and highly successful use of Cabot's insulating quilt. The sound deadening of elevator shafts has become an item of great importance in hotels, apartments, office buildings, hospitals and similar structures because of the limited floor space and the close proximity of these shafts to occupied space. In the new Chanin Building, in New York City, the concrete walls of the shafts were covered with a single course of terra cotta tile over which Cabot's quilt was laid. This was followed by a course of two-inch gypsum block and plaster. The quilt broke up and absorbed the sound waves in the shafts and prevented them from penetrating to the surrounding offices.



Zinn Heads Association

A. A. ZINN, of Kansas City, Mo., was elected president of the Mortgage Bankers' Association of America at the closing of the annual convention in New Orleans, La. Vice-presidents named were: A. Y. Creager, Sherman, Texas; R. S. Beachy, Kansas City; F. W. Honeman, Minneapolis, Minn., and E. H. Krueger, of Cleveland, Ohio. New Members of the board of governors selected were: William H. McNeal, New York; F. C. Waples, Cedar Rapids, Iowa; R. B. Bishop, New Orleans; Byron V. Kanaley, Chicago, and E. D. Schumacher, Richmond, Va.



Detroit Steel Buys Holorib

THE Detroit Steel Products Company of Detroit, Michigan, makers of Fenestra steel windows, has purchased Holorib, Incorporated, of Cleveland, Ohio, including all manufacturing rights and patents to its product, the Holorib Insulated Roof Deck.

The entire Holorib personnel will continue intact, the operations of the company being considerably extended through the nation-wide Fenestra sales and service organization.



O. K. Clutch Opens Chicago Office

THE O. K. Clutch and Machinery Company of Columbia, Penna., announces that it has recently opened a Chicago office at 53 West Jackson Boulevard, with Mr. S. O. Nafziger in charge.



Occupy New Factory

THE Silent Automatic Corporation, 255 Meldrum Avenue, Detroit, Michigan, has recently moved into its new manufacturing plant at 12001 East Jefferson Avenue.

KEEP YOUR CATALOG FILE UP-TO-DATE

New appliances, materials, machinery and equipment are constantly being brought out and perfected by manufacturers. Your file should contain the latest catalogs of these articles. When a client asks you about some new improvement—you have the information at your finger tips. Perhaps you contemplate enlarging your scope of activity—your catalog file will contain suggestions as to the machinery or equipment best suited to your needs.



What Information Do You Need? American Builder Will Get It For You

If you are interested in power shop equipment, heating systems, plumbing supplies, water supply systems, lighting systems, elevators, school or church or theatre equipment, farm building equipment, building hardware, home conveniences or anything that is used in constructing or equipping any kind of building—the American Builder will help you get all information. Just send the coupon below telling us in what you are interested.

ABSOLUTELY FREE TO AMERICAN BUILDER READERS

The American Builder Service Department will gladly put its readers in touch with reliable manufacturers of appliances, machinery, tools, building materials and supplies of every description. In order to get the best and quickest results, please be sure to print or write your name and address plainly and also check your occupation in the coupon below.



THIS COUPON WILL BRING YOU ALL INFORMATION

AMERICAN BUILDER, 105 W. Adams St., Chicago, Ill.

7-30

Gentlemen: Please put me in touch with manufacturers whom you know to be reliable and can furnish goods promptly. I am in the market for the following items:

.....
.....
.....

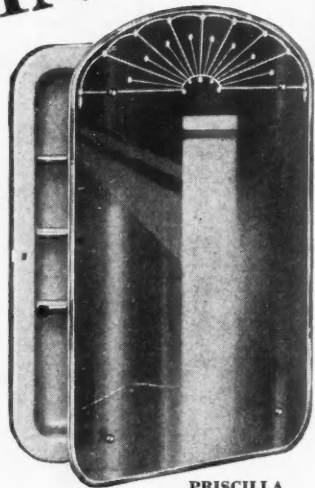
Name.....

Address.....

Please check your occupation. Building Contractor Dealer in Building Materials Prospective Home Builder Architect

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Round Corners! INSIDE and OUT



PRISCILLA



Corcoran Cabinets are the original **One-Piece Steel Cabinets**. No cracks, no seams, no welded joints, no raw edges.

A cabinet that really belongs! Corcoran, with its unique method of construction, presents modern bathroom cabinets that harmonize and through which no wall moisture can enter—because not a single crack, joint, or seam is present. Round corners inside and outside eliminate collection of dirt, rust and corrosion—providing absolute sanitation and easy cleaning.

38 Models

Venetian Mirrors, Colonial Mirrors, regular insert type models and hotel cabinets. All types furnished in small and large sizes. Write today for your copy of the latest catalogue.

The Corcoran Mfg. Company CINCINNATI, OHIO



Complete stocks now being carried in Chicago, New York, Philadelphia, Boston, San Francisco and Los Angeles; communicate with Corcoran offices at 1820 McCormick Bldg., Chicago; 1228 Locust St., Philadelphia; 11 West 42nd St., New York; Colonial Distributors, Inc., 292 Main St., Cambridge, Mass.; The Gardner Sales Co., 1318 South Grand Ave., Los Angeles; E. T. Rawlinson, 1906 Vine St., San Francisco.

THE CORCORAN MFG. COMPANY, Cincinnati, O., AB-7-30.

Gentlemen: We are interested in Corcoran One-Piece Steel Bathroom Cabinets. Kindly send catalog and full details.

Name

Address

City..... State.....

Jobber Contractor

Changes of Address Announced

THE Union Metal Manufacturing Company, of Canton, Ohio, has moved its Philadelphia office to 110 E. 42nd St., New York City. E. B. Comfort, eastern district sales manager, who has been in charge at Philadelphia, will be located in the same suite with W. A. Daunt, New York sales manager for the company.

THE Michigan Retail Lumber Dealers Association has moved its office, formerly located at 301 Mutual Bldg., Lansing, Mich., to 804 Capitol Savings & Loan Bldg., Lansing.



Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The Fiat Metal Manufacturing Company, Roscoe St. and Racine Ave., Chicago, has published a new catalog "C" illustrating and describing its integral shower bath compartments units designed to afford water-tight installations.

The Martin Trailer Co., P. O. Box 508, Westfield, Mass., offers two pamphlets on its automatic spring type fifth wheels which are designed for simplicity of connecting and disconnecting the tractor and semi-trailer.

The Kalman Steel Company, 410 N. Michigan Ave., Chicago, has just issued a broadside illustrating various Kalman products including metal lath, steel joists and similar lines.

The Edison Electric Appliance Co., Inc., 5600 W. Taylor St., Chicago, a General Electric organization, offers two new publications, Catalog No. Y600 on "Hotpoint Electric Ranges, Air Heaters, Hotplates and Water Heaters," and "Solving the Apartment Rental Problem in Kansas City," which tells how builders of modern apartment buildings are using Hotpoint automatic electric ranges.

L. Mundet & Son, Inc., 461 Eighth Ave., New York City, has just published a special bulletin on cork roof insulation with photographs of a recent job on which its material was used.

Skilsaw Inc., Dept. 2, 3310-20 Elston Ave., Chicago, offers a pamphlet illustrating four models of Skilsaw designed to meet various requirements and also a larger pamphlet on "Skilsaw, the Electric Hand Saw."

The American Society for Testing Materials, 1315 Spruce St., Philadelphia, Pa., has just published the 1929 Supplement to the 1927 edition of its triennial publication "Book of A. S. T. M. Standards", containing 19 revised and 32 new, recently approved standards. Price, \$1.50.

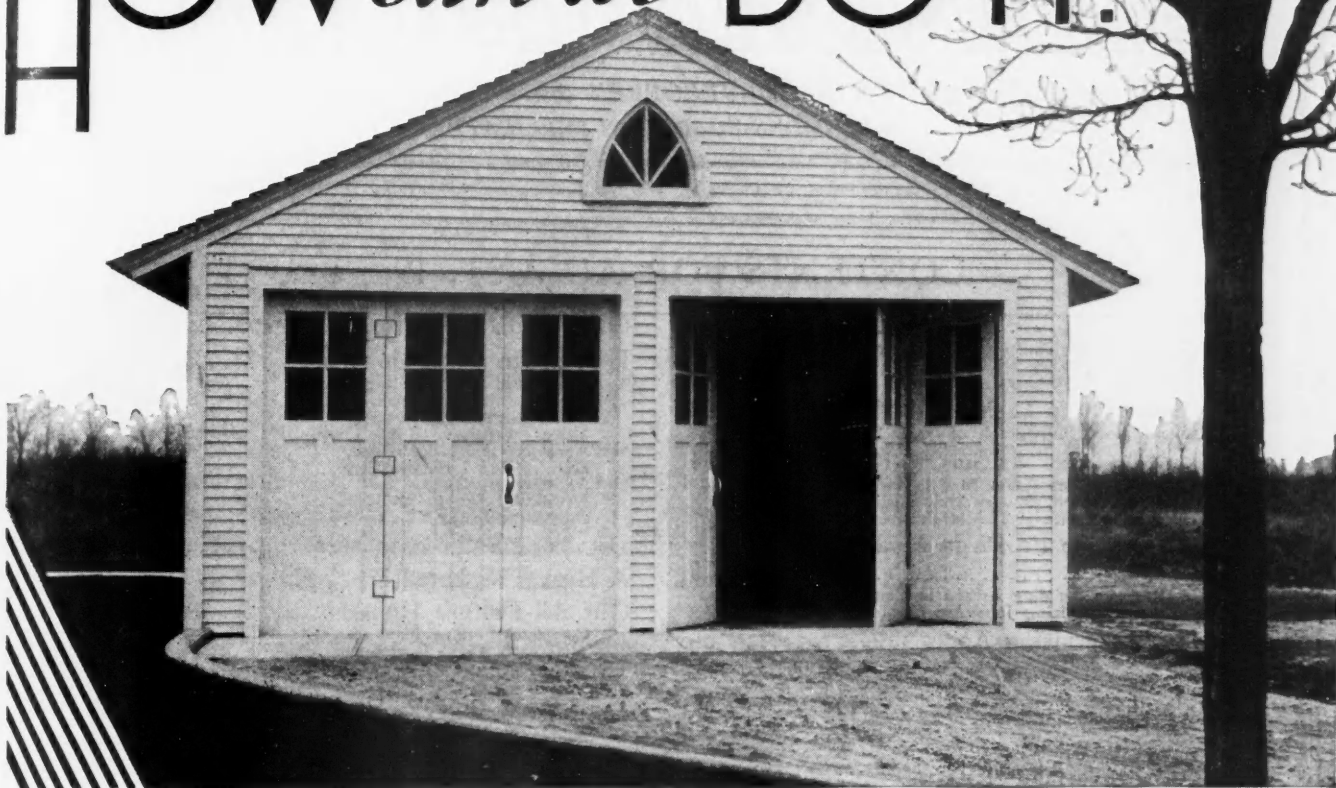
Reading Steel Casting Company, Inc., Bridgeport, Conn., has published a new catalog number 330 on Reading-Pratt & Cady valves and fittings, which is a very complete and handsomely illustrated book.

"Rich Safety Ladders" is the new 1930 catalog of the Rich Pump & Ladder Co., Station B, 1300 Harrison Ave., Cincinnati, Ohio.

The Emerson-Brantingham Corporation, 602 Preston St., Rockford, Ill., offers an illustrated booklet on its extensive line of porcelain steel kitchens and also a file folder of details and illustrations of the various sections which are available to provide any required kitchen combination.

The Medusa Portland Cement Co., Engineers Bldg., Cleveland, has published two beautifully illustrated catalogs, "Medusa Waterproofed Gray Portland Cement," and "Medusa White Portland Cement," as well as numerous small leaflets, describing the many uses of these products in homes, schools and buildings of all kinds.

HOW can we DO IT?



How can Frantz No. 40 "E-Z" garage door fixtures be sold for such a remarkably low price and yet provide as much convenience, give as much satisfaction and stand as much hard use as they do? How?—that's what we are being asked every day.

Here's how! The demand for No. 40 "E-Z" sets has shown such rapid growth in the last two years that the factory production has had to be speeded-up. The savings that have resulted from reduced manufacturing costs are being passed on to the consumer. That's the answer.

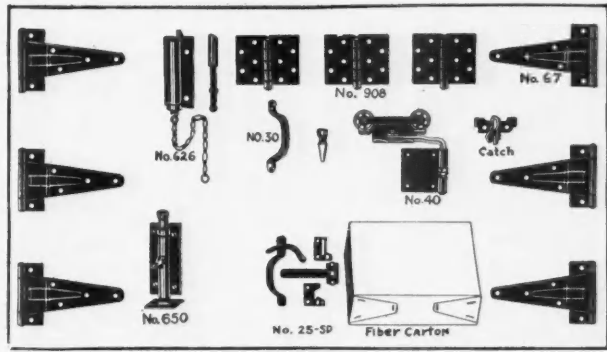
Contractors favor No. 40 "E-Z" fixtures because they are so quickly and easily installed. After the doors have been fitted into the opening it is only necessary to fasten the hardware in place—no special cutting or blocking is required. Its simplicity of operation and fact that this set never requires servicing are points

that have been the cause for many an installation of No. 40 "E-Z" fixtures.

No. 40 "E-Z" equipment (on 3 door openings for example) supports two of the doors and folds them clear of the opening. The passage door is hinged to the jam for ready access to the garage. The track fastens flat on the header over the opening—no brackets or bracing is required. Can be installed with doors opening inside, or outside. Mail the coupon for complete information on this unusual set. Frantz Mfg. Co., Sterling, Illinois.

No Hardware is Genuine FRANTZ QUALITY Without the Red Label

At the right are shown the parts of a Frantz No. 40 "E-Z" 3 door set. All necessary screws, bolts, lag screws for track and instructions for installing Packed in a strong fibre



FRANTZ
TRADE MARK
Guaranteed Builders Hardware