Engineered House Construction

In This Issue—Gravity Warm Air Heat
For fast, low-cost construction of insulated buildings... use CEMESTO

Shown here are only a few of the many commercial and industrial buildings built better and faster with Celotex Cemesto Board.

Cemesto is perfect for speedy, low-cost construction of insulated buildings. It offers thermal insulation, weather resistance inside and out, structural strength and siding... all at one low cost. In addition, Cemesto core is Ferox-treated to resist dry rot, fungus growth and termites.

Cemesto comes in standard size sheets in 1 1/8", 1 9/16" and 2" thicknesses; can be easily cut to fit job conditions; can be attached by nailing to wood, by bolts or clips to steel.

Thus Cemesto is an ideal material for use in exterior walls, roof decks or interior partitions. It does not require painting, so maintenance costs are low.

Write the Architectural Sales Service Department for complete details illustrating several methods for applying Cemesto for roof decks, exterior walls or interior partitions.

If you wish to furnish the architects' or engineers' plans to us, we will be glad to prepare shop erection drawings showing Cemesto panels required, together with estimates on cost of material pre-cut to fit.
Co-operating with President Truman's appeal for lower prices...we announce

REDUCED LIST PRICES

for Fenestra Residential Steel Casement Windows

DETROIT, MICH. - APRIL 25, 1947.

PRESIDENT HARRY S. TRUMAN,
THE WHITE HOUSE,
WASHINGTON, D. C.

TO SUPPORT YOU IN YOUR EFFORTS TO REDUCE THE COST OF HOUSING TO THE AMERICAN PUBLIC, WE ARE TODAY TAKING THE FOLLOWING ACTION:

ALTHOUGH OUR LIST PRICES ADVANCED ONLY 30% OVER PREWAR, AND ALTHOUGH WE FACE INCREASED COSTS, WE ARE ANNOUNCING AT ONCE A REDUCTION OF 5% IN LIST PRICES ON OUR FENESTRA RESIDENCE CASEMENT WINDOWS. ALSO WE ARE ELIMINATING ESCALATOR CLAUSES FROM ALL NEW QUOTATIONS OR ORDERS COVERING MATERIALS.

OUR PLANTS WHICH FOR YEARS HAVE BEEN THE COUNTRY'S LARGEST MAKERS OF STEEL WINDOWS ARE AT PEAK PRODUCTION IN EFFORT TO CATCH UP WITH THE LARGEST BACKLOG OF ORDERS IN OUR HISTORY. SHORTAGE OF STEEL IS ONLY IMPORTANT FACTOR PREVENTING STILL HIGHER PRODUCTION.

H. F. WARDWELL, PRESIDENT
DETROIT STEEL PRODUCTS CO.

INCREASING YOUR OPPORTUNITY TO PROVIDE UP-TO-DATE WINDOWS FOR UP-TO-DATE HOUSES
Don't you hate to see a home owner "bottled up"?

- There's no fuel that can match Bituminous Coal for providing a home with uniform, dependable, low-cost heat. Every architect and builder knows that!

And in the future, the advantages of coal heat will become even more pronounced—especially when stoker developments and improved local services make coal an "automatic" fuel as well.

So when a client of yours insists on some other fuel for his new home, make sure he can turn to coal later on. Don't let his house plans "bottle him up" with his initial fuel choice forever.

Simply be sure that the house plan provides: 1) A chimney with sufficient flue capacity to burn coal efficiently; 2) Sufficient space adjacent to the heating unit for eventual coal storage and stoker installation.

Such sensible precautions involve but trifling cost—and they may add greatly to the future value of a house.

Coal supplies uniform, steady warmth throughout every portion of each room. For there's always a fire in the furnace—no "pop on and pop off" periods that permit accumulated heat to rise to the ceilings and leave floor areas dangerously cold. That, plus its low cost, is why more than 4 out of every 7 homes in the United States now heat with coal!

BETTER AND BETTER THINGS ARE COMING FROM COAL!

BITUMINOUS \ COAL

BITUMINOUS COAL INSTITUTE
Washington, D. C.
Affiliate of NATIONAL COAL ASSOCIATION

As you undoubtedly know, the modern research facilities of the Bituminous Coal industry are hard at work not only to make coal a still better fuel, but also to devise new, low-cost automatic equipment that will make coal-heating even cleaner, more comfortable, more convenient and more economical. This makes it all the more important that every new home built today be planned to permit the eventual burning of coal—no matter what fuel may initially be selected.
Remember this!

INSULITE SHEATHING is a double-duty building material performing two important functions—

(1st) It Sheathes

(2nd) It Insulates

When you show the job to clients, you can say: "I'm giving you double for your money in these outside walls—two things for the price of one—sheathing PLUS insulation." They'll like that. Furthermore, it goes up fast, saves time, cuts costs and there is no waste. You can build better competitive homes. That's an advantage for you. Plan to use Insulite on your next job.
You seek to use the best!

For upwards of thirty years Upson Panels have given new and added beauty to unsafe and unsightly cracked plastered ceilings.

Additional hundreds of thousands of ugly cracked ceilings are in existence today—badly in need of the Crackproof permanence which covering with Upson Panels can bring to them.

Unfortunately, so vast a market may encourage producers of less accepted products to urge their sale for walls and ceilings.

Keep in mind, however, that with Upson Panels the homeowner can be assured of a proven material for walls and ceilings. They are easily and quickly applied, easy to clean... and forever Crackproof. They open an almost unlimited market for the aggressive contractor.

Although not yet in full supply, the testimony of thousands of satisfied Upson Panel users proves that it will pay the homeowner to wait a while longer and get this outstanding, time-tested material.

THE UPSON COMPANY, LOCKPORT, N. Y.

Upson Quality Products Are Easily Identified
By The Famous Blue Center

Upson owners tell their friends:

"About 5 years ago we built a new home and used Upson Panels. None of them have been repainted and are in as good condition as when applied. There is no warping or pulling loose from walls or ceilings. We are perfectly satisfied and pleased with this product."
C. H. M.
March 30, 1945

"The Upson ceilings in our home have been admired by many people since they were installed nearly 9 years ago. They look as pretty today and are in the same condition as the day they were placed by the workmen."
Dr. & Mrs. J. J.
December 20, 1945

Due to excessive demand, Upson Panels are not yet in full supply. Buy them when you can. Remember, products of proven worth are hardest to get. It will pay you to wait for quality Upson Panels.
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Editorial Office, 105 West Adams Street, Chicago 3.

AMERICAN BUILDER HAS THE LARGEST CIRCULATION OF ANY TRADE JOURNAL IN ANY FIELD
"Certainly

FORD TRUCKS
LAST LONGER!"

"That's why we operate 207 of them!"—says C. R.
Littlepage, Supt. of Transportation, Houston Oil Field
Material Co., Houston, Texas.

One BIG Reason—
FORD ELECTRICAL UNITS STAND UP!

The fame of Ford Trucks for swift, sure starting and all-weather reliability rests solidly on Ford design and Ford quality... in particular, the Ford Electrical System. More than 12 million Ford-designed starter motors and generators have been built in Ford shops. Repeated tests for electrical efficiency consistently prove these fine, Ford-built units to be outstanding. Long, trouble-free generator service is assured by such long-life features as pre-lubricated, sealed ball bearings on armature shafts, and by bushings wick-lubricated from a reservoir with an overflow drain, which prevents surplus oil from reaching commutator. Ford starter motors are pre-lubricated, requiring no oiling whatever. Ford wiring and generous battery and generator capacity adhere strictly to the highest standards of the industry. The simplicity and high efficiency of the Ford starting system circuit, too, have much to do with Ford's faithful starting performance.

Available in 134" and 158" wheelbases, and in 1½- and 2-ton nominal ratings, the popular Ford heavy duty chassis is shown with standard Ford 12-foot Platform Stake body, 158" wheelbase.

Only Ford Brings You All These Long-Life Features: Your choice of engines, V-8 or SIX —each with new Flightlight oil-saving 4-ring pistons and precision bearings — true truck frames in all models, with siderails doubled in heavy duty units — rear axle shafts free of weight-load, 3/4-floating in half-ton units, full-floating in all others — big, easy-action brakes with non-warping, score-resistant cast drum surfaces — in all, more than fifty such endurance engineering features! And more than 100 body-chassis combinations to choose from. See your Ford Dealer now!

MORE FORD TRUCKS IN USE TODAY THAN ANY OTHER MAKE!
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The faster you build...the less the cost...the greater your profit when you use a MallSaw. The Model 70 is unusually light in weight...has a 2 1/4" cutting capacity on straight cuts...2" on 45 degree bevel cuts...automatic safety guard...can be equipped for dadoing, grooving and cutting asbestos, tile, concrete and light gauge metals. Available—complete with combination blade, wrench, lubricant and metal carrying case—for 110-volt AC-DC or 220-volt AC-DC. Other models with 2", 2 1/4" and 4 1/2" capacities.

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UTILITY ROOM—Center of interest in this attractive first floor Utility Room is the SARATOGA Winter Air Conditioner, a low priced, oil fired unit especially designed for small homes. Compact jacket encloses both blower-filter unit and heating element. Also provides space for concealed Arcoflame or any other standard oil burner. The laundry tray shown under the window is the ALDEN, made of durable, easily cleaned enameled cast iron. Also shown is the popular BUDGET Gas Fired Automatic Storage Water Heater.

MODERN KITCHEN—What a picture the trim, efficient ROYAL HOSTESS Sink makes under this window. Designed for maximum cleanliness and convenience, this 6-foot double compartment, double drainboard sink is made in one piece ... of rigid cast iron with a heavy coating of acid-resisting enamel. Fittings are finished in non-tarnishing Chromarod for easy cleaning and lasting beauty. Roomy cabinet provides abundant storage space beneath.

- American-Standard Heating Equipment and Plumbing Fixtures have long been the first choice of homeowners. No products are better known for quality, efficiency, long life. No line is more complete. Yet, American-Standard products cost no more than others ... and can be purchased on a convenient Time Payment Plan for modernization. For details, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.
Prosperity Depends on POLICIES

ECONOMIC RESULTS are not determined by the principles that politicians, business men and labor leaders profess, but by their specific policies. Everybody but avowed socialists and communists profess to favor free private enterprise. But the nation's future prosperity and progress will be determined by the degree to which we really have free private enterprise, which will depend on how many important policies favorable or adverse to private enterprise are followed.

Measured by production, construction, commerce, transportation and employment we are having a period of extraordinary prosperity. The up-to-date trend of business as a whole is best indicated by railroad freight loadings, which as yet show no tendency to decline.

But there are influences working which make the experienced student of business wary. Prices have advanced more than many consider safe. Recent increases of wages in some large industries, which will be followed in other industries, enhance inflationary tendencies. There is much complaint of excessive costs due to labor inefficiency; and there is no certainty yet of legislation to destroy or even curb labor monopolies. Taxes are taking too much of the earnings of corporations and individuals to allow accumulation of the huge amount of capital needed for improvement and expansion of industrial and railroad plant; and there is no certainty that whatever legislation is passed by Congress to reduce taxes will not be vetoed. Important industries, such as home building, power companies and railroads, are being subjected to and threatened with increasing competition subsidized from the excessive taxes being collected.

Perhaps the most encouraging factor in the situation is that so many public men and business men show an awareness of unfavorable influences and are guarding against and trying to reduce them. They showed no such awareness and fear of unfavorable influences before the recession in 1920, the crash in 1929 or the recession in 1937.

It has been truly said that if we have a depression soon it will have had the most advance advertising of any depression in history. New Deal economists predicted that, without huge government spending on "public works," depression would come immediately after the war. A decline in the stock market forecasted it months ago. Spokesmen of communism in Russia as well as here have been confidently awaiting a "bust" in America which they believe would drive capitalism from its last citadel.

Reasonable confidence of business men in the future helps cause good business. Widespread excessive and blind confidence causes reckless speculation, which is always followed by depression. Private enterprise in this country cannot risk another severe depression. Therefore, it cannot risk widespread reckless speculation in stocks, commodities, real estate or anything else. The longer a boom lasts and the bigger it becomes the more excessive confidence and reckless speculation it is likely to engender.

Good business men will go courageously forward while sure their confidence in the future is justified. But under such conditions as exist at present, they will oppose unwarranted government spending and all socialistic policies, keep their confidence under strict control and make certain they are avoiding speculative excesses of every kind.

Samuel O. Drum,

Publisher's Page
Bondex is sold in Australia

In any language

the way to

STOP WALL DAMPNESS

is with BONDEX the Patented cement paint

FOR EXTERIORS

Bondex is used in 90 foreign countries because it resists the attacks of frost, rain, sun and wind. The reason is the patented Bondex formula which bonds with the wall surface itself and seals up the pores through which moisture penetrates. Ideal for stucco, concrete block, brick or masonry.

FOR BASEMENTS

Bondex converts basements unused due to unhealthy wall dampness into dry playrooms — thus providing extra room for the entire family. This inexpensive treatment also permits the use of attractive decorating ideas, as Bondex comes in 12 modern colors. For concrete, stone or block.

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Bondex is a patented formula so unique that it outsells all other cement paints combined

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THE Patented CEMENT PAINT
NEW LOW PRICE!

SKILSAW RADIAL SUPPORT
quickly converts Portable SKILSAW
into an Efficient RADIAL SAW

MAKES ALL THESE CUTS

- Cut Off
- Miter
- Rip
- Bevel Cut-Off
- Bevel Miter

Universal bracket fits SKILSAW Model "77", "933" or "87"

- Greater acceptance, increased production and economies in manufacturing make possible a substantial reduction on SKILSAW Radial Arm. The new low price is in line with SKILSAW's policy of always bringing you the lowest prices on top-quality SKILTOOLS . . . the tools that always save you time, effort and money on every job.

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Building prices

To the Editor: The table printed on page 23 of your April issue, and reprinted from The Biblical, showed some very surprising comparisons of present house costs with the prices of other products and services. I hope this item got proper circulation among labor leaders and others who ought to know what is going on in the matter of prices. Out here in the farm country where we are being told that building prices are too high I expect to make good use of the table. I notice now that some of the old OPA fans are asking what has happened to the price decreases that were supposed to come when OPA went out. Our prices here are coming down. We are buying for less. Can you get something together to show that prices are decreasing all over the country, and then tell the OPA people that it took them a year and a half trying to get production started under their ceilings with no luck; but with OPA out, production started overnight, and it will not take a year and a half to get materials on jobs at reasonable prices.—GEORGE FORKASH, Des Moines, Ia.

Truman on prices

To the Editor: What is Mr. Truman trying to do, drive the country into a buyers’ strike and a recession or depression? After he told labor to go out and get 25 per cent more wages that they could get without prices going up, I thought he just wanted bigger income taxes to help pay off the debt. Now, he says prices are too high, and tells people not to buy until prices get lower. If everybody does what he says, there will be layoffs, and less earnings, and that means less taxes on incomes. So, maybe I was wrong when I thought he wanted more tax money. Maybe he wants less of everything so he can campaign to save the country in ’48.—L. KNOURLIK, Baltimore, Md.

Stolarz in Helvetia

To the Editor: I’ll bet you’re really wondering who wrote you this letter—but it’s from a fellow representing Dewalt saws on a European trip that will take him through several countries here. Housing is no longer to be considered an American problem exclusively—we are international whether we like it or not. These people are looking to us for assistance not only materially but they need the “know how” that is right now an exclusive American heritage. Opportunities exist all over the world and, as I see it, our boys in America may look to the future with confidence because they can apply their learning and experience to the problems of the nations whose age is much greater than ours and who are trying to imitate what we are doing.

Our technical papers are well read here—anything new that comes out catches their fancy. However, pictures and letters are just the start and not the final stages of work in this international market. I find American Builder here.—JOHN STOLARZ, London, England.

About special permits

To the Editor: Now, you can get a special permit to build a house with a floor area of 2,000 square feet, providing certain conditions are met. Creedon should knock the whole crazy regulation out, and let local people make up their minds about what to build.—HENRY HANDE, Chicago, Ill.

Agrees with us

To the Editor: I appreciate the opportunity to add my endorsement to your editorial “Industry Housing Program.” I just trust that it will have such circulation that it will arouse more and more people to action.—J. L. BASWELL, Exec. Vice-Pres., Birmingham Assn. of Home Builders.

Advice to Congress

(A letter to Congressmen Geo. G. Sadowski from Geo. W. Miller of Detroit, Mich.)

Now that we have won a victory and have halted the trend to national destruction in America, it seems timely to consider the dangers and do everything possible to formulate sound policies based upon true American principles. The real purpose of the Republican party, as I see it, is not to attempt to outdo the New Dealers in proposing crazy schemes for socialization but, instead, to return absolutely and completely to the tested and proven principles of Americanism which have given us the finest civilization yet produced.

This is not conservatism—this is common sense. You don’t throw away the Bible because it is old. You don’t outlaw honesty because it has been seen use. There is no virtue in newness itself, only if it is in accordance with sound principles, truth and honesty.

I am dreadfully afraid that the Republican leaders will compromise on principle and will chart a half-way course in order to appeal to votes. If they do, they will lose votes. The majority of the people have become fully fed up on compromises and with impractical schemes of the ignorant and vicious who have misled this country. Every true American loves his country devotedly and stands willing to make whatever sacrifice is necessary to regain the ground lost during the past fifteen years.—GEORGE W. MILLER, President, Miller Homes, Inc., Detroit, Mich.

Brazil builder speaks

To the Editor: I would state that in my capacity of one of the most recent subscribers to the American Builder, it is my pleasant duty to advise you I received the first number you mailed me, namely the issue of January last.

After having looked it through, I will say that the impression I have derived is that I was right in my selection of the American Builder for the reason that this magazine is just what I expected it to be—of great usefulness to all people who, like myself, like to enjoy themselves in building houses.

I am a technical sergeant in the Brazilian Air Force, always keeping in touch, however, with civilian life, in connection with building affairs. Therefore, it may interest you to know that I have designed and built a number of one and two story houses. One of the objects of this letter is to ask you for permission to make use of some of the suggestions taken from the American Builder, which I would incorporate in the drawing of my future construction plans. I could also send you photographs of homes which have already been built, and which might be of interest to American builders. Being able to speak and write English to some extent, I could write you in that language should you prefer it.

Please accept my thanks, and you can rest assured that the American Builder has acquired one more friend in Brazil.—BENEDITCO ALVIS SILVA, Rio de Janeiro.

Bouquet

To the Editor: At the same time that I am renewing my subscription for American Builder for another five years, I feel that it would be fitting to let you know that I am very well pleased with your paper, and that I get a great deal of valuable information in its columns. I don’t see how any builder can get along without it.—JOHN T. SVAREN, Hardin, Mont.
For Present Strength and Future Expansion Needs

The Allied Electric Supply Company in Pittsburgh, Pa., needed a new building in a hurry — needed a big floor area to meet present business requirements and also had to plan for future upward expansion of the structure.

Truscon Open Truss Steel Joists and Truscon Open Truss Nailer Joists were designed into the building to assure the rigid, fire-resistant, economical and light weight construction required. The Open Truss Steel Joists were used for the first floor, and the Nailer Joists were used for roof construction. The front bay of the Allied Electric Supply Company structure is designed for a future second floor, and the Truscon Steel Joists used assure this expansion without alterations.

Advantages of the Truscon "O-T" types of steel joists are many. Fundamentally, the Truscon "O-T" Open Truss Steel Joist is a Warren truss having top and bottom chords of wide tee-shaped members and a plain round continuous web member. The bottom chord is continuous from end to end of joist and bent up at the ends to form the bearings. Steel joists are fabricated by means of electric machine welding under pressure, making positive connections at all joints.

Other features include fire-and-vermin-resistance, sound resistance, ease of installing pipes and conduit within the floor depth, and several more important advantages. A specialized feature of the Nailer Joist is the wood nailing strip securely attached to the top chord.

Write for free illustrated catalog giving complete information on Truscon Open Truss Steel Joists and Nailer Joists.

For Smart Styling

There are scores of smart room designs possible with the Truscon Series 138 Double Hung Steel Window. The wide range of window openings in single, twin, triple and panoramic combinations inspires unusual window treatments, resulting in rooms and entire structures of appealing architectural beauty.

Several improvements are now embodied in the Series 138 Window, making it better, heavier, stronger than ever before. Write for free illustrated catalog showing complete range of types and sizes.

What's Your Door Problem?

There's a range of Truscon Steel Doors to meet every type or size needed in any type of structure, from 2' 7/8" industrial swing type for residences, garages, manufacturing buildings, etc., to great mechanically operated doors for airplane hangars with openings of hundreds of feet in width. The types include swing and slide industrial doors, two-section vertical lift doors, two-section turnover doors, accordion doors, crane and canopy doors, pier doors and hangar doors. Write for details.

New Literature

A complete reprint of the 72-page insert in SWEET'S, covering all types and sizes of Truscon Steel Windows, with their installation details, is available on request.

The Truscon Planning Board says, "Normal delivery on many of our Steel Building Products is now possible. In fact, on all material for which raw material is readily available, a normal rate of production and delivery is currently in effect." However, since production and delivery schedules change from week to week, we suggest you contact the nearest Truscon sales office for the latest information.
There's a solid idea back of every plan in Better Homes & Gardens — here are just two, both appearing in June, that solve concrete problems:

It Rambles Where You Want It — a house to take advantage of plenty of space and beautiful trees. It's elastic — living areas can be shifted to fit the space you're building on.

A Home Can Welcome Children — no taboos here — the house was built for the whole family of three youngsters plus parents, to live in and enjoy.

It's idea-plans like this, practical workable material that really helps you out with something that works, that make Better Homes & Gardens indispensable to builders — and to their clients.
PARAFLEX is a non-metallic sheathed cable. That's elementary. But to get the real facts about PARAFLEX let's break it down into its components:

<table>
<thead>
<tr>
<th>NON-METALLIC SHEATHED CABLE</th>
<th>PARAFLEX</th>
</tr>
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<tbody>
<tr>
<td>1 OUTER BRAID</td>
<td>Plus Paranite developed moisture resisting, flame retarding saturant.</td>
</tr>
<tr>
<td>2 RIP CORD</td>
<td>Plus its careful selection for size to properly fill interstices between conductors...and for adequate strength to shear the outer sheath.</td>
</tr>
<tr>
<td>3 PAPER WRAPPER</td>
<td>Plus careful selection of the quality of the paper, which is scientifically treated to resist moisture...wrapped at a carefully controlled tension.</td>
</tr>
<tr>
<td>4 CONDUCTOR BRAID</td>
<td>Plus the correct tension at all times, insuring adherence between insulation and braid.</td>
</tr>
<tr>
<td>5 RUBBER INSULATION</td>
<td>Plus continuous laboratory tests of the compound.</td>
</tr>
<tr>
<td>6 COPPER CONDUCTORS</td>
<td>Plus constant analysis of the quality of the copper...constant check on gauge.</td>
</tr>
</tbody>
</table>

IT LAYS FLAT...WON'T SQUIRM OR TWIST...IT'S CLEAN TO HANDLE...IT'S/plainly marked...IT'S/PARAFLEX!
CAN YOU AFFORD TO PLAY OSTRICH?

Let's face the facts. The houses you build today can haunt you in the future—or they can stand as monuments to your foresight and good judgment.

One way to be sure of a future reputation as good as you enjoy today is to wire your houses for Electric Ranges! Surveys among American women can help you look ahead—because survey after survey shows that women want, and intend to have, Electric Ranges in their homes today and tomorrow.

To do the job right requires only: 3-wire service from point of cut-in to the distribution panel; a minimum of two No. 6 wires and one No. 8 wire; a 60-amp. switch with overload protection and a 3-wire circuit from the distribution panel to the range outlet in the kitchen. Make this your minimum wiring specification.

TO KEEP THEM MODERN...

wire your houses FOR ELECTRIC RANGES
The slow down in starts of permanent dwelling units is not alarming as yet, but is disappointing in so far as it had been hoped that the number of starts would exceed last year's total. First quarter starts of permanent dwellings totaled 136,700, a decrease of 2 per cent as compared with last year. Completions of permanent dwelling units in the first quarter totaled 176,200, an increase of 187 per cent. April 1947 starts are estimated at 63,000 dwelling units, as compared with 66,100 last year. An increasing percentage of permits is being issued for rental units. The January percentage of rental units was only 9 per cent, February's percentage was 17.2 per cent, and in March the percentage jumped to 21.5 per cent.

Even though some materials are already in relatively easy supply and still others soon may be, construction cannot proceed efficiently until the supply of all needed materials is in balance. Factors exerting an influence on the tight supply outlook are (1) The large number of houses started in 1946 which remain to be completed in 1947, and which particularly affect completion items such as plumbing and heating equipment, (2) the generally high level of other construction activity together with the long deferred demand for modernization, repair, and replacement and, (3) uneven distribution, aggravated by transportation difficulties, as well as the geographical shift in demand.

According to the Housing Exponent four raw materials for the production of essential housing items are still critically short. These are steel, pig iron, phenolic molding compounds and resins for electrical wiring devices, and shop grade lumber for millwork. Brick and structural clay products are now in relatively easy supply in most areas. This is also true of lumber in general, although a shortage of specific types of lumber is expected to persist, and the supply of millwork and hardwood flooring will probably be far short of demand throughout most of 1947.

According to the Bureau of Labor Statistics, the wholesale building-materials price index for the week ended March 15 stood at an all-time record high of 173.3 (1926 equals 100). This was 25 per cent higher than on November 9, when prices were decontrolled. For the week ended March 15, there was virtually no change in the price level—the first time this has occurred since V-J Day. This is the first indication of a leveling off, but is too early to draw any firm conclusions.

From all indications construction-labor requirements at their peak in 1947 should substantially exceed the 1946 peak, when 1,800,000 workers were employed on new on-site construction. In the building-materials industries employment reported by the BLS rose during January to a level almost 25 per cent above the same month in 1946. Many of the industries were working longer hours, and work stoppages have been at a minimum. These factors have been of considerable importance in increasing the output of building materials.

Electric Water Heaters are in demand because they are: (1) Safe (flameless, fumeless); (2) Clean (sootless, smokeless); (3) Adaptable (short hot water lines; no flue or vent); (4) Trouble-Free (as electric light); (5) Economical (plenty of hot water all the time at low cost).

That's why it really is "good business" to install a modern Electric Water Heater in every house you build!

*1944 NEMA survey revealed 3 times as many women preferring Electric Water Heaters as owned them at that time!

Electric Water Heater Section
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 E. 44th Street, New York 17, N. Y.

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A HOUSE WIRED FOR AN ELECTRIC RANGE IS...

ALREADY WIRED FOR AN ELECTRIC WATER HEATER!
A NEW, STILL BETTER GENERATION

The Complete Line of NATIONAL HEAT EXTRACTORS

for coal, oil or gas firing

"100" SERIES
Smart and compact for small home installation in kitchen, basement or utility room.

"200" SERIES
Big boiler performance for homes of medium size and some commercial installations.

MORE HEAT FROM EVERY FUEL DOLLAR!

That is the aim of National's design and research engineers—and their success is reflected in this new line of famous HEAT EXTRACTORS. A new, still better generation of a distinguished family—the result of more than seven years of engineering design and research.
OF A DISTINGUISHED FAMILY...

✓ "HEAT EXTRACTOR" is the modern term for heating boilers made by National which take full advantage of the "Heat Extractor Principle"—extended heating surface and multiple flue passes.

✓ SMART APPEARANCE marks the complete new 100, 200, 300 and 400 Series National HEAT EXTRACTORS. Jackets are in colorful flame-red (crinkle finish) contrasting with the jet black crinkle cast into base and platework.

✓ ECONOMICAL cost of operation is a feature of National HEAT EXTRACTORS. National engineers have designed each Series for fuel economy regardless of the type of firing or fuel recommended.

✓ CONVERTIBILITY from hand firing to fully automatic firing is a feature of the HEAT EXTRACTOR line. Conversion may be easily accomplished after installation.

"300" SERIES
For larger homes, small apartments and various commercial installations where more heat is needed.

"400" SERIES
The "400" and "500" are designed for very large installations where plenty of heat is required to serve many purposes. Characteristic HEAT EXTRACTOR construction.

YOU'LL WANT ALL THE FACTS!
Contact your nearest National Radiator Company Hearing Sales Branch, or write directly to The National Radiator Company, 221 Central Avenue, Johnstown, Pennsylvania for full NRC product information—without obligation.

The NATIONAL RADIATOR Company
JOHNSTOWN, PENNSYLVANIA
The sure way to add extra sales value to your homes is to follow the trend to B&G Hydro-Flo Heat! Hundreds of thousands of these forced hot water systems are in operation today, giving home comfort never known before.

The many advantages of B&G Hydro-Flo Heating are now being presented in a comprehensive advertising program to millions of the best home building prospects. Month after month, leading home service magazines are scheduled to broadcast the story of B&G Hydro-Flo Heating Systems.

This drive to open new markets is of genuine significance to the home building industry. It's bound to intensify the present widespread interest in forced hot water heat ... sure to strengthen the sales appeal of homes equipped with this modern comfort-economy heating system.

If you haven't full information, write today. A complete assortment of descriptive literature is available.
FAST DELIVERY, FAST APPLICATION

...FAST SELLING!

Immediate delivery and fast, easy application are the first advantages of Reynolds Lifetime Aluminum Clapboard and Shingles to the builder. But customer satisfaction is the plus that helps to clinch a contract or sell a unit already built.

And that satisfaction is greater with aluminum—whether for a house, barn, store or factory. Because aluminum is fire-proof, rust-proof, rot and termite-proof. Because it needs no painting, lasts indefinitely. Because its radiant heat reflection means winter fuel savings, summer coolness. Unlike other metals and wood, it throws off the sun-load—is proving that now in hot southern states.

Reynolds adds to these natural advantages of aluminum in two ways.

First, by the greatest variety of aluminum building products. Second, by extra thickness in popular 5-V Crimp, Corrugated and Weatherboard—53% thicker than the old 28-gauge galvanized, sturdier yet lighter.

These advantages are being sold by powerful national advertising. And your customers know they don't have to wait—you can be supplied now. See Sweets or write for literature... offices in principal cities... Reynolds Metals Company, Building Products Division, Louisville 1, Ky.
GOTTA PUT THREE HINGES ON QUICK

VISIBLE Mark of Good Construction

THE STANLEY WORKS
NEW BRITAIN, CONN.

STANLEY

REMEMBER · · · · · · · · THREE Hinges TO A Door
Include True Indoor Comfort in your "blueprint for better living"...with the Mueller Climatrol System

— and meet one of the main "mental specifications" of today's clients

Indoor comfort is one of the most important single factors in the owner's appreciation of a home. When you specify Mueller Climatrol, you're providing comfort that measures up to his high expectations — and assuring his lasting satisfaction.

True Indoor Comfort depends on the condition of the air in the home. Climatrol meets today's higher comfort standards because it is basically designed to condition and handle air, and it is easily adapted to future air-conditioning developments.

There is a size and type Climatrol that's right for every home, each specifically designed for efficient and economical operation with one of the three popular fuels — gas, oil, or coal. Your recommendation of Climatrol is backed by Mueller's 90-year performance record as a specialist in supplying indoor comfort equipment for the home.

Give your clients Climatrol — for the lasting satisfaction of True Indoor Comfort.

L. J. Mueller Furnace Co.
2016 W. Oklahoma Ave. Milwaukee 7, Wisconsin
unaccustomed as I am to public speaking...

We could climb on a soap box...tell you all about the Carey expansion program...how we've added production capacity, how we've doubled our research laboratories...how we are turning out more Carey building materials than ever before in our 74-year history.

BUT THAT wouldn't help much now. Nothing really would, would it, unless there were some way to get you now all the building materials you need today? Since that's impossible (and heaven knows you've heard enough of the whyfores that we can skip them here!) we're going to save most of our breath.

WE SAY "most of our breath" because we do want to use some to express this thought: We have confidence in the building industry...confidence that building contractors, and dealers, and manufacturers will insure their future by building soundly now. The best possible planning...the best possible materials...the best possible construction...that is today's firm foundation for the entire industry's future.

IF WE lay that foundation...none of us, in days to come, will have to climb on a soap box to explain away avoidable shortcomings. Today, for tomorrow, remember—

In Canada: The Philip Carey Co., Ltd.
1557 MacKay St., Montreal 1, P. Q.
The best possible foundation.

There's nothing like a Black & Decker 9" Quick-Saw for ripping hours off heavy construction sawing jobs! This powerful saw cuts to a maximum depth of 3 1/4"—ten times faster than hand sawing. And it's built to take the rough spots without slowing up or overheating.

With a Quick-Saw, you can rip, crosscut, angle, groove, dado—on studs, roof trusses, rafters, joists, stair stringers, all kinds of heavy structural lumber—even save time by stacking boards for sawing. What's more, the same saw can be equipped with blades and abrasive discs for cutting compo board, slate, tile, marble, asbestos, galvanized sheet, other thin or non-ferrous metals. Yet, with all its power and ruggedness, the Quick-Saw is perfectly balanced for easy handling.

Protect Your Hardwood Flooring Installations

with

BRADLEY Pre-Finished

9 POINT SUPERIORITY

1. Straight-line ripping.
3. No raised grain.
4. Best quality filler, rubbed in.
5. Deep penetrating finish seals wood pores.
6. Finish dries evenly in "controlled weather."
7. Final polishing by high-speed brushes.
8. Heavy-bodied wax, machine buffed.
9. Uniform color; rich, lustrous, lasting beauty.

A Superior HARDWOOD FLOOR...

A Substantial SAVING IN COST

Bradley Straight-line expedites laying. Strips slide rapidly into place...no crook to be forced in drawing up...no nailed-in tension.

Bradley Pre-finished floors are ready for use when laid, eliminating time and cost required for sanding and finishing on the job.

Specify Bradley Pre-finished, because it gives your customer better satisfaction, and you a better profit.

PRODUCED IN OAK, BEECH, PECAN

BRADLEY LUMBER COMPANY of Arkansas

W A R R E N ,  A R K A N S A S

Due to continuing production problems, it will be some time before your dealer can supply Bradley Pre-finished without delay.
A FEW OF THE MANY POPULAR
Salter Fixtures
AVAILABLE FOR YOUR PLUMBING REQUIREMENTS

-436—Automatic 2-Valve Bath and Shower Fixture with convenient lift lock type diverter for full instant pressure in tub or shower. Complete with head, arm and trip lever waste.

370—One-piece Masterpiece Lavatory Fixture with indexed lever handles and long life “EZE” close valve action. For lavatories with 4” center openings. A distinctive, compact chrome lavatory fixture.

598—A popular Deluxe Masterpiece Swing Spout sink fixture with attractive handles and removable chrome metal soap tray. Constructed with exclusive Salter “EZE” close valve design.

140-D—Single sink faucet with adjustable range bibb and 4 arm indexed handle. Salter “EZE” close valve construction.

116-C—Sink faucet with solid female range bibb and all metal lever handle. Salter “EZE” close valve construction.

For kitchen, bathroom or laundry, Salter Masterpiece Fixtures possess the desirable features of style, beauty and “EZE” close operation which make them most popular for modern plumbing installation. Plumbers and the building trade in general are now capitalizing on this acceptance since the production of Salter’s seven plants are supplying a steadily increasing volume of the fixtures so badly needed for today’s construction.

In addition to current staple Salter fixtures, during 1947 many new and improved items and features will be introduced to add even greater prestige and acceptance. The sparkling chrome swing spout sink fixture illustrated above is but a modest sample of the better things to come. Decide now to specify Salter Masterpiece Fixtures, your customers will appreciate their extra quality.

Salter MFG. CO.
20 Ninth Street, Marysville, Ohio

and division THE GLAUBER BRASS MFG. CO., Kinsman, Ohio
The MULTIPLEX Radial Arm Saw will outperform all others. The exclusive "Versatile Elbow" or center pivot track arm moves forward and backward along the rigid overarm on precision machined ball bearing slides. This track arm also rotates 360° to cut either left hand or the conventional right hand miter, up to 90° with the saw in the approximate center of the table. The swivel mounted motor is rotatable horizontally to any angle for bevel sawing, compound mitering, dadoing, cross cutting, etc. These two adjustments, quickly made by using the clear vision, accurately calibrated scales, permit an infinite number of saw positions, which make the MULTIPLEX a truly versatile yet extremely accurate machine. This greater versatility and adaptability results in speeding up of output and lowering of operation costs.

Optional for Models 30A and 40A -- A Radial Arm Drill Press, quickly attached, offers exceptional flexibility in drilling, routing, tenoning, planing, carving, etc.

Write for full information and name of nearest dealer.
Specify the screening that needs no paint

Get these 8 Advantages

- Permanent — can't rust
- No upkeep—never needs painting
- Cannot "bleed," stain exterior
- Easier installation — handles like cloth, cuts with scissors
- Safer installation — no jagged edges or sharp splinters
- Greater impact strength
- One-fifth the weight of metal
- Tinted — to blend with any color scheme

Firestone Velon

Tinted Screening

A major maintenance chore every spring is painting metal screens. It's laborious, time-consuming and, unless done with extreme skill and care, the paint will fill up and block parts of the mesh. The result is unattractive, cuts out light and air.

Velon screens require no upkeep, never need painting. Their color is solid through and through. Yet they cost no more than good metal screens.

And Velon gives you these other advantages! Can't corrode or rust... cannot "bleed" and stain building... easier installation: handles like cloth, cuts with scissors... safer installation: no jagged edges or sharp splinters... greater impact strength... one-fifth the weight of metal.

Specify Velon... now available in standard widths and gauges. For full-color booklet on Velon and free samples write Firestone, Akron.
Fresh new Beauty
ALREADY IN 100,000 POSTWAR BATHROOMS!

Everywhere—Gerity styling gets the enthusiastic O.K. of architects, builders, dealers, and the public! Gerity accessories smartly blend into modern bathrooms of any color scheme.


Sells on Sight
Now You Can Make Big Profits
Building Small Homes!

STRAN-STEEL
ARCH-RIB HOMES

Profitably Sold for Between $4,000 and $6,000 . . . Eligible
Structurally for F.H.A. Mortgage Insurance . . . Stran-Steel
Homes Meet Every Requirement of Your Greatest Market!

You can build Stran-Steel Homes quickly, easily—and now. Your Quonset dealer furnishes you
with Stran-Steel arch-rib framing and exterior steel sheathing. You’re free to use your own labor
and collateral materials and to introduce any design variations you like.

You can sell Stran-Steel Homes like hot cakes—and profitably. They’re really attractive, really
low in cost. And they’re modern, easy-to-main-
tain, livable, sturdy and safe.

Important construction advantages are gained by the use of nailable Stran-Steel framing. Erec-
tion time, close-in time and financing time are all shorter. Labor costs are lower, profits higher!

This revolutionary new housing development opens up a tremendous home market—a great
new money-making opportunity for you. See your local Quonset dealer today, or write for his name
and additional information.

MORE AIDS TO BUILDERS

Effectiveness and economy in the use of land are demonstrated in typical site plans for communities
of 25, 100 and 1,000 homes, developed by Seward H. Mott, noted land planning engineer. These plans
are available to builders.

GREAT LAKES STEEL CORPORATION

Stran-Steel Division Dept. 30 Panabecot Building Detroit 26, Michigan

UNIT OF NATIONAL STEEL CORPORATION
Architects, Builders and Plumbing Contractors prefer to specify and sell closet combinations that offer extra value to the home buyer and prospective customers. Eljer's line of combinations offers these features: attractive designs, engineered efficiency, quiet operation, integral china tank overflows, ground-in valve seats, glass-like Vitreous China that is easy to clean and keep clean.

For additional information, see your Eljer Distributor or write Eljer Co., General Offices, Ford City, Penna.

The integral china overflow and ground-in valve seat eliminate metal parts which are vulnerable to the corrosive action of water. Mechanically, the whole arrangement of these tanks is simplicity itself. Note the illustration at the left.
1948 Convention and Exposition Plans Being Formulated

Preliminary arrangements for the 1948 Convention and Exposition of the National Association of Home Builders are well under way, according to Chairman W. Hamilton Crawford, Baton Rouge, La.

"In the past two weeks definite plans have been shaped in anticipation of an outstanding event next February," Mr. Crawford said. "Paul Van Auken, our convention and exposition director, has again secured the Stevens Hotel, Chicago, for the Convention and Exposition headquarters. Dates selected are February 23 through 26, with the Exposition opening for inspection on Sunday, February 22.

"A revised floor plan is being laid out with the view to giving exhibitors a maximum of display space. Also we are negotiating for additional space in a nearby hotel to meet the expected demand."

According to present indications, display space will be at a premium despite the fact arrangements are being made for additional exhibit area.

President Carr on Town Meeting of the Air Broadcast

One of the largest listening audiences ever tuned in on a Town Meeting of the Air radio broadcast early last month heard NAHB President Edward R. Carr effectively answer the question: "How can we build more houses?" The program, originating in Baltimore, was broadcast over a 227-station network of the American Broadcasting Co.

Appearing on the program with Mr. Carr were John Taylor, president of American Houses, Inc.; Senator Glen H. Taylor, (Dem., Idaho); and Boris Shishkin, chairman A. F. of L. housing committee.

Home Builders Urge Labor to Adopt Baruch "Doctrine" of Full Work Week

Representatives of NAHB's Labor Committee, meeting in the Stevens Hotel, Chicago, Apr. 28-29, called on labor in the building trades to adopt the Bernard Baruch "Doctrine" of full productivity and a full work week as the primary step in stabilizing housing construction costs and assuring an adequate volume of new homes.

Rodney M. Lockwood of Detroit, NAHB 1st vice president and chairman of the Labor Committee, announced that the adoption of the Baruch proposal by American Federation of Labor leaders was urged by the home builders representing the national organization's affiliated local associations throughout the country. "There is nothing seriously wrong with the construction picture today which cannot be cured by a full week's work at a fair wage in the mines, forests, in factories producing building materials and on the building site," Mr. Lockwood stated.

"It is our hope that labor, recognizing the current high costs of construction, will return to the prewar level of daily output by plumbers, bricklayers, carpenters, plasterers and other building trades. During the years since the start of the war, the reduced volume of home construction and an inadequate supply of building materials resulted in labor in the building trades putting in place in some instances as little as half the materials as in the prewar period. This condition must be corrected if we are to produce housing within the price range of the great majority of veterans and other purchasers. Bricklayers, for example, who are laying only half the number of brick laid in prewar days should double this figure. Lathers and plasterers and other trades producing a similar low percentage of work must realize that labor in building trades is not only pricing housing out of the market, but is rapidly pricing construction workers out of jobs."

Rodney M. Lockwood

"It is urged that AF of L leaders both on the national level and in every community sit down with representatives of the employers groups in an effort to correct the current conditions which are detrimental to management, labor and the home buying public."

Home builders from as far north as Maine and as far west as Denver, who attended the session, described the drastically reduced production by workers in most building trades; discussed new wage demands for which workers are striking or prepared to strike; discussed ways and means of persuading labor to revise present policies which can only result in pricing housing out of the market and construction workers out of jobs; and urged the adoption of Bernard Baruch's "Doctrine."

In view of the generalizations regarding "featherbedding" and "make-work" practices of the past, the NAHB Labor Committee agreed that these conditions could be grouped under the general heading "Cost Inflationary Practices" and that after they...
Lansing Home Builders Build “Ideal Home”

More than 60,000 persons are estimated to have attended the Home Builders Exposition sponsored by the Lansing (Mich.) Home Builders Association, held May 31 through June 8, according to Howard C. Walsh, executive secretary. High spot of the show was the “Ideal Home” built by the association members and given away on the last day. A free coupon on the house was given away with each 50c admission ticket to the exposition.

Shown at the right, the Ideal Home was designed by Architect Clark R. Ackley of Lansing. Although having only one story it is planned to meet every requirement of modern, comfortable living. The interesting layout provides a reception hall, large living room with fireplace, dining room, dining nook, kitchen, two bedrooms, departmentalized bath, and laundry room. A full basement (not shown) accommodates the heating plant, has two large storage rooms and a “root” cellar, and also boasts of a 24 x 25 ft. recreation room with fireplace and storage closet.

The low-pitched roof, wide expanse of glass area in the living room and corner windows in the bedrooms, coupled with the massive chimney and brick wall extending into the yard accentuate the low, rambling exterior appearance.

The exposition responded to the wide demand from present and prospective home owners for a comprehensive display of the newest and best in building products, services and methods.

Dallas Home Builders Stage “Ed Carr Day” for NAHB President

Typical of the way Texans do things, nearly 500 home builders and representatives of allied industries attended meetings and social functions arranged by the Home Builders Association of Dallas recently on “Eddie Carr Day,” in honor of NAHB president’s visit to their city. Shown in the picture at the right, taken at the luncheon meeting, are: Standing (l. to r.) national directors Carl M. Brown, Ballard Burgher, E. P. Lambeth of Dallas, and W. P. “Bill” Atkinson, Oklahoma City. Seated (l. to r.) are George Bevel, president, HBA of Fort Worth; Rohr. S. Sheburne, Dallas president; President Carr; and W. W. Caruth, Jr., Dallas, national director.

Chicago Newspaper Awards “Pink Ribbon” to Public Housers

In a biting editorial entitled “Housing Culprit,” the independent Chicago Daily News recently lashed out at the nation’s professional public housers, following their national convention in Chicago. It read:

“For drooling hypocrisy and shameless distortion of facts, a pink ribbon should go to the National Public Housing Conference (headquarters Washington, D. C.) for its pronouncement on housing, adopted at its convention here last week.

“This congregation of government housers, their feet firmly planted in the public trough, winked at the stars and resolved as follows:

“The National Public Housing Conference hails the vigorous leadership which organized labor has displayed in the fight to provide every American family with a decent home at a cost or rent that family can afford . . .

“After this bouquet of kisses to their political allies, the subsidy experts turned to the industry side of the picture: ”

“The home building industry has been notorious for the extent to which it has continued its cumbersome, antiquated and monopolistic methods. Improvements in this important industry have long been overdue in order to achieve lower capital costs. Conventional builders must adopt improved techniques and methods such as the use of factory-made parts of structures and assembly-line fabrication.

“Nobody even remotely connected with building could have penned this fatuous misrepresentation by accident. What we have here is the insinuation that the selfish, blundering, antiquated system of private building ought to give way to noble, selfless bureaucracy, of inspired talents and inexhaustible financing by the taxpayer.

“Then would we have prefabricated housing parts, factory-glazed windows, assembly-line economies? We would still find the vigorous leadership of organized labor fighting tooth and claw for the right to drive every last nail on the site, with one helper to hold it and another to kick the glass out of the pre-glazed windows. Also with a vigorous steward standing by to see that nobody hammered or even kicked very fast.

The industry needs to be modernized, (Continued to page 37)
Cortright's Column

By Frank Cortright

Executive Vice-President, National Association of Home Builders of the United States

More than a year ago someone said that the home building industry was in the spotlight... and on the spot.

From where I sit here in Washington, it now looks to me as though we are now on the pan... and the heat is on.

We of the industry know that our potential capacity is far in excess of one million homes per year if government moved out of the picture and if we were permitted to build for the market needs as they exist in each locality.

With all the heartbreaking problems of today, our production of 50 to 60 thousand homes per month is not a bad record... but government planners and others are crying failure because we are not building in the "millions" as promised by the late Housing Expediter Wilson Wyatt.

We all know that construction costs are too high and we know the reasons why they are high, but our story is not being given to the veterans and the public as it should be. We also know that construction costs are not coming down unless there is a complete about-face by every segment of the industry... particularly labor.

New, just a word as to the cost of new houses. It should be remembered that the building of a house is made up of three main things. Thirty per cent of the dollar goes to pay for the lumber, plaster, brick, heating, plumbing and all the materials of which homes are constructed (and the major part of that also goes to labor). Nearly thirteen per cent goes to pay for the land and utilities, and only twelve per cent to the builder for overhead and profit.

Fortunately, the cost of housing has gone up less than the cost of many other things. According to the Bureau of Labor Statistics figures for March, 1947, the cost of food has advanced 89 per cent since 1939... clothing has advanced 84 per cent... weekly wages in manufacturing industries have advanced 108 per cent, but building costs have gone up only 79 per cent.

However, we can no longer duck the fact that because the public believes costs are coming down, our market is thinning out and labor in the building trades is getting its first taste of unemployment. It is to be hoped that a heavy dose of this medicine will not be necessary to cure labor in the building trades of the false idea that wages can continue to go up and productivity can continue to go down, without the patient dying.

Beyond that, manufacturers of building materials, through improved efficiency, increased volume, and prewar competition must bring down the cost of their merchandise. Now that the pipelines are beginning to fill, distributors of building materials certainly can, and undoubtedly will, work on a smaller margin of profit.

It should not take a surplus of labor and materials to convince subcontractors who are adding totally unreasonable profits to their costs to abandon this unfortunate practice.

Our attention has been called to some building jobs where the quality is poor and the prices are too high. These give the entire industry a black eye and do much to destroy our market and discourage purchasers.

So in addition to the fumbling and bungling of government in its almost unprecedented demand for new homes backed by a totally unprecedented purchasing power.

Let's face these responsibilities, put our respective houses in order where necessary, and work together as a team to produce the kind of homes our veterans deserve at a price consistent with the purchasing power of today's dollar.
Metropolitan New York Home Show Proves to Be Big Drawing Card

When the Metropolitan Home Show, sponsored by the Home Builders Council of New York, New Jersey and Connecticut in conjunction with Campbell-Fairbanks, closed its eight-day run in Grand Central Palace, New York City, on April 26, all previous attendance records had been shattered.

Leading the parade of more than one hundred models of houses on display was the full-scale ranch type house, selected by the builders themselves, and built on the floor of the Show. Designed by Rudolph A. Matern & Associates, of Jamaica, the floor model was completely furnished.

Because of the widespread interest in the Matern-designed house, the illustration of it which appeared in American Builder, March 1947, was enlarged and became the center of interest in the American Builder booth at the Show, shown at right.

Boston Modern Homes Show Host to Carr

"The biggest and most complete exhibition appealing to builders, home owners, and prospective home owners ever held in New England" was the frank appraisal of many of the tens of thousands who attended the Modern Homes Show held in Mechanics Building, Boston, during the second week in April, under the sponsorship of the Home Builders Association of Greater Boston, according to Charles R. Brunelle, executive secretary.

On the fourth day of the week-long show the Boston builders were hosts to a regional meeting of all New England NAHB affiliates. During the one-day conference NAHB President Edward R. Carr, American Legion National Commander Paul Griffith, State Board of Housing Chairman Lewis Weinstein and Albert S. Bigelow, chairman of the State Emergency Housing Commission, spoke at the meeting presided over by Boston builders President Angus M. MacNeil.

In the evening a banquet was held at Boston's Copley Plaza Hotel in honor of Mr. Carr.

New Orleans Builders "Roll Out the Barrel"

Proof that Mardi Gras time, celebrated once a year, is not enough for the members of the New Orleans Chapter of the National Association of Home Builders can be seen in the above picture, taken at its Quarterly Good Fellow Get-together Stag, conducted in this instance at Mamma Lou's restaurant where good fellowship and friendship prevailed.

Using vast quantities of shrimp, crab, crawfish and beer as "bait," Chapter President C. Earl Colomb takes these regular occasions to build his membership. Guests are non-member builders, building supply dealers, subcontractors, mortgage lenders and others allied to the building industry.

The technique, as reported by Executive Vice President A. R. "Doc" Lundquist, consists of luring the guests to famed Mamma Lou's restaurant, situated on the shores of Lake Pontchartrain. Free food and no speeches apparently does the rest—the meeting pictured here "netted" 15 new members.
WHAT A WORLD OF DIFFERENCE

the right finish makes...

In floors, too...

IT'S THE Finish THAT COUNTS!

A thorough scientific beauty treatment gives Bruce Finished Floors 8 advantages over ordinary floors finished on the job. Here they are, every one of them important: 1. Every strip is sanded to perfect smoothness on precision sanders. 2. Finishing starts immediately after sanding—no raised grain, moisture content is right. 3. Highest quality silex filler is thoroughly worked in. 4. The finish penetrates, seals the pores, beautifies the grain. 5. Infra-red heat welds finish into tough, even film. 6. High-speed brushes burnish finish, provide a hard, smooth surface. 7. A special extra-durable wax is applied evenly, polished to perfection. 8. The floor is ready for use when laid. For uniformly beautiful floors, and a substantial saving of time on the job, specify Bruce Finished Floors... it’s the finish that counts!

E. L. BRUCE CO., MEMPHIS, TENN.
World's Largest Maker of Hardwood Floors
The secret's in the swivel! Eubank patented cast aluminum support gives this improved cabinet board the important advantage of flexibility. Holds board firmly upright in cabinet, keeps it steady when in use. Eliminates sagging. Built to last, too. Not one has ever failed under normal use conditions.

In this utility room there's only one possible place for a modern cabinet-type ironing board — next to the door. The conventional cabinet board would be impractical; would block the entrance, could be used from only one side.

The Eubank Swivel-Type cabinet board is ideal. Swings easily toward no projecting window to get best light, allows door to be opened even when ironing is being done. Just one practical installation of this modern Swivel-Type cabinet board.

In this utility room there's only one possible place for a modern cabinet-type ironing board — next to the door. The conventional cabinet board would be impractical; would block the entrance, could be used from only one side.

Even The Smallest Home Can Have The Convenience of a SWIVEL-TYPE CABINET IRONING BOARD

Planning small homes — the kind today's market demands? Planning to modernize older, larger homes? Planning apartments, bungalow courts, duplexes? Then this Eubank Swivel-Type Cabinet Ironing Board will answer one of your biggest problems — the problem of getting modern conveniences into smaller, more compact space. The Eubank board — because of its patented cast-aluminum swivel support — can be installed and used where the conventional cabinet board would be utterly impractical. The installation illustrated above is just one of scores of examples. In your current construction — in your future planning — make full use of Eubank's many advantages. See your lumber dealer!

CHECK THESE FEATURES!
* Swings through wide arc; ideal where space is limited — in hall, kitchen, small utility room.
* Attractive cabinet without projection making full use of Eubank's advantages.
* Board stays put in upright position in cabinet.
* No projecting parts to tear fabric; firesafe iron storage with aluminum door ventilation.
* Patented cast aluminum support; strong, sturdy. Not one has ever failed in normal use.
* Available NOW for immediate delivery. Contact your nearest distributor.

DISTRIBUTORS: Arizona — Arizona Sash & Door Co., Phoenix; Southwestern Sash & Door Co., Phoenix & Tucson
Arkansas — Dyke Bros., Fort Smith, Little Rock & Texarkana California — L. H. Eubank & Son, Inglewood
Florida — Harbor Plywood Corp., Jacksonville, Miami & Tampa
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Idaho — W. P. Fuller & Co., Boise
Illinois — Harbor Plywood Corp., Chicago
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Kentucky — E. W. Camp Plywood Co., Inc., Louisville
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Maine — Harbor Sales Co., Inc., Portland
Massachusetts — Kimball Lumber Co., Watertown
Michigan — E. E. Anderson Lumber Co., Detroit
Minnesota — Fargo Lumber Co., Minneapolis
Mississippi — Woods Builders Supply Co., Jackson
Missouri — Dyke Bros., Joplin & Kansas City
Montana — W. P. Fuller & Co., Missoula
Nebraska — Omaha
New Jersey — Jersey Millwork Corp., Jersey City
New Mexico — Southwestern Sash & Door Co., Albuquerque; The Mexico Co., Albuquerque
New York — Alpert Woodworking Corp., Brooklyn
North Carolina — Dyke Bros., Winston-Salem
Ohio — E. W. Camp Plywood Co., Inc., Cincinnati
Ohio — Wood Products Co., Columbus & Toledo
Oregon — W. P. Fuller & Co., Portland
Pennsylvania — J. R. Quigley Co., Cresco, Harrisburg, Lancaster & Philadelphia
Rhode Island — Wholesale Distributing Co., Providence
Sco — Cole Manufacturing Co., Memphis
South Carolina — Davidson Sash & Door Co., Augusta
South Dakota — Harbor Sales Co., Sioux Falls
Tennessee — W. P. Fuller & Co., Knoxville
Texas — Davidson Sash & Door Co., Austin; Houston Sash & Door Co., Houston; Southwestern Sash & Door Co., Harlingen; Texas Sash & Door Co., Fort Worth;
Washington — Washington
West Virginia — Davis Plywood Corp., Charleston
Wisconsin — Dyke Bros., Milwaukee
Wyoming — W. P. Fuller & Co., Cheyenne

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Ohio — E. W. Camp Plywood Co., Inc., Cincinnati
Oklahoma — Davis Plywood Corp., Oklahoma City
Oregon — W. P. Fuller & Co., Portland
Pennsylvania — J. R. Quigley Co., Cresco, Harrisburg, Lancaster & Philadelphia
Rhode Island — Wholesale Distributing Co., Providence
South Carolina — Cole Manufacturing Co., Memphis
Texas — Davidson Sash & Door Co., Austin; Houston Sash & Door Co., Houston; Southwestern Sash & Door Co., Harlingen; Texas Sash & Door Co., Fort Worth;
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Wyoming — W. P. Fuller & Co., Cheyenne

Available NOW for immediate delivery. Contact your nearest distributor.
New Bathroom Groups for those homes you are building

Fresh styling and new beauty to suit today's taste—new efficiency and compactness—the same high quality that has always characterized Crane Plumbing—that's the Crane line for 1947—designed to add sales appeal and better value to the homes you build.

The Neuday Bathroom Group shown above is only one of the many Crane Groups now in actual production. The range is sufficient to meet every taste as well as every building budget, and all have the new Dial-eze faucets that open and close at a finger's touch, reducing wear and consequent dripping.

In the kitchen, too, Crane offers a wide range of equipment. The newly developed line of heating assures builders of getting boilers and furnaces for coal or coke, oil or gas, plus everything necessary for any type of home heating.

At your Crane Branch you will find illustrations of the complete Crane line of plumbing fixtures installed in actual room settings and photographed in color. They will be glad to discuss your requirements and give you approximate delivery dates on the equipment you need.

Third of a Series: The Neuday Bathroom

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO 5

VALVES * FITTINGS * PIPE PLUMBING AND HEATING

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS
The house that leads a secret double life!

"I wanted to keep our big old house even after the children married. But Fred wanted to sell it. "It's too big," he said, "and taxes are too high." Then an architect friend told us how we could remodel it into two homes—one to rent and one for us. Now we're both happy, and you'd never suspect it's a double house!"

Sounds like a large order! But not when you enlist the help of two men: your architect and your local Gold Bond building material dealer. Whatever job you have in mind, your architect can help you plan it and your dealer can supply the Gold Bond building products needed.

Just wait till you see what scientific research has done for building products! For example, take fireproof Gold Bond Gypsum Sheathing. Comes in big 2' x 8' panels that go under any kind of outside finish. Gives you greater structural strength and all-weather protection because there are fewer joints. Adds permanent fire protection to the wood framing. And it costs less than old style sheathing!

For perfect year-round weather conditioning, National Gypsum offers another outstanding product... fireproof Gold Bond Rock Wool Insulation. Keeps summer heat out, furnace heat in and cuts fuel bills as much as 40%. Incidentally, it can be "blown" right into the walls and top ceiling of your present home without muss or fuss.

For sturdy interiors of lasting beauty, use fireproof Gold Bond Gypsum Lath and Plaster. And for modern easy-to-live-with decoration, use the new Gold Bond-Stainless wall paint. Can be applied soon after plastering and it's dry in an hour.

All told, there are over 150 Gold Bond products... each one engineered to do a specific job better. Your local Gold Bond dealer keeps posted on everything that's new in building materials. He can offer you invaluable suggestions on any building or remodeling you may be planning. See him first!

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

Demand these six Gold Bond features in your new house.

Big, weatherproofed Gypsum Lath offers superior weather protection and structural strength. No joints to paint. Georgeous, built-in beauty. Adds fire protection. And, unlike old-style sheathing, it is fireproof.

Gold Bond Gypsum Sheathing. Big 2' x 8' panels that go under any kind of outside finish. Gives you greater structural strength and all-weather protection because there are fewer joints. Adds permanent fire protection to the wood framing. And it costs less than old style sheathing!


Hand made in a modern stucco plant, designed to meet the most rigid specifications. This modern, optimistic stucco is available in a range of colorful tints.
they eat!

But how well they eat depends on whether or not you specify a Gas range. For nothing — absolutely nothing — can touch the live Gas flame for lusty, crusty broiled meat flavor. As for baking... only a Gas range has an air-circulated oven. The one sure way to get evenly-browned cakes, rolls and feather-light biscuits!

they work!

But how hard the cook-of-the-family works is up to you! See that she has a new Gas range for cooking that not only is faster and more flexible... but is also cooler and cleaner. No long lingering top-burner heat! No clogging from spillovers!

they play!

But how often they play can be increased a hundred-fold by a completely automatic Gas range. This 20th century miracle has a clock control that turns the heat on at a specified time and temperature — cooks a delicious oven meal from soup to dessert — and turns itself off. Other automatic features in every Gas range built to "CP" standards include automatic lighting of top burners, oven, and broiler and an oven thermostat that holds any heat from 250° to 550°.

they pay!

But how much they pay for what they get is your responsibility. Remember! No other automatic range can compare with a new automatic Gas range in economy of initial purchase — or — in economy of operation.

they come back for more

... recommend your services to more people... when the appliances you specify give them more! This holds true not only in Gas for cooking but in Gas for all the other big jobs in the modern home... refrigeration, water-heating, house heating and air-conditioning. For Gas is the dependable fuel no matter what it is used for. And Gas appliances are the most trouble-free to own and install of all modern automatic equipment.

See your local Gas Company for the latest technical information on modern Gas appliances and installations.

GAS

THE WONDER FLAME THAT COOLS AS WELL AS HEATS

AMERICAN GAS ASSOCIATION

Build for tomorrow with what they want today
Practical builders find this book very helpful when making alterations in a set of stock plans or drawing up a complete set of plans for a house or small building. The details shown in clear line drawings and in photographs conform with standardizations recommended by housing authorities wherever such have been established.

The chapters are in construction sequence and as such serve as a guide in detailing each step in the construction of a dwelling, from foundation to finish. Just enough description is included to explain general principles.

Many of the new materials such as plywood are shown in application. Various systems of pre-fabrication are shown in addition to traditional methods of house carpentry. Chapters on painting, wiring, insulation and sound proofing, and on heating and air conditioning show modern methods. Graphic and factual information from widely scattered sources is brought together and cross-indexed for quick reference.

Look over the table of contents below and see the wide scope of its information. Then send for a copy on our money back guarantee and give it a five days working tryout.

Contents

Floor Plans; Sets of House Plans—Excavations; Foundations Forms; Foundations—Sills; Girders; Joists; Sub-Flooring—Outside Walls—Inside Walls; Wall Sheathing; Ceiling Joists—Roof Construction; Bay Construction; Roofing—Cornices and Porches—Exterior Wall Construction—Interior Wall Coverings; Interior Trim—Stair Construction—Windows—Doors—Hardware—Closets; Shelves; Built-in Equipment—Finished Flooring—Chimneys and Fireplaces—Scaffolds—Garages—Wiring for Modern Homes—Insulation; Sound Proofing—Gates; Garden Furniture—Camps; Cabins; Cottages—Farm Buildings—Painting and Finishing—Modern Homes—Modern Building Materials—Heating; Air Conditioning—Pre-Fabrication.
As contractors and builders swing into the production of housing for rent, they're building more and more of it with modular brick and tile. One reason, of course, is—brick and tile are available in real quantity. But there are other reasons! Rental housing represents an investment. Those who invest their money are cost conscious and income conscious. Builders and contractors know that building with modular brick and tile is the best way to protect their clients' investment—their own reputation. Brick exteriors, and structural clay tile interiors, cut down on repair and maintenance charges that add to the original investment, eat into income and decrease profits. Elimination of these charges is very important to rental housing.

And looking to the future—the good looks, structural strength and great fire-safety give rental housing of brick and tile high rentability for years to come.

Let us help you with your building problems. Send for our FREE booklets: "Announcing Modular Sizes of Brick and Tile," and "Your Home of Burned Clay Masonry." Our new plans book—"Your New Home in Brick"—showing 30 small brick homes complete with designs is now available for 50 cents. Address Structural Clay Products Institute, Dept. AB-6, 1756 K Street, N.W., Washington 6, D. C.
"Profits up...workers' morale and

MODERN INSIDE as well as out, the attractive jewelry store of Mr. Henry Webel at Ridgewood, Long Island, offers customers the year-round comfort of Servel All-Year Gas Air Conditioning.

CUSTOMERS find this attractive shop a welcome refuge from summer heat and winter cold, thanks to the comfortable indoor climate provided through every season by Servel All-Year Gas Air Conditioning.
efficiency higher

...since installing the Servel

All-Year Gas Air Conditioner!

That's what typical commercial users say about this new Servel equipment

Yes, you can specify Servel All-Year Gas Air Conditioning for your customers' stores, offices, laboratories and other commercial buildings with complete confidence that this equipment will more than justify its cost.

In fact, typical comments received from commercial and professional users the country over indicate you will be safe in telling your customers that the Servel All-Year Gas Air Conditioner can actually pay for itself in a very few years! Everywhere users report increased summer profits, greater store traffic, less sick time lost from work, higher employee morale and efficiency—all advantages that pay off in dollars and cents.

A typical experience with Servel All-Year Gas Air Conditioning is that of Mr. Henry Webel, of 57-36 Myrtle Avenue, Ridgewood, Long Island. He says:

"I've been more than satisfied with the clean, comfortable indoor climate the Servel Conditioner has provided the year round in my jewelry store. The Servel unit has proved efficient, economical, and simple to operate. Best of all, it has increased my summer business—and hence my profits—to the point where the Conditioner will have actually paid for itself in a very few years!"

Hundreds of similarly enthusiastic letters are in our files from commercial as well as residential users from coast to coast.

There's a simple reason for the striking popularity of Servel All-Year Gas Air Conditioning in commercial installations. This unique equipment provides all the functions of year-round air conditioning. And does it with a single unit! In summer, the Servel unit cools and dehumidifies the air. In winter, it heats the air and adds just the right amount of humidity for comfort. Year round, Servel circulates filter-cleaned air, without drafts, and always at a comfortable temperature and humidity.

If you'd like more information on how you can bring the year-round comfort—and the money-making benefits—of Servel All-Year Gas Air Conditioning to your commercial and professional customers, get in touch today with your local Gas Company. Or write direct to Servel, Inc., 1706 Morton Avenue, Evansville 20, Indiana.

TRIED . . . PROVED . . . SUCCESSFUL . . . From Boston to San Diego . . . From Bismarck to Miami . . . The Servel All-Year Gas Air Conditioner is operating in hundreds of installations from coast to coast. Some have been running for more than four years. The equipment is tried, tested . . . and approved by users everywhere.
Don't Peek Over His Shoulder

If you'd like to keep up-to-date on the multitude of uses for stainless steel you may have a copy also. For ElectroMet Review will bring this news to you in quickly readable form. And since the publication covers everything from motor boats to pots and pans, your special interest is bound to be in there, too. So if you wish us to add your name to the 23,000 other industrial executives, designers, and architects who receive ElectroMet Review free of charge each month, just drop us a note, to Department B-6, Room 308.

ELECTRO METALLURGICAL COMPANY
Unit of Union Carbide and Carbon Corporation
30 East 42nd Street New York 17, N. Y.

PRODUCERS OF ALLOYS THAT MAKE STEEL STAINLESS
OUTSIDE

Used as siding for this boathouse, Apac must—and will—provide complete protection against the elements.

INSIDE

You’ll find Apac ideal for interior construction: attic and basement linings, wainscoting, partitions.

Build better, faster, more economically

with "APAC"

1. Cut it by scoring and snapping off

2. Fasten it with nails or screws

3. Goes up 32 sq. ft. at a time

We think you’ll agree that resistance to fire...as well as to rodents, termites, moisture and severe weather conditions are important considerations on any construction job.

There’s one sure way to provide this all-round protection—use K&M’s "Century" Apac asbestos-cement sheets. Apac is a tough, dense structural material that’s as durable as rock, grows tougher with age. You’ll find it low in cost, easy to work, convenient to handle. Supplied 4’ x 8’ in thicknesses of 3/8”, 3/4”, 5/8”, Apac gives ample strength with minimum framing. Pleasing light gray color makes an attractive finish that will never need painting.

Get full information about "Century" Apac from your K&M Dealer, or write direct to us. We’ll give your inquiry prompt attention.

Original manufacturers of asbestos-cement roofing shingles in this country.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
Up-to-date merchants are anxious to modernize their stores with glass because glass adds glamour, beauty and sales appeal. "Pittsburgh" offers a complete line of glass products and store front metal to help them ... and you. Consistent advertising and unsurpassed quality have made Pittsburgh Glass and Pittco Store Front Metal well known as leaders in modernization work ... they fit every individual or group modernization need.

There are 2 kinds of Pittco Store Front Metal ... both attractively styled and richly finished for modern, distinctive store front applications. Pittco De Luxe has a rugged strength, sharp profiles, and a wide variety of members for installations where quality is of prime importance. Pittco Premier features graceful lines and a quick, easy method of installation. It is lighter in weight and more moderately priced than its distinguished companion line.

Modern homemakers like picture windows. They add the charm and beauty of an attractive view to the comfort of indoor living. Twindow, "Pittsburgh's" new window, with built-in insulation, is the perfect picture window. Twindow is prefabricated of two or more panes of glass with a hermetically sealed air space between, and a stainless steel protecting frame. With Twindow, heat losses are reduced, insulating efficiency is increased, downdrafts near windows are minimized, and fogging is eliminated except under extremely severe conditions. It installs as easily as a single pane of glass.
Your customers know there’s nothing like a mirror to dress up a room effectively and economically. It makes a room seem larger . . . catches and repeats all its color and movement. “Spruce up” mirrors for entrance hall and kitchen are conveniences which make a hit with the ladies. And every modern home needs several full-length door mirrors. Suggestions like these will enhance your reputation for modern ideas . . . and help your business, too.

A shower enclosure of PC Glass Blocks may be the modern answer to the needs of some customers. translucent but not transparent, it admits plenty of light and is easy to keep bright and clean. A course or two of PC Glass Blocks can help to modernize an entrance, or admit light to a dark stairwell while preserving privacy and excluding dust and noise. Installations like these add sales appeal to every home.

A bright, cheerful kitchen is the delight of every housewife. Carrara Structural Glass is perfect for its walls or wainscot . . . it’s colorful, easy to keep clean, and will not absorb cooking odors. Carrara is also ideal for bathroom walls . . . as splash panels behind stove or lavatory . . . or as a fireplace surround. Available in 10 attractive colors.

We will gladly send you free our special “Builders Kit” which includes illustrated literature showing how you can use glass effectively on all types of jobs in which you are interested.

*Build it better with Pittsburgh Glass*

Pittsburgh Plate Glass Company
2179-7 Grant Building, Pittsburgh, Pa.

Please send me without obligation your “Builders Kit” of illustrated literature.

Name: ____________________________

Address: ___________________________

City: ____________________________ State: _____________
NOW AVAILABLE... in Standard and CUSTOM-BUILT Sizes

IMMEDIATE DELIVERY! NO QUANTITY TOO LARGE

The famous Tracy SINK

If these Standard sizes do not meet your requirements... Tracy can deliver custom-built Sink tops to match your specifications

For 15 years FIRST choice For fine homes and institutions Here's Why!

AGELESS BEAUTY—A Tracy sink grows more beautiful the longer it's used.
MORE SANITARY—No surface finish to crack or wear off—no hiding places for food deposits, dirt, or odors.
EASIER TO CLEAN—A simple wiping leaves it gleaming—forever free of rust, tarnish, or surface disfigurement.
HIGHEST ECONOMY—Impervious to vegetable acids, hot pans, or hard usage. Adds many times its value to the cost of a home.
DECORATES ANY KITCHEN—Rich, shimmering stainless steel blends with any color scheme, modernizes every kitchen.

WRITE FOR FULL COLOR SPECIFICATION SHEET

Tracy Manufacturing Company
3125 Preble Avenue, Pittsburgh 12, Pa.
Please send me ___________ copies of your full color specification sheet showing exact dimensions of the various standard models of Tracy Stainless Steel sink tops.

Name
Company
Street
City ___________ County ___________ State

TRACY MANUFACTURING COMPANY
PITTSBURGH 12, PA.

WORLD'S LARGEST MANUFACTURERS OF STAINLESS STEEL KITCHEN SINKS
PRE-FIT
Douglas fir stock doors are pre-fit to exact size. No on-the-job fitting or cutting is necessary. Doors are scuff-stripped for protection in shipping.

PRE-SEALED
Douglas fir stock doors are pre-sealed—a feature which improves dimensional stability, reduces moisture absorption, and eliminates the need for one prime coat.

FACTR-FIT
Douglas fir doors may also be ordered completely machined—not only pre-fit, but gained for hinges and mortised for locks as well. All work is done at the factory by modern, high-speed precision tools.

GRADE-MARKED, TOO!
Douglas fir stock doors are plainly grade-marked for ease in identification, ordering and specifying. You know the grade you get—you get the grade you want.

ARCHITECTS AND BUILDERS agree that durable, attractive, precision-made Douglas fir stock doors offer real advantages. Pre-fit and pre-sealed Douglas fir stock doors save time and money on the job. Factri-fit features offer still greater savings—and assure a trim, clean-cut installation every time. Machining is done at the factory—and that means far less danger of on-the-job marring or “butchering” due to unskilled help or improper tools. Savings in time and labor more than offset the slight additional cost of pre-machining.

More Doors Soon!
It is a fact that the supply of Douglas fir doors will continue critical for a number of months. Two factors make this true: the present overwhelming demand—and the shortage of shop lumber. But production is stepping up. Warehouse and dealer stocks should soon reflect this increased production. We suggest that you keep in touch with your regular source of supply.

FIR DOOR INSTITUTE — Tacoma 2, Washington
The National Association of Fir Door Manufacturers
In construction products CECO ENGINEERING
How many times have you said to yourself, "Metal windows are all right in the summertime, but what about winter?" Ceco considered that question and got busy. What they did and what they learned became history when Ceco announced All-Aluminum Storm Windows for metal casements. Now, for the first time, you can get a storm window that really allows you to use the controlled ventilation principle built into metal casements. Metal screens have always offered perfect ventilation, so summer presented no problem. Now the winter problem is solved. Here new beauty and utility are combined with ease of installation. Here, truly, is the first trouble-free, beautiful storm window for steel casements.

WHY SPECIFY CECO STORM WINDOWS AND SCREENS?

1. Ceco's special-design storm panel covers the entire window opening—the condensation problem is solved, yet ventilation when needed is also provided.
2. Rubber weathering seal around the perimeter of the window sash provides the tightest possible seal.
3. Ceco storm windows are easy to put in and take out from the inside.
4. They are neat and trim—slender frames mean more light gets in.
5. Ceco storm windows fit perfectly—which means no on-the-job planing is necessary.
6. Maintenance cost is eliminated—no painting or re-painting required.
7. Ceco screens cost no more than ordinary screens—factory finish—no on-the-job trimming or fitting.
8. Standard screens for every purpose will not warp, shrink, swell, twist or rot.

CECO EXPANDS AGAIN...

To improve service in the Eastern market, Ceco provides additional manufacturing and warehousing facilities through its newly opened New York District plant and office at Hillside, N. J.

CECO STEEL PRODUCTS CORPORATION
GENERAL OFFICES: 5701 W. 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

CECO STEEL makes the big difference

Partial list of other Ceco Products:
COMBINATION ALL-ALUMINUM STORM-PANAL-AND-SCREEN FOR WOOD WINDOWS • MEYER STEELFORMS • REINFORCING STEEL • STEEL JOISTS • ROOF DECK • METAL LATH AND ACCESSORIES HIGHWAY PRODUCTS • CORRUGATED ROOFING
First a Timken Home

Then a Timken Street

Then a Timken Town

It's happening every day... all over the country. Timken quality pays off!

The Royal Family of Oil Heating

Timken Silent Automatic Oil Heat

TIMKEN SILENT AUTOMATIC DIVISION
The Timken-Rexall Axle Company
JACKSON, MICHIGAN
When a Couple of Inches Mean a Lot...

YOU need doors and plywood. Our ability to meet your needs largely hangs on a couple of inches in the width of the doors and plywood you specify.

The production of stock sizes means multiplied production—more doors and plywood for more customers. On the other hand, odd-size doors and plywood mean manpower wasted—production slowed—orders unfilled.

So plan for stock sizes only and we’ll plan to meet your needs.

Roddiscraft WAREHOUSES:

Cambridge 39, Mass., 229 Vassar St.
Chicago 4, Ill., 1440 W. Cermak Rd.
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Dallas 16, Texas, 2800 Medill St.
Detroit, Mich., 1183 E. Jefferson Ave.

Plan for Roddiscraft doors and plywood in stock sizes—

Roddiscraft warehouse service is based on production and stocking of doors and plywood in stock sizes. Only by limiting ourselves to stock sizes can we give you the additional value of “on hand” service at convenient locations.

Roddiscraft Lumber & Veneer Co.

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Why is Duraplastic Cement being specified more and more

By Architects, engineers, contractors, dealers, ready-mix operators and concrete products makers

For Paving, sidewalks, foundations, floors and walls—plaster, stucco, pump-crete, gunite and slip-form work—concrete block, pipe, drain-tile and other products

ATLAS DURAPLASTIC
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MAKES BETTER CONCRETE AT NO EXTRA COST

Here are 5 Quick Answers:

1. Complies with ASTM and Federal Specifications. Provides the proper amount of entrained air needed for satisfactory field performance.

2. No extra cost. Sells at the same price as regular cement. Calls for no additional materials.


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Send for further information. Write Universal Atlas Cement Company, (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

Offices:
Albany, Birmingham, Boston, Chicago, Cleveland, Dayton, Des Moines, Duluth, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel—Sunday Evenings—ABC Network
One of Nine Built in '38 and '39
... Featured Nationally in '47!

These Houses of Plywood have had no repair or maintenance,
... says Builder Burt Smith,

"THE PLYWOOD IS MORE THAN 'JUST SATISFACTORY'"

This attractive modern Portland, Oregon, home was featured this year by two national publications and termed by one "A House of Great Merit"... yet it was built not this year or last, but in 1939! One of a group of nine which utilized Douglas fir plywood for exterior walls and interior detail, it features an advanced design which keeps it a "display home," even after six years. The builder, Burt Smith of Oswego, Oregon, says: "The houses were built in 1938 and 1939 and the plywood is more than 'just satisfactory'. There is a definite labor saving in application. The insulation value is good. These houses have had no repair or maintenance, while other houses built by me the same year have had major repairs to exterior finishes."

Douglas Fir Plywood
LARGE, LIGHT, STRONG
Real Wood Panels

PLYWOOD'S MANY ADVANTAGES KEEP DEMANDS GREATER THAN PRESENT SUPPLIES

Douglas fir plywood production is greater now than in prewar years. Today's demand, however, is unprecedented — and raw material availability is the controlling factor in obtaining higher output. This uneven demand-supply ratio naturally means that plywood may not always be readily obtainable at any given time and place. Keep in touch with your regular source of supply as to price and delivery information. For technical data, write the Douglas Fir Plywood Association, Tacoma 2, Washington.
Insulux Glass Block add cheerfulness and privacy to this California dentist's office. An ideal selection for this purpose—Insulux requires no painting, is easy to keep clean, resists moisture and will not rot, rust, or corrode.

Light touch for commercial buildings

In this attractive reception room, as in thousands of other commercial applications, Insulux Glass Block was the logical answer to a difficult daylighting problem.

Insulux was selected because it is a building material capable of doing things other materials cannot do in the transmission of daylight to interior areas. When you have problems in light transmission and diffusion, insulation, privacy, sanitation, or permanence—you will find it profitable to investigate Insulux.

Send for the Owens-Illinois booklet “Ideas For Commercial Applications.” It has been prepared specifically for builders and contains many suggestions for use of Insulux—as well as description of jobs and specific information on the best uses of glass block. A letter, or the coupon attached, will bring it to you promptly.

Send for This Free Book

Insulux is available in three sizes and a variety of patterns designed for the functional handling of daylight. Investigate!

OWENS-ILLINOIS GLASS COMPANY
Insulux Products Div., Dept. D-55
Toledo 1, Ohio

Gentlemen:
Please send me your free booklet entitled “Ideas For Commercial Applications.”

Firm Name:

Street Address:

City_________State_________

Signed______________________
Design a window so easy to operate that it actually seems to "float"... yet which is constantly sealed against air infiltration... far more weathertight than ever before.

That is the problem which Curtis engineers solved in the new self-fitting Silentite. Famous Silentite spring suspension creates a window that even a child can easily open. Yet the full length double-Z type bronze weather-strips in the jambs press sliding bars against the edges of the sash, providing a constantly tight fit. This new type weather-stripping, plus improved weather-stripping at head, sill and meeting rail, makes the new self-fitting Silentite fully 20% more weathertight even than the original Silentite window introduced by Curtis in 1932.

Silentite windows are made of wood—because Curtis has found wood to be the most completely satisfactory of all window materials. Yet Silentite windows have the streamlined appearance that fits today's idea of window beauty. Let us tell you all about the new self-fitting Silentite and its new achievements in window design.
The one big difference between small homes of 1940 and the small homes of 1947 is in the area devoted to windows. Homes like this two-bedroom job have become the rule, rather than the exception.

Here Andersen WINDOWALLS help achieve the feeling of...
In the living room—and, as usual, they serve both as windows and as walls.

Andersen Complete Wood Gliding Window Units combined in a corner installation. Home designed by St. Paul Chapter, American Institute of Architects.
The Shadow of Buying Influence

American Builder's More than 80 Thousand Circulation Casts its Shadow of Influence Over the Entire Building Field through Every Channel of Distribution.

From Manufacturer to Jobber to Dealer to Builder — The entire chain of distribution is covered by American Builder circulation — Manufacturers' products never leave our shadow.

A twelve time advertiser in American Builder gets the benefit of a million readers a year. These readers are your customers and they are influenced by the factual messages they read in the American Builder. The building industry has soared to an estimated peak of ten billion dollars for 1947. American Builder circulation has kept pace with this phenomenal rise and as a result is in the best position to serve its advertisers.

If you as a manufacturer are an advertiser in the American Builder, be sure that your sales message appears in every issue. If you are not yet an advertiser, plan on starting your sales campaign NOW! Use American Builder's 80,000 circulation to create ready acceptance of your product.

AMERICAN BUILDER
A Simmons-Boardman publication
105 West Adams Street Chicago 3, Illinois
30 Church Street—New York 7, New York
"Gimme that!*"

**demands**

Mr. H. Fitzherbert
whose idea of a dream house calls for trouble-proof double-hung windows and modern window hardware.

And 134,445,000 magazine readers share his opinion. Grand Rapids Invisible Sash Balance advertising reaches the middle and uppercrust home-building market... the kind of people who retain architects and engage responsible builders... the kind of people who want the very best.

*He wants the* 

**GRAND RAPIDS Invizible SASH BALANCE**

The practical SPIRAL sash balance
Tested in the laboratory and in thousands of homes, Grand Rapids Invisible assures smooth-working windows that never chatter. No tapes, no cables, no exposed parts—protected against corrosion. Save many hours of costly installation time... just drive three screws, that's all. Fits the narrowest casings. Simple adjustment without removing sash. Versatile, too—only a few standard sizes needed for 95% of your jobs—same size balance fits either upper or lower sash.

**Get complete installation data**
Write today for complete, fully-illustrated specifications and installation data... see how Grand Rapids Invisible simplifies and improves every double-hung window job!

**GRAND RAPIDS HARDWARE COMPANY**
Grand Rapids, Michigan
Quality Leaders in Sash Hardware for 50 Years

**Dealers**
Sell the homemaker market. Chromtrim's "Trim-it-Yourself" merchandise and floor display, features easy-to-install metal moulding shapes. Ready wrapped in 6' lengths, mass market priced for volume over the counter sales.

**National Advertising**

**CHROMTRIM**
America's Preferred Metal Moulding
Sold only through a nation-wide distributor organization

R. D. WERNER CO., INC.
295 FIFTH AVENUE
NEW YORK 16, N. Y.

---

**For Further Information . . . Mail today . . .**
R. D. Werner, Inc., 285 Fift Avenue, New York 16, N. Y.
Dept. AB-6. Please send me literature on your CHROMTRIM line.

**Company Name**

**Buyer's Name**

**Street**

**City**

**Zone**

**State**

**Your Distributor's Name**

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MULTI-BREAKERS deliver so much more convenience and protection, that many people think they must be expensive. That's not true. Properly planned, a home electrical system costs no more with Multi-breakers than with ordinary fusible equipment. Frequently less.

Multi-breakers afford complete electrical circuit protection and convenience. They eliminate fuses entirely. Provision can be made for additional future circuits, easily and economically.

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This compact little basement cuts excavation two-thirds, yet provides ample space for heating unit, coal storage, ash disposal and laundry facilities—all that a basement needs!

The house throughout is smart and sensible—and no feature of it is more sensible than the design for coal heating! The coal storage space and flues adequate for efficient burning of Bituminous Coal are low-cost insurance of this home’s value. And the coal for your heating plant is Fuel Satisfaction.*

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is EASY with BRIXMENT!

Study the pictures below and you'll see the contrast between the usual head joint and a full head joint. . . . It is hard to get full head joints, of uniform width, unless the mortar is so soft and workable that it will ooze up out of the head joint. Brixment mortar is so rich and plastic that the bricklayer can use more than enough mortar to fill the head joint, and still "place" the brick easily and accurately.

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No. 3 OF A SERIES—
THE RIGHT WAY AND THE WRONG WAY—IN HEAD JOINTS

All head joints in both face brick and back-up work should be completely filled with mortar. One good method for doing this is to throw plenty of mortar on the end of the brick to be placed. (This should be done in such a way that the mortar is scraped off the trowel by the bottom edge of the end of the brick.) Then push the brick into place so that the mortar oozes out at the top of the head joint.

A dab of mortar spotted on one corner of the brick is not nearly enough to fill the head joint.

If the head joints are not completely filled with mortar, in both face brick and back-up work, water may penetrate to the inside of the wall through openings in the joints.

A dab of mortar spotted on one corner of the brick is not nearly enough to fill the head joint.
Today's new and realistic trend in store design is based on common sense, research, and imagination.

Outstanding architects, builders, and merchants agree that a store front has three functions—it must attract and stop customers, it must show them merchandise, and then it must pull them inside to buy.

These requirements are successfully fulfilled by the flower shop pictured here. As the plan below shows, the front has been designed to meet the merchandising demands of the store itself.

Every element has been thought out, from the cutting table in the rear to the cut-back front which offers shoppers a shortcut and a compelling invitation to enter.

Designed by Ketchum, Ginó and Sharp, Architects, New York City
New Store Front Ideas Become Practical and Profitable with the Modern K-47 Line

You can build store fronts of outstanding appearance with the new K-47 Line of store front metals, because it has been styled and engineered to meet today's greater architectural demands.

It offers builders these outstanding advantages:

NEW custom styling in stock shapes. The K-47 Line combines immediate availability and economy with modern styling which formerly could be obtained only in made-to-order, expensive metals.

NEW interchangeable members with multiple uses. Standardized assemblies have been engineered to increase efficiency in installing store fronts of distinction.

NEW features in construction. Important structural improvements enable you to erect store fronts which incorporate flush-glazing, full-vision entrances, floor-to-ceiling lights of glass and many other elements of modern design.

Write for the new booklet which describes and pictures the striking K-47 Line. You will also be sent Kawneer's new 24-page book of modern store front designs. The Kawneer Company, 743 North Front St., Niles, Michigan.
Why it pays low-cost-home builders to revise plans To Include Coleman Floor Furnaces

This plan offers savings that often improve value! This design, by National Plan Service (Design V-5), shows how this leader in small home design has secured maximum value and convenience in a genuinely moderate-priced home. Note how two Coleman Floor Furnaces can be used for "area" heating in this type of construction—to eliminate basement cost, and still require no first-floor space for heating equipment.

The Coleman Co., Inc., Dept. AB-658, Wichita 1, Kansas; Philadelphia 8, Pa. (Terminal Commerce Bldg.) Los Angeles 54, Calif.

AUTOMATIC HEATING

Coleman

See how it sits in the floor—not ON it and not in the basement. No basement is needed, so you can often save this cost—and much costly duct work. An experienced man can install in only 4 to 6 hours. Models from 25,000 to 70,000 BTU input; use one furnace, or combinations of two or three. In city, town or country, there is a Coleman Floor Furnace to fit your needs—models for oil, gas and LP-Gas.

Cutaway model shows the advantages of Coleman's automatic, "all-over-the-house", warm-floor heat that really sells homes. Note how floor-level air is drawn through cool-air-chamber (A); how air is thoroughly heated in warm-in chamber (B); how 78% open register (C) lets warm air into house FAST. Note: Patented streamlined bottom (D) speeds up warm air flow 35% over old-fashioned designs.

Send me free information about your special cooperation for builders and contractors. Also send Floor Furnace Builder's Catalog.

Special cooperation for contractors! Send coupon for full facts and latest contractors specification book.

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Home buyers know that windows of Alcoa Aluminum are a sign of quality construction. That is why over a million will go into America's new homes in 1947. Quickly installed, long-lasting, trouble-free, they bring quick sales for builders, lasting satisfaction for buyers.

Light in weight, delivered to the job complete, windows of Alcoa Aluminum are installed quickly. Because aluminum windows can't rust, rot or warp, they require no protective painting, always work smoothly and easily.

Leading window manufacturers build quality windows of Alcoa Aluminum in a wide variety of standard types and sizes. For the names of these manufacturers write to:

Aluminum Company of America,
1914 Gulf Building, Pittsburgh 19, Penna.
What about the plumbing?

...you’ve often seen their ads in The Saturday Evening Post
FITCH TO NELSON—Recently, Morgan L. Fitch, NAREB president, wrote in part to Herb Nelson, “I got a bit of a shock when I picked up Drew Pearson’s column, saw his inference that we are running a ten million dollar lobby. Have producers holding out on me? No, it struck me funny. Imagine me, a small time South Chicago realtor, head of a ten million dollar operation! King for a day. Anyway, still believe in freedom of the press—and I hope that somehow we can be successful in raising our little fund of $59,000 in defense of the rights of man, the rights of property ownership, and the future of our nation. Then we’ll only have $9,941,000 to go.”

DREW PEARSON—He and the political theorists whose interests he promotes get so much in the habit of thinking in terms of millions and billions of the taxpayers’ money spent at the whims of untouchable bureaucrats that it is only natural for him to pick 10 millions out of the air as a figure spent by NAREB. $10,000,000—The combined annual operating budgets of every national association in and affiliated with the building industry does not remotely approximate ten million dollars. If that amount were available, industry research and public relations staffs would have blasted the bureaucratic public housing lobby out of Washington months ago.

NEW EMERGENCY—Evidence is unmistakable that top of the price cycle has been reached. Prices have been going down. Knowing this, government beats the drums for lower prices. Reason could be that with elections coming in ’48, government hopes prices will skid to point where unemployment provides new opportunity to blame big business, declare another emergency. If this isn’t true, government should be moving to curtail extent of price recession.

APPRENTICES—U.S. Department of Labor says there were 95,038 building trades apprentices employed as of April 1, a record high.

CREEDON—He said recently that the time has come for home builders and the building trades to consider the implications of a drying up of starts, and to take steps to get more houses started. Similarly, producers of building materials should review their operations, and labor its productivity, so that through their joint efforts, building materials costs may be reduced. There should be no argument with the Housing Expediter for that one.

MARTIN C. HUGGETT—In his Bulletin of the Chicago Metropolitan Home Builders Association he says, “A fair wage for labor that does a fair day’s work; a fair profit on materials; a fair net for subcontract work, and a fair mark-up for builders. A plunge into profiteering by any constituent of the building process will not further a long range view of housing needs, and the methods that must be employed to satisfy those needs, but on the other hand may boomerang against the profiteers themselves.” There should be no argument with that statement, either.

RESTRICTIONS DIE HARD—FHA now will process applications on form OHE-14-56 to permit construction of dwelling units up to 2,000 square feet, for owner occupancy, veteran or non-veteran (individual cases only)—no operative builder developments—and provided the applicant requires four or more bedrooms; or applicant requires space in his residence for business or professional use; or where applicant purchased lot subject to building restrictions in excess of 1500 square feet, and made purchase when no government regulations were in effect preventing construction.

SOMETHING GAINED—Any way, that is 500 square feet gained on one foolish regulation that contributes to the shortage of good homes for all veterans.

WORLD HOUSING—May be this should be headed world public housing. Anyway, United Nations social division estimates 100,000,000 new houses needed throughout the world, urges world minimum housing standards be set, and housing programs established aimed at world-wide “cheap building” policies. What a nice, big, fat bureau could result from this.

CRIME RELATIVITY—Anent building restrictions imposed by the British Government, London Times recently got the following letter: “Sir—One day last year I saw in your paper that the maximum punishment for building without license is seven years’ loss of liberty, but for attempted rape it is only two years.—Yours faithfully, J. W. A. Earle, 54, Mosley Street, Manchester, 2.”
If you are in a territory where natural or mixed gas is available for heating, you can get immediate delivery on Ingersoll Utility Units. Due to gas restrictions in certain areas, a supply of Units with gas heating plants has been built up and is available on a "first come, first served" basis. If you can use them, phone or wire your requirements today!

Now Being Made on the INGERSOLL UTILITY UNIT!

Complete Kitchen, Bath and Heating Plant in One Package, Going Out on Regular Schedule

Architects and Builders everywhere who are including space and time-saving Ingersoll Utility Units in their housing projects can now be sure that their needs will be filled promptly and on time. With streamlined, production-line efficiency, turning out Units on clockwork schedule, this single-engineered assembly can be counted on to cut building time by weeks.

Its practical, modern design, adaptable to individual plans and needs, centers all the utilities in one compact grouping. See for yourself how the Ingersoll one-purchase, one-package, one-installation plan will make your jobs easier, more economical and provide roomier, more livable homes for your customers.
Commodore, Again and Again!

Individual Lavatory Faucets. Hot and Cold Water perfectly matched units.

Angle Stops in all standard sizes. Solid brass stems are precision machined and entire assembly is hard chrome plated.

Commodore lavatory trim. Center Set faucet complies with all plumbing codes. Pop-up waste lift rod is adjustable. Angle stops on water supply pipes.

The ever-increasing acceptance of Commodore plumbing trim has created the insistent market demand for a more complete line of Commodore fixtures and fittings. Streamlined beauty in thoroughly practical design continues to be the distinction of Commodore’s latest releases. Like all Commodore products, the new lavatory center sets, pop-up waste, individual lavatory faucets, straight stops, and angle stops are made of virgin brass, and are permanently silver brazed. Each unit receives a jewelry polished triple-plate chrome finish. Now, perfectly co-ordinated Commodore trim can be selected for kitchen, laundry and bath.

Straight Stops. Hidden, inside values the eye seldom sees assure long life, trouble-free service.

Pop-up Waste. Removable plug stopper for easy cleaning; exclusive Commodore feature.

GENERAL TIRE & RUBBER COMPANY
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Plumbing Division Sales Office: 707 South Raymond Ave., Pasadena 2, California, U.S.A.
Now going into small kitchens with big ideas...

Holds 50% more... takes no extra floor space!

Here's the amazing new family-size refrigerator! Owners and property managers say enthusiastically it's the perfect solution to the problem of adequate refrigeration in the small kitchen. Takes no more floor space than previous smaller models... yet it offers 50% more storage—full 6 cu. ft. as compared to the former 4 cu. ft. model!

And just look at these up-to-the-minute features—5 full-width shelves with more space between shelves... extra room for tall bottles and bulky foods... a big High Speed Freezer for frozen foods. And the "Space-Saver" stars Kelvinator quality throughout—from its snowy-white Permalux finish to the Polar-sphere—the matchless cold maker with the unsurpassed trouble-free record.

If your problem is new installations or replacement of inadequate units—anywhere—get the facts on the new "Space-Saver." For full information, write Nash-Kelvinator, Detroit 32, today.
American Builder Policy

American Builder was the first paper in the building industry to voice disapproval of public housing, and the control of private building operations by federal bureaucracies. It is the only paper that has maintained a firm, consistent position. The reason has been stated often, but it bears mention again. Briefly, it is that public housing, continued rent controls and control of home building by federal legislation and federal bureaucrats bring immediate waste, inefficiency, higher taxes, poorer houses, and a general lowering of the living standard. The ultimate and inevitable result is state socialism, and the end of free private enterprise. History is replete with evidence to support these conclusions. There is nothing theoretical about them.

Maintaining an unqualified stand against the reactionary forces of state socialism in and out of government has not always been easy. It is not easy now. There are charges of political bias to meet, and criticisms of a business paper concerning itself with matters affecting legislation and government. American Builder would prefer to concern itself solely with the business of building more and better homes, not only for veterans, but for all who want homes. But, since under government regulations of the postwar years up to date, it has not been possible to build as many and as good houses as should be built, American Builder is not a free agent in the choice of its editorial policy. If the present policy is abandoned, and those who agree with it give up the battle, there will be no private building industry for either critics or endorsers of the policy. Instead, all will become government wards in a wasteful, desultory socialist state.

Builders and the American Builder have nothing to lose by pushing the fight to a conclusion. They have everything to gain for themselves and for posterity. From a patriotic standpoint, failure to push the fight amounts to selling all veterans short, and desecrating the sacrifices of those who were maimed and killed in a war to preserve individual freedom.

There is no turning back, and no intention to do so, particularly in view of recent events. A few weeks ago a special House sub-committee, with the aid of the Treasury Department and the Federal Bureau of Investigation, uncovered evidence that is reported to show Communist domination of the operations of the Federal Public Housing Authority, collusion in awarding contracts, fraud, waste, incompetence, payroll padding and numerous other breaches of public trust. There is evidence that Senator Taft is not nearly so enthusiastic about the Taft-Ellender-Wagner bill as he was when he introduced it. The House shows unmistakable signs of resisting the socialization of home building and home ownership.

The United States has come through crises of this kind before. It will come through this one if it is helped. American Builder respects those with honest differences of opinion. For all others, there is no alternative to treating them as public enemies, and fighting them accordingly.
Engineered House Construction

This is the first of an extensive series of articles to appear in American Builder on the proper selection and installation of the various equipment and service items that are now standard components in modern homes. A completed house today is no longer a shell, as it was in previous years—within the memory of men still active in home building. Building a 1947 house involves installation of many scientifically designed and finely engineered pieces of equipment about which most builders have but elementary knowledge.

The editors of American Builder know that home builders cannot possibly become experts, for example, on all the various types of heating systems now being satisfactorily built into houses. Neither can builders become expert plumbers or electricians. But because the equipment and service items just mentioned, as well as others, now constitute such an important segment of satisfactory and profitable new home construction, successful builders should understand the basic principles concerning proper selection and installation of such items to assure themselves and their clients of the ultimate in modern home equipment, economical, trouble-free operation and permanence.

Since subcontracts are becoming an increasingly important and expensive factor in new house construction, builders who understand some of the basic factors in selecting and installing modern house equipment will be better able to assure themselves and the ultimate home owner a greater measure of economy and satisfaction from these important components.

The series is being started on the subject of heating and this first article is confined to a discussion of gravity warm air systems. This was chosen as the first because home builders are still installing gravity warm air systems in more than 50 per cent of new houses.

Articles to follow in future issues will deal with forced warm air, hot water, steam, various types of radiant heat, and others. Although the house which has been chosen for engineering in the series does not lend itself particularly well to installation of a gravity warm air heating system, the following article should be especially enlightening because of the special problems encountered and overcome. Another article on engineered house construction will appear in the July issue. This series is a new department in American Builder, offered to the nation's builders in conformance with the policy of this publication to present sound, constructive, educational features for its readers.
Gravity Warm Air Heating

Fifty per cent of present heating installations are gravity warm air systems. This first article deals with methods for figuring size of plant required, correct installation procedure and other factors. Future articles will discuss other types of heating systems in a similar manner.

By J. L. Shank
Consulting Engineer

I t is essential that the quality and type of construction of any building be given due consideration when determining the size of the heating system to be installed. A poorly constructed building requires a larger heating system than one of good construction. This, then, makes it necessary to figure the heat loss for each individual building.

A small, undersized heating system will be hard to control and expensive to operate. Builders, therefore, should make certain that heating plants selected for their structures are correctly sized. There are many types of heating systems, and all have their special merits and faults. Many of the faults, however, can be overcome by good design, proper installation and proper control. Good workmanship is essential. This means not only obtaining the best mechanics, but also incorporating the heating system adequately and properly with the balance of the structure as the building progresses.

Heating systems may cost little or quite a sum of money and they may be economical or expensive to operate. Therefore, the heating system must be given due consideration.

Heating, as it is known today, is a science and should be considered so. The day has passed for the “Rule of Thumb” method of figuring and designing a system.

Have confidence in the heating contractor and give him the opportunity to make a good installation. He will welcome faith in his ability and judgment and, in all probability, will go out of his way to make an excellent installation.

The average person buying or building today thinks only of the type of fuel which will be burned—coal, oil or gas. It is essential, then, that the builder select the most suitable type of heating system for the building, which will be fired with the fuel selected by the owner. This brings up the subject of what type of heating can be installed to stay within the budget.

Basically, heating systems fall in uniform price brackets. Variations within these price brackets can usually be attributed to improper design and installation procedure or to a difference in the control system. It is, therefore, essential that a complete set of heating plans and specifications be prepared for each building by a competent heating engineer. This will mean uniform bidding and, with good supervision, will assure the owner of a good, efficiently operating heating system.

The building being used to demonstrate the correct designs of these heating systems is a standard two-story Colonial house and was designed by Walter T. Anicka, architect, Ann Arbor, Mich., presented in the March, 1947 issue of American Builder. While this building does not readily adapt itself to all types of heating systems, there will be an illustration of each type, so designed as to heat the building satisfactorily. The systems which are being incorporated and discussed are central heating systems, either warm air, steam, or hot water. The reason for this is that it is the general consensus that in order to make the building a desirable and worthwhile place to live, the heating should be handled from a central source.

All the systems incorporated in the residence will be designed for 70 degrees Fahrenheit inside, with an outside temperature of 10 degrees Fahrenheit below zero, in all rooms with exception of the bath, which is designed for an inside temperature of 80 degrees Fahrenheit.

Since the indoor and outdoor temperature condition is known, the next step is to determine the heat loss of the building. This heat loss was determined in the following manner:

The first floor wall construction was based on brick veneer, 25/32 insulating board sheathing, studs and gypsum lath and plaster. This means the heat loss per square foot of area will be 20 B.T.U. per degree difference.

The second floor wall construction was based on wood siding, 25/32 insulating board sheathing, studs and gypsum lath and plaster. This means the heat loss per square foot of area will be 19 B.T.U. per degree difference. For overall calculating purposes 20 B.T.U. was used.

The glass area was then determined and a factor of 1.13 B.T.U. per square foot of area per degree difference was used to determine the heat loss through single glass.

No weatherstripping was figured and a factor of .72 B.T.U. per lineal foot of crack was used for air leakage. This factor being a fair average, between average and poorly fitted double-hung wood sash windows. A factor of 1.52 B.T.U. per lineal foot of crack was used on all doors. A factor of .10 B.T.U. was used in all floors in the unexcavated portion of the building and a factor of .10 B.T.U. was used on all ceiling with an unheated space above, the ceiling construction being gypsum lath and plaster with 2½ in. of mineral wool between the joists.

These calculations are all set up in the warm air calculation sheet. Then following through from this calculation sheet, it was possible to determine the size of wall stack and register for each room. By totaling the B.T.U. heat loss from each, the size of the warm air furnace was selected. The furnace and warm air registers were then...
located and the warm air connections made. After these connections were made, the length of run from the furnace to the registers was measured. This, together with the probable number of elbows, was used to determine the size of the warm air leaders.

Next, the cold air grilles were located and the sizes were determined as indicated in the return air data sheet. Then by totaling the probable return air in B.T.U. it was possible to size the return air grille. The return air piping was then run and sized. For the return air connection from the dining room, the connections should be made as indicated in Figure 5 of the details of return air connections. For the entry, connections should be made as indicated in Figure 1. Then for the rear hall, it is suggested that connections as indicated in Figure 3 be used.

The initial system which is incorporated in this building, while it is not the most practical, is the cheapest type of central heating system, namely, the gravity warm air system. The system as shown will do a very nice job of heating the building by hand-firing with coal as a fuel.

The chief drawback to the gravity warm air heating system in this building is the location of the chimney. According to all standards of good practice, the best location for a gravity warm air furnace is near the center of the house. It will be noted on the plan that this procedure is followed. However, in doing so, it is necessary to install an unusually long smoke pipe. This will undoubtedly be a continual source of annoyance, especially if high volatile soft coal is used as fuel. Not too much difficulty will be experienced using coke or hard coal.

It is essential that a chimney of the proper size be built. The size and height should conform with the recommendations of the manufacturer of the furnace, and should extend at least two feet above the ridge of the roof or surrounding obstructions. The chimney should be constructed without bends or offsets and lined with...
SECOND FLOOR PLAN

PLAN of second floor showing various rooms with location and size of warm air registers.

FIRST FLOOR PLAN

FIRST floor plan revealing location and size of all warm air registers and cold air returns.
fireclay or tile with all joints sealed tight. The chimney should be fitted with an airtight cleanout frame and door and the furnace smoke pipe should end flush with the inner surface. It is an excellent idea to use a flue thimble for the smoke pipe connection. Also, no other connections other than the furnace smoke pipe should be made into the flue.

The furnace may be either cast iron or steel. Both types of furnaces have their good points. Whichever is installed, it should be of a commercial line, so that when repairs are required, they may be obtained quite readily.

The average furnace deteriorates more rapidly when it is not in operation than when it is being fired. The reason for this is due to the acid in the fuel which is burned, whether it be coal, oil or gas. With this thought in mind, it is a known fact that cast iron is the least susceptible to the attacks of acid. This would then lead one to believe that the furnace should be of cast iron for long life.

On the other hand, the cast iron furnace is made up in sections with the joints cemented. The continuous expansion and contraction caused by heating and cooling results in these joints becoming loose, which necessitates tearing down and rebuilding every few years.

In direct contrast with the cast iron furnace is the steel furnace, which is very susceptible to acid but usually is constructed with one joint, that being a gasket or ground joint type of fitting. This would then not require servicing every few years, but at the end of each heating season it should be cleaned and treated to prevent erosion. It is, therefore, up to the builder and the owner to decide which type of furnace is to be installed.

The leaders, or the pipes leading from the warm air furnace, should be taken from the casing hood, or bonnet, so that the tops of all the leaders are on the same level. The size of each leader pipe depends upon the length, the temperature of the warm air entering the room at the register, and the actual heat required to be carried through it. From the furnace connection, each leader pipe should be given a uniform upward grade of 1 inch per linear foot of run. The number of fittings used in these leaders should be kept to a minimum or it will be necessary to increase the diameter of the leader. The leader pipes should be of bright tin construction and left uninsulated, unless corrugated type asbestos paper is used. A lock type damper should be installed in each leader pipe with the exception of one to assist in balancing the distribution of the warm air. The undampered leader should connect to a room which will be heated at all times. The leaders should be connected to the first floor register boxes extension, through a boot, both having areas equal to the

DETAILS showing various types of return air ducts discussed in the accompanying pages.
leader area supplying them. Similar installation practice should be followed for connecting the leaders to the second floor wall stacks.

The use of double wall stacks and fittings should be followed in all instances, as by their use fire hazard is held to a minimum. Their use will also conform with ordinances, rules and regulations in many cities and communities regarding fire. The offsets in the second floor stacks should be constructed of the same material as the stack itself and given an upgrade pitch of one inch per lineal foot.

progress of the building construction. This work should be co-ordinated with the carpentry work and under the direct supervision of the builder. By following this procedure, when it is found necessary to cut load bearing members of the structure, it will be possible to install headers and boxing to compensate for the cutting, thereby assuring strong construction.

The system is designed for the use of the baseboard warm air registers and baseboard cold air grilles so that the maximum floor space may be utilized for living. In keeping with these warm air outlets and cold air inlets, it is essential that stack heads be connected to the registers and grilles with a sealed joint. This will prevent discoloration and dirt streaks around the outer edge of the registers and grilles.

The horizontal return air ducts should pitch downward toward the furnace at least one-half inch per lineal foot. These ducts should have a free air area at least equal to the return air grille supplying it. In many instances, it is possible to box the joists to accommodate the return air. Where this is done, it is still essential to maintain a uniform downward pitch to the furnace. Where return air ducts run in opposite direction of the joists, it will be necessary to support them from the joist maintaining the same uniform downward pitch. Where rectangular return air ducts are connected to round pipes the transfer connection should be made by the use of a transition fitting. The round pipes are then connected to the warm air furnace by the means of a cold air shoe, installed below the grate line of the furnace.

It is necessary that the joists in both the warm air piping and the cold air return ducts be made tight. In keeping with these tight joints, it is necessary properly to support the piping securely with wire, or preferably band hangers, at regular intervals to prevent sagging.

The gravity warm air furnace usually comes equipped with a manual damper control set. It is, however, possible to obtain a room thermostat, warm air limit control and damper motor at a nominal cost. Through the installation of this control, it will mean fairly accurate temperature control and require taking care of the fire only two or three times daily.

An automatic coal stoker can be readily adapted to a warm air furnace, if so desired, thereby affording a good semi-automatic temperature control. The installation of a gas burner or oil burner in a gravity warm air furnace is not considered good practice, as there are very few gravity warm air furnaces, if any at all, designed for burning either of these fuels. A conversion installation is not satisfactory from an economic standpoint. However, many gas burners and oil burners have been installed in gravity warm air furnaces and the owners are quite satisfied, which can only be attributed to the fact that they are not familiar with heat transfer and combustion.

The information used in figuring and designing this gravity warm air heating system was obtained from the Standard Code issued by the National Warm Air Heating and Air Conditioning Association, and the Guide, published by the American Society of Heating and Ventilating Engineers.
EXPERIENCED BUILDERS know that the backbone of any house is in its intelligent planning and practical engineering. They also know it is equally important that the structure be sound, the architectural lines be pleasing, and the interior be attractive as well as livable.

Add to these “building facts of life” a well situated, rolling 91-acre tract of ground and you have the basic ingredients that are today spelling success to the efforts of four men—the Radiant Valley Development Corporation—in providing a community of 320 homes for veterans in Landover, Md., a rapidly growing residential suburban area only 7 miles from the nation's capital.

The four men are Herman Gluckman, president of the corporation, Harold B. Katzel, vice president, Joseph Kinsky, treasurer, and Charles W. Humphreys, secretary and supervisor of the building operation.

Other factors, however, are playing an important part in the success of the Radiant Valley building program. Primarily, the principle of “engineered” design has been effectively utilized throughout the structure and in the placement of the equipment. By using an established
standard of measure—"so that not even a single brick needs cutting"—masonry fits window spaces and door openings and co-ordinates with precut and site-fabricated frame wall and roof sections. This, combined with efficiency in the use of materials, the natural economies in large-scale construction methods, and application of line production techniques to on-the-spot building, has been translated into important savings of erection time and labor costs.

Designed by Washington Engineer William Heckmer, the Radiant Valley houses, shown on these pages, consist of two basic floor plans, known as Type "A," having a floor area of 968 square feet, and Type "B," 1072 square feet. Construction is of brick veneer over wood frame. As indicated, it is fully "engineered" with cutting and assembly mills on the job site in which entire wall, roof and partition sections are mass-produced.

Unusual in the construction of this price class housing is the horizontal bridging midway between sill and plate in all wood stud partitions; diagonal bracing let into the framing at corners; and the use of 2 x 8 ceiling joists over the living room to carry only the plastered ceiling and the load of the attic storage items. Access to the attic is provided by a concealed disappearing stairway.

A vapor-sealed insulating wallboard is used as the exterior sheathing which, with an air space, provides wall insulation. Mineral wool is used over the ceiling joists for attic insulation.

Interior walls are plastered, ½-inch thick on gypsum lath with ⁵⁄₈-inch on such ceilings as are lathed with metal lath. Solid and perforated gypsum lath has been used interchangeably, use being made of whatever was obtainable, with metal corner lath throughout. Cold water paints of various tints are used for wall decoration.

All houses in the project are basementless and heating is of the radiant type, which fact, coupled with the topography of the development site, gave "Radiant Valley" its unique name. Prefabricated 1½-inch wrought iron pipe assemblies come to the job, from the heating engineer's shop, ready to be given a final hydrostatic test of 200 lbs. per square inch and concreted into the 4½-inch floor slab, which has a fibre
board cushion for expansion around all edges. The slab is laid on a double waterproof membrane which is placed over a 6-inch rolled layer of washed gravel laid on the rolled subgrade.

Except in the heater room, finished floors throughout the Radiant Valley houses are of asphalt tile applied over the troweled concrete floor.

Hot water, supplied from a gas-fired boiler, is circulated through the radiant heating system coils by a small pump. The pump action is controlled by an ordinary wall thermostat, while an aquastat regulates water temperature. Balance cocks for supply mains to individual rooms have been centrally located in the heater room, and the entire system is vented at specified points to prevent air blocking. Once the cocks have been adjusted according to the desired conditions of comfort in each room, they need not be touched during the entire heating season, unless some abnormal condition develops.

The heater room also houses a 30-gallon automatic gas-fired boiler, in which the water is circulated by a small pump. The boiler is located in the heater room, and the water temperature is regulated by an aquastat. Balance cocks for supply mains to individual rooms have been centrally located in the heater room, and the entire system is vented at specified points to prevent air blocking. Once the cocks have been adjusted according to the desired conditions of comfort in each room, they need not be touched during the entire heating season, unless some abnormal condition develops.

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gas-fired hot water storage tank and provides space for automatic laundry equipment.

A point of unusual interest in encouraging the use of better materials and workmanship in housing occurred when the National Foundation for Lathing and Plastering, Inc., awarded the Radiant Valley houses "Performance Plaques" and "Owner's Certificates" in recognition of the high standard of materials and workmanship used in the lathing and plastering. The first Plaque and Certificate were awarded to Alden L. Rogers (lower right, opposite), a lather working on the project, and an Ensign in the Navy during the war. Apparently completely satisfied with the quality of the house, Veteran Alden purchased the house in which the first plaque was installed.

The first group of houses in Radiant Valley, which have already been sold, consisted of 23 Type "A" and 17 Type "B" houses. The former, emphasizing economy of layout, provides a living-dining room, two bedrooms, kitchen, bath, large storage closet and heater room. The Type "B" house has a separate dining room and is more generous throughout in all proportions. Both types have standard equipment consisting of an electric refrigerator, gas range, combination sink and laundry tray, and metal kitchen cabinets. The houses are completely weatherstripped and provided with screens and shades. The 88 units now nearing completion are divided into 28 Type "A" and 60 Type "B" houses, it having been found that the market prefers a separate dining room to the combination living-dining accommodations in the former.

When completed, Radiant Valley will be an example of what can be accomplished through the application of accepted modern land planning principles. Fullest advantage has been taken of the rolling terrain to break any possible monotony resulting from the repetition of the basic house plans. Streets follow a curvilinear pattern, conforming to the natural topography. Each plot, averaging 55 x 100 feet, will be landscaped. In addition, set-back lines have been varied and placement of the house on the lot has been done with an eye to creating appeal and attractiveness.
AS presented in the January 1945 issue of the American Builder, showing complete plans, elevations and renderings.

AS built and completed today, the house presents... Prize Winner of 1945

The "Suburban Home" recently completed in Highland Park, Ill., by Schreiber Bros., architects and builders, introduces a new note of fine living, including many innovations, to the typical ranch type house.

VIEW in living room showing the attractive fireplace arrangement.

FLOOR PLAN

IN preparing the plans layout, the architects have laid a good deal of stress on comfort and utility requirements. The large room designated for recreation serves a dual purpose that it can function also as a dining room, guest room or study.
The ranch type house embodying all the elements of good living on one floor is a refinement and elaboration of the so-called “bungalow” of a former era. It is fast becoming the universal favorite of the home buying public.

The ranch house shown here, which has been designed by Charles and Arthur Schreiber, architects, took first prize in the “Suburban Home” group in the NAHB’s 1945 design competition. Because of the interest displayed by the public at that time, the Schreiber Brothers decided to build it in the same manner as originally presented. How well they succeeded can best be determined by an examination of the 1945 and 1947 presentation on these pages.

Pertinent Facts about the “Suburban Home”

2. Designed and built by Charles and Arthur Schreiber.
3. Furnished by Mandel Brothers Home Furnishing Service.
5. Ranch type house—everything on one floor.
6. Radiant heat control from pipes in cement flooring.
7. Electronically controlled garage doors of aluminum.
8. Steel casement windows throughout.
9. Built-in features including flower and plant boxes, hanging breakfast table, suspended from a chromium pole.
10. Complete laundry unit (washer, home dryer and ironer), home freeze installation, automatic garbage disposal, electric dishwasher, giant refrigerator, large stove with all cooking devices.
11. Asphalt tile floors and carpeted floors over concrete.
12. Bleached and carved birch and mahogany woodwork.
13. Two-section bathroom.
14. Leatherette curtain door which slides on concealed ceiling runway, to divide combination dining, recreation and extra room.
15. Two huge wood-burning fireplaces.

Below: View in recreation room with curtain doors dividing space.

1945

Above: An innovation in design is the planting area in foyer.

Well balanced and dignified appearance from the road, emphasizing the orderliness of the plan.

Photos by Nowell Ward
Shattering precedents is nothing particularly new to the famed Long Island, N. Y., developing and building firm of Levitt and Sons, Inc. Even before they had licked the problems connected with their 1946 building program of 1,000 homes for veterans (American Builder, Dec. '46), William J. "Bill" Levitt, president of the family firm, was toying with the idea of "a small, completely-equipped house that would appeal to the 1947 mass market," at a time when he believed buyer resistance would be strong.

No one has ever accused Bill Levitt of being short-sighted. An explanation is perhaps found in the fact he has a practical knowledge of the economics of building and knows market behavior.

Thus it was hardly startling to learn that he planned to price a completely-equipped, hot water radiant heated house, which would represent the bulk of the firm's 1947 production, under $7,000, at a time when material and labor costs were still climbing.

"We realized early last year," he said, "that in spite of the fact that sales of our $9,990 six-room veterans' house were brisk, the sellers' market in that price range was not healthy. It was stimulated by the shortage, the increased incomes of typical buyers constituting the medium-priced market and unsoundly bolstered by the liberal credit facilities available to the G. I.'s. It was inevitable that sooner or later sales resistance would develop."

Full utilization of the mass-production and assembly line techniques makes it possible for the Levitt 1947 house to be sold for $6,990, completely-equipped on an expertly landscaped 60 x 100 lot.

The 30 x 25 ft. ground floor consists of a living room, two bedrooms, large kitchen, roomy closets and bath. A built-in stairway leads to the unfinished space in the attic. Alternate plans enable this to be finished off into either two bedrooms and bath, or bedroom, storage space and bath.

Features of the construction are copper plumbing, complete kitchen, cabinets, range, refrigerator, automatic laundry, Venetian blinds, metal weatherstripping, fluorescent work light over the kitchen sink, shower, and numerous built-ins.

To achieve maximum production, speed and economy (their schedule calls for 350 complete houses every twenty working days) the Levitt houses are identical in plan and construction. Variety is obtained through the use of five different elevations, staggered building lines, landscaping, and different combinations of exterior materials and colors.
WITH simplicity and livability as the keynote, Walter Anicka, architect, Ann Arbor, Mich., has again produced a house in the medium priced bracket that has a definite appeal to the building public at large.

The first of this group of designs, produced for the American Builder by Mr. Anicka, and shown in the January 1947 issue, has met with a tremendous response both from builders and individuals. The fact that the inquiries on the January house were double the number received on all the other four subsequent designs prompted Mr. Anicka to develop another ranch type house along similar lines.

The demand by the public, which contractors are now beginning to recognize, is for a one-story house, with more room to roam around, both inside and out. There has been an exodus, which is gaining in momentum, to areas beyond the confines of compact city lots.

An analysis of the plans shown opposite reveals that the rooms are approximately the same sizes as those in the conventional two-story designs built previously, yet a greater feeling of spaciousness is obtained in this one-story plan. A closer relationship is also maintained between the respective areas, or zones, nevertheless providing the separation that is an essential element of good planning.

This house is definitely zoned for its three major functions: Service area on the left, which includes the kitchen, utility room with access to the basement and washroom, and the garage; entertaining and living in the center core, which takes in the living and dining room; and the quiet area to the right, constituting the third unit, which embraces the bedrooms and bath, setting that area off completely from the rest of the house.

A partial basement is provided to accommodate the heating plant and a large recreation room. There is, however, ample space in the utility room for a circulating hot water heating system in addition to the laundering equipment so that the basement could be eliminated entirely if desired. An outside flagstone terrace could also be built from the kitchen door.

The total floor areas are as follows:
House, 1396 sq. ft.; garage, 292 sq. ft.; porch, 120 sq. ft.; volume, 27,000 cubic ft.
ARCHITECT'S SKETCH showing front and side elevations of Army-designed modern two-story apartment building.

Army Engineers Design New Apartments

Evidence that the private building industry is not alone in its attempts to find solutions to the housing problem is to be found in the design developed by the Corps of Engineers to meet the requirements of Army families. The new design, which merits careful study because of its practicability, at first sight appears to be the conventional type duplex of Colonial, Spanish or modern architecture.

Closer inspection, however, reveals that each structure actually consists of four apartments, each with combined living-dining room, kitchen, two bedrooms and bath.

Planned to accommodate temporarily Army personnel now housed in trailers, housekeeping rooms and other make-shift types of shelter, the buildings are designed so as to be readily convertible into permanent, commodious homes meeting the needs of large families.

With a minimum of structural alteration and additional expenditure the conversion results in a conventional duplex house with a living room, dining room, kitchen and bedroom or study and bath on the first floor, and three bedrooms, dressing room and two baths on the second floor.

Limited by a ceiling of $7,500 per unit, and confronted with today's high building costs, the Army Engineers were compelled to design a residence that would accommodate two families in the space ordinarily allocated for one family, according to the War Department. Another problem was the necessity of designing a building that could be readily converted into a larger permanent residence at a later date economically and with a minimum of remodeling.

The factor of economy, too, entered into the planning because, says the Engineering Division, Office of the Chief of Engineers, their study revealed that brick and stucco construction for the exterior walls could be used within the ceiling price, and that such construction could be converted into permanent type structures at a minimum cost. Also that a recent analysis of comparable private building costs show that the Army is getting "from 12 to 18 per cent more space" for its money.

Stating that 2,100 family units are to be built in the United States "from the 1947 fiscal funds," the War Department explained that during the war the Army was expanded to such vast proportions that it was utterly impossible to accommodate the families of military personnel at the various Army posts and camps. The result was a terrific shortage of housing in the vicinity of any of the large army installations. The coming of peace brought drastic reductions in the size of the Army but housing shortages continue to remain acute.

It was also pointed out that the Army had considered prefabricated houses, but because of the need for civilian housing the National Housing Agency was unwilling for the Army "to enter this field."

These factors directed the efforts of the Army Engineers toward a design that would provide not less than two bedrooms, bath, kitchen and living-dining facilities; require minimum expenditure for maintenance consistent with its intended life; permit maximum salvage of roads, walks, utilities, grading and landscaping; and possess maximum re-use or salvage value where feasible.
Designed by the United States Army Corps of Engineers the floor plans below show (top) first and second floor plans providing four identical apartment units, each with a combined living-dining room, kitchen, bath and two bedrooms. Second stage (bottom) reveals plan of conversion into two large, comfortable duplex houses.

FEATURING Spanish-styling this version of

The solution determined upon was to build for ultimate permanent usage while providing adequate temporary housing, which resulted in the designs shown on these pages.

Relocation of one temporary partition for conversion is substantially all the structural change required. To keep within the funds allotted per unit a modification of the interior finish was made. Interior styles and finishes were selected and used.

THE ARCHITECTURAL rendering shown above
was found necessary. Wallboard is used for interior wall surfaces and softwood flooring in lieu of subfloors. Interior finish is to be improved by selective maintenance as funds are made available.

Differing floor plans, architectural styles and roof details provide desired variety. In general the two-story duplex type here described was found by the Army Engineers to be the most economical type of construction. In some south and southwestern areas a one-floor two-family type is contemplated, so arranged as to permit conversion into a one-family unit at minimum cost.

Extensive study established that for general usage construction of the four-family temporary unit convertible into a duplex provided greater present and ultimate value than the construction of a small unit with later expansion.

Initial construction of the Army designed buildings is expected to begin soon at Bolling Field, Washington, D. C., and also at nearby Andrews Field. Plans are also under way for the erection of several units at Fort Belvoir, Va.
Chicago architect adapts the popular three-level arrangement to the one-story house design.

RANCH HOUSE for Mr. and Mrs. Stanley M. Guthunz, Northfield Township, Ill., is further emphasized by the superimposed section which embraces the quiet area and is placed above the normal roof line of the house.

THE horizontal aspect of the house for Mr. and Mrs. Stanley M. Guthunz, Northfield Township, Ill., is further emphasized by the superimposed section which embraces the quiet area and is placed above the normal roof line of the house.

PLAN of house above shows bedrooms at higher level than living room. Recreation and boiler room are below bedrooms.
The theme of abundant living, both outdoors and in, has been vigorously expressed in the four houses shown on this and the adjoining pages.

Designed by Jules H. Marling, Chicago architect, these houses are to be built in Northfield Township, an area to the northwest of Chicago, when conditions permit.

Informal hospitality is reflected in the plan of each house, expressed so well in the truly functional arrangement of the living rooms. The architecture is extremely gracious, utterly simple and unostentatious—a straightforward expression of plan and structure. Large glass areas and low spreading roof lines further emphasize the rambling effect. The variations required by plan and materials used in each of the houses are significant in terms of the owners’ requirements.

Exterior materials used are to be either random ashlar stone or painted brick. Wood surfaces in connection with large door and window openings are to be painted French grey. Large window areas are fixed in position, with either narrow in-swinging casements on each side or fixed wood louvres which are placed on the sides or top of fixed sash for ventilation.

Two of the houses are arranged in a T formation with a wing extending from the main portion of the house to accommodate the personal rooms. This allows for an entrance and service court to be placed on one side facing the road, with the opposite side devoted to intimate living with ample space for gardens and a lawn.

Splendid circulation is obtained throughout in the house above. Large glass areas and generous sized rooms are features.
INTEGRATION of all elements such as plan, structure and finished design is manifested in the house for Mr. and Mrs. Marling.

The other two houses are more compact in their plan arrangement, yet a separation of the various living units has been accomplished. To a certain extent an exception to this can be noted in the position of the garage, which is placed along the far wall of the bedrooms. This, however, is compensated for by the covered passageway which connects garage to the service portion of the house, thereby linking the two together.

In the houses shown on the first two pages, Mr. Marling has introduced a new thought in the design of this type of dwelling. By creating an intermediate level approximately four feet above the normal living room floor, he eliminates the objections that many people have to this type of house by providing bedrooms in this area, thereby taking them off the ground level.

Another advantage is that a large recreational area, in addition to providing space for the mechanical equipment, can be arranged under the bedrooms at a level approximately four feet below the normal living room floor. Clever handling of the roof by the architect, in relation to the upper level, insures a continued low sweep of these lines to emphasize further the rambling characteristics of these houses.

Foundations are all concrete. Concrete floor slab laid over entire area is placed on a 6-in. rock cushion. Floors throughout living room and bedrooms are to be carpeted over the slab, the balance to be asphalt tile. All walls and ceilings are to be plastered. The finish in bathrooms and kitchens will be Varlar plastic impregnated wallpaper, the heating is to be hot water gas-fired radiant panels imbedded in the concrete slab, and glass in windows is to be plate and Thermopane double glazing. On the basis of prices that prevail today, it is estimated that these houses will range in cost from $20,000 to $35,000.
Attractive and open surroundings have been an invitation for Jules Marling to provide a generous use of large glass areas in the designing and planning of these homes.
IT IS not often that a builder is fortunate enough to purchase a large, undeveloped area that is completely built up all around, and yet is within a two-mile radius of the center of a large city, from which it takes only ten minutes to reach the downtown section.

This was the delightful position in which Joseph B. Haverstick, prominent Dayton, Ohio, builder found himself when he purchased 71½ acres in Chadwick Heights, a choice residential area in this city. Being completely undeveloped, it was necessary for the builder, when he started operations on the 21 houses that were completed in the spring of 1946, to put in all streets, sewer and underground improvements. These houses averaged approximately 930 sq. ft., each with basement and attic, and sold for $11,500. Due to the difficulty of obtaining framing lumber at that time, it became necessary to seek other methods. Flexicore precast concrete slabs were then used for first floor framing, on which finished parquet wood flooring was placed.

Following in general the same design theme that had been established for the first group, Mr. Haverstick in September 1946 started an additional 34 houses, each containing approximately 950 sq. ft. In an effort to hold his prices in line, in the face of rising labor and material costs, the attic was eliminated and the net profit on each house was reduced. At this time the Ingersoll utility core was introduced into ten of the houses.

The entire layout of Chadwick Heights, together with the design of all the houses, has been placed in the hands of Ralph W. Carnahan, Dayton architect. Simple, straightforward, traditional designing, with no attempt at bizarre embellishment, and the use of good materials applied by capable mechanics have produced a group of houses that will stand as a credit to this community.

Plans are now being prepared under the direction of Mr. Carnahan for twenty-six two-story, three-bedroom houses to be built this summer, at an approximate cost of $15,000 each, in the portion of the acreage which is still undeveloped. Mr. Haverstick is assured that he will be able to offer an even better value in these houses than he has in the past, due to a better grade and a more even flow of materials, and by increased use of power equipment, thereby producing increased efficiency and better workmanship.

The company of J. N. Haverstick and Sons was formed 29 years ago, at which time a general building business was carried on. In 1936 the present partnership was formed with the two sons, J. B. Haverstick and R. J. Haverstick. Since that time the building operations have been confined to low and moderately priced dwellings. J. B. Haverstick has been active for many years in the NAHB, serving as chairman of the membership committee of the national organization, and as area vice president for the Ohio-Michigan group.
WELL built houses with simple, straightforward designs, represent the type that was completed first.

Value in Small, Compact Homes

PLAN and elevation shown above is one of types that contains the utility core. Three different plan arrangements have been designed for this group. Typical elevation shown in outline above.

PLAN of house shown at top of page. Two basic plans have been used in this group with three slight variations to each plan, such as shifting location of fireplace and entrance door.
HOME builders of Dallas, Texas, have been doing a commendable job in efforts to house an increase in population of about 123,000 since 1940. United States census figures for 1940 list the population of greater Dallas at 360,212, while estimates by the Dallas Chamber of Commerce give a total population of 483,720 as of Jan. 1, 1947, an increase of about 35 per cent in six years.

Although pressure has been acute for all types of housing in Dallas, home builders have confined large-scale operations to low-cost two and three-bedroom single family units, and last year completed about 5,000 houses. According to Grover Godfrey, executive secretary of the Dallas Home Builders Association, there will be between 8,000 and 9,000 dwelling units completed there in 1947, providing there is a steady flow of building materials and no labor difficulties.

In spite of the limitations on floor area and difficulties in procuring materials during early stages of most developments now under way, Dallas home builders have been able to proceed at a fast pace with, on the whole, good quality construction and adequate livability.

With continued increases in population in prospect and pressure for more housing accommodations persisting, Dallas home builders are gearing their operations to satisfy the city's residents with high quality, permanent housing at the lowest prices consistent with good business operation in today's market.

Avery Mays Development

IN the Inwood-Lovers Lane section of Dallas, Avery Mays is constructing a group of two and three-bedroom houses to sell for from $8,000 to $13,000. Last year he completed 30. Mr. Mays insists on maintaining individuality and never uses the same plan more than three times. Even when the same basic plan is repeated, the elevation is always changed. His houses include tile bath and shower and tile kitchen counter, oak flooring, floor heaters and a wall heater in the bath. Most of his houses now run about 1,200 to 1,400 square feet of floor area. Brick and stone veneer over gypsum sheathing is standard exterior.

IN 1946 there were 113,020 occupied dwellings in Dallas County but by the end of 1946 that number had increased to about 147,500. During the same period population increased about 40 per cent and home builders have been keeping pace.

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Satisfy Small House Demand

**George Mixon Building Apartments and Houses**

ANOTHER Dallas home builder who has been completing houses regularly is George Mixon. His houses contain about 1,280 square feet and sell for from $12,000 to $13,500. This includes oak flooring in all rooms except the kitchen and bath; linoleum is used for kitchen floor covering while the bathroom is tiled both on the floor and sidewalls. The kitchen work counter is also tiled. In some of the houses, Mr. Mixon installs floor furnaces but in others he provides gas outlets in the various rooms. A bathroom gas heater is always included, however. Two closets in each bedroom, telephone alcoves, built-in dressing tables in bathrooms and venetian blinds are some of the plus features Mr. Mixon provides in his houses. He is completing a 44-unit apartment project adjacent to his single-family dwellings. These units, with about 850 square feet in each apartment, are equipped with year-round air conditioning and will rent for from $80 to $90 per month, including a single-car garage.

**Laughlin, Silver & Frank to Build 100 Houses This Year**

IN 1946 Laughlin, Silver & Frank completed about 75 houses and this year they are well on the way to completing about 100 in their Shannon Estates development in Dallas. All their houses are being built under Veterans Administration and FHA commitments. The two- and three-bedroom units are selling for from $10,000 to $12,500. Although these builders are using a minimum in basic floor plans, they put enough attractive variety into exteriors to remove any semblance of monotony in the development. Standard features of these houses, like most of those being built in Dallas this year in this price range, include large closet areas, good window treatment, tile bath and shower, tile kitchen work counter, floor furnaces, wood burning fireplace, bathroom dressing table, ceiling insulation and attic ventilation facilities. Laughlin, Silver & Frank install weatherstripping throughout and also use copper water piping. All floors are prefinished oak laid over joists set on a regular foundation with no basement. Interior walls are finished with gypsum board, a practice generally followed now throughout the Southwest. Wallpaper is used in some of the houses while others have interior walls painted. Entrance closets, spacious porches and double garages are also standard in the Laughlin, Silver & Frank houses.
I-L Development Precuts in Shop on Site

ALTHOUGH the general trend on prices has been upward consistently for some time, I-L Development Co., Dallas, is providing more house for the money in 1947 than it did in 1946. The firm retained its previous price range of $7,900 for a two-bedroom house and $8,750 for the three-bedroom job but was able to provide larger rooms and incorporate more refinements in the 1947 houses because of cost-cutting practices through operation of a woodworking shop on the development site.

All rafters, headers, studs, etc., are precut for each house and delivered to the site ready for assembly. In addition to precutting framing members, this firm has a well-equipped shop where kitchen cabinets or any special millwork are fabricated. Last year, during the critical shortage of window sash, I-L Development Co. fabricated its own sash in this shop which is equipped with a band saw, radial arm saw, cross cut, table saw and a jointer. A battery of powered hand saws is used on the site to supplement cutting in the shop.

The houses being built this year by I-L Development Co. are of frame construction with about 1,000 square feet of floor area. Exterior walls are covered with drop siding nailed to studs over waterproof paper. Oak flooring is used throughout except in the kitchen which has linoleum on the floor. Bathroom floors and walls are tiled and the kitchen work counter is finished with tile. Interior or walls are finished with gypsum board.

The houses, which are basement-less, are set on conventional foundations and flooring is laid over wood joists. Termite shields are standard equipment in all the houses which conform to FHA specifications. Doors and windows are weather-stripped and ceilings are insulated. A wall heater is built in each bathroom, with gas piped to other rooms for the use of portable heaters.

This firm completed 99 houses last year and has plans to build about 124 in 1947. Sam Lett, president of the I-L Development Co., says the firm could have sold the houses it is building this year for more money but held to the price line for veterans as well as others, even though some costs have increased since work was started on the present group of houses. Thomas Gary is vice president and Harold Miller serves as superintendent of I-L Development Co. operations.

Crown Construction Co. completed 60 of these houses last year and plans 143 in 1947.

Crown Construction Co. Holds Prices Down

R. S. PELT, of the Crown Construction Co., Dallas, is providing seekers of low cost homes with sizable two-bedroom houses for $7,750 and three-bedroom residences for $8,350 including a one-car garage. The firm is able to do this by carefully watching costs and holding them to a minimum. A small shop is used for precutting framing and fabricating kitchen cabinets. At present, total time lapse between starts and finishes has been cut to about six weeks. The houses are all FHA approved with oak flooring, mineral wool insulation in walls and ceilings, tile floor and base in baths, gypsum board interior walls, wall heater in bathrooms, and a full-length mirror on one door in each bedroom.
500 Homes in Wynnewood Addition This Year

THE largest single residential development now under way in Dallas is Wynnewood Addition. Under the direction of Angus G. Wynne, Jr., president of the American Home Realty Co., plans call for the eventual construction of 2,200 houses and 1,000 apartments as well as an extensive shopping area. Total cost of the development will be in excess of $25,000,000.

Thus far about 150 homes have been completed and present plans call for completion of a total of 500 by the end of 1947. Present price range of the houses is from $7,800 to $11,000 on lots 75 feet or wider and ranging from 120 to 235 feet in depth. Although the first group of houses is in the price range just mentioned, plans call for construction of a number of homes in higher cost brackets up to $20,000.

Most of the houses now under construction are of brick or stone veneer set on concrete slab foundations. Trusses are being used for roof framing eliminating the need for bearing partitions. All houses in Wynnewood are weatherstripped throughout with adequate ceiling insulation. About one-third are being equipped with wood-burning fireplaces. Central heating plants and attic fans are being installed in many of the houses. A few have all-electric kitchens while others have gas as the fuel for both refrigeration and kitchen range.

Eighteen basic plans with three to four alternate elevations on each render individuality to houses in the addition. The Roscoe P. Devitt architectural firm is responsible for design of the houses in Wynnewood. F. C. Thomas, Jr., of the architectural firm, working with the builders, has incorporated many cost-saving factors in the design of these houses. Site precutting and partial preassembly by builders are important factors in holding costs down to a minimum.

Many Other Dallas Builders Are Active

IN addition to the home builders mentioned in this article, there are many other Dallas members of the industry who are doing work along the same lines. The houses and plans shown here are typical of what the home purchasers in the Dallas market can obtain in two- and three-bedroom houses at the present time.

The president of the Dallas Home Builders Association, R. S. Shelburne, is constructing a few two- and three-bedroom houses of good design to help satisfy the demand. Like many of his colleagues in Dallas, he is using brick veneer and stone to add variety and distinctiveness to exterior appearance. Plenty of good window areas, tiled bath and built-in shower, tiled kitchen work counter and weatherstripped windows are standard features in Mr. Shelburne's houses.

Lewis & Lambrecht is another Dallas firm concentrating on delivery of a good low-cost two- and three-bedroom house. G. E. Trojack is finishing up twenty-four $8,500 frame houses and last year completed a smaller number of $10,000 brick veneers.

Dietrich Builds Low-Cost Houses

HERMAN DIETRICH is another Dallas home builder who is concentrating on filling the need for houses under $10,000. Last year he completed 38 two- and three-bedroom residences priced at $7,900 to $8,250, and he is continuing to turn them out at about the same rate. These houses are all of frame construction, set on concrete foundations with oak flooring over conventional wood joists. Bathroom floors are tiled and tile is used for kitchen work counters. Floor furnaces are standard equipment in most houses and a built-in bathroom heater is always installed. The houses Mr. Dietrich is building, which are FHA-approved, are constructed from three basic plans with varied elevations.
Successful planning of houses for farm living requires practical knowledge of their functional needs. This home design is based on what farm women told The Farmer in a recent survey conducted by that magazine. Robert G. Cerny is the architect.

ARM HOUSES must be designed not only to provide livability but also to fulfill the functional needs of farm operation. The design presented on these pages was created from ideas based on the opinions of farm women who are called on to perform the everyday duties of the active farmer’s wife.

Robert G. Cerny, architect, working with the editors of The Farmer magazine, embodied flexibility as well as livability and utility in this story-and-a-half plan. Some of the special features needed in a farm house found here include a utility room on the first floor; the “front” entrance on the side where the driveway comes...
HOUSE may be built without rear porch and with second floor unfinished until family needs call for larger living quarters.

Soil, Who Would Live Like a King

in from the main road so that visitors will naturally come to that door instead of the rear door; both front and rear entrances near the kitchen so that a person working in the kitchen can see any vehicles or individuals coming toward the house from the road; a washup room near the rear door; plenty of closet and storage space; large window areas so the housewife can have an unobstructed view outdoors.

The flexibility of this plan is an especially desirable feature. The downstairs bedroom can be used for that purpose or it can be put to other uses such as for an office or a den. Young couples just starting farm life may leave the second floor bedrooms unfinished and make full use of the downstairs bedroom until such time as growth in the family necessitates completion of the second floor bedrooms and bath. For those who desire to install laundry facilities in the basement, the utility room may be used for an office or bedroom.

Although there is no dining room, there is adequate space for eating in the kitchen when only the family is accommodated. For special occasions and parties, the living room provides ample area for serving meals.

The kitchen was designed to save steps and is so located that it need not be a traffic-way into other rooms. The living room is large and airy with the fireplace at the far end so that the large major group of furniture can be arranged without obstructing traffic through the room. To the right of the fireplace are built-in bookcases and to the left, under the windows, are cabinets and desk space.

The second floor may be finished to provide two good bedrooms, ample closet space and bath. In the larger bedroom there are two wardrobe closets, with a chest-and-mirror unit between, so that it is not necessary to use space for a chest of drawers. If the second floor is not finished when the house is built, all heating ducts and plumbing should be run to the second floor and capped. Construction of the rear porch is optional.

A water supply room is a must in the modern farm house and this one is designed large enough to accommodate the pump required as well as a water storage tank. Other portions of the basement may be divided into the various rooms, shown on the plan, which are so useful to farm house occupants.

PLANS of basement, first and second floors reveal how well the house is designed to meet the functional needs of a farm residence in addition to providing livability and flexibility.
PRODUCTION of housing through conversion of older structures into multiple-family dwellings has long been an almost depression-proof and highly profitable business. It remained, however, for a group of business men in Montclair, N. J., headed by a former president of the local real estate board, to bring into sharp focus the advantages gained when an operation of this nature is carried out on a major scale.

Five years ago, T. Scoville Snyder, realtor, and C. Wesley Townsend, builder, formed Montclair Homes, Inc. Total capital of $7,000 was invested in an old but structurally sound house. With a $5,000 FHA Title I insured loan, this single-family dwelling was converted into six apartments for war workers. Today, capital invested in 18 properties, containing 90 apartments, exceeds $400,000 which produces an annual income of $75,000.

Montclair long has been known for its great wealth and its lovely homes. Originally, all the 12 to 16-room mansions were suburban homes of New York families. As might be expected, much of the city's residential area was built long before the depression thirties, when taxes were low and servants were not a problem. With the passage of years, properties were deteriorating, and others were selling for back taxes. While the homes were structurally sound, they were too costly to maintain. Virtually no investment value existed.

"Montclair is not unique in this respect," Mr. Snyder told American Builder. "Many other cities also face the problem of maintaining old residential areas in their accustomed splendor. We have demonstrated in Montclair that conversion into apartments offers a sensible solution. It's a profitable business for the builder. It's the most economical and fastest way to get badly needed low-rental housing. It's an effective way to restore 'white elephants' to the tax rolls. And, it contributes in a material way to maintaining the standing and appearance of the community."

"Wes Townsend and I launched Montclair Homes,
Starting with $7,000 initial investment, realtor and builder combine to expand program into 18-house, 90-apartment project yielding over $75,000 annual income

Inc., at a time when the cry for housing for war workers was almost as great as the demand is today for homes for veterans. We took $7,000 and bought a single-family house in a nice residential section, and with an FHA Title I insured loan, converted the structure into six apartments. To finance expansion, we then went to local business men, told them of our plans, and sold them 5 per cent preferred stock in small amounts.

"As might be expected," Mr. Snyder continued, "we at first faced a great deal of opposition from the town
zoning commissioners and from property owners. None were willing to see us construct a multiple-family dwelling in a restricted residential neighborhood. Eventually, we succeeded in getting permission to remodel the first house by convincing the zoning commission that our aim was to maintain the appearance of the neighborhood.

"To that end, Wes and I did nothing adversely to affect the exterior of the first house or to the 17 other houses we have since remodeled. We leave the original design alone. In all our jobs, we limit outside work to the erection of fire escapes to comply with the multiple dwelling law, and we build these at the rear, whenever we can, to provide a private rear entrance to each apartment. We enclose open porches to provide additional interior space; paint; and recover weather-beaten, unsightly roofs with fire-resistant asphalt shingles, being careful to pick colors which will harmonize with the house and its neighbors.

"Rents average between $60 and $70 per month. A 4½ room apartment, consisting of a living room with a fireplace, two bedrooms, plus a modern kitchen and bath, rents for as little as $62 per month, including gas, electricity and water. The apartment home retains its 'look' of a private residence, and is surrounded by an acre of landscaped ground."

All this in one of the finest suburban communities in the New York area!

Despite the low rents the operation is profitable. The income of $75,000 per year permits payment of 5 per cent on the preferred stock, amortization, taxes, maintenance, and other costs. Snyder and Townsend emphasize, however, that all rental income is absorbed by operating expenses and by payment of amortization and of dividends. Their profit is limited to a steady increase in their equity in the properties.

Townsend, who operates a construction and contracting company, called Clairtown, Inc., takes care of the necessary construction work in remodeling and maintaining the properties owned by Montclair Homes. But this accounts for only 25 per cent of his total business volume. Seventy-five per cent of his work is for people who know and appreciate the quality of his work in remodeling homes acquired by the Montclair Homes Company. Currently, Clairtown, Inc., employs a full-time crew of seven painters, six carpenters, three electricians and two plumbers.

"Our experience convinces us that people prefer to live in an apartment in one of our homes to a conventional apartment. Our tenants are offered all the freedom of apartment house living with few of the restrictions. They have ample space for outdoor recreation and can indulge in their hobbies, as in a home of their own," says Wes Townsend.
How Much for Rent?

Comprehensive study of 60,000 veterans in a large metropolitan community reveals that the average desired to pay $43.50 per month for rent while the amount they could afford to pay, based on their current weekly earnings, was $67.50 per month.

Most studies of veterans' housing needs have indicated what the veterans desire to pay rather than what they can afford to pay. This has resulted in a misconception as to the price bracket of housing required by veterans. For example, a widely publicized study made in a large metropolitan community showed that 43 per cent of 60,000 veterans included in the survey desired to pay monthly rentals from $20 to $40, that 40 per cent desired to pay from $40 to $60, and that 17 per cent would pay more than $60.

If we consider the rule of thumb, "Monthly shelter costs may equal one week's wages," and apply it to the weekly wages which were reported by the same 60,000 veterans, a quite different picture is presented. Only 7 per cent were earning less than $40 per week, 26 per cent were earning between $40 and $60 per week, 46 per cent were earning from $60 to $80 per week, 17 per cent were earning from $80 to $100 per week, and 4.6 per cent were earning over $100 per week. The median rental which the veterans desired to pay was thus $34.50 per month and the median rental which they could afford to pay was $46.50, with half of them being able to pay more than $67.50.

It may be that the veterans' indications of their desire to pay was based to some extent on the rents being paid by their contemporaries living in dwelling units at frozen rentals. A more equitable adjustment or the elimination of rent controls would help to align the situation realistically. Other facts bear upon the situation.

Most veterans on their return to civilian life found that their incomes were larger than they had been before the war. What most of them did not know, however, is that lagging production, increases, and mounting production and sales costs decreased the purchasing power of the dollar. Unfortunately there has been no general increase in postwar productivity which permits veterans or anyone else to enjoy an abundance of goods which are indicated by today's pay envelopes.

Veterans find that last year's shortages of white shirts, civilian suits and automobiles are over; they may all be had for a price. It was obvious that the veterans' requirements for housing would not be solved as readily as their needs for other commodities. Their housing problem remains the nation's number one problem, and for one reason.

Housing is the most durable of consumers' goods. Veterans paid for their white shirts, and possibly civilian suits, with cash out of their pockets. In many instances they may be paying for automobiles on installments, knowing that their debt will be liquidated in a matter of months. They hesitate to saddle themselves with a mortgage on a house which might have to be sold at a loss in a few years, when their first postwar purchases of shirts, suits and automobiles will be worn out and forgotten.

The hesitancy of buyers and lending institutions to commit themselves for housing at current price levels has resulted in a slowdown of the veterans' program.

No one doubts that the vast majority of those engaged in home building view the housing of veterans as a serious trust. It is to home builders that the nation is looking to hold in check any inclination toward further inflation in the industry. The responsible elements of the industry are refusing to deal with those who are taking advantage of scarcity to gouge the industry and to increase costs. The increasing flow of materials to the construction industry makes elimination of the opportunists inevitable and imminent.

To a certain extent the solution devolves upon the veterans themselves. Veterans of World War II now represent about one-quarter of the nation's workers in all walks of life. G.I. Joe, the builder, now builds houses for G.I. Joe, the tailor, the shirtmaker and the auto maker, and is in turn their customer. They know that the solution to the housing problem will come more quickly and certainly among themselves as responsible segments of their respective industries than by resorting to appeals to bureaucracy; they are mindful, too, of the increased tax load which they are bearing. They also know that a full disclosure of facts can help to formulate an intelligent solution.
How New Orleans Builders Save Time

IN SPITE of stringent material shortages which stretch building operations over twice the time normally required, New Orleans builders, using time and labor saving techniques in completely equipped job site shops, manufacture millwork, and precut and pre-assemble parts, to produce a high volume of new low-cost houses.

One of the largest operations is that of Kelly-Generes, who are building 272 houses on one tract, and will begin a 300-house project before the end of 1947. The name of the project is Fillmore Gardens. The operation is reminiscent of a heavy construction or engineering project, with a fully equipped two-story temporary office building, a large material storage yard, heavy grading, excavating, backfilling and hauling equipment, and machinery and tool maintenance crews. The value of the construction equipment and machinery on the job is $250,000. The shop includes a Monarch American sawmill, an Oliver miter cutter, and planers, resaws, sanders, stickers and portable roller conveyors. Skilsaws are used to do all cutting at the houses. All window and door frames, cabinets, screens, blinds, moulding and trim are made in the shop. Doors and sash are fitted and hung in the shop, and wall and partition sections are cut and assembled on jigs. Cutter heads trim doors to size. An office inter-communicating system, loud speaker and two-way radio communication with all cars save innumerable hours.

Roof rafters are assembled completely at the shop, and delivered to the job site in two loads. Sills are cut to size and marked for water line, and all floor joists are cut to match and marked. Siding is dipped in paint before applying.

The site is an old cypress swamp requiring costly preparation. Bulldozers first dig bleeder trenches, then...
draglines pull cypress stumps. After the land has dried reasonably, the stumps are bulldozed into the trenches, and all streets are completed. Building operations then begin.

Lots are 45 x 141 and 61 x 100, and the houses, located about 25 feet behind the sidewalks, sell for $10,500 and up, depending on location and lot size. Veterans are buying one-story duplexes, and renting one part. The operation can produce five houses a day.

The houses are built on piles sunk 8 to 15 feet deep, capped with concrete and tied together with 8 by 10 inch reinforced concrete grade beams. Finish floors are oak over rough boards, with linoleum in kitchen and bath. Porches and steps are concrete, poured in steel forms, and reinforced with precut mesh. Porch ceilings are beaded, cut to fit. Roof rafters are 2 x 8, and ceiling joists, 2 x 6. Plumbing trees are completely assembled in the shop, and copper pipe is used throughout. Walls are wrapped in aluminum foil, and roofs are insulated with mineral wool. All utilities are in, and a public telephone booth is installed in each block. Copper screens are provided for windows and doors.

Small, compact, temporary job site shop at Lauricella & Sizeler 35-house project contains Delta saw, Reel star saw, 2-H.P. joiner, 2-H.P. tilt arbor saw, 1-H.P. drill press, 2-H.P. shaper. All millwork and louvres are made in this shop.

Walls are plastered on Steeltex, Rocklath and wire fath. Chrome or brass plumbing fittings are used throughout, and there is a hot water heater in the kitchen, and tile drainboards for the sinks. Doors are all weatherstripped. Heat is provided by 35,000-BTU Rheem floor heaters. Eljer or Briggs plumbing fixtures are used, there is a wall heater in each bathroom, and tile around each tub up to the rail. There are three double base plugs and ceiling lights in each room.

One of the best planned and equipped precutting and assembly shops for a small operation is the one built and operated by Lauricella & Sizeler Co., of which John Lauricella and A. L. Sizeler are the principals. It is located at one end of a 35-house project flanking both sides of a single street. About 20 feet wide and 40 feet long, the shop has a concrete floor, a roofed, outdoor work space for the assembly of frames and bucks, and covered storage for finished lumber.

Equipment consists of a Reel star saw, Delta saw, joiner, planer, tilt arbor, shaper, drill press, and roller conveyors, arranged for production line performance. All millwork, cabinets, louvres, screens, and window and door bucks are made complete in the shop. Wall sections are cut and assembled flat at the house sites, then raised and nailed in place. There is a Skilsaw at each house under construction. Power is provided by a Porter-Cable “Take-About.”

Lot sizes are 60 x 95, and the houses, all built from the same set of plans, are 24 x 36. Monotony is avoided by using 12 different elevations. The houses range in price from $9,200 to $9,500, depending on the location.

The houses are on concrete footings, and siding is 6-inch to 10-inch cypress and fir. Floors are all oak, and interior walls are Sheetrock. Window frames are cypress and B & Better pine. Septic tanks are installed, and there is a ventilating fan in each kitchen. Porches, windows and doors are screened with copper. Heat is provided by a 50,000-BTU utility floor furnace. The price of the house includes a 12 x 20 foot garage.

L. P. Smith’s Homes Park, Inc., project, four miles from downtown New Orleans, includes 64 houses, each...
The temporary shop at the L. P. Smith Homes Park, Inc., project contains one 3-H.P. and two \( \frac{3}{4} \)-H.P. DeWalt saws. Cut, assemble and nail all bucks in this shop.

Located on a lot 60 x 100, and priced at $9,800. Five floor plans and 20 elevations are used to achieve variation in appearance. Work was begun in December, 1946, and Mr. Smith expects to complete the last house in July of this year. If materials begin to flow easier he says he can beat that schedule by a month.

Like most New Orleans builders, Mr. Smith installs sewer and water, and paves streets before beginning his building operations. The investment in streets, sewer and water was $65,000. His next move was to construct a temporary shop and equip it with a 3-H.P. and two \( \frac{3}{4} \)-H.P. DeWalt saws for precutting all lumber, and assembling and nailing bucks. All other assembling and nailing is done on site.

Floor area is 900 square feet, and the houses are built on concrete piers set 12 inches below grade. Exteriors are cypress boards, asbestos, and stucco on National Steel Fabric base, used in combination on some of the houses. Roofs are asbestos, and inside walls are Sheetrock with taped joints, finished with casein paint. Dierks trim and prefinished oak floors are used throughout. Door and window frames have splined joints, and windows are all weatherstripped. Kitchen cabinets are built on the job. Roofs are insulated with mineral wool. Tile drains and splashes are used. Empire floor heaters, Eljer fixtures and Continental water heaters are standard equipment. Kitchen has linoleum floor covering, and double wall plugs vary from two to five in each room.
ENTRANCE to the house is at the inner corner of the L, with garage and kitchen wing left; bedrooms are at right.

The West is teaching America how to build homes that release the family for outdoor enjoyment, rather than to box it in with confining walls. A house plus a garden, both linked closely together, are fast taking hold in every part of the country, since every state has its spring and summer weather to enjoy the garden air. With modern heating, insulation and double glass such houses are snug for winter weather, too. This design from Portland, Ore., will reward close study.
BEDROOM and is flanked by an earth terrace above a concrete garden wall. To right is a glimpse of the covered walk leading back 30 feet to the outdoor living room as pictured at the bottom of this page.

BRICK-PAVED entrance hall at right is separated from the large living room by a curving wall or screen of unique design. Large window areas, an elevated ceiling and Dutch doors are some of the outstanding features of this living room.

COVERED outdoor living room, shown below, expands this house to take full advantage of the garden. Two entrances to the house are available from this outdoor section of the house—double doors at right and door to living room.
Distinctively Designed Small Office Building Receives Architectural Award

A PROJECT which was small and which, under the difficult conditions prevailing last year when it was executed, could easily have been routine and colorless, recently emerged with real distinction by the signal recognition of an Award in Architecture.

Early last year, Robert Shreve, owner of the fuel company bearing his name in Falls Church, Va., a residential suburb of the nation’s capital, commissioned Architect Victor B. Spector to design a new office building for his growing organization. His only requirements were that it be “distinctive, efficient and convenient, and comfortable.” No thought of constructing a small office building that would achieve unusual distinction for its outstanding architectural quality, in a city renowned for its architectural splendor, entered his mind, or that of Builder E. L. Daniel, who handled construction.

However, several weeks ago when the Washington Board of Trade awarded a Diploma of Merit to the owner, architect and builder for creating a building “of superior design among the buildings erected in the year of 1946 in the city of Washington, D.C.,” it became evident that here was something more than just another small business structure.

Shown on these pages, the Spector design was cited by judges Prof. Edmund S. Campbell, Charlottesville, Va., head of the University of Virginia School of Architecture; Lucius R. White, past president of the Baltimore chapter, American Institute of Architects; and Howard Sullivan, chief architect, Navy Bureau of Yards and Docks, for “meritorious skill in design, selection of materials, and attention to detail producing an original and inviting small office structure.”

In developing the Robert Shreve Fuel Co. building, Architect Spector met the owner’s requirements for “distinctiveness” by a pleasing design with effective arrangement of brick, glass and stone; “efficiency and convenience” were assured by the practical layout of the building and floor plan with fullest consideration of the character of the business. “Comfort” was achieved by the combined use of large glass areas, hot water radiant heat and air conditioning to combat winter’s cold and summer’s humid heat.
FLOOR PLAN, wall section detail and radiant heating plan for the small office building shown on opposite page. The efficiency, convenience and comfort of the building, together with the pleasing exterior lines and effective arrangement of brick, glass and stone, won an Award in Architecture for the designer, Victor B. Spector.
Proper Construction Details

Examples of the use of brick and tile in various types of wall construction, taken from Tile Engineering Handbook of Design

The workmen who constructed the Pyramids of Egypt lived in houses built of clay products taken from structures erected untold ages before. So, at least, write the investigators of the antiquity of building materials. Structural clay masonry units have been used in all manner of structures throughout the known history of the world. Like stone, they are an eternal material, available and adaptable to many uses today.

Brick and tile possess many qualities essential to a successful building material. A well-built wall of either is highly fire resisting, each brick or tile having been created in fire of great intensity. Simply, they are natural clay burned to practical inactivity—unchangeable.

The small sizes of the standard structural clay masonry units make them a flexible building material. They may be used to produce any desired practical thickness of wall and are adaptable to architectural design. These small, flexible units are to the architect and builder what modeling clay is to the sculptor, or pigments to the painter. They stimulate artistry because with them there is an opportunity to express something more than form.

In the progressive march through the centuries of mankind, burned clay masonry exposed to the elements has been preferred for all types of construction.

While the inherent advantages are well known and established, it is interesting to note that the complete utilization of brick and tile prevails at a constantly increasing rate for both exterior and interior surface finishes. Very little or no maintenance is required and the colors and textures are permanent.

The drawings on these pages, from the Tile Engineering Handbook of Design, just published by the Structural Clay Products Institute, illustrate only a few examples of the use of brick and tile in various types of wall construction. Typical units are available for partitions, fireproofing and floor construction as required for every specific building purpose.
THE ABOVE drawings show typical details for nominal 8-inch brick and tile combination wall construction, including elevation.

WALL details showing various furring methods using Miracle adhesive cement and Gemco anchor nails in wall construction.

WALL and window details for typical two-story construction showing 8-inch furred structural facing tile walls.

THE ABOVE drawings from Tile Engineering Handbook of Design show nominal 10-inch brick and tile cavity wall construction.
WOOD awaiting placement in a structure generally receives less protection from the elements than do other structural materials. Any number of materials, tile, brick, or sewer pipe, may be well piled, perhaps on a platform, and carefully covered to protect them from the elements. At the same time, lumber and structural timbers are dumped on the ground, frequently with little care, and with no protection.

The accompanying photographs are typical of the difference in protection and care given wood and other materials. Piles of building tile are covered with tarpaulins, while the structural timbers for the roof trusses are stored unprotected from alternate wetting and drying.

The structural timbers shown in the photographs had been shop fabricated for erection, even to the cutting of the grooves for connectors. But the material was permitted to lie in the rain, collecting water in the ring grooves and in depressions caused by bending of the members. Here are some of the bad effects of such treatment: (1) An increase in moisture content of curved laminated upper chords will tend to cause them to straighten, making the truss more difficult to assemble and reducing any camber which may have been built into it. (2) Collection of water in the ring grooves will cause the wood around the grooves to swell, perhaps to such an extent that the ring will not fit properly into the groove. Perhaps a workman trying to assemble the joint becomes exasperated and chisels out the core. Or perhaps he has the necessary equipment, and recuts the groove. Then, especially if the truss goes into a heated building, the moisture content of the wood will be reduced, it will shrink, the groove will be too big, and the joint will slip. If there are many such joints the truss will sag. (3) Casein glue joints are seriously weakened by exposure to alternate wetting and drying. Fortunately, they do regain part of their original strength—but only part—when they dry out. But during the period they were wet and low in strength, they may have delaminated to some extent, and no amount of drying will cure that.

Careless piling can also do a great amount of harm. It will result in considerable distortion and thus cause difficulties in assembly.

Much trouble could be eliminated by just a little care and protection of wood members stored on the site awaiting placement. Pile the material off the ground on a platform or on timbers, and in such a manner that each piece is adequately supported and cannot be deformed by the weight of others above it. Give it some protection from the rain so as to keep free water off and space the pieces so, if they do get wet, there will be sufficient air circulation to dry them quickly. Where possible, pile the pieces so that ring grooves and other water catchers are not in a position to hold the water for long periods of time.

LUMBER should be given at least as good protection during delivery, piling and storage on the building site as brick and other materials.
**How Phoenix Builder Uses Radial Saw**

A NEW method of using some of the power equipment at his disposal has been employed by Raymond R. Neal, a builder of Phoenix, Ariz.

The five photographs shown on this page are of a rafter cutting table that Mr. Neal helped to develop. It is an unnecessary expense, however, unless the builder intends to build a number of houses using the same roof pitch.

This rafter cutting table enables the saw operator to cut all the rafters, hips, valleys, common, jacks, valley jacks, etc., without changing the degree of cut of the saw. This results in tremendous labor saving due to the elimination of all costly set-ups and then tear down operations.

The following is an explanation of the table numbers indicated on the photographs and the function of these tables:

1. Common rafter ridge and tail plumb cut on all jacks and commons, plumb cut of bird's-mouth (or plate cut out notch).

2. Hip rafter, valley rafter, ridge cuts, tail plumb cut on all jacks and commons, plumb cut of bird's-mouth (or plate cut out notch).

3. Plate cuts of bird's-mouth (or plate cut out notch) for commons, or jacks. Tail is placed behind saw when saw is pulled out. Plate cut is made by pushing saw back, cutting in reverse.

4. Plate cuts of bird's-mouth (or plate cut out notch) for hips and valleys. Tail is placed behind saw when saw is pulled out. Plate cut is made by pushing saw back, cutting in reverse.

5. Jack rafter trough, for cutting top cuts of jack rafters, and each end of hip valley jacks, one end of valley jacks; also, to make any cut to fit any rafter to a hip or valley rafter. Place rafter plate cut down on left side of trough to cut left hand jack. Turn plate cut up on right side of trough to cut right hand jack.

6. Stop block that can be adjusted to overhang of roof desired. Used in connection with (4) for hip, valley common and jack tail cutting (notch for plate only).

7. A build-up in front of special fence to cut plumb cut of plate notch or bird's-mouth. This builds up tail to where notch can be cut with a portion of the saw near the center of the blade where the cut will run most nearly square through the rafter.
How to Save Short Lengths of Lumber

TO make short lengths of dimension lumber that is often wasted, available for use, Kelly-Generes, New Orleans, La., builders rigged up this portable storage shed that moves on skids with the aid of a cable to different points of operations. It is divided up into sections where pieces may be stored according to their lengths. Marker is placed in front indicating their sizes.

How to Keep from Losing Tools on the Job

A large metal cabinet has been put to use on site of operations by Kelly-Generes, New Orleans builders, to store mechanics' tools and other valuables during non-working hours. Job foreman locks it at night and opens it again in the morning.

How to Form Corners With Gypsum Board

TO form a true corner with gypsum board that does not require taping, cut the board on the back and fold over. Fit into corner, being careful not to break the paper. — W. V. BURNS, Star City, Ark.

How to Make Simple Jig For Hanging Storm Sash And Screens

THE jig described here for hanging storm sash and screens speeds up the job a great deal and is much better than handling each sash individually. — RICHARD H. BARNES, Colwyn, Pa.

How to Make a Saw-Cable Reel

CUT a section of a nail leg 4 1/2" from the bottom. Then cut two end pieces from 3/4" thick plywood and nail together as shown. Bore 1/2" hole through and fasten to 2x4"—28" long, which in turn is bolted to any convenient wall of tool shed. A 3" piece of 1/4" diameter clothes rod bolted 5" off center completes the reel. This will hold 100 feet of 3 wire cable for a portable saw, drill, etc. — JOHN G. CALDWELL, San Mateo, Calif.

A Blending of Motifs for a Functional House

By R. J. Alexander

TODAY'S HOUSE designs may be divided into two general groups—those that follow the traditional styles of Colonial, English, French and Spanish, or those that follow a trend known in different localities as modern, functional or contemporary.

Each style has its place in American architecture and, in the proper setting, each has its own peculiar appeal to some homeowner. However, it would not be fitting to take a truly modern home and place it in a residential development designed along Colonial lines.

Climate and location play an important part in selecting the style for a proposed home. A Spanish or Monterey design would be as out of place in Minnesota as would a ranch house type in a tradition-steeped Connecticut village.

The early Colonial houses and the recent ranch houses are probably the best examples of American residential design.

By adapting the best details of traditional design to the materials available today, blending the whole into a functional house suitable to our present way of living, we may develop a truly American style in residential design.

The evolution of design over the years is the inevitable result of our way of living. Increased knowledge of materials, together with increased skill in their use, will permit a blending of styles to produce the perfect design.

The stairway and entrance hall denote simplicity and good taste through the honest use of materials. The walls are of birch plywood finished natural. The stairway is of birch with handrail and treads stained dark; balance woodwork natural.

The mantel shelf and the wood moulding around the red brick of the fireplace opening are traditional in detail to add variety to a very simply designed living room. The corner china cabinet would be appropriate in a small knotty pine paneled dining room.
D.32. INTERIOR DETAILS.  CONTEMPORARY DESIGN.

Casing: W4" x 2 1/2"

Plinth block: 7 1/4" x 2 1/4" x 3 1/4"

Bare cap: 3/4" x 3/4"

THRU-JAMB:

DETAIL OF BASE:

ELEVATION OF STAIRS:

BALUSTER:

PLAN OF CHINA CABINET:

Brick facing.

Molded from 2x4" 1/2 Qtr Rd.

Plywood Back.

Stat. Shelves:

Drawers:

Doors.
NEW PRODUCTS
Offered by Manufacturers

SHOWER STALL RECEPTOR AB6720

A receptor for built-in shower stalls has been developed by the Bathe-Rite Division, Milwaukee Stamping Co., 824 South 72nd St., Milwaukee, Wis. First of its kind on the market, it carries the approval of the Underwriters' Laboratory for its patented non-slip safety floor design. Tradenamed Adapto, the receptor is of sturdy one-piece construction made of wear-resisting porcelain enamel on heavy steel. It is designed for installation in combination with ceramic tile, metal tile, structural glass and composition wall materials. It is simple to install and does not require lead pan or other extra floor preparation. It is soon to be available in two sizes: 32 in. by 32 in. and 36 in. by 36 in.

DEWALT ALL-PURPOSE SAW AB6704

A new streamlined design, new safety devices, and the new DeWalt "life-time" motors are features of the latest Model GE DeWalt all-purpose saw. All exposed machine parts are 'cadmium plated to prevent corrosion after installation. The eight wide ball bearings, on which the motor travels inside the arm, have fifty per cent more surface coverage than prewar type bearings. The 7 1/2 horsepower motor is installed in an aluminum case and cooled by a fan built inside the motor. The motor is direct-drive and the ball bearings grease-sealed for life. It is available from DeWalt, Inc., 850 Fountain Ave., Lancaster, Pa.

OIL-BURNING FLOOR FURNACE AB6713

The J. L. Gillen Co., Dowagiac, Mich., manufactures an automatic oil-burning floor furnace for small home installation. An exclusive feature is a connection arrangement between the combustion chamber and the heat exchanger which permits servicing from the floor level. The furnace operates on No. 1 fuel oil or kerosene and has an output of 50,000 B.T.U. Its overall height is 41 3/4 in. Installation requires a minimum amount of time with few alterations to existing home structures.

POST JACK IN PACKAGE AB6718

For sagging floors, beams, and porches, the N. B. Spurgeon Co., 20 N. Wacker Dr., Chicago, Ill., offers a new 3-way super-jack, which weighs only 10 pounds and is packaged to stock in less space than a pair of shoes. Included in the package are all the working parts: cap and base plates, screw-jack unit, lever and anchoring screw. Standard 2 1/2 in. or 3 in. steel pipe, steel tubing, or wood plates cut to fit the job can be purchased with the jack. It has a 15-ton loading capacity. Base plates are 5 in. by 5 in. and the diameter of the lifting unit is 3 1/2 in. It can also be used as a compact, powerful builder's jack.

DOOR CHIME TIMER AB6703

To control the sequence of chime notes, and to insure correct chime cadence and dependable performance, the A. E. Rittenhouse Co., Inc., Honeoye Falls, N. Y., has developed a timing mechanism. Named the "Rhythm Master," it is a simple, compact, hermetically sealed mechanism which is easily serviced and consumes no power while chime is operating.

DISAPPEARING DINING SET AB6729

A dining set that disappears into a wall cabinet is the newest product of Sierra Wood Products Inc., Pasadena, Calif. Named Foldinette, a set consists of a plastic top table with chrome trim and two wooden seats which fold into a cabinet 36 in. wide by 57 in. high. When opened the Foldinette provides dining space for five people; when closed, it is a modern cabinet.

In new construction, the Foldinette can be recessed into a standard 4 in. wall by framing around the cabinet and fastening to studs and header. Especially suited to multiple housing units and small homes with limited floor space, it is also used on porches, patios, barbecues, or as a table or workbench in den or recreation room.

BUILT-IN MAILBOX AB6727

A mailbox for installation within the wall of the home is a new builder's hardware item likely to enjoy much popularity among home owners. It has an exterior opening, an interior opening, and a flexible steel chute that can be turned and twisted into any desired position. The exterior face plate is available in a variety of styles, some including illuminated numerals, and may be installed in a vertical or horizontal position. The interior opening, an oak door that can be finished (Continued to page 138)
THAT LOOK THE PART

"Good Looks" is a "must" in the garage doors you use for the homes of today. These are the doors that have moved up front, but Ro-Way styling and construction got there first, with lasting good looks, smooth operation and lasting service.

Exclusive Features make Ro-Way the most wanted "Front" Door for today's up front "garages" . . . For example, each spring is "Power-metered" to balance the weight of the Ro-Way Door on which it is used. Then too, all hardware is Parkerized and painted after fabrication.

Ro-Way Overhead Type Doors are built completely in the Ro-Way plant and dependable Ro-Way sales and installation service is available all over America. Write for free catalog. See our catalog in Sweet's.

ROWE MANUFACTURING COMPANY

723 Holton Street

Galesburg, Illinois, U. S. A.

There's a RoWay for every Doorway!
NEW HOUSE HEATER
A low-cost heating unit which circulates warm air throughout an average size house with a minimum of temperature differential is being marketed by Royal Heaters, Inc., 1024 Westminster Ave., Alhambra, Calif. Designed to burn natural, manufactured, or L.P. gas, the unit is installed above the floor, with the mechanics housed in a floor-to-ceiling covering tinted or papered to match walls. A register at floor level draws in cold air while warm air is forced through a register located six inches from the ceiling at approximately 250 ft. per minute. The result is an even temperature throughout the home, according to FHA tests.

GLASS BRICK VENTILATOR
A ventilating fan for glass brick or block walls has been added to the line of Schaefer built-in ventilators. Designed to fit 6- and 8-inch glass block walls of standard thickness, the flange of the fan casing conceals adjacent mortar joints. At present two models are available: Model GB-8-W with 7-inch fan replacing one 8-inch glass block, and Model GB-10-W with 10-in. fan replacing four 6-inch glass block. To install in existing glass block walls, remove the designated number of blocks to be replaced. A 3-foot rubber cord and plug provides current connection. These fans are available from Manufacturers Products Co., 7530 Lindberg Drive, St. Louis, Mo.

PLASTIC MATERIAL
A plastic material which provides a long-wearing decorative surface for a variety of furniture and architectural applications has been introduced in Lamineer, product of the General Plastics Corp., 119 West 57th St., New York 19, N. Y. Its satin-smooth finish wipes clean with a damp cloth and is highly resistant to cigarette burns, food acids, alcohol and other solvents. A primary use for Lamineer is in the manufacture of bar tops, table tops and counter tops. It is also used in the manufacture of wall paneling, light switch plates, venetian blinds and tile.

DUSTLESS MASONRY SAW
A "dustless" masonry saw is the new product of the Champion Mfg. Co., 1307 Washington Ave., St. Louis, Mo. Its outstanding feature is a self-priming water pump that actuates water into a mist spray. This spray controls the dust and keeps the blade and material cool for efficient cutting.

Other features of the saw are a full safety guard over all moving parts, adjustable and removable arbor for easy alignment; adjustable, automatic blade oscillation which discharges cuttings and reduces frictional heat for longer blade life; built-in tool and blade compartment; variable cutting speeds; and easy portability.

TRACTOR FOR LANDSCAPING
A small tractor and dozer combination for cleanup work and landscaping around building sites is now available from The Oliver Corp., 400 W. Madison, Chicago, Ill. The unit is designed to operate close to the walls of houses and make close turns around trees, thereby accomplishing work which formerly required hand labor. The dozer is hydraulically operated with raise, lower, floating and hold positions, and is easily transported.
AVAILABLE FOR IMMEDIATE DELIVERY

THE "KWIKSET" LOCK

MEETS ALL HOME LOCK REQUIREMENTS

Proves the security of strong, safe locks plus the beauty and simplicity demanded by architects, builders and contractors today.

ENTRANCE LOCK
MODEL #400A

The #400A entrance lock embodies the finest engineering principles that have been evolved as a result of wartime needs. It is a 5-pin tumbling, direct control operating lock with every safety feature contained within its operating members. There is one moving part. The lock itself is pressure cast of chromalloy, which is a non-corrosive, non-rusting alloy with tensile strengths far in excess of the usual die casting metals. Embodied in the finishing of the lock itself are the best known principles of electroplating. Each set is triple plated before it leaves the factory. This assures absolute and positive tarnish control under any climatic condition or use.

BEDROOM AND BATHROOM LOCK
MODEL #300

The #300, bedroom and bathroom set, operates with the popular thumb turn in the center of the knob. Gives complete and adequate locking whenever desired, and can be opened by access through the emergency keyway on the outside knob.

INTERIOR DOOR LOCK
MODEL #200

The #200 passage set for use on all interior doors, wherever simple access is desirable.

NO ACCESS FROM EXTERIOR LOCK • MODEL #100

The #100 lockset is especially designed for those doors entering from an accessible area on the exterior of a dwelling. Can be locked from the inside in the usual manner, with no access possible from the exterior.

Frankos 6TH & 8TH AV.

The entire line is now available for immediate shipment from any of the better jobbing houses in the United States. Inquiry from your jobber or directly from ourselves for full particulars.
ALUMINUM WINDOWS  
A complete line of Alcoa aluminum windows, screens and storm sash is being produced in stock sizes by the Cupples Products Corp., 2630 South Hanley Road, Maplewood, St. Louis, Mo. These windows are fabricated from Alcoa precision aluminum alloy extrusions and have built-in sub-frames of durable redwood or Western red cedar. They have a uniform satin gloss finish, which is specially treated to protect against damage. The units are shipped completely assembled and ready to install with all hardware and anchors attached. The double-hung units are available in eleven conventional stock sizes with four different glass arrangements. The picture windows are available in twelve stock sizes. These latter units take either single glass or double glazing of the Twindow or Thermo-pane type.

DELUXE BATHROOM CABINET  
The Bennett Mfg. Co., Alden, N.Y., has a new line of postwar de luxe medicine cabinets. The line features all-aluminum cabinet construction, fluorescent side-lights, an interior light, electric razor outlet, heavy-duty door suspended by a full length chrome-plated piano type hinge, and a polished stainless steel mirror of seamless and ground edges. Brass chrome plated caps cover both the sockets and exposed ends of the electric bulbs. A six-place tooth brush holder and a discard razor blade slot are also located within the cabinet door.

WALL HEATER  
A combination of infra-red rays plus fan-forced heated air is produced by the new built-in wall heater being manufactured by LaSalle Lighting Products, Inc., and Markel Electric Products, Inc., 145 Seneca St., Buffalo, N. Y. Two switches and two elements are provided so one element and fan can be shut off at the user’s convenience. Finished in highly polished Nuchrome, the unit is 12 in. by 18 in.

LUMBER SALVAGE TOOL  
A tool which removes flooring, siding, roofing and other wood without splitting, cracking or breaking it is being marketed by The Maco Corp., Huntington, Ind. Named Bord-Pri, the tool is of sturdy, top-quality construction with an easy-grip, well balanced handle, tough head casting, strong lock-screw, and pivoting flat-surfaced face plates. When butted against the boards to be removed, the tool hugs adjacent studding and the extended lips support it for positive leverage. In addition to salvaging used lumber, the tool speeds the removal operation.

STEEL WALL TILE  
The Monarch Tile Mfg. Corp., 4145 Cass Ave., Detroit 1, Mich., produces a steel wall tile which is easily applied to any smooth wall surface. It is available in twelve basic colors from which 200 color combinations may be effected. It is fireproof, stainproof and weatherproof, and has a surface which will not chip, crack, craze, or peel. Made of 26-28 gauge prime steel, the back of each piece is coated with rust-proof repellent.

REVOLVING CLOSET  
A revolving closet is the latest solution to utilizing every square inch of space in homes and apartments of limited size. Patterned as a door with a plate glass mirror, the inner side is equipped with a 6 ft. 4 in. hanger rod and shelves for linens. Slight pressure revolves the door, bringing the inside closet into full view. For installation, an opening 6 ft. wide, 6 ft. 8 in. high, and 3 ft. deep is needed. This is a product of the Coast Store Fixture Mfg. Co., 142 North LaBrea Ave., Los Angeles, Calif.

CONCRETE HAULER  
An improved chute on its Dumpcrete is announced by the Maxon Construction Co., Inc., 131 N. Ludlow St., Dayton 2, Ohio. The Dumpcrete is a specially designed truck body for hauling and placing air-entrained concrete. Some of its outstanding fea-
Easy to sell!
ARMSTRONG'S INSULATING WOOL

You can build a sound business for the future with Armstrong's Insulating Wool. Prospects can easily see the points of quality just by examining a sample. They can prove to themselves that the Fiber-glas® insulation will take a lot of rough handling and won't settle or pack down. And, of course, it is obvious that insulation made of glass won't burn or decay. Look closely at a piece of Armstrong's Insulating Wool and you'll see for yourself why it's easier to sell.

1. MADE OF FIBERGLAS. This highly efficient insulation won't settle or pack down. Its springy glass fibers hold it firmly in place permanently, leaving no gaps through which heat can escape. And this insulation, being glass, can't ever burn or decay.

2. VAPOR-SEAL PAPER. This tough, asphalt-sealed paper on the warm side keeps all moisture away from cold surfaces so condensation can't occur. It also provides a handy nailing flange for quick, easy, and permanent erection.

3. BREATHER PAPER. Located on the cold side of the insulation, this paper has perforations exactly one inch apart, in both directions, so it can be measured for cutting at a glance. Armstrong's Insulating Wool is light in weight. It's paper-protected all around against damage in handling.

Armstrong's Insulating Wool comes in standard Roll Blankets, Batt Blankets, Small Batts, and Pouring Wool. For complete information, write to Armstrong Cork Company, Lumber Dealer Products Department, 1606 Lime St., Lancaster, Pa.

AVAILABLE FOR IMMEDIATE DELIVERY

ARMSTRONG'S BUILDING MATERIALS
TEMLOK • INSULATING WOOL • MONOWALL • HARDBOARDS • INSULATED SIDING

* T.M. REG. U. S. PAT. OFF., OWENS-CORNING FIBERGLAS CORP.
Where CERTAIN-TEED roofing has been applied — there is where you'll find some of your liveliest roofing prospects

- A home owner is enthusiastic about any new roof.
- But he's especially proud when he can tell his friends it's a new CERTAIN-TEED roof.
- His neighbors are among your best prospects because he sells them on the splendid job and extra roofing value they too can buy from you.
- This extra pride your roofing customer has taken in his new CERTAIN-TEED roof is an added value to your business.

BUILD ON CERTAIN-TEED

THE WELL-KNOWN NAME

CERTAIN-TEED PRODUCTS CORPORATION • 120 S. LA SALLE ST. • CHICAGO 3, ILL.
OUTSTANDING METAL BUILDING NECESSITIES AT EXCEPTIONALLY LOW PRICES

Leigh Building Products have instant appeal—for they add so much beauty and convenience to a home. This modern all metal line of products represents the latest improvements in building accessories. Built by the makers of AIR CONTROL Registers and Grilles with modern production methods—they offer you the best in quality at lower cost.

ORNAMENTAL SHUTTERS—an architectural necessity on most homes. These all metal shutters are constructed of heavy gauge metal with one piece construction—superior to wood yet lower in price—their demand is universal—available in two designs, Louver or Panel Design. Made in a range of sizes to fit any standard window.

DUST CHUTES—this unique product is the answer to the housewife’s problem of dust and dirt disposal. Installed in the kitchen, pantry, etc., the LEIGH Dust Chute is a convenient receptacle for all sweepings, etc., and eliminates the use of the dust pan. Complete unit consists of face, chute and dust bin—ready to install. This extra convenience is universally demanded by America’s housewives. Adds so much to the saleability of a home.

CLOTHES CHUTE DOORS—a smartly styled opening for clothes chutes. Scientifically designed with round opening and rolled edges—clothes or buttons can’t catch. Spring closing door—finished in baked white enamel.

ATTIC and ROOF VENTILATORS—for attic ventilation and condensation elimination—a necessity in insulated homes. Built of heavy gauge steel—finished in aluminum. Designed for adequate ventilation and rain elimination—screened to keep out insects. Wall type available in flush or recessed designs.

Write today for LEIGH Building Products Catalog showing complete information, sizes, prices, etc. Prompt delivery. Styled and built by the makers of AIR CONTROL Registers, Grilles, etc. Register catalog available upon request.
THERE'S NO RAISED GRAIN when you paint

The natural affinity of Arkansas Soft Pine to paint, enamel and stain has been proved in thousands of livable homes like this.

"No wonder they call it Satin-like Interior Trim. It's smooth as satin, and stays that way."

ARKANSAS SOFT PINE

... it grows that way in the tree!

That's why Arkansas Soft Pine is a "natural"—for beautiful satin-like interior woodwork; for most wood-finished surfaces which call for paint, enamel or stain.

As it grows in the tree, Arkansas Soft Pine contains very little pitch. What may exist is neutralized during manufacture by thorough seasoning in humidified air. This process produces well conditioned lumber of extra soft, uniform texture and proper moisture content. There's no "pull" between summer and winter growth (grain, to you). Result: priming coats are absorbed evenly, grain stays flush and finishing coats remain smooth.

Absence of pitch in Arkansas Soft Pine minimizes the hazard of bleeding through or discoloration of paint. That's why it gives such wonderful service as siding and exterior trim. It doesn't deteriorate under hot sunshine, because it holds paint.

Protect your contracts against lumber faults which lead to paint failure. Specify Arkansas Soft Pine Satin-like Interior Trim and mouldings, finish and framing lumber, because it gives you that protection, backed by a 40-year record.

How to specify, technical data, construction stress tables, lumber grades to use in given locations, etc., are told in our Builders' Handbook which is yours for the asking. Write for your FREE COPY.

Arkansas Soft Pine is trade and grade marked, conforms to American Lumber Standards, qualifies for Federal specifications and is sold by retail lumber dealers east of the Rockies.

ARKANSAS SOFT PINE BUREAU

647 BOYLE BUILDING

LITTLE ROCK, ARKANSAS
It's New!

THRUSH Ajustaflo

SINGLE MAIN SYSTEM OF
FORCED HOT WATER HEAT

THRUSH Adjustable TEE

ONE PIPE FITTING

The main method of forced circulating hot water heat.

Improving efficiency by diverting just the right amount of

heat of the system after installation. The curved

adjust the amount of hot water passing

and making it possible

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4 completely self-contained and self-operating control system. For natural, manufactured, or L.P. gases. For domestic, commercial, or industrial applications. System consists of the B-60 pilot operated diaphragm type gas valve, the T-80 Series Trimtherm Thermostat, and the ingenious pilot generator which produces the operating current, safety control, and main burner ignition. THE B-60 SERIES CONTROL SYSTEM has set new standards throughout the gas industry. For complete specifications, request new Catalog 52C.

Catalogs and HOW-TO-DO-IT INFORMATION

324—INSULUX AD-KIT—containing 18 prepared newspaper and regional trade paper layouts is offered dealers of Insulux glass blocks by the Insulux Products Div. of Owens-Illinois Glass Co., Toledo 1, Ohio. The ads are designed to co-ordinate local and national campaigns.

325—STEEL WATER TUBE HEATING BOILER—is described as “the largest boiler taking up the smallest space” in pamphlet just issued by the R. W. Rutledge Water Tube Boiler Co., Morganton, N.C. Several models are shown and specifications given.

326—PLATE GLASS DOORS—Their many effective uses are photographically illustrated in a booklet just issued by Lib bey-Owens-Ford Glass Co., Nicholas Bldg., Toledo 3, Ohio. Installations in theaters, apparel shops, food markets, stores and shops are shown.

327—POWER TOOLS CATALOG—is available from Black & Decker Mfg. Co., Towson, Md. The company’s entire line of tools is pictured, described, and their sizes and prices given. Another handy reference piece is the company’s handbook featuring its portable electric Quick-Saw. Models, specifications, and design factors are supplemented with actual on-the-job photos.

328—SURVEYING AND BUILDING INSTRUMENTS—receive generous treatment in a 12-page bulletin and 217-page catalog just issued by the David White Mfg. Co., Milwaukee, Wis. Included in the catalog are the hundreds of office and field equipment items also available through the David White Co.

329—SMALL HOMES PLAN BOOK—prepared to sell for 50 cents is being offered FREE to builders by Locke Stove Co., 114 W. 11th St., Kansas City, Mo. Homes featured were planned for heating with a modern Warm Morning coal heater.

330—YOUNGSTOWN KITCHEN UNITS—are the subject of a 6-page, 4-color folder produced by Mullins Mfg. Corp., Warren, Ohio. The entire Youngstown line is pictured, along with 12 different kitchen arrangements.

331—BATHROOM CABINETS AND ACCESSORIES—are shown in Catalog 47C just issued by the F. H. Lawson Co., 801 Evans St., Cincinnati 4, Ohio. New features of the 1947 line include easy-to-clean inside corners, removable razor blade box and improved light fixtures for the cabinets.

332—HEATING AND GAS CONTROLS—are the subject of Catalog 100 issued by General Controls, 801 Allen Ave., Glendale, Calif. A variety of gas valves, room thermostats and related instruments is described and illustrated with photographs and drawings.
BORG-WARNER PRODUCTS

- Robuston Saw
- Norge Refrigerators
- Ro-Graphite Washers
- Electric Ranges
- Home Heaters
- Electric Water Heaters
- Home and Farm Freezers

See Norge Before You Buy
YOU ASKED FOR IT...

and HERE IT IS!

CAT. NO. J-206-FW

THE "IRELAND" UTILITY HOIST

Last November we asked the building trade "Can you use the Ireland Utility Hoist as your Handy Andy labor saver?"
The response was an overwhelming "You bet!"—from general contractors, masons, plasterers, roofers, plumbers, heating contractors and many others. They said: "It'll save time on a 'thousand and one' lifting and hauling jobs—hoisting and hauling all kinds of construction and mason's materials...plumbing, heating and roofing supplies."
P. S.—(It doesn't require any expensive caging or accessory equipment, either.)

So—here is the hoist for your job. It's rugged, sturdy, yet easily portable. It only weighs 290 lbs.—Extremely flexible in use, it has been a proven time and labor saver since 1911. It operates with a 3 H. P. electric motor, gas engine or tractor...lifts 500 lbs. on a single line at 100 ft. per minute. And it costs less than $100.00, you furnish your own power.

How many uses do you have for an "Ireland" Utility Hoist? Write us at 647 Leed Street for illustrated folder describing a variety of uses, sending name of your dealer.

BENNEDT-IRELAND INC.
Chartered in 1906
NORWICH, NEW YORK

Good Lawns Help Sell Houses

EVIDENCE of results of one application of new weed control.

LAWNS of good appearance, which require a minimum of attention, have always been considered of particular importance to home builders and developers of subdivisions. One of the first moves after grading a lot is to get a lawn started and a few shrubs set out to add to the attractiveness of the development, thus stimulating house sales.

Thanks to a new combination lawn food and weed control compound which has sprung largely from war-developed advances in chemistry, lawn care can become greatly simplified. Coming closely on the heels of the spray method of chemical weed control which made hand-digging of dandelions and similar pests obsolete, the new dry weed and feed combination solves at once the biggest problem confronting the average lawn developer. It clears out the weeds and feeds the grass to thicker, fatter growth to fill in the openings left by dying weeds. This compound, believed to be the first successful commercial mixture combining weed control with nourishment, is produced by O. M. Scott & Sons Co., Marysville, Ohio.

Using the basic results of research which has been done over a period of years by various scientists and plant specialists, the Scott Co. picked up the thread of developments by combining weed control chemicals with fertilizers for dry application. There were many problems but persistent experiments led to the combination that proved just right. This combination does more than either treatment by itself. It has been observed that weed control alone may set grass back temporarily. However, a simultaneous meal of the right lawn food will offset this effect. Strangely enough, in the Scott plots it was noticed that the grass did not grow as fast after this dual treatment even though the turf was of better color and vigor. Apparently slowly available nutrients in combination with the weed control bring about delaying action, most welcome to the one who has the responsibility of keeping grass mowed. Builders and developers, whose first growth of lawn grass is usually generously sprinkled with all sorts of weeds, can eliminate the pests and add immeasurably to the attractiveness of houses and lots up for sale.
Imagine the new design and construction possibilities with this versatile hardboard! Masonite® Presdwood* is made from natural wood, refined into a better, stronger, wonder wood. With it, you can simplify new construction and remodeling. It is worked with regular carpenters' tools. It adds quality and durability to the job. Its big, smooth panels are particularly adaptable to clean, modern styling. You can finish Presdwood almost any way. Available at lumber yards everywhere, either Tempered or Un-tempered. Write for data to Masonite Corp., Dept. AB-6, Chicago 2, Illinois.

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If you would like to have an up-to-date source of information covering the light construction industry—American Builder will give you the latest information on:

- new and improved products, materials and equipment
- new and more efficient methods of construction
- estimating • financing • land development
- and merchandising and selling

Also to be included in future monthly editions are:

- articles, designs and plans of homes, stores, motels, summer establishments, small town airplane hangars and roadside stands
- one complete blueprint in each issue—comprises a series of blueprints of modern homes
- Monthly Review of National Association of Home Builders
- American Builder Better Detail Plates
- Practical "How-To-Do-It" features

Be prepared for the progress ahead by sending us your order today.

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City ...........................................................................

NAME OF YOUR FIRM

Please indicate your position in the above named firm:

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If not, give Title or Position.

PLEAS NOTE—
Kindly check your principal activity

Builders and Contractors:

[ ] Builders and Contractors specializing in Residential or Light Commercial or Light Industrial Building.

[ ] Contractors specializing in Heavy Building Construction.

[ ] Builders and Contractors engaged in both Residential or Light Commercial or Light Industrial Building and Heavy Building Construction, not specializing in either.

[ ] Contractors specializing in all types of Heavy Construction other than Buildings.

[ ] General Contractors engaged in Heavy Construction of both Buildings and other than Buildings, not specializing in either.

Special Trade Contractors, contracting for only such parts of Building Construction as carpentry, masonry, plumbing, roofing, heating, ventilating, electrical, painting, concrete and excavating.

Distributors:

[ ] Retail Dealers—Lumber, building materials and installed equipment.

[ ] Wholesale, Jobbers and Manufacturers' Agents of lumber, building materials and installed equipment.

[ ] Distributors of Construction Equipment.

If none of the foregoing applies, please advise the type of business with which you are affiliated:

Type of Business

ABC L-47
Announcing
THE COMPLETELY
AUTOMATIC
APPLEY LITTLE GIANT

GREAT NEWS! . . . for the block industry
. . . for present LITTLE GIANT owners . . .
for prospective block plant operators.
Appley now gives you FULLY AUTOMATIC
MECHANICAL OPERATION for the LITTLE
GIANT . . . Can be coupled to ANY LITTLE
GIANT BLOCK MACHINE now in operation or furnished with your new LITTLE
GIANT.

You'll get 100% MORE BLOCKS, better blocks, more efficient operation . . .
all adding up to more satisfied customers and greater profits for YOU! Write
for complete details about the LITTLE GIANT line . . . LITTLE GIANT BLOCK
MACHINE, LITTLE GIANT MIXER, LITTLE GIANT SKIP HOIST, LITTLE GIANT
PALLETS . . . Now FULLY AUTOMATIC for better production records.

J.W. APPLEY & SON
INCORPORATED
P. O. BOX 849 STATION A
ST. PETERSBURG 2, FLORIDA

Quality Control from raw materials to finally assembled
pumps, makes certain that only perfect materials and
workmanship go into Barnes "33,000 for 1" Pumps.
Under Barnes Quality Control, extra precautionary meas-
ures of material selection and testing are combined with
precision machining and expert workmanship to produce
a pump that delivers the most for your pumping dollar.
As a final step, each pump, large and small, is factory tested
at various heads—to prove this performance. The result is
a pump which is the first choice, every time, of men who
know pumps and the business of pumping.

For sale by leading distributors in all principal cities. If there
is no distributor near you, write, phone or wire

BARNES MANUFACTURING CO. MANSFIELD, OHIO
PRECISION WATER CONTROL PRODUCTS FOR OVER FIFTY YEARS.
Levitt Builds Kilroy
this home for
$9,990

with Cellulite

FLAMEPROOF COTTON INSULATION

Maybe somebody is putting up more houses but no one is beating Levitt & Sons Inc., at giving more home for less money. Everybody's wide-eyed over the roomy, substantial homes Levitt is building for less than $10,000 out on Long Island. They're calling his work the country's outstanding building job.

Lots of people would like to match Levitt. Anyone can go at least part way because

LEVITT INSULATES WITH

IN A GREAT MANY OF HIS HOUSES!

Like to know what prompts the nation's outstanding builder to use Cellulite? Fill out and mail the coupon today. We'll send you facts and figures.

THREE TIPS

1. Cellulite's flameproof cotton is the most efficient insulation material commercially available but costs less.
2. Cellulite's simple installation keeps labor costs at a minimum.
3. Cellulite's feather lightness often make structural savings possible.

Concrete Houses Mass-Produced

Homes of precast concrete sections produced on assembly lines are now available in the Los Angeles area. Normac, Inc., are producing sections and erecting homes with their own workmen.

The Normac units are precast sections of varying widths with the door and window frames, channels and outlets cast into them. The wall is about 6 inches thick, consisting of outer layers of hard concrete reinforced with steel and an inner "filling" of special light-weight insulating concrete, all bonded together. The outer layers are approximately one inch thick, leaving four inches of insulation in the center.

The floor is poured on the building site and walls and roof sections hoisted into place by a crane. Joints are keyed and reinforced with steel. Expansion and contraction is provided for in the method of sealing the joint. Roofs are flat and utilize the same type of concrete sections as the walls. They are covered with roofing felt, asphalt and surfaced with gravel.

A waterproof seal is embedded in the floors to keep them dry and they are covered with asphalt tile. Concrete walls have a "matte" texture and the outside is covered with a waterproof paint. Inside walls are painted or enameled. Owners may apply wallpaper if desired.

Normac performs all construction services from the blueprints to the finished job. Due to the weight and bulk of the units, the need for special equipment to handle them, and trained workmen, operations are necessarily limited. At present they are accepting orders from individuals whose lots are located in the area in which they are currently working. They want to avoid wasteful shifting of crews and equipment over long distances. The present Normac houses were designed by Kaufmann, Lippincott and Eggers of Los Angeles, who also worked with the company in developing the system.
TEXACO serves the 4 big roofing markets
— with a quality roofing product for every essential roofing need!

WE REPEAT — for every essential roofing need there's a Texaco quality roofing product.

For new construction, which is rapidly getting into its stride. For the all-important re-roofing field, that normally takes more than 50% of all asphalt roofings! For the big farm market, in new construction, maintenance and repair. For flat roof construction and maintenance.

Texaco Asphalt Shingles, Roll Roofing, Coatings and Texaco Solid Roofing Asphalt are widely known and specified for high quality and reliability.

Sell, apply, specify, use and recommend Texaco — the name that millions know and trust!
For better weather protection: for perfect window operation

MASTER NO-DRAFT SASH BALANCE

⇒ GIVES SASH FINGER-TIP CONTROL
⇒ ELIMINATES WEIGHTS AND PULLEYS
⇒ PREVENTS BINDING AND STICKING
⇒ PROVIDES PERFECT WEATHER-STRIPPING

Here is the modern, patented and time-tested equipment which provides the most practical and economical protection and operation for double-hung windows. For any window, old or new, Master No-Draft Sash Balance can be installed quickly and easily for life-time service and satisfaction.

Properly tempered, correctly tensioned springs give upper and lower sash perfect balance. Metal housing, self-adjusting to the shrinking or swelling of the wood, provides metal runways for the sash that never need painting. They will not rust. They eliminate sticking, binding and rattling.

Master No-Draft Sash Balances act as a perfect weatherstrip for both sides of the window. For the top, bottom and meeting rail, Master cross strips are recommended as shown below.

For new, plank-frame windows or old box-frame windows of any size, save money, time and labor... get the facts now about Master No-Draft Sash Balance. Use the coupon below.

MASTER METAL STRIP SERVICE, 1720 N. Kilbourn Ave., Chicago, 39, Ill.

Please send me, without obligation, complete information about Master No-Draft Sash Balance.

MAIL THIS COUPON TODAY

New Ticket Office for Santa Fe Railway

As simple and modern as the railroad's deluxe Los Angeles-to-Chicago streamlined trains is the new city ticket office of the Santa Fe Railroad located at Sixth and Hill Streets in Los Angeles. Designed by Architect Maynard Lyndon, the office boasts such architectural innovations as recessed concealed mountings for exterior plate glass, rail gates of tempered glass, cantilevered lounge chairs.

Unusually large windows extending from floor to ceiling on the exterior walls, an all-glass advertising display space, and tempered glass doors allow maximum visibility.

CASHIER'S booth is shown in background directly under Grand Canyon mural by M. Dixon.

DESIGNED for maximum visibility is this all-glass current advertising display case.

The interior design creates a maximum sense of space by use of color and texture.

Here Architect Lyndon combined in a style of contemporary simplicity the elegance of marble, fine woods, glass, soft leather and deep pile carpeting.

The office was designed to promote leisurely discussion of itineraries and transportation information. Many improvements in passenger service are offered including a Santa Fe innovation known as "travel consultation." Hence Mr. and Mrs. Traveler can plan their itineraries with special travel consultants in surroundings where green Solux glass windows cool the rays of the morning sun and light green draperies match the imported chenille carpet.
Thanks to scientific resin sealing, Wheeler Osgood Doors reach you in top-notch condition... ready to do a better job on the job! Just look at these advantages over non-sealed doors—

- **ASSURES SMOOTHER PAINT JOB!**
- **INCREASES SCUFF RESISTANCE!**
- **REDUCES HAIR CHECKING!**
- **PROTECTS AGAINST DIRT!**
- **REPELS MOISTURE!**
- **COMPLETELY PRIME COATED—INCLUDING TOP AND BOTTOM!**

Wheeler Osgood's resin sealing helps doors retain EXACT NET SIZE of original machining... controls grain raising and PROTECTS FACTORY-SANDED SURFACE... PROTECTS AGAINST DIRT, DUST AND SMUDGES... MINIMIZES HAIR CHECKING of panels and assures a uniform surface resulting in a BETTER, SMOOTHER PAINT OR STAIN JOB... imparts SCUFF RESISTANCE to protect door in handling... plus added advantage of having top and bottom of door sealed.

Automatic sprays, as pictured above, put a protective prime coating of high-quality tested resin sealer over every inch—top, bottom, ends and sides—of Wheeler Osgood Tru-sized Doors.

---

**THE WHEELER, OSGOOD COMPANY**

Plants and General Office: Tacoma 1, Washington

- **NEW YORK OFFICE**
  - 1326 Empire State Building, New York, New York
  - Phone: Penn. 6-2954

- **CHICAGO OFFICE**
  - 334 So. LaSalle Street, Chicago 3, Illinois
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- **SAN FRANCISCO OFFICE**
  - 3045 19th Street, San Francisco, California
  - Phone: Valencia 2241

- **LOS ANGELES OFFICE**
  - P. O. Box 7685, Del Valle Station, Los Angeles 15, California
  - Phone: Vandike 6376

- **TACOMA OFFICE**
  - 1216 St. Paul Avenue, Tacoma 1, Washington
  - Phone: Main 8101
AN HONORED NAME IN HARDWARE FOR ALMOST A HALF CENTURY

ADAMS-RITE

IT'S THE BALL IN A RITE BALL LATCH--that makes it superior to latches of the plunger or bullet-type. The patented RITE Ball Latch cannot jamb because the steel ball, rotating at any angle, allows the door to always open and close in an easy, positive manner. Ball-bearing action, RITE design and two-point adjustment make the RITE Ball Latch the most satisfactory in its field. Use it on communicating and service doors with dummy trim. Use it on top of louvre doors, on wardrobes and accordion doors. A smaller size is also available for use on most cabinet doors.

RITE BRASS SURFACE BOLTS are extruded in patented girdler shape—1/8"—3/8" widths. Adjustable on job for throw required.

RITE SLIDING DOOR HARDWARE Includes Flush Pulls, Edge Pulls, and Jamb Bolts—all available in a number of styles and finishes.

RITE JAMB BOLTS In two styles—of solid brass. Mount in rear stile of door to positively lock a door from inside only. Useful on windows.

QUALITY HARDWARE FOR NEARLY HALF A CENTURY

ADAMS-RITE MANUFACTURING CO.
540 WEST CHEVY CHASE DRIVE, GLENDALE 4, CALIFORNIA, U. S. A.

Prefabricated Steel Locker Plant

A SMALL TOWN frozen food locker plant operator and a housing research organization—the John B. Pierce Foundation—have demonstrated that the most pressing locker plant problem—the need for new buildings and more space—can be solved by proper adaptation of a system of steel arch-form construction. A new building in Stanton, N. J., represents the first successful application of Quonset construction for frozen food storage, processing and merchandising space.

Inside the 25x60-foot building, there are 5500 cubic feet of frozen storage space. The main storage room has a capacity of 336 individual lockers in banks seven high. In addition there is a processing room 9 feet 3 inches by 40 feet. Across one end of the building adjacent to the locker room, is the 13x17-foot lobby and, separated from it by a counter, the manager's office.

Architecture of the locker plant, although based on wartime Quonset construction, has little of the semi-circular appearance ordinarily associated with arch-form structures. Both the front and rear walls are vertical; only the roof is curved. The only wood used is in the doors; all other materials used are steel, aluminum, glass or concrete. The entire interior of the building is covered with light gauge corrugated aluminum. Although this is a small building compared with many locker plants, its plan and method of erection can be expanded simply to meet the requirements of larger operators.

This structure accommodates 336 lockers.

Interior covered with corrugated aluminum.

It does not take a 50-year patent to have a 50-year lease.

No matter how long a building is to be patrolled, the inevitable test is the years.

The Rite Lock is a 50-year test and still, it has no patent on it.

The lifetime of an improved lock, the quality of the L-O-Locks cannot be kept in the library.

L. O. 4367
INSIDE-OUTSIDE ROOMS

...united with a wall of glass

It doesn’t take a 10-mile view to make larger windows an asset. This house on a 50-foot lot proves it.

Notice how the glass wall and the patio, in effect, add a room to the house. Even where climate does not permit year-round use it’s a worth-while idea. The big window always adds interest and a feeling of spaciousness.

The smartness of good window treatment is enhanced by the use of high-quality glass. Remember that the L-O-F label on windows is assurance of better, clearer glass—worth pointing out to prospective home buyers.

Libbey-Owens-Ford Glass Company, 4367 Nicholas Building, Toledo 3, Ohio.
HERE’S A REAL TIME-SAVER FOR YOUR STANLEY SAFETY SAW!

YOUR PORTABLE SAW becomes a bench saw quickly and easily with this new Stanley No. 158 Saw Track. Made for use with the W7, W8 or W9 Stanley Safety Saw, the Stanley Saw Track is a real time-saver as a guide in making square, bevel and bevel mitre cuts, or cutting lumber to exact sizes. You no longer have to lay out and mark each piece of lumber. Hours of lost time become real productive time. And when abrasive wheels are used, you can cut slate, marble and other hard materials. Get the full details on the labor-saving Stanley No. 158 Saw Track now. Ask your distributor, or write Stanley Electric Tools, 492 Myrtle Street, New Britain, Connecticut.

How To Use The New Stanley Saw Frame

1. To set up Saw Frame, simply drill a 3/8" hole in bench for locating pin. This is a pivot point, and with holes drilled for locating pin in opposite end of frame any desired angle can be laid out.
2. Block up board to be cut to desired height and install work stop.
3. Saw Guide is adjustable. Move in or out to suit width of the base of the saw.
4. Adjust guard trip plate to proper position.

Radiant Heat for Tribune Prize Home

INCLUDED in the new building equipment being installed in the 17 Chicago Tribune Prize homes now being erected in Chicago and suburbs is a radiant heating system in the Tribune house being built by Green Valley Homes, Inc., in Lombard, Ill. This rambling, one-story, six-room home which netted a $1,000 prize for W. R. Burns, Jr., of Harrisburg, Pa.

BOILER, pump, electrical controls, expansion tank and pipes to coils in ceilings.

in the Tribune's $24,000 Chicagoland Prize Homes competition, has no warm air ducts or radiators. Radiant heat is provided by warm water coils installed under the plaster in the ceiling. This type of radiant ceiling heat is expected to combat ceiling heat loss, eliminate floor covering influences on heating efficiency and utilize rapid heat transmission by the ceiling plaster.

Public demonstrations of this and sixteen other Chicago Tribune Prize homes this summer will climax a continuous two-year Tribune display of architectural talent, craftsmanship in building and the latest improvements in building materials and equipment. Each of the homes, built by members of the Chicago Metropolitan Home Builders Association, will be open to the public for thirty days after completion.
Here's the best automatic oil-burning gravity furnace you've ever seen. EVANS has spared nothing to design and engineer this furnace to fit squarely into your biggest market, and we're in good production right now. This furnace can be set up quickly—adapts to basement or utility room needs—has a handsome Corsican Red baked enamel finish, features an efficient pot-type burner with hi-lo flame. Thermostat control and automatic draft regulator. Efficiency and economy proved. Write for details.
Technicians devise ingenious methods and materials to expedite home building

A WIDE VARIETY of ingenious inventions devised by Australian technicians to meet the problems of home building has recently appeared on the local market, and many of them have been the subject of inquiries from overseas countries anxious to expedite their building programs.

The popularity of brick homes in Australia has led to improvements in methods of brick manufacture. A new machine made by an inventor in Melbourne, capital of the State of Victoria, produces 640 moulds a day per operator and can also be adjusted to make cement tiles. Centrifugal force operates the machine. It has a circular mould table with 12 twin moulds, which can be altered to suit the various sizes of the bricks and tiles. A hopper receives the feed, and all that is required of the operator is to keep it replenished in the right proportions.

Another brick-making method developed in Sydney, capital of the State of New South Wales, is applied to concrete bricks which can now be laid without the usual mortar joints. Vertical holes and horizontal channels in each brick make a continuous network of small channels which are filled with liquid mortar after the bricks are produced. Reinforcing bars are used where extra strength is required.

The laboratories of the Australian Council for Scientific and Industrial Research in Melbourne have contributed to research into new materials designed to meet shortages in familiar home building products. Sawdust has been successfully utilized in the manufacture of prefabricated building panels and wall sections.

The Government of Victoria recently received samples of composite (Continued to page 162)
INCLUDE J&L JUNIOR BEAMS IN YOUR PLANS

Order Now
FOR FIRE-RESISTANT STEEL AND
CONCRETE FLOOR CONSTRUCTION

SAVES LUMBER*
J&L Junior Beams are spaced by 1" wood spreaders to accommodate, without ripping, a number of 1" form boards which are tacked in place, later used for roof sheathing.* The job shown used five lengths of 1" x 83 wood sheathing in each panel.

By planning ahead to gain the advantage of steel and concrete floor construction and ordering now, you can include J&L Junior Beams in the houses you build. They provide a strong, non-shrinking, vermin-proof, fire-resistant floor. Any plan can be adapted readily to their use with the help of illustrated booklets, "J&L Junior Beam Floors for Residences" and "Nine Simple Steps." Write to the address below for your copy today.

JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH 30, PENNSYLVANIA
building boards made from ordinary seaweed and cement. Submitted by architects, other designs include boards made of wood shavings and cement which have been judged suitable for house interiors. Other boards are built of fly ash or sawdust with cement, or wood, wool and cement. The Government has also received a proposal from a building firm for a method of concrete-floor construction to meet the present Australian shortage of flooring boards. The method entails the construction of a complete concrete floor as a separate unit. The Victorian Housing Commission has agreed to have four houses fitted with these floors. A wood-wool board known as Woodtex has also been the subject of successful experiment. The framework of a five-roomed timber house was recently constructed in a Victorian country town by normal methods, and sheathed with this new type of boarding. The whole sheathing process employed two men, and took less than a day to complete. Floods occurred in the district at the time, and the building was subjected to heavy rainfall for fourteen days, but when inspected recently the woodwork showed no signs of damage or deterioration.
Contractors and Builders

1. If you have a problem with water or dampness, THOROSEAL will correct and solve the problem.

THOROSEAL is prepared especially to fill and seal voids and cracks, to equalize the absorption in the various units comprising the surface and to make a beautiful, matt-textured finish.

It may be the home or garage!

It may be the cellar!

It may be the cistern or pool!

It may be the dairy barn or milkhouse!

It may be the city water reservoir!

It may be the stable or pens!

It may be the commercial building!

It may be the factory or warehouse!

This is a 100% THOROSEAL home, not only the interior and exterior, but over the roof. THOROSEAL adds protection and beauty.

Not only the exterior wall surfaces of any type of masonry, including the sills and lintels, the roof, but the interior walls of light manufactured block can be filled and sealed with THOROSEAL and then a beautiful finish coat of QUICKSEAL.

The small commercial building, constructed of lightweight block or brick, can be perfectly sealed and filled with THOROSEAL and then given a delightful finish of QUICKSEAL.

Throughout the United States and Canada, buildings of every type are being protected and beautified with THORO System products.

Write at once for our new and up-to-the-minute Circular No. 15, which describes, in photographic detail, all the methods of the THORO System of protection against heavy rains and storm waters, how to seal the surface of new homes and every type of masonry, on the inside or outside surface, above or below grade.

Request your Lumber or Builders' Supply Dealer in your home city to order for you.
HOW TO MEET THE DEMAND FOR SEPARATE SHOWER BATHS

Surveys show more than half the families planning to build want separate shower baths. You can meet this rapidly growing demand by installing Weisway Cabinet Showers.

Precision-built, leakproof Weisways are made in models suitable for homes in every price class.

Weisway
CABINET SHOWERS

Quality-proved and service-tested through years of actual use, Weisways insure satisfaction, protect your reputation. Weisways are the product of the pioneer manufacturer in this field. They are precision-built to the quality specifications which won acceptance for the Cabinet Shower as standard plumbing equipment. Leak-proof, easily installed in new or old homes without special treatment of building walls or floor. Vitreous porcelain receptor with exclusive "foot-grip, no-slip" floor.

The separate shower bath is in increasing demand by home buyers and builders. Weisways are truly the "mark of a modern home." Standard model, of genuine pre-war quality, available for immediate shipment. Distributed through established plumbing channels. Mail coupon for detailed information.

HENRY WEIS MANUFACTURING CO., INC.
601 Weisway Building, Elkhart, Indiana

Gentlemen: Please send folder and details regarding Weisway Cabinet Showers now available.

NAME

STREET

CITY

STATE

NEW PRODUCTS
(Continued from page 140)

Spiral Cut Saw Blade AB6726
The "Allways" saw blade being produced by the Tyler Mfg. Co., 938 Pico Blvd., Santa Monica, Calif., cuts in any direction without requiring the operator to turn his saw frame or his work to change the direction of the cut. Made of oil tempered spring steel, the blade fits all standard hand coping saw frames and power operated jig saws. It is designed to cut all woods, light metals, and plastics.

Dust Chute AB6719
A handy disposal unit for dust and dirt is being manufactured by the Air Control Products, Inc., Coopersville, Mich. Consisting of a steel face, dust chute and dust bin, the unit requires an opening in wall and sub-floor for installation. The dust chute face is located in the baseboard at floor level and has a hinged door that is opened by stepping on the door knob. The door remains open until a touch of the toe releases the spring mechanism and closes it. The dust bin, located just below the basement ceiling, is removable. Finished in baked enamel the face is gloss white and does not require painting.

Aluminum Combination Window AB6702
New entry into the field of the combination storm-screen window is the Aluminum Building Products Co., Milwaukee, Wis. The company offers an all-aluminum combination window which operates as a standard house window—on two separate tracks.

(Continued to page 166)
That's You...a qualified carpenter, when you work modern wall magic with Marlite plastic-finished wall and ceiling panels. When you work with Marlite, all you need is a saw, a plane and a supply of Marsh Mastic and presto—you can create beautiful interiors that delight everyone. Marlite is so easy to install, goes on in a jiffy over old walls or new. Sold by leading dealers everywhere. A complete range of colors and patterns to give scope to your modern wall magic, with Marlite. See our Catalog in Sweet's File, Architectural, or write direct. Although production has reached an all-time high, the tremendous demand for Marlite makes it necessary to continue to allocate deliveries.

Marlite Wall Products, Inc., 603 Main Street, Dover, Ohio.

For Creating Beautiful Interiors
Include cooling, natural breezes in the homes you plan—specify a Bar-Brook Breezebuilder® Attic Fan installation. Available in 4 sizes; FHA approved; inexpensive, easy installation. Write for complete details.

**READY NOW!**

Write for YOUR free copy

The most complete manual on attic fans ever published. 48 pages, richly colored, profusely illustrated. A request on your letterhead will bring your copy.

**BAR-BROOK FANS**
Heat for your G.I. Housing
is no problem
compact, low cost Janitrol
fits anywhere

Janitrol Gas-Fired Winter Air Conditioners can be installed practically anywhere in a home . . . kitchen, utility room, closet, attic, living room, or any place else the imaginative architect or builder may desire. Their extreme compactness and ease of installation make Janitrol a natural for clean, economical heating in veterans' housing. Especially where low-cost substitute building materials must be used, dependable, correctly installed heating is doubly vital to living comfort.

With Janitrol, there's no fuel to store, no noise, dust, dirt, or ashes. Heat is fully automatic.

Janitrols have been proved in thousands of actual installations. No other gas furnace combines all the modern improvements and engineered advantages of Janitrol. Write Surface Combustion Corporation for further information on Janitrols for heating every type of low-cost home and multiple dwellings.

**LOOK AT THIS COMPACTNESS!**

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**SURFACE COMBUSTION CORPORATION, TOLEDO 1, OHIO**
The exclusive interlocking grid core within the Rezo door, allows constant air circulation, adds extra strength and provides greater rigidity.

An Unfailing Advantage
..... in lowering costs
speeding installations
making rooms
more attractive

There are so many features for 1 3/4" Paine Rezo doors that it is hard to determine which is most important. Pre-fitted to exact size, light-in-weight with clear flush surfaces that finish fast, they work wonders in trimming down installation time to less than half of that required by common panel doors. That applies whether you’re painting or staining. But this is only the beginning.

Paine Rezo doors do things for rooms, too. Entrance halls, stairways, dining rooms, bedrooms, kitchens, all appear more spacious, more livable when the smooth sweep of walls are complimented by the unbroken, flush surface of this harmonizing door. Other values you and the home-owner like, include a patented air-cell core that provides great strength while it minimizes shrinking, swelling, warping.

Because these advantages never fail, over two million Rezo doors are in service today, the choice of America’s leading architects and building contractors. Ask your dealer for Paine Rezo doors*, or write for a factual builders bulletin.

* Because of production limitations, Rezo doors cannot yet be shipped to the Pacific Coast.

Manufactured by the
PAINE LUMBER CO., Ltd.
Oshkosh Wisconsin
ESTABLISHED 1853

Maple Flooring Association Moves to Oshkosh, Wis.

THE Maple Flooring Manufacturers Association reports its personnel are comfortably housed in their new quarters at 46 Washington Boulevard, Oshkosh, Wis., L. M. Clady, secretary-manager, is in charge. The move from Chicago to Oshkosh was voted on at the Association’s annual meeting held in January, and became effective as of May 1, 1947. At the same meeting, new officers were elected for the calendar year 1947, as follows: President, W. C. Abendroth, Robbins Flooring Co., Rhinelander, Wis.; vice president, D. W. DeWitt, Holt Hardware Co., Oconto, Wis.; treasurer, W. W. Gamble, Jr., Yawkey-Bissell Corp., White Lake, Wis., and secretary-manager, L. M. Clady.

The change of location does not affect policy, President W. C. Abendroth stated in making the announcement. The Association will continue activity in cooperative trade extension, including space advertising in trade papers, publication of descriptive literature, and continued research to stimulate more intelligent and economical use of maple flooring.

A new and revised “Grading Rules” booklet for maple, beech and birch flooring was recently issued by the Association. A list of recommended floor finishes for maple flooring including recommendations of the penetrating type of sealer for heavy duty floors will be released shortly.

Sanderson to Operate Own Building Supply Company

AFTER 23 years with U. S. Gypsum, H. J. Sanderson of Corpus Christi, Texas, has founded his own building supply business. The firm, known officially as the Sanderson Supply Co., is located at 405 No. Port, Corpus Christi.

Associated with Mr. Sanderson are Radcliffe Killam of Laredo, Texas, and John Hurd of California. The company will handle insulation, roofing, sound control, and other general building materials and, when conditions permit, will expand into the jobbing and industrial field.

American Lumber Congress To Meet in Chicago, June 16-18

For the first time in twenty-five years an American Lumber Congress will be held in Chicago, June 16-18. Sponsored by the National Lumber Manufacturers Association, the meeting will bring together all segments of the lumber industry including manufacturers, wholesalers, commission men, and retailers as well as representatives of forestry groups and wood-using industries.

In announcing the Congress, C. Arthur Bruce, president of the NLMA, stated that the meeting will (Continued to page 170)
Ponderosa Pine casements add warmth and friendliness to modern interiors. These casements are made up in stock designs, with frames, to answer a wide variety of window needs.

Research has proved that stock windows of wood are famous for their efficiency, low maintenance and low cost. Ponderosa Pine windows are easily weather-stripped. They are quiet windows—permitting minimum vibration. Stock design frames are precision made, properly seasoned and dried, with joints made to stay tight.

Plenty of outdoor light for the homes you plan need not be costly . . . or impractical . . . when you specify stock design windows of Ponderosa Pine.

You can use these precision-made windows generously, knowing that their clean design and good proportions will add character and friendliness to room interiors—at no cost penalty. Installation costs less because of the wide variety of Ponderosa Pine window types and sizes that fit every kind of construction. Maintenance will be low because smooth-grained Ponderosa Pine holds paint so firmly. Remember, too, that Ponderosa Pine has natural insulating qualities—does not transmit cold or heat, thus helping to keep rooms warmer in winter and cooler in summer.

In planning window groups, bays or corner windows, you’ll find “Today’s Idea House”—32-page Ponderosa Pine booklet—a valuable aid. This booklet, profusely illustrated with photographs, is yours for the asking. Mail the coupon!
REZ makes fine wood finishing easier... quicker... more economical

This ready-to-use amber-clear sealer and primer protects floors, doors, sash, millwork, and plywood. It is a synthetic resin, especially formulated to penetrate the wood fibers—leaves a tough resinous deposit, thereby minimizing moisture absorption, grain raise and decay. Also, it acts to assure dimensional stability.

Rez* provides an ideal base for any type of finish—point, stain, varnish.

See Your Dealer or Jobber
If Rez is new to you, or if you want current supply information on this easy-to-apply, quick-drying sealer and primer, see your dealer or jobber today. MONSANTO CHEMICAL COMPANY, Western Division, Seattle, Wash... District Sales Offices: Los Angeles, San Francisco, Portsmouth, Va.

ENCASED NAILING ... an exclusive Inselbric method of prefabricated nail holes to make nailing easier and more secure. Every panel of Inselbric has 14 tailor-made nail holes—scientifically weatherproofed and spaced. Filled with a pliable mastic, the rust-proof nails pass through easily and without injury to the insulating core. Wedged solidly in the mastic, Encased Nailing prevents moisture penetration—the secret of Inselbric's longer life. Another reason why dealers prefer and stock INSELBRIC.

Write Today for Our Inselbric Store Plan

Mastic Asphalt Corp. • Jones & Brown, Inc.
Makers of Inselbric and Inselstone
South Bend, Ind. • Elizabeth, N. J.
National Distributors of Inselbric and Inselstone
Pittsburgh, Pa.
The pressure for 20% to 30% lower building prices threatens to wipe out the profits of inefficient operators. There is one sure way to meet the challenge—install faster, lower-priced equipment.

VI-BRIK-CRETE
8,000 + PER DAY

Makes brick 7 on edge at 28 per min. 3600 vibrations produce solid, sharp-cornered super-standard brick. Study construction. Thoroughly proved. Send for literature showing various size brick, specifications, production line set-up for lower costs.

1200 BLOCKS PER DAY

Most compact block machine. Stationary mold box. Cores vibrate 4800 per minute for dense solid block. No stopping—cuts operator fatigue. Roller-bearing strike-off box can't raise up when finishing block. Send for complete details about this speedier block and the construction features that make it so profitable.

$875.00

JOSEPH D. ZAISER

has been general sales manager of the Columbia Wax Works. Prior to that he was in charge of major appliance sales in the east for Landers, Frary & Clark, and with the Graybar Electric Co.

J. D. LONG GOES TO COLOMBIA, SOUTH AMERICA

AFTER seven years on the staff of the Douglas Fir Plywood Association, in Tacoma, Wash., J. D. Long has resigned to go to Colombia, South America, to assist in setting up a program of agricultural engineering for that country. The work is part of the Colombian government's post-war plan for the improvement and modernization of agriculture throughout the country.

Mr. Long was selected by the Colombian government on the basis of his researches on engineering problems as related to practical agriculture and farm living. The invitation came to him through the Office of Foreign Agricultural Relations of the United States Department of Agriculture in Washington, D.C.

He joined the staff of the plywood (Continued to page 174)
Announcing OAKTRED
THE ONE PIECE FLOOR THAT HELPS SELL THE HOUSE

OAKTRED, the modern durable one-piece flooring is now in large scale production at the request of the National Housing Agency in order to make this quality flooring available to a much wider field of building operations for both single and multiple dwellings at an economical price.

WRITE FOR FULL PARTICULARS, DELIVERIES AND PRICES
KOMPOLITE BUILDING MATERIALS INC.
111-115 Clay St., Greenpoint, Brooklyn 22, N.Y.

OAKTRED is available for immediate delivery. Comes in a standard oak color and in dry form. Requires only water for mixing on the job. Installed by a mason. Sets in 4 to 6 days and is then sanded and finished. Can be finished in a variety of ways and scored, if desired, to any pattern. Produces a beautiful and durable floor that increases the saleability or rentability of any residence.
Vapor Condensation

(Continued from page 172)
association in 1940 as field engineer and director of research in farm uses of plywood.
During the war he became head of the laboratory of the plywood industry in Tacoma and developed a greatly expanded program designed largely to answer questions of the military on war uses for plywood.
It is expected that the work in Colombia will require about a year.

Radiant Heating Installed in Railway Terminal

ONE of the largest radiant heating installations in the world will be embodied in Detroit’s new S. T. Gilbert Street Railway Terminal now under construction. Harley, Ellington and Day, Inc. of Detroit are the architects and engineers.

Plans call for radiant heating in three buildings—a bus storage garage, a service garage, and a terminal building—with a total floor area of 200,220 sq. ft.
Radiant heating is ideal for these buildings, according to the architects, because the removal of clogging ice and snow from the underside of buses is easily accomplished during the hours the vehicles are in storage. Also, it has been demonstrated that healthier and more comfortable working conditions are obtained from the use of a radiant heating system.

The terminal is part of Detroit’s modernization program. It will cost $2,565,000 and occupies approximately ten acres of land.

Stainless Steel Sinkbowls

Legion sinkbowls are seamless drawn from one piece of solid or single clad stainless steel... No welds, rough edges, ridges or grooves to cause leaks, corrosion or cracks where dirt may lodge... Light in weight, yet rigid and long-wearing... Oblong, square, round or oval shapes.

Write for catalog sheet.

LEGION STAINLESS SINK CORP.
21-12 40th Avenue, Long Island City 1, N. Y.

UP TO 75% SAVINGS in time finishing or refinishing cabinets, doors, wood trim, stair treads, etc. A rugged, fast finishing sander for CURVED or flat, WET or dry work. Strate-line, back and forth action cuts no swirls, laps, slatters or gouges.

Detroit Surfacing Machine Company
7458 W. Davison Detroit 4, Michigan

1000'S ARE SAVING WITH IT—Write for Facts!

DUO-FAST ELECTRIC SANDER
Model DT 850

FOR APPLYING INSULATION

Fast, accurate, efficient. Easy to operate in awkward positions. Ideal for applying insulation, tacking building paper and felt, and for making screens. One hand always free to hold material. Loads 84 DUO-FAST Staples. Automatic hammer tackers also available.

FASTENER CORPORATION
888 Fletcher St. Chicago 14, Ill.
The DEXTER BIT GUIDE

Reduces Installation Time and Costs

Dexter originated the tubular lock and latch, and developed the bit guide—a progressive combination that has become first choice for easier, faster, better installations.

Catalog No. 1199 Bit Guide Set. Furnished with 15/16" diameter bit. For use in installation of all Dexter-Tubular Locks and Latches. Carpenters and builders borrow this tool without charge from the progressive dealer in their community who handles Dexter-Tubular Locks and Latches.

NATIONAL BRASS COMPANY, Mfrs.
Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE
Variety of Styles and Sizes Available in Cellastair Unit

A COMPLETE stair unit of 12-gauge steel designed to be installed with Copperweld outside cellar doors is being manufactured by the Bilco Co., 164 Hallock Ave., New Haven 6, Conn. The units are simpler to install than the traditional cellar ways of concrete, stone, blocks or other materials. They are shipped knocked down and compactly packaged. Any semi-skilled workman can assemble and install the units quickly and easily. The outside doors are available with or without the stairs and may be used to cover existing stairs or for new construction. The units are sold through building supply dealers.
LIGHT FOR LIVING ROOMS

Converting an old residence into apartments is a problem in making space more useful.

The versatility of Hope's Residence Casements helps the architect create, at small expense for new windows, a layout of livable rooms which enjoy a maximum of daylight while affording wall space for convenient furniture arrangement.

Hope's Windows are appropriate to all styles of design and give character to the exterior appearance of any building.

HOPE'S WINDOWS, Inc.
Jamestown, N. Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

You can expect to be talked about most favorably when you build homes with Western Pines. These fine-grained, soft-textured woods claim enthusiastic attention everywhere they are used—for exteriors, for paneling, for fine woodwork and cabinets, for doors and windows.

Because Western Pines are famous for their versatility... respond to all kinds of finishes... are carefully manufactured and properly seasoned... they are specified and used with confidence by architects and builders throughout the nation.

AIDS FOR BUILDERS—FREE

Here's literature which will be helpful to you and your clients. Just send us a postcard and copies of the following will be mailed you free.

"Paneling Old or New Interiors with Real Pine"
"Modern Welsh Dresser Details"
"Vacation Cabins"

Address—Western Pine Association, Dept 19B, Yeon Building, Portland 4, Oregon.

*Idaho White Pine  *Ponderosa Pine
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THESE ARE THE WESTERN PINES
Well-manufactured—thoroughly seasoned—rigidly graded—by all Association member mills
Reduce Building Costs with Modular Concrete Masonry Units

MODULAR concrete masonry design lowers building costs because it reduces the number of special units required and eliminates cutting.

Length, thickness and height of all modular units are based on 4-in. multiples including a 3/4-in. mortar joint.

Modular concrete masonry units fit in with modulardesigned window and door openings and facing materials.

This assembly detail shows how wall is built for metal or wood window frames using only three types of precast concrete units—lintels, jamb blocks and sills—without the necessity of cutting any unit.

Modular size concrete masonry units are now widely available. See your local concrete masonry manufacturer for details on how modular sizes save on construction costs. Write us for free copy of "Modular Coordination Simply Explained." Sent only in U. S. and Canada.

PORTLAND CEMENT ASSOCIATION
Dept. A6-3, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of concrete through scientific research and engineering field work.

Selling your customers the flameproof insulation that's soft and safe as a powder puff, and yet too tough for heat or cold! Cotton Insulation appeals to your workmen, too... doesn't make their skin smart or sting—unrolls like a rug and makes the job of installation simple, quick, and easy.

Sell new economy, safety, and insulation performance. Sell featherweight, flameproof, efficient Cotton Insulation—made to specifications of the U. S. Department of Agriculture—tested and proved by successful service from Alaska to the tropics.

COTTON
Look for this emblem when you buy.

FREE! Send for your copy of the new folder "Cotton Insulation." It gives you many suggestions for dramatizing the powerful sales story of this amazing product. Address National Cotton Council, Box 18, Memphis, Tenn.

COTTON INSULATION ASSOCIATION
NATIONAL COTTON COUNCIL OF AMERICA

• Cotton Insulation...more economical...better insulator. Cotton Insulation...a new folder. Cotton Insulation...a cotton story for you... Send for a copy of "Cotton Insulation." The story of this amazing product. Address National Cotton Council, Box 18, Memphis, Tenn.
HERE'S A SHINGLE
WITH "TWO FISTED"
SALES APPEAL

- Obviously a better value! That's the simple, down-to-earth reason why sales are soaring on the new Dubl-Coverage Tite-Ons. They're the new, windproof, locked-down shingles that give 100% double coverage right over the entire roof area.

Add to this the features of handsome, distinctive design; heavier weight and genuine Ruberoid quality— a combination of sales advantages that's hard to beat!

The Dubl-Coverage Tite-On Shingle is specifically designed for new roof construction. Although standard Tite-Ons are ideally suited for re-roofing jobs, a new roof needs the double-layer security of Dubl-Coverage Tite-Ons. And of course, this added protection is a source of extra satisfaction for all roofs.

Tite-On Shingles are backed by continuous national advertising in residential and farm markets. Tite-Ons offer dealers and contractors an unexcelled opportunity to build profitable new roofing and re-roofing business in their communities.

The RUBEROID Co.
Executive Offices: 500 Fifth Avenue, New York 18, N. Y.
ASPHALT AND ASBESTOS BUILDING MATERIALS
HEATFORM

The Superior Heat Circulating Fireplace

The HEATFORM is a double walled metal unit. A perfect guide for the masonry walls. It consists of firebox, throat, and damper. It costs but little more, because it saves labor and materials used for constructing the old time fireplace.

FRONT AIR OUTLET —_—>
COOL AIR INLET

YOUR CUSTOMERS EXPECT YOU TO RECOMMEND AND FURNISH THE BEST

Compare the Heatform with any other fireplace and you’ll be convinced that it delivers more heat and gives more years of service.

MORE HEAT because: larger air chambers surround firebox and throat thus more heating surface over which the air passes.

MORE HEAT, AND GREATER AIR VELOCITY, because: lower and upper heating chambers are connected by air passages at each side and also thru the throat.

MORE YEARS OF SERVICE, because: of the RIBBED construction of the boiler plate firebox.

MORE YEARS OF SERVICE, because: dead-air pockets in the rear heating chamber are eliminated by the round air flues thru the throat which draw a large portion of the air over the hottest heating surface (the lower rear sloping back wall where most heat is generated). This prevents deterioration of metal.

MORE YEARS OF SERVICE, because: there are no exposed metal parts beneath the chimney to rust out.

Heatforms are designed and manufactured by the pioneer of the industry and are proven by 25 years of use.

Write for complete information today—and prepare to serve your customers who see our national advertising in leading home building magazines.

SUPERIOR FIREPLACE COMPANY
Manufacturers of
HEATFORMS, Form Dampers, Blade Dampers, Fuel Grates, Ash Dumps, Cleanout Doors, and Drape Screens.
1708 E. 15th St. Los Angeles 21, Calif.

Here’s the Solution TO YOUR Kitchen Planning Problem

One of the most difficult problems confronting the builder is the planning of the modern kitchen. It is here that several pieces of equipment of different sizes and shapes must be fitted together to make this not only an attractive and cheerful room, but an efficient workshop as well. That is why many of America’s leading builders and architects specify

ELKAY “Lustertone” Sinks

Built of heavy gauge stainless steel all welded construction. They harmonize perfectly with any color and decoration scheme. “Custom built” to meet every individual requirement, also supplied in five standard sizes.

FREE TO YOU—Write today for literature A. B. 647 which will help you solve your Kitchen Planning Problem.


ELKAY MANUFACTURING CO.
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CUSTOM BUILT SINK

to fit any individual kitchen requirements.

PROMPT SHIPMENT

SINGLE BOWL SINK
in 54 inch, 60 inch and 72 inch sizes:
AVAILABLE FROM STOCK

DOUBLE BOWL SINK
in 72 inch and 84 inch sizes.
AVAILABLE FROM STOCK

BUILDER OF QUALITY SINKS SINCE 1920
Mom is cooking with gas now—
IT'S "PYROFAX" GAS!

Yes—you can provide gas service in homes you build beyond the gas mains. "Pyrofax" gas service is a dependable, economical, and clean servant to thousands of families. This gas makes it possible to equip any home with modern gas appliances for cooking, water heating, and refrigeration.

Whether you are building or remodeling, your clients will be well satisfied with "Pyrofax" gas service. The easily installed above-ground unit provides continuous service. For complete details see our catalog in Sweet’s or write to "Pyrofax" Gas Division, Dept. B-1, Carbide and Carbon Chemicals Corporation, 30 East 42nd Street, New York 17, N.Y.

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DUPLEX – THE SASH BALANCE THAT KEEPS ON BALANCING... The high-grade American clock springs used in Duplex Sash Balances are permanently lubricated and enclosed in a plaster tight steel case. When installed, a Duplex balance is entirely free acting, with no frictional drag—and it stays that way—year in and year out.

WEATHERPROOF... Rain, snow and hail, wind and dust, heat and cold—all the things which sooner or later cripple an ordinary sash balance—have no effect on the operation of a Duplex.

AND GUARANTEED... For all the above reasons, Duplex, Inc. is able to guarantee every Duplex sash balance against mechanical defects for the life of the building. What more convincing proof of their superiority could you ask!

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Please send data on Duplex Sash Balances.
Time for a Spring Check-up...

Yes, we've come a long way—but the trip isn't over! Now is the time to check up on your Payroll Savings Plan. Make sure that all your new employees are familiar with its advantages. Remind all your employees that there's no easier, surer way to build their own futures—and America's—than by buying Bonds regularly through the Payroll Savings Plan. Every $3 invested pays $4 at maturity!

For any help you need in conducting the Payroll Plan, call on your State Director of the Treasury Department's Savings Bonds Division.

New Savings Bonds Plan won't affect the P.S.P.

Soon the Treasury Department and the banks of America will make it possible for farmers, doctors, and other self-employed people to participate in "automatic" Bond buying by special arrangement with their banks. This extension of the Savings Bonds program is not a partial payment plan and is intended only for people who are not in a position to take advantage of the Payroll Savings Plan.

The Treasury Department acknowledges with appreciation the publication of this message by

AMERICAN BUILDER

This is an official U.S. Treasury advertisement prepared under the auspices of the Treasury Department and The Advertising Council.
Here's the quicker way to beautify wood floors—apply LIGNOPHOL Quick-Drying, the new one-application wood preservative and finish. Within 15 minutes, the treated area is ready for rubbing down.

LIGNOPHOL Quick-Drying penetrates, preserves, seals and finishes all types of residential and other light-duty or normal-service wood floors in offices, showrooms and stores. Owners are delighted with the satin gloss effect that highlights the natural beauty of the wood. Color is neutral, so the wood is not unduly darkened. There's no superficial film to wear off, and the surface is highly resistant to abrasion, chipping, cracking, marring and scratching.

Save your own time—and please your customers at the same time—with LIGNOPHOL Quick-Drying. See SWEET'S for further information, and for descriptive literature ask your dealer or write Dept. B-8.

The number of new homes planned for construction during the present three year building period has been estimated at more than one and a half million. A $12,000,000,000 investment in better living.

As yet, most of these “dream houses” are still only blueprints, but before long they'll be real homes—with real people living in them. The kind of life those people will enjoy tomorrow is the responsibility of every member of the building industry today.

That's why, all over America, conscientious architects, contractors and building supply dealers are unanimous in their recommendation of Lo-K flameproofed Cotton Insulation. With the complete facts at their disposal on every insulating material, they've found conclusive proof that dollar for dollar, inch for inch, Lo-K is America's best insulation buy.

...Because Cotton Out-Insulates All Others!

Lo-K gives greater insulating efficiency—thermal conductivity rate, only 0.24.

Lo-K is lighter in weight, only .675 lbs. per cubic foot.

Lo-K is easy to handle. Blanket roll cuts installation time and costs, fits snugly.

Lo-K is economical. Pays for itself through greater fuel savings.

Lo-K is flameproofed. Resists blowtorch temperature of 1800°F.

Lo-K lasts indefinitely. Highly resistant to moisture, mildew and vermin.

Mail this coupon today for the complete story of America's #1 Insulation.

Lo-K flameproofed Cotton Insulation

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Dept. AB-6, Lockport, New York

Gentlemen:
Please send full details on Lo-K flameproofed Cotton Insulation to:
Name:

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City...State...

Architect...Dealer...Contractor...
You get the features—the perfection—of custom-built cabinets at production-line cost, when you install beautifully designed, carefully planned and integrated Guiberson Steel Cabinets with Formica tops. Made of heavy-gauge steel, specially processed to prevent rust; beautifully finished with baked-on white enamel.

The ingenious design and construction of the five basic Guiberson units makes them adaptable to almost any installation...see this easy-to-sell, easy-to-install line of lasting kitchen beauty and utility at your nearest Guiberson distributor or dealer.

NOW AVAILABLE
the original inside screens that roll up and down like a window shade

ROLSCREENS in a house are a "trademark" of good planning. They are a year 'round advertisement for the builder who puts them in. They help to keep a house up-to-date and protect its salability over the years. A big part of your business is selling CONVENIENCE. ROLScreens help you do it easier and better than any other window accessories. 10-year guarantee.

CONVENIENCE OF ROLScreens Sells On Sight
Once in place...always in place. That's Rolscreens! No putting up! No taking down! No storing! No painting! No seasonal repairs! Installed and operated on the inside. For all types of windows—both old and new construction.

DEALERS WANTED
A number of choice territories are open for Building Specialty Dealers with facilities to sell and install ROLScreens. If interested, WRITE TODAY for details.

Pella ROLScreens
ROLScreen COMPANY, 567 Main Street, Pella, Iowa
Made by Makers of Famous Pella Venetian Blinds and Casement Windows

EASY TO INSTALL
on all types old and new windows

Double Hung Application
Casement Application

No special mill work, no special fitting or cutting. Installation made to either of the above windows quickly and easily, due to new type guide channels.

GOOD DELIVERIES—ROLScreen orders are being filled and shipped with reasonable promptness. On your next job, include ROLScreens. Write for interesting free literature and measuring directions.
You can safely order Copperweld Wall Ties for cavity wall construction without any fear of delay in delivery. Our increased production now makes them available promptly. The permanence of any cavity wall is definitely assured when Copperweld Wall Ties are used. Made by our exclusive Molten-Welding Process, these ties have a thick, protective covering of pure copper permanently welded to an inner core of alloy steel. This provides a wall tie with the strength of steel and the long life of non-corroding copper—a tie that can be depended upon to function as a permanent bond throughout the life of the wall.

Made in two sizes—6" and 8"—and packed 500 of one size to a box. Descriptive literature sent on request.

**Available Now**

**Copperweld**

High-Strength Non-Rusting *

**Wall Ties**

For CAVITY WALL CONSTRUCTION

THICK COPPER COVERING

PROTECTS

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**Fireplace Units**

For ALL YOUR CUSTOMERS

More sales—better profits for you—with the Bennett Line—Fireplace Units, Dampers (Steel and Cast-iron), Clean-outs, Ash Dumps, Lintel Bars, etc. . . . to fit every prospect’s requirement. Only Bennett builds two types of Fireplace Units, to meet all building needs.

For Camps, Cottages, Southern Homes and Play Rooms

For Modern, Insulated Homes, with Central Heating

Fresh air, from outdoors, is heated and circulated throughout the room. No loss of expensive furnace heat up the chimney—no cold, unhealthy floor drafts—and no smoke! The unit cannot interfere with the traditional beauty of the fireplace—it’s hidden within the masonry. . . . Easier and quicker to build. Mantel may be designed with complete freedom.

EVERY FIREPLACE OWNER WANTS . . .

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More heat and flexibility with a Donley Heatsaver Fireplace

More heat—because-

Four exclusive features in the Donley Heatsaver fireplace result in extra heat output—output that approaches the heating ability of a small furnace. These plus-heat features are:

First—Convolution sheets inside the Heatsaver warm air chamber prevent hot spots, keep the air moving close to all the heated surfaces, eliminate the need for an insulating blanket and increase heat output of the fireplace—an exclusive in the Donley Heatsaver.

Second—The Heatsaver makes the greatest use of the hottest surface in the fireplace—the sloping back wall above the fire. A central heat passage starting just above the surface carries the hot air to the outlets. This Donley exclusive feature increases speed of air flow, insures no "lazy air", reduces heat wastage and makes for much greater heating efficiency.

Third—Heatsaver's warm air chamber takes heat not only from the fire box walls, but also from the hot surfaces surrounding the hot flue gases in the smoke chamber above the fire—another exclusive Donley feature.

Fourth—The heat-trapping, non-reflecting, square-end firebox of the Heatsaver changes skin-toasting, radiant heat into efficient, circulating, room-heating air—one more Donley exclusive.

More flexibility because the extra heat from a Donley Heatsaver gives you more freedom in placement of the fireplace and more capacity for heating extra rooms. The increased stack effect of the Heatsaver lets you draw cold air from across the room (in under-floor ducts); has been used to heat a distant room on the same floor level. Another flexibility feature of Heatsaver is the fact that you can install it with the fireplace front flush with the wall, fully projecting into the room or only partially projecting.

More facts for more profits—Get the complete story on sizes and installation of Donley Heatsaver fireplaces. This information is in the illustrated book "Donley Devices for Home Builders and Owners". A free copy of this helpful book will be sent on request—write for yours today.

The Donley Bros. Co.
13910 Miles Avenue • Cleveland 5, Ohio
It's Sound if it's Round

Circular Homes like these are now demonstrating their desirability and economy.

"THESE HOMES ARE NOT PRE-FABS"
Circular homes have many advantages including livability, structural design and speed of erection.
Standard materials are used throughout.

10 PRINCIPAL ADVANTAGES OF CIRCULAR HOMES

1. Contain more area than conventional homes having same outside dimensions. (A minimum of 27% more floor space.)
2. Have less wind resistance—warmer in winter and cooler in summer.
3. Ventilate better due to action of wind causing suction on opposite side.
4. Cost less to heat.
5. More rigid due to arched construction. Permit use of lighter units without loss of structural strength.
6. Have more utility (livability). Practically no lost space, yet ample room wherever needed.
7. Utilize conventional furniture and fixtures perfectly.
8. Use less material in construction with consequent savings in material and labor.
9. Built more rapidly due to above savings.
10. Better homes at cost of from 10% to 20% less than square or rectangular structures of equal area and utility. DO YOU KNOW OF ANYTHING ELSE THAT HAS BEEN DONE IN THE PAST CENTURY TO MAKE A BETTER HOME COST LESS?

Exclusive Territory Rights Available

Circular Homes, Inc. leases exclusive territory rights to contractors to use Circular House Plans to build bungalows, flats, duplexes, etc. These excellent plans have a strong appeal to prospective home owners seeking charm and distinction in a moderate price range. Our franchise plan is reasonable in cost and provides you with a service no one can duplicate or under-price.

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Write today for full particulars, charges, etc.

CIRCULAR HOMES, INC.
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Racine, Wisconsin

ZONOLITE INSULATING CONCRETE FLOORS

Warm, dry, permanent fire protecting floors are possible when Zonolite Insulating Concrete is used. It is adaptable for basement, ground or upper floors. Floors made from Zonolite Concrete are virtually free from dampness caused by condensation on warm, humid days. Can be placed directly on the ground. Proof against termites, vermin, rot and rodents. Ideal for basementless houses. Conventional flooring, asphalt tile, etc., can be placed over topping.

When radiant heating is specified, Zonolite Concrete is doubly important—reduces heat passage into the ground and causes the house to heat more rapidly. Pour the Zonolite Concrete floor first, then lay the heating pipes over it, and cover with a topping of ordinary concrete. The topping heats faster, warming the house sooner, more economically.

Other Zonolite Insulations
- Zonolite Insulating Fill simply pours into place. Won’t irritate workers’ hands, or require wearing masks. Fireproof, rotproof, verminproof. Virtually unaffected by moisture.
- Zonolite Plaster Aggregate used in place of sand, makes a 50% lighter-weight plaster easier to mix and work. Resists cracking; insulates against heat, cold, sound. Many times more fireproof than equal thickness of ordinary plaster.
- Zonolite Acoustical Plastic opens sound-proofing jobs to you. Simply trowels on walls and ceilings, new work or remodeling. Fireproof.

FREE SEND TODAY FOR DETAILS

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Dept. AB-67,135 S. La Salle St., Chicago 3, Ill.

MAIL COUPON TODAY

Universal Zonolite Insulation Co.
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Please RUSH complete information about Zonolite Concrete Floors Zonolite Insulating Fill Zonolite Insulating Plaster Zonolite Insulating Concrete

Name: ________________________________
Address: ________________________________
City: ____________________ State: __________

Zonolite is Registered Trade Mark of Universal Zonolite Insulation Co.

SEE YOUR LOCAL LUMBER AND BUILDING MATERIAL DEALER
The STANLEY-CARTER J-5 POWER PLANE

cuts Smoother and Faster
with the Exclusive Spiral Cutter

NO MATTER HOW FAST you "hog off" the wood with a Stanley-Carter J5 Power Plane, you leave a smooth surface that needs no sanding. The patented spiral cutter shears off the wood at 18,000 R.P.M. It has to be smooth.

With a J5, you can handle door, sash, screen and similar work 3 to 5 times faster. Develops a full 1 H.P.—weights only 16 lbs. —planes surfaces up to 2 1/2" wide, depth to 7/8"—takes straight or bevel cuts to 45°.

Write for Catalog. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle St., New Britain, Conn.

SHARPENS ITS OWN CUTTER—Just set it up in the Bench Bracket and use the simple Grinding Attachment.

STANLEY

HARDWARE • HAND TOOLS • ELECTRIC TOOLS

The new SISALATION

...today's answer to high building costs!

Reflective Sisalation provides more than adequate insulation plus the perfect moisture-vapor barrier at a low material and labor cost that drastically reduces the present cost of insulating.

At a low original cost, Sisalation in side-walls cuts heat loss more than 30%. At the same time, you get an effective moisture-vapor barrier without extra expenditure!

Now's the time to take advantage of Sisalation's simple, speedy application and amazing results to cut your labor and insulating expenses in half!

NEW HOMES:
36" Sisalation is easily applied in sidewalls, ceilings and under floors in residences. Its sisal reinforcing prevents tearing or puncturing in handling and applying. Note "bowing-in" between studs to create reflective air spaces.

OLD HOMES:
48" Sisalation applied smoothly under attic rafters from top to bottom will cut summer temperatures from 10 to 15° —reduce temperatures in rooms below. Covering unfinished attics with Sisalation improves appearance.

The SISALKRAFT Co.
DEPT. AB • 205 W. WACKER DRIVE
CHICAGO 6, ILLINOIS
The Best Building Plans call for
BARROWS Builders Hardware

There is far more "Sell" in Builders Hardware than appears at first glance . . . "Sell" to the family who will use the building and who will enjoy the convenience, charm, and smooth operation that Barrows provides . . . "Sell" to the craftsmen who install because of the ease of application that is a feature of Barrows Hardware . . . and "Sell" to the builder and architect—because Barrows, for all its quality, is "budget-wise."

They DO Want Quality

On Their Kitchen and Bathroom Walls and Ceilings

Home owners are buying quality products. Sell them what they want.

Today, in most cases, quality is the home owner's first consideration. When "fixing-up," remodeling, making changes, additions, or building a new home, the home owner thinks in terms of beauty, comfort, utility and satisfaction. Only in Quality are all these found.

TYLAC is synonymous with Quality in wall coverings. It has outstanding beauty—and to spare. Utility means serviceability, and TYLAC lasts—many, many years. No hard work to keep it clean—that's a comfort. Just use a damp cloth. And satisfaction! TYLAC stays "perpetually new." It doesn't crack, crake or chip like ordinary wall coverings. Household acids, fats, oils, fruit juices, alcohol or even boiling water have no damaging effect on TYLAC. That's why it's popularly known as "Miracle Walls by TYLAC."

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WHEN you look over this new catalog, you'll see that the 1947 line of Lawson Bathroom Cabinets and Bathroom Accessories fully meets the requirements of all types of today's housing—in the upper, medium and lower cost ranges.

Again Lawson takes the lead in smart styles and top values. Since 1816 Lawson Products have been made to give the greatest satisfaction to every purse and plan.

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Because they are the ONLY oil burning floor furnaces ever offered with fully automatic operation and AUTOMATIC ELECTRIC IGNITION, they provide a degree of automatic oil heating comfort such as every small-home owner dreams of...and is glad to discover he can now afford.

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With the table, arbor and power drive combined into a single rotating unit extra handling of lumber is unnecessary. The lumber always glides along in one position on the extension tables and does not have to be shifted for each cutting angle — the unit is rotated, instead of the lumber.

With this saw the five angle cuts of a 20 ft. rafter can be made in less than one minute.

In addition to the rotating design that saves time, labor and money, the Nordberg-Buday saw has the advantage of being truly portable. It is light and rigid in construction — weighs only 340 lbs. — and its gasoline power drive enables it to be operated anywhere. Electric motors are available if desired.

Let your distributor demonstrate this saw for you. Write for Bulletin 132.

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Predicts War and Housing Shortage To Affect Architectural Design

FREDERICK A. GODLEY, Professor of Architecture at Yale University, in a broadcast to the nation predicted that the war and the present housing shortage will have a "tremendous influence upon architectural design." Stating that "we are on the threshold of a rebirth of architecture and art," Mr. Godley declared, "Every new movement in architecture or art has started with simplicity. By throwing out of the window the decadent and ornamental rubbish and the mannerisms of worn out style, we have made our fresh start.

"The necessity for the speediest possible construction has required most careful and efficient planning. Many standard materials were unobtainable so substitute materials had to be found and new, more scientific methods of construction adopted.

"The architect has been forced to experiment, to become more of an investigator. This is bound to have a tremendous influence upon the architecture of tomorrow.

"If an architect is designing a building to last for years he cannot take chances, he must use materials that have been tried, construction methods that have proven satisfactory.

"The war period has shown many things that cannot be in permanent construction, but also some things that can be done. The most valuable lessons have been the necessity for clean, careful planning and for careful choice of equipment for easier and simpler living.

"We have gone through the period of austere barrenness in seeking new forms. Now we are coming to the fullness of real development." Mr. Godley continued.

"We have learned how to plan more efficiently and economically, to use every inch of space. New and better materials have been found and tested such as glass brick, plastics and other synthetic products; old materials have been used in better ways; improved methods of con-

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struction have been developed and the construction industry has become more mechanized and better organized.

“We are entering a period of great building activity which will present limitless opportunities to the architects,” Mr. Godley concluded. “I believe we will see new types of homes which will have greater convenience and comfort, more healthful surroundings and more beauty, too.”

---

**Batt Forecasts Switch from Consumer to Durable Goods**

A SWITCH in demand from consumer to durable goods is forecast by William L. Batt, president of SKF Industries, Inc., and wartime vice chairman of the War Production Board, in a statement on economic conditions.

“I do not believe there is any likelihood of a severe depression, such as we had in the 1930’s, at any time in the predictable future,” Batt asserts. “But we are now facing a critical period of business readjustment.

“There is certain to be a switch in demand from goods that are quickly consumed to the durable goods, such as motor cars and washing machines, that are now reaching the market in good volume. This transition may be smooth or painfully difficult, depending on the combined action of business, labor and government,” he declares.

“The business man’s contribution to painless readjustment lies in the reduction of prices, but his control over prices is limited by his costs. He does not have a free choice between higher wages and lower prices. The pattern of wages is set either by the unions or by government or by the prevailing rates in his area. If his profits exceed the amount required to maintain a growing business, he can cut prices until profits stand at the necessary minimum. More than that he cannot do. But if he fails to do that much, as many business men obviously have failed, he endangers not only the national

(Continued to page 198)
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Prosperity but his own long-term position in the market. This selective adjustment of prices to costs and profits is very different from a general cut in all prices. Any general cut in prices, or even the expectation of a general cut, can reduce the volume of purchases and set in motion the spiral of unemployment, shrinking payrolls and widespread depression. The ideal price policy is to cut where you can and raise where you must. No other policy is justified by the standards of public welfare or private profit.

“The problem of labor’s control over wages is similar to the problem of price control. A general pattern of wage increases falls with unequal force on various industries and produces some new maladjustments in prices. Industries having a wage bill of 15 per cent of total costs may be able to deal generously with labor, yet hold prices constant. But an industry where wages are 50 per cent of all costs must often pass a wage increase along to the consumer in the form of increased prices.”

AIA Sponsors Contest for Architectural Students

Students of architectural colleges are invited to compete in a shopping center modernization contest being sponsored jointly by the New York chapter of the AIA and the Store Modernization Show.

Plans submitted will be exhibited at the show at Grand Central Palace, New York, July 7-12 inclusive and judged there by a committee of the New York chapter of the AIA. Prizes of $500 will be awarded.

The plan for the shopping center must be designed for a city of 50,000 inhabitants and contain ten or twelve stores. Details of the competition as well as registration cards for the show may be obtained from Store Modernization Show, 20 East 55th St., New York 22, N.Y.

Judges appointed by the AIA chapter are Morris Lapidus, chairman, Jose Fernandez, Victor Hugo, Morris Ketchum, Jr., Gordon Lorimer and Thomas H. Creighton, consultant.

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**Thompson to Head Mortgage Bankers**

**John C. Thompson**, Newark, N. J., president of the New Jersey Realty Company, has been nominated as the next president of the Mortgage Bankers Association of America to succeed Guy T. O. Hollyday of Baltimore, according to an announcement by R. O. Deming, Jr., Oswego, Kans., chairman of the group's nominating committee. Aksel Nielsen, executive vice president of The Title Guaranty Company of Denver, was nominated for vice president.

Since the inception of the Association, nomination has been tantamount to election, which will be at the organization's 34th annual convention in Cleveland, Oct. 2, 3, and 4.

A graduate of New York University, Mr. Thompson was former president of New Jersey Title Association and was the first president of the New Jersey Mortgage Bankers Association, which he was instrumental in organizing. He is a trustee of the Newark Museum and of the Hospital Service Plan of New Jersey and a director of the Lincoln National Bank of Newark.

He has served on a long list of Association committees including finance, membership, executive, clinic and conference, and was Association vice president this year. He has been active in the education work of the Association which included two conferences for senior mortgage executives at New York University in 1946 and 1947.

Mr. Nielsen also has served on many Association committees and was first elected to office in the organization in 1942 when he became a regional vice president. His company is the oldest title company in Colorado.
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