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AMERICAN BUILDER

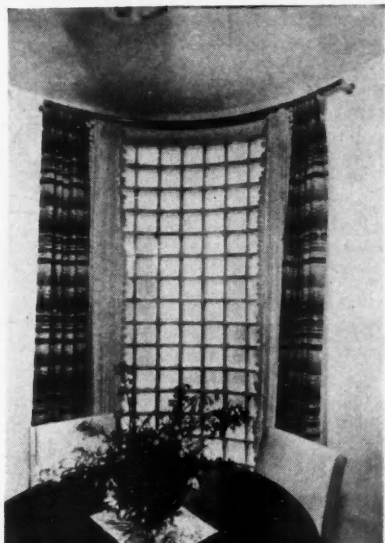
and Building Age

NAME REGISTERED U. S. PATENT OFFICE AND CANADIAN REGISTRAR OF TRADE MARKS

JULY, 1936

58th Year

Vol. 58—No. 7



NEW use for new materials—glass masonry panel in Forde Ocean Villa apartment, Miami Beach, Fla.—daylight with privacy—L. Murray Dixon, architect.

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Government, Business and Employment—Samuel O. Dunn.....	35
Editorials	37
Meet the Architractor	
Shortage of Skilled Men	
Frontispiece—In Step With the Times.....	39
Bonded Homes by Bonded Builders.....	40
Home Buyers' Desire for Absolute Safety and Protection Met by New Building Plan—Passaic-Bergen Lumber Co., Inc.	
Selected Home Designs.....	43-58
Florida Revival	
Riviera House	
Florida Directoire	
Small Tropical House	
Modern Two-Family Florida House	
Three Exteriors, Same Floor Plan, "The Wayman"	
American Builder's Better Detail Series—Boards and Battens; Overhung Gable House Built Across a Brook	
Builder's Ideal Colonial Home	
Westchester County Model Home—Interior, Working Plans, Specifications	
American Builder House of the Month	
Five FHA Low Cost Homes.....	60
Summary of the Recommendations of FHA Technical Staff on Planning Small, Low Cost Houses	
Modernization Department.....	65
\$800 Wreck Plus \$4,200 Rebuilding Creates House Worth \$6,500	
Progress in Use of Metal Lath.....	66
E. M. Lurie, Secretary, Associated Metal Lath Manufacturers, Outlines Development of Good Construction	
Simple Lift Forms Cut Costs.....	68
W. C. Austin, Concrete Contractor, Contributes Some Practical Ideas	
Latest in Service Station Designs Use New Materials.....	70
Novel Designs for Gas and Oil Service Stations	
Home Equipment Department—Build to Provide Summer Comfort.....	72
V. L. Sherman Discusses Air Conditioning and Basementless Houses	
Shopcrafter's Corner.....	78
How to Build a Garden Seat and an Ornamented Flower Box	
Practical Job Pointers.....	80
New Products Department.....	84
News of the Month.....	92
Letters from Readers.....	100
Selected Catalogs—a Readers' Service.....	106
Advertisers' Index.....	109

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20

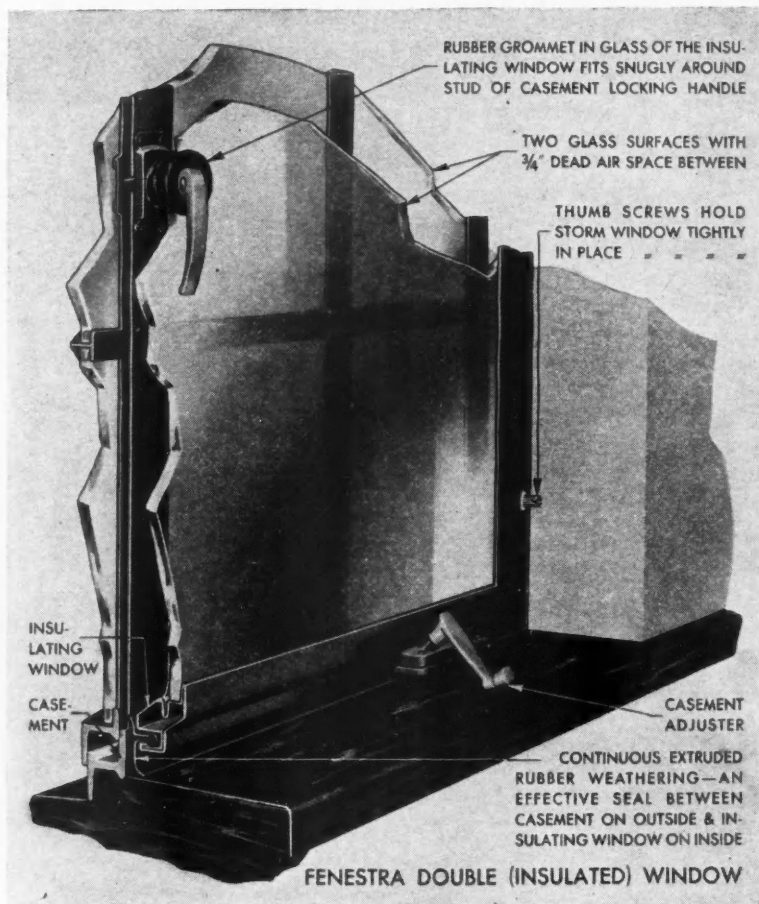
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GOVERNMENT, BUSINESS AND EMPLOYMENT

BOTH parties have now adopted their platforms and nominated their candidates. The most interesting and important national political struggle within at least forty years has begun.

As has been said before on this page, the *American Builder* is not concerned with *politics*. But it is concerned with *business*, and especially *building*.

Both sides agree at least that determination of the issues involved in this year's political struggle will long and greatly affect business, including building.

LIKE all our readers, we desire the revival of building already under way to expand and continue for years. What is necessary to cause this? There is only one possible answer—a *large and prolonged increase in investment of private capital*. It may be the capital of individuals or corporations; it may be invested in small buildings on farms, larger buildings in towns, or very large buildings in cities; but it must be *private capital*, and in the aggregate a huge amount.

How, then, get this huge amount of *private capital* invested? There is only one way—by convincing those who have it that they *will gain by investing it*. Whether farmer, workingman, or business man; poor or rich; New Dealer or anti-New Dealer—nobody will invest his capital in building or anything else unless confident he will *gain* by it.

Therefore, for those who desire a large increase of building, and of employment in building, the important question in this political campaign is: Which party's success is more likely to cause the many persons having small or large amounts of capital to believe that they can gain by investing it in building?

WHO owns most of the capital? Not the rich, but the great middle class, having annual incomes from \$2,000 to \$25,000. Therefore, the great middle class must be relied upon to furnish the bulk of the capital for building. What kind of government policies do a large majority of the middle class favor? More, or less, interference with business? Increased, or greatly reduced, expenditures and taxes? Everybody knows the answer. The success of what policies, then, is more likely to stimulate investment by the middle class in building?

These are matters of business, even though now in politics. You cannot fully restore *employment* without fully reviving *business*. You cannot fully revive *business* without fully reviving *building*. You cannot fully revive *building* without getting those who have capital to invest a large amount of it in building. And they will not invest a large amount of it in building unless given confidence that their investment will be *safe and profitable*.

Think it over—*workingmen* as well as business men.

Samuel O. Drun,
CHAIRMAN,

AMERICAN BUILDER PUBLISHING CORPORATION
SIMMONS-BOARDMAN PUBLISHING CORPORATION

THESE HOUSES OF STUCCO

"Went like hot cakes"



Six Atlas White stucco homes, six different color combinations, six different textures. Average cost of each house—\$6,000. Location—Missoula, Montana. Architect and builder—O. B. Parsons.

● It wasn't any job to find tenants for these houses. Every house in the row was rented before it was finished. For these houses are "right" for quick selling or renting. Small. Moderately priced. Attractive inside and out.

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3. Any color is available in stucco made with white portland cement.

4. It is *economical* in first cost and gives the kind of lasting service that endures in any climate.

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UNITED STATES STEEL CORPORATION SUBSIDIARY
208 South La Salle Street, Chicago



A FACTORY PREPARED STUCCO IS PREFERABLE

S-4

STUCCO MADE WITH **Atlas White** PORTLAND CEMENT

AMERICAN BUILDER AND BUILDING AGE

Meet the Architractor

A NEW NAME might do a great deal to dramatize the present day position of the contractor and builder in the residential field. "Architractor" catches the imagination. It suggests the complete home building service needed today. It calls to mind the master builder of old who was both architect and contractor. "Architractor" might serve the contractor-builder as well as the title "realtor" has the real estate men. It has professional dignity and suggests a centralized service that is highly important.

The unmistakable need of the residential construction field is for a more unified control of the job. Setting the architect apart—in many cases like a little tin god on a pedestal—does the industry no good. To be effective and efficient in home building, architectural services must be made a practical working part of the selling and construction program.

Building Contractors Are Men of Integrity

The concept of an architect as an overseer and a policeman is a false and ridiculous one. It is a concept that leads to suspicion, misunderstanding and inefficiency. It is a concept that is tied up with competitive bidding practices that are harmful. Instead of helping the home owner to secure a better job at lower cost, it puts home building on a tooth-and-claw basis that destroys all possibility of co-operative effort.

The *American Builder* believes in better architecture and in the use of the best architectural talent. But it also believes that better homes at lower cost can be built by co-operative rather than coercive methods. As proof of this fact it is only necessary to point to the increasing number of successful residential building operations that are being conducted by architect-builders, by architects who have become builders, or by builders who have made an architect a part of the firm. Likewise, many lumber dealers include architectural plans as part of their service.

As more and more building firms increase the completeness of their service by including architectural planning, the need for a title, such as "architractor," becomes more apparent. By far the majority of these men enjoy high standing in their communities. Their reputations are built on good materials and good workmanship and honest dealings.

Step Toward Accurate Cost Estimates

The "architractor" is in a strong and strategic position to serve the prospective home builder or buyer efficiently and economically. He is the one who discovers the customer, and he or the architecturally trained member of his firm is able to work with that customer in an understanding way to develop the type of house that will serve him best. And, what is of utmost importance, *he will know the cost of the house he designs.*

One of the greatest sources of misunderstanding and disappointment in the building industry is the faulty estimating of costs. Unless an architect works very closely with a builder and knows his buying habits and construction methods, it is very difficult for him to make an accurate cost estimate. But when the architect is a part of the building firm or closely associated with it, every line he draws on a piece of paper bears some significance in its effect on costs.

The "architractor" can afford to be patient with a client. He can understand the need for sketches to be made on speculation, because the average person cannot visualize a house without some sort of picture. Because of his practical experience in the actual construction of houses, he can keep the costs down. He knows the most economical practice commensurate with good quality for his locality. When a plan has finally been evolved, the client has the assurance of a man who backs his estimates with a contract. The responsibility is centralized in one place.

Costly Misunderstandings

In contrast to this, consider the home owner who goes to an architect who creates a design and sets up arbitrary standards without regard to the most efficient practice of local builders. He hopes that by getting a number of contractors to bid against each other he will force them to cut each other's throats to the extent of giving him a below-cost bid. But anyone who has gone through this operation knows that the client is the chief loser by the operation. Because the contractors are afraid and suspicious of the arbitrary specifications of the architect, they must figure higher all around. They cannot be sure exactly what he has in mind. They are afraid of being

"ridden" in an unfair and arbitrary fashion. The result is that in most cases even the lowest bid would have been much lower if the architect and contractor had been working together instead of apart. If one of the bidders does make a mistake and bids less than actual cost to him, the chances are all in favor of his finding a way to protect himself. Under this method suspicion, argumentation and coercion replace intelligent, co-operative efforts. Usually it is the customer that loses.

There is room in the residential building industry for many kinds of working agreements between architects, builders, lumber dealers and the other important elements of the industry. *American Builder* believes that there should be increased co-operation and consolidation of effort. Responsibility should be centralized in one man or one firm. The title "architractor" might well be widely used to describe the type of building organization which is set up to render a complete and efficient service for the building of modern homes.

* * *

Shortage of Skilled Men

AFTER five years of idleness the building trades again see plenty of work ahead. Carpenters, bricklayers, plasterers, concrete workers—all are being called back to the building job, that is, *all who are left*. The older skilled workmen, now five years older, are gone; the younger men, many of them, have turned to other lines; and the apprentices?—practically none have been trained since the business crash of '29.

Facing such a situation, building trades employers as well as dealers and manufacturers may look forward to the now impending building boom with anxiety as to their ability to deliver quality and quantity at reasonably stabilized costs.

Apprentice training should be undertaken immediately and carried forward both by contractors and labor councils. The conditions generally today are about as revealed in the Chicago area. E. M. Craig, executive secretary of the Building Construction Employers' Association of Chicago, pointing out that workers' ranks in the building crafts have been greatly depleted in the last six years, recently said that in normal times 110,000 building tradesmen were gainfully employed in Cook County, but it is doubtful if 50,000 would be available today.

Higher Labor Costs Seen

"There has been no incentive to keep men within their crafts or to train apprentices to replace those falling out," Mr. Craig said. "Large numbers of skilled workers have tossed aside their tools and it is safe to say that the majority will not return.

"The present apprenticeship situation carries a dangerous threat of higher labor costs, and if it is not corrected before the advent of normal times it will force contractors to bid against each other for the mechanics. Skilled workers are not created overnight; three to four years' preparation is necessary."

Apprentice Training Should be Resumed

Confirming this same view of Chicago labor conditions, an executive of one employment service declared that if he had a request for twelve carpenters under 35 years of age he would have a difficult time finding them.

The Illinois state employment service reported late in May that there are shortages in a number of occupations, particularly among machinists, tool and die makers, gray iron floor and bench molders, power machine operators, and welders.

"After several years of depression," said Gordon L. Hostetter, executive secretary of the Employers' Association of Chicago, "American employers are becoming conscious of a shortage of skilled mechanics for future expansion of industry.

"Everyone has been lax in the matter of training new workers since the business decline started in 1929. Most of our skilled trades require four years of apprenticeship, so that even if the training practice were resumed on a large scale at once it would be several years before the first of these apprentices would be ready to take their places as master workers in their trades.

"With the large number of fine American boys looking for anything to do, however, the re-establishment of such training should be given serious consideration."

5-Point Apprentice Program

A Federal Committee on Apprentice Training has been set up at Washington with William F. Patterson as executive secretary. Its function is to assist and co-operate with the state divisions of vocational education and of apprentice training that have been established in many of the states. In a new bulletin on "Indentured Apprenticeship" dated June 1936, the Federal Committee states that the record of trade unions shows that they are definitely in favor of an apprentice training program which encompasses the following features:

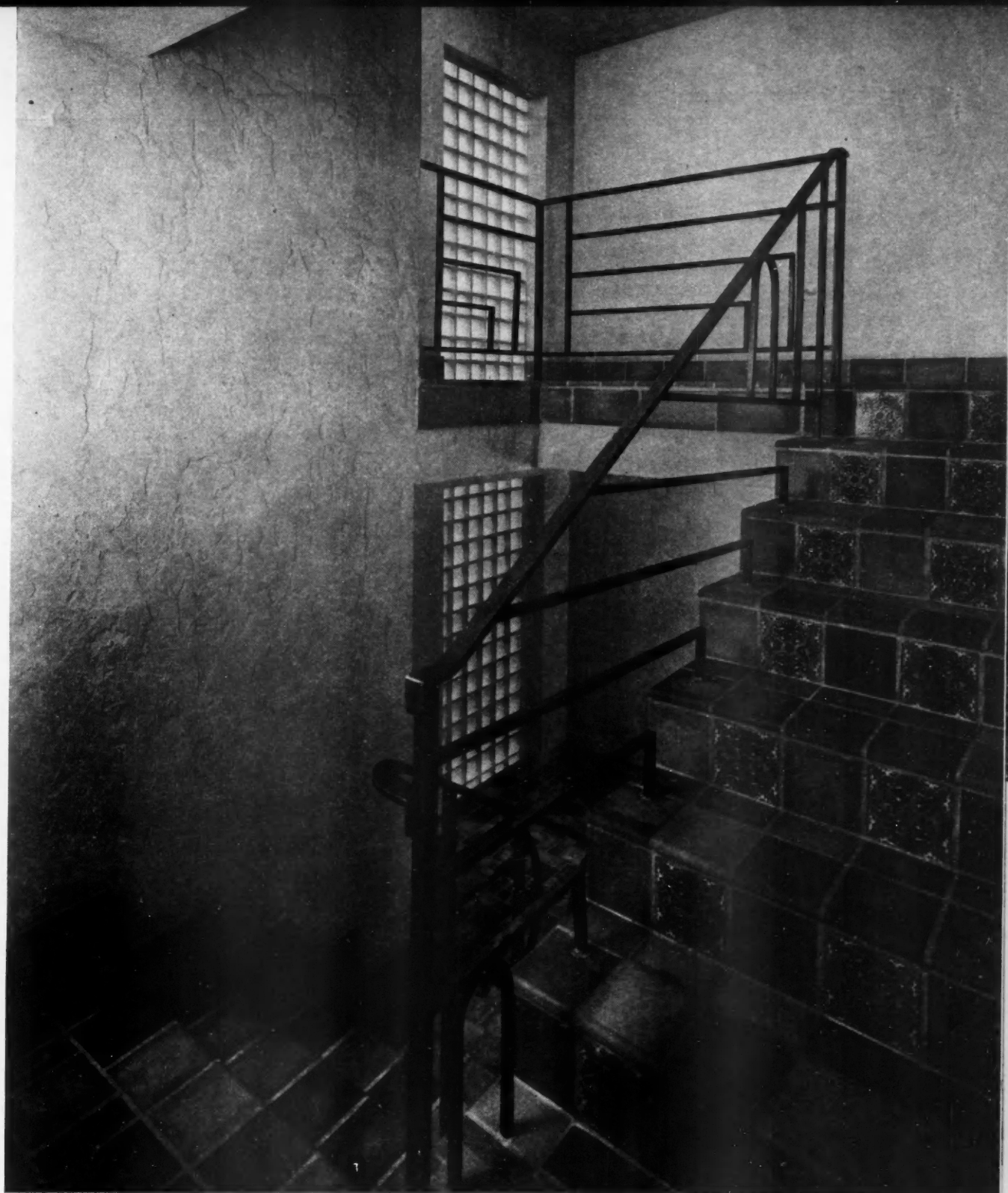
1. Use of the apprentice agreement which is subject to approval of an impartial third party, usually representing public authority.

2. That the training of the apprentice both on the job and in school be broad enough to insure both versatility and adaptability.

3. That attention be given to a plan for better distribution of skilled workers so that particular crafts will not be over-crowded and so that every graduate of an apprenticeship will have assurance that he can be absorbed in the trade.

4. That the interest of the apprentice and the public will always be the predominant consideration.

5. That the apprentice is paid a ratio of the journeyman's wage in proportion to his worth. It is not of permanent benefit to the apprentice to set the progressive wage rate too high to begin with, since this may have a tendency to minimize the broad training the apprentice should receive on the job, and also cause him to take the attitude that he is working for wages rather than for a permanent training.



IN STEP WITH THE TIMES

Builders win ready response by taking up new ideas in design and materials . . . Photo shows glass block lighted stairway in Pinecrest Apartments, Miami Beach, Fla.; L. Murray Dixon, Architect.

Bonded Home

Know all Men by These Presents:

That (Mr. Bonded Builder) of Newark, State of New Jersey, hereinafter called the Principal, and (OUR SURETY COMPANY) hereinafter called the Surety, are held and firmly bound unto the State of New Jersey in the sum of Six Thousand Dollars (\$ 6000) for the payment whereof to the Obligee, hereinafter called the Obligee, the Principal binds his heirs, executors, administrators, successors, and assigns, and the Surety binds itself, its successors and assigns, jointly by these presents.

Signed, sealed, and dated this 8th day of May, 1936.

Whereas, the Principal and the Obligee have entered into a written contract, hereinafter called the Contract, for One family dwelling located at Crestmont Road, Broomfield Village, N. J., dated the 5th day of May, 1936, a copy of which is attached hereto;

Now, therefore, the condition of the foregoing obligation is such that if the Principal shall indemnify the Obligee for all loss that the Obligee may sustain by reason of the Principal's failure to comply with any of the terms or conditions of the Contract, then this obligation shall be void; otherwise it shall remain in force.

The foregoing obligation, however, is limited by the following express conditions, the performance of each of which shall be a condition precedent to any right of claim or recovery hereunder:

1. Upon the discovery by the Obligee of any breach of the provisions of the Contract, the Surety shall assume the performance of such of the duties of the Principal as it may be required to perform, and at its option to perform or sublet the same to the Surety at its home office.
2. If the Principal shall fail to comply with the provisions of the Contract, the Surety shall assume the performance of such of the duties of the Principal as it may be required to perform, and at its option to perform or sublet the same to the Surety at its home office.
3. In the event of any breach of the provisions of the Contract, the Surety shall be deemed to have assumed the performance of such of the duties of the Principal as it may be required to perform, and at its option to perform or sublet the same to the Surety at its home office.
4. Legal proceedings for recovery hereunder may be brought within twelve months from the time of the discovery of the act or omission of the Principal, or the date of failure of the Principal to perform or sublet the same, or the date of the expiration of the period of the Contract, whichever is the latest, and all claims and demands shall be deemed to have accrued at the expiration of the said period of twelve months.
5. The Principal shall be liable for any damages resulting from strikes or labor disputes, or from mobs, riots, fire, the elements, or acts of God, or for the repair or reconstruction of any work or material damaged or destroyed by any such cause, not for damages for injury to persons, nor for the non-performance of any guarantees of the efficiency or working quality of any work done or materials furnished or the maintenance thereof, or repairs thereon.
6. The Surety shall be liable for any damages resulting from strikes or labor disputes, or from mobs, riots, fire, the elements, or acts of God, or for the repair or reconstruction of any work or material damaged or destroyed by any such cause, not for damages for injury to persons, nor for the non-performance of any guarantees of the efficiency or working quality of any work done or materials furnished or the maintenance thereof, or repairs thereon.
7. No change shall be made to the plans and specifications forming part of the Contract that shall increase the amount to be paid to the Principal unless the Surety's consent thereto shall be secured in writing.
8. No right of action shall accrue hereunder to or for the use or benefit of any one other than the Obligee, and the Obligee's rights hereunder may not be assigned without the written consent of the Surety.

In Witness Whereof, this instrument has been executed by the duly authorized representatives of the Principal and the Surety.

(MR. BONDED BUILDER)
(Principal)

(OUR SURETY COMPANY)
(Surety Company)

Copyright 1936—Passaic-Bergen Lumber Co., Inc.

A LARGE national surety company issues this bond to guarantee the house built by a "Bonded Builder."



Roy E. Sweney, President
Passaic-Bergen Lumber Company, Inc.

Bonded Homes by

Home Buyers' Desire for Absolute Safety and Protection Met by New Building Plan

A NEW PLAN to increase confidence of home buyers in builders has taken hold in New Jersey in a way that has people talking. Because it answers the desire on the part of many prospective home buyers for a guaranteed product, it has met with an immediate response by builders as well as home owners that is rather impressive.

Roy E. Sweney, 33-year old head of the Passaic-Bergen Lumber Company, has been the first to kick off the Bonded Homes Plan in New Jersey. It was announced at a banquet May 6, attended by some 600 builders and building men—an impressive start. By the first week in June 150 builders had signed up with Sweney under the Bonded Homes Plan. "Bonded Homes" are being widely advertised in newspapers, direct mail and on huge signboards. In full page advertisements Passaic-Bergen lists the names of build-

ers who have joined with them and who are entitled to the designation of "Bonded Builder."

What does this fanfare of publicity mean to the building industry? It means that a definite, workable plan has been evolved to restore confidence of the public in home buying.

Does the bond mean anything? Anyone who has filled out the Contractor's Financial Statement, the Application for a Contract Bond and undergone the rigorous inspection of the bonding company will state emphatically that it does.

It is obvious that if the terms "Bonded Builder" or "Bonded Home" mean anything a real and definite protection must be offered. Everyone—contractor, lumber dealer and home owner—will profit by having the bond mean something.

The Bonded Homes Plan is part of a complete mer-

AFTER acceptance of his Application and Financial Statement the Bonded Builder receives a Certificate such as shown to right.



Bonded Builders

By JOSEPH B. MASON



BONDED Builders are given advertising support both in newspapers and in the construction of such signs as this, which is located, on a prominent highway near the thriving town of Teaneck, N. J.

chandising service that has been set up by Sweney and his associates in the Passaic-Bergen Company. This merchandising plan includes an advisory service to home builders. It includes the use of local architects, real estate men and builders, each retaining his accustomed work but brought together in a co-operative plan that makes home buying more easy.

In its financing and bonding program, Passaic-Bergen is making use of the Weyerhaeuser plan financed by the General Home Financing Corporation, with headquarters at St. Paul, Minn. The Eastern zone office, which is under the direction of George B. Skiffington, is located in Newark, N. J.

Under the Bonded Homes Plan the builder is required to fill out a financial statement which gives a clear picture of his credit position and his ability to do a good job. His financial and business reputation

is clearly shown, and, what is considered most important, his honesty, technical training and experience are indicated. The builder's application is sent to a nationally known bonding company to make an independent investigation. If the application is accepted he is issued a certificate stating that he is a "Bonded Builder," authorized and licensed to build "Bonded Homes."

The Passaic-Bergen Company will then co-operate to a large extent with the builder in an advertising program. They feature his name in newspaper advertisements and direct mail pieces. In addition, they will supply the materials, designs and painters necessary for erecting job signs. All the Bonded Builder has to do is erect the sign.

The advertising and publicity program of Passaic-Bergen is an extensive one and is handled by the

Revolutionizing the Building Industry!

The Bonded Homes Plan signifies the dawn of a new era in the building and buying of homes. It meets a long-felt public need for

The SAFE Way to Buy a HOME Bonded Homes

BUILT BY Bonded Builders*

Sold with a GUARANTEE of Completion for Your Protection

When you build a Bonded Home, you know exactly what you are getting—and what it will cost you

1 PLANS AND SPECIFICATIONS

Completed homes meet them in every detail with registered architect's plans and specifications.

2 CONSTRUCTION

Responsibility and thoroughness of workmanship throughout the home are assured by rigid inspections during the course of construction by the Bonding Company and the Federal Housing Administration.

3 CONTRACT PRICE

Home must be completed for the amount named in the contract.

4 PROTECTION AGAINST MECHANICS' LIENS AND BUILDING ENCUMBRANCES

5 TITLE POLICY

The Bonded Homes Plan provides the owner with title insurance.



King Builders: 4-room Dutch Colonial Home at Leckwiese Terrace, being constructed by the Bonded Homes Plan. This means that you can be assured the adequate financing arranged on a basis that will conveniently meet your budget requirements.

Inspect Offerings of these Qualified Bonded Builders:

BERGEN COUNTY, N. J.

- Byland Construction Co., Elmwood Ave., Alstead
- William G. Bender, 21 Brook St., Bergenfield
- Leonard Lindheim & Son, Station Square, Bergenfield
- David Brown, 53 West Fort Lee Road, Bogota
- Demarest Development Co., (Hartley General), Hardensburgh Road, Demarest
- Walter C. Heath, 136 Cortland Ave., Dumont
- Van-Devo Canal Co., 150 West Madison Ave., Dumont
- Colonial Housing Co., 5 Fern St., Fairview
- Palmer Building Co., Fort Lee Bldg., Fort Lee
- Fort Lee Bldg. & Invest. Corp., 1593 Center Ave., Fort Lee
- Victorians Bldg., Tom Hunter Road, Fort Lee
- Model Home Builders, Inc., Ridge Road, Glen Rock
- Peerl Building & Inv. Co., Inc., 412 Macco Ave., Glen Rock
- A. J. Reagenstein, (Highland Park) Glen Rock
- Arnold Zeller, Glen Rock
- John Cooper Co., Inc., 207 Second St., Hackensack
- Thomas H. Hagerman, 145 Washington Place, Hackensack Heights
- H. C. Beane, Terrace & Passaic Aves., Hackensack Heights
- Herman S. Frankel, Hawthorne
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- Servus Building Co., 2 Bergen Ave., Hawthorne
- Chel Construction Co., Inc., Chesham
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- Richard E. Wink, 335 Watson Ave., Lyndhurst
- Jacob Kiehl, 82 Washington Ave., Maywood
- Constance A. Hoffman, 95 Adelbert Ave., Midland Park
- Steele Construction Co., 251 Ball Mead Ave., Palisade
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- Fred W. Triquet, Spring Valley Road, Paramus
- George M. Finkel, 313 Fairmount Road, Ridgewood
- Beard Home Builders, Inc., (Catalina Gardens), Wall St., Ridgewood
- Raynes Bldg., (Pinewood Village), Ridgewood
- Village Builders, Inc., West Glen Ave., near Monroe St., Ridgewood
- Harry B. Vander Bank, 786 Roger Road, River Edge
- American Home & Community Bldg. Corp., Colonial Village
- Teonack Rd., (South of Route 4), Teonack
- Baldwin & Cantast, Inc., River Rd. & W. Englewood Ave., Teonack
- Degrew Estates Corp., 310 Teonack Road, Teonack
- Garden State Housing Corp., I. Wilson Ave., Teonack
- Kings Builders, (Lawnside Terrace), Route 4 adj. Phelps Manor Golf Course, Teonack

- Andra Letzko, 201 Locust Ave., Teonack
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- John Wrenwelder, 275 Elm Ave., Yonkers
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- Henry C. Manning, Westwood
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- William H. Biddisley, Inc., (Lum Estates), 155 Fourth Ave., Woodbridge
- Charles J. Jaycock, Crescent Ave., Wyckoff
- Edwin Mason, Franklin Ave., Wyckoff
- Benjamin Brubaker, Cyril Ave., Warren Point
- Earl Hagerman, Macco and Rochdale St., Warren Point

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- Leandrea Homes, Inc., 921 Bergen Ave., Jersey City
- Edna J. Whalley, 222 Riverview Ave., N. Arlington
- Bridgeport-Demarest Realty Co., 550 Bergenline Ave., W. New York
- Reconstruction Dev. Corp., 250 Bergenline Ave., W. New York

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- Nautilus & Daniel, Seimor Gardens, Seimor

MORRIS COUNTY, N. J.

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- Blanchard Bradley, Inc., (Lum Estates), Washington Ave., Chatham
- Charles J. Jaycock, Main St., Chatham
- J. Owen Williams, Main St., Chatham
- Frederick Georgia, Ridgewood Court, Dover
- Edmond Glasgow, Mount Pleasant Ave., Livingston
- Fred V. Spring, 114 Roosevelt Ave., Livingston

PASSAIC COUNTY, N. J.

- C. B. Brinker & Son, York Road, Butler
- Adam Leytham, 203 Broadway, Clifton
- Meyer Vilm, Inc., 310 Hill Ave., Clifton
- Herbert Birkenhough, Weinmann Blvd., Freshman

UNION COUNTY, N. J.

- Richard H. Jennings, 61 Dayton St., Elizabeth
- Morris Rier, 55 Collingwood Hill Rd., Elizabeth
- Forewood Building Co., Helen St., Fairfield
- James H. Swann Co., Helen St., Fairwood
- Edwards Corp., (Philip J. Bowen Co.), Hollywood Ave., Hillside
- Glass & Greff, 2104 Orchard Terrace, Linden
- Frank Mazzucca & Son, 21 Linden Ave., East Linden
- William H. Albaugh, 1320 Sunnyside Place, Plainfield
- Wallwood Realty Corp., 144 E. Front St., Plainfield
- Charles Krause, 39 Morris Ave., N. Plainfield
- Charles E. Johnson, 200 Sheridan Ave., Roselle
- Edmond Glasgow, Roselle Park
- William H. Westfield, 15 E. Westfield Ave., Roselle Park
- William H. Westfield, Emerson Land, Scotch Plains
- Bedel Realty Co., Inc., 41 Maple St., Summit
- Bedel Homes Inc., Pittsford Valley W. Summit
- Eugene C. Strick, 30 Inwood Road, West
- Charles Long, 582 Coldiville Place, Union
- John P. Ledy, 1694 Porter Road, Union

ESSEX COUNTY, N. J.

- William Wilson, 400 Park Ave., Belleville
- Theodore Green, 34 Johnson Ave., Bloomfield
- Joseph Zimmerman, Brookdale Manor, Bloomfield
- John D. Homestead, 79 1/2 Ave., East Orange
- Andrew Johnson, 416 N. Clinton St., East Orange
- Andrew Lenzel, 85 Hollywood Ave., East Orange
- Edward A. New, 263 N. Walnut St., East Orange
- Henry P. Mann, 27 Princeton Ave., East Orange
- Richard B. Bradley, Inc., Inter-City Homes, Inc., Northmore Ave., Glen Ridge
- Otto E. Fessler, 178 Nesbit Terrace, Irvington
- South Mountain Estates, Millburn
- Andrew Johnson, 62 Montclair Ave., Montclair
- Montclair Modern Homes, Inc., 27 Princeton Drive, Montclair
- Richard B. Bradley, Inc., 445 Fourth Ave., Newark
- Gregory Construction Co., 7 Hudson Terrace, Newark
- Nelorena Corporation, 189 Montnet St., Newark
- James H. Swann Co., Inc., 27 Elizabeth Ave., Newark
- Joseph Timmerer, 170 Orange Ave., Nutley
- Hunter Lindsay Corp., 304 Park Ave., Orange
- W. W. Dewey, 58 So. Orange Ave., So. Orange
- Louis Steffensli, Volhollo Way, Verona
- Benard Barnes, 43 Roosevelt Ave., West Orange
- David L. Cross, 15 Crestmont Rd., West Orange
- Dietrich Colburn Co., 24 Grassy Ave., West Orange
- Valentine Bros. Inc., 517 Princeton Valley Way, West Orange
- Thomas & Henry Thompson, 77 Watson Ave., West Orange

*BONDED HOMES erected by builders qualified to furnish a contractor's completion bond through a nationally known bonding company.

MISSAIC-BERGEN LUMBER CO. INC. LUMBER MILLWORK, BUILDING MATERIALS Executive Offices and Main Yard, Main Ave. (Delamater Section), Passaic, N. J. Showroom, East Orange, Teonack, Edgewater, Linden

Approved or Confirmation Pending

MAIL THIS COUPON

It will bring you a copy of our booklet, "The SAFE Way to Buy a Home," giving full details of the Bonded Homes Plan.

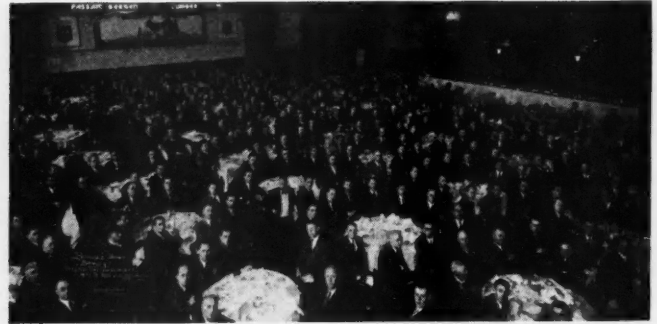
PASSAIC-BERGEN LUMBER CO., Inc., Passaic, N.J.

Send me a copy of your booklet on the "Bonded Homes Plan."

Name

Address

City



MORE than 600 builders, developers and building men attended the dinner in Newark, N.J., in which the new Bonded Homes Plan was announced by Passaic-Bergen. In less than a month 150 contractors were accepted as "Bonded Builders."

United Service Advertising Company of Newark. Huge signboards dot the countryside, advertising not only the Passaic-Bergen Company and Bonded Homes but the Bonded Builders as well.

One of the obvious advantages of the plan is that the financing arrangements are handled in the office of the Passaic-Bergen Company and can be pushed through in less than two weeks time. The General Home Financing Corporation operates under the FHA plan, and the carrying charges are the same as other loaning institutions operating under FHA.

Prospective home buyers are told that the Bonded Homes Plan is the safe way to buy a home. The customers are told that the house is built by a Bonded Builder and sold with a guarantee of completion for their protection. The person who builds a Bonded Home knows exactly what he is getting and what it will cost. Five outstanding safeguards are included in the Bonded Plan as follows:

1. Plans and specifications must be by a registered architect, and the completed house must conform to them. Rigid inspections are made by the bonding company in addition to the regular supervision of the Federal Housing Administration.
2. Construction methods and materials are guaranteed. Thoroughness of workmanship is assured because the builder has been selected for his knowledge and experi-

(Continued to page 108)

APPLICATION FOR CONTRACT BOND

Federal Housing Act
Serial Number

Full name of Applicant

Business address (Street, City and State)

If applicant is a firm, name all partners or directors, if a corporation, name principal officers and directors.

NAME	AGE	ADDRESS

If applicant is a corporation, state when incorporated

Kind and amount of bonds required: Proposed Bond, \$

To whom is bond to be given?

Address

The Amount of Contract is: \$

Terms of Contract (Give outline description of proposed work and locality)

Name and address of Architect or Engineer in charge

What is his estimate of cost of work?

TERMS OF CONTRACT

Date work to be completed

Date work to be completed

State approximate amount of this contract which will be Sublet

AMOUNT	CHARACTER OF WORK	NAME OF SUB-CONTRACTOR	ADDRESS

Will you require sub-contractors to give bonds?

Have you purchased or made binding contracts for the materials needed for this contract, and within your estimate?

How are drawings secured to you?

CONTRACT NO.	DATE OF COMPLETION	LOCATION OF WORK	PAID TO CONTRACTOR	SAVED BY CONTRACTOR	SAVED BY ARCHITECT

THE advertisement above features the advantages of the Bonded Homes Plan and gives the names of the Bonded Builders who have qualified. An extensive campaign of advertising and promotion to acquaint the public with the advantages of the Bonded Homes Plan is being carried out.

THIS is the Application filled in by the Bonded Builder in obtaining the Contract Bond. Three pages of data are required.



Paist & Steward, Architects; Photo by Gottscho

Florida Revival

New Architectural Styles Emerge as Florida Home Building Improves. These and Other Current Style Trends Shown in This Month's Design Section of Selected Homes



RIVIERA HOUSE

**James Burley, Architect
Seaway Corp., Builders**

THE Seaway Corporation built this interesting house in its new development at Surfside, Miami Beach, Fla. It is described as a "Riviera" type, with clean modern lines and provisions for outdoor living. The porte-cochere at right is designed to house the automobile. The floor plan is the same as the Directoire House on opposite page, except that an extra bedroom has been added.

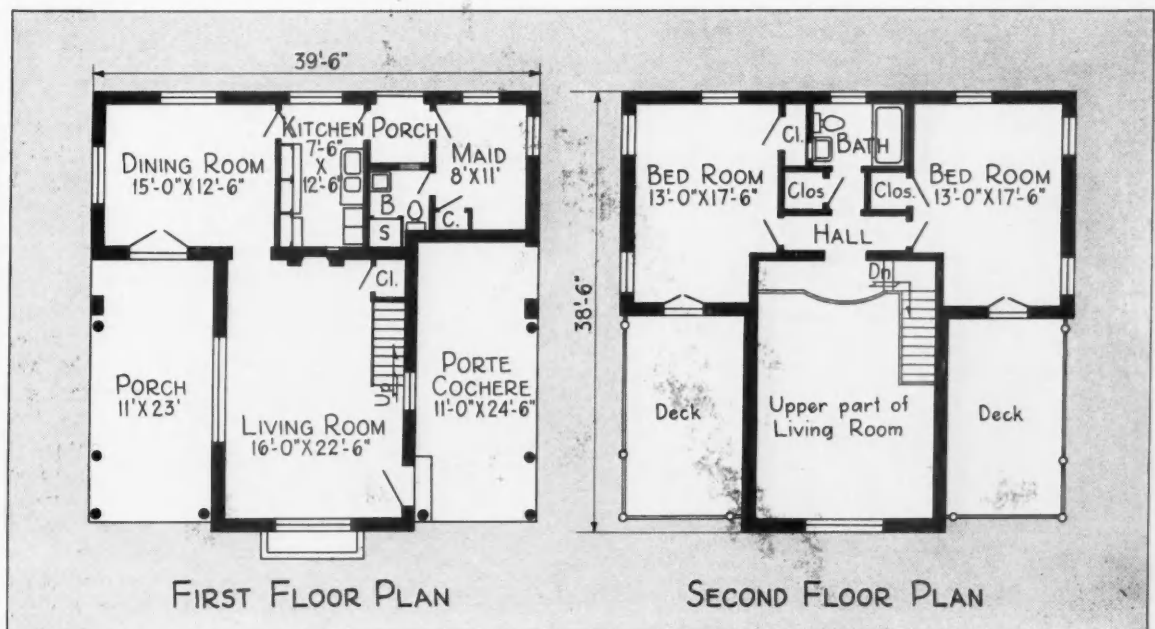


THE architecture of the little garage-and-servant-quarter structure, at left, is inspired by the planters' houses that have been built for years in Southern states. The lines are simple, well proportioned, and the open porch is most attractive. The architect is James Burley of New York City.



JAMES Burley, architect, and the Seaway Corporation have here produced a modern and attractive home that sets a new note. It is a house that is ideal for entertainment and opens up easily for garden parties and outdoor living. The lines are simple and modern and fit well into the Florida setting. The automobile is housed in the latticed porte-cochere at right. The floor plan has good circulation and unusual spaciousness for a moderate sized house.

FLORIDA DIRECTOIRE

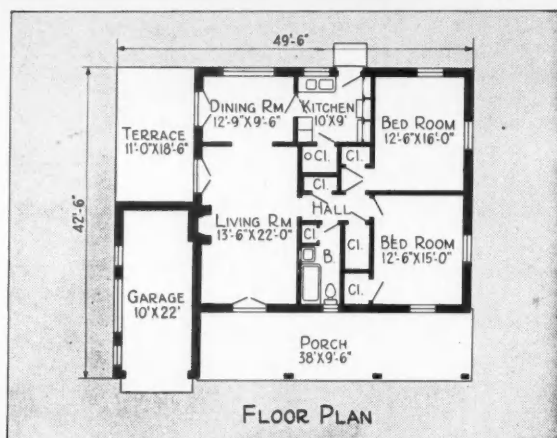




TROPICAL HOUSE

THIS Miami Beach house has a low-lying, cool, tropical look, with a wide shady porch. The grouping of kitchen, bath and closet space in the center gives maximum outside exposure to the rooms. The house was designed by James Burley and built by the Seaway Corporation.

Cost Key is 1.649-184-1287-62-18-21.

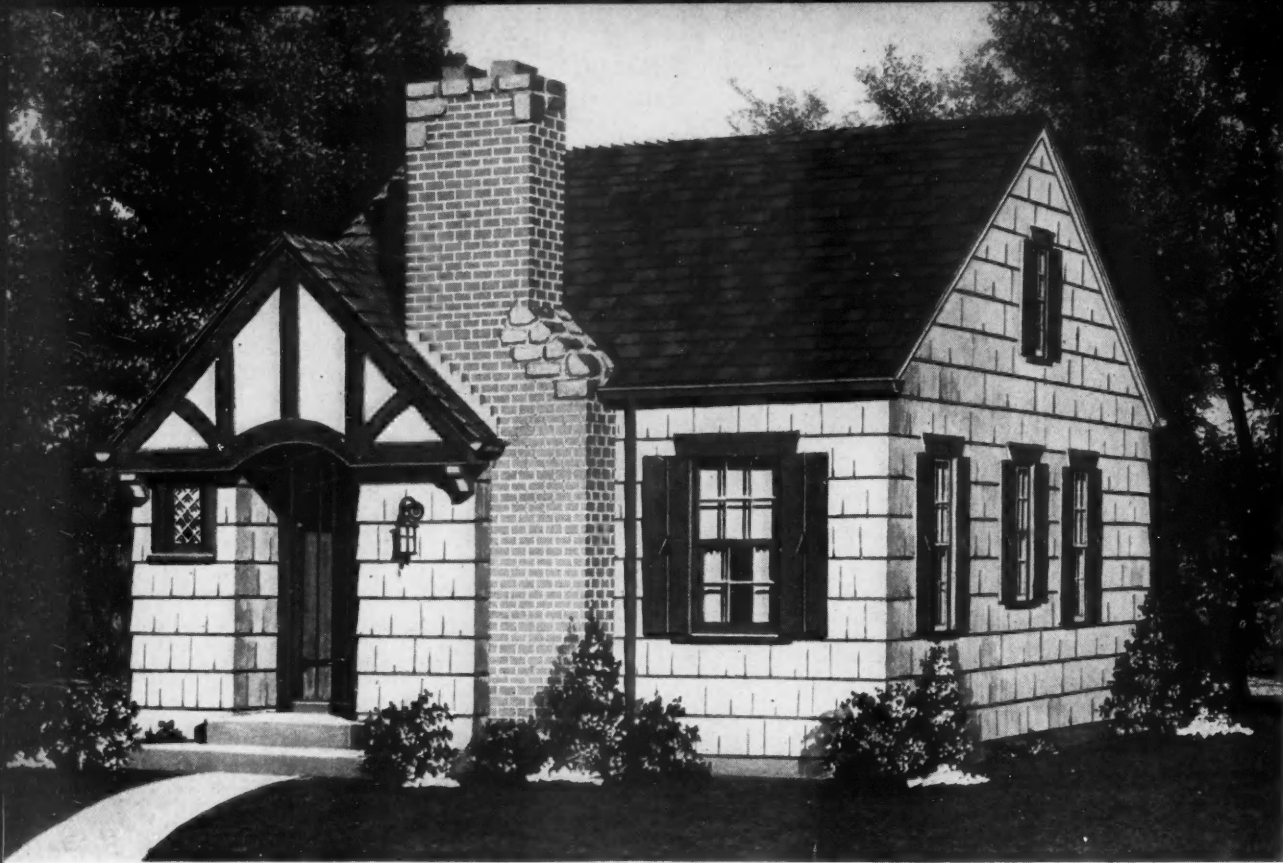


FLOOR PLAN



THE studio living room of this Tropical House has an air of coolness, spaciousness and comfort that is unusually fine for so small a house. The fireplace detail is handled with skill and simplicity. The arched entrance into the dining room gives added size to the room.

THIS house, like others designed by James Burley for Florida living, opens out into the outdoors in a pleasant fashion. The French doors at left lead to a terrace. The dining room has similar doors so that it is convenient for the occupants to have their meals outside.



48

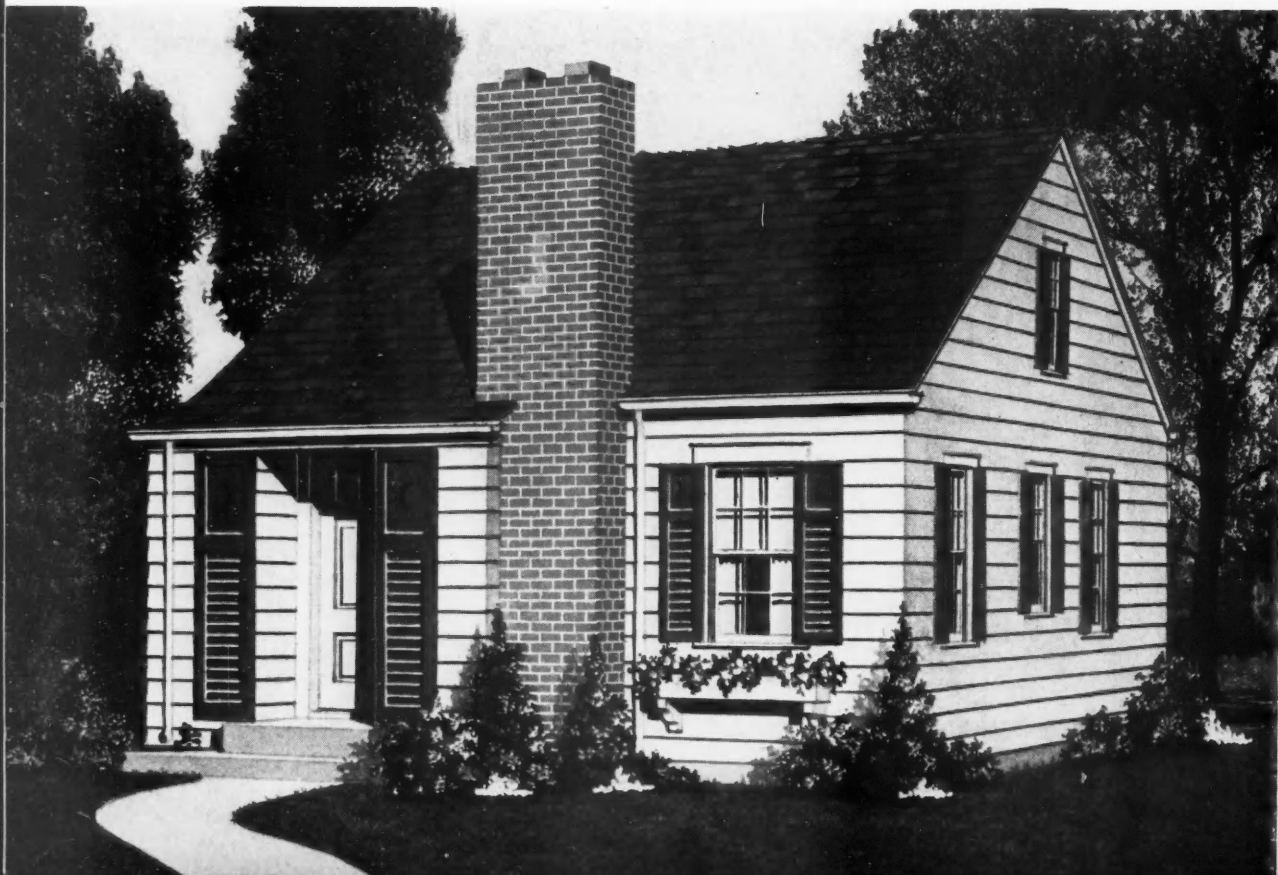
"THE WAYMAN, NO. 1."

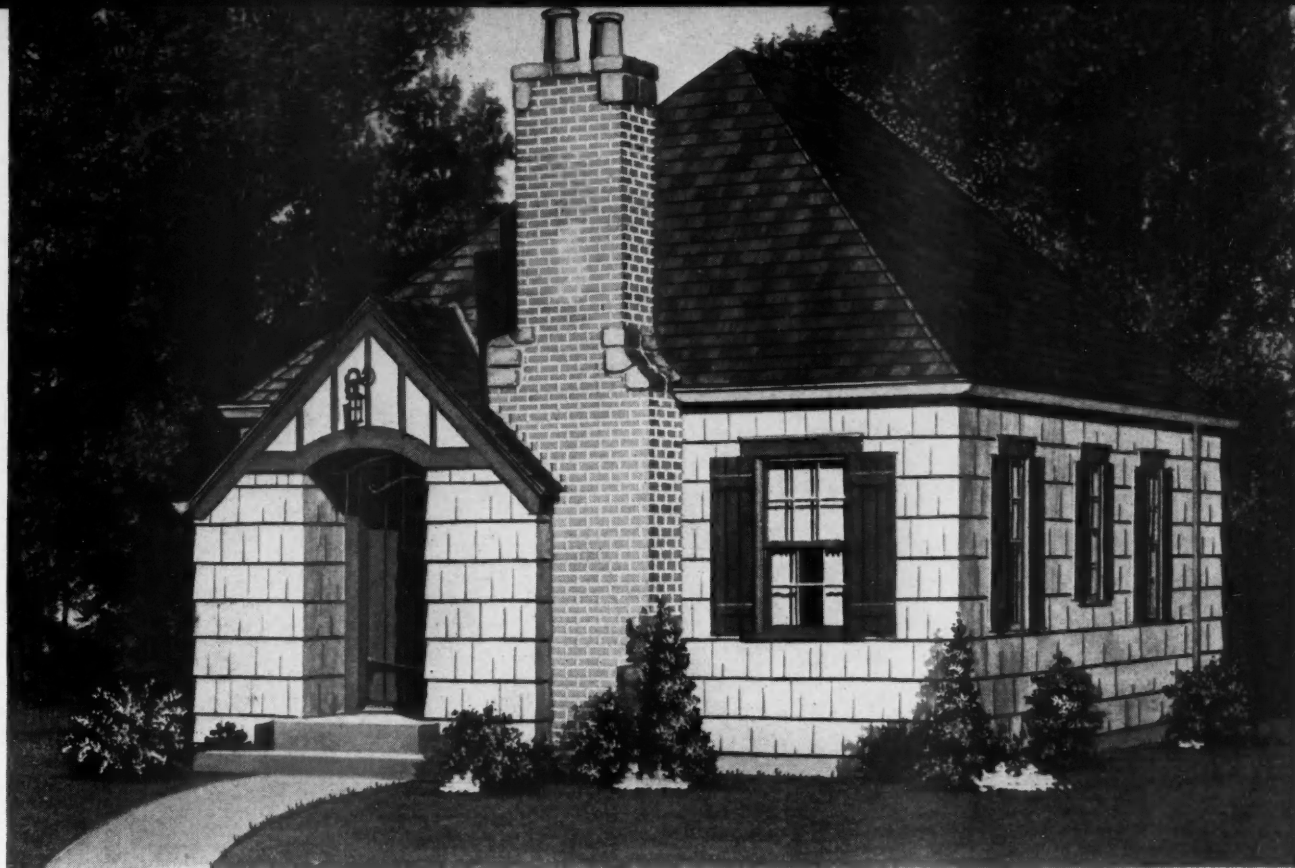
THREE EXTERIORS,
SAME FLOOR PLAN

Designs by National Plan Service
Incorporated, Chicago

WITH alternate floor plans, A and B, and 3 exterior treatments "The Wayman" offers a selection of six different designs.

"THE WAYMAN, NO. 2."





"THE WAYMAN, NO. 3."

"THE WAYMAN"

Three Rooms, Bath, Dining Nook and Bed Closet

Cost Keys are:

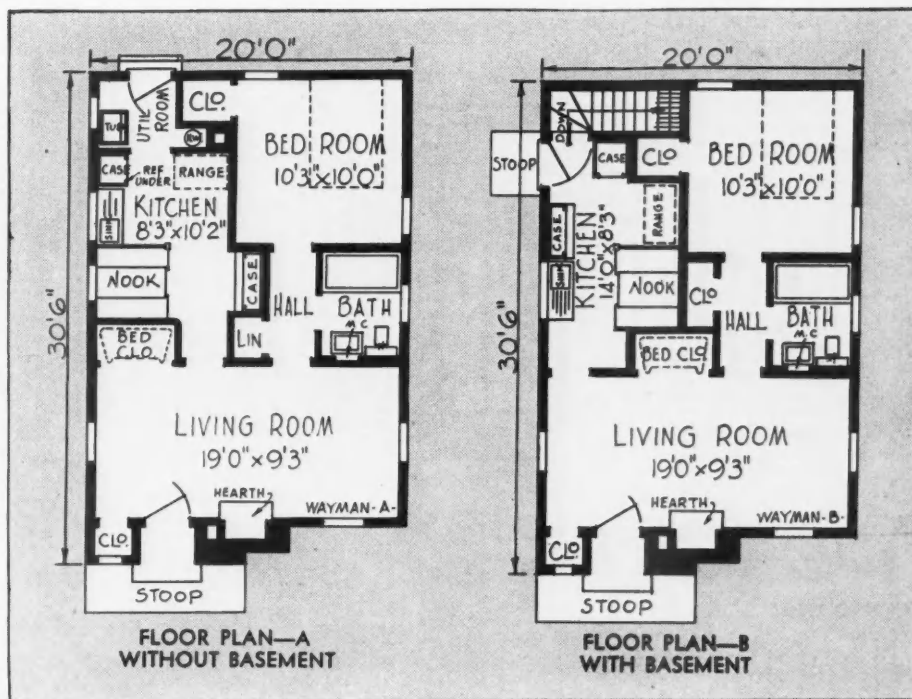
- No. 1 Plan A. .799-101-(585)-(25)-12-8
- No. 1 Plan B. .783-101-585-25-12-8
- No. 2 Plan A. .789-101-(585)-(25)-12-8
- No. 2 Plan B. .773-101-585-25-12-8
- No. 3 Plan A. .789-101-(585)-(25)-10-10
- No. 3 Plan B. .773-101-585-25-10-10

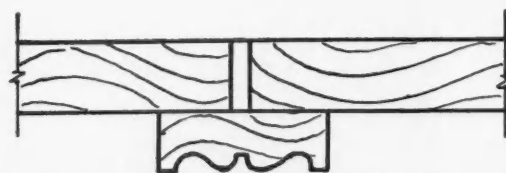
DESIGNED to occupy the small space required for three rooms, but equipped with the conveniences and efficiency of five rooms. The living room can be used as a bedroom at night if necessary. These small cottages are of good architecture and will make pleasing additions to any community.

- DIMENSIONS**
- Size of main building, Plan-A 20'0"x30'6"
 - Size of main building, Plan-B 20'0"x30'6"
 - Size over all, Plan-A 21'0"x33'6"
 - Size over all, Plan-B 24'0"x33'6"
 - Ceiling height 8'0"
 - Height of basement, Plan-B 7'0"

PLAN-A CUBIC FEET 6300

PLAN-B CUBIC FEET 8350

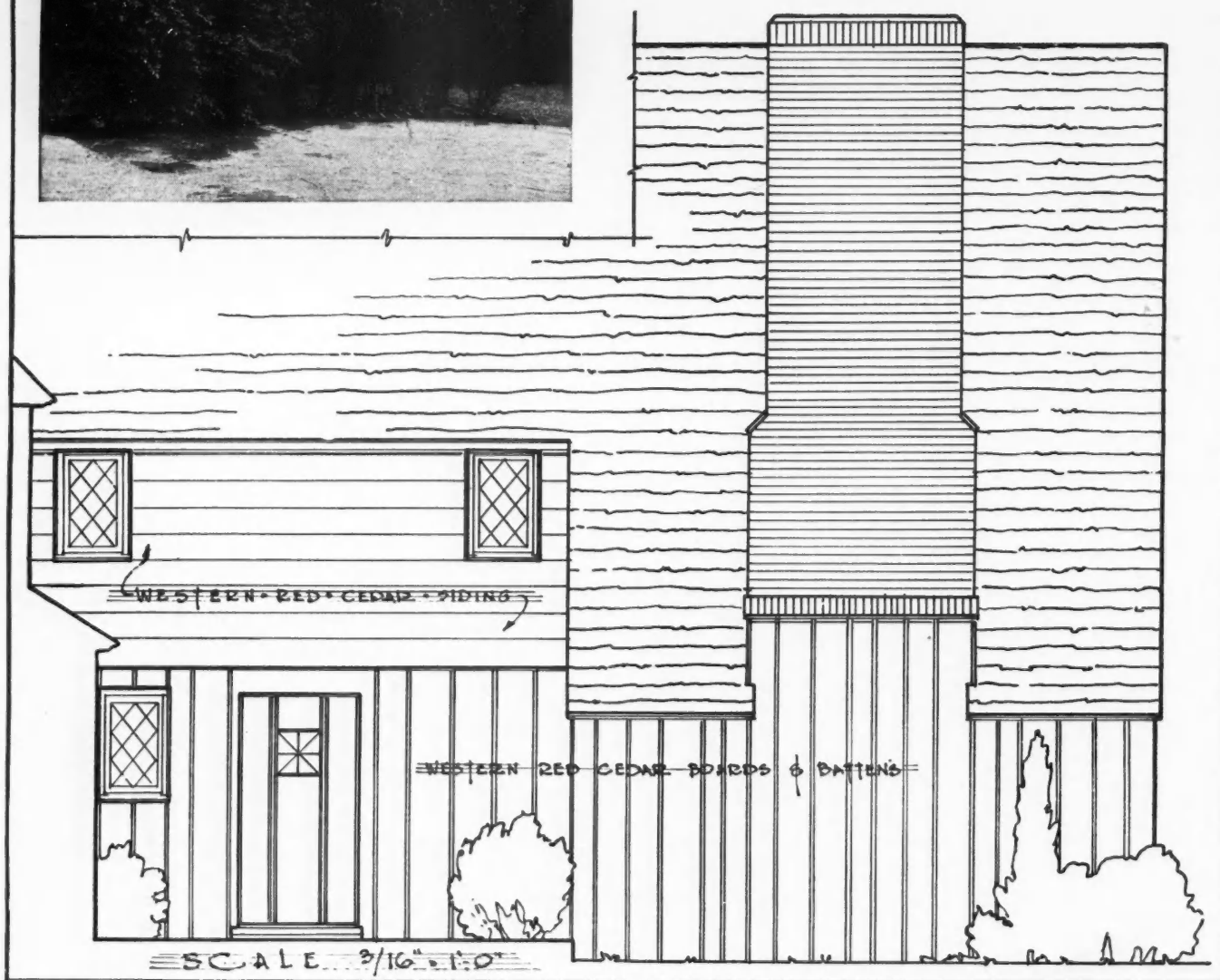




DETAIL OF BOARDS & BATTENS
1/2 FULL SIZE

RESIDENCE IN SEATTLE

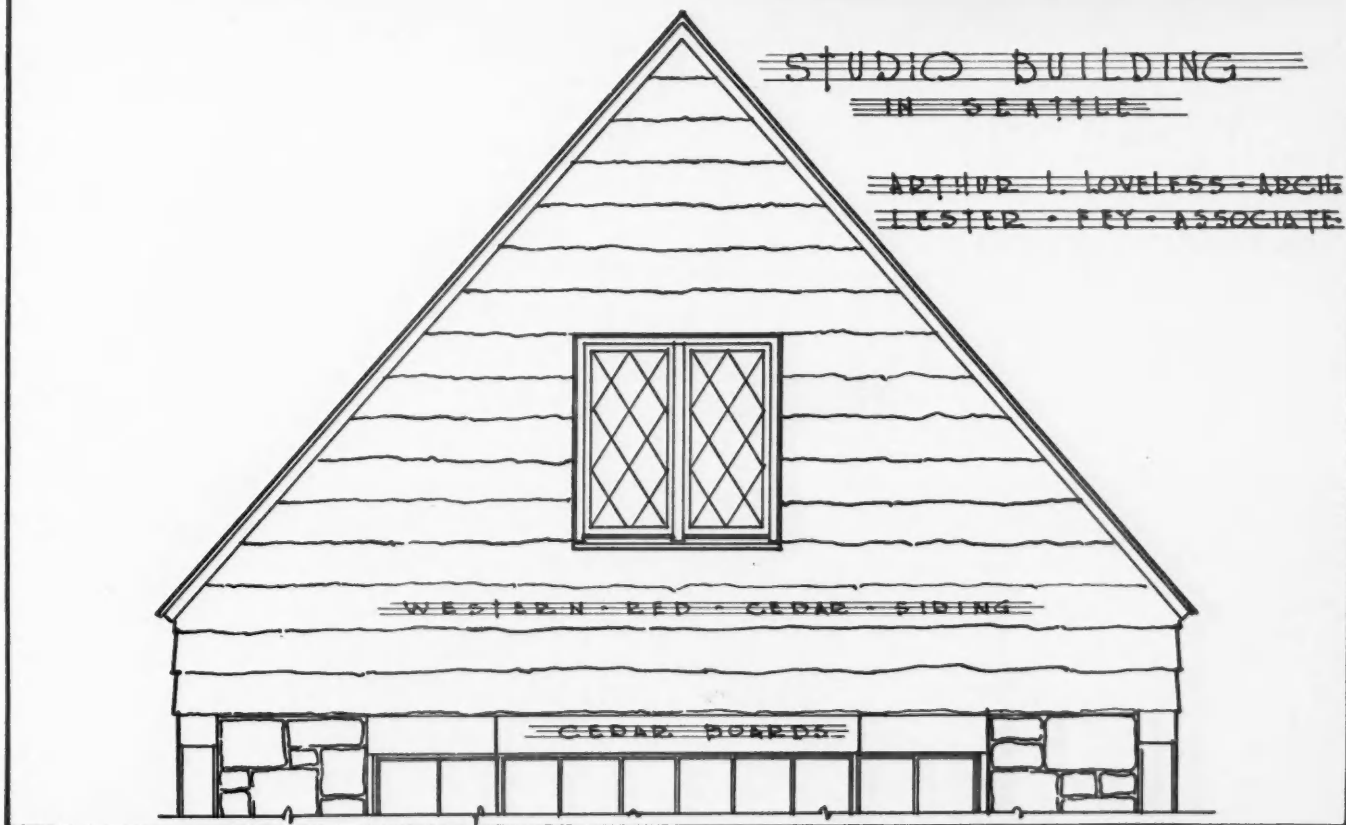
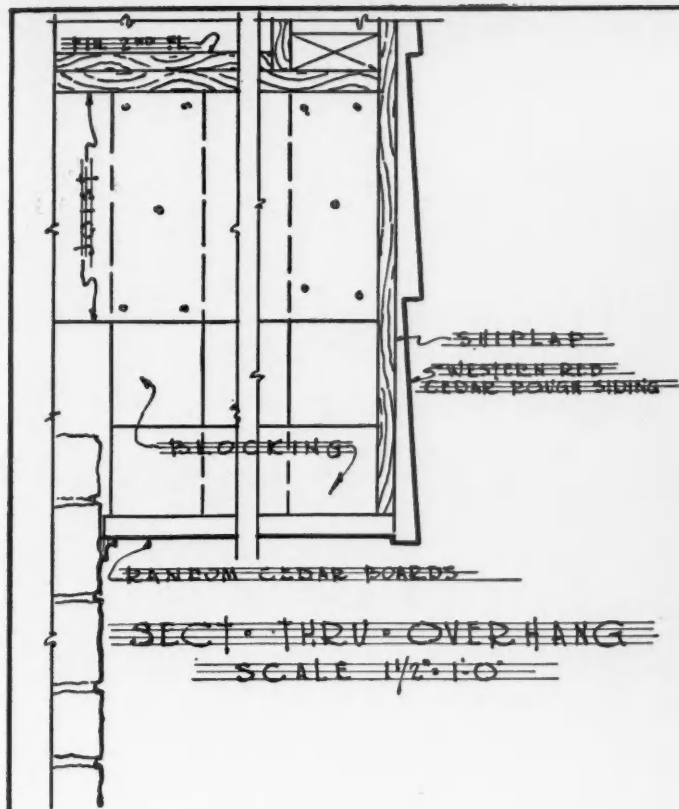
WILLIAM J. DAIN, ARCHITECT, A.I.A.



No. 5 of a Series
of Architectural Details that
help to sell homes

BOARDS AND BATTENS

Beveled siding, vertical boards and moulded battens give an interesting combination of horizontal and vertical lines.



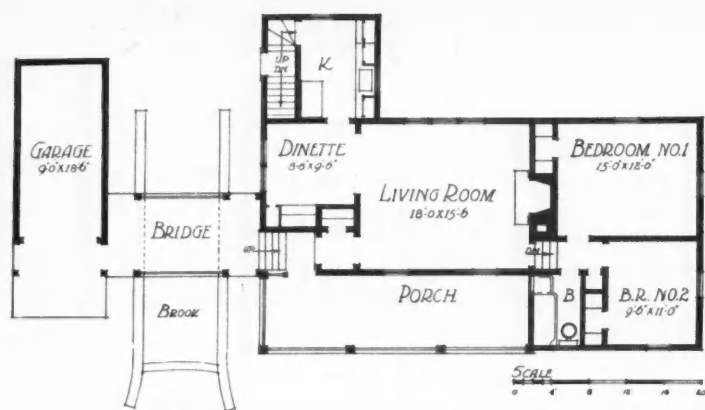
OVERHUNG GABLE

Details of characterful treatment of bracketed gable

Measured Drawings of correctly detailed house construction



Photo by Gustav Anderson



Cost Key without garage 1.359-163-1047-45-18-16

BUILT ACROSS A BROOK

A HOUSE built across a brook is an unusual thing, but when it is done as cleverly and attractively as this it is a real achievement. The covered bridge between garage and house is a very attractive feature. The house is located in Chatham Manor, N. J., and was designed by Randolph Evans for the Harmon National Real Estate Corporation.

52



VIEW of the house from the end is appealing and illustrates the well-proportioned gable and chimney. Flush boarding is used in the gable end. The house totals 18,700 cu. ft. and was sold complete with oil burner, washing machine, gas range and electric refrigerator.

BUILDER'S IDEAL COLONIAL HOME

BUILDER E. S. Elwood, of Ridgewood, N. J., demonstrated his ideals of a practical, low-cost house that at the same time retains Colonial charm in this structure. The entrance detail gives life and character to what is otherwise a very simple exterior. The long, narrow plan is compact and efficient and is inexpensive to frame. The rear terrace, with French doors leading from dining room, is a popular feature with the owner.

Cost Key is 1.372-146-1036-44-17-15.

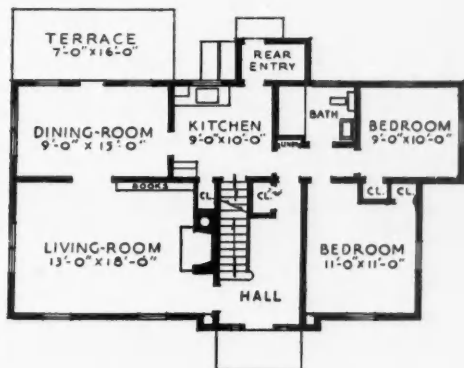
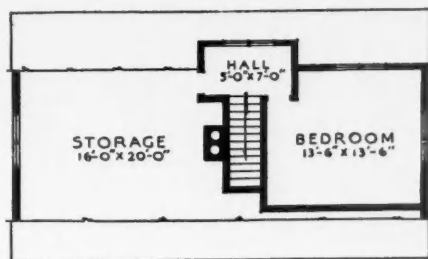


Photo by Gottscho



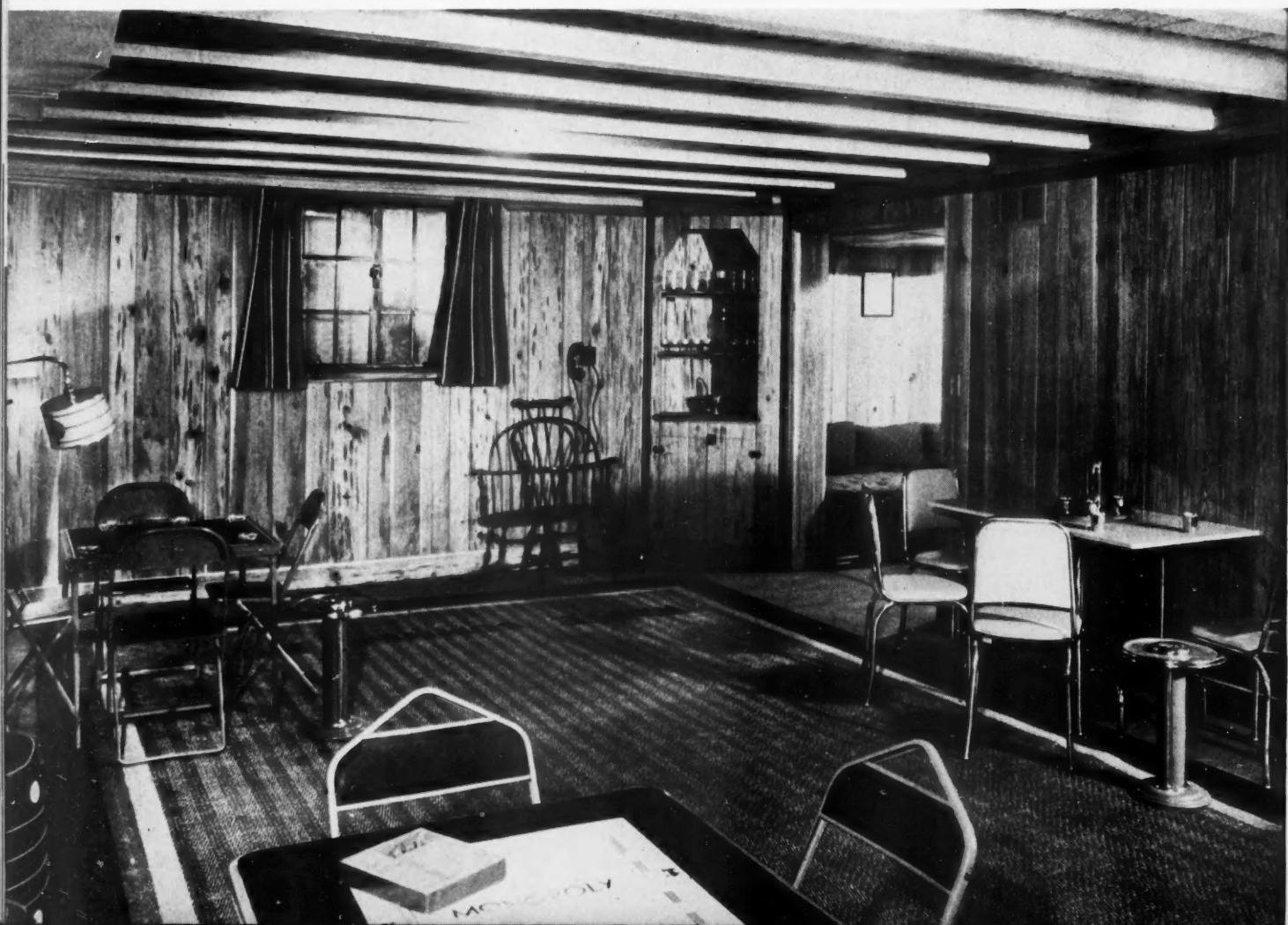
Model Home Interiors



VIEW of the large living room featuring Georgian fireplace.

THE 1936 Westchester County Model Home, illustrated with working plans on pages 56 and 57, is done in cheerful modern colors that make it an excellent indication of the trend. The living room mantel, at left, is of simple Georgian pattern with marble facing and floor slab. All trim is painted pure white, which contrasts pleasantly with the colorful wallpaper.

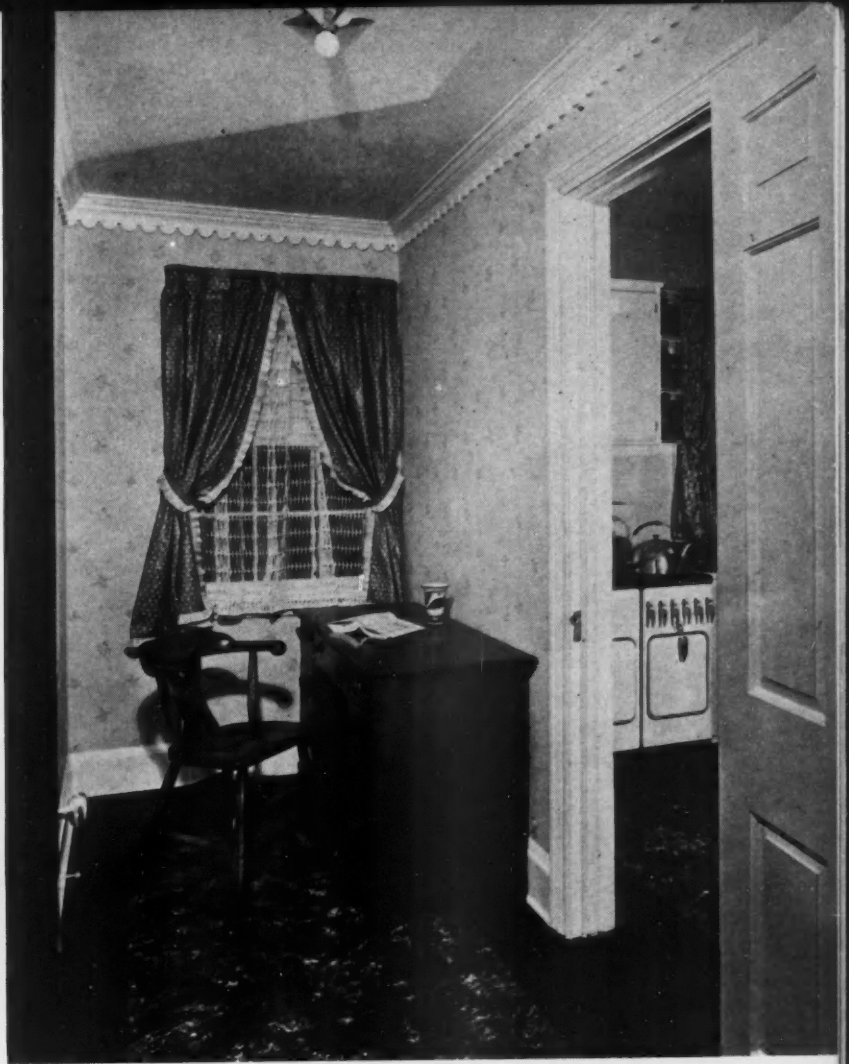
THE basement recreation room, below, is done in pecky cypress, and this room is a very pleasant and attractive one. The concrete floor joists in the ceiling are painted and made a part of the decorative scheme of the recreation room. The house has a gas-fired air conditioning system, a copper roof, rockwool insulation and attractive, modern kitchen cabinets.



COLORFUL DETAILS THAT
ADD TO HOME POPULARITY



A CORNER window in the dining alcove.



"HOUSEWIFE'S planning room" located between kitchen and hall.





The model home has a modern touch and yet retains the feeling of a substantial Georgian structure.

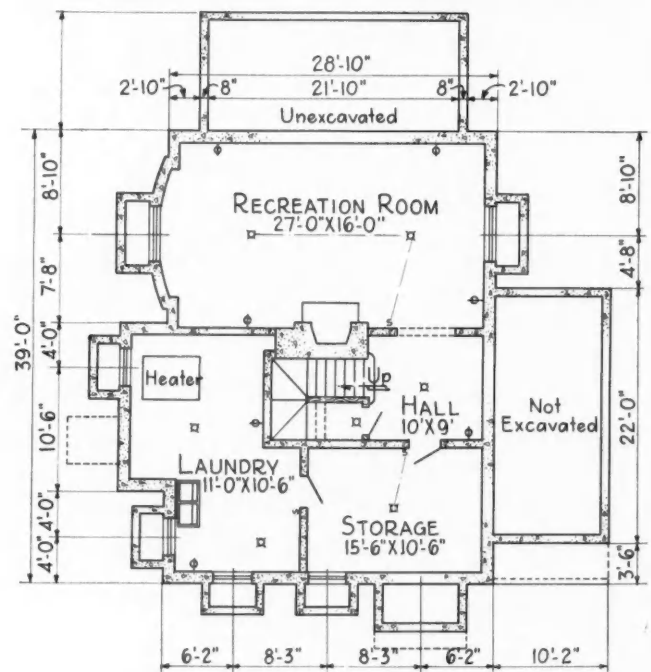
AS these detailed House of the Month plans show, the 1936 Westchester County Model Home is featured by commodious rooms and closets, large halls and numerous luxury items that make for comfortable living. It has a concrete first floor and a large recreation room in the basement. The floor plan is unusual and provides a huge living-dining room with attractive bay window at one end. A "housewife's planning room" is located between the kitchen and hall. The bathrooms are large. There is a large dressing alcove with built-in cabinets and an attractive sewing alcove with linen closets, that caught the eye of many housewives. Most people would prefer a separate dining room, and there is ample space to provide this without increasing the size of house.

Cost Key is 2.392-164-1185-50-30-20.

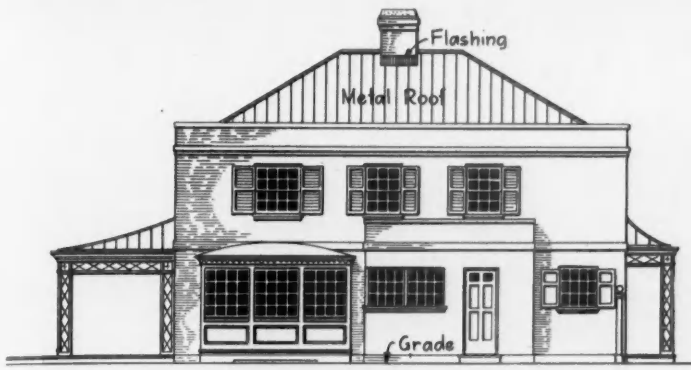
THE entrance detail (illustrated on the Front Cover) is one of the attractive features of the Westchester Model Home. The delicate lattice work and Georgian entrance are very appealing. The house was designed by Architect Charles A. Dewey and built by Contractor Joseph Loring. It has a gas-operated air conditioning system.

1936 Westchester Model Home

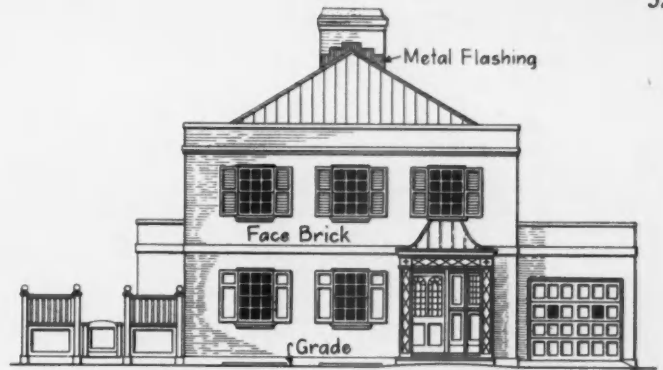
\$15,000 Prize Home Has Many Unusual Features. Thousands Flocked to See It. Specifications Given on Page 59.



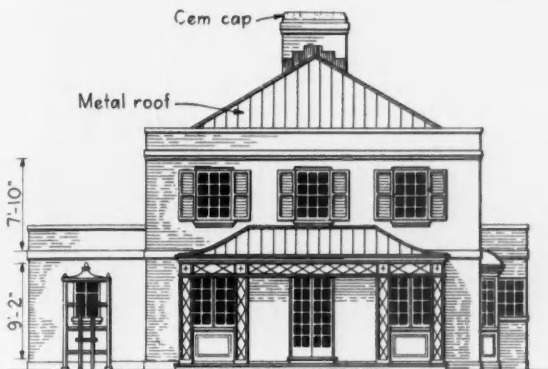
BASEMENT PLAN



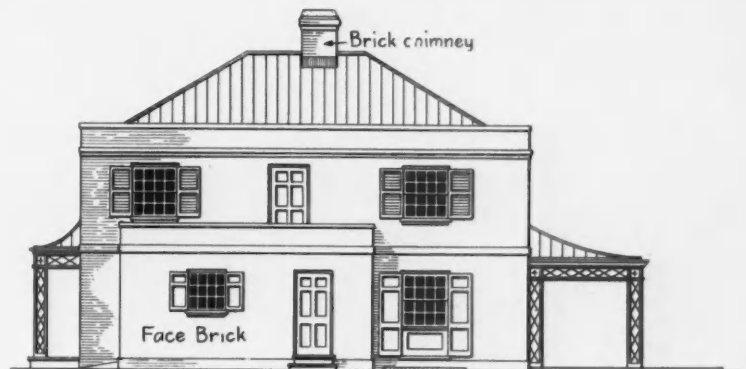
EAST ELEVATION



NORTH ELEVATION

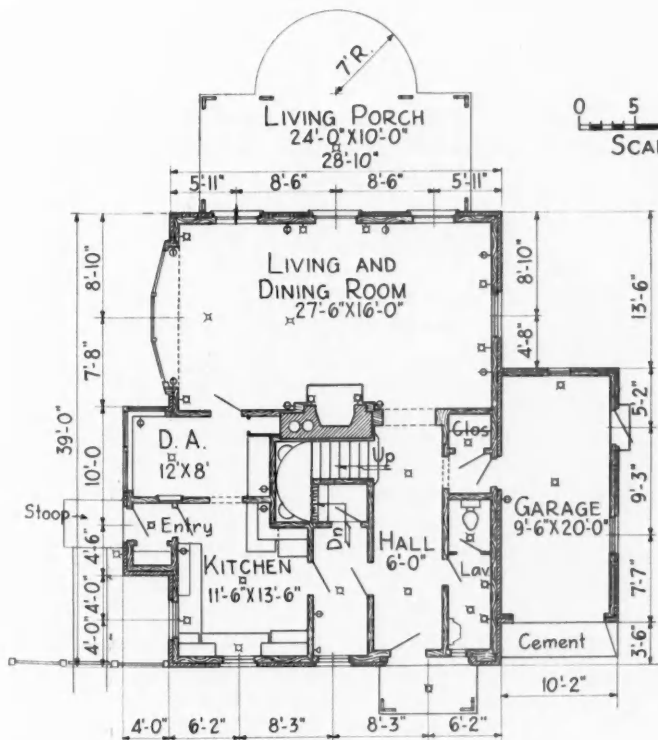


SOUTH ELEVATION

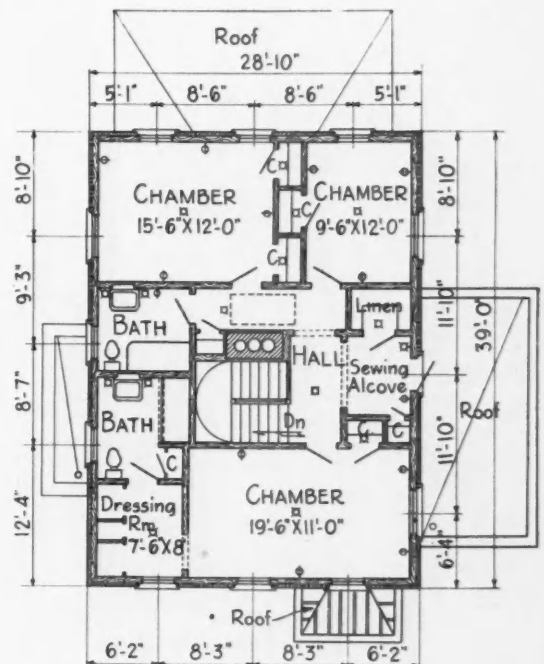
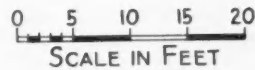


WEST ELEVATION

Specifications of materials and equipment given on page 59.



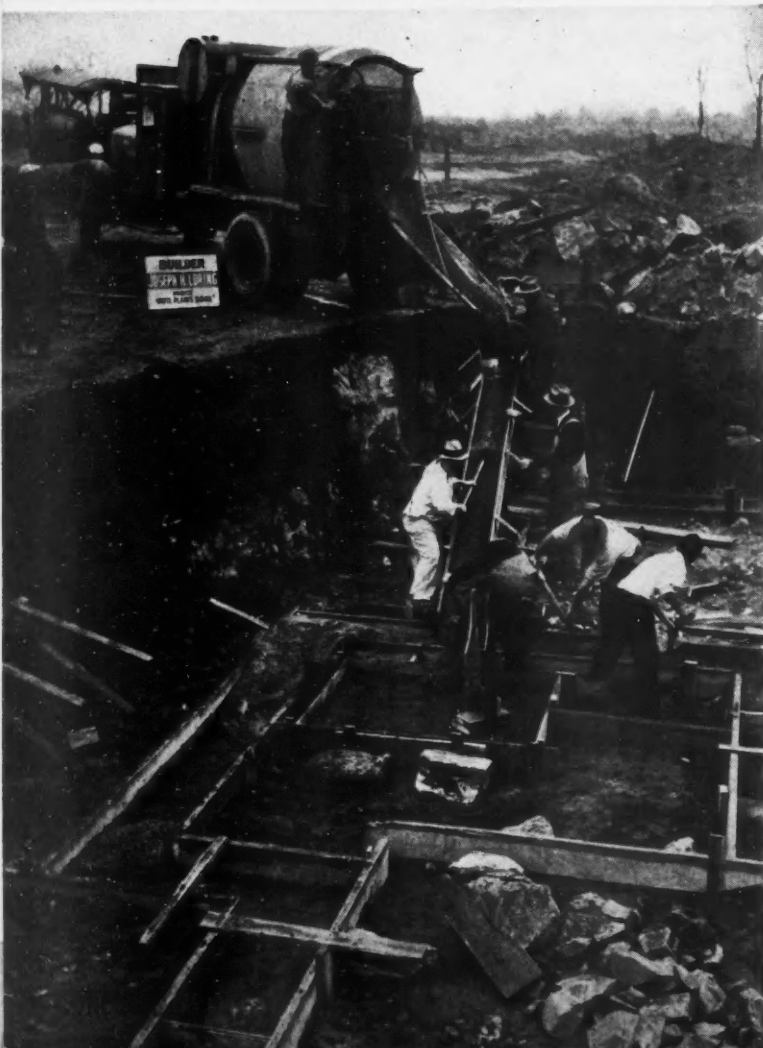
FIRST FLOOR PLAN



SECOND FLOOR PLAN



COPPER-Armored Sisalkraft enclosed the Westchester County Model Home of brick veneer construction. Concrete was delivered to the job ready-mixed.



Building a 1936 Model Home

BUILDING the House of the Month demonstration home (see pages 54 to 57) calls to mind Hugh S. Johnson's famous remark about running NRA "in a goldfish bowl." Builder Joseph Loring of White Plains, and Architect Charles A. Dewey of Pleasantville, both of Westchester County, N. Y., can report what happens when a house is built in a goldfish bowl. This house was featured by the Westchester County Better Housing Bureau and was given away free at the Better Homes Exposition.

1935 was a bigger year for model homes, and 1936 is even bigger. Model homes serve a very useful purpose in calling attention to the latest developments in home building and in creating new interest in owning a home. The house above, like many others opened this summer, was visited by thousands of interested prospective home buyers.

Specifications for Westchester Model Home (pages 54 to 58)

Joseph Loring, Builder; Charles A. Dewey, Architect

DRY WELLS: 3'-0" in diameter carried 4'-0" below point where drain pipe enters, filled with broken stone.

MASONRY: Atlas cement and Atlas white cement specified. Clean, sharp sand, clean, yellow gravel.

CAULKING: Oakum or roofer's cement thoroughly around all frames in exterior masonry walls to assure weather-tightness.

FLAG STONE: 1" random, rectangular, laid on concrete base with cement joints. All stone thoroughly bedded.

CONCRETE: Ready-mixed and delivered to job by Mamaroneck Sand & Gravel Co. Concrete joists and floor by Bedford Hills Concrete Products Corp. Mortar 1 part Magnolia non-staining cement, 2 parts lime putty, 7 to 9 parts sand. Lime, Rockland waterproof lime.

BRICK VENEER: Olde Colonial face brick by Fredenburg-Lousbury. Galvanized iron anchors every fourth course nailed to each stud. All bricks laid with solid joints.

FLUE LININGS: Hard burned terra cotta without hubs. Miterings cut half on each piece. Accurate joints. Grout carefully around all flue linings as chimney is built. Dampers for living room and recreation room fireplaces by H. W. Covert Co.

STEEL LAWN EDGING: Installed both sides of roadway. 5" x 3/16" steel manufactured by Egleston Bros., Inc., Long Island City, N.Y.

COPPER ROOF: By American Brass Co. Economy Cottage type roofing, artificially colored by spraying to produce natural green patina color.

FLASHING: 16 oz. hot rolled copper by American Brass Co. Chimney flashing step type not less than 8" high. Lower edge of counter-flashing kept 3" above roof. Heads of all exterior doors and windows flashed water-tight. Sills of exterior windows and doors flashed with Copper-Armored Sisalkraft.

SPOUTING AND GUTTERS: 16 oz. cold rolled copper. Gutters formed by carpenter, lined with copper on tar paper. Lining extending 10" under roofing. All joints securely formed and soldered solid on both sides full width of gutter.

PLASTER AND LATH: Three coats plaster over Reynolds Co. metal

lath. Galvanized corner beads. Heavy expanded metal lath over all ducts and chases beneath tiling and across all joints between frame and masonry, carried 6" on each side of joints.

TILE: Hermosa standard grade tile by American Encaustic Tile Co. Walls 4 1/4 x 4 1/4 matt glazed, floors colored faience floor tile. Bath accessories by Columbia Metal Box Co., including chromium frame Venetian medicine cabinets, glass shelves and brackets, square crystal towel bars.

FRAMING LUMBER AND ROUGH CARPENTRY: Best quality Douglas fir free from loose or large knots, large shakes, excess sap or other defects. Plates and sills 4" x 6" and 4" x 4" bolted to masonry with 1/2" x 2" bolts with large washers and placed not more than 5' apart.

SHEATHING FOR WALLS: 7/8" matched T. & G. N.C. pine sheathing, put on diagonally and nailed to every bearing, breaking joints at least every third board. Underflooring laid diagonally.

SLEEPERS: 2" x 2" sleepers 16" center over concrete floor, fastened with Bull-Dog clips.

FINISHED FLOORING: Second grade (A Select) plain red oak 13/16" x 2 1/4", matched T. & G., laid in long lengths with joints properly broken. Living room, hall and foyer floors 4" x 8" random width white oak plank flooring, screwed and plugged. Recreation room paneling pecky cypress by Southern Cypress Mfg. Assn.

GARAGE DOOR: Over-the-Top garage door by Frantz Mfg. Co.

FLOOR FINISH: Scraped, planed and sandpapered with acid stain finish. Minwax treatment for basement floor.

WEATHER STRIPPING: Bronze interlocking weatherstrip by Accurate Weatherstrip Co. on all windows and exterior doors.

SCREENS: 1 1/8" stock window screens and doors fitted with 16 mesh bronze wire throughout.

INSULATION: 4" rock wool in walls and second floor ceiling by Eagle-Picher Lead Co.

DISAPPEARING STAIRWAY: Model 60 Bessler disappearing attic stairway in wood; finished opening 2'-6".

LIVING ROOM MANTEL:

Georgian Mantel Co., New York City, set on a wood breast with raised panels at sides of mantel.

BUILDING PAPER: All outside frame walls covered with 1 oz. Copper-Armored Sisalkraft, 25" width, applied vertically and lapped 1"; laps sealed with asbestos mastic and lightly tacked with copper tacks. Furring strips applied over laps and nailed tight.

GLASS: Double-thick glass free of waves or other imperfections, by Libbey-Owens-Ford Glass Co.

PIPES AND PLUMBING: Extra heavy cast iron pipes. Wrought iron pipe, Byers, lap welded, with fittings of heavy galvanized malleable iron. Brass pipe annealed seamless tubing. Valves of cast brass, by Jenkins; full size of pipes they control. Soil lines boxed and packed with mineral wool. Hot water piping insulated. Control valves each fixture. Bathroom fixtures by Crane Co.

HEATING: Bryant gas fired furnace and air conditioning unit, complete with fan, air filters, clock thermostat and transformer by Minneapolis-Honeywell. Registers and grilles by Waterloo Register Co. Heating ducts, Mahlstedt Materials, Inc.

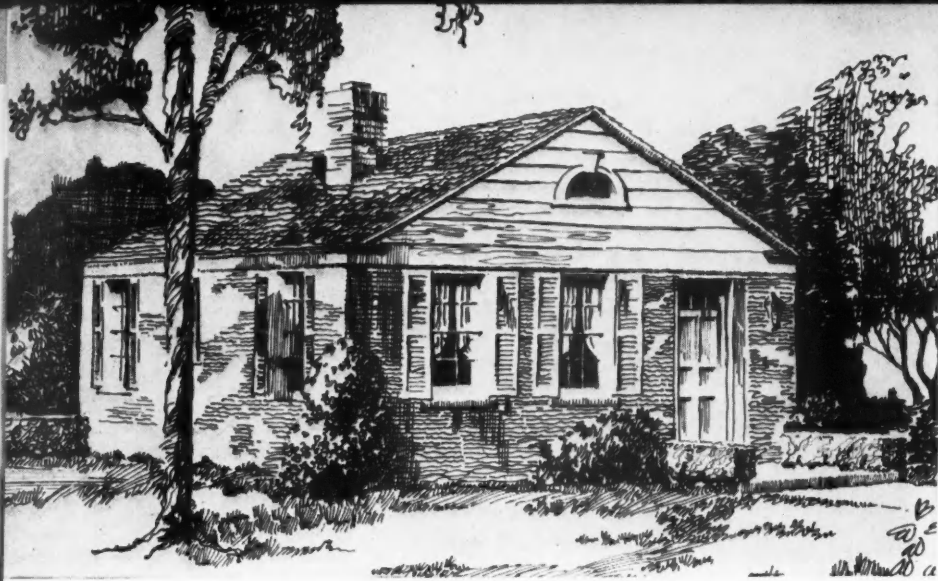
WIRING: Plug-In Strips, National Electric Products Co. All wiring in flexible armored cables. Edwards flush call combination kitchen and service bells with transformer. Electric clock outlets in living room and kitchen. RCA-Victor aerial and radio outlet. Telephone conduits, underground telephone cable conduit to telephone boxes from basement ceiling, enabling Telephone Co. to install wires. Telephone jacks to receive portable telephones in bedroom and sewing alcove.

KITCHEN EQUIPMENT: Modern, built-in cabinets and linoleum top work area by Nappanee Co.; Chambers gas range; Electrolux automatic gas refrigerator.

BASEMENT SASH: Vento steel sash.

WATER HEATER: Monel Metal automatic storage water heater by Whitehead Metal Products Co.

COPPER PAINT: Elastic paint for outside copper by Mitchell-Rand Company.



PLANNING METHODS FOR SMALL DWELLINGS

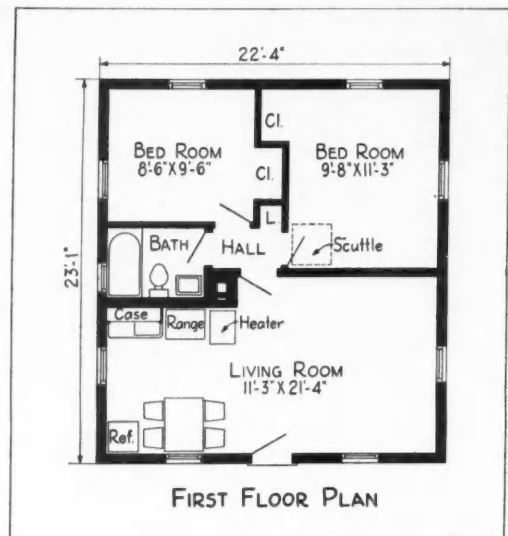
A Summary of the Recommendations in FHA Technical Bulletin No. 4, on Planning of Small, Low Cost Houses

IN the last few years much publicity has been directed to the field of low cost private housing. Consequently this public interest has spurred the building industry toward the best methods of producing such units most economically. In a recent booklet the Federal Housing Administration has set forth certain principles dealing with this subject of wide-spread interest, and remarks on the problem of producing dwellings for the lower income groups as follows:

"Two general comments may be made upon the results of this interest. In the first place, it may fairly be stated that the standards of accommodation and equipment which have too frequently been given serious consideration are not only much above that now customary to the groups for whom the housing is planned, but are likewise, under present conditions in the building market, beyond a price which is within the means of such groups. In the second place, too great dependence has been placed upon the achieving of cost reduction through prefabrication and industrial reorganization, the prospect of which is not immediately present.

"The point of view is taken, however, that whatever

EXAMPLE A at right represents the basic house which provides a minimum standard for low cost housing. It is very simple but sufficient for a family of three or four; cost range, \$1200-\$1500. Cost Key is .678-91-514-22-10-6.



lowering of dwelling cost is to be achieved immediately must be accomplished within the existing organization and according to existing practices of the home building industry, and that the standard of accommodation which is to be reached, while necessarily higher than is generally observed, must still be reasonable from an economic standpoint.

"This bulletin does not presume to offer a solution to the housing problem. It does not infer that under existing conditions suitable new dwellings may be produced for all classes of families. It seeks only to demonstrate, within the limited scope of the study, what is presently possible, without resort to change in methods or materials, or other wide diversion from customary traditions in the home building field.

"The results show that, accepting all these limitations, it is still possible to produce a substantial, sanitary, and comfortable type of shelter within the means of families of very modest income."

The FHA further points out that the examples shown are illustrative and suggestive only. They represent a starting point from which amplification and improvements can be made as circumstances permit or as local conditions demand. The Federal Housing Administration has no stock plans for sale. The bulletin also makes these comments:

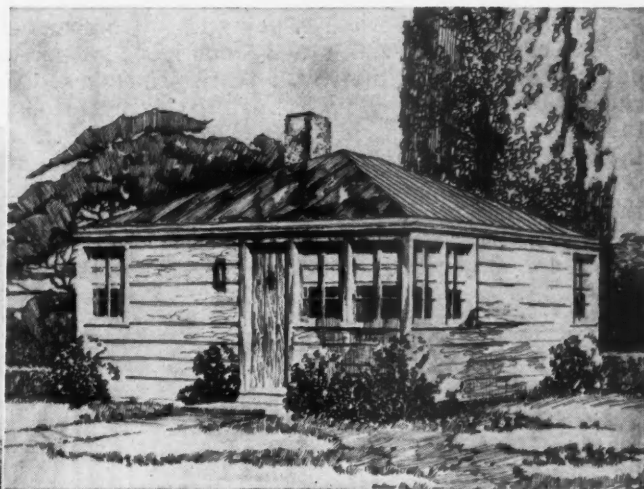
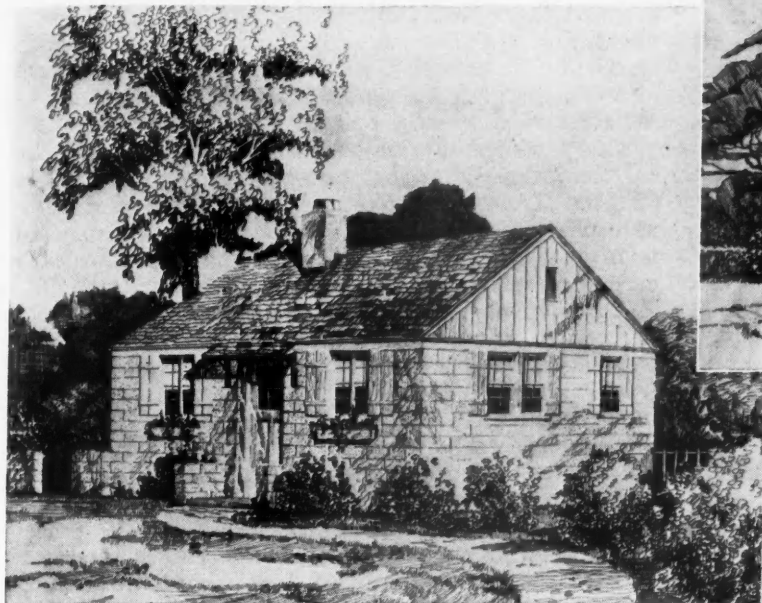
"The small house is not a large house compressed and trimmed down. It may be created not by determining what can be left out of a large house, but only by analyzing the essential functional requirements, starting with the barest necessities and expanding as the circumstances permit.

"In the design of small, low priced houses, the prin-



ALTERNATE exterior treatment for plan A shown above.

EXAMPLE B is slightly larger than A, having separate kitchen, utility room and larger bedrooms. Two exterior treatments are shown and alternate kitchen layout for basement. Cost range, \$1650-\$2000. Cost Key is .837-102-643-28-12-8.

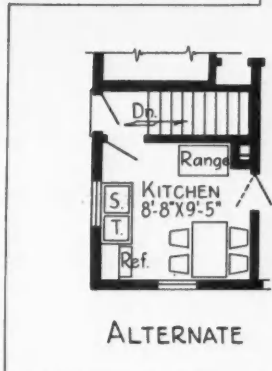


principles of plan efficiency, economic use of materials, and proper equipment, which are important in any class of dwellings, become paramount. Every square foot of space, every odd corner, every length of pipe, every pipe connection, every foot of lumber that can be eliminated must be saved. At the same time, these economies and efficiencies may not be obtained at the sacrifice of substantial construction or of minimum standards of convenience and comfort. Good houses, at whatever price, can be produced only by the combination of good architecture, well selected materials and honest building."

The illustrations on these pages show the five house designs chosen to demonstrate what can be provided within a price range of from \$1200 to \$2500. Any unnecessary elements, such as little used space and showy decoration which would add to the cost, have been eliminated. The estimated construction costs of the houses include a builder's profit but not such items as land, utilities, landscaping, etc.

The basic house (Example A, on page preceding) has one room used for living, cooking and dining; two bedrooms and bath complete the arrangement. It has been found that more than half the families with a \$2000 or less income are under five persons, so that this size house is adequate for the majority of such groups.

Although it would be desirable to have a separation of the kitchen, dining and living space it should be remembered that this is a minimum standard; it offers a family with two small children or one of three persons sufficient space for sanitary shelter and sleeping privacy. For economy, the walls may use standard 8-foot studs except on the gable sides; framing is extremely simple, with one interior bearing partition permitting either one span of 24 feet, supported in the center, or two spans of 12-foot joists. The plumbing is united on one stack, permitting a minimum of piping. Living room is heated directly from the heating unit, bed-



rooms from a duct carried below the ceiling construction, the bathroom by the hot water storage tank.

Two of the many possible variations of the basic design are shown. Different materials or type of roof, orientation of the house, changing the location of openings, addition of a porch or a garage in connection with the house may increase the range of variation in appearance. For the exterior walls any one or a combination of two of the materials commonly in use, such as wood siding, shingles, brick, concrete block, stucco or stone, may be used.

In the lower limit of the price range, the most economical finishing material available in the locality is to be used and also the first floor surface will be the finished foundation slab.

This house should be produced, depending upon local conditions, at a cost ranging from \$1200 to \$1500. A one-car garage would add to the total cost approximately \$150 to \$200; while a basement in a dwelling of this minimum type is not considered practicable, if this house were built with continuous foundation walls instead of on a foundation slab it would probably cost about \$150 to \$200 more.

The house shown above (Example B) is slightly larger in plan; the kitchen is separated from the living room, otherwise the simplicity of the accommodation of house A is maintained.

The wall construction is also similar; only one interior bearing partition is required, this running the

long dimension of the house, permitting two spans of 12 feet each, or one space of 24-foot joists supported under the main partition by a bearing member. No cutting or special framing is required except around the chimney. Plumbing is designed to permit one stack, though the length of branches varies with the alternate arrangement. The rooms, except for the one in which the heater is placed, are heated by ducts or radiators.

Two exterior designs suggest possible treatments which are simple and attractive without resort to ex-

pensive or elaborate details. One sketch shows this house using concrete blocks with vertical tongue and grooved flush siding on the gable ends; the other is developed in a modern manner using wide tongue and grooved horizontal flush siding with a hipped sheet metal roof. Other materials may be used, such as stucco, brick, or stone, with equal effect. The sketch also demonstrates the possibilities of rearrangement of the doors and window openings.

This house should be produced, depending upon local conditions, at a cost ranging between \$1,650 and \$2,000. By using part of the utility room (see alternate plan), a stair and basement can be added. The additional cost over the house as shown, with a concrete slab foundation, would be approximately \$450 to \$500.

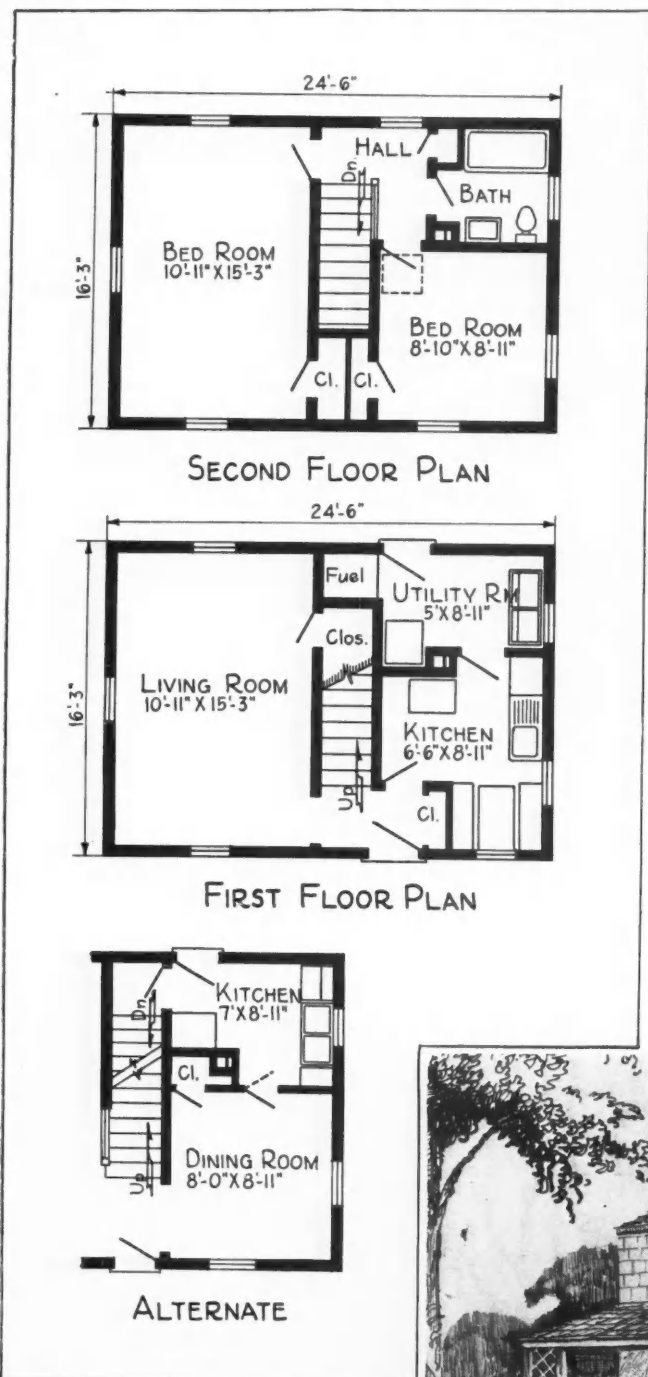
Another arrangement, which would increase the working space in the kitchen of the basementless house, would provide for the inclusion of the heating element in the kitchen.

The next two houses (Examples C and D) are similar in rooms but are two-story homes and illustrate the difference in plan and cost between the one- and two-story houses.

The exterior wall of house C has been designed generally for standard wall lengths of stud, using balloon framing; the floor framing has been designed to utilize 16-foot floor joists carrying between exterior bearing walls. Framing in the opposite direction will in all probability not prove as economical or provide as satisfactory a tie for the walls of the house. The plumbing has been designed to permit one soil stack. A heater room has been provided on the first floor, and, if desired, laundry trays could be included in the same space. The saving by eliminating the basement is not as marked as in the one-story house. In northern climates, it might be more advisable to provide a full basement, substituting a dining room for the heater room as illustrated in the alternate plan shown.

The exterior design has been made as simple as possible; the addition of the porch, while not included in the estimated price, helps to accent the entrance and provides an outdoor living space. The house itself has been kept as low as possible and still give adequate headroom in the upstairs rooms. This has been accomplished by keeping the pitch of the roof low.

Depending on local conditions, this house could be built at a cost ranging from \$1,750 to \$2,100. If a



EXAMPLE C shows a two-story arrangement of the same number of rooms. With basement this house is more economical to build than house B also having basement; alternate plan uses utility space for dining room. Cost range, \$1750-\$2100. Cost Key is .994-82-398-18-14-6.



basement were provided and the heater room changed to a dining alcove, approximately \$300 to \$350 would be added to the cost of construction by this alteration. Comparing these estimates with those for house B, where a basement is required, a two-story dwelling of larger cubage becomes more economical than a one-story house.

Example D is a house which offers a different arrangement of the same rooms shown in house C; some space is saved in the second-floor hall, and a better layout of the two bedrooms is provided. This plan, with the principal outlook of the living room and bedrooms to the rear, is particularly adaptable to the development of the rear yard as a living area.

The framing is most economically done by the use of 16-foot floor joists extending from the rear to the front walls, cut where necessary to frame around the stair opening. The bathroom has been located directly over the utility room, permitting the use of the single soil stack and vent.

An overhead hot water system adaptable to first floor operation has been shown in this plan in order to use space economically; radiators are placed against the interior walls to permit the return piping to be carried above the concrete slab of the first floor.

A garage, connected to the house, as indicated adds breadth to the design. This addition would increase the cost by approximately \$150 to \$200. This house could be produced, depending upon conditions, at a cost ranging from \$1,750 to \$2,100. While wood siding has been indicated on the drawing, it may be built of any of a number of materials, such as brick, concrete block, shingles, reinforced concrete, stucco, or stone.

The alternate plan shown for this house provides for placing the kitchen where the utility room now is, with the back stair leading out of it to the basement; present kitchen space can then be developed as a dining alcove.

There would be an additional cost of approximately \$300 to \$350.

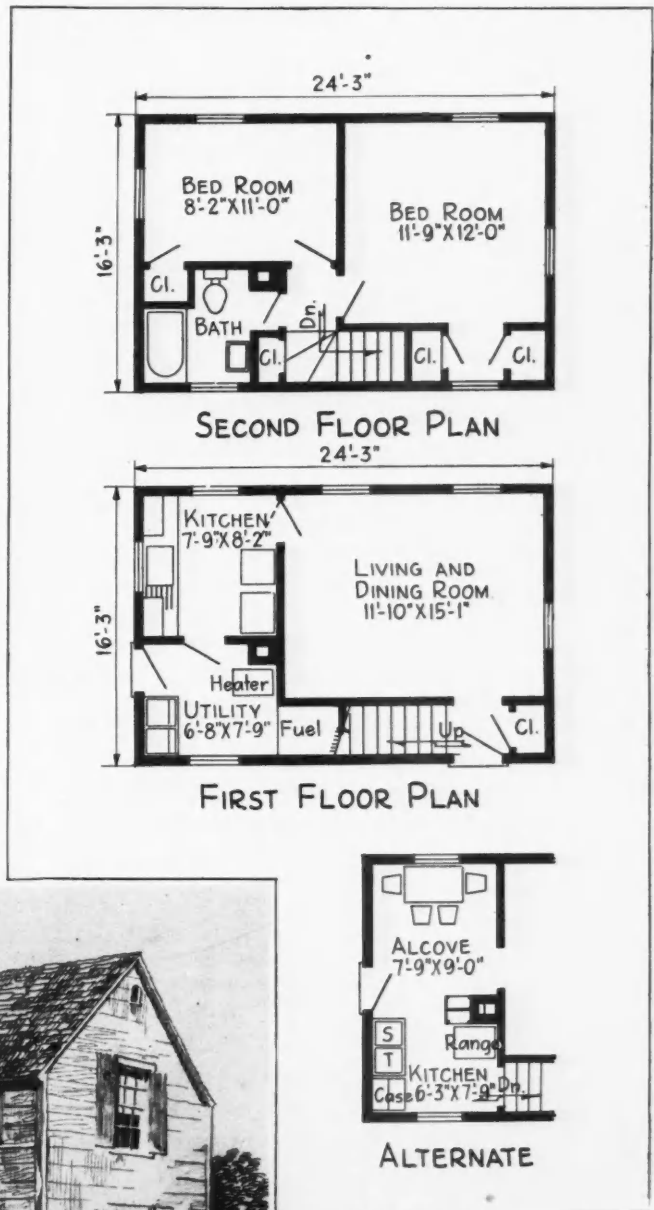
The final house (Example E on page following) provides three bedrooms and a bath on the second floor, with a living room, utility or heater room, and a kitchen on the first floor. The two-story plan is generally more economical than a one-story plan for this amount of space.

This house can be framed most simply with 20-foot floor joists supported on a bearing member below the partition between the kitchen and utility room. The

bath has been located directly over the utility room, which permits one soil stack for the fixtures in the utility room, the kitchen, and the bathroom. Either a warm air heating system with a register opening directly in the living room and ducts carrying the heat to the bedrooms and bath or a hot water system can be used. If a basement is to be included, greater flexibility in planning for the heating of this house may be had. Each room has been provided with cross ventilation, and light has been provided for the stair hall.

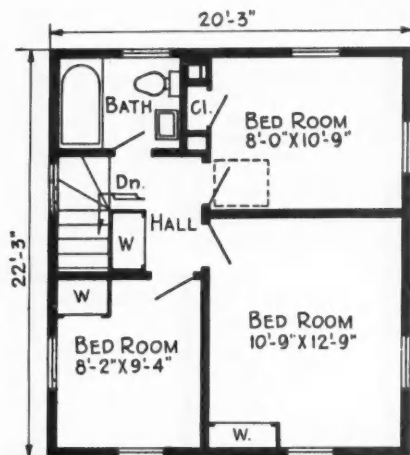
The same approach in exterior design is followed as in the other houses. The size of the house, however, requires that the treatment of material as a feature of design be kept simple; and in no case should a combination of more than two materials be used.

This house should be produced, depending upon local

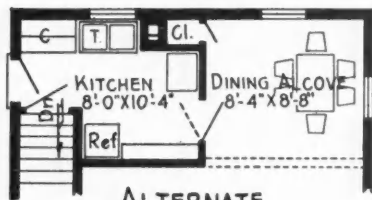


EXAMPLE D groups the rooms which are similar to house C so that the principal outlook is to the rear. Hall space is reduced to a minimum; alternate first floor plan provides a dining alcove if a basement is added. Cost Range, \$1750-\$2100. Cost Key is .907-81-394-18-14-5.

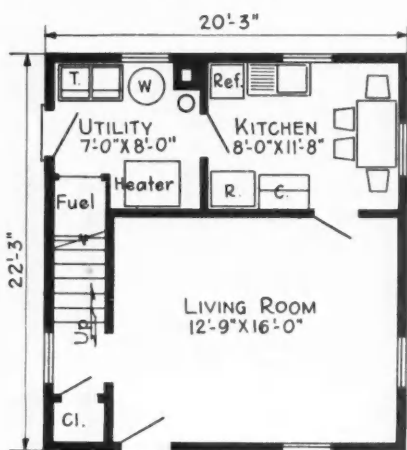
EXAMPLE E has three bedrooms and bath grouped compactly on the second floor; living room, kitchen and utility on first floor. Alternate plan for this house with a basement has a dining alcove off the living room. The two-story plan is generally more economical to build than one-level if this amount of space is required. Cost range, \$2100-\$2500. Cost Key is .997-85-450-20-16-5.



SECOND FLOOR PLAN



ALTERNATE



FIRST FLOOR PLAN

conditions, at a cost ranging between \$2,100 and \$2,500. By providing a basement and locating the kitchen where the utility room now is, as is shown on the alternate plan, the present kitchen would be developed as a dining alcove. This would add approximately \$350 to \$400 to the cost of the house.

Specifications and Planning

The same specification has been used for all cases as a basis for cost estimation. Where alternates are provided, the least expensive satisfactory method for the particular locality should be chosen. An outline specification, with alternates, is as follows:

Foundation—Either the customary masonry wall or piers carried down below frost; or a concrete slab reinforced with road mesh and dampproofed with membrane waterproofing.

First floor—The first floor construction used with the foundation walls or piers is the usual frame construction with a subfloor. The finish floor is standard wood flooring. With the slab, the finish, if any, will be laid in mastic directly on the concrete.

Exterior walls—Wood stud framing, wood or insulation board sheathing, paper, wood siding, shingles, brick veneer, or lath and cement stucco; or 8-inch building brick, tile, cinder, or concrete block, furred. Three coats of paint are assumed for wood siding or two for block; shingles natural, dipped, stained, or painted.

Roof, ceiling, and second floor—Finished second floor, standard 1-inch finish flooring. Roof, edge grain wood shingles laid on strips or wood or asphalt shingles laid over paper and sheathing over wood rafters. Ceiling, painted wallboard or two coats plaster unpainted.

Interior wall—Wallboard, plywood, sheathing, or plasterboard, painted or papered or two coats sand finished plaster unpainted.

Millwork—Doors, trim, window sash and frames, screens, cabinets from stock items.

Heating—Selected according to locality, and to cost from ten to twelve per cent of total building cost.

Electric wiring—No. 12 wire for branch lighting circuits, suitable ceiling and convenience outlets. Wiring system to cost from five to seven per cent of total cost.

Plumbing—Including bathroom fixtures and kitchen sink, complete system to cost about ten per cent of building cost except in smallest dwelling. Where public water supply and sewer are not available, the cost of well, pump, and private sewage disposal equipment must be added; the total cost of

(Continued to page 104)

\$800 Wreck Plus \$4200 Rebuilding Creates House Worth \$6500

SOME house modernizing jobs are undertaken to make the property more livable according to present standards; other remodeling projects can be considered in the investment class, the worth of the property being increased by the additional outlay. The pictures on this page show a modernizing of the second nature—the value having been increased \$1,500 above the total cost.

The old wreck which Murray Ferguson, contractor in Sidney, Ohio, had to start with was no worse than many old derelicts found throughout the country. However, the lines were fairly good, much of the structure still sound, and interior arrangement capable of being changed to give a good floor layout.

The before picture was taken after the old-fashioned porch which extended around two sides had been removed, a feature commonly found on houses of this type. At present there is a neat front entrance and vestibule with a side porch opening off the living room. Landscaping, paint and blinds dress the exterior.

A large living room with Colonial fireplace was made out of two smaller rooms. Modern kitchen and nook, dining room, den and wash room occupy the remainder of the first floor. Four bedrooms, large bath and plenty of storage space are arranged compactly on the second floor. It was found necessary to move only a few in-

terior partitions; old woodwork throughout has been brightened up with enamel. New maple floors, linoleum or carpet have been laid in each of the various rooms.

Water softener, hot water heating system, laundry tubs were installed in the basement. Also included in the \$4200 remodeling cost was the repair of the barn seen in the lower picture.

On the job Contractor Ferguson has succeeded in not only making this old wreck livable once more but has also increased the value of the property from the purchase price of \$800 to the present value of \$6500.



RIGHT: Old house bought for \$800; porches have been already removed. Below: \$4,500 modernizing job completed, this now attractive property is valued at \$6,500, an increase of \$1500 over total cost.



Large Volume of Metal Lath Being Used in Dwelling Construction

By E. M. LURIE

Secretary, Metal Lath Manufacturers Association

FOR many years the use of metal lath has been associated primarily with fireproof buildings such as theatres, hotels, large apartments, school and other educational and monumental buildings.

However, experience during the past decade has shown architects and builders the wisdom of utilizing the economies of this type of finish in dwelling houses as well as the types just mentioned. This is evidenced by the remarkable increase in the volume of metal lath sold in recent months where the volume of construction has been increasingly of the residential type. Field analysis of these figures which practically double those of 1935 and are greater than any year since 1930, confirms that a large part of metal lath shipments is going into small residences.

With its new slogan "Plastering for Beauty; Steel for Strength," the underlying theme of promotion which is being featured in the literature currently developed by the Metal Lath Manufacturers Association might be captioned "20 Years After." This is founded on the realization that twenty years after construction (and in many cases less) many dwellings are in such poor shape because of the poor construction that was put into the building, that the purchasers, if they have not already paid for the homes, question the wisdom of completing payments in view of the excessive upkeep costs which then prevail after twenty years of occupancy.

In line with this reasoning, the metal lath manufacturers have, in their new booklet, "Metal Lath for Homes," stressed the important fact that twenty years after building a house in which metal lath construction was used throughout, the walls and ceilings of the house will be substantially as good as new. Upkeep costs, twenty years after construction, are not any greater than when the house was new.

This is of particular moment at the present in view of the likelihood that world war veterans will spend millions of dollars of bonus money for the purchase of homes. Twenty years from now most of these veterans will be over sixty years of age; in fact, many of them will be approaching the three score and ten year mark. In any event, a very large majority of them will be above the active income producing age. Consequently, if they purchase an inferior type of house now, twenty years hence they will be saddled with a burden of upkeep and repair expense which may be well nigh unbearable. On the other hand, if the construction is of a durable type, such as exemplified by metal lath and plaster, the house having then been paid up completely will become a permanent asset capable of producing an income, if need be, and the cost of shelter for the veteran and his family will then consist merely of the taxes, the cost of fuel for heating, and possibly minor repairs.

The use and promotion of metal lath, therefore, is based on sound well defined economic lines, which is being given increased recognition by F.H.A., building and loan and other groups financing home construction.

For about \$150 additional, metal lath and plaster can be used in place of ordinary lath and plaster throughout an average one-story dwelling. However, in homes of very low cost some owners feel that they cannot afford

even this modest additional layout, and must limit the use of metal lath to certain places in their homes. To such as these the metal lath manufacturers stress the advantages of having beautiful plastering, metal lath reinforced against cracks and streaks, at least on the living room and dining room and entry hall ceilings and in the corners of all rooms. Also, as a minimum for protection against fire its use is urged around and under stairways and over the heating plant and fuel storage in the basement.

The estimated additional cost of using metal lath and plaster, as against less permanent and fire resistive finishes, separately for each part of the house, is given in detail in the new Association booklet referred to. As a case in point, it is figured that it costs only about twenty dollars additional to provide metal lath and plaster on the entire living room and dining room ceilings, in place of ordinary plastering. Thus the added first cost of having this type of construction is very small compared to the total cost of the house. Furthermore, the upkeep cost over the years is very much less. In fact, within two or three years time the redecorating expense which is eliminated by using metal lath and plaster more than offsets the slightly greater first cost; and for all the years to come thereafter there is a real saving in using this more permanent finish.

Even when the specifications do not call for metal lath throughout the house they almost invariably specify it in the form of corner lath to be used in corners where walls and ceilings abut or where a partition meets a wall; and this is irrespective of the type of plastering base used otherwise. Although some lathing and plastering contractors cut up strips of metal lath and make their own corner lath large numbers now find it more economical to use the shop fabricated material now being furnished by the manufacturers direct in crated bundles which greatly facilitate and simplify installation.

This mention of the widespread use of corner lath emphasizes the close relation between the merchandising of metal lath and the continuing research and investigation work conducted through their trade association by the metal lath manufacturers. Fifteen years ago the use of corner lath to reinforce inside corners of plastered surfaces so as to reduce the amount of cracks or eliminate them entirely, was almost unheard of. However, about that time the Association conducted a series of tests at Armour Institute of Technology at Chicago. These tests showed that, where strips of metal lath bent into the shape of an "L" were nailed into corners over wood lath used as the base for plastering, the strength of the construction was greatly increased. In fact, the loads necessary to produce cracks were three to five times as great as would produce cracks on unreinforced joints. This information was broadcast to the country and shortly thereafter architects began to specify the use of corner lath. The trade, in turn, adopted this procedure, until now approximately one new building in every two has metal corner lath in the angles of each room. The popularity of this improved construction is not lessened by the fact that a five dollar bill which will cover the cost of corner lath in the average home builds-in so large a measure of crack resistance.

Home owners have seen the results, after twenty years of use or misuse of inferior types of construction and inferior workmanship and are now looking to the more permanent types of materials. The metal lath manufacturers have stressed the point that it is better to have beautiful, permanent, steel reinforced plaster even if it is necessary to wait one week for it to dry than to dispense with plastering in order to save a week and then have nineteen years and fifty-one weeks of regret at the choice.

With the highest rank as a fire retardant protection for wood construction, metal lath and plaster encourage the economy of sound wood frame construction in combination with fire protection finishes. It is the only type of wood joisted floor assembly of ordinary construction which has been granted a full one-hour fire rating.

Not only in new construction, but in the modernization of existing buildings, metal lath is finding an ever-widening market. At the recent building shows in which the manufacturers have participated, a surprisingly great interest was shown in an exhibit which illustrated a method of installing new metal lath and plaster ceilings, under existing cracked plastered ceilings on ordinary lath or substitutes, without removing the latter. This method of refinishing with a fireproof and crack resistant finish merely entails the use of large common nails by means of which the new metal lath is secured direct to the floor or ceiling joists above and is hung from

them entirely independently of the old plastered ceiling through which the nails are driven. Housewives in particular are enthusiastic in advocating this method of resurfacing as almost all of the muss and mess of tearing down the old plastering and removing it, are eliminated. In addition, such a new ceiling conserves the heat and sound insulating values of the old ceiling which would be lost if it were removed. Then too, old houses in good structural condition, but with outmoded high ceilings, are being given a new ceiling brought down to the heights in present-day vogue by utilizing a metal lath and plaster suspended ceiling which is secured to the original ceiling supports by cutting holes in the old ceiling. The space between the old and new ceiling is in many cases being utilized for air conditioning ducts and equipment.

On the outside of buildings concrete stucco is being given new life. Many existing cracked stucco jobs, on which portland cement had not been previously used, are getting an entirely new finish of concrete stucco on galvanized expanded metal lath. Many instances are reported where, at a cost of \$200 or \$300 for this type of finish, three to five times its cost is added to the sale value of the house.

The metal lath manufacturers are continuing their collective research and promotional activities. More about the all metal lath and concrete house which the Association is sponsoring will be described in future.

Homes

CONCRETE STUCCO ON OLD HOMES

FOR ALWAYS

UPKEEP TWENTY YEARS LATER

LOW FIRST COST

SAVINGS START AT ONCE

SAFETY FROM FIRE

WHAT

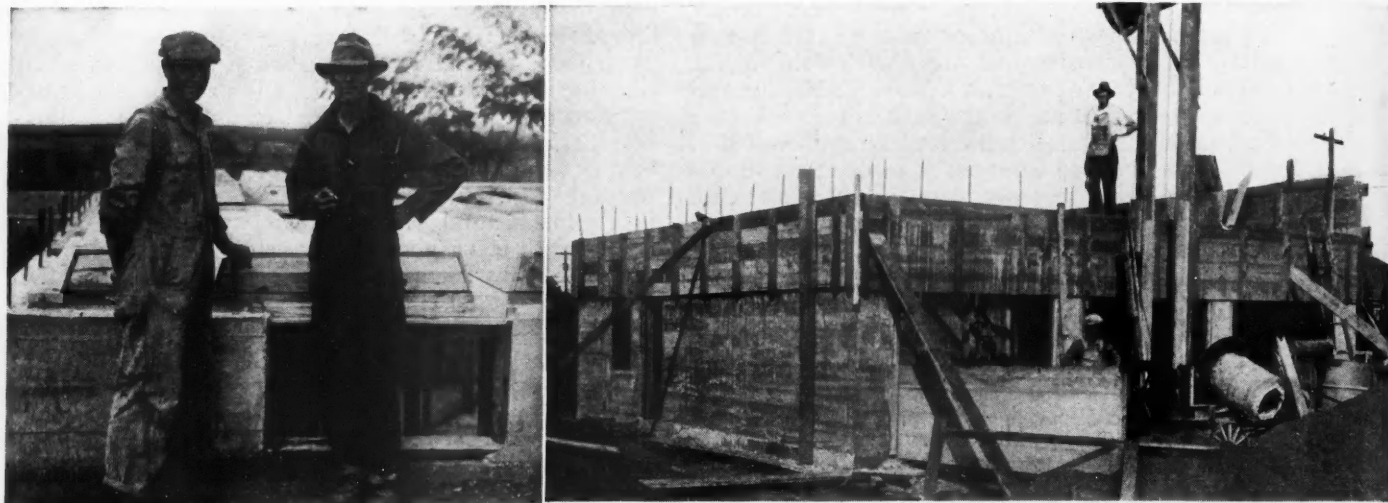
SUPERIORITY

FOR EVERY POCKET BOOK AND EVERY HOME

SAFETY

SAFETY

COVER and pages from new book on Metal Lath which the Association has prepared for distribution.



W. C. AUSTIN, concrete contractor of Lawton, Okla., is seen (at left) talking to the owner of the job on which work is under way. The walls of house (above at right) have been poured up to third level; tie rods are released ready for next lift.

Simple Lift Forms Cut Costs

I'D RATHER build reinforced concrete houses than any other kind. Maybe it's because I believe we've licked the forming trouble that so many contractors worry about with a specially designed form. In fact, several builders around Lawton built concrete houses last year using the same type of forms.

Building concrete houses is not new to me. I live in one myself. In 1928 I built a large two story house and later in that year another one for the same owner. On the next lot is a garage apartment I built nine years ago. These are only a few of the many concrete houses in Lawton. This year I helped build two and plans are ready for a third.

There really isn't much to describe about the forms used on these jobs. We simply buy about a thousand feet of lumber—matched boards and two-by-fours and build two forms, inside and outside sections, three feet high clear around the house. These forms come apart at the corners so that the sections for each wall can be raised individually.

For form ties we use $\frac{3}{8}$ -inch rods. These, as shown in the drawing, are threaded on one end and bent into an L-shaped hook at the other. One tie is placed at the top and one at the bottom of each two-by-four upright, through drilled holes.

Uprights are spaced 24 inches on centers.

After the concrete for one lift has been placed, the bottom tie rods are pulled and forms are raised for the next pour.

Raising the forms was an interesting problem. We tried several methods before our present system of hoists was adopted. For this system two hoists are used, one at each end of a wall. They are placed on top of the previous run of concrete and raise both interior and exterior forms above the top of the wall. Wood blocks are then placed under the forms to hold them up until we get the rods back into place. Next we remove the blocks and lower the forms slowly until the lower tie rods rest on

By W. C. AUSTIN

Concrete Contractor, Lawton, Okla.

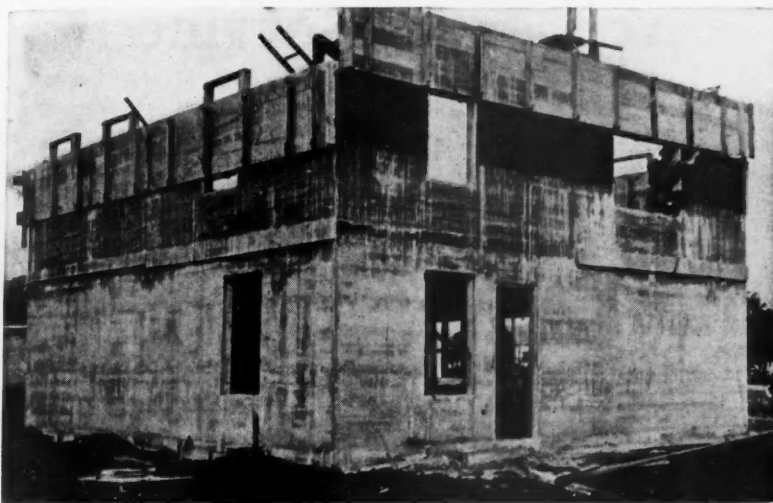
the concrete wall. We have to be careful not to bend the rods as they must be kept straight to pull easily. With the rods back in place and temporary spreaders at the top, we bolt the corners together and are ready for the reinforcement and the next placing of concrete. The great advantage of these forms is that everything can be bought and made locally at very low cost.

Now I don't want anyone to get the idea that because the forming is simple that there are no tricks to building houses in this manner. For instance, the bottom holes for form ties must be drilled the same distance from bottom of form to assure equal bearing on concrete. Care should be taken to fill around forms to equal heights.

The three most important things to watch are a good mix, a good construction joint and the proper reinforce-



ONE OF THE completed houses built by W. C. Austin is his own home shown above, a good example of the type job he is doing.



FINAL LIFT is being made (above at left); notice window framing in place at fifth level and workman setting tie rods. Workman using hoist (above at right) shows system of raising forms; drawings below give construction details of device.

ment around openings. The mix is generally 1 part cement, 2¼ parts sand and 3 parts gravel. Our walls are generally six inches thick, which calls for ¾-inch vertical rods on 18 inch centers with ⅝-inch rods at the jambs. The horizontal rods are ¾-inch on 10 inch centers. A ⅝-inch rod instead of the ¾-inch rod is placed above every opening. A diagonal ¾-inch hooked rod should be placed at each corner of the openings.

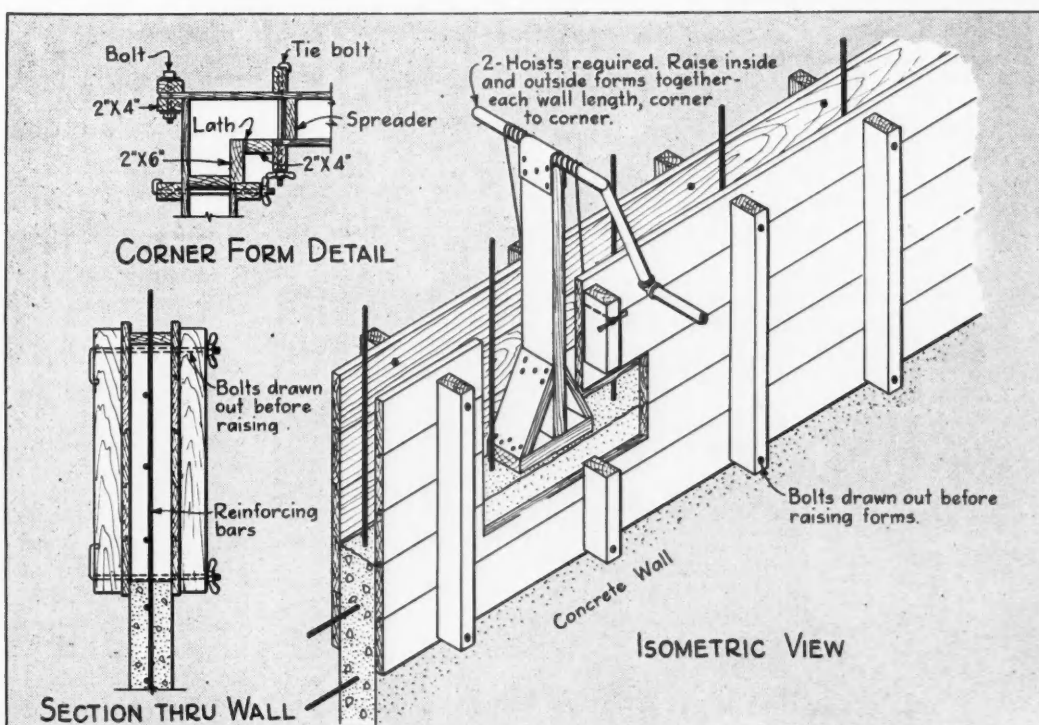
To form a good construction joint all loose material (laitance) should be scraped off the top of the last day's concrete and a 1 to 2 grout spread on the wall before placing new concrete.

The inside wall is furred out for plaster and insulation value. Additional insulation may be had with any of the insulation materials on the market.

The figures on forming costs for one of my jobs of the following size appear in the table at the right.

Size of house—2-story, 28 ft. by 28 ft. by 18 ft. 6 in. high; wall area—2,072 sq. ft.; wood lift forms—3 ft. high with 2 by 4 studs on 2-ft. centers (requires 7 lifts of concrete, 2 ft. 8 in high).

Forms—1,000 ft. lumber.....	\$40.00
Rods with wing nuts, nails and miscellaneous	10.00
	<u>\$50.00</u>
Allowing 50% salvage. Cost of forms.....	\$ 25.00
Building Forms—setting up mixer, hoist—2 days	
1 foreman, 18 hrs. at \$1.00.....	\$18.00
3 men, 54 hrs. at 40 cents.....	21.60
	<u>39.60</u>
Setting Forms—first lift—1 day	
1 foreman, 9 hrs. at \$1.00.....	\$ 9.00
3 men, 27 hrs. at 40 cents.....	10.80
	<u>19.80</u>
Setting Forms—each additional lift—½ day	
1 foreman, 4½ hrs. at \$1.00.....	\$ 4.50
3 men, 13½ hrs. at 40 cents.....	5.40
	<u>\$ 9.90</u>
Setting forms for 6 lifts at \$9.90.....	59.40
Total Forming Costs.....	<u>\$143.80</u>
Forming costs per sq. ft. of wall.....	7 cents

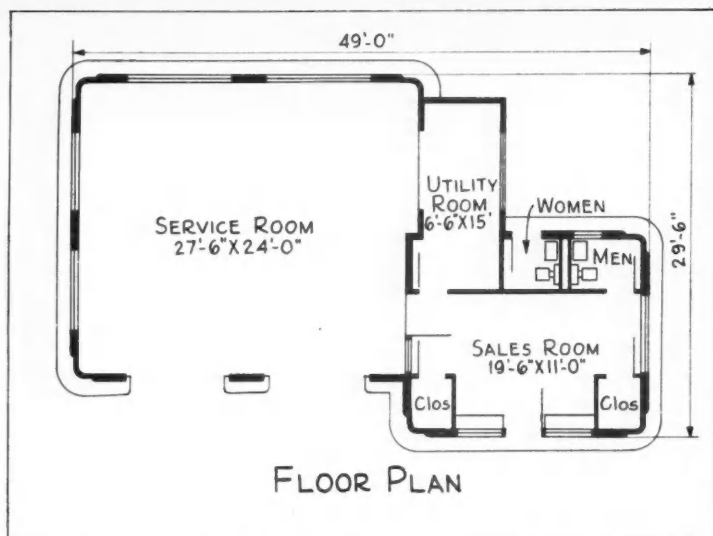
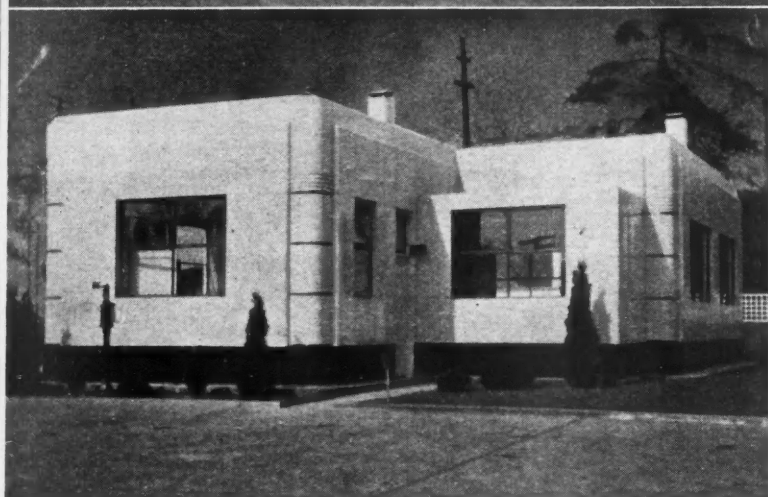


DRAWINGS showing methods of building and using the lift forms described by W. C. Austin; the hoist is an important detail of this construction system.

Latest in Service Station Designs Use New Materials

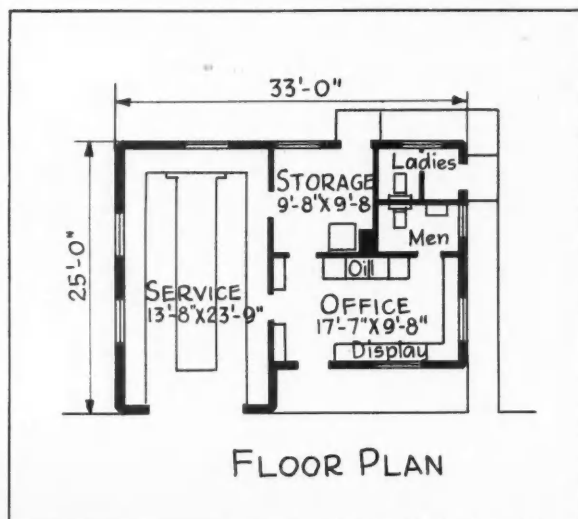
WALLS of glass blocks, porcelain enamel sheets or composition stone panels are the materials chosen by the designers of the modern service stations on these pages. In line, color and form as well as planning for efficient service, these structures will match the smart appearance and performance of the modern cars they service.

The station at the left has a steel frame over which colorful red and yellow enameled sheets are placed; the structural steel units were partly shop assembled, the work of setting up the frame on the job taking only six hours. On the opposite page is an architect's design using glass masonry units. Inside lighting in a wide range of colors can make this building gleam like a gem at night to catch the eye of passing motorists. The exteriors of the two service stations below use colored composition stone panels on steel pan wall sections which form the inside finish.



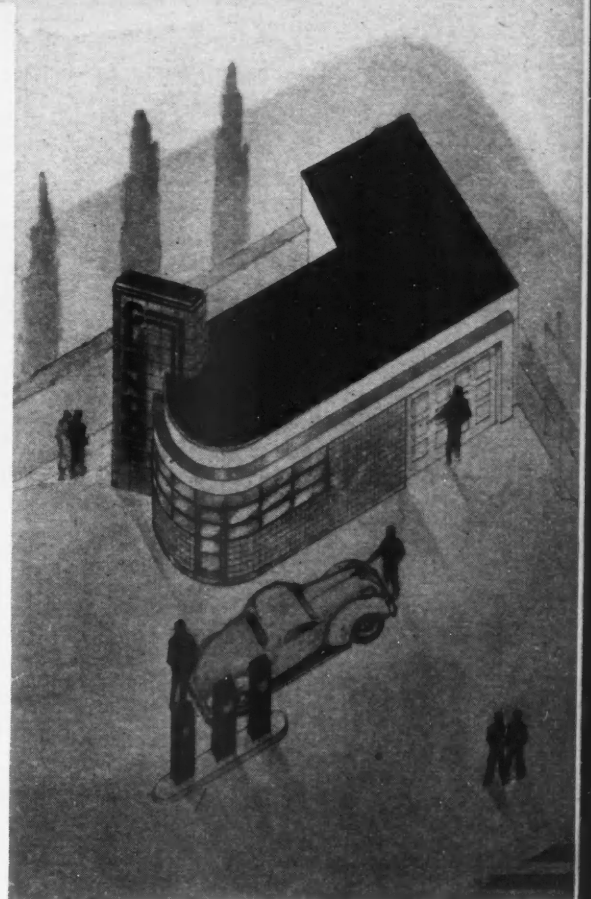
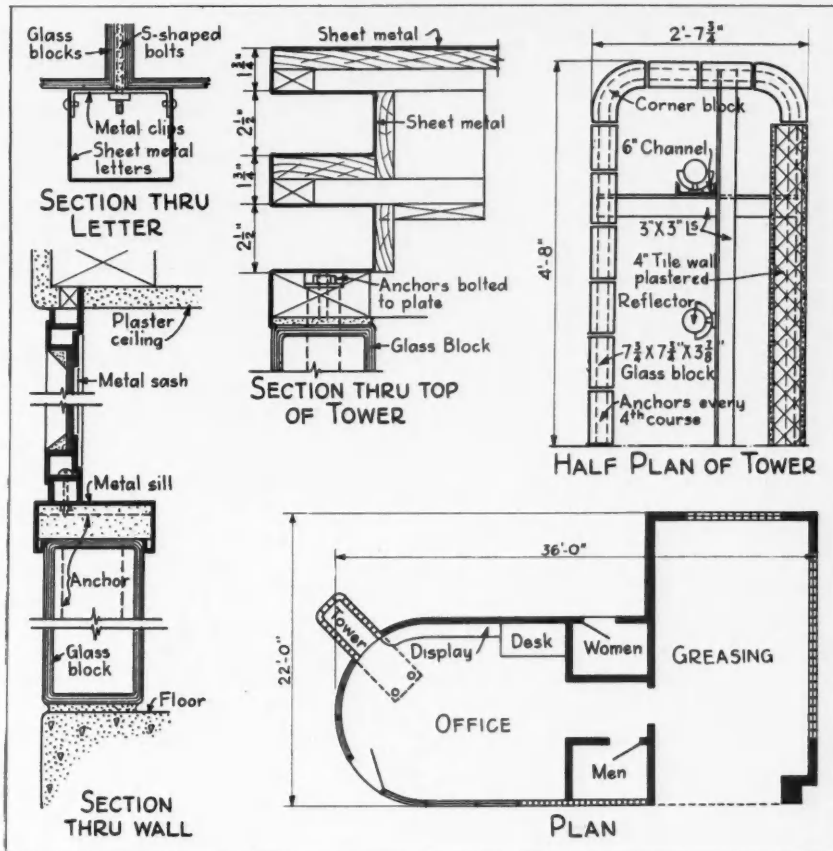
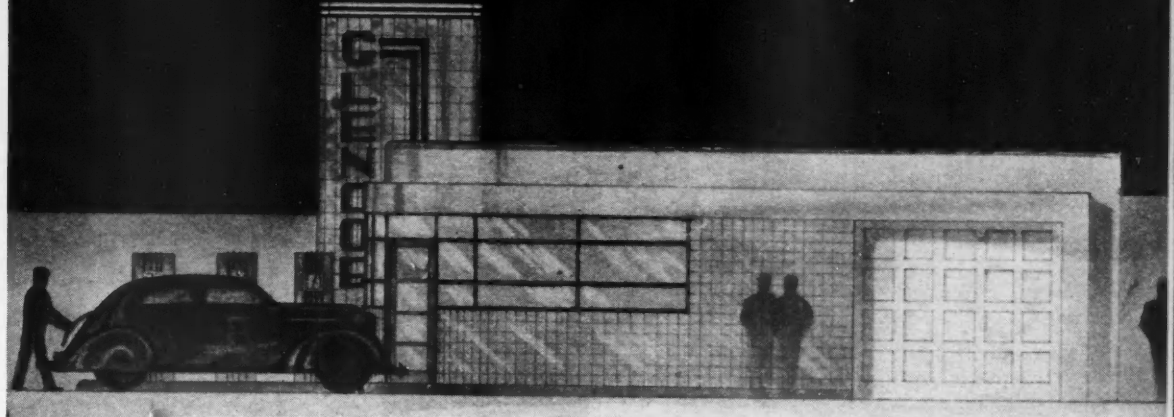
ABOVE, top: Front and rear views of Shell Petroleum Corp. service station designed and erected by the Dresser Engineering Company of Tulsa, Okla. Construction is porcelain enamel sheets on steel frame; plan also shown above.

BELOW: Plan of Rostone unit shown at bottom of page; access from office to service and storage space is conveniently arranged; all rooms are well lighted.

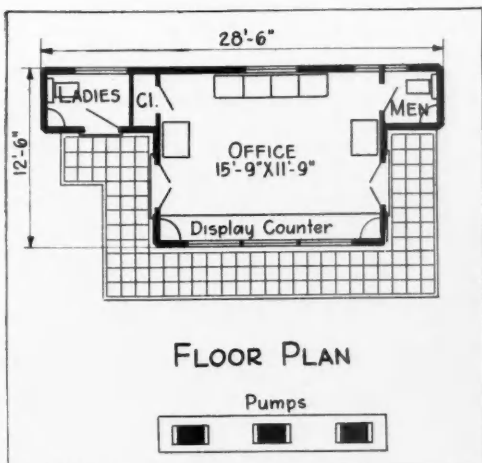


LEFT: Design for modern station using Rostone, a processed composition stone which is molded in slabs of varying thicknesses from one to two and one-half inches and cut to specified dimensions.

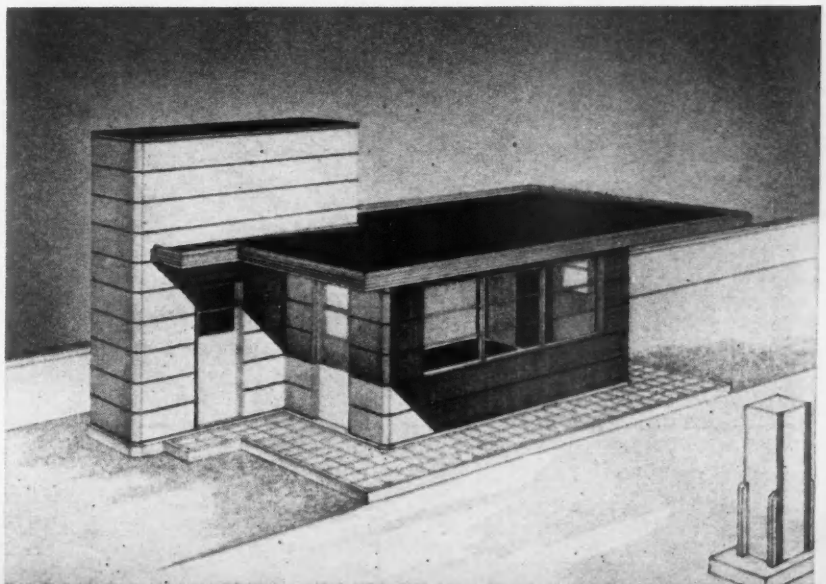
RIGHT: Architect's rendering of service station which uses Owens-Illinois glass block masonry units for front walls and tower; at night changeable, colored lighting on the interior can be used to make the structure a brilliant spectacle.



ABOVE: Perspective view of glass block building; increased natural light for day-time work and the ease of cleaning the glass surfaces are additional factors in use of this material. Plan and construction details appear at left above. Below: another design having exterior of colored Rostone also shown on opposite page.



ABOVE: Plan of small Rostone station; slabs on exterior can be applied over conventional stud framing, veneered on masonry or attached to steel pan wall sections.



Build to Provide Summer Comfort

By V. L. SHERMAN

Department of Mechanical Engineering
Lewis Institute of Technology, Chicago

ONE question very frequently asked in the matter of cooling and air conditioning is this: Can we cool or air condition one or two rooms of a home without controlling the whole house? It not only can be done but equipment for this purpose has been in use for a good many years. Thus office space was cooled or conditioned long before the present trend to ensure comfort for the home.

There are many and various types of such equipment, some for cooling only, some for cooling, filtering and dehumidifying, some entirely self-contained, and others giving complete air conditioning, winter and summer, with heat and refrigeration supplied from a central plant. The thoroughness of such a job is rather surprising when the size of the conditioning unit is considered, and we see how very little floor space is required.

To show something of what the last type really is I borrowed a photograph from one manufacturer and marked it up as will be seen in Figure 1. The handsome pressed steel cabinet has been removed, and the long filter at the top is raised to show what it looks like. For summer work the air is drawn through low grille in the cabinet and into the fan chambers from which it is blown into and through the diffusers directly above. The flow of air is thus spread across the cooling coils above. These coils are, in connection with the blowers, high coefficient

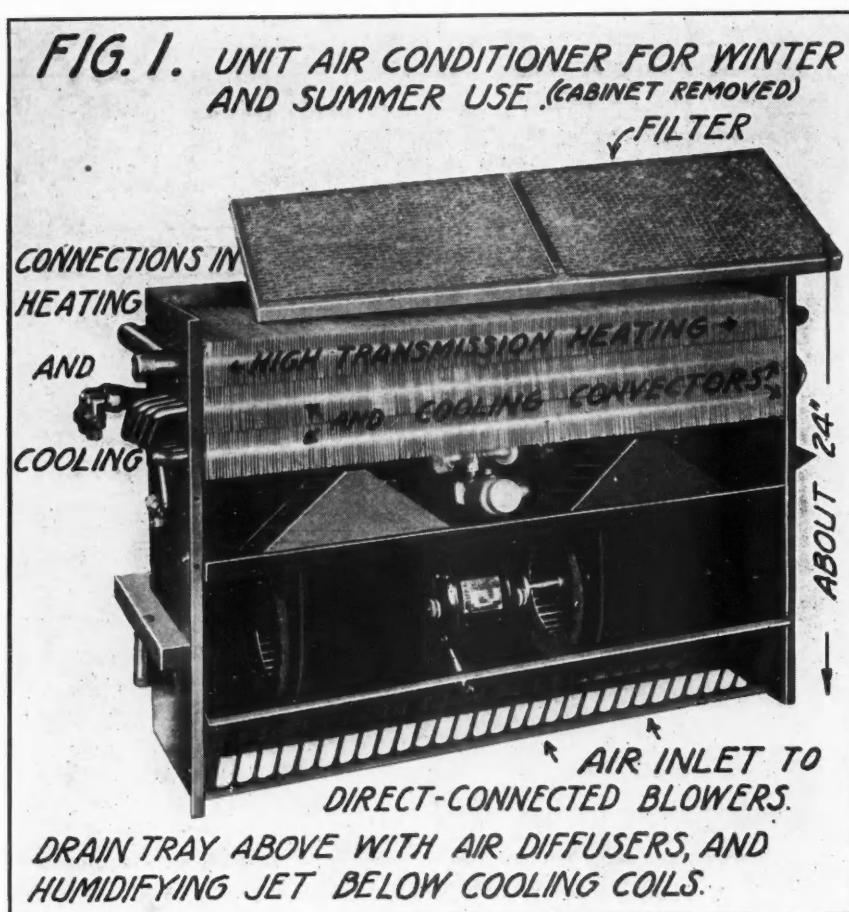
convectors. As the air is cooled some of the moisture squeezes out and is drained off. After cooling, the air drives through the filter and rises in a refreshing stream through the delivery grille.

Since these unit conditioners do not connect directly with the out-of-door air they are to be placed near a window. But there are cooling and dehumidifying and filtering units which can be connected directly to the window space and provide a regulated amount of intake and discharge of air.

To go back to Figure 1 for a moment. During cold weather the upper heating coils are brought into service and the humidifying is provided by a vaporizing jet below the coils. Thus with such a unit as the one shown year round conditioning is possible in single rooms or in any number required. How compact such equipment may become is well shown, and easily seen, in railroad coaches. The conductors of these cars can quickly point out the workings in their cars and the delicate controls in operation.

The present tendencies point more and more strongly to comfort and convenience, but there are always many who insist things are too expensive. The expense of comfort depends largely on what means we may use to obtain it, whether we have learned to use the right ways. This complained of expense is very like that of the automobile driver who wrung his hands at the low gasoline mileage shown by his new car. After strong expostulation he permitted the sales manager to attach a meter and to drive the car over the next fifty miles. The mileage rose wonderfully from twelve to seventeen miles. Then they changed seats and the expostulator drove, after a fashion. He never had driven the car properly because he didn't know how.

There is similarity between expense in heating and cooling and low mileage in driving. If one constantly races the engine before a stop-light in order to make a quick get-away, then pushes too far ahead in "low" and in "second" before striking the proper speed, if one is constantly fiddling with the clutch and changing the speed of the motor the expense of driving is bound to rise. When there is a home which has an attic wherein the temperature is even higher than that outside, it might be supposed that cooling would be expensive, possibly foolish. But with relatively inexpensive

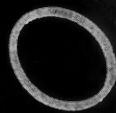


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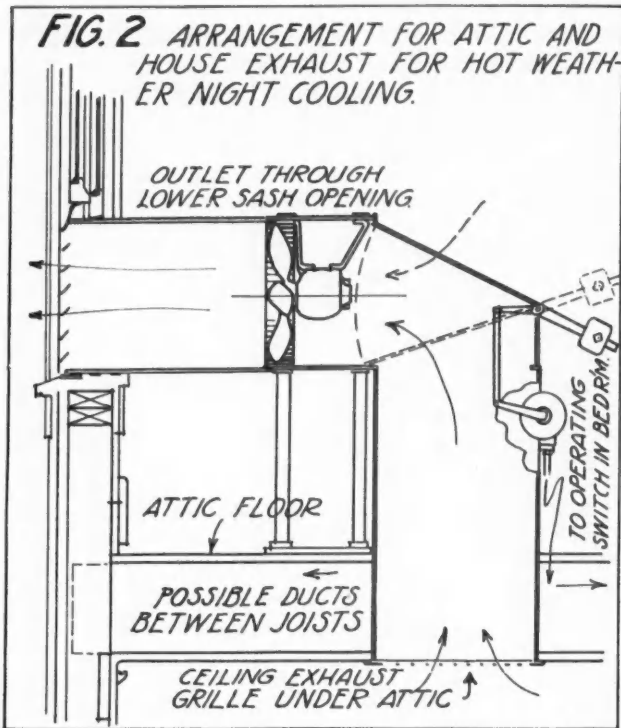
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MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES



means the house may be brought to a much cooler level.

Insulation and ventilation answer the question. An attic should not be permitted to gain summer heat so rapidly through unprotected roof and walls. These should be thoroughly insulated. Even then the attic should be properly ventilated during the day. There are some who hold that sufficient air circulation is assured if there are open windows enough for a cross ventilation, or if there are louvered openings. There are some who think that a forced circulation through the attic is better. On the face of it it would appear that if air were drawn during the day from the shady side of the house and discharged, that the chances for keeping attic temperatures down would be increased.

In Figure 2 is an arrangement of ducts, damper, and fan which is being used for this purpose. The discharge duct leads to a weather-proofed window space in the lower sash of an attic window. A propeller type fan may be adequate where the runs are short and the head against which it works is low. The fan housing may be opened, by means of the damper, into the attic space or into the riser from the second floor ceiling. During the day the damper may be left open to the attic providing ventilation whether or not the fan is operating. After sun-down the attic may be cooled by circulation and at a little later time the damper may be adjusted to withdraw air from under the second floor ceilings. Should one discharge grille in the ceiling prove insufficient there is no reason why between-joist space cannot be converted into ventilating ducts leading to a common discharge center. But in case of a number of ducts and an increasing pressure to be overcome the type of fan to build up a head must be inquired into.

The warm house air being withdrawn and discharged to be replaced by cooler night air, the temperature of the house is not only lowered but the air changes provided relieve us from stagnant air. A cooler house in the morning will prolong the time of heating up during the day. Thus for the mild expense of the motor's operation at

opportune times a great deal of house heat is effectually dissipated.

Figure 3 shows a curve which is said to give us percentages of the maximum cooling effect through numbers of air changes. If we go to the extreme right and provide for 45 complete renewals of air from the outside, or air changes, we get about 83% of the possible maximum cooling effect. That would mean that every one minute and twenty seconds the entire room or house would be completely supplied with fresh air. But with only 20 air changes we can get a percentage of 73% of the maximum. This is termed the economical rate. From this point the percentage falls to 60% at 10 changes, and then drops rapidly.

If one considers a single room, say 12'-0" x 15'-0", with a ceiling 8'-6", and 20 air changes it would mean that the fan must handle 30,600 cubic feet of air per hour or 510 cu. ft. per minute, (510 cfm.) The average might be said to be 2500 cfm. for an average entire house. Turning to the catalog our first find is a propeller of the newer type at 30 inches diameter, 3 horsepower, 1140 revolutions per minute handling 8200 cfm. against a static pressure of 1 inch of water. Decidedly more than is required, but certainly at lesser power and size we can suit our requirements. On another page in the catalog is a fan of more conservative design, which type can be had in sizes from 10 to 60 inches and capacities of 950 to 52,000 cfm. Propeller fans just as ships' propellers are far ahead in efficiency compared to what they used to be.

There is then no need to hesitate in applying what we know toward the cooling of attic space or servicing the house with air changes during the summer nights to provide more comfortable daily quarters.

It has been repeatedly said that the cost of home building is too high, that proportioning the yearly cost of paying for a home with the average yearly income is a feat for the higher sciences, that the experimental constructions undertaken in the way of research have not been encouraging. But it is too easy to condemn projects which have not come up to expectations. And I disagree with those who say that adequate and comfortable homes cannot be built within the means of the average family.

It is not my notion to elaborate on how I think it could be done, and it would be more interesting to know how some contractors are building such homes, well planned and equipped. How these homes are thoroughly discussed and agreed upon by the builder and owner before they are

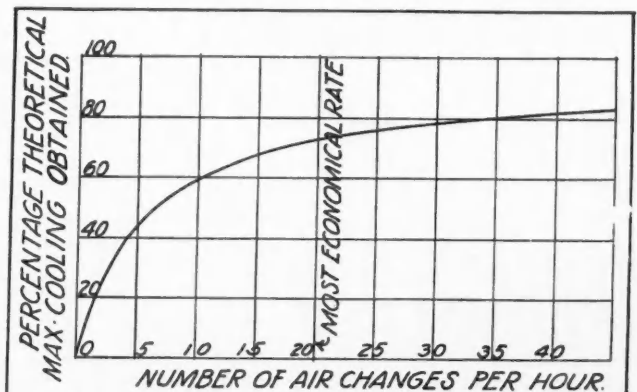
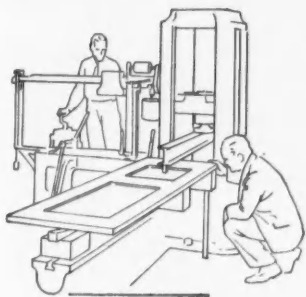


FIG. 3 "CURVE BASED ON UNIV. OF ILLINOIS RESEARCH SHOWING RELATIONSHIP BETWEEN NUMBER OF AIR CHANGES AND THE COOLING EFFECT THAT IS PRODUCED."

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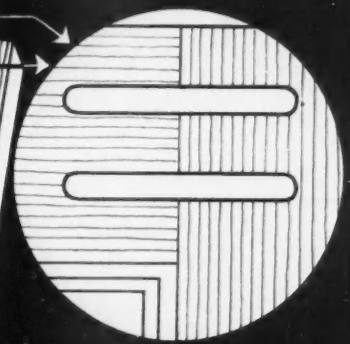
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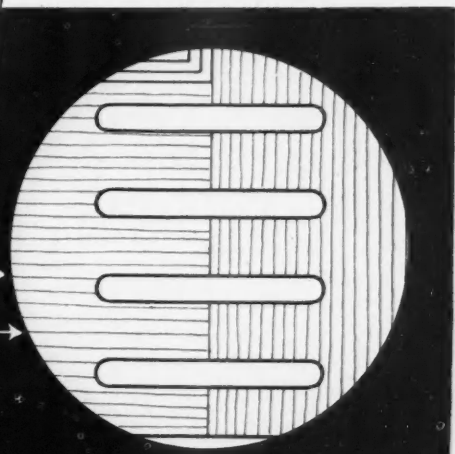
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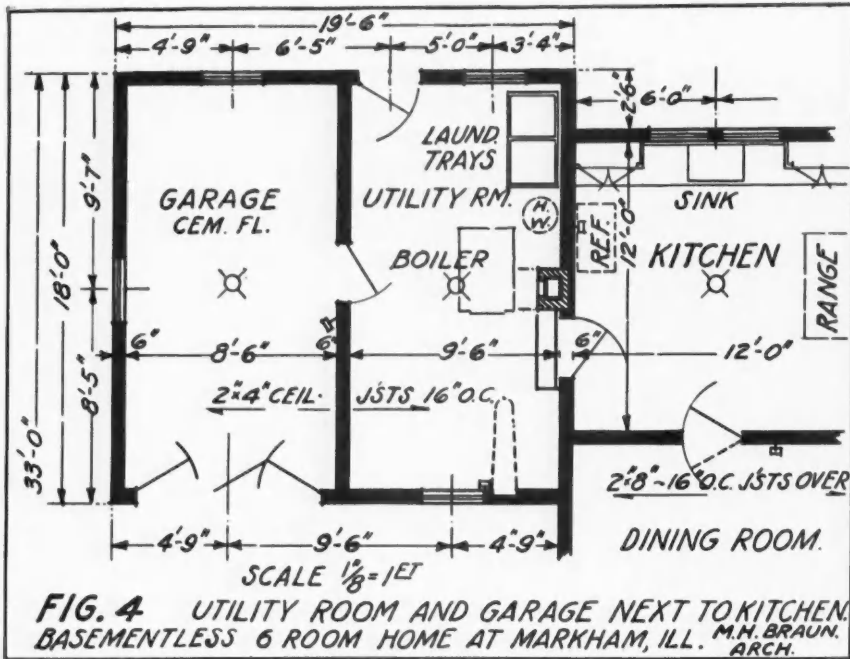
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HEATING-AIR CONDITIONING-PLUMBING AND WIRING



begun, and how the family seems to take possession before completion. That is just what is happening in some quarters and under the provisions of the Federal Housing Administration.

But this point might be made. Complete equipment mechanically is not proportionately large when the cost of changed planning, additions, and lack of complete understanding before building are considered. The most extraordinary expense in building the average home, quite unlike the average industrial project, is failure to carry through from the designs agreed upon. If designs in home

building were unaltered during construction a great deal would be saved.

It is for this reason that mechanical equipment for the home offers so much return in comfort and convenience at such a relatively small cost. The design is perfected and the manufacture planned.

The part of a floor plan shown in Figure 4 is taken from the plans of one of the low cost houses mentioned. The first floor contains a living room and dining room with a stair hall between, a kitchen, lavatory, and a bed room, 12'-0" x 12'-0", with two closets. The second floor provides three bedrooms and bath. The main part of the house is 33'-0" x 30'-6", and is of the story and a-half type. But an important part of the house is the addition off the kitchen which is 18'-0" x 19'-6". This addition takes in the utility room and the garage. The house has a fine hot water heating system, and the boiler with the hot water

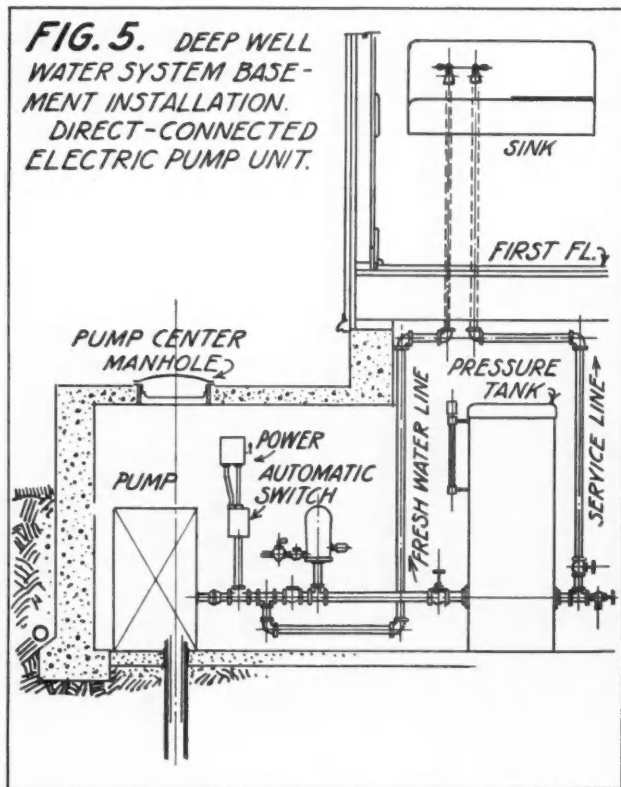
heater are within easy steps of the kitchen. The utility room takes care, as well, of all laundry equipment, and it is one room which so many housewives have wished for, a buffer room between the outdoors and the house proper.

Speaking of planned work there is nothing which lightens the work of housekeeping quite so much as planned housekeeping. Gas heat, oil-burners, automatic stokers, all equipment of an automatic nature has done great things for the housewife and her family. When a kitchen and utility room are thus combined on one floor another great relief is afforded.

It is needless to say that these houses are without basements. They are fully insulated and well built from the footings to the chimney cap. Some are heated by warm air which can be used with as much assurance as though a basement were provided.

About the time the suffragists and suffragettes were arguing their differences in ethics and etiquette it was my privilege to man two pumps each morning. One was over an artesian well which sufficed for our needs after the first pitcher with its tinge of oil had been emptied down the hill. The other was a chain pump which hoisted the water from the cistern, part going into the stove tank to furnish hot water. Taking it all in all my tasks were light, or, it might be said, the tasks of the older ones were relatively heavy. But the women of the world seemed to have used the suffrage business as a smoke screen. What they really were after was means to easier housekeeping. There is but one way to satisfy them and that is to lighten the duties of the whole household.

I can easily imagine what a difference the little plant shown in Figure 5 would have made in those other times if one had been available. In the present there is nothing that even an isolated home may not have to secure complete comfort for the family. The last word is always the time which can be saved by getting away from work that mechanical equipment will handle. Homes are bought supposedly by the head of the household, but it is the wife of the present who settles the deal. She has two great things in her favor. One is the Federal Housing Administration's policy and the other is the wonderful market in modern equipment for the home.



Suppose

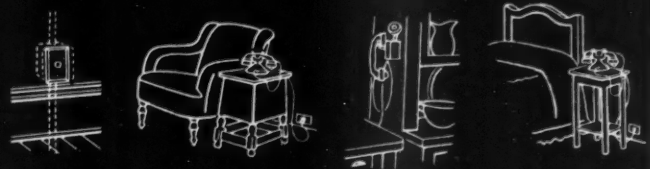
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PLEASANT PEOPLE, the Colemans. In their early thirties. One daughter, 9. Income, about \$3800. House to cost \$5000. Small, compact, but must be thoroughly livable. *What telephone arrangements will you recommend?*

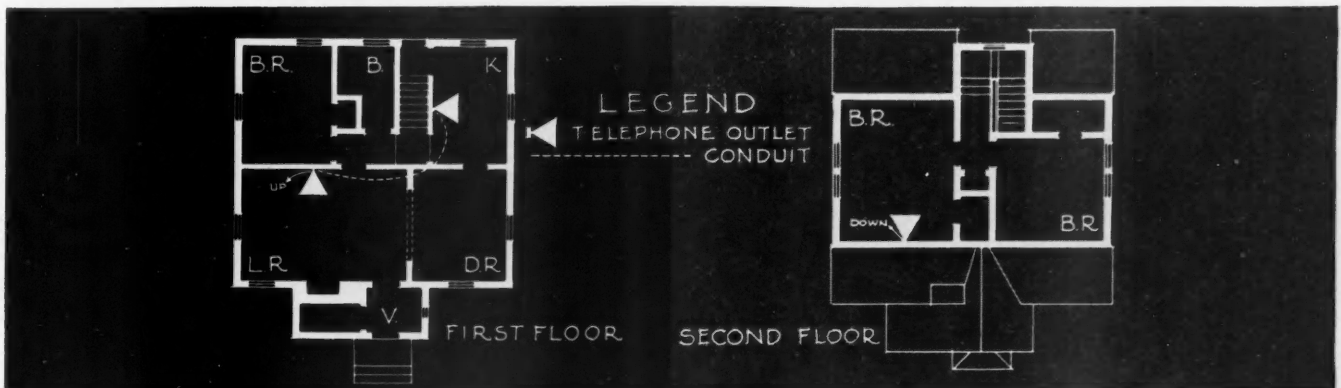
Conduit, of course, should be included in walls and floors during construction — because it protects against certain types of service interruptions, and permits placing outlets at strategic points without exposed wiring. An outlet in the living-room. One in the kitchen, probably. One in the master bedroom, certainly.

Perhaps only the living-room outlet will be used at first. But the need will develop for a telephone upstairs to save steps during the day, provide protection at night. Since Mrs. Coleman does her own

housework and will spend a lot of time in the kitchen, she may ultimately want a telephone there too. Either or both can be installed quickly, easily — without exposing wiring or piercing finished woodwork. And the Colemans will appreciate your careful planning.

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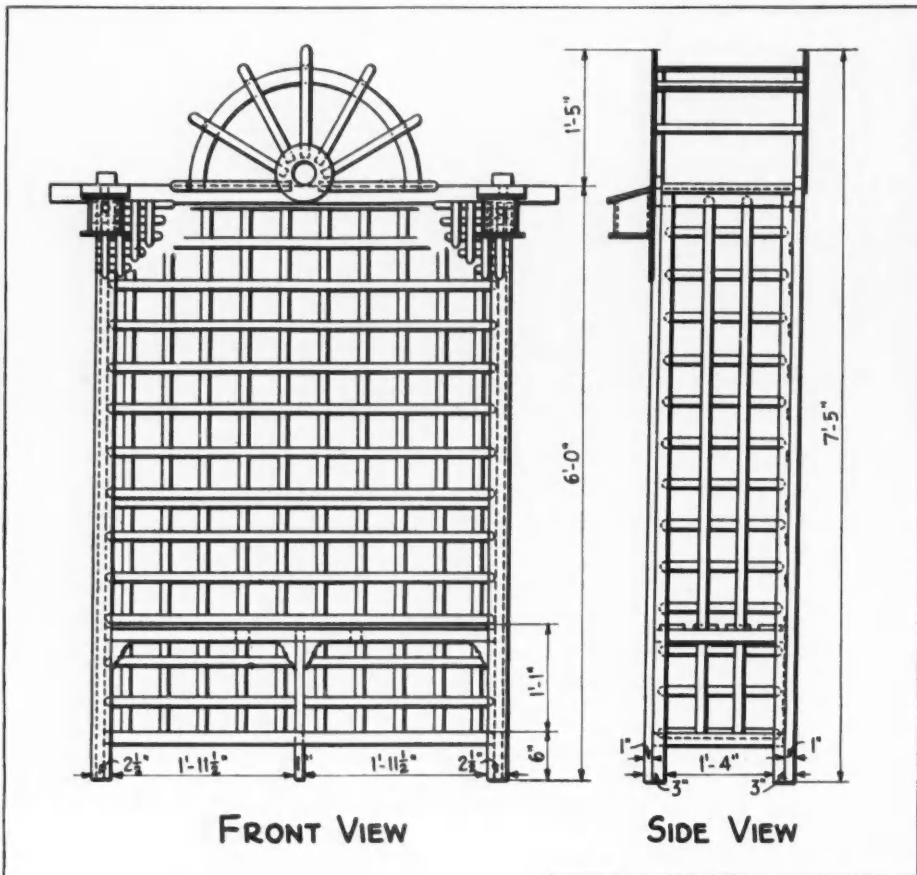
Things To Build for Profit or Pleasure

CONTINUING the outdoor features of the type presented last month, two more items which add to the appearance and livability of the garden are shown in detail on this page.

The garden seat is simple in design and easily built. However, with a flowering vine trailing over it, this feature will be a most attractive addition to a shady corner and will serve a useful purpose as well. Two small bird houses finish the upper corners of the frame. Pine or cypress are suggested as material best suited; sizes are

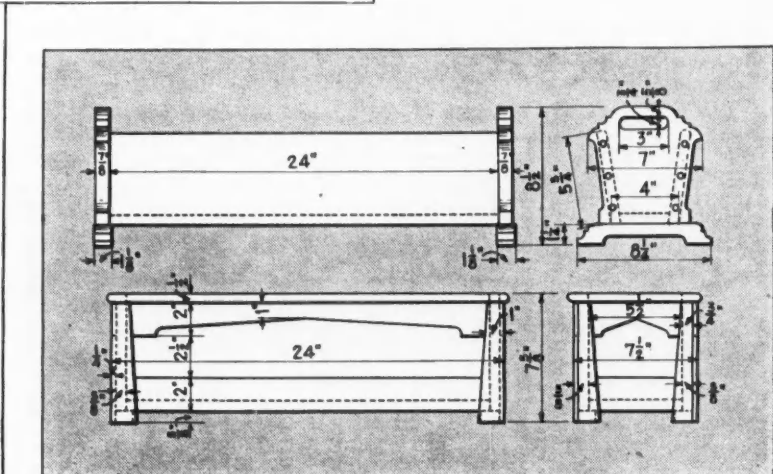
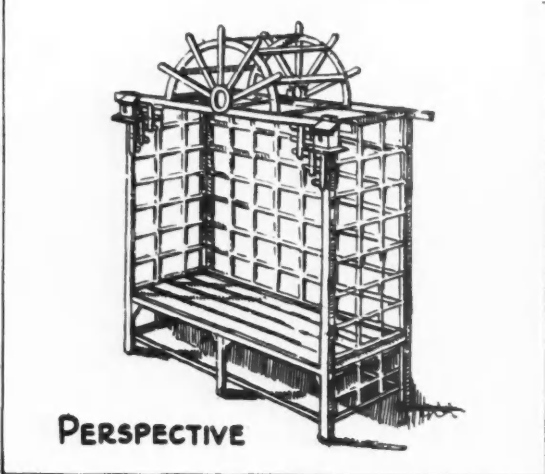
shown for the main framing members in the drawings below. For finish flat white is the most popular on such items although this design can be painted in a two-color combination, the frame of one color and lattice, including seat slats, of another.

The two flower boxes are suitable for use on wide sills, porch railings, or open terraces. Later in the season they might be taken into a sunroom and placed on a base or table made for this purpose. A sheet metal box or lining to hold water will be necessary, particularly for inside use. The drawings at the bottom of the page give the dimensions; paint is again recommended as finish. These designs are from Edward F. Worst.



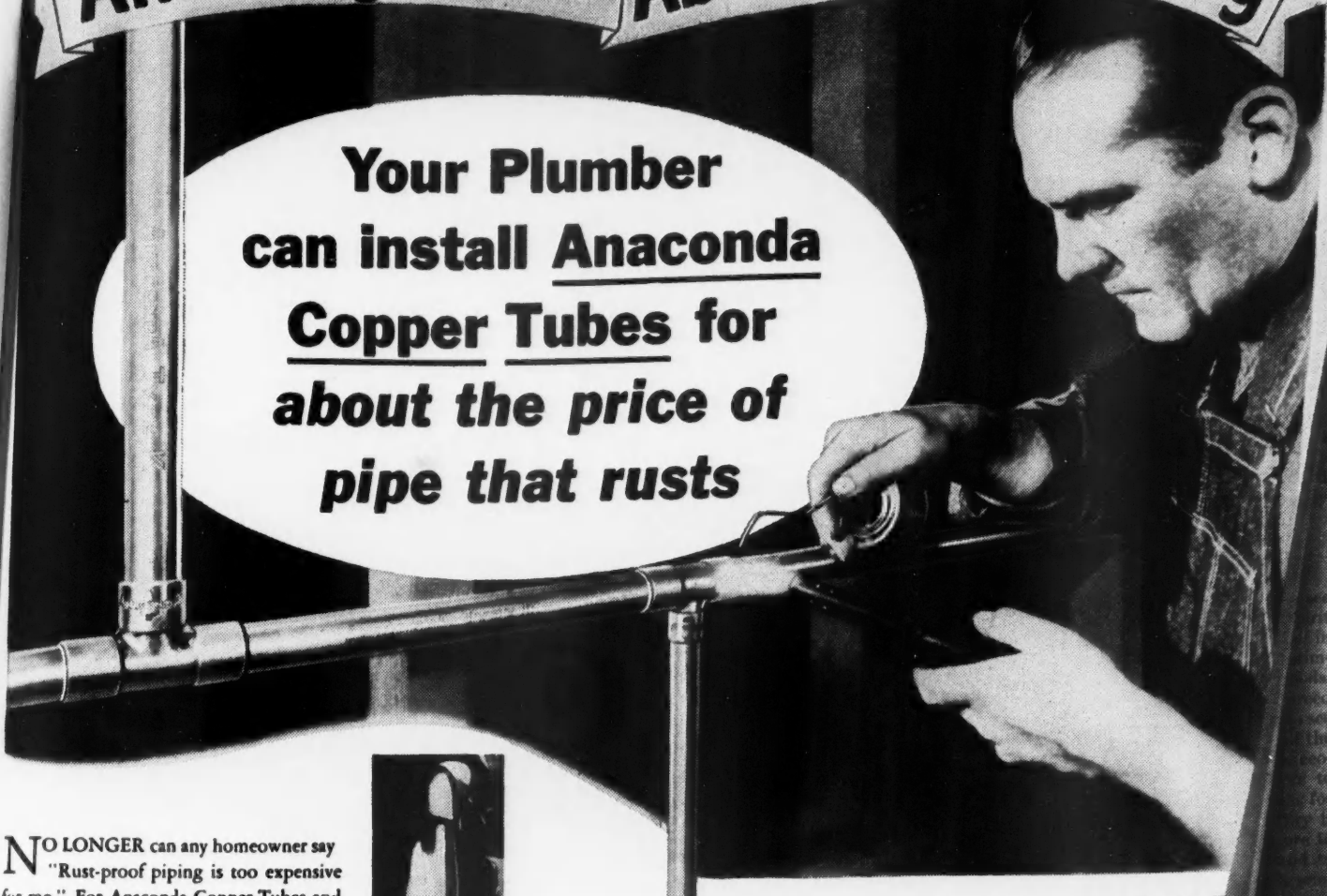
CONSTRUCTION details of a garden seat shown at the left. Lattice is indicated as 1"x1/4" set to give about 4" squares; variations in design can be worked out using diagonals or other patterns and combinations.

FLOWER box design below gives necessary dimensions. Numerous changes in detail or over-all size are possible; air space under bottom and sturdy construction are recommended.



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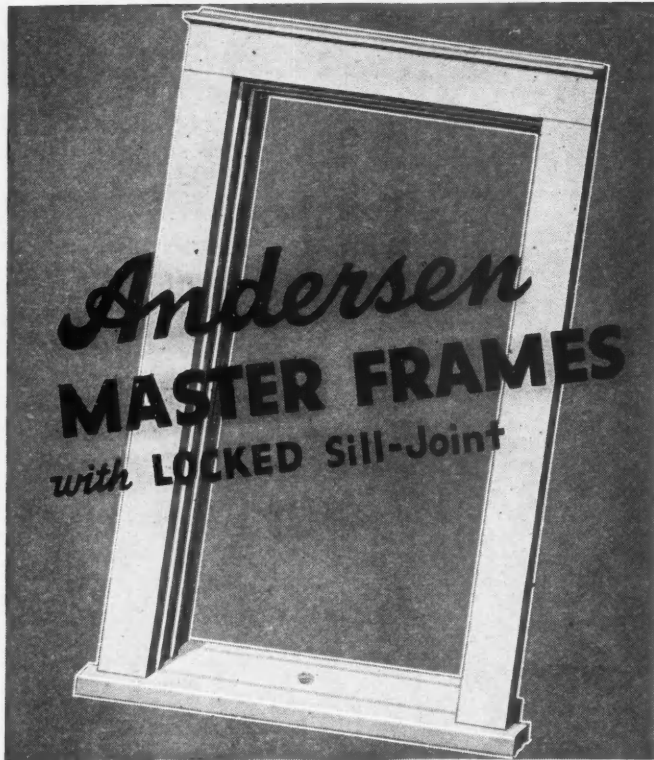


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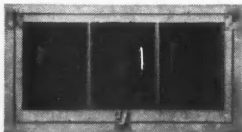
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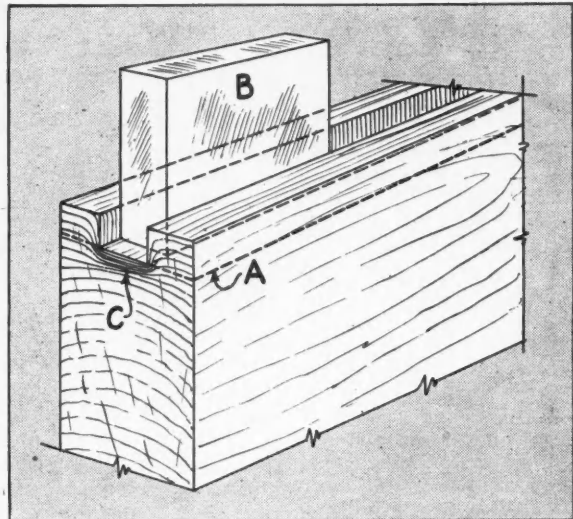
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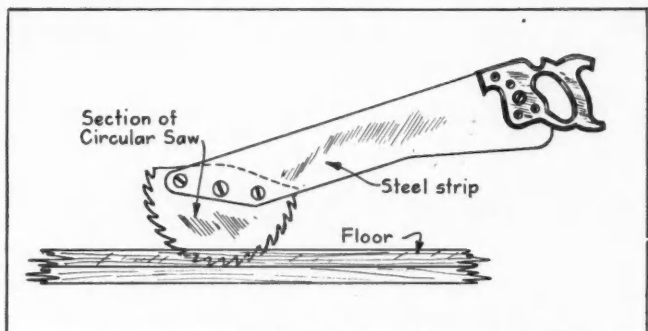
THIS is the best way I have found to join the edges of boards to make them watertight for use in the bottom of a boat, a tank or anything to either hold or keep out water. Take a piece of iron (B) with a square edge of suitable thickness, and with a hammer pound a depression (C) or channel along the edge of the boards about 1/8-inch deep, or deeper if boards are very wide. Then take a plane and joint the boards down to the surface (A) of the channel or depression made. Fasten boards well to keep from warping and paint both sides. The joints, if well done, will always be watertight.—W. H. GARDNER, Glenora, N.Y.



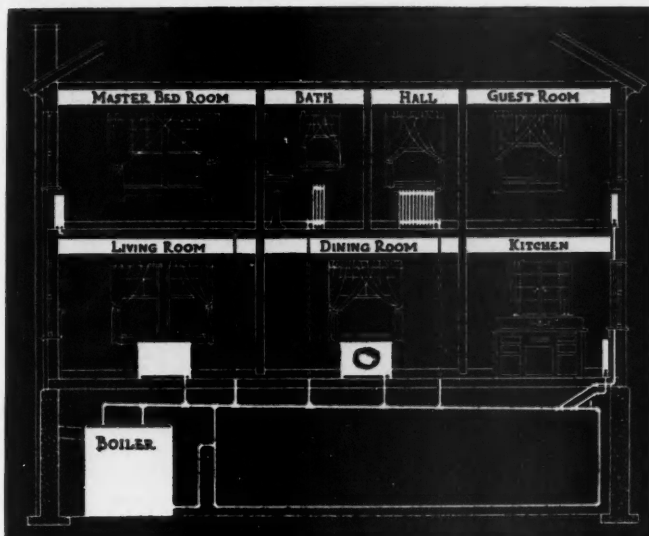
METHOD of making joints which will be watertight.

Saw for Removing Flooring

HAVING no saw of proper type and finding one hard to obtain, I made a floor starting saw out of a section of an eight-inch cross cut circular saw that had been discarded because of a bad crack. This section was riveted to a strip of sheet steel and an old hand saw grip attached. As the strip was thicker than the ordinary saw blade it was necessary to widen the slot in the grip somewhat. This improvised tool proved to be most useful in wiring jobs. It is quicker and does a much neater job than by boring corner holes and cutting out with a key hole saw.—W. C. WILHITE, Edelstein, Ill.



SECTION of circular saw makes useful starting tool.



The Unit-Air Conditioner, that is no larger than the usual grille-enclosed radiator, heats, filter-cleans, humidifies and circulates the air

A Simplified Radiator System

of Air Conditioning

No Ducts—No Tinsmithing—No Registers

IT does everything any radiator heating system does, plus everything a warm air one can do. Still it has none of the limitations of warm air, and does things it can't do. Those are the high-spots in a nut-shell.

This is not a "split radiator system" that requires ducts in the basement, registers in the floors and wall grilles. With the Burnham Simplified Unit-Air Conditioning System, the heating is done with our free-standing or recessed Slenderized Radiators, in combination with the Unit-Air Conditioners.

The Conditioners, although they take up no more room than the usual grille-enclosed radiator, do an equal amount of heating. In addition, they filter-clean the air, humidify and circulate it. If desired they can also be equipped to cool the air.

There are no across-the-floor currents. No distributing through other rooms of kitchen and bathroom odors, or stale smoke.

The Unit-Air Conditioners serve equally well in new installations, or for replacing certain radiators in old ones.

Three Unit Conditioners are sufficient for a 7-room house, as shown above. One each in living, dining and master bed room.

The boiler is under control of a major thermostat, and each Conditioner is equipped with its own thermostat for individual room control. There is a hand control for running fan in Summer to keep dead air in circulation.

The same boiler furnishes hot water for domestic purposes at minimum cost in both Winter and Summer.

This Burnham Unit-Air Conditioning System costs very little more than just a heating system. Send for special Catalog.

Burnham Boiler Corporation

Irvington, New York Zanesville, Ohio

Representatives in all Principal Cities of the United States and Canada



Every House Deserves The BEST SASH CORD

To equip the houses you may be planning, building or renovating with Samson Spot Sash Cord, is to insure the installation of the best sash cord you can use. It will justify your confidence in its better and longer service. It will sustain your good judgment in the minds of those for whom you build, by protecting them from the expense and annoyance so frequently occasioned by cheap cord failure.

Samson Spot Sash Cord is made of extra quality, fine, three-ply yarn, firmly braided, smoothly finished. It is guaranteed to be free from the imperfections of braid and finish which cause cheap cord to wear out so quickly. It is made in one quality which can always be identified by the Colored Spots—our trade-mark.

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BOSTON, MASSACHUSETTS**



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SPOT**
sash cord

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Reg. U. S. Pat. Off.
RUST PROOF SHINGLE NAILS

WHEN YOU LAY SHINGLES WITH MAZE MADE *Linclad* RUST PROOF NAILS YOU ARE ABLE TO GIVE YOUR CUSTOMERS A ROOF THAT WILL LAST TWICE AS LONG FOR THE COST OF ONE ORDINARY ROOF PLUS A VERY SLIGHT EXTRA.

FOR SALE BY LUMBER DEALERS MADE BY **W. H. MAZE CO.** PERU, ILLINOIS.

Send *Linclad* SHINGLE NAILS for FREE LEATHER SAMPLE KIT. Show your customers the nails you recommend.



GENUINE ONLY
 WHEN PACKED IN THESE HANDY 5 LB. CARTONS



SAVE MONEY

on every job with efficient, low-cost

"DELTA" QUALITY MOTOR-DRIVEN TOOLS

The above illustration shows a Delta Circular Saw cutting costs, saving time, turning out better quality work on an actual construction job.

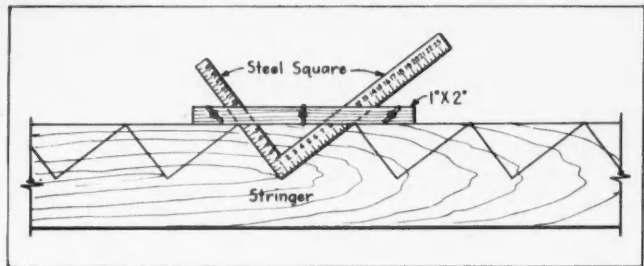
Contractors all over the country are turning to "Delta" tools to enable them to make more money on their contracts, turn out the work faster and do a more satisfactory job. Ask the contractor who uses Delta Tools. He'll tell you that they save time, money and labor—and have many special features which are not found in tools costing many times their price. The Delta line includes Band Saws, Circular Saws, Drill Presses, Shapers, Lathes, Grinders, Jointers, Scroll Saws and a full line of accessories for each machine. Write in today for the name of the nearest Delta dealer and complete details on the Delta line of quality tools.

DELTA MFG. CO.

602 E. Vienna Avenue, Milwaukee, Wis.

Timesaver on Stair Stringers

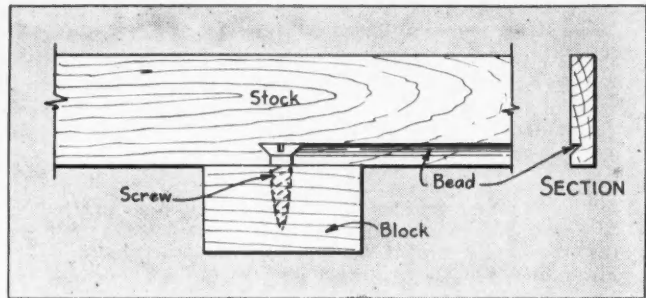
HERE is a way to mark stair stringers with a little less watching when using a steel square. In laying out stair stringers I find that time will be saved if I attach two 3/8-inch strips of wood, one on each side of the square as shown in the sketch, so as to obtain the desired rise and run. All treads can be quickly and accurately marked with this device.—JOSEPH J. ALLGEIER, Fort Wayne, Ind.



STRIPS attached to square serve as layout guides.

Making a Beaded Edge

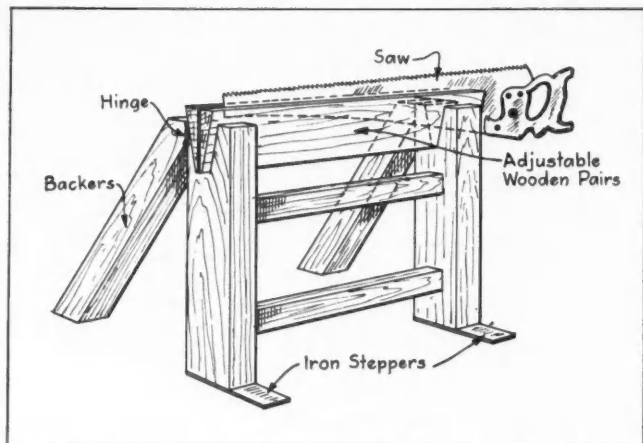
TO FORM a small bead along the edge of stock, insert a flat headed screw into a scrap piece of lumber leaving the necessary amount of screw for the required bead projecting. Keeping the block on the edge of the member to be beaded, exert a little pressure and use block and screw as you would a gauge. If the member be curved, the block should be roughed out to the same curvature. This will be found a handy kink when other equipment is not at hand.—ROBERT BROWN, Lead, S. Dak.



SCREW in block gives device for making edge bead.

Holding Saws for Filing

IN BUILDING the clamp shown in the sketch, the material needed is all composed of wood except for the iron steppers. The purpose of these steppers is to prevent clamp from moving backwards, and so with the backers which are attached with hinges for folding when device is not in use. The wooden pairs fit in the tapered slots in the uprights and a tap on them will tighten the grip on the hand saw, making it ready for filing.—FRANCISCO R. TROGO, Aparri, Cagayan, Philippine Islands.

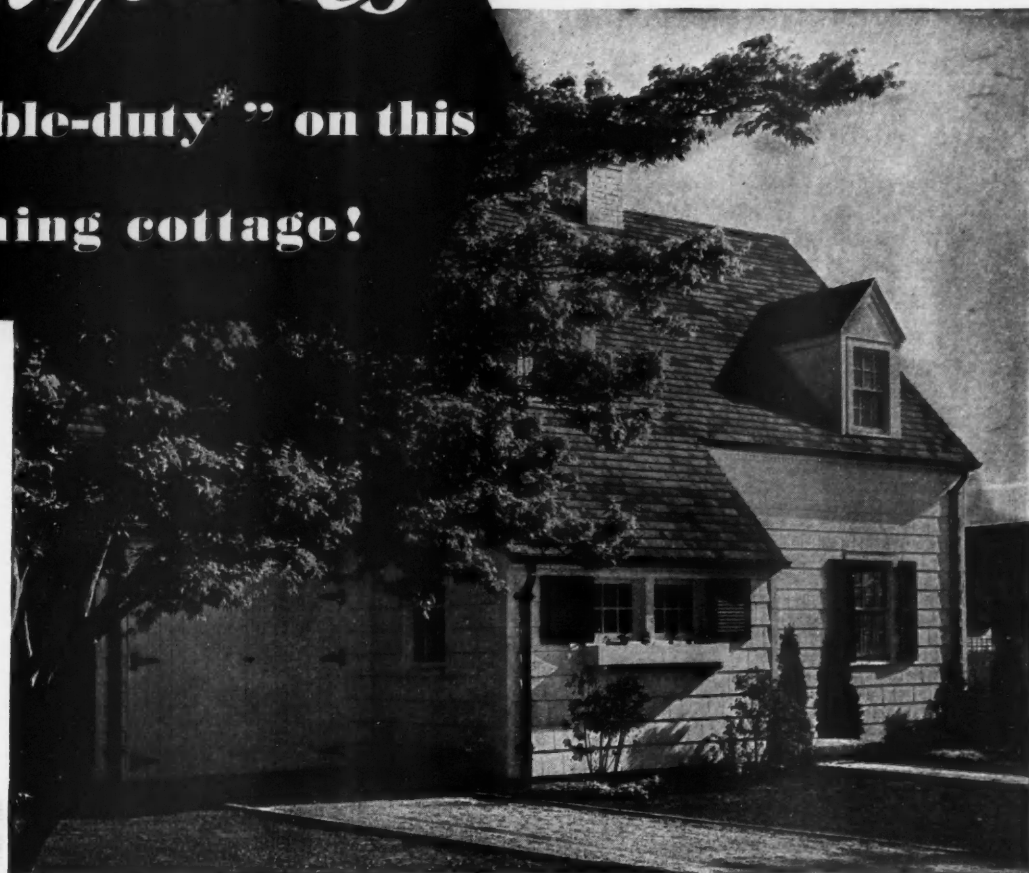


SAW clamp for holding tool securely when filing.

Certigrades

do "double-duty" on this charming cottage!

This roomy six-room cottage at Hempstead, New York, designed by Maxmillian R. Johnke, has both roof and side walls of CERTIGRADE Red Cedar Shingles. Mr. Johnke says: "I have found by using CERTIGRADE Red Cedar Shingles on this cottage that they serve a double duty, in that they produce a low-cost insulation value in addition to the charming effect of early American architecture most pleasing to the owner. Needless to say, I specify them for most of my work."



* they insulate as they decorate!

AS A BUILDER you'll find many reasons for the superiority of CERTIGRADE Red Cedar Shingles for roofs and side walls. The deep shadow lines, warm color tones and random widths give beauty to practically any type of design. Their unique insulation quality, due to millions of tiny air cells in the wood, resists penetration of heat and cold. Your clients will appreciate the way CERTIGRADES save on fuel in the winter—make homes delightfully cool in summer. And CERTIGRADE Red Cedar Shingles are economical too—first cost is surprisingly low and their extremely long life means

years of protection from the elements without upkeep cost. For natural beauty, high insulation value, long life and low cost, specify CERTIGRADE Red Cedar Shingles. . . . RED CEDAR SHINGLE BUREAU: Headquarters, Seattle, Washington; Canadian office, Vancouver, B. C.



CERTIGRADE Red Cedar Shingles are sold only by established lumber dealers. YOUR dealer will gladly furnish full information and cost estimates.

CERTIGRADE DATA for BUILDERS

DOUBLE-COURSING: Builders will find real economy for their clients in double-coursing—the applying of No. 1 CERTIGRADES exposed to the weather over No. 2 CERTIGRADES of the same length. Beauty is accentuated by the deep shadow lines and the unusual weather exposure. Two courses of shingles give an added insulation value, which means greater comfort in the home.

• • •

DURABILITY: Heartwood of Red Cedar, used for shingles, withstands weather wear for a lifetime. The wood contains a large quantity of natural preservative. Extensive tests demonstrate that when cut edge-grain, Red Cedar has an amazingly low coefficient of expansion and contraction with changes in moisture content—the result; it weathers slowly and uniformly. It lasts and outlasts!

• • •

INSULATION: Every cubic inch of Red Cedar contains millions of sturdy little air-cells, through which heat cannot penetrate. This is true insulation—comfort in the home.

Reardon's **BONDEX** *The Perfect Finish*

FOR



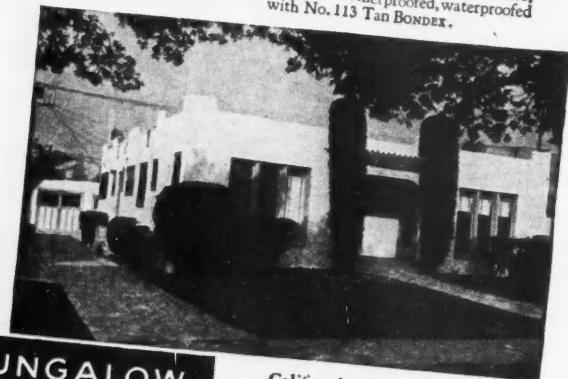
MANSION

Florida... Fort Myers home of Mr. Clarence Chadwick, former President of The Bankers Supply Co., New York. Beautified and protected with BONDEX.



RESIDENCE

Canada... Attractive home of C. T. Clarkson, Wychwood Park, Toronto, Canada. Weatherproofed, waterproofed with No. 113 Tan BONDEX.



BUNGALOW

California... Spanish White BONDEX imparts pure beauty to this charming bungalow at 921 No. Harper Street, Los Angeles.

From mansion to modest dwelling and in between, Reardon's BONDEX finds a genuine and sincere welcome because this remarkable waterproof cement paint leaves the same lasting beauty, the same positive protection against time and weather, the same generous profit for you on big job or small. You can bank on BONDEX, and we mean Bank, literally:

Use BONDEX on
STUCCO EXTERIORS
LEAKY BASEMENTS
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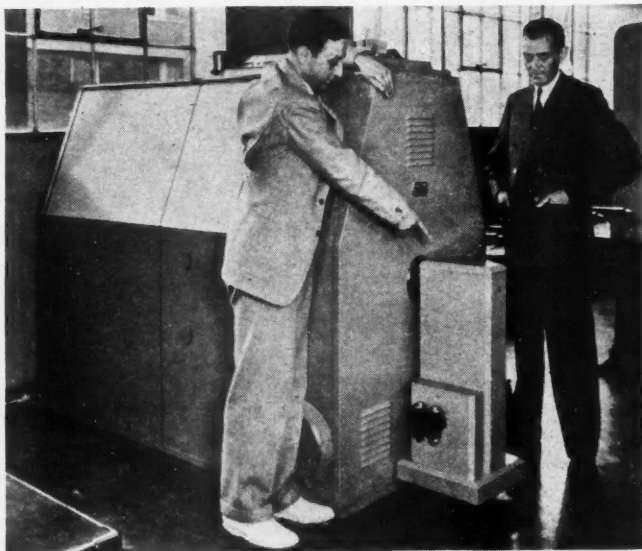
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NEW PRODUCTS

FOR INFORMATION ABOUT any new product write American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

Oil Heating Conditioning Plant

A NEW model 102-A Gar Wood Tempered-Aire Unit which is specially designed for the average and smaller homes has been developed by Gar Wood Industries, Inc., Detroit, Mich. This automatic oil heating and air conditioning unit sells for a lower price than any previous model in the company's history. The only change is in the design of the outer cabinet; in the new unit the oil burner is not enclosed but remains in the same operating position.

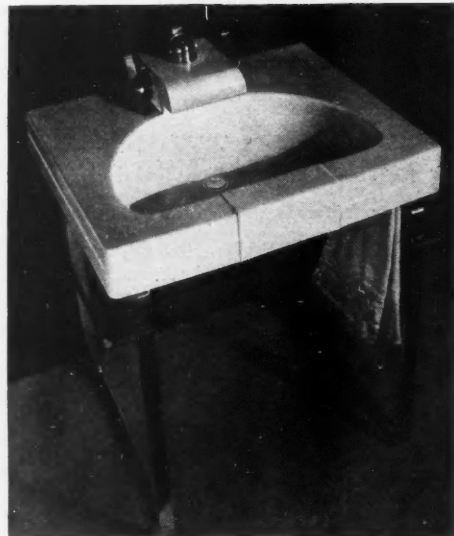


NEW Tempered-Aire Unit designed for smaller homes.

Streamlined Bath Fixtures

CRANE CO., Chicago, Ill., has introduced a new line of modern bath fixtures known as Neuvogue and styled by Henry Dreyfuss, famous industrial designer. The new, complete set was first shown at the National Plumbing Convention in Buffalo June 22. The three pieces are related in design by a band and line treatment which is both utilitarian and decorative. The hardware is as simple as possible, and essentially functional.

(Continued to page 86)



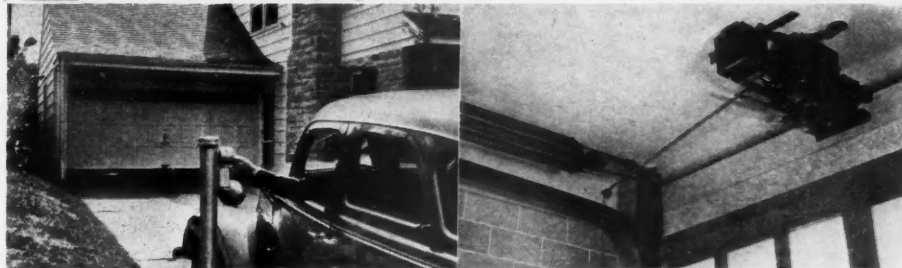
NEUVOGUE lavatory designed in modern style for Crane Co. by Henry Dreyfuss.

Specify The **"OVERHEAD DOOR"** WITH **ELECTRIC OPERATION**

for **PRIVATE USE** for **PUBLIC USE**

An Electric Control for every purpose. Easy to open or close from the car seat. Always locked when closed. Convenient push-buttons in house and garage.

Heavy duty electric controls for public garage and industrial purposes. Instant entrance without loss of time by any employee. Push-buttons in handy locations.



STURDY AND RELIABLE
 All dealers report "SERVICE NEXT TO NOTHING."
 Several thousand users report "CONTINUOUS SATISFACTION."
 The "Overhead Door" CONTROL is built to give "STURDY SILENT SERVICE."

**OVERHEAD DOOR CORPORATION
 HARTFORD CITY, INDIANA U. S. A.**

CLIP THIS COUPON and MAIL NOW!

MADE IN ANY SIZE FOR ANY OPENING
 FROM A HANGAR TO A PRIVATE GARAGE

Please send me literature and full information regarding your product.
 I am interested in doors for the particular purpose as checked.

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 Address _____
 City _____ State _____

Mail to: **OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.**

PRIVATE GARAGE
 PUBLIC GARAGE
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 FILING STATION
 WOOD DOORS
 STEEL DOORS
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 OTHER BUILDINGS
 ELECTRIC CONTROLS
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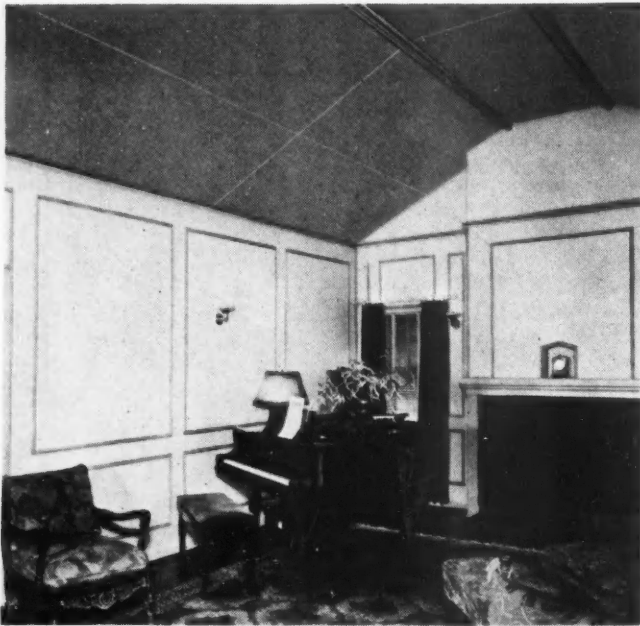
Here's where you can make a
SUBSTANTIAL SAVING

... without sacrificing
 one iota of quality

Only an expert can tell Sloane-Blabon Linoflor from genuine Inlaid Linoleum. It has a long-wearing, genuine inlaid surface. Patterns are of the same high-styled type found in the most expensive inlaid. Back is cushioned felt-base, accounting for the moderate price. Let us send you the name of the authorized Sloane-Blabon contractor in your city who will furnish you with samples and prices. W. & J. Sloane, Selling Agents Division, 295 Fifth Avenue, New York.

**Sloane-Blabon
 INLAID
 LINOFLOR**

FOR THE WELL-DRESSED HOUSE— MASONITE



One of thousands of attractive schemes possible with Genuine MASONITE. Walls and ceilings are of MASONITE STRUCTURAL INSULATION, painted white, with moulding for panel design. Notice the scoring in the ceiling.

• PLANS for a new home — or a special room in a present home, such as the popular "game room"—aren't complete without MASONITE products. These grainless wood-fibre boards offer the smartness and versatility vital to modern design. They provide expensive-looking effects at modest cost. They are easy to install, yet last for years. Installations ten years old are still as good as new.

Use MASONITE TEMPERED PRESWOOD for walls, ceilings, wainscoting, special partitions—wherever smooth, hard surfaces are desired.

MASONITE TEMPTILE, a wood-fibre board similar to PRESWOOD, is scored to produce tile effects for bathrooms, kitchens. Can be painted, enameled by regular painter.

MASONITE STRUCTURAL INSULATION combines genuine beauty with the advantages of efficient insulation and unusual structural strength. MASONITE INSULATING LATH is an ideal base for plaster.

Find out how Genuine MASONITE Products will fit into your plans. Mail the coupon below for free samples and further details.



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THE WONDER WOOD OF A THOUSAND USES

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111 W. Washington Street, Chicago, Ill.

Please send me a free sample and more information about—

- TEMPERED PRESWOOD TEMPTILE
 STRUCTURAL INSULATION INSULATING LATH

Name _____

Address _____

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The tub is more roomy and provides a comfortable side seat as an aid in bathing and dressing, introducing a safety feature intended to reduce the enormous annual toll of injuries caused by falls. In the lavatory the waste and water control fittings are not only combined but for the first time are incorporated as an actual panel in the porcelain section of the lavatory itself. The opening of the lavatory bowl is semicircular.

The Neuvogue water closet bowl is set into a cradle which gives it a more unified conception and solidity of appearance. The band treatment is carried out on the base of the water closet and the flushing handle is the same design as the handles on the tub and the lavatory.

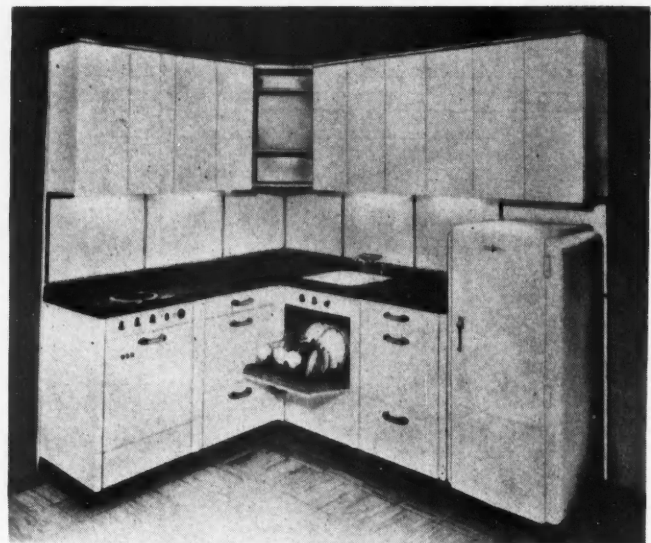
New Unit Kitchen

A NEW unit kitchen, which includes electric refrigerator, electric range, electric dishwasher and kitchen cabinets, and which is especially adaptable to low cost houses, apartment houses and for home modernization has been announced by General Electric Co., Cleveland, Ohio.

The advantages of the unit kitchen are listed to include flexibility, co-ordination of styling and low cost. The unit kitchen may be installed as a packaged article, or it may be purchased on the step-by-step plan.

The kitchen is of all-steel construction and has adjustable shelves in the cabinets. Installation of the kitchen, whether as one piece or as separate units, is simplified.

Lighting equipment is of the latest design. Work surfaces are of black porcelain on steel and they are resilient. A new type electric dishwasher is used in the unit kitchen, it being of a front-loading design. Capacity of the dishwasher is sufficient to take care of a 50-piece service. The individual units can be arranged in any manner desired by the owner. They can be set side by side along a flat wall or in an L-shape.



COMPLETE kitchen unit allows for arrangement as desired.

Flexible Waterproofing Material

A NEW type of waterproofing and dampproofing material, known as Rubberseal Copper, has recently been placed on the market by the Mitchell-Rand Manufacturing Corporation, 51 Murray Street, New York City. This product consists of Anaconda "Electro-Sheet" copper from 2 to 7 oz., coated on both sides with a special acid and alkali proof compound, and is exceptionally flexible and remains so at freezing temperatures. It is unaffected by heat, moisture, or dryness.

For many purposes this material bonds itself to any dry surface, thus eliminating the need of nailing or other method of attaching. When it is necessary to drive nails through Rubberseal Copper, it will be found that the Rubberseal compound closes in and around the nail, effectively stopping the passage of air currents or water. Installations include such items as window-head flashings, spandrel waterproofing and waterproof cutoff courses, refrigerator linings, shower stall linings and roof surface sheathing.

A CLOSET FIT FOR A SKELETON



Uneven finish—rough grain—splinters—warping—these are features appreciated, perhaps, by skeletons. But they are hardly to be recommended to the home owner who plans to keep fine clothes, rather than skeletons, in his closets.

A woman judges a house by its closets. She wants them to be, not leftover spaces hidden by doors, but airy, convenient rooms—fit receptacles for her best clothes, her finest linens.

With the Western Pines you can build closets—and houses—which hide no building skeletons. Western Pines work easily and finish beautifully. No warping or splitting. There are suitable grades for a great variety of interior and exterior uses.

● Send for the illustrated booklet, "Western Pines." Address Dept. B-5, Western Pine Association, Yeon Bldg., Portland, Oregon.

WESTERN PINES

Idaho White Pine • Ponderosa Pine • Sugar Pine



Sisalkraft being applied—"Without holes, without rips or tears"

So Much PROTECTION for So LITTLE

THE house you are building requires careful planning, good materials, honest workmanship and considerable investment. Surely the result of all that work should be protected.

Building paper, while a small item, does an important job. It is called upon to protect that planning, material, work and investment against the destructive elements of the weather. It takes a good building paper to do so important a job.

The recommendation of SISALKRAFT to your customer will give him the best protection that building paper can give and at a very low cost. It will give you and your men a material with which it is a pleasure to work.

SISALKRAFT is actually so strong and tough that you can apply it without breaks or punctures. You can pull or bend SISALKRAFT around corners without its cracking or tearing. You can even apply SISALKRAFT in a high wind. You need not go back to patch or do over the work of applying building paper.

You can use SISALKRAFT not only to protect concrete floors, sidewalks and driveways but to cure them as well. Cover the concrete as soon as it is hard enough to walk on. This method is clean and convenient, and it will add greatly to the strength of the concrete. No sprinkling is necessary.

We recommend you have SISALKRAFT handy on every job for quick covering of materials, closing in the job, lining shanties and toolsheds, covering brick courses at night and all the other uses to which such a strong, tough, waterproof paper lends itself.

You will like SISALKRAFT. If you are not familiar with it ask your Lumber Dealer or write us for details, samples and specifications.

SISALKRAFT

The Sisalkraft Co.,
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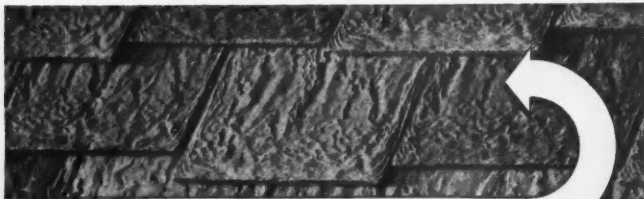
AB July

Please send me new self-demonstrating samples and full information.

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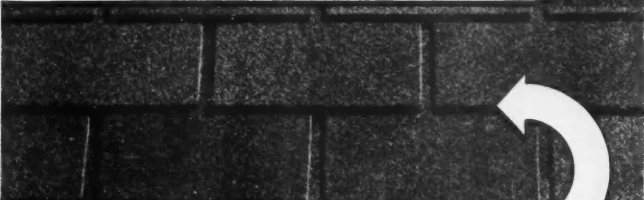
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RU-BER-OID ASPHALT STRIP-SHINGLES

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On every building you erect or modernize, you can always use RU-BER-OID Asphalt or Asbestos-Cement Shingles with confidence, and know there is a weight, style or finish to fit your specific needs.

Although the name Ruberoid has become synonymous with roofing quality, Ruberoid also makes many other building specialties, such as TimberTex Asbestos-Cement Sidings, Newtile and Newmarble Wall Panels, Mineral Wool House Insulation, Asbestos Pipe Coverings, Safe-n-Dry Sheathing, etc.

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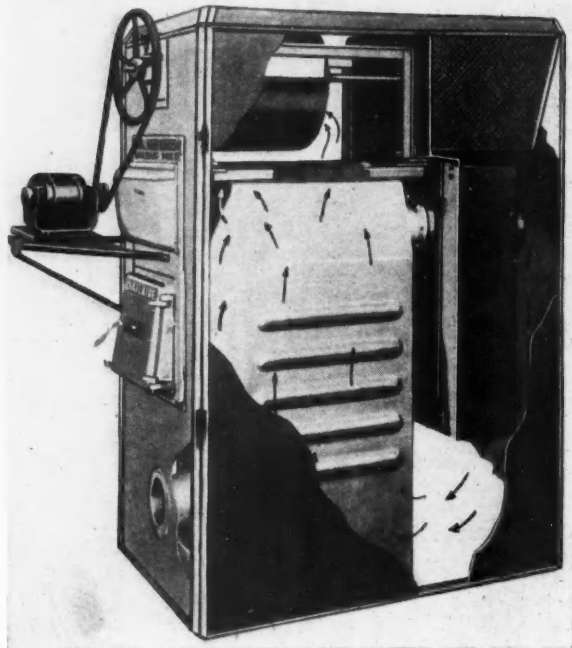
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Heating and Conditioning Unit

ADDED to the 1936 line of the Dail Steel Products Co., Lansing, Mich., is the Dailaire Pacemaker heating and conditioning unit, designed, priced and styled to fit the need of the owner and builder of six to eight room homes. With a new counterflow principle of air travel, increased heating efficiency is attained.

The dome is built of three-sixteenths Armco steel plate, electric welded throughout, making a gas-tight unit. Both sides and back of this unit have heavy embossed ribs to strengthen and stiffen the unit against warping.

The Dailaire Pacemaker Series 100 unit is engineered to burn oil, coal or gas economically. General Electric motors and Minneapolis-Honeywell controls are used.



ARROWS indicate counterflow air travel in Pacemaker.

Pneumatic Tired Concrete Cart

THE new RS-30 concrete carts now being marketed by Red Star Products, Inc., Cleveland, Ohio, combine the features of 42-inch diameter steel wheeled concrete cart efficiency and the economy and ease of operation of 30-inch pneumatic tired wheels.

These carts, made in six and nine cubic foot capacities, are equipped with an additional set of legs forward, which act as a fulcrum to permit changing the plane of dumping, as in the end dump wheelbarrow.



DUMPING is assisted by forward set of legs on new concrete cart at right.

Clean Air

for **COTTAGE** 



or **CASTLE**

Whether plans call for the lowest-cost gravity warm-air furnace or the most elaborate air-conditioning system—home owners may enjoy clean air, filtered by **DUST-STOP**

FOR AIR-CONDITIONING SYSTEMS AND UNITS

Leading manufacturers of this equipment recognize the unique filtering qualities of **DUST-STOP** Air Filters and have engineered them into their products.

FOR SPLIT SYSTEMS

DUST-STOP Air Filters play their important part in the **CLEAN-AIR-IN-MOTION** phase of split systems.

FOR FORCED WARM-AIR FURNACES

The majority of the manufacturers of blower equipment have adopted **DUST-STOP** Air Filters as standard equipment.

FOR GRAVITY WARM-AIR FURNACES

Effective filter-boot applications for this popular-priced heating system.

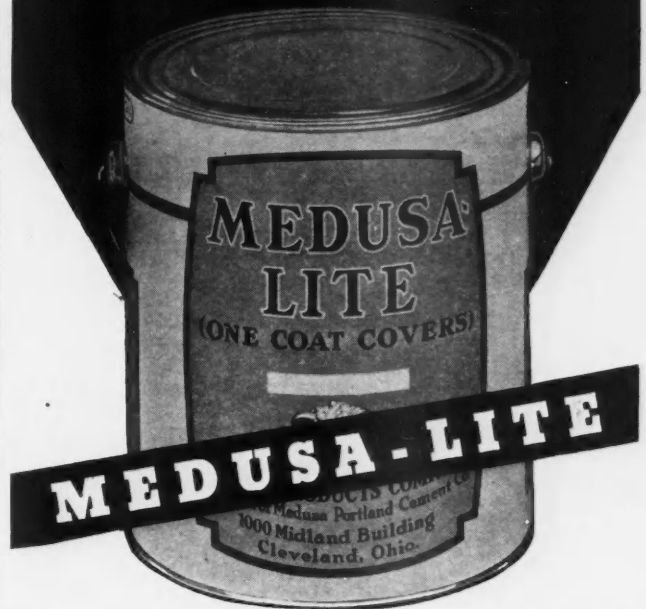
Owens-Illinois Glass Company, 303 Madison Avenue, Toledo, Ohio. In Canada: General Steel Wares, Ltd., Toronto.

DUSTSTOP

REPLACEMENT-TYPE
AIR FILTERS



Money Making Painters ARE NOW USING



AND HERE'S WHY

• Medusa-Lite in any of its seven colors or white gives a beautiful, clean color that pleases your customers.

This paint can be used on interior walls and ceilings of concrete, brick, tile, stone, plaster, insulating board, wood, metal, canvas and wall board.

Medusa-Lite requires only water for a thinner. It has no disagreeable odors. It can be sprayed or brushed, is self leveling, leaving no brush marks, works fast and can be used over any other paint, fresh plaster or concrete.

One coat of Medusa-Lite usually covers. This paint has remarkable hiding power. It dries to the touch in from 30 to 40 minutes. Touching up can be done immediately.

Medusa-Lite is non-inflammable, unaffected by acid, fumes and chemicals; cannot powder, peel or crack. White has 90% reflective value and does not turn yellow.

All these features save money and make a beautiful job that any painter can be proud of. That's why money-making painters use Medusa-Lite.

MEDUSA PRODUCTS COMPANY

Division of Medusa Portland Cement Co.
1000 Midland Building •• Cleveland, Ohio

SEND FOR THIS BOOK

Every painter should have a copy of the book "How To Paint Concrete, Stucco, Masonry and Other Surfaces." It completely describes Medusa-Lite, Medusa Portland Cement Paint and Medusa Floor Coating.



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Gentlemen:—Without obligation please send me a copy of the book "How To Paint Concrete, Stucco, Masonry and Other Surfaces".

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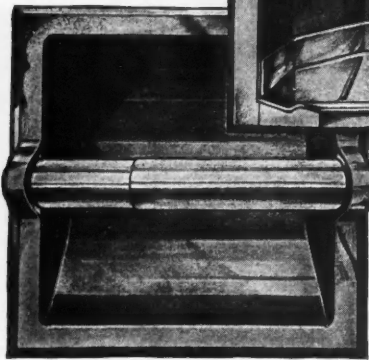
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Satisfy Modern Needs!

MIAMI Chromium Bathroom Accessories

are backed by more than 15 years of specialized manufacturing experience, and definitely meet the requirements of modern construction. Popularly priced—inexpensive to install. Made of forged brass, heavily nickeled, then covered with hard, lasting chromium, they give utmost satisfaction and will retain their original brilliance under long, hard usage. Send for descriptive folder.

(Below) Miami Recessed Paper Holder, No. 6002 Chromium Rollers No. 6003 Black Wood Roller

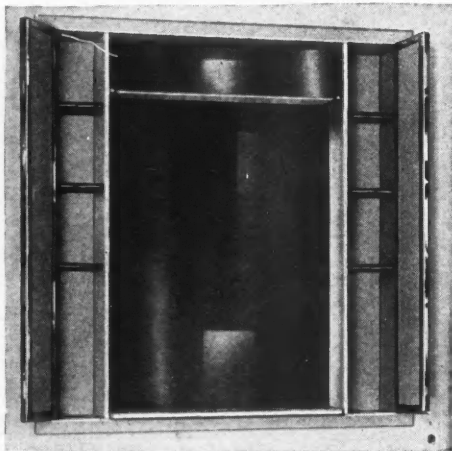


(Above) Miami Recessed Combination Soap Holder and Grab Bar—No. 6004—with Self-Draining Glass Tray.

Larger and wider flange eliminates open joints, assures perfect fit, gives more finished appearance.

The MIAMI "Oxford" Cabinet (below) is but one of over 40 Distinctive and Original Miami Cabinet Creations. It is different—with large recessed mirror flanked on each side by a storage cabinet having chromium-framed mirror door. Indirect lighting and other exclusive features. Complete catalog mailed on request.

See Sweet's Catalog for details of the Miami and Carey Bathroom Cabinet Lines.



The MIAMI "Oxford"

MIAMI CABINET DIVISION

The Philip Carey Company

Dept. AB

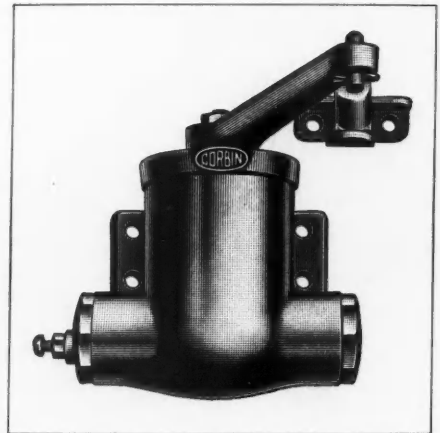
MIDDLETOWN, OHIO

Liquid Screen Door Check

NOW being manufactured by P. & F. Corbin, New Britain, Conn., is a new liquid screen door check comparable in capacity with their No. 01 and conforming to government specifications. It has a coil spring and a valve adjustment for regulating the speed of closing; the spring tension is not adjustable, each check as made being constructed to properly care for the work for which this number was intended.

This check is a distinctly individual device designed for operation in its particular field and with weight, size and amplified mechanism calculated accordingly.

It will govern the heaviest screen doors or those carrying wire grilles or guard bars; also adapted for light inside doors; size, about four and one-half inches in greatest width and height; can be applied between doors with parallel arm when the space is not less than three and a quarter inches. When the screen door is removed for the winter, it can be applied to a storm door, can be entirely detached for storage or can be left attached to the screen door.



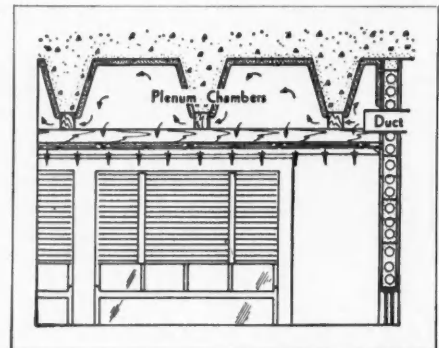
LIQUID screen door check for use on any screen, light inside or storm door.

Acousti-Vent Air System

A NEW system of air distribution, known as Burgess Acousti-Vent, which solves, with one type of construction, the dual problem of air circulation without drafts and the quieting of occupational room noises, has been devised by the C. F. Burgess Laboratories, Inc., of Chicago.

This system comprises a perforated ceiling made of a suitable architectural surface installed slightly below the normal ceiling level of the room. Between the perforated sheet and the room ceiling is a sound absorbing material that is installed with sufficient clearance so that a space is provided between this sound absorbing material and the ceiling. This space provides a plenum chamber into which air is introduced through ducts from the ventilating fan. A uniform, low static pressure is maintained in this plenum chamber and suitable means are provided to cause the air to pass to the underside of the sound absorbing material without passing through it, and thence through small openings in the perforated sub-ceiling into every part of the room affording accurate temperature control.

In addition to absorbing room noises, Burgess Acousti-Vent also absorbs the noises of the ventilating system. Burgess Acousti-Vent is applicable to all air conditioning installations having the dual problem of ventilation and acoustic treatment.



SIDE elevation of plenum chambers above Acousti-Vent ceiling.

SKILSAW PAYS FOR ITSELF ON THE FIRST JOB



● 75,000 users are proving that with SKILSAW sawing is quicker, better and cheaper than by hand—with savings that turn *more bids into jobs* . . . that pay the cost of SKILSAW on the very **FIRST JOB!** SKILSAW is the finest portable electric handsaw—has more power model for model, more improvements, more sawing applications.

It is safe, accurate, durable. Cuts wood, metal, stone and compositions. Made in 7 powerful sizes.

● Grooving up to 3½ in. wide by 1½ in. deep is a quick and easy job with SKILSAW! Grooving for shelving and cabinets is made simple.



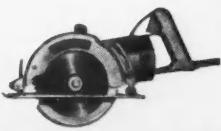
● Cuts siding, rough and finished flooring and bridging *10 times as fast!* Use with one hand in tight places.

● Cuts joists, studing, rafters in one tenth of the time! *Saves material handling, because you can take it to the job!*



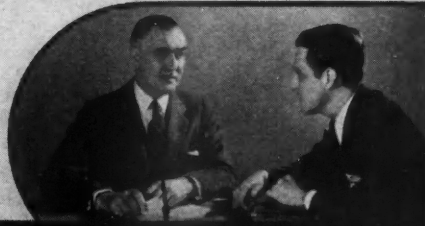
● Trims a door for hanging in *seven minutes!* Equipped with finishing blade. It leaves edges smooth as if sanded.

NEW! SKILSAW MODEL 77 is the outstanding achievement in portable electric handsaws—offering many new practical features. Ask your dealer about it and write for our new catalog.



SKILSAW, INC.
 3314 ELSTON AVENUE, CHICAGO
 210 E. 40th St., New York—52 Brookline Ave., Boston
 312 Omar St., Los Angeles
 Sales & Service for Canada—85 Deloraine Ave., Toronto

Gar Wood TEMPERED-AIRE leads because . . .



Architects say:

Gar Wood Branches and Field Engineers give them the most effective co-operation in planning, supervising and testing installations and assume full responsibility for the satisfactory operation of each job. Because Tempered-Aire is the only air-conditioning system built complete by one manufacturer, this responsibility is not divided.



Builders say:

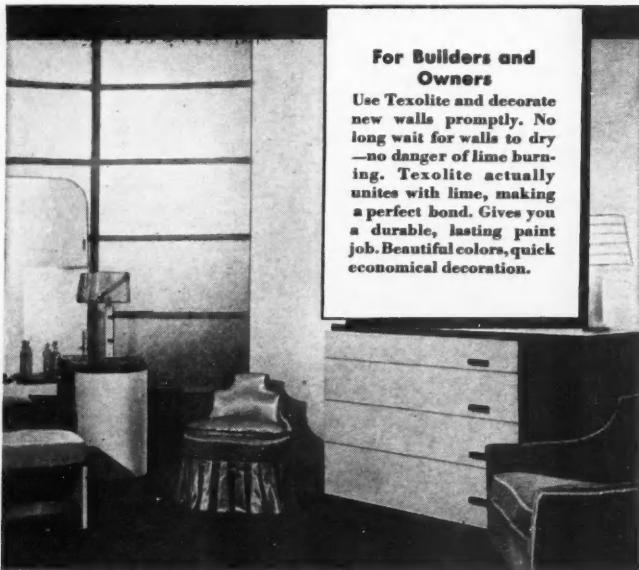
The Tempered-Aire pre-fabricated duct system, with standardized ducts and fittings, revolutionizes duct installation, saves time, saves costly hand labor, eliminates "tailor-made" trunk lines, eliminates delays for contractors and makes a stronger, neater, more accurate job—and an uncluttered basement that is more easily finished and decorated.



Owners say:

Gar Wood oil heat costs less than coal. They also say that clean, automatic oil heat; filtered and humidified air; scientific, draftless circulation and natural blower cooling in summer, combine to give them greater luxury and leisure and also reduce colds and sickness. Write for details.

AIR CONDITIONING DIVISION
GAR WOOD INDUSTRIES INC.
 DETROIT ★ MICHIGAN



For Builders and Owners
 Use Texolite and decorate new walls promptly. No long wait for walls to dry—no danger of lime burning. Texolite actually unites with lime, making a perfect bond. Gives you a durable, lasting paint job. Beautiful colors, quick economical decoration.

New Type Casein Paint Gives Enduring Beauty at LOW COST

Texolite Paint

● Because we are leading manufacturers of interior finishes* it is fitting that we undertook the task of producing an ideal paint—the final note to accent the beauty of, and give longer life to, modern interiors.

Our special knowledge of the *relationship* of paint to the composition of the materials of interior finishes plus our exhaustive laboratory work and field tests permits us to say—*Texolite does more for the money than any other type of paint will do.*

For 12 years we have manufactured and experimented with casein paint. Texolite is the successful result of our experimentation. Texolite is an entirely *new principle paint*. Its advent marks a new conception of paint beauty, paint value, and paint performance.

TEXOLITE HAS THESE ADVANTAGES

1. Hides in one coat . . .
2. Dries in one hour . . .
3. Goes 25 per cent farther . . .
4. Leaves no brush marks . . .
5. No paint odors . . .
6. Does not yellow . . .
7. One gallon makes one and one-half gallons of ready-to-use paint.

TRY TEXOLITE AT OUR EXPENSE

Builders and owners everywhere are enthusiastic about Texolite advantages—its beautiful colors, its economy. Mail coupon today. We will send you complete information and a FULL QUART OF TEXOLITE absolutely FREE.



UNITED STATES GYPSUM COMPANY
 300 West Adams Street, Chicago, Illinois AB-7

Please send me a sample full quart can of Texolite Paint, together with a sample of Texolite Deep Color and handy Color Guide.

My Name _____

Address _____

City _____ Phone No. _____

***INTERIOR FINISHES MANUFACTURED BY UNITED STATES GYPSUM COMPANY**

Red Top Plasters
 Red Top Plaster Finishes
 USG Finishing Limes
 Sheetrock, the Fireproof Wallboard

Weatherwood Insulating Board
 Weatherwood Hardboards
 USG Fiber Wallboards
 USG Acoustical Tiles

UNITED STATES GYPSUM COMPANY

News of the Month

Building Activities and Meetings

May Construction Volume Continues Climb

ACCORDING to F. W. Dodge Corporation, the volume of construction work started in May was more than 70 per cent greater than was reported for May 1935. The total for May amounted to \$216,070,700 covering the 37 states east of the Rocky Mountains. During May, 1935, a total of only \$126,720,100 was reported while in April of this year a total of \$234,631,600 of construction work was undertaken in the area east of the Rockies.

For the first five months of 1936 total construction in the 37 eastern states amounted to \$996,523,600. This was an increase of 81 per cent over the volume of \$548,501,600 reported for the corresponding five months of last year. Every important major geographic district shared in the general expansion.

The May 1936 figures showed a total of \$70,253,400 for residential building; \$82,251,700 for non-residential building; and \$63,565,600 for public works and public utilities of civil engineering types. This latter class, with an increase of 100 per cent, showed the largest relative gain over the total for May of last year. In point of gain over last year non-residential building was next with an increase of 63 per cent over the May 1935 total. Residential building started in May of this year recorded an advance of 56 per cent over the residential total for May a year ago.

	May, 1936	May, 1935	April, 1936
37 Eastern States Residential	\$ 70,253,400	\$ 44,901,800	\$ 67,151,000
Non-Residential	82,251,700	50,432,500	94,068,100
Public Works and Utilities.....	63,565,600	31,385,800	73,412,500
Total	\$216,070,700	\$126,720,100	\$234,631,600

For the first five months of the current year residential building in the 37 states amounted to \$261,240,000, a gain of 65 per cent over the volume reported for the like period of 1935. Non-residential building in the elapsed portion of 1936 amounted to \$410,870,800 as compared with only \$199,808,400 for the corresponding five months of 1935. Civil engineering projects started thus far this year totaled \$324,412,800 as compared with \$190,352,200 for the initial five months of last year.

The U. S. Department of Labor figures show thirteen cities in which the volume of permits issued during May exceeded the million dollar mark. The cities and amounts are as follows:

Baltimore, \$1,064,244; Boston, \$1,266,252; Chicago, \$1,865,612; Detroit \$3,787,926; Fort Worth, \$1,387,989; Los Angeles, \$5,318,779; New York City, \$17,838,539; Philadelphia, \$3,123,808; Rochester, N.Y., \$1,396,485; St. Paul, \$1,013,816; San Francisco, \$1,973,316; Spokane, \$1,162,585; Washington, D.C., \$4,265,465.

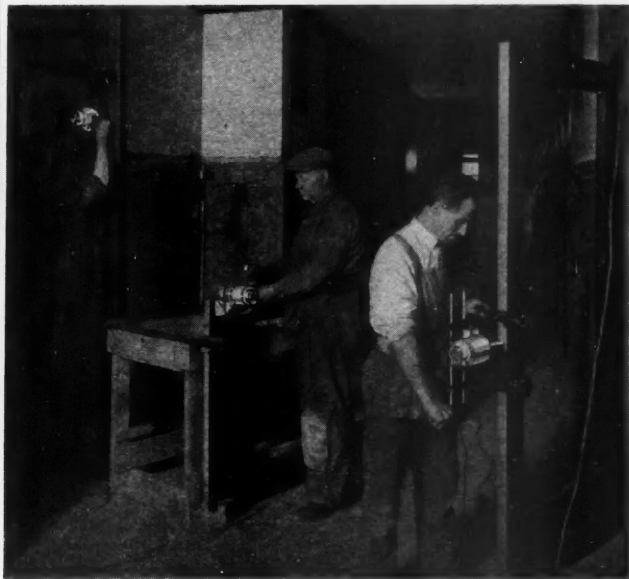
U.S.G. To Sell Corning Glass Insulation

THE United States Gypsum Company has completed arrangements with the Corning Glass Works for exclusive rights as selling agents to the building industry of fibrous glass for insulation of homes. Likewise U.S.G. has also been sales agent in a similar capacity for the Owens-Illinois Glass Company.

It is a peculiarly interesting fact that fibrous glass although first produced in Europe, is now manufactured there through license of patents and equipment developed in this country. This was revealed a few months ago when Owens-Illinois shipped to a glass manufacturer in Dusseldorf, Germany, two machines to make fibrous glass, one for insulation purposes and the other for glass thread and yarn for development in textile applications. Both machines were invented and assembled in the Newark, Ohio, plant of Owens-Illinois, which also sent two experts to Dusseldorf to supervise installations and initial manufacturing activities and experiments.

The products of Corning Glass and Owens-Illinois will be marketed under the United States Gypsum Company trade name of "Red Top" insulation.

BETTER WORK EASIER



CARTER LOCK MORTISER

Skilled craftsmen welcome the Carter Lock Mortiser because it enables them to do better work with the expenditure of less energy. Operates from any light socket, easily adjusted, held on the door by two self centering clamps. Cuts a perfect mortise. Makes a good man better.



CARTER POWER PLANE

Pictured above (Center). Will plane any edge — doors, sash, transoms, etc., — up to $2\frac{5}{16}$ " wide, straight or bevel cut. Every cut is easily made and is perfectly smooth and uniform. Sharpens its own cutters. Used with the stand, that is furnished, it makes a high speed jointer for small work. Power Plane with all attachments is packed complete in a handy metal carrying case.

Send for folder giving full details on these and other Carter Tools.

R. L. CARTER DIVISION
The Stanley Works
NEW BRITAIN, CONN.

*Take along this
Pictorial Color Chart*



*- and bring back
more Contracts!*

When you start out for your contract-closing interview with a prospective client for new or remodeling work, you will want to take along Lowe Brothers Pictorial Color Chart. It contains *actual painted* reproductions of charming interiors and attractive exteriors. They make it easy for your prospects to decide with confidence on the color schemes they prefer. And when that decision is made, you will find it easy to land the contracts.



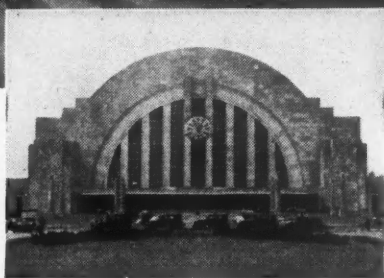
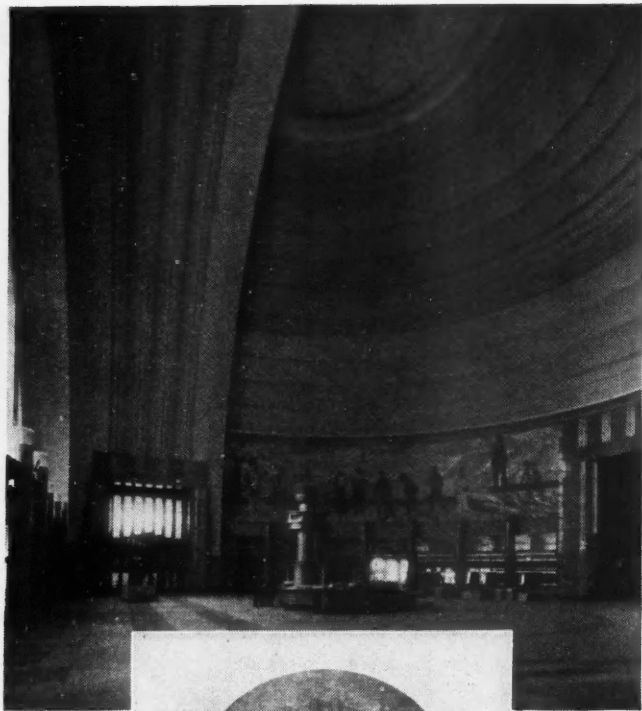
You may borrow this contract-closing chart without cost or obligation from the local dealer in Lowe Brothers products.

Use also the specification book which the same dealer will gladly supply you free. It will help you prepare accurate bids and save time, money, and misunderstandings.

And when submitting your bids, tell your prospective purchasers why Lowe Brothers dependable, nationally advertised quality will assure the ultimate economy of enduring beauty.

Your local dealer in Lowe Brothers products will gladly help you in many ways to close more jobs and more profitable jobs. Why not get acquainted with him today? The Lowe Brothers Company, Dayton, O.

Lowe Brothers
PAINTS • VARNISHES
Quality Unsurpassed Since 1869



Architects:
Fallsimer &
Wagner
New York City
General Contractors:
Jas. G. Stewart Co.,
Inc., New York City

Chief Engineer:
H. M. Waste
Cincinnati, Ohio
Plastering
Contractors:
Bagnall-Taylor Co.
Cleveland, Ohio

A through ticket for OHIO LIME IN CINCINNATI UNION TERMINAL

● When it's train time in Cincinnati, passengers find the beautiful and impressive Union Terminal Building ready to serve them. Erected at a cost of \$7,000,000, this splendid structure was built of finest materials. Ohio White Finishing Lime was used in plastering. Plasticity for easier, quicker spreading. Best known decorating base. Uniformity controlled by daily laboratory testing of every carload—thus insuring highest quality throughout. These advantages of Ohio dolomite lime give extra strength . . . extra beauty . . . and greater satisfaction at *no extra cost!* Ohio Ritewall Hair-Fibred Finish for scratch and brown coats, and Ohio Sanlime Sand Finish have also been used on many of the nation's prominent buildings. The Ohio Hydrate & Supply Company, Woodville, Ohio.

OHIO PRODUCTS SOLD EVERYWHERE IN FAMOUS ZIG ZAG BAGS

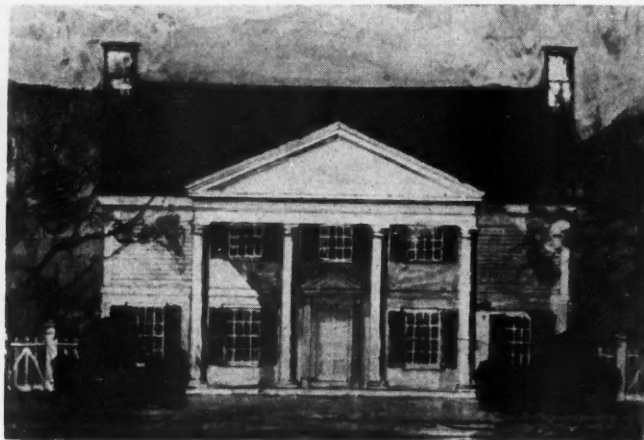
Ohio White Finish—Hawk Spread White Finish—Ohio Ritewall Fibred Finish—Ohio Sanlime Finish—Mastite Masonry Mortar—Ohio Masons Lime—Ohio Ground Lime.

Original OHIO WHITE
LIME FINISH

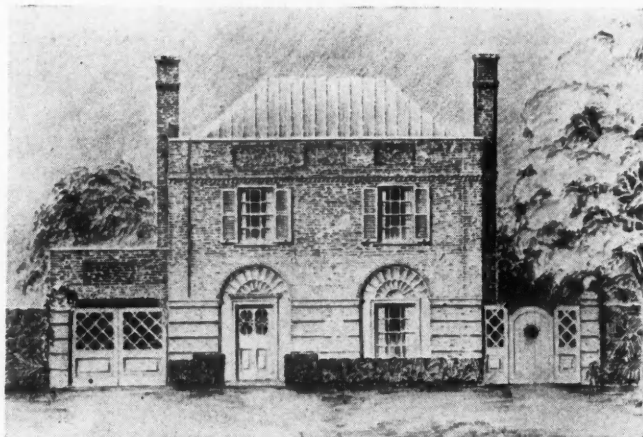
Exposition to Feature Model Homes

TWO model houses are featured at the Great Lakes Exposition, which opened in Cleveland on June 27. The lumber house, designed by John Sherwood Kelly, was erected by the Cleveland Lumber Institute with the co-operation of lumber companies of the Great Lakes states and manufacturers throughout the nation. It is in the \$15,000 class, 52 by 34 feet, and has 12 rooms.

The small common brick Georgian house, was built by the Cleveland Builders Supply Company for the Small House Committee of the American Institute of Architects and the Organized Residential Builders of Cleveland, has six rooms, is 28 by 20 feet, and is in the \$7,500 class.



ABOVE, the model lumber house at the Great Lakes Exposition, Cleveland; below, small common brick model house built by the Cleveland Builders Supply Co.



Gar Wood Names Publicity Director

GILBERT U. RADOYE, well known publicist, advertising and merchandising man, has been placed in charge of publicity of the various divisions of Gar Wood Industries, Inc. The announcement of Mr. Radoye's appointment as publicity director was made by Mr. Logan Wood, vice president and general manager of the company. The divisions for which Mr. Radoye will handle publicity include the Gar Wood hydraulic hoist and dump body, truck and trailer tank, winch, crane and pole derrick, road-building machinery, heating and air conditioning, automotive and motor coach divisions.

Porter-Cable Promotes Smith

THE Porter-Cable Machine Company, Syracuse, N.Y., has announced the promotion of J. Gordon Smith, formerly district manager for Eastern New York State, to the position of assistant sales manager, effective June 15. Mr. Smith's duties will consist of field sales promotion and the co-ordination of activities of representatives.

\$685 without power



Complete Modern Shop—Eight Machines in One

New Model "A" Planing Mill Special

With largest working surface of any combination machine, the New Model "A" gives you 8 full-sized machines, each independently operated, all bearings high-grade ball bearings. Built for lasting service, with low operating-cost. Think of the advantage of doing whole job on this one machine.

Send for catalog of our complete line of individual and combination machines priced as low as \$50

THE PARKS WOODWORKING MACHINE CO.
Dept. BL-7 1524 Knowlton Street Cincinnati, Ohio



YOU Know IT'S HARD MAPLE!

The trade-mark **MFMA** on Maple Flooring guarantees it to be all Hard Maple of the grade stamped thereon and certifies that it conforms in every respect to Association standards of quality and millwork.

This trade-mark is your protection against the substitution possible when you specify merely "Maple Flooring." By specifying "**MFMA** Maple," you insure quality stock and floors of maximum uniformity and service that will build your reputation for satisfactory work.

See our catalog data in Sweet's, Sec. 15/53. Our service and research department will gladly assist you with your flooring problems. Write us.

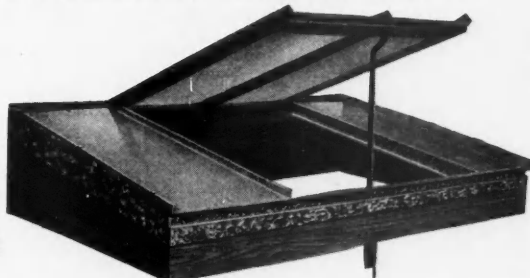
MAPLE FLOORING MANUFACTURERS ASSOCIATION
1781 McCormick Building, Chicago, Ill.

Make Money!! Save Money!! With WILLIS SKYLIGHTS



With all the education in "better light, better sight" . . . and in better ventilation . . . it's easier to sell skylights this year than ever before. Talk **DAYLIGHT** . . . the cheapest of all light . . . and your clients will respond. And when you install Willis Skylights, you're sure of a satisfactory job . . . because they're dependable. No "after grief" to eat up your profit. Made in all styles and sizes, with or without ventilation.

Write for Our **SKY-LIGHT** Catalog



The WILLIS Manufacturing Co.
Galesburg, Illinois
"STANDARD" for almost half a century

MAKE BIG MONEY WITH THIS FLOOR SANDER

Yes sir, men, and here's the machine that will do it for you—the American Light Eight Floor Sander. This floor sander is just the right size and weight for the fellow starting in the business and does a great amount of floor sanding at a minimum of expense.

The profits you make in Floor Sanding depend upon getting the right machine to do the job and this American Floor Sander is right there with the goods. It comes equipped with Dust Bag, Belt Guard, 50 feet of trailing wire, and can be operated from any electric light socket. One man can do all his work and no helpers are needed.

Right now is the time to start floor surfacing work. It is pleasant and easy and we help you get under way with advertising help and an easy payment plan. Don't fail to send in the coupon below and information will be sent to you without any obligation whatsoever.

A free demonstration will be gladly arranged at your request.



AMERICAN
Floor Surfacing Machine Co.
511 S. St. Clair St., Toledo, Ohio

Return - COUPON - NOW

Send me more information without obligation on how to make big money surfacing floors.

Name.....
Street.....
City.....State.....

Thousands of Builders and Contractors will recognize this reproduction of TrimPaK which was introduced eight years ago.



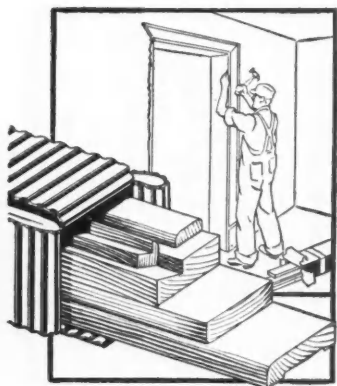
TRIMPAK Will Increase your Profits and Sales

Would you pay 10% more for your material if you save 40% on your labor cost? Buy TrimPaK.

How about it if, in addition, you get a far better quality of material?

The initial cost of TrimPaK is slightly higher than inferior materials, but it is the highest quality window and door trim on the market. It is perfectly manufactured and is dried to 8% moisture content and packed in insulated, dustproof, moistureproof packages.

When you use TrimPaK, your cost of trimming your window and door openings (labor and material) will be 25% less than any other trim.



IMPORTANT—"Inside Information on Trim"—an interesting booklet containing valuable information is yours for the asking—write for your copy today.

TRIMPAK CORPORATION
44 Whitehall Street New York City

Johns-Manville Makes Personnel Changes

L. M. CASSIDY has been appointed general merchandising manager of the Building Materials Department of the Johns-Manville Sales Corporation.

For the past three years he has been assistant to the vice president of that department, and in his new capacity will direct all sales planning of the department in co-operation with various staff heads and with the Sales Promotion Department, and will be responsible for the co-ordination of general headquarters staff management. Mr. Cassidy will also represent the sales department in new product development in the building material field.

S. D. White, who has been office manager for the New York district, has been promoted to the Building Materials Headquarters Department, where he will serve as assistant to Mr. Cassidy and to L. C. Hart, general sales manager.

Warped Doors Were Ancient Problem

AN INTERESTING early application of the principle of constructing doors of the built-up type has been pointed out recently by Mr. W. M. MacArthur, vice president, Wheeler Osgood Sales Corporation. He states that in the fifth century, a door made from a single board or section of wood was found unable to resist the effects of moisture. In countries having a damp climate, the inconvenience of warped doors was a problem. Necessity being the mother of invention, the pieced or built-up door was developed. It is described as being made from several sections of wood. These might be a series of vertical planks held together by dowels, or horizontal braces. Another method was to form a framework of stiles and rails, and place a thinner panel between them. This panel was held in place by grooves or mouldings.

It is interesting to observe that even at this early date, a crude application of modern construction principles was developed, as well as the use of dowels, which are an important part in the construction of a door today.

Rawlplug Gets New Chicago Manager

THE Chicago branch of the Rawlplug Co., Inc., is now being managed by J. W. Gleason, formerly general manager of the Knapp Bros. Mfg. Company. Mr. Gleason has also held positions as assistant general sales manager of Kalman Steel Company for five years and sales engineer with the General Fireproofing Company for seven years.

Cyrus H. McCormick of International Harvester Dies

THE retired chairman of the board of directors of the International Harvester Company, Cyrus H. McCormick, died June 2 at his home in Lake Forest, Ill.

Mr. McCormick was a principal factor in the formation of the Harvester Company in 1902 and its president from that time until 1918 when he became chairman of the board, which office he held until his retirement in September, 1935. During his 33 years as president and chairman of the Harvester Company Mr. McCormick pioneered many activities in the Harvester organization which have borne abundant fruit in their application to industry in general.



Cyrus H. McCormick

A LOWER COST BRICK

Each brick is absolutely accurate and has a recess which saves 20% in weight and materials. It also handles easier, lays faster and provides a keyed mortar bond with sealed air cell insulation. In addition to common, face brick are produced in 40 colors and shades. Also double and triple units, permitting Hollow Ashlar construction at cost of frame.

MANUFACTURING OPPORTUNITY

Today's definite need for permanent, colorful buildings at low cost, opens up outstanding opportunities for manufacturing plants in each territory. The DUNBRIK line-production machine, drastically reduces labor costs and the superior but lower cost brick will enable you to dominate the market in your territory. DUNBRIK has made outstanding records in beautiful, permanent, low cost construction. One manufacturer reports the construction of homes as low as \$2,000—another a cost of \$100 less than frame.

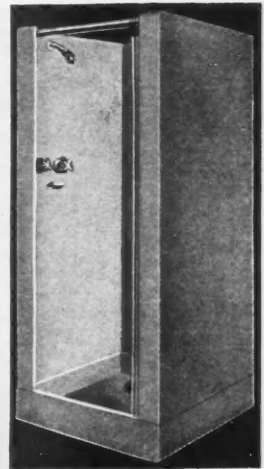
Investigate,—let us show you how you too can reduce building costs, how you can own a manufacturing business with proven earning power. Write today for "4 Keys to Success."



W.E. DUNN Mfg. Co.
450 West 24th St., Holland, Mich.

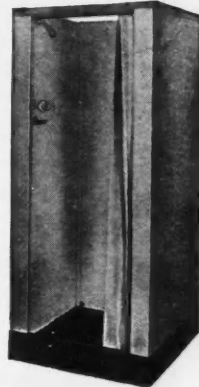
NEW IDEAS in Shower Cabinets

You'll like *everything* about Bathe-Rite! **Appearance**—the modern touch in every line, with lasting baked enamel finish. **Sanitation**—sparkling invigoration of healthful showers, and smooth surfaces easy to keep clean. **Convenience**—plenty of inside room, compact outside dimensions that fit in anywhere. Bathe-Rite has popularized shower cabinets—by *pricing* them within everyone's reach—and *designing* them for one man installation in a few minutes' time!



Model C—Bathe-Rite
Size 36"x36" and 32"x32"

The national favorite with famous Ferrostone non-slip receptor, instantly regulated shower head, solid brass chromium polished fittings, many other features. Remember, Bathe-Rite offers a full selection of styles for all private and public buildings, new or remodeled. Distributed by leading plumbing wholesalers everywhere.



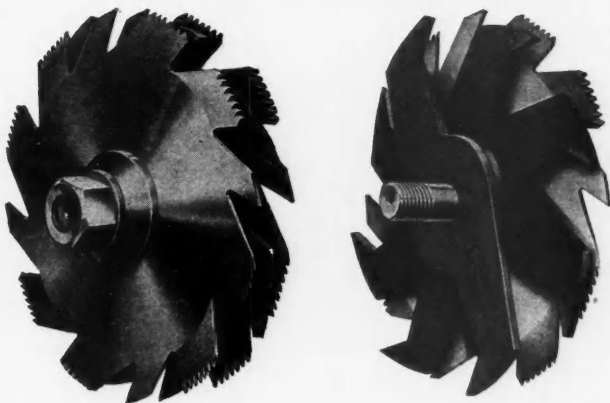
Model D
Size 36"x36" and 32"x32"

The ideal, economical model for summer homes, camps, clubs, hotels, residences, containing standard Bathe-Rite fittings and features at surprising low cost.

MILWAUKEE STAMPING CO. — MILWAUKEE, WIS

BATHE-RITE
Modern
SHOWER CABINETS

● Find out about NEW ideas in Modern Shower Cabinets. A letter or postcard to our factory will bring you pictures, prices, specifications and helpful information by return mail!



Saws for Every Purpose

The patented Groover or Dado Head illustrated above can be used on any circular saw arbor—it will cut any groove from 1/8 to 4 inches or over. Cuts a perfect groove, either with or across the grain, and will not leave a rough edge.

We guarantee these Dado Heads to be the best available—satisfaction guaranteed or money refunded.

Our complete line of Saws, Dado Heads, Square Cutter Heads, Cylinder Cutter Heads, Band Saws, Machine Knives, Sash Cutters, Special Groovers, etc., is fully illustrated in our new 115-page catalog No. 54. Write for a copy today—it will be sent you free of charge.

Huther Bros. Saw Mfg. Co., Inc.

1290 University Avenue, Rochester, New York

Increase Your PROFITS On EVERY Job

with a **SPEED-O-LITE**

EVERY DAY that you use less efficient sanding equipment you are paying for this profit-building lightweight (80 lbs.) machine without having it. It cuts faster, works right up to the quarter-round, picks up all dirt and dust and leaves a ballroom finish on every floor. In addition it operates from any convenient outlet and is so simple any inexperienced operator can use it successfully. The Speed-O-Lite will increase your profits on every job and quickly pay for itself in saving on current and labor.

Start today to get your share of the Extra profits the SPEED-O-LITE is bound to create. Use it for 5 Days at our expense without obligation.



Sold Complete and Guaranteed For One Year Including Motor.

MAIL COUPON TODAY

LINCOLN-SCHLUETER FLOOR MACHINERY CO. 736
222 W. Grand Ave., Chicago, Ill.

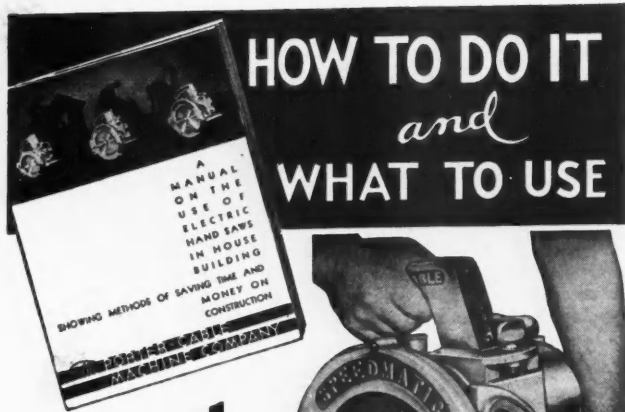
Send full details on your 5-DAY FREE TRIAL SPEED-O-LITE OFFER. Also tell me how I can own it. Interested in time payments.

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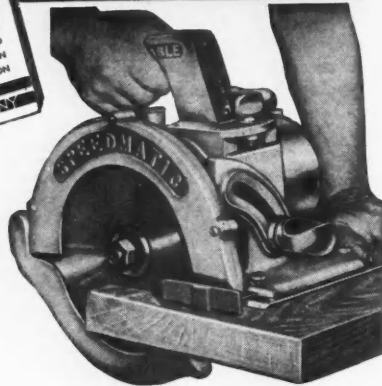
State _____



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of this Manual on the Use of Electric Hand Saws in House Building. It describes and illustrates many time and money saving methods every builder should have for reference.

Write today before supply is exhausted.



Speedmatic Saws
6" — 8" — 9"

You, too, are sure to make the savings shown in the Manual when you use a Speedmatic. It is built to stand the punishment of present day speed-'em-up activity, and is guaranteed to give you years of faithful, efficient and dependable service. Be sure to get the details, gladly sent without obligation. Just ask us.

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"We feel very much gratified over the volume of business we have developed on Mural-tone. A large number of active dealer accounts show by their increasing purchases that Mural-tone is proving a profitable and satisfactory item. Frankly, we have been most agreeably surprised over the results secured. There are few, if any, of our varied lines which show us as rapid turnover of stock as Mural-tone. We consider it superior to any casein paint on the market. With the national advertising you are doing, we feel that Mural-tone is a decided asset to distributors and dealers alike."

You, too, can make money with MURAL-TONE. Write today — just say "How can MURAL-TONE make money for me?" ... The Muralo Co., Inc., Founded 1894, 568 Richmond Terrace, Staten Island, New York. Branches: Atlanta — Chicago — Boston — San Francisco.

* (Name on request from publisher of this magazine or The Muralo Co.)

mural-tone
The Money-Saving Paint in the Orange Can

Clark Heads Westinghouse Kitchen Planning

THE appointment of Irving W. Clark as manager of the Kitchen Planning Section has been announced by Westinghouse Electric and Manufacturing Company. Mr. Clark, with managerial responsibilities of the Kitchen Planning Section, will continue to promote the sale and distribution of the all-electric kitchen, and in addition, will assume additional research and laboratory work on the various ramifications of kitchen planning.

Mr. Clark has become a nationally recognized kitchen planner and designer as a result of his work with the Westinghouse company, and his earlier experience as an architect and cabinet designer and salesman. His address is Mansfield, O.

P.C.A. Safety Trophy Awarded

WHEN it dedicated the Portland Cement Association safety trophy on Wednesday, June 24, the Hannibal plant of the Universal Atlas Cement Company celebrated its best safety record in more than 30 years of cement making. The trophy was awarded to the plant in recognition of its accomplishment of maintaining an unmarred safety record during 1935.

By coincidence, Hannibal won this safety trophy in 1935, the year in which the city of Hannibal celebrated the Mark Twain centennial. At the present time, the plant has gone 692 days without a lost-time accident.

Addresses were made by Hon. James P. Boyd, general counsel of the Missouri Public Service Commission, who represented the state, H. A. Schultz of the Industrial Relations Department of the United States Steel Corporation, of which the Universal Atlas Cement Company is a subsidiary, and B. F. Affleck, president of the cement company.

Mercer Made Armco Advertising Manager

THE American Rolling Mill Company, Middletown, Ohio, recently announced the appointment of Harry V. Mercer as advertising manager of the company, a newly created office at Armco.

Mr. Mercer has been associated with Armco since May 1, 1916. During 14 of his 20 years of service he has been identified with practically all phases of the company's publicity and advertising. In his new position he will administrate Armco's program of advertising.

Church Architecture Meeting in Fall

THE next meeting of the North American Conference on Church Architecture will be held Oct. 9, 1936, in the Cathedral of Saint John the Divine, New York City. The following have been invited to address the Conference:

The Right Reverend Bishop William T. Manning; Dr. Ralph Adams Cram; Mr. John Angel (recently granted a doctorate degree by Columbia University); Dr. Francis S. Onderdonk, of the University of Michigan, who will speak on Ferro-Concrete construction, and give an illustrated lecture on architectural service for smaller churches; Prof. Leopold Arnaud of the School of Architecture of Columbia University; Mr. Joseph G. Reynolds, Jr., of Boston.

All architects, building contractors and others interested in modern American architecture are invited. Further information available from E. M. Conover, secretary, Room 419, 105 East 22nd Street, New York City.

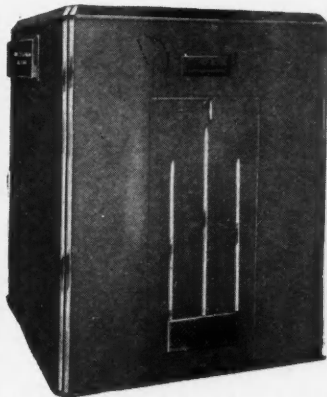
First Wall Paper Exhibition Scheduled

THE first exhibition of wall papers ever opened to the public will be held July 27-31 at the Waldorf-Astoria Hotel in New York City, under the auspices of the Wall Paper Institute, association of American wall paper manufacturers.

New wall paper styles and patterns will be on parade as well as standard designs which have proved the favorites of home decorators year after year and for which there is a constant or increasing demand. Historical papers will also be featured. In addition, the whole art and science of the making of wall paper will be on view through the exhibits of companies furnishing supplies, materials and services to the manufacturers.

Air Conditioning is the HEART of the Modern Home

For the Best
Depend on Dailaire



There is nothing that goes into the home as important as the heating system. The home purchaser today is demanding a modern air conditioning system.

In your business you do not depend on an automobile of 1910 design. It is likewise poor logic to install heating equipment designed twenty-five years ago.

Dailaire pioneered the first high efficiency warm air conditioning system. Our product has been field proven. It is thoroughly time and customer tested over six heating seasons.

Built in a range of sizes with Armco stainless and copper bearing steels, for coal, oil or gas, at prices

that offer the greatest dollar value in the heating field.

Write for full details on Dailaire's 10 points of superiority.

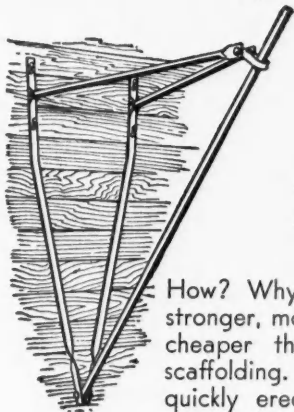
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New York office 155 E. 44th St.

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How? Why? Because they are stronger, more dependable and cheaper than costly wooden scaffolding. Because they are quickly erected, quickly taken down. Because you can use them on wood or stucco. No wonder they soon pay for themselves. Thousands of builders have used them for years.

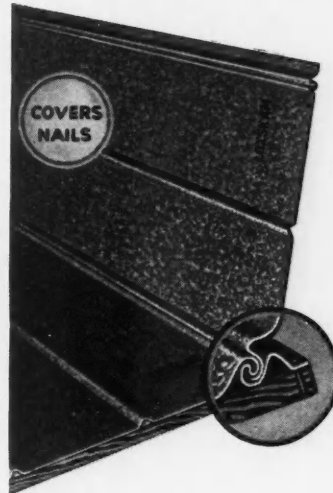
Let us prove their value. Send for catalog—then ask us to ship first pair C.O.D. for your inspection and trial.

Reliable Jack Company, 1401 West Second St., Dayton, Ohio

RELIABLE
SCAFFOLDING BRACKETS

EDWARDS LOXSEAM ROOFING

Easier to Sell and to Install



BEAT competition by bidding on Edwards Loxseam Roofing and the job is yours! The customer can see that you are offering a better roof, tight as a drum from ridge to gutter, handsome in appearance and good for the life of the building, at a substantial saving in cost.

You can be low bidder and still make your full profit on material and labor because LOXSEAM is so much easier to install, on new construction or over old roofing. Sheets interlock full length with watertight seal, as fast as you can nail and lock them together.

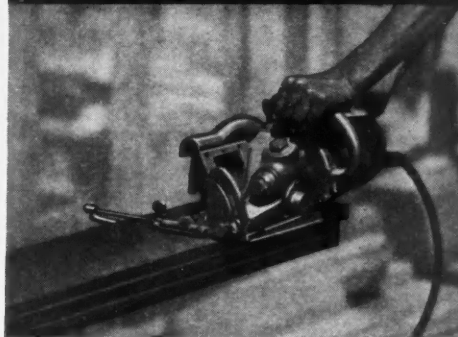
Send roof measurements for estimate. Write for Loxseam Circular and General Catalog No. 90

THE EDWARDS MANUFACTURING CO.
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CUT FRAMING COSTS

WITH WAPPAT PORTABLE SAWS

Save \$90.00 on \$5,000.00 Job



FOR CUTTING

Joists
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Trim

Other WAPPAT
Electric Tools

LOCK MORTISER

DOOR PLANE

DRILLS

Write for
Details

Here is a new way to reduce your costs. The illustration shows a model 2A WAPPAT Saw ripping 3 pieces of 1" dressed. This is for bridging. Next these will be piled two deep and cross cut with the proper bevel. Let us tell you about money-saving ways to cut joists, sheathing, rafters, studding—ways that are fast, accurate and effortless.

WAPPAT Saws are built to last fifteen years or more. They will save many times their cost. Try one free on your next framing job.

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Division of
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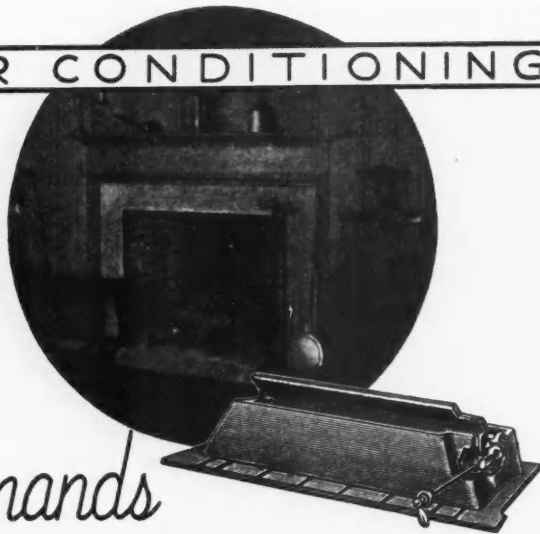
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PEERLESS dampers

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OTHER PEERLESS PRODUCTS

Fireplace fixtures—ash dumps—coal windows—ash pit doors—garbage receivers, radiant gas heaters, Gas Conversion Burners and Stokers. Details and prices on request.

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Put this MONARCH VARIETY WOODWORKER to work for you and save time space . . . power . . . MONEY. Quality in every line and operation. Four men can use this machine at one time. A combined Rip and Cut-Off Saw Bench, with Boring Attachment, Hollow Chisel Mortiser and 8" Jointer. Electric motor or

gasoline engine, or supplied without power. Now's the time to "Modernize with Monarchs."

Complete catalog and prices on our full line of modern woodworking machinery, saw mills, etc., sent on request. Write and tell us your own requirements and situation.

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Makers of Woodworking and Saw-Mill Machinery
60 MAIN STREET HACKETTSTOWN, N. J.

LETTERS from Readers on All Subjects

Facts, opinions and advice welcomed here

All About "Overnite Houses"

New York, N.Y.

Colonel John Previu Smith
c/o Mr. L. J. Mulhearn
c/o The Editor, *American Builder*
Dear Previu:

I am not authorized to speak for Corwin, Bucky, Mac, Van or Foster (all of whom I see you are well acquainted with), but for my own part, strictly personal, off the record and entre nous, I think your "House of Two Centuries" is a really wonderful contribution to science.

Should you have any literature concerning your house, or reprints of the very dynamic description which I saw in the *American Builder*, I should appreciate getting a couple of dozen copies to send to some of our mutual friends in this field.

ROBERT L. DAVISON, Director of Housing Research,
John B. Pierce Foundation.

* * *

Montgomery, Ala.

To the Editor:

In the June issue of the *American Builder*, I find a very amusing article concerning pre-fabricated houses. I enjoyed this very much, but am much more interested in the serious side of the practical new development. My experience with the rental estate business is limited to two months. But in that time I have been quite interested in pre-fabricated houses. If the opinion of a novice can be expressed, I do believe that the modern pre-fabricated house will be a very common sight in the future.

EUGENE HEILPERN, JR.
Heilpern Insurance Agency

* * *

Putnam, Conn.

To the Editor:

I wish to say that I thoroughly enjoyed the article entitled, "The Last Word in Pre-fabricated Houses," which appeared in this month's *American Builder*. If you are the least bit worried regarding a shortage of land the enclosed article should ease your mind. I realize that some explanation is necessary so I will endeavor to give you my reasons for writing it and sending to to you.

I am a mason by trade and for the past nine years have been employed as an instructor teaching the young hopefuls of this county the art of laying bricks and plastering with more or less success. But I have seen the handwriting on the wall, or, to be more modern, the etching on the metal, and have decided to rehabilitate myself by turning writer. I am living in hopes that I will eventually arrive at a point where I will at least be able to purchase a monkey wrench and a soldering copper so that I may be employable in the new era.

THOMAS R. KELLY

* * *

Waterloo, Ia.

To the Editor:

Kindly send me on enclosed postal the address of Col. John Smith's Overnite Houses, Inc., as per your write-up in the June 1936 *American Builder*, page 68. Thank you so much.

N. J. LEUTZ

* * *

Found the Right Architect

Atlanta, Ga.

To the Editor:

I have an unusual story to tell about home building, but hesitate for fear of the trouble it may cause us, but at the same time feel that the architect is entitled to whatever recognition he can get out of the job.

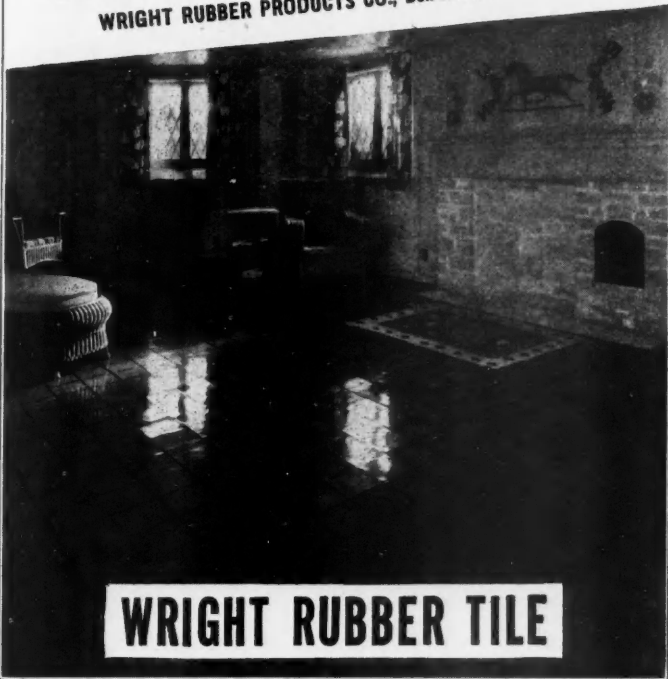
Some time ago, I purchased a sloping lot with an idea of building a home with four or five elevations to fit the lot. Last

(Continued to page 102)

New WRIGHTTEX . . . New PROFITS

Now—a quality rubber-tile flooring—pre-set in felt—for modernization or new construction of all kinds—within the price of everyone. Opens a brand new field for profitable business. Wide range of colors and designs. Conveniently packed. Exceptionally easy to lay. A good profit on every installation. Write for illustrated booklet in color—give name of your lumber or building supply dealer.

WRIGHT RUBBER PRODUCTS CO., Box A-36, Racine, Wis.

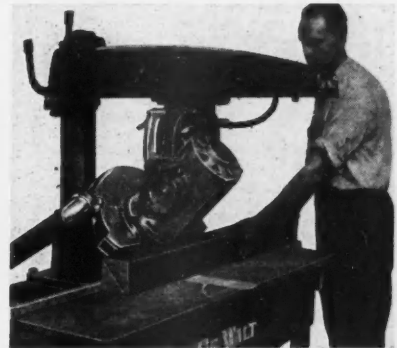


WRIGHT RUBBER TILE

"WE SAVE 5 MEN'S LABOR

by using the DeWalt Woodworker and advance the completion of our job fully 25% sooner than we could without it," writes a Massachusetts contractor.

EVERY builder who has not found out for himself by actual experience how much time and labor are saved by a DeWalt on any construction job, owes it to himself to see one in actual use. DeWalts perform 29 separate operations without tilting table or swinging material. They show up on the right side of the cost sheet, often paying for



themselves on the first job. *Write for complete information and name of our nearest representative.*

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261 Fountain Ave., Lancaster, Pa.

New Edition (April, 1936)

"Ramsey-Sleeper"

ARCHITECTURAL GRAPHIC STANDARDS

This book contains all the essential factual references needed by the architectural draftsman in his day's work. It consists of drawings of construction details, without text. The drawings are large enough to be easily studied and the lettering is clear. They represent latest standards and good construction practice. A 21-page index covering 3600 items enables the user to quickly locate almost any detail, fact or standard likely to be needed.

Included in the new edition are details of glazed brick and hollow tile; brick courses; wood flooring; mill construction; commercial projected steel windows; revolving doors; grilles; structural glass; wall paper; venetian blinds; metal wall moulds; awnings; minimum size bathroom; radiators; insulation; bath houses; residential kitchen planning; restaurants, cafes, bars; overhead garage doors, etc.

2nd Ed. 284 pages, 260 plates, 9 1/4 x 11 1/2 inches, cloth, \$6.00

Money Back If Not Satisfied

BOOK SERVICE DEPARTMENT

AMERICAN BUILDER AND BUILDING AGE

38 Church Street, New York, N. Y.



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It's only natural that, other things being equal, the woman will choose the home with a Victor Ventilated Kitchen. Air conditioning is the most widely discussed subject of the day, and Victor Ventilation goes a long way toward providing an air-conditioned kitchen—at extremely low cost. It not only gets rid of cooking odors as fast as they are produced, but eliminates greasy fumes and keeps the kitchen cool and comfortable during the summer.

Investigate Victor In-Bilt Ventilators. Check the long list of superior features. You'll find they have "everything," including: smart styling, rust-proof finish, quiet, efficient operation, automatic control, one-shot lubrication, weather-tight shutters, provision for open or concealed wiring, and many other advantages. Write today for new catalog showing Victor's complete line.

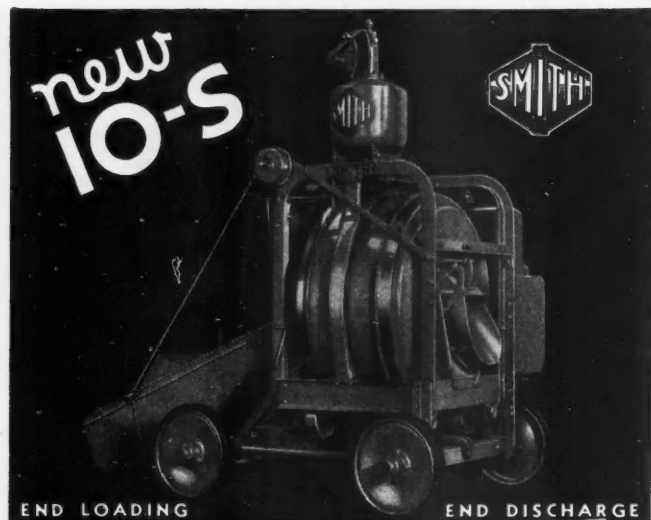
Victor In-Bilt construction makes installation easy in walls of any type or thickness. Wall sleeve and shutter are one assembly; fan and grill another.

DEALERS

If you're interested in boosting your sales volume and profits, don't overlook the unusual opportunity that the rapidly growing demand for Victor Ventilators offers you. The Victor In-Bilt is the outstanding home ventilator by long odds, and there's merchandising support to help you. Write today for full information on this sensational seller.

VICTOR ELECTRIC PRODUCTS, INC.
711 Reading Road Cincinnati, Ohio

Kitchens SELL Homes—Ventilators SELL Kitchens



4-Wheel Truck Stability with 2-Wheel Trailer Speed
● Now—a new SMITH 10-S built to meet modern conditions. End discharge—light weight—speed—all advantages of a fast 2-wheel trailer mixer, with 4-wheel truck stability. Only 6½ ft. wide—short 5 ft. wheel base—automotive type axle—3-point suspension with spring mounting. Engine mounted on right side—no overhang on traffic side. Designed by same SMITH engineers who built the famous Boulder Dam mixers. Write for catalog.
THE T. L. SMITH COMPANY, 2849 N. 32nd St., Milwaukee, Wis.

SMITH MIXERS
THE BOULDER DAM MIXERS

Letter Dept.

(Continued from page 100)

summer we were ready to build and I went to one of the best architects in the city and asked him to draw the plans along the lines I just mentioned. After working with him two months, he said the ideas I had would not work and he gave it up.

At that time I noticed in your "New Era Home Designs" on page 152 a home designed and built by William Cain, architect, Bronx, New York City, that was exactly the idea I had been trying to get this architect to draw, with the exception of size of house and material. I consulted Mr. Cain about doing the job for me and found him so frank and straightforward about everything that I gave him the job.

I took the elevations on the lot and told him about what I wanted in specifications; he made up preliminary drawings and specifications and sent them to me for correction. We started building Sept. 1, 1935, and completed it about March 1, 1936. And I believe we have the best built small home in the South.

Everything about the house worked out just exactly as Mr. Cain had drawn it; we did not have to change one thing. And I have *still* never seen Mr. Cain.

Our home is larger than the one shown in magazine, and is of rough brick veneer. It has many features you do not find in ordinary homes, and if you think you'd be interested in publishing it I will be glad to have photographs taken and send you the plans and specifications. As you will notice, I am connected with the building business, and get a lot of help out of your magazine, carrying the current number with me all the time and using it selling Heatilators to business supply houses.

R. E. NOLAN, Factory Representative,
Heatilator Co.

We Plan to Widen Editorial Scope

New York

To the Editor:

I have been a subscriber to your magazine since October 1935. I have followed with interest the articles on various one-family dwellings. Although the magazine appears to cater almost exclusively to one-family houses, would it not be possible to include one or more articles on other or larger types of buildings each month, presenting it in such a way that it will be of special interest to a valuation engineer, appraiser or construction estimator? Unit cost, short cut methods of figuring and other similar items would be very helpful, as I do not know of any magazine on the market today which gives information along these lines. The "General Building Contractor" which suspended publication about two years ago, used to give a great deal of information along these lines and many others beside myself regretted its suspension.

FREDERICK T. BROWN,
Engineer, The Continental Insurance Company

Loyal Through Thick and Thin

Sioux Falls, S.D.

To the Editor:

I am glad to see the *American Builder* back in its old form again, in size and good material from cover to cover. Having been a subscriber to your splendid magazine for over twenty years, I have seen its ups and downs. But no matter how big or small, it has always been the best magazine in its field. I have saved the best pages from way back in 1916 and find it well worth while.

NELS OIE NOREM,
Carpenter and Builder.

Finds American Builder Valuable

New York City.

To the Editor:

For the third consecutive two-year period I have now renewed my subscription to your highly valued magazine, in fact, the most valued of the many that I subscribe to.

The articles in your paper cover many points that I have found discussed by no other publication.

Another feature is that I can keep in close touch with new methods and materials through ad and catalog service.

I am enclosing a list of catalogs that I would thank you to have mailed to me.

FRED J. HASBROUCK,
Architectural Engineer.



ACCURATE METAL WEATHER STRIP

SELECTED FOR MODEL HOMES

IN THE Westchester, N. Y. Model Home, in the Model Home of America in Atlantic City, in many other featured buildings, where quality of product and precision of workmanship are prime considerations, you will find Accurate Metal Weather Strip. For 30 years a leader. Complete catalog in SWEET'S 1936 Architectural Edition.

Jobbers Wanted. Valuable territory open

ACCURATE METAL WEATHER STRIP CO.
218 East 26th Street, New York

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Increase your profits by selling and installing TILE-TEX Resilient Floor Tile.

TILE-TEX is a high quality flooring made in many colors and sizes suitable for use in homes, public buildings, stores, etc. The only type of resilient flooring guaranteed to give satisfaction in basements. Easily installed by competent carpenters.

Write today for our free illustrated catalogue, layers' handbook, and dealer's proposition.

THE TILE-TEX COMPANY
1229 McKinley Avenue Chicago Heights, Illinois



METAL Door Hoods...

Last as long as the House itself!

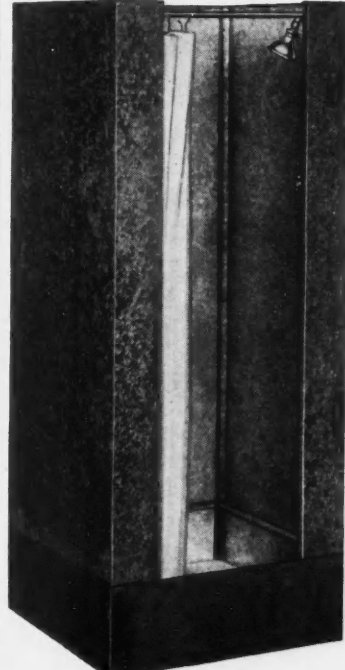
STYLES ALSO AVAILABLE FOR WINDOWS

Practical — Easy to Attach!!!
WRITE DEPT. A FOR DESCRIPTIVE FOLDER

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An Extra Bath at Very Low Cost



Whether your plans call for a remodeling or new construction job, there is always a space where you can install an Extra Bath at very low Cost.

ELKAY "Sturdibilt" Shower Stalls

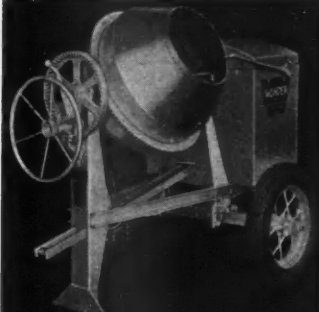
are ideal for such jobs. Available in both "Unit" and "Knocked-down" models. Easily, quickly and economically installed. Completely equipped with latest improved self-cleansing chromium plated shower head, valves and soap dish and shower curtain.

PRICES AS LOW AS \$31.50

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ELKAY MFG. CO.
4726 Arthington St., Chicago, Ill.

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Hook this new Wonder 3½ behind a car or truck and drive as fast as you want to. Pneumatic Tires, Timken Bearings and Spring Mounting provide fast, quiet trailing. Available on solid cushion tires if desired.

Write for bulletins on New C.M.C. Mixers—all sizes—pneumatic tired Concrete Carts, Hoists, Pumps, Saw Rigs, Wheelbarrows. Get our prices on the most modern equipment in the industry.

Construction Machinery Co., Dept. A.B. WATERLOO, IA.

COMMON SENSE . . Isn't it!

Fancy claims don't put money in your pocket. So buy doors like you do other materials. Get the facts **TODAY** on the Kinnear **RoL-TOP** Door and check the specifications. See for yourself how **RoL-TOP'S** better construction can benefit you. Every one knows the advantages of doors that open **UPWARD . . .** and that it's the door every one wants today. But it is such things as **RoL-TOP'S** "Keystone" seal — Continuous Angle Mounted Track — and Malleable Iron Hardware that mean your customer is better satisfied and you cut installation costs and get a product that fits your need 100 per cent. Check **RoL-TOP** before you do your buying.

Any size . . for any building . . New or Old

KINNEAR RoL-TOP DOORS



The KINNEAR MFG. CO
1560-80 Fields Ave. Columbus, Ohio
Send me complete details on Kinnear RoL-TOP Doors.

Name.....
Address.....

(Continued from page 102)

Pat. No. 1,591,265



SAVE 25c to 30c
Per frame — with
HONEYCUTT SASH CORD SADDLE

40% less weight. Saves labor—merely bore 1" hole and drive Saddle in. Requires less stock of window weights.

Kiln dried, chemically treated, full 1" birch or beech. Tested—tried and accepted in years of actual usage.

Cannot rust or stick window. Noiseless. Will never jump pulley, fray nor wear out sash cord. Positive balance for window.

FREE—Write today for Free Sample and illustrated literature.

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Please send the literature checked.
 "The Kawneer Book of Store Fronts" (56 pages—250 pictures.) Booklet on Kawneer Rustless Metal Doors. Booklet on Light Sealair Windows in aluminum or bronze. Contr. Dealer

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RUSTLESS METAL
STORE FRONTS · DOORS · WINDOWS


BEAR DOWN, BILL, BEAR DOWN!



Sure, you can dig a basement with a hand shovel. But a builder'd go broke doing it. And you can still fit windows on the job. But you'll make more money using the Silentite Pre-Fit Window Unit to take the "puttering" out of installations. Your customers will like the 25% fuel savings possible with these new windows that tests show are five times as weather-tight as ordinary windows. Write today for full particulars.

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THE "INSULATED" WINDOW



STUDEBAKER
Ideal Transport for the Building Industry
"CAB-FORWARD" TRUCKS
get in and out where other trucks can't!

\$595
and up, chassis at South Bend, Ind.

STANDARD TRUCKS
\$565
and up, chassis at factory



Letter Dept. Correction Offered

Piedmont, W. Va.

To the Editor:

I know you want all your "Practical Job Pointers" correct, and call attention to the article, "Finding Radius of Arc" by Kenneth Lemke in May number.

Example: S equals $\frac{1}{2}$ of subtended cord of arc ABC. R is the rise of the arc.

$$R = 4 \qquad S = 6$$

To find diameter, should be $4^2 + 6^2 \div 4 = 13$.

Both R and S should be squared and not $4 + 6 \times 6 = 13$ as printed; it does not work out. 4

I know our young friend Brother Lemke will be glad for this correction.

HARRY F. SMITH

Keeps Reference Data Working

Danbury, Conn.

To the Editor:

I am enclosing a catalog list, and while this list is rather large, may I state that these catalogs are placed on file in a reference room, owned and established by myself and open to all who may desire to use the same.

Besides numerous catalogs there are always five years of complete issues of the *American Builder* on file for reference. These files have been used by material agents in Danbury, Bethel, Bridgeport, carpenters of Danbury and many of my own customers.

So any catalogs sent to me will be put to good use.

KENNETH D. MORRISON,
Carpenter and Builder.

* * *

Planning Methods for Small Dwellings

(Continued from page 64)

such private utilities will range upward from approximately \$275.

These houses are practical and possible houses within the price ranges quoted; and they offer a reasonably high degree of comfort and sanitation. Their production involves no unusual methods of construction and no reliance upon mass operation. Large scale operations are, of course, to be encouraged and price reductions may be anticipated therefrom. There is no material in these houses not readily available, and no element of construction not familiar to a competent builder. Dependence is placed solely upon careful planning, the utilization of stock materials in standard sizes, and the avoidance of the waste of materials and labor.

The following planning principles have been adhered to throughout:

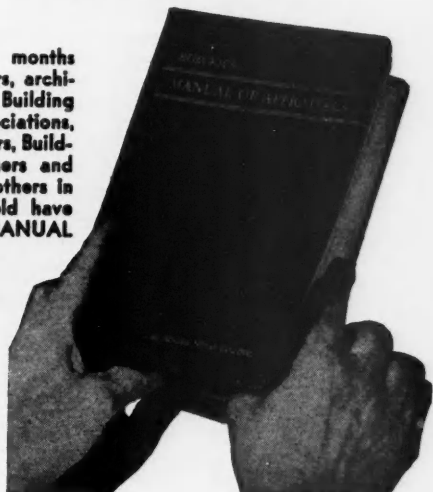
1. The perimeter of the house is rectangular, avoiding all breaks in line except at the corners of the rectangle.
2. The total length of the perimeter is, so far as possible, reduced to the minimum required to enclose a given floor area.
3. Interior framing and partitioning has been designed to eliminate all possible corners.
4. Standard lengths of lumber are used throughout in floor, ceiling, roof, and wall members, except where cutting is required to form gables and to frame around stairs and chimneys.

(Continued to page 108)

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(July, 1936)

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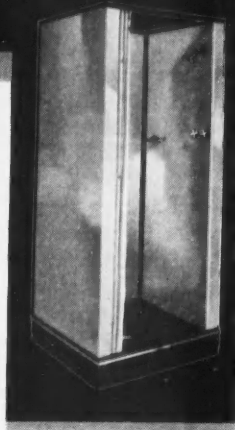
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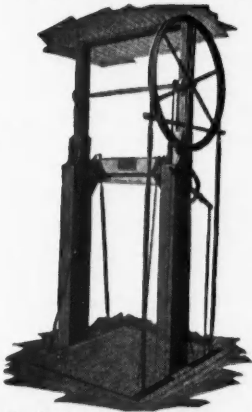


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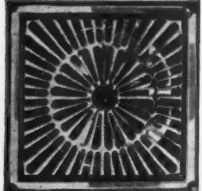
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(Continued from page 104)

5. Joists are carried between outside bearing walls and supported by bearing members to reduce labor of cutting and to give greater flexibility in interior planning of bearing partitions.

6. Standard or stock items of millwork are used to benefit by factory fabrication where possible.

7. Plumbing lines are concentrated, kitchen and bath being back to back in one-floor plans and above one another in two-story plans.

8. Heating layouts and house plans have been developed in relation to each other to permit efficient operation and short runs of piping or duct work.

Regarding the foregoing presentation FHA states that twenty per cent or more difference in cost might be found due to many variables and adds as follows:

"It should be remembered that this is primarily a study of the principles of design involved in the planning of a small house. None of these houses, to the best of our knowledge, has ever been built. The range of prices given, however, has been derived from accepted methods of cost estimation. The prices, therefore, are estimates of cost on the basis of current prices rather than actual costs as demonstrated by experience. Nevertheless, it is felt that if the principles set forth are carefully followed, these houses may be built anywhere in the United States within the ranges quoted.

"Any of these houses may be improved through the increase of size of rooms, and through the addition of mill items and other equipment, basements, and garages. Throughout the illustrative cases, however, the principle of providing a maximum of accommodation within a minimum of means, and, consequently of cost, has been followed."

Bonded Homes by Bonded Builders

(Continued from page 42)

- ence. In addition, the inspections of the bonding company and the FHA are frequent and thorough-going.
3. The owner has a written guarantee that the house will be completed for the amount named in the contract.
 4. The home owner is fully protected against mechanics' liens and building encumbrances. The "Bonded" contractor is financially sound, but in addition the bonding company assumes full responsibility for the payment of all debts arising from construction.
 5. The "Bonded" home owner is provided with a title guarantee policy. He is relieved of the expense of instituting his own title search or buying his own title policy.

The Bonded Home built by a Bonded Builder is identified by a bronze plate set into the foundation. It is pointed out that the resale value of the house will be increased by this permanent identification.

Experienced building men know that numerous plans to guarantee home construction have been advanced in the past. The fact that demand for some such protection repeatedly occurs shows that it is a basic need. The Passaic-Bergen Bonded Homes Plan, backed by Weyerhaeuser and General Home Financing, is one of the most practical and workable protective methods yet advanced. It is being watched with the keenest interest by building men in the East and in other parts of the country. It is rumored that the successful development of the Passaic-Bergen program will be followed by its adoption in other parts of the country by other combinations of material producers and financial institutions. Certain it is that any plan that can successfully eliminate fear and uncertainty on the part of the prospective home buyer will release a large volume of home construction now held back.