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# AMERICAN BUILDER

and Building Age

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Upper hall, residence at Pleasant Ridge, Mich.; Harry J. Durbin, Detroit, Builder; E. L. Bruce Co., White Oak Block Flooring furnished by Wayne Finish & Lumber Co., Dearborn, Mich.

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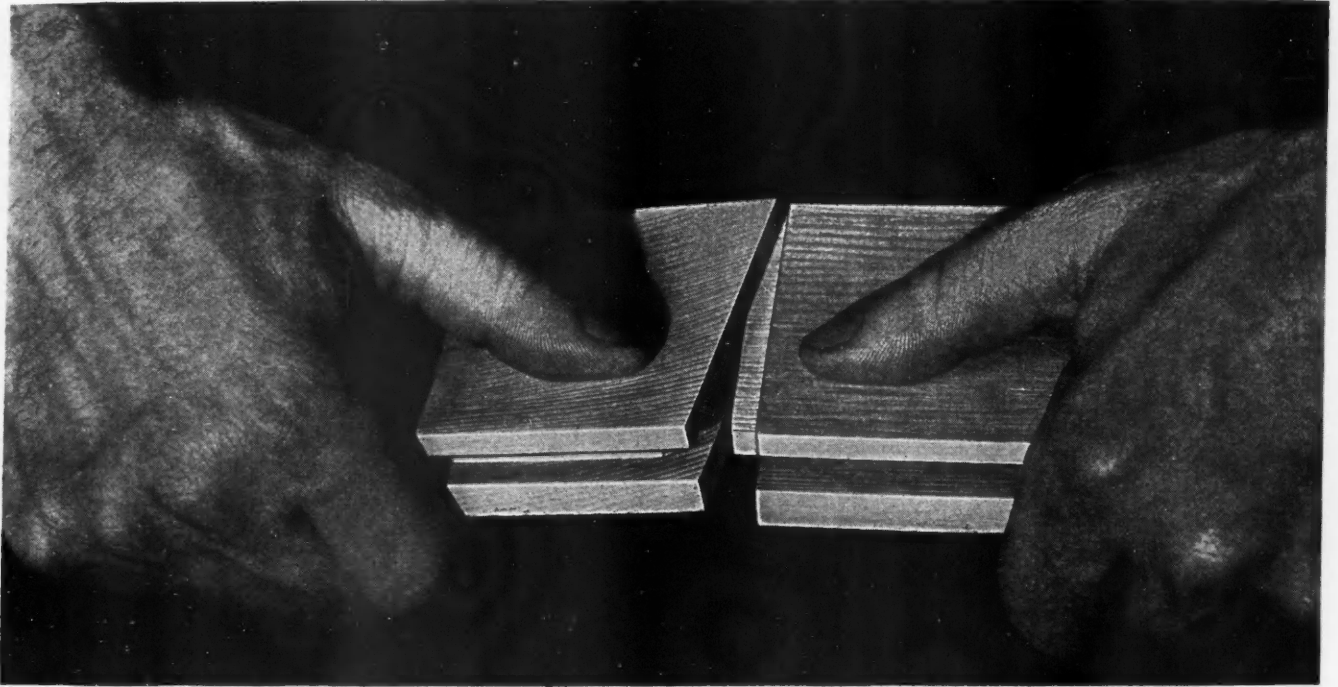
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## What Kind of a "Big Push" Is It to Be?

**T**HE National Housing Act is a constructive measure, because it is stimulating *investment of private capital*. *The American Builder* did more for its passage than any other publication. The administration deserves credit for having supported and helped make it effective.

Recent reports from Washington are that the next "big push" will be to increase residential construction. *Subsidies* are hinted at.

The building industry should *oppose* any "push" that would involve increased use of the *taxpayers'* money. That would be the best way to demoralize the industry, and *hinder* the revival of construction now under way.

**S**INCE May, 1933, almost every important "recovery" policy of the government, excepting the National Housing Act, has *retarded* recovery. Its vast expenditures to "prime the pump" of business have clogged, not "primed," the pump, and piled up billions of national debt, most of which readers of the *American Builder* and other members of the "middle class" will have to pay in taxes. Until the Supreme Court killed it, NRA hindered revival of all the durable goods industries, *including home-building*.

It would be to the interest of *every* industry, and every employed or unemployed person, for the government drastically to reduce its insane spending, and quit interfering in everybody's business *ostensibly* to benefit some at the expense of others—*ostensibly*, because the plain principal purpose of almost every measure passed at the recent session of Congress was to *influence votes*.

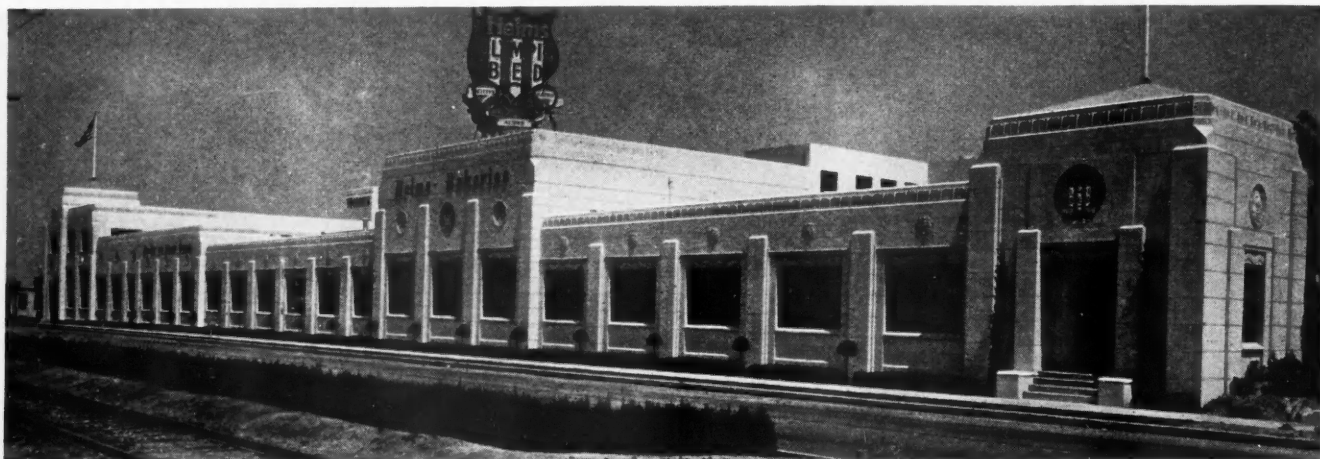
**B**UILDING and buying of homes are done by the *intelligent, thrifty, taxpaying* part of the people. They can be "sold" *only* by making the cost of building or buying a *good investment*. In every instance that the government has interfered in any industry—excepting with the National Housing Act—it has *increased the cost of production*. This has been done, *ostensibly* in the interest of labor, by increasing hourly wages. It has injured every class, and *especially labor*, by preventing the large increase of production and employment in the "durable goods" industries that otherwise would have occurred. But for this retarding influence, the depression would be virtually over in the United States—as it is in England and many other countries.

Contracts for residential construction in the first half of 1935 were 70 per cent larger than in 1934, and 100 per cent larger than in 1933. In July they were 120 per cent larger than in 1934, and 150 per cent larger than in 1933. When the home-building industry is making such progress, it may well regard with suspicion and apprehension any proposal for a "big push" emanating from Washington, whose "experiments," "reforms" and gigantic spending already have needlessly prolonged the depression two years.

*Samuel O. Drun,*

CHAIRMAN,  
AMERICAN BUILDER PUBLISHING CORPORATION  
SIMMONS-BOARDMAN PUBLISHING CORPORATION

# SCULPTURED *in* STUCCO



Before preliminary plans for this new million-dollar bakery were started, two requirements were set by the owner. First requirement: quality materials only. Second requirement: absolute minimum cost.

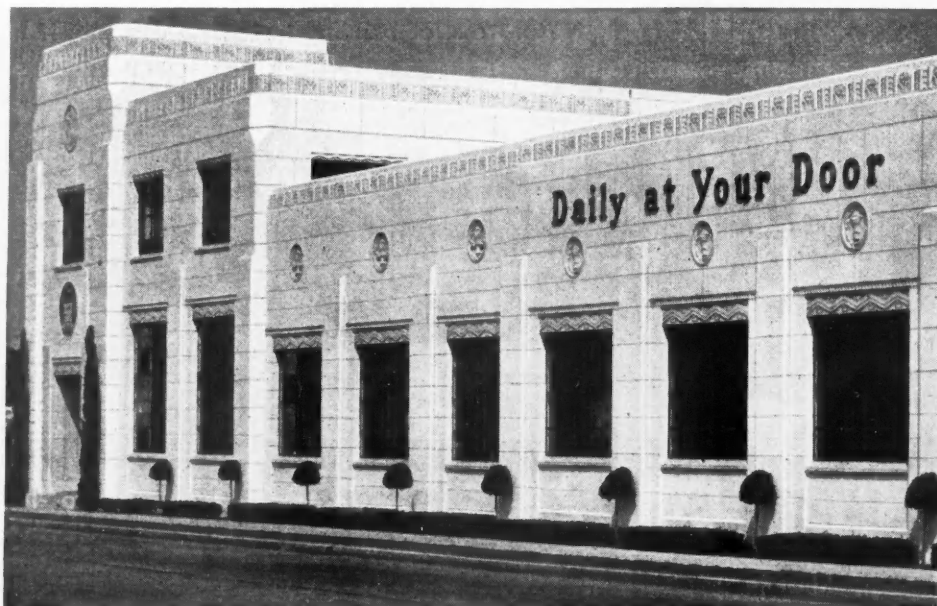
The architect's answer to those specifications is of dollars-and-cents interest to every builder, realtor and owner. He said "the finish will be stucco and cast stone. Atlas White portland cement specified for both."

You can see the result. The exterior finish is Atlas White stucco, in smooth finish, marked off to resemble stone. Ornamentation is cast stone, also made with Atlas White. Both of the owner's requirements were met in full—not simply on the basis of acceptance, but to his enthusiastic approval.

For "Modernizing Main Street" and for new buildings, Atlas White stucco (*preferably factory-prepared*) is a finish that combines durability and excellent appearance with *proved* economy. It's worth investigating. May we send you the details? Write Universal Atlas Cement Co. (*United States Steel Corporation Subsidiary*), 208 South LaSalle Street, Chicago.

Durable, economical Atlas White stucco marked off to resemble stone is the finish specified by Architects Grant & Bruner for this million-dollar Helms Bakeries plant. Ed Westberg was the plastering contractor. Watkins Company was the cast stone manufacturer. (All of Los Angeles.)

Stucco made with Atlas White can be applied in *any finish* suited to the architectural design, and in *any color*—from pure white like that shown here to bright reds and greens and yellows. For remodeling work particularly, as well as for new construction, these two qualities alone place Atlas White stucco at the top of the list of preferred finishes.



STUCCO *made with* **ATLAS WHITE**  
PORTLAND CEMENT

## AMERICAN BUILDER AND BUILDING AGE

# Private Home Building vs. Government Housing

**R**EPORTS from well-informed Washington sources indicate that the President has recently turned to residential construction as the nation's best road today back to re-employment and business recovery on a country-wide scale. He is reported to have asked a group of his economic advisors to go ahead as fast as possible on plans for stimulating home building.

If rightly conceived, this is welcome news, not only to the four million families that are normally dependent on the building industry for their livelihood, but also to business men and mechanics in every line; because every line of trade and commerce in every community would feel the stimulus of new home building activity, if based on sound policies fair to all and not merely "class legislation" to help certain special groups.

### Nation-Wide Private Construction Should Be the Objective

In considering plans for stimulating home building, this publication hopes that the President and his advisors will keep their attention riveted on the Big Job to be done, and will not permit politics or any other consideration to sidetrack them into the comparatively small by-play of slum clearance or subsidized shelter for those on relief. At this time, when two million good private homes are needed, and their construction is only awaiting favorable conditions to go ahead, we have in prospect a program of privately financed building activity *without calling for government tax money* that not only will be big enough to re-employ millions now on relief rolls, but also designed to create sufficient new taxable wealth to help local, state and national governments to balance their budgets.

In considering plans for "a big push on housing" which Washington correspondents report is contemplated, the administration councilors should give first thought to that fundamental of all private construction, namely, satisfactory and economically sound home ownership.

Home owners do not ask for a subsidy, but they do ask for and demand reduction in the tax burden on homes to a point of fair equality with other taxable wealth. Home owning should not be penalized by excessive taxes nor the security of home owners placed in jeopardy by unfair levies. It should be the fixed policy of all government bodies, local, state and national, to

reduce taxes on homes and, by so doing, to encourage home ownership.

The second fundamental for encouraging a nation-wide revival of private construction, including home building, is to bring about a substantial reduction in building costs, so that money invested today in new construction can earn a profit at the present rent level.

Lower wages *by the hour* would result in larger earnings for building trades mechanics *by the week, month and year*; because the lower rate would encourage property owners to go ahead and build. *Full time work* for many would certainly result; since the *need* of building is now the greatest in a decade.

Lower material prices, based on expected volume rather than on present restricted sales, would also prove a potent contribution to the cause of building revival. Some lines have already invited a heavier trade and others will doubtless follow.

The former heavy cost of home financing under short term first and second mortgages has been substantially cut by FHA regulations, and the sound procedure set up by the Housing Administration has laid the ground work not only for lower financing costs, but also for better construction, safer investments and more successful home ownership. The FHA plan is admirable in its policy and structure, but it needs to be more vigorously "sold" to the bankers and other mortgage lenders and also to the home seeking public.

### "Big Push" Should Be on These Fundamentals

We invite the thoughtful consideration of building industry leaders, as well as of the President and his advisors, to these three broad approaches to a stimulation of private construction. If confidence in real estate investment and home ownership can be strengthened, if lower building costs can be and if the FHA program can be made effective, this Four Billion Dollar Home Construction program will step forward to start all business and to reduce unemployment. This will be done without government subsidies and without adding to the public debt but by the industry. A few federal housing or slum clearance projects scattered here and there in some of the big cities are at most an interesting experiment in social betterment for

a few. The "big push on housing" from Washington, if it comes at all, should concern itself with improving the fundamentals of private home owning and of prudent, thrifty home building for all.

## NEW FHA RULES SHOULD HELP

**N**EW administrative rules and regulations recently issued by the Federal Housing Administration covering insurance of home mortgages under Title II of the National Housing Act reduce certain of the interest rates and charges, and also open the door just a mite to those private investors who would like to own some of the FHA insured first mortgages. Though the individual investor is not specifically mentioned, the new rules provide a way through which he may invest in insured home mortgages, if his investment is handled as a trust, set up by an approved mortgagee. This is in line with the recommendations that this publication made to the Administrator in March, April and May of this year, urging that the rules should be modified to permit private investors to participate directly in the FHA financing.

Individual investors actually furnish funds for one-fourth of all home mortgages, a fact which came out at the U. S. Senate Hearings on the National Housing Act, when the following figures were given on the distribution of the home mortgage debt burden as of 1931:

Building and Loan Associations.....	\$6,500,000,000
Individuals .....	4,000,000,000
Mutual Savings Banks.....	3,500,000,000
Mortgage Companies.....	3,000,000,000
Insurance Companies.....	2,000,000,000
Federal Reserve Member Banks.....	1,400,000,000
All other banks.....	1,100,000,000

There is still no provision under FHA rules for sale of insured mortgages outside the circle of approved mortgagees, except the provision permitting these mortgages to be disposed of to a trust held or administered by the approved mortgagee in a fiduciary capacity.

Two instances have been found of this new method already in effect to give individual investors access to insured mortgage investment through trust arrangements: The Hudson County National Bank, Hudson County, N.J., almost three months ago announced that it would make investments in insured mortgages for clients under a trust plan. In St. Louis, a real estate company has worked out an arrangement with a bank, under FHA regulations, whereby it represents the bank as agent making insured loans.

The reductions in FHA interest rates and charges in these new regulations will please home owners and builders, although they may not appeal so strongly to the lending institutions. In brief these changes are:

Reduction of the insurance premium on mortgages to a flat  $\frac{1}{2}$  of 1 per cent: This action retroactive. The previous premium was  $\frac{1}{2}$  of 1 per cent to 1 per cent.

Reduction of the maximum permitted interest rate to 5 per cent for all types of mortgages. The former maximum was 5 per cent to  $5\frac{1}{2}$  per cent.

Current surveys show that it is still difficult and in

some regions impossible to get building money at these FHA terms. However, these conditions are improving. The National Association of Real Estate Boards states that banks are now making loans in 47 per cent of the smaller cities and 75 per cent of the largest cities as compared with only 24 per cent six months ago, and that insurance companies are advancing money for home building in 45 per cent of the cities, against 29 per cent six months ago. The trend is definitely better and these new broadened FHA regulations should help.

## WHAT'S IN A NAME?

**O**NE of Shakespeare's characters asks, "What's in a name?" Operative builders might well answer that:—"There is a great deal in a name." In fact, picking the proper name for a home building development has much to do with its success.

We are intrigued by the names being used this summer by many well-known operative builders for their houses or for their development projects. The names used give a rather interesting side-light on what builders feel are the important requirements of homes and homesites in the current market.

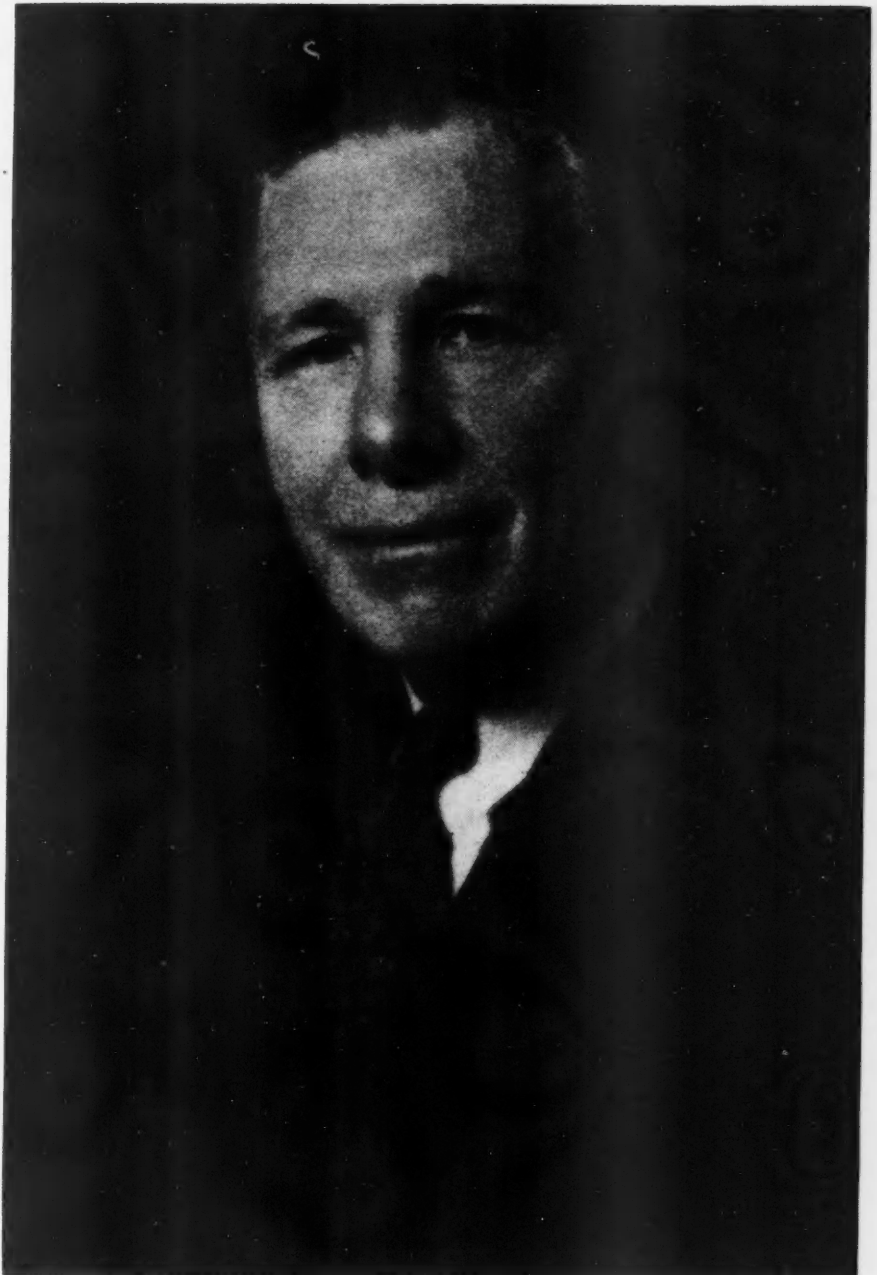
For example, builders Itelson and Friend, of Flushing, L. I., are extensively advertising their "Friendship Homes—Air Conditioning Homes for \$5490." In the same section are "Domestic Homes"—all the name implies. Close by another operative builder is advertising "Thomas Edison Homes" which are presumably the last word in scientific achievement. Another fetching title is "Sylvania Homes—The Home of Your Dreams."

Hills and parks are widely used in the current titles of builders. "Flushing Hills Homes—\$4990" attract attention. Levitt & Sons have a widely advertised home section which is called "Strathmore at Manhasset." Garden Estates, Inc., widely advertises its "Munsey Park Homes."

Model homes being opened in connection with FHA and by builders also have developed some striking and interesting names. One of the best of these is "Carefree Cottage" at Hempstead, L. I. In South Orange, N. J., W. W. Drewry recently opened "America's Ideal Suburban Home." The "New Era" home is a widely advertised title and the "New American Home," which has been adopted by General Electric, has attracted attention.

Washington, D. C., builders are extensively featuring "Health Homes." These builders tend to apply attractive names to the section in which they are built, such as: "Exclusive Woody Park," "Grasslands," "Woodbine—Community of Beautiful Homes," "West Moreland Hills," "Montgomery Hills," "Westley Heights," "Meadowbrook," "Hillwood," "Woodside Park," "Foxall," "Hillendale," "Burntmills Hills," "Luxmanor," "Spring Valley," "Jefferson Park," "Greenwich Forest," "Edgemore," "Woodside Park," "Clarendon Homes."

Yes, there is a great deal in a name, and perhaps if Shakespeare were here today he might draw upon his extensive vocabulary to improve on those mentioned. And then again, perhaps he couldn't.



**JOHN HOWATT**

National President American Society of Heating and Ventilating Engineers

## Air Conditioning and Contractors

"Air Conditioning has taken the popular fancy more than any other development in the last five years. The term is heard on every tongue and is read from almost every magazine and daily paper. Perhaps the fact that it is an industry that seems to have been developed when everything else was at a standstill accounts to some extent for the great popularity given it. For many contractors it has served to fill the gap that appeared when building stopped and indications are it will continue to help fill that gap until building construction again brings their business to normal."

# Air Conditioning Leads Advance

Great opportunities seen for commercial cooling installations for business profits and for all-year air conditioning of homes for health and comfort\*

By JOHN HOWATT

National President American Society of Heating and Ventilating Engineers and Chief Engineer Chicago Board of Education

**A**IR Conditioning is a branch of building industry and since the men in this organization deal with real property they must be interested in it as a part of their daily life. I have visited most of the large cities in the United States in the past two months and what I observed of the building industry throughout the United States agrees with the often repeated statement that there will be very little heavy building construction in the United States for several years to come, except construction supported by tax monies, but that there will be a great increase and awakening of activity in construction of home units such as single houses and small privately owned two or three apartment buildings. There are two reasons why there will be an activity in home buildings almost at once. First, there is an actual shortage of home units because of the almost complete abandonment of building construction for the past five years. Time has served to destroy many buildings during that half decade on the one hand, and on the other has produced people; it has increased the load and decreased the facilities with which to take care of that load. The pressure has become so great that already in many communities the barrier of resistance has been broken down.

The second reason why we will see a renewal of home building activity is because of the desire of the normal human for security. When men see their lives' savings swept away and hope is dim, they long for the security of a home for they have observed that the one who owns and has paid for his home enjoys a security in the community not enjoyed by others.

Whenever any new venture proves to be a success many different peoples claim credit for it. Many different professions claim credit for the development of our civilization and for being of the greatest benefits to humanity. It must be admitted the engineer must be given a leading place among those professions that have contributed a great deal to human welfare. From the beginning of time the drudgeries of the world bent the backs and stooped the shoulders of men and women. The skill and ingenuity of the engineer has taken the drudgeries from the backs of humans and put it on machines, so it is no longer necessary for humans to slave like animals. They have lightened the load for men and women in the home, on the farm and in the factory; they have contributed materially to the ease and comfort of everyone. Their latest contribution to humanity is known as "Air Conditioning" and especially that branch of it that is applied to provide comfort.

## Public Clamoring for It

Air Conditioning has taken the popular fancy more than any other development in the last five years. The

\*Address before the Chicago Real Estate Board, July 24, 1935.

term is heard on every tongue and is read from almost every magazine and daily paper, yet I dare say not one in one hundred who use the word could give a definition for it. Perhaps the fact that it is an industry that seems to have been developed when everything else was at a standstill accounts to some extent for the great popularity given it. It is not new to engineers for we are aware of the research that has been carried on for thirty years in this field that provided the fundamental and basic data that made possible the rapid growth in the last few years. The newspapers like to term it the "Depression Baby" and express the thought that it will be the means of pulling us out of the bog of depression. However, in my opinion more is expected of it than can possibly be accomplished. The bog we are in is so deep that no single device alone can pull us out; it can only be done through the united efforts of every device, all working in the same direction. It is however, proving a life saver in many places. Manufacturers of motors, fans and different pieces of apparatus that go into an air conditioning system have found it a very pleasant addition to their market. Electric Public Utilities are welcoming it as a long sought friend to help them in their outlet for electric power; as a matter-of-fact about 45,000 connected horse power is credited to air conditioning in Cook County (Chicago). For many contractors it has served to fill the gap that appeared when building stopped and indications are it will continue to help fill that gap until building construction again brings their business to normal.

## How to Secure Comfort

Air Conditioning may be classified in three general ways according to the uses to which it is put. It is used in industry in process work, the oldest of all applications and the field in which the largest volume of business is found. It is used in the field of establishing comfort for humans, the field that has taken the popular fancy that is accountable for the large increase in volume of air conditioning work in late years. And it is used in the field of health, although not as extensively as it will be in the future. As a matter of fact, in my opinion, air conditioning in the field of health will be of greater importance to humanity in the years to come than its use in any of the other two fields.

Up to about thirty years ago carbon dioxide theory and the toxic poison theory of ventilation prevailed. At that time however, a new thought was injected into this industry, that the proper basis of measurement for a satisfactory ventilating system was its physiological effects or reactions on the human system. The general adoption of this theory led to experimentation and research to obtain the value of the different factors in an air environment that would provide a satisfactory condition. It was found that the problem in comfort was heat elimina-



tion and that the rate of heat elimination could be changed by changing the temperature, relative humidity or the air motion. This resulted in the development of what is known as the comfort chart which has been generally accepted as a satisfactory device to measure comfort for the ordinary normal person. A study of this chart will show that there is a comfort zone with quite wide limits in which the temperature, the relative humidity or the air motion may be varied with equal comfort; but a change in any one of the three factors must have a corresponding change in the others; that is, with a fixed temperature of say 75° and a fixed air motion, the feeling of warmth can be changed by merely changing the relative humidity. This is of great importance in air conditioning work. It has been especially important in Chicago this year when we have had a summer of relatively high humidity but not unusually high temperature. The comfort cooling problem for this summer is more to provide means of eliminating moisture from the air than means of lowering the temperature.

In order that you as non-technicians may know a little of what the air conditioning engineer is attempting to do in comfort work, it is necessary for you to know something about the heat dissipation from the body. As you are aware, through the metabolism and low temperature combustion, the body is generating heat all of the time day and night, summer and winter as long as life lasts. We know too, that the temperature in well persons remains practically constant all of the time at 98.6°; therefore, since the body is generating heat within itself all of the time and since its temperature does not rise, there must be a heat dissipation from the body all of the time. The body controls its temperature by changing the rate of heat production through a complicated system which will not be discussed here. We modify the rate of heat dissipation externally by changing the amount of insulation on the body, that is the number of layers of clothing and the thickness of those layers, and changing the air environment that lies next to the skin; this latter is in the province of the air conditioning engineer. It is evident, therefore, since heat must be dissipated from the body summer and winter that whether we install a heating system in winter or a cooling system in summer, we are in each case installing a cooling system. When we install the heating system for winter usage we are doing so to reduce the rate of heat dissipation that would otherwise take place. When we install a cooling system we provide means of accelerating the rate of heat dissipation that would otherwise take place and that rate of heat dissipation is nearly the same summer and winter; and maximum comfort will be provided when that rate is such that the human regulatory system will find it easiest to maintain the body temperature at 98.6° and in which condition the human organism will find the job of living the easiest.

#### Standards of Air Conditioning

Every new, live, rapidly growing industry attracts to it firms and individuals that do more harm than good to the industry. The Air Conditioning field is no exception. A great amount of publicity given to it and the misconception of the profits that lie in it have attracted to this field firms and individuals who are not qualified by training or experience and who do not have the proper view point and who will do the industry an irreparable harm unless steps are taken to correct the condition that now exists. The public is not aware of the limitations of air conditioning, it is not aware that air conditioning can be purchased in part or in whole, and furnished in different degrees of excellence. Only through adoption of defini-

tions and minimum standards of air conditioning that can be popularized and that can be enforced will there be provided that protection that the industry now needs. A better public understanding of these things will stop misleading advertising on the part of manufacturers of equipment and will stop agents and owners of buildings advertising homes or offices as air conditioned, unless qualified by stating by stating the degree of air conditioning offered. A Committee has been organized in Chicago known as the Chicago Committee on Air Conditioning Standards in an attempt to correct the evil in this community. The purposes of this Committee are three fold: (1) To develop minimum acceptable standards of air conditioning for Chicago. (2) To consider ways and means of giving these standards publicity. (3) To consider ways and means of putting them into effect.

When this is done it will be a public protection against unscrupulous sales and against ignorance; and a condition of fair competition will be established within the industry.

#### Means of Restoring Values

You as agents and owners of buildings, many of them in the downtown business section of Chicago, are no doubt interested in where the immediate future for air conditioning will be found. There is a large market in the business section of Chicago today; there are hundreds of thousands of square feet of office space today below the sixth floor, in offices near the elevated structures or on noisy street car lines, where it is impossible to open the office windows because of the street racket and street dirt that comes through the windows; and if such office space is rented now it must be at a rate so low there is no return for the owner. The way out for these buildings is by sealing the window so they must be kept closed the year round to keep out dirt and noise, and by installing complete year round air conditioning. I believe you will agree with me too, that many of the older buildings in the business section that are well located and are still of sound, solid construction, can be put in the same class as to desirability as the new buildings, by the installation of modern lighting facilities, plumbing, elevators and air conditioning at much less cost than a new building can be erected.

Most of the jobs of air conditioning for comfort that have been sold up to this time have been sold on the profit basis, that is, the customer has been assured that air conditioning will increase his patronage and his profits in his railroad train, theatre, restaurant or buffet. Most of the times it has proven out; in fact many of the installations have paid for themselves in two years. Sometimes, however, the owner after installing air conditioning has found that the increased overhead brought about by the cost of the installation and its operation could not be absorbed in the business obtained, and therefore to him it proved to be a losing venture. He becomes a dissatisfied owner. I believe a careful check up should be made on all air conditioning jobs that are sold solely on the profit making possibilities, for it is more important that we have satisfactory installations than it is that we have a great many of them.

#### Comfort and Health in Homes

All peoples throughout the world are concerned primarily with their happiness and therefore with those measures that will bring that state of being. The feeling of security is a state of the mind, the feeling of comfort and health are states of the body, all are essential to happiness. In planning housing for the fu-

(Continued to page 78)

# OPERATIVE BUILDERS

A monthly department for the men who plan, erect and equip homes for sale

## Air Conditioned Homes in Cleveland

Twelve Operative Builders Join with Electrical League to Demonstrate Automatic Systems

By BERT D. LYNN

of the Economy Building Company, Cleveland

IN co-operation with a group of active home-builders the Electrical League of Cleveland is sponsoring a highly successful movement to popularize the air-conditioned home.

In other years the Electrical League has done much to get proper wiring, sufficient convenience outlets and enough electrical equipment into homes. In this latest movement the League has selected twelve representative homes in the Cleveland area which are equipped with air conditioning and is displaying and advertising them widely.

Three of these public demonstration homes are located in Cleveland Heights, two in University Heights, three

in Shaker Heights, two in Beach Cliff, one in Euclid, and one in Cleveland proper.

The movement is attracting much attention and is regarded as highly successful since it is making the public new home and air conditioning conscious.

Since building contractors and Electrical Leagues of other cities may be interested in the Cleveland movement, an outline of the plan is given herewith:

**THE LEAGUE AGREES:** (in a contract with the builder of each of the houses it is sponsoring)

1. To advertise the house for sale and announce that it is open for inspection, in four consecutive Sunday editions of the leading newspaper, the advertisement to consist each time of a single column, 25-line classified ad, copy to be furnished by the owner and to be approved and placed by the League.

2. To furnish rectangular sign, copy to read:  
Open 2:00 P. M. to 9:00 P. M.

For sale by (Name, address, telephone number of builder) and a circular sign to read:

**AIR CONDITIONED FOR HEALTH AND COMFORT**

3. To furnish and install floodlighting equipment to illuminate the front exterior of the house for a period of thirty (30) days from the date of opening.

4. To furnish electricity from dusk to 9:00 P.M. each day for the thirty day period to illuminate the interior of the house, and for operating the floodlight equipment.

5. To furnish cards, signs, and placards to be displayed in the house and to explain the air conditioning equipment to visitors.

6. To carry liability insurance on the house during the thirty day period in which it is to be open to the public.

**THE OWNER AGREES:** (the builder)

1. To install as a permanent addition to the house, winter air conditioning equipment which will provide for filtration, circulation and humidification. The make of equipment must be approved by the League.

2. To permit the display of and to keep in place all placards and signs furnished by the League.

3. To permit the League to furnish at its option a representative to explain the air conditioning installation to visitors.



FOLDER on Air Conditioning passed out at Model Homes.

4. To have the house ready for final inspection three (3) days prior to the date it is first to be advertised.

5. To keep the house open for public inspection from 2:00 P.M. to 9:00 P.M. daily for thirty consecutive days beginning on the date the house is advertised by the League, unless sold and/or occupied prior to the expiration of the thirty day period.

6. In the event the house is sold and/or occupied prior to the expiration of the thirty day period, the owner agrees to reimburse the League at the rate of \$5.00 per day for each day of the unexpired period.

In the houses being displayed, which range from \$8,250 to \$30,000, the public observes how winter air conditioning operates, just what equipment is used, and how it can be installed in both new and old houses.

According to the Electrical League, the advantages of Winter Air Conditioning are the following:

1. *Circulation and ventilation:* Positive air movement throughout a home eliminates cold floors and rooms "hard to heat." Forced circulation and ventilation keeps home air pure and fresh.

2. *Filtered Air:* Outside air comes into the house filtered free of dirt, soot. Curtains, drapes, walls, and woodwork remain bright and clean.

3. *Moisture:* One to one and one-half gallons per room and each day is the amount of water needed to prevent drying out of woodwork, walls and furniture. The proper amount of moisture in heated air prevents common colds. Moisture makes lower temperatures more comfortable.

4. *Heat Control:* While the outside temperature may go below zero, the inside temperature remains constant at 70 degrees. At night the thermostat may be set for 60 degrees with the assurance that the next morning the house thermometer will read 60 degrees.

5. *Better Health Results From:* a. Even temperature, b. Proper moisture, c. Clean, dustless air, d. Fewer colds in winter.

BELOW are shown floor and heating plans of the model house on Montevista Drive, Cleveland Heights, by the Economy Building Company. Exterior view of this house at top of page.

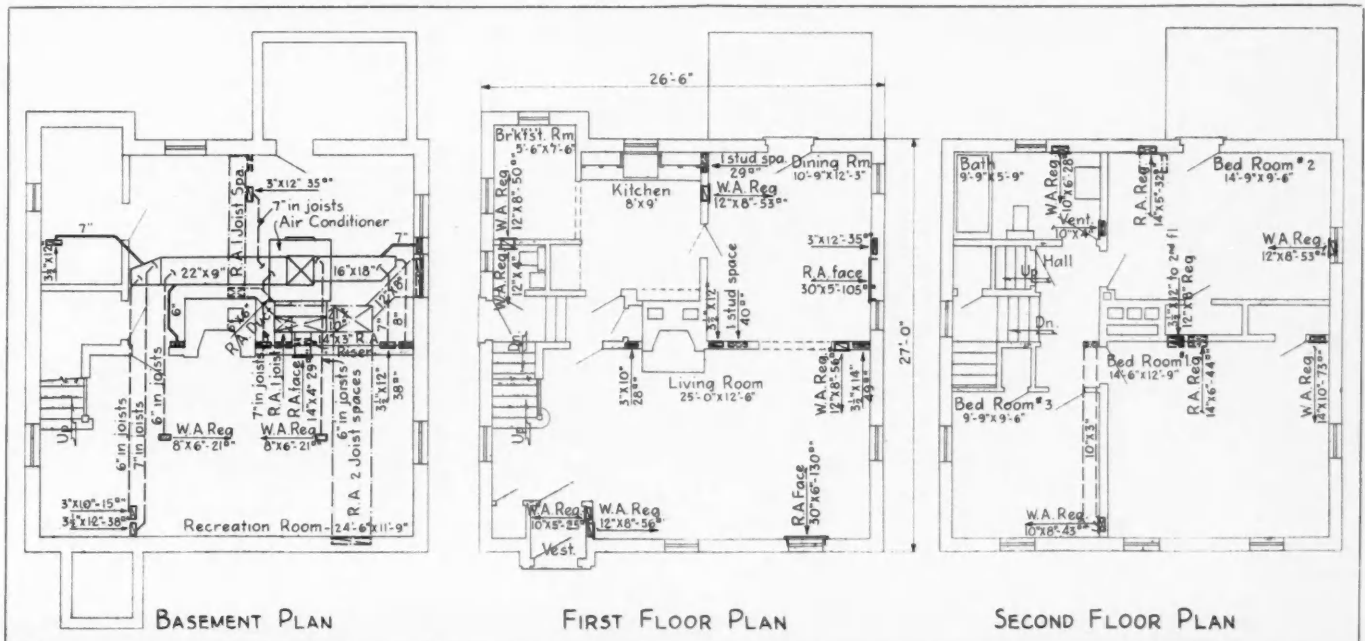


SNAP-SHOT of Economy Building Company Demonstration. Note Electrical League Signs Displayed. Room arrangement and heating layout shown below.

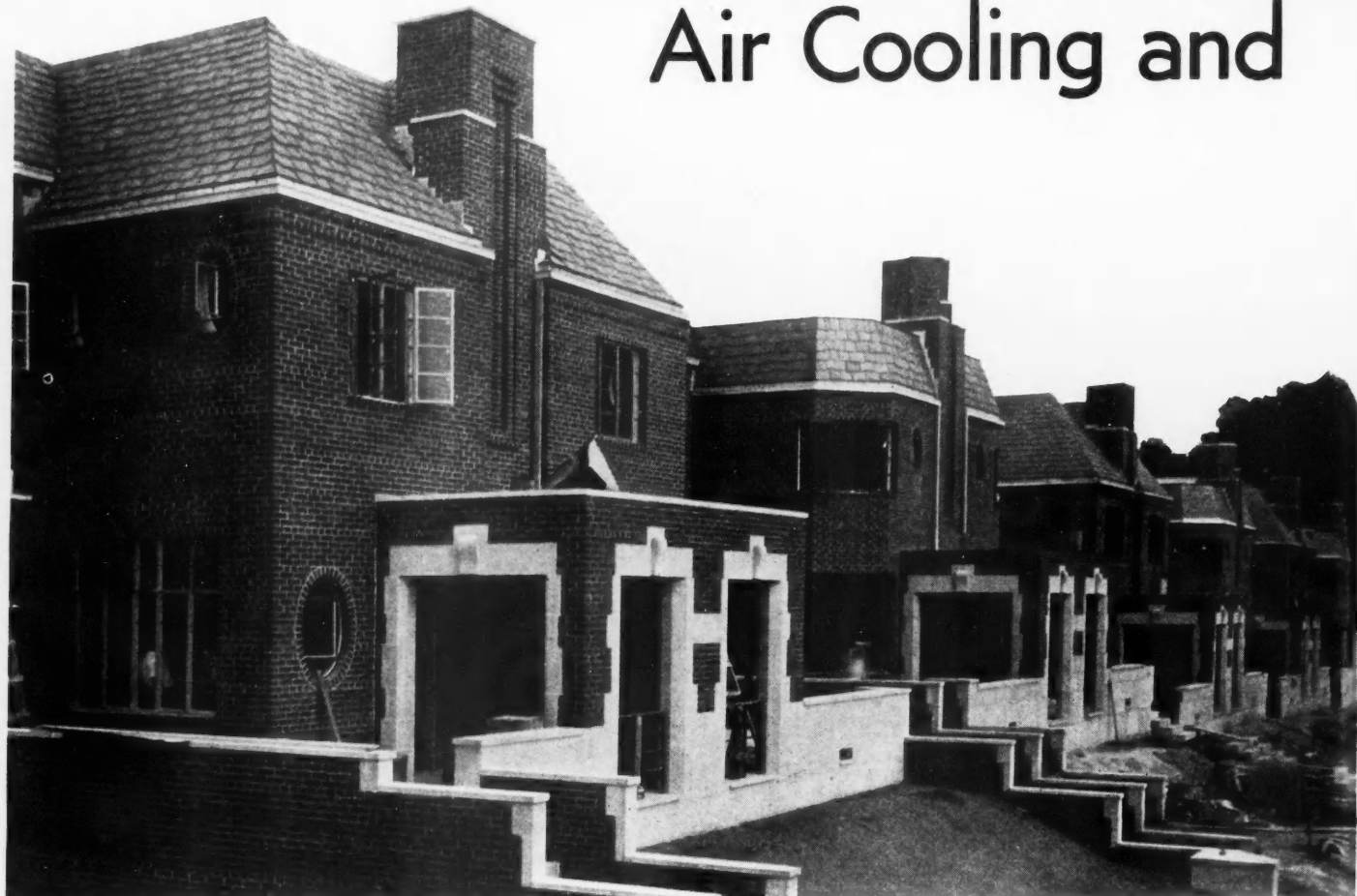
6. *Economy Advantages:* a. Fewer cleaning bills, b. Less money for redecorating, c. Furniture lasts longer, d. Expensive winter colds reduced, e. Lower fuel costs.

By stressing these advantages the Electrical League and the contractors of Cleveland have put their movement before the public. And there has been a remarkable reaction. The original twelve homes are selling rapidly. Contracts for more air conditioned homes are rolling in. It took "Home-Made Weather" really to revive the building industry of Cleveland.

The home builders engaged with the Cleveland Electrical League in putting on this demonstration of twelve air conditioned model homes are: Smith & Swanson Co., Samuel Feiner, Inc., Economy Building Co., A. Permut, Inc., Albert Siegler, A. W. Nelson Co., Julius Korecko, Julius Rosen, George H. Freeland Realty Co., Charles A. Moss, Sam Dietrich, and Artcraft Homes Co. The homes range in price from \$8,250 to \$30,000. Some adjacent projects now being started will sell as low as \$7,000 including air conditioning equipment. One organization is planning a development of smaller homes with air conditioning and electrified kitchens for less than \$5,000. The public interest in these thoroughly modern homes being displayed in Cleveland and suburbs indicates what the people want.



# Air Cooling and



ROW OF SEMI-DETACHED HOUSES under construction by Washington Builders, Inc., which are being completely air conditioned. Cooling system operates on one floor at a time.

SO MUCH publicity has been given to the heat and humidity of Washington, D. C., by the newspapers lately that it is not surprising to hear that the builders of this city are among the first to install complete air cooling and conditioning systems. A number of leading builders have announced plans for such installations and others are to be announced shortly.

One of the first to announce definitely its plans is Washington Builders, Inc., Frank Koplin, president. A group of 48 semi-detached houses to sell for \$11,950 is being equipped with year-round air conditioning. The builders selected G.E. equipment for this service.

The Koplin-built houses are well planned to bring out the best features of row construction. They have slightly different exteriors and roof treatments. Houses are of brick with slate roofs and are well insulated.

In studying the air conditioning of these houses, engineers of the General Electric Company reported to Mr. Koplin that it would be most practical to install a cooling system that would handle one floor at a time. Both insulation and operation costs are greatly reduced by this procedure. At the same time the home owner is satisfactorily served, since the downstairs can be comfortably cooled during the day and the upstairs at night.

The air conditioning unit as finally decided upon by Mr. Koplin is a system composed of a gas furnace, a condensing unit and a special air conditioning unit containing blower, heating coil, evaporator, humidifier and filter. Engineers of the General Electric Company, which supplied the equipment, state that the following performance is expected from this unit:

Air circulation (heating) .....	1000 cu. ft. per hr.
Air circulation (cooling) .....	800 cu. ft. per hr.
Heating capacity.....	90,000 BTU per hr.
Cooling capacity.....	20,000 BTU per hr.
Humidifying capacity.....	3 lb. $\frac{3}{4}$ hr.
Dimensions, approximately.....	43" x 43" x 18" high.

A duct system is installed which has a damper control to permit cooling the first floor during the day and the second floor during the night. On days when the temperature is not too high the entire house can be cooled. It is estimated that the system will cool the house interior to approximately 80 degrees when the outside temperature is 95.

It is explained that the capacity of 20,000 BTU per hour expected is the amount of heat which would melt 2 tons of ice in 24 hours. The system will provide 6 complete changes of air per hour when heating, and 8 to 9 when cooling.

Complete cost data have not been released by the builders but the air conditioning equipment is roughly estimated at approximately 10 percent of the cost of the house as compared with from 3 to 6 percent for a standard heating system. A saving in cost of winter fuel is claimed, while cost of summer cooling is estimated at less than \$50 per year.

The air conditioning system of the Koplin-built houses is to be completely automatic, with a single-blade room thermostat, humidistat and a year-round control switch for "heating," "cooling," "circulation" and "off." A thermostat to control the operation of the cooling unit at night is located in the master bedroom for convenience of regulation at night.

# Conditioning for \$11,950 Houses

**BUILDERS in Washington, D. C. install complete air conditioning as added sales argument. Cooling unit will control one floor at a time, using duct system, automatic controls.**

Under the method employed on this first air conditioning contract the builder does his own duct work, plumbing, wiring, steam fitting. The local General Electric representative, Hudson Air Conditioning Corp. supplies the equipment, sets the air conditioning unit and condenser in place, makes refrigerant connections and gives necessary installation supervision. This local dealer also provides one year's free servicing for the system.

The Koplín installation is significant because it indicates the increased interest of operative builders in complete air conditioning. Several other important Washington builders are planning similar installations. One of these will sell his houses with the installation complete except for the compressor, which the occupant will be able to purchase later on if he desires.

The Koplín-built homes are substantial looking and well planned in a modern style with large casement

windows, attractive terraces and open porches. Zinc gutters are being used which take on the appearance of old lead.

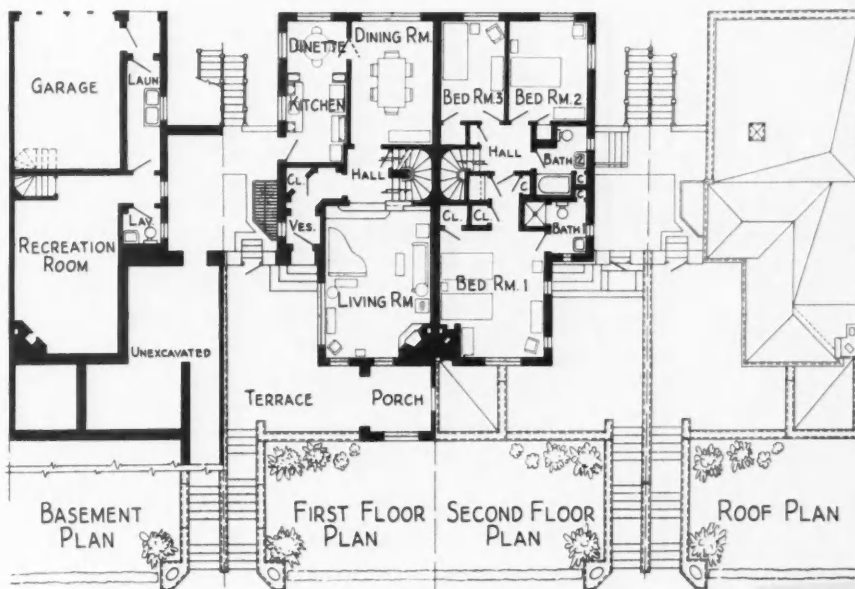
The first floor of the houses is lined with maple panels having joints covered with aluminum moulding. This decorative feature permits the use of grilles for the air conditioning vents. Floors are of wide ash planks. Large stone fireplaces are provided. Lighting fixtures are specially designed in modern fashion.

To give an interesting interior vista the flooring of the large living room is dropped 18 inches. Steps lead up to the dining room at rear which has a large casement window. Each house has a built-in garage in the basement with a large recreation room having a fireplace. Rooms are well planned with large windows and good exposures. The plan is particularly worthy of study due to the successful way in which this row of houses is handled to give the maximum amount of exposure and light.

The kitchen is scientifically laid out and is equipped with electric range and refrigerator. At one end is space for a small dinette which has two windows. There are two bedrooms in each unit and a lavatory in the basement. The three large living rooms are laid out for maximum light and cross ventilation.

Mr. Koplín believes that homes which are not air conditioned or planned for air conditioning will soon be obsolete. He feels that because the cost of installing air conditioning at a later time is high, it is worth the original cost to install it at time of construction. He believes that the health and comfort factors of air conditioning make an extremely strong selling argument for his houses.

FLOOR PLAN of the semi-detached dwellings of Washington Builders, Inc. The room arrangement is modern and compact. Living room is dropped 18 inches. Recreation room provided in basement.



# Memphis Legion Boosts Building

## Local Post Builds Model Home and Stampedes Public with Popularity Contest

**M**ODERN homes found their "place in the sun" in mid-July in Memphis, Tenn., through the promotional energy of the American Legionnaires plus the constructive skill of one of the South's leading home builders, John F. Kimbrough, Jr. A model home was planned, built and displayed on a well located residential site, the public turning out en masse to inspect this "Magic House," as it was called, and to participate in the fun of the "Personality Contest" for fair Memphians—all as featured on the brightly colored posters displayed all over town. With thousands of interested property owners passing through this demonstration of the latest in home building, and giving critical attention to the details of design, construction and equipment, a strong impetus to home modernization and to new home building was given to the industry of that community.

The design selected for this Memphis Legion house was taken from the June 1934 *American Builder*, pages 24 to 32, where the "Perfect Home" Contest of the Cyrus Crane Willmore Organization, St. Louis, Mo., was described. The first prize design in this competition, illustrated as the American Builder House of the Month, was adopted by builder Kimbrough and by his architect associate, H. M. Burnham.

In the St. Louis competition only small miniatures were made and photographed; so this Memphis job may be the first instance of this prize design actually being constructed.

### Specifications Are Forward Looking

The Memphis "Magic House" as built for the American Legion contest is of common brick construction, white-washed, a house of five rooms, a bath and full basement with recreation room. A semi-attached garage of frame construction is also included.

Basement is equipped with Mueller (Milwaukee) Climator system air conditioner burning natural gas.

Basement stair hall and ratskeller is paneled in knotty yellow pine shellacked and waxed to preserve the natural pine color, except in vertical panel grooves which are painted alternately red and blue.

Basement ceiling is square paneled in USG Weatherwood.

Small service bar of catchy design built in at one end of ratskeller.

Crane automatic water storage heater.

Copper tubing for both hot and cold water service.

First floor rooms are floored with Bruce random width plank white oak flooring blind nailed. Floors upstairs are Bruce 2¼ in. oak strip flooring.

Curtis millwork, including doors, windows, cabinets.

Insulation is 4 in. thick in roof and second floor ceilings, USG batts.

Plumbing—Bath tub is 4 ft. square Neo-Angle Standard Sanitary.

Telephone—Wire for main telephone to be located in first floor hall with telephone jacks to be in ratskeller and in bedroom No. 1.

Wiring—Install separate circuit for refrigeration machine in kitchen; also wire for and connect motor for furnace fan and wire for complete furnace controls.

Screens—To be of white pine or hard cypress wired with 16 gauge bronze wire.

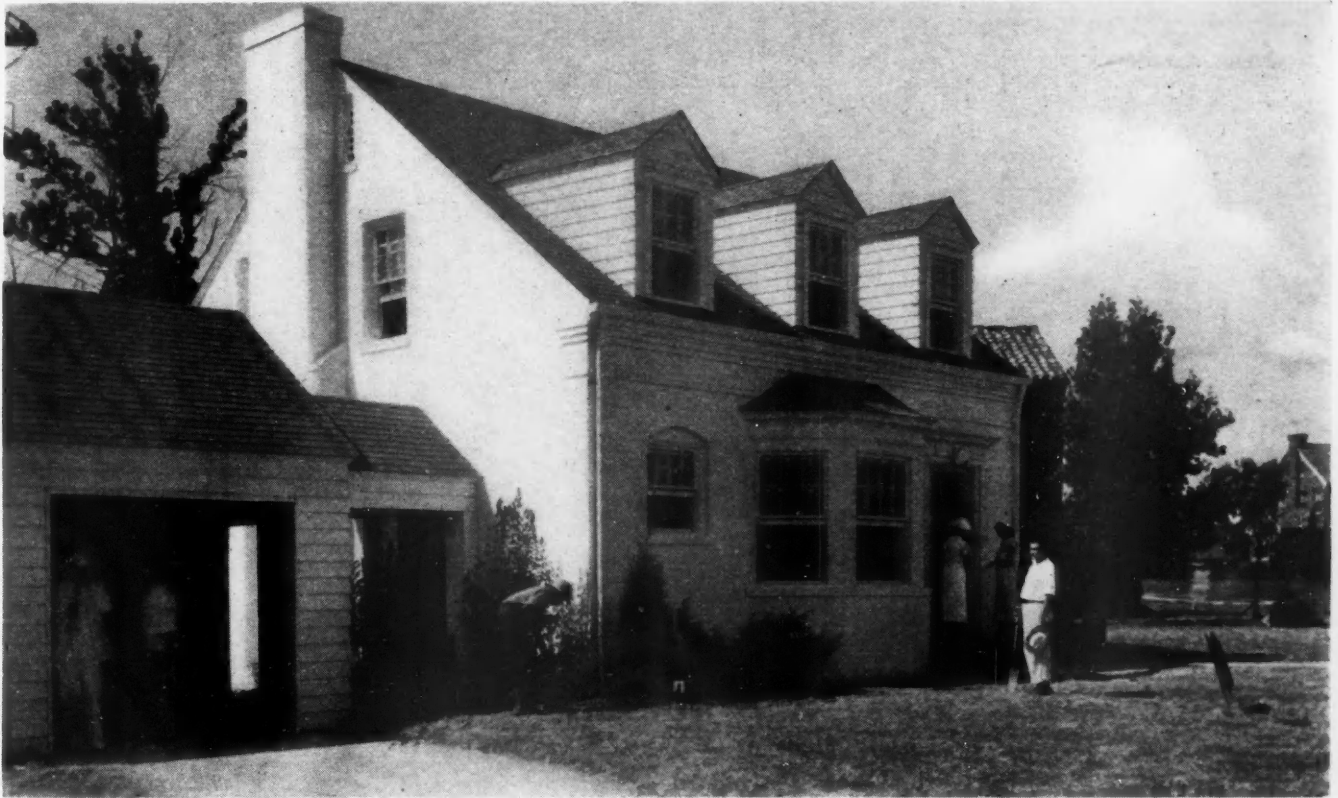
the whole town's talking about the  
**AMERICAN LEGION  
 MAGIC HOUSE**



at Peabody & Kimbrough  
**AIR CONDITIONED  
 COMPLETELY FURNISHED  
 NEW AUTOMOBILE IN GARAGE**

TICKETS \$1. EACH  
*American Legion*  
**PERSONALITY CONTEST**  
*get your tickets here*

SMALL reproduction of brightly colored window cards displayed by Memphis Merchants in July while "Contest" was at its height.



GETTING READY for the opening of the Memphis American Legion House. Builder John F. Kimbrough, Jr., and his men are putting on the interior finishing touches while Arthur Murray, Landscape Service, is beautifying the grounds. Photo by American Builder.

Walls—Bathroom walls and ceiling to receive Armstrong's Linawall.

Kitchen floor Armstrong linoleum.

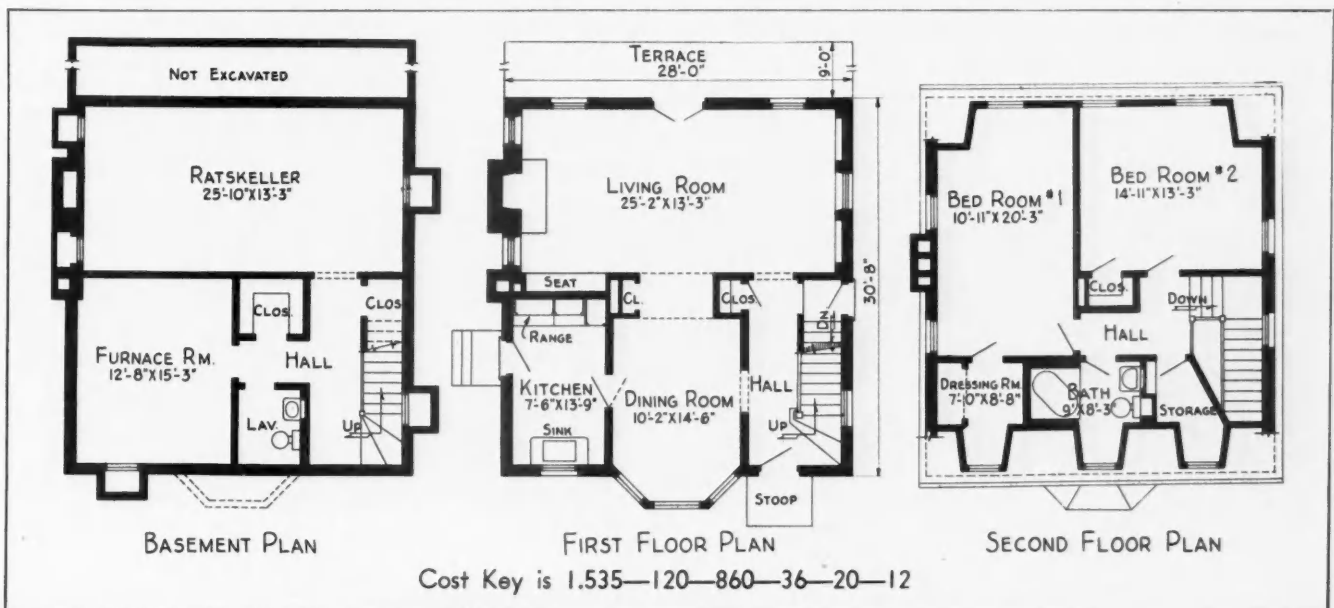
Mantel—Facing and hearth in living room mantel to be of marble.

"A new car in the garage" was one of the slogans used by the Memphis American Legion Post to bring out the crowd and stimulate votes for the rival candidates in the "popularity contest" which was an adjunct to the opening of this model house. Voting headquarters were set up both at the house and in downtown locations.

John F. Kimbrough, Jr., the building contractor in charge of this demonstration, is one of the city's leading developers and home builders. His Chickasaw Gardens development on the old Clarence Saunders (Piggly Wig-

gly) estate is among the nation's best. It is expected that the stimulus to home building in the Memphis area from this American Legion demonstration will cause a revival in new home building in Chickasaw Gardens and other residential developments, although this model home itself is in a more central and solidly built up part of the city.

"Memphis home owners want air conditioning," Mr. Kimbrough told an *American Builder* representative on July 19 while on an inspection tour of current new construction. "We draw cool air up from the basement by positive fan circulation and get a pleasing air motion and a perceptible drop in room temperature. Smaller homes without servant's room and with garage space for one car only are what the people want today."

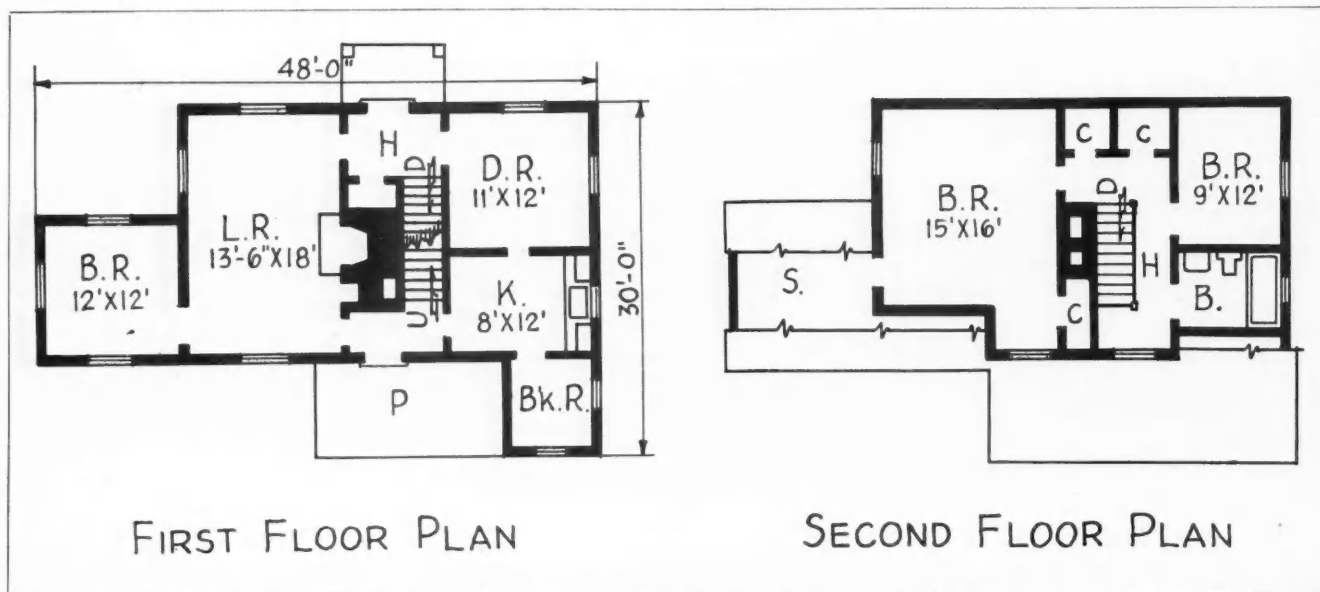




CHARLES RASQUE, carpenter and builder of Kent, Conn., designed and built this attractive country house. It fits its locality and is unusually attractive and well proportioned. Study of the floor plan shows a livable arrangement that has much to recommend it.

Cost Key is 1.837-156-964-41-22-16.

### Fits the Countryside





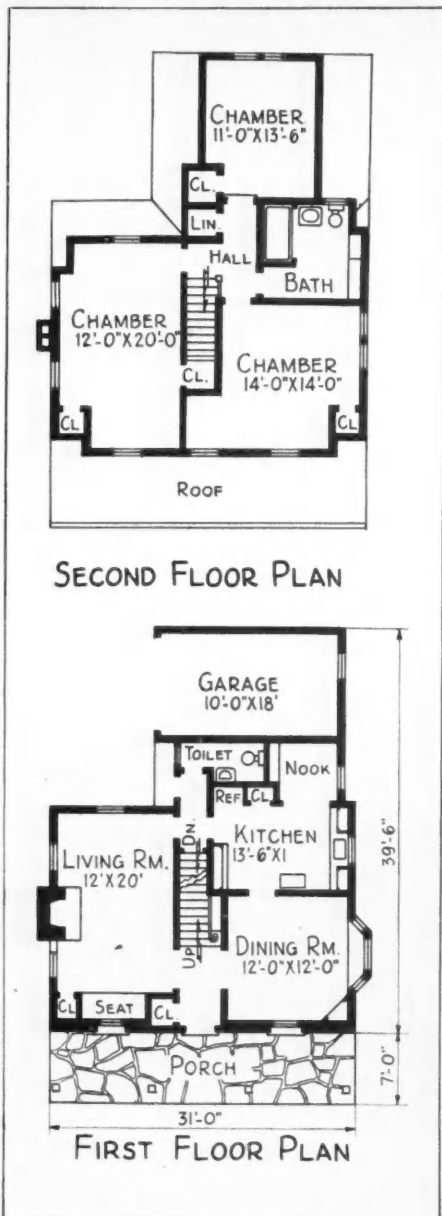


WELL PLACED WINDOWS give the house ample light and ventilation. The breakfast room and porch arrangement in front is unusual and effective. The house is brought close to the ground and sets in among the trees most effectively.





ONE OF SIX popular exteriors being sold by Glen Orchard, Inc., operative builders of West Englewood, N. J., using floor plan at left.



## Glen Orchard Colonial Homes

GLEN ORCHARD, INC., HOME BUILDERS of West Englewood, N. J., are featuring unusually attractive colonial homes such as these, designed by Joseph A. McCarrol, architect. Thirty houses are to be built on a 15-acre estate. Houses have first floor lavatory, breakfast nook, finished basement. All houses to date have been sold before completion.



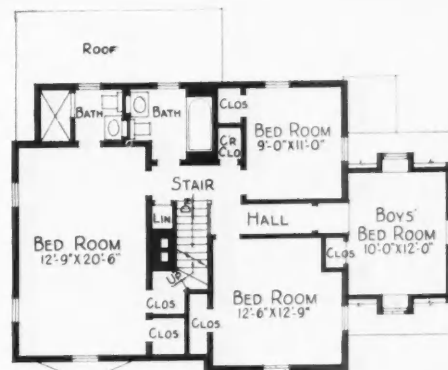


## Modern Colonial

THIS IS A STANDARD EXAMPLE of good colonial design brought up to date in a moderate-priced, unusually comfortable house. It was completed in May, this year, by contractor James B. Heffernan and designed by Maxmillan R. Johnke, architect, both of Hempstead, L. I. The cost is under \$10,000.

THE ATTRACTIVE EXTERIOR is obtained by using stone veneer first floor and whitewashed shingles on second story. Whitewashed brick is used for first story garage. The house also has a slate roof, random width plank flooring, metal lath, Celotex insulation, tile kitchen and baths, two-pipe steam heating system with vacuum valves, Kohler plumbing fixtures, concealed radiation.

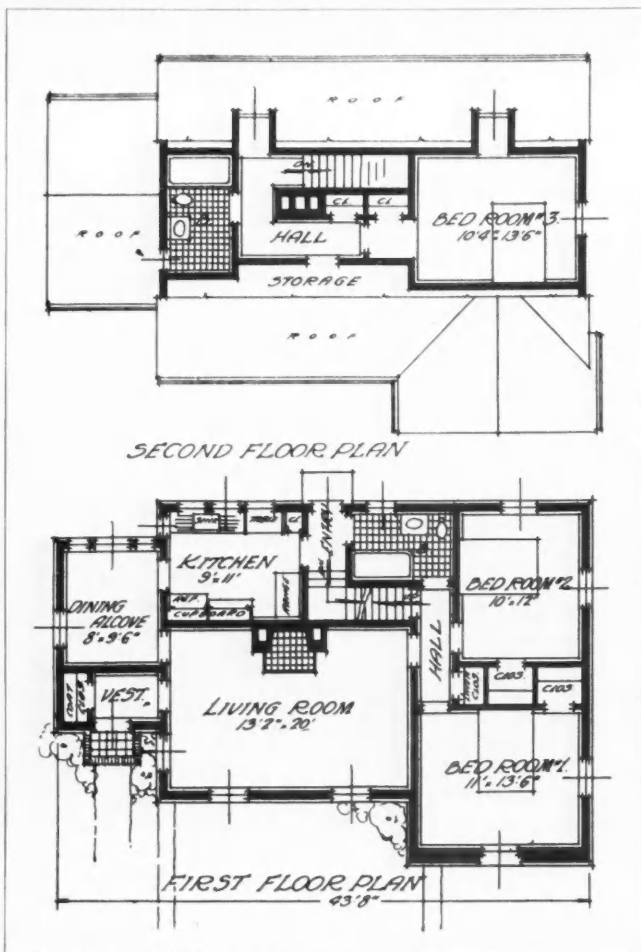
FLOOR PLAN IS VERY ECONOMICAL with breakfast room and maid room at rear, boy's room above garage, bath rooms and plumbing grouped together. There is a recreation room in basement, panelled knotty pine wainscoting for living room and dining room.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



## A Good Plan Faithfully Followed

HOW A GOOD SET of house plans when faithfully followed produce excellent results is shown in the picture above. The plans were drawn by R. C. Hunter, New York architect. H. A. Erickson, Long Island builder, carried them out in detail with the charming result shown above.

THIS HOUSE represents a charming type of architecture that is increasingly popular. The combination of wide siding and natural stone is excellent. The gables are well proportioned and there are many features of the plan that appeal to home owners, particularly where the site is on the side of a hill which makes possible the placing of the garage under the right wing. Both the architect and the builder are to be congratulated on producing a small home with so much charm.

Cost Key is 1.545—144—1027—43—18—16



© R. C. HUNTER, Architect, New York.

## Unusual Charm in English Type Home

THE LONG RAMBLING English style home below gives cross or diagonal ventilation in every room. The attached garage makes it appear impressively large so that the cost reported by architect Randolph Evans,—under \$6,000,—seems surprising. It was built by the Harmon National Corp. this spring at Amityville, L.I.

R. C. HUNTER'S preliminary sketch of the house shown on the opposite page is shown above. How well the builder followed the plan is clearly shown. This is a design that has much to recommend it.

THE RAMBLING English home below is equipped with a Graybar washing machine, Frigidaire, Detroit Jewel gas range, American Radiator steam heat, attached garage, tile counters in kitchen, tile floor and walls in bath, stucco and brick exterior. Cubic contents, 20,200 ft.

Cost Key is 1.689—235—1053—48—22—23





# A WINNER IN THE \$5000 CLASS

Built in the Summer of 1935 at Elmhurst (Chicago)

GEORGE LOANE TUCKER

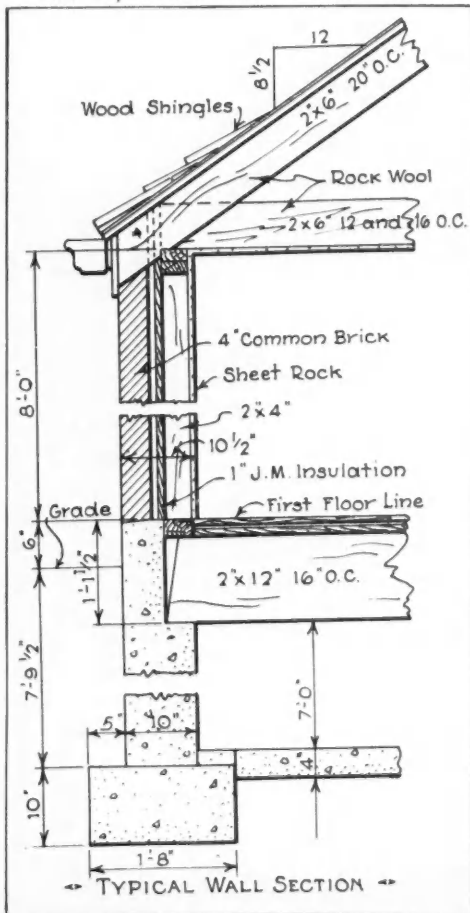
Architect

JOHN A. JOHNSON CONSTRUCTION CO.

Builder

Cost Key is 1.338-156-1240-52-15-18

## SPECIFICATIONS FOR CAPE COD RESIDENCE AS PREPARED BY GEORGE LOANE TUCKER, ARCHITECT



**RESPONSIBILITY**—The general contractor shall be held responsible for the execution of a satisfactory and complete job in accordance with the true intent and meaning of the drawings and specifications. He shall provide without any extra charge, all incidental items required as a part of his work and his sub-contractors work, even though every item is not particularly specified or mentioned in the plans.

**NOTE**—The owner and the architect reserve the right to reject any or all bids.

**INSURANCE**—Each contractor shall insure his liability to pay any employee of the contractor or of his sub-contractor's who may be injured in this work, compensation as required by the workman's compensation act of this state, in some responsible insurance company or association authorized under the State laws to insure said public liability and each contractor agrees to cause his sub-contractors to guarantee and pay said public liability.

**FIRE INSURANCE**—The owner shall carry fire insurance only to cover the value of the material which has actually been worked into the building as established by the contractor's request for payment as per his contract. The contractor shall be held responsible for damage or loss of material not worked into the building as above and shall replace same at no cost to the owner.

**PERMITS**—This contractor shall provide and pay for all building permits giving any bonds or making any deposits required.

**PRELIMINARY INSPECTION**—Before making proposal contractor shall examine site of the proposed building and if on account of any irregularities of surface or for any other reasons variations may be necessary from the drawings as shown he shall include any reductions or additions in his proposition and thereafter carry out the building to conform to such requirements.

**ORDINANCES, RULES, LAWS**—All work under these specifications and plans shall conform to all respects to all pertinent ordinances of the local building Dept., the Board of Health and the National Board of Underwriters. All State laws and any items of labor and materials not shown on the plans nor specified herein but required by any of the above laws, shall be included in the proposal and shall be furnished without extra charge by the contractor.

### Masonry Specifications

**LAYOUT**—Accurately lay out the building lines to conform to the owner's approval and to conform with the rules of local ordinances.

**EXCAVATING**—Clear off the site of the proposed building. Scrape off the top soil and place in neat piles fifteen feet beyond the building. And at the conclusion of work when the building is completed spread this soil as directed. Excavate for all footings to full widths and depths as shown on the plans, removing from the site all excavated material.

**FOOTINGS**—Before footings are poured or forms are set contractor shall examine soil on which footings are to rest and if mud pockets or quick sand or other bad soil conditions are found contractor shall notify the owner for instructions. All footings are to be laid on natural, firm and undisturbed soil.

**MATERIALS FOR CONCRETE**—Concrete shall be mixed from standard high grade portland cement, sharp clean coarse sand free from loam, and No. 1 meshed gravel.

**CONCRETE MIX**—All concrete shall consist of one part (sack) cement to two parts sand to four parts gravel, by volume of cement used. To this mixture add approximately seven gallons of water and mix thoroughly.

**SLAB**—Lay a 4" concrete slab in the basement on a 6" cinder fill well tamped into place. Floor shall be wood floated and steel troweled to a hard and smooth finish.

**ANCHOR BOLTS**—Place 3/8" round anchor bolts 6" long, four feet on center to receive wall plates.

**STRUCTURAL STEEL**—Furnish and install structural steel, lally columns, beams and angles as shown on plans.

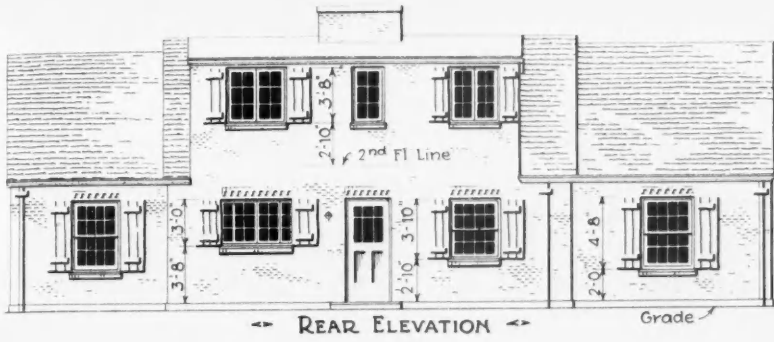
**MORTAR**—Mortar for all masonry work shall consist of one part portland cement, one part lime mortar to three parts clean sharp torpedo sand.

**BRICK**—The entire building shall be veneered with 4" of common brick well anchored to the framework and shall be laid as detailed on the plans. Brick to be best grade new common brick.

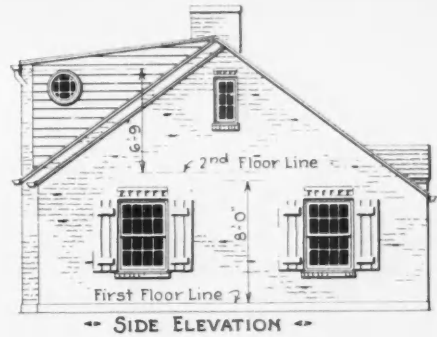
**FIREPLACE**—Furnish and install fire brick in fireplace. A "Colonial" damper is to be furnished and installed with ash dump as indicated.

(Continued to page 44)

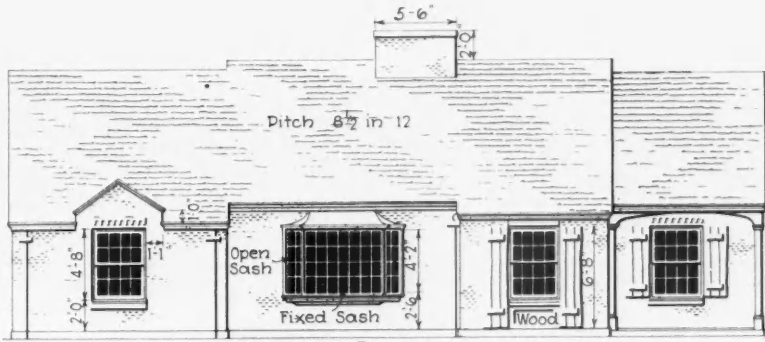
DETAILS FOR STUDENTS OF GOOD HOME PLANNING



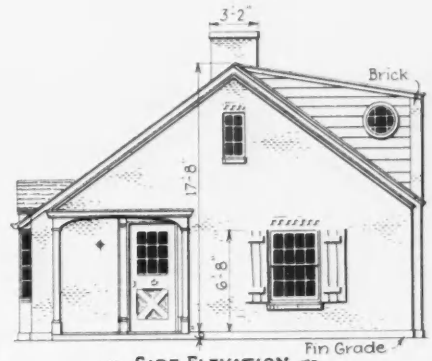
REAR ELEVATION



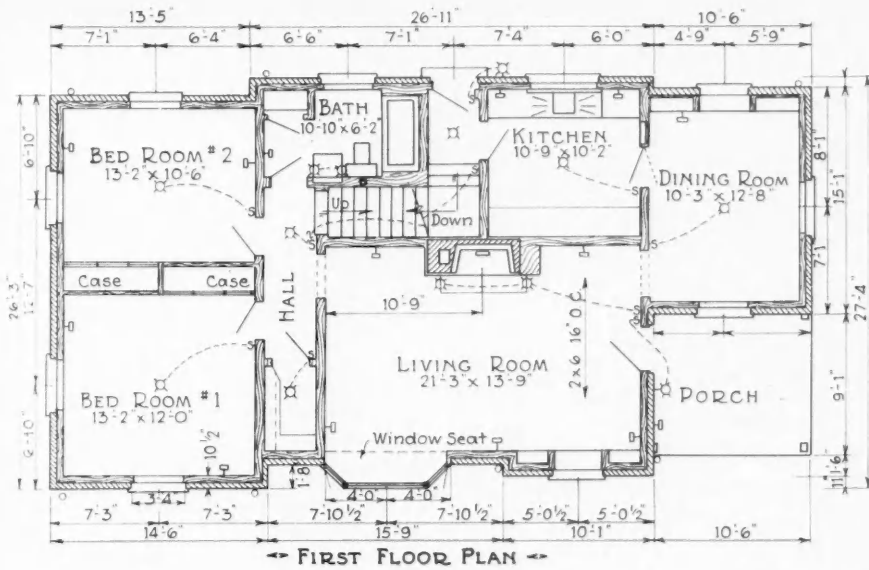
SIDE ELEVATION



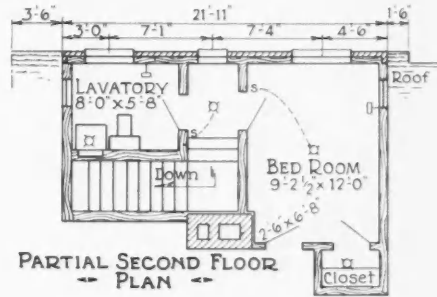
FRONT ELEVATION



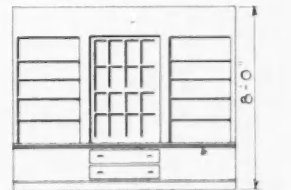
SIDE ELEVATION



FIRST FLOOR PLAN

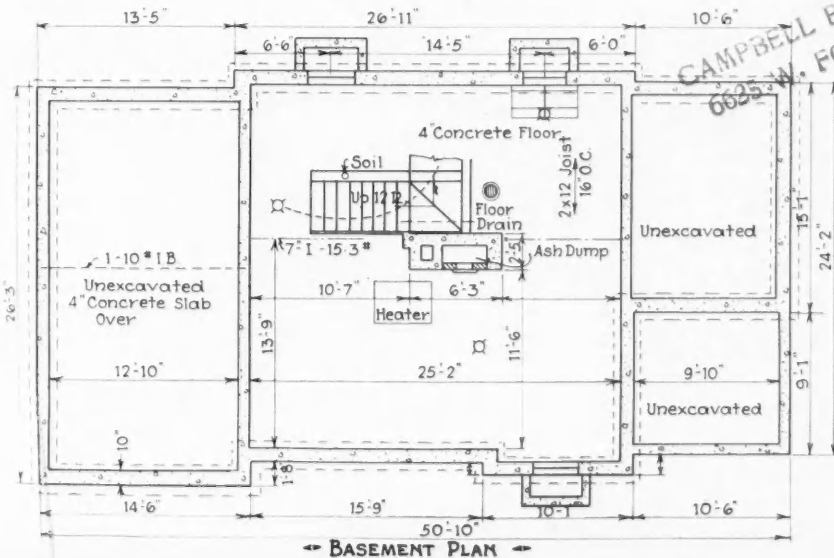


PARTIAL SECOND FLOOR PLAN

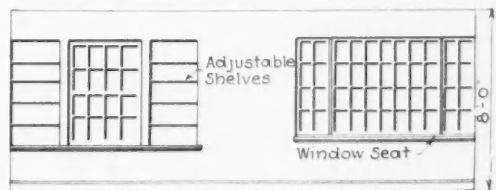


ELEVATION OF DINING ROOM

0 1 2 3 4 5 10  
Scale in Feet for Plans and Elevations



BASEMENT PLAN



ELEVATION OF LIVING ROOM

## Specifications for House of The Month

(Continued from page 42)

**JOINTS**—All joints of cast iron pipe shall be properly caulked with oakum then poured with moulten lead. The joints are neither to be painted or puttied.

**SILL COCKS**—Where indicated on the plans furnish and place where shown, sill cocks to work by key and to be drained in winter.

**WATER SUPPLY**—Bring water from not less than one inch tap into the building and distribute into the different fixtures in branches proportional to the number and size of the fixture.

**METER**—If water meter is required furnish and install same, paying all charges for permits.

**CUTTING**—No joists shall be cut at the middle of spans and all other cuts must be reinforced.

**FIXTURES**—Fixtures are to be Crane or Kohler as selected by the owner. Furnish and install the above fixtures with their fittings as specified by the manufacturer together with a Whitehead Monel water softener WS 12A-12 and Whitehead bellwood slow recovery Gas hot water heater with Monel metal 30 gallon tank. All gas and water piping to be brought to the furnace. Double compartment Shelf-on laundry tray in basement.

### Electric Wiring Specifications

**SCOPE OF WORK**—Contractor shall furnish all labor and materials necessary to complete the work of this trade in strict accordance with the rules of the National Board of Underwriters and the local building code.

**PERMITS**—Contractor shall obtain and pay for all permits, inspection fees, and make all necessary arrangements with the local company to bring service into the building without cost to the owner.

**MATERIALS**—Conduit shall be Steel Tubes as manufactured by Steel Tubes, Inc., Cleveland, Ohio. Wire shall be National Code-Standard Simplex. All lights, base receptacles, wall or ceiling outlets to be provided with black enameled steel outlet boxes securely fastened to the construction with steel straps. All face plates to be bakelite finish.

**SYSTEM**—Wiring must be in accordance with the local code. All wires must be enclosed in conduit and there shall not be more than 1000 watts on each circuit. One hundred watts required at each outlet.

**HEIGHTS**—All outlets for bracket lights shall be 5'-8" unless noted otherwise on elevations. Switches 4' from floor.

**FUSES**—Contractor shall fuse all circuits and provide paper labels on door of fuse cabinets.

**FIXTURES**—Contractor shall allow \$60.00 for electric fixtures, same to be selected by owner and set by this contractor.

**BUZZERS**—There shall be one buzzer at each front and rear door.

**OUTLETS**—All wall receptacles to have double convenience outlets.

### Painting and Glazing

**SCOPE OF WORK**—Furnish and set all glass. Glass to be double strength "A" Libby-Owen-Ford. All glass to be well bedded, tacked and puttied. The bathrooms to have obscure glass.

**EXTERIOR**—All exterior metal, trim and windows to have two coats Cabot's paint or equal.

**INTERIOR TRIM**—All interior trim and doors to be three coat work. Final coat to be ivory finish enamel.

**FLOORS**—All red oak floors to be sanded and then have natural stain and filler and two coats of varnish.

**WALLS AND CEILINGS**—All walls and ceilings to be covered with "Walltex," except bathrooms and kitchen. Walltex as manufactured by the Columbus Coated Fabrics Company, Columbus, Ohio.

**LINOLEUM FLOORS**—Bathroom floors to be covered with Armstrong Linoleum, pattern to be selected by the owner.

**ROOFING**—Roofing to be cedar shingles faced 4" to the weather or Johns-Manville Heavy Blue-Black asphalt shingles.

**SHEET METAL**—All gutters, downspouts and flashings to be Toncan Iron, the proper sizes as shown on the drawings.

**HEATING SPECIFICATIONS**—The heating system to be furnished and installed by this contractor is an oil burning, Garwood, air conditioned system.

**FLUE LINING**—Furnish and set glazed tile flue lining to sizes as shown on the drawings.

**PATCHING AND CLEANING**—Do all necessary patching and filling after other trades and all pointing up to the satisfaction of the owner and at conclusion, clean the brickwork of all mortar waste.

**FINALLY**—The mason accepts these specifications and the plans as covering all the work of his trade that is necessary to complete this building in a first class manner.

### Carpentry Specifications

**SCOPE OF WORK**—Carpenter contractor shall furnish all labor and materials of this trade to complete the building to the true intent and meaning of the plans and specifications.

**LUMBER**—All joists, rafters and studs shall be No. 1 long leaf yellow pine, clear and fully kiln dried and pre shrunk, except the first floor studs, which shall be cypress. All joists to be of sizes and spacings as shown on the plans. Double joists under bathrooms. All joists to be bridge with 1"x4" materials approx. 8' O.C.

**SHEATHING**—All roof and deck sheathing to be 1"x4" S2S 3/4" thick spaced 1 1/2" apart.

**ROUGH FLOORING**—Rough flooring shall be 1"x6" flooring. Provide nailing strips and sleepers.

**FINISHED FLOORS**—All floors except kitchen and bath rooms to be selected red oak flooring.

**WOOD WINDOWS**—Provide wood double hung windows, 2 1/4" white pine frames with blind stops to receive screens and storm sash. Sash to be divided as shown on the drawings.

**DOORS**—Interior doors to be "Miracle" or six panel type colonial door as per sizes. Exterior doors to be solid fir or spruce thoroughly seasoned and thickness and design as indicated. Provide screens, storm sash and storm doors.

**HARDWARE**—Furnish and install rough hardware and all finished hardware. Contractor to make an allowance of \$65.00 in his estimate for all finished hardware.

**CASES**—Furnish and install wood cases in kitchen and bed rooms as detailed.

**WALL INSULATION**—The entire outer walls are to be sheathed with 1" Johns-Manville insulation board. Space between studs to be lined with 4" J.M. rock wool bats.

**CEILING INSULATION**—Ceiling over entire house to be lined with J.M. 4" rock wool bats.

**WATERPROOFING**—Entire surface of wall

sheathing to be covered on the outside with "Sisalkraft" paper, lapped 2" at all joints.

**INTERIOR WALLS AND CEILINGS**—All interior walls and ceilings to be covered with 1/2" "Sheetrock" with joints taped and puttied as per manufacturers spec's.

**MEDICINE CASES**—Furnish and set Hess Venetian or Acme type cases in both bath rooms.

**INTERIOR TRIM**—All interior trim to be No. 1 white pine.

### Plumbing Specifications

**SCOPE OF WORK**—Contractor shall furnish all labor and materials necessary to install the complete plumbing and sewage and fixtures as specified.

**RESPONSIBILITY**—Contractor shall assume all responsibility for the care and protection of his work and materials until final certificate is issued, and any injury to same during the progress of the work shall be repaired at his own expense.

**GUARANTEE**—Contractor shall guarantee in the approved manner in writing all work to be perfect in every respect, free from smells and to keep it so for a period of one year from date of final certificate.

**EXCAVATION**—The contractor shall make all necessary excavations, prepare a proper bed for pipes, lay same, inspect, fill and level off.

**IRON PIPE**—Inside the building and to a point three feet outside the building use extra heavy cast iron pipe and fittings with all joints thoroughly caulked with lead.

**TESTING**—When sewer piping is laid and before any trenches are filled test work inside the building by plugging up outlets just outside of buildings walls and filling that portion of system with water. Make good any leaks that appear.

**SUPPLY PIPES**—Determine source of supply pipe underground and run extra strong lead pipe and above the ground wrought galvanized pipe or all copper pipe used inside.

**SOIL**—All soil, waste and ventilation pipes together with their fittings shall be asphaltum coated cast pipe.



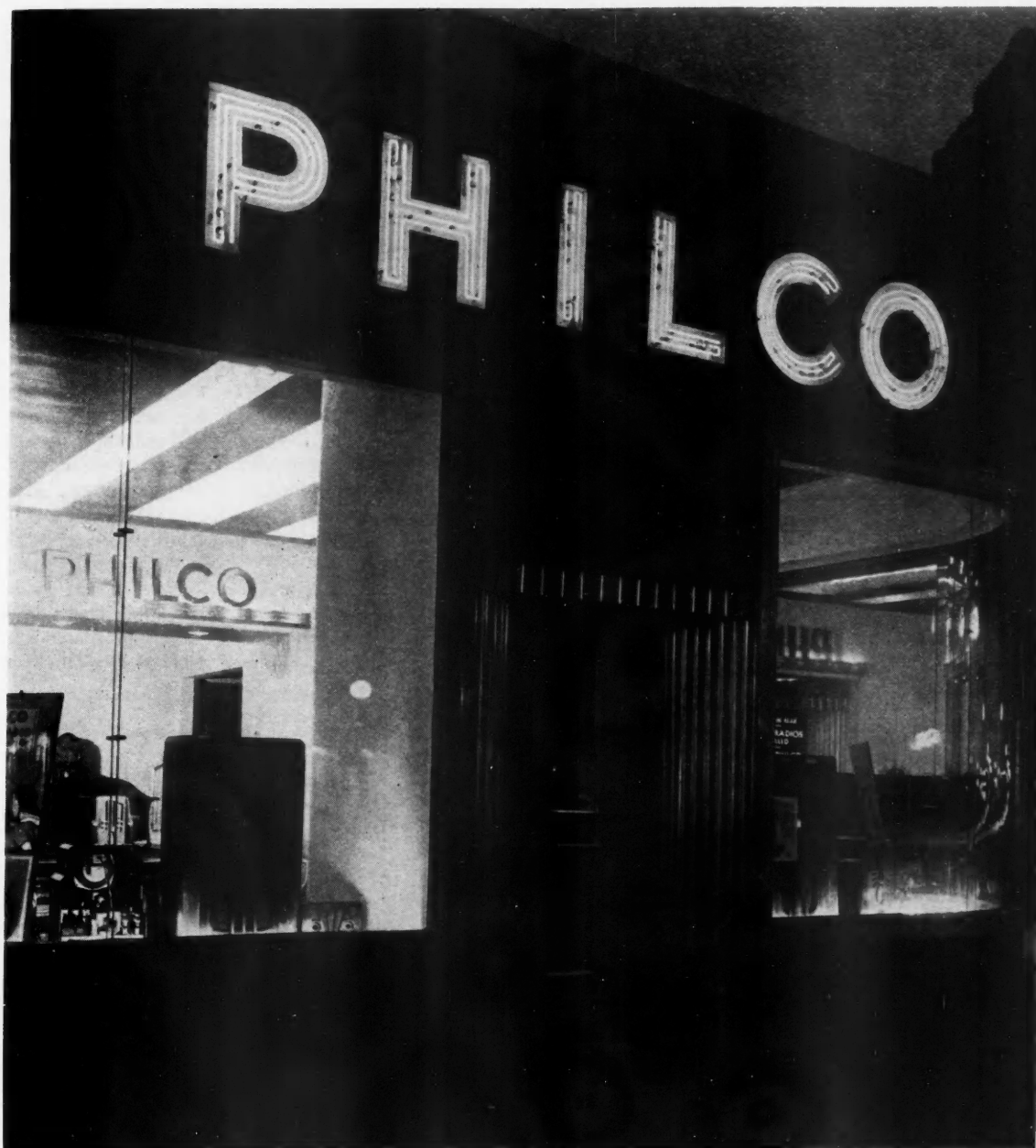
CONSTRUCTION views of Tucker house at Elmhurst. Below: detail of rear dormer, an added feature that was not included in figuring the Cost Key.





# MODERNIZATION

*"which makes buildings of all kinds more cheerful, more livable and more salable"*



Hendrich-Blessing Studio

**AFTER** THE NEW display room illustrated above was built out to the street, the Philco Salon on Michigan Avenue, Chicago, presented this greatly improved appearance. The original bungalow office was made a unit of the complete structure and is used for demonstration space, offices, and service department. Further details and plans of the remodeling follow on the next page.

# Modern Shop Built for Buyers' Comfort

Attractively Designed Front, Good Display and Air Conditioning Are Found in Modernized Radio Store

**T**HE NEW PHILCO Salon, which is built around what was originally the Celotex bungalow on North Michigan Avenue, Chicago, contains a number of architectural and structural ideas distinctly modern in conception and design and which will be seen for the first time in store construction. Simplicity is the keynote of the design and it is, in all respects, consistent with the newest architectural ideas of the day. Pereira, Senseney, and Pereira, Chicago architects, designed this new portion of the building.

One of the unique features of the design is the proportion of blank space in the exterior which was planned to emphasize the space devoted to display windows. Window display space is provided on three sides of the building, thus affording three times the opportunity for merchandise display which is ordinarily available with a similar store frontage. At the same time, greater attention value has been secured for the large volume of automobile traffic which passes this location.

The exterior is coral colored concrete with aluminum trim. The name above the door is flush with the building and is designed as an intrinsic part of the front exterior.

The interior has equally modern ideas in construction



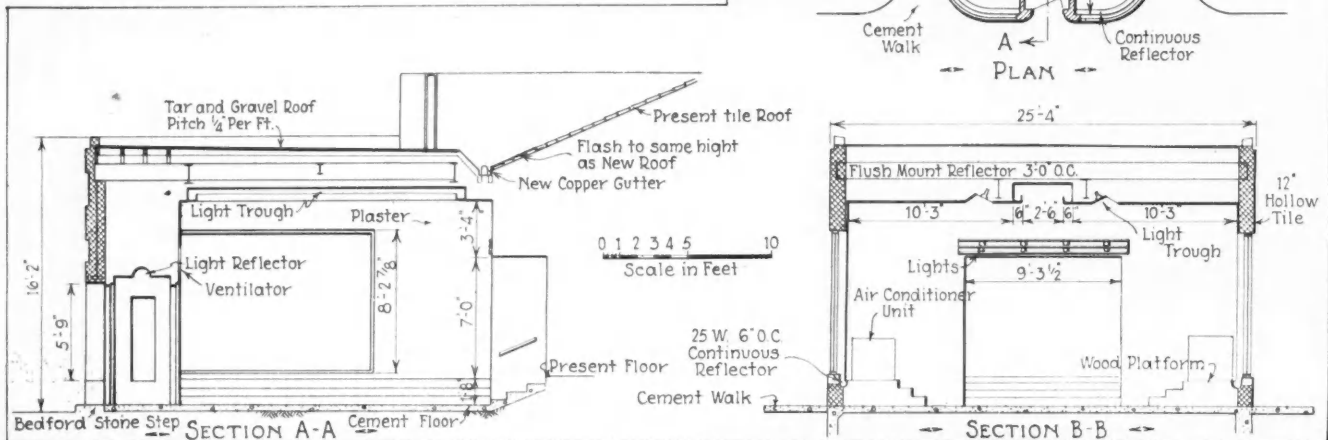
and arrangement. Double windows with air space between prevent condensation due to variations in temperature within the store and outside. The windows are so arranged that they not only serve as a display for passers-by but also as an interior store display. Actual demonstrations to customers may be made from these displays.

Cantilever construction has eliminated all obstructions to interior display. Indirect lighting is used to light the store but the merchandise is spotted by invisible direct lighting.

The building is completely air conditioned with Ilg equipment, thus affording a store where demonstrations may be made and customers may shop in complete comfort, regardless of weather. It is reported that one very sticky day this summer when the temperature outside was 94 degrees, the interior was very comfortable at 76 degrees and 55 per cent relative humidity. In all respects, the building is a unique example of the application of modern ideas to store construction, affording not only beauty of design but greatly increased utility both from the standpoint of sales advantage and comfort. Alexander Hendry Co. were the general contractors.



ABOVE: The Philco Bungalow before remodeling; set back from the sidewalk, it had little attention value from the street. LEFT: New unit with large and attractive display windows. BELOW: Plan and sectional drawings of modern addition.



# Old Mansion Saved from Wreckers

## Decatur (Ill.) Home Successfully Remodeled into Small Apartments

IN DECATUR, Ill., as in most communities, there are many fine old mansions which were the vogue early in the century—the 20-room home shown on this page is a good example. When the owners decided to convert their old home into multiple dwellings, instead of tearing it down, they consulted Harry W. Baldrige, local general contractor. By good planning, he has preserved all the beauty of the old residence and created a group of small apartments uniformly attractive, conveniently arranged, offering strict privacy, and generously open to light and air.

Four apartments are on the first floor, a like number on the second, and three on the third. Each has its own individual kitchen or dinette, a feature being the Murphy Cabanette kitchen unit consisting of a refrigerator, gas range, sink, utensil and china cabinet. It takes up a minimum of space, yet presents all necessary facilities for a small family.

Each apartment is also supplied with a modern bathroom. Accessories, arrangement and decorations are such as to bring about a modern, cheerful note, in keeping with the rest of the apartment. There is no waste space and every part can be reached, easily and quickly, for cleaning.

Most of the apartments are equipped with roll-away beds neatly fitted into a special closet. Several of the apartments have attractive bedrooms. Generous closet space and ample cabinet arrangement are other

features. Dining-room cupboards are a built-in auxiliary in some of the apartments.

Radiators are effectively covered. Built-in window seats, bookcases, book shelves and certain other kinds of cabinets add variety, decoration, utility and atmosphere.

Wherever it has been practical, and in keeping with the design of individual apartments, existing structural features have been fully retained, thereby tending to keep down the cost of remodeling. A graceful old staircase and four beautiful fireplaces contribute to the building's homelike atmosphere.

The mansion, originally well built and having been kept in excellent condition, constituted a fine subject for remodeling. Being typical of this class of houses, it offers an excellent example of what can be done with such properties.—William H. Herring.



RIGHT: Old mansion which, outmoded as a home, was successfully converted into eleven apartments.

BELOW: Floor plans showing the layout of the units on the three floors with little structural change.





THE DUTCH COLONIAL at Altadena, Calif., as it appeared before remodeling; too small and unattractive to the owners although location and surroundings were satisfactory.



ABOVE: Front view of the house during alterations showing additions and new roof line after the dormers were removed. BELOW is the same view when completed; the garage is seen at the right.



## As Good As New At

**O**UT ON THE West Coast a large volume of modernizing is being done and Contractor J. S. Gordon, Pasadena, Calif., says that it has become almost a specialty in itself. He tells of an interesting job he has done, the pictures on this page showing the work in its various stages.

The owner of a Dutch Colonial of the "Real Estate" variety, after considerable thought, decided that, although the house had become inadequate, the home site and its general surroundings still pleased them. This is a beautiful residential district with a wonderful view of the valley, ocean and mountains. The planting and general landscaping were well established and satisfactory; so plans were developed that would use the old house without tearing it down.

The interior was completely remodeled, room sizes changed, replastered, new stairway built, and the living room enlarged. A den and large porch were



LEFT: The large stair hall as seen upon entering is spacious and attractive. Rooms were enlarged, new plastering done, and necessary equipment added to completely modernize the interior.

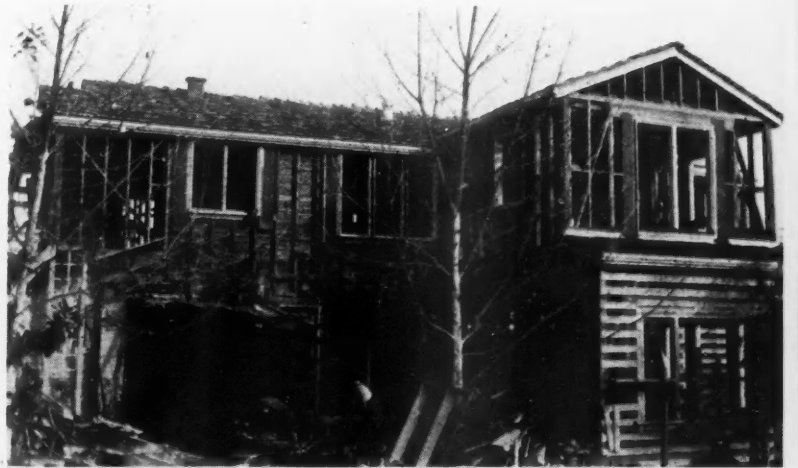
## ew At Half The Cost

added on the first floor; a master bedroom, extra bedroom and roof garden put on the second.

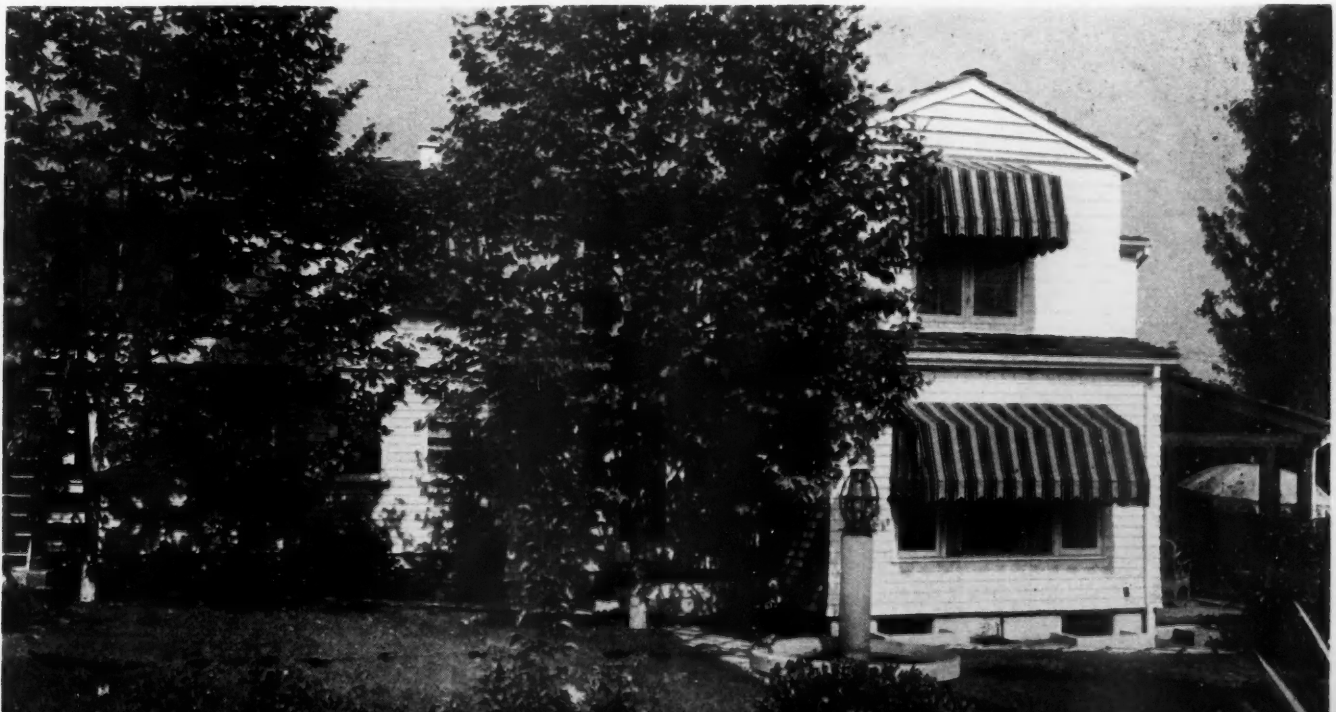
The garage in the rear was also remodeled and now contains servants' quarters above. Thus both the house and garage are much more commodious and allow plenty of space for the family, guests and service.

One of the interesting results from the whole development was that the house was complete rebuilt, modernized, remodeled and made into a brand new, modern home, for about one-half the cost of a new home of the same size and dimensions if started on a vacant piece of ground.

Mr. Gordon believes that—even with the present large and increasing volume of modernizing being done—still many more people would go ahead with such work if they were presented with the right ideas for their particular development.



ABOVE: An idea of the thoroughness of the remodeling can be had from the rear view during the job. Completed, the garden scene BELOW shows the house as good as new at half the cost.





## Private Garage Building Forges Ahead

### New Easy Operating Doors Appeal to Motorists of Today

**W**ITH the rough weather of fall and winter coming on, car owners—especially new car owners—are preparing to get their streamlined autos into safe housing. The upturn in garage building is typified by the current activities in Detroit, Mich., where building commissioner Joseph P. Wolf reports permits issued in July for 223 private garages as an accompaniment to the 133 dwelling houses for which Detroit permits were issued in July.

In addition to these detached garages, a large number of the new homes were planned and built with motor rooms attached or under the main house roof.

Builder approval this season seems to run strongly to the upward acting type of door, with the side sliding folding type a close second. The idea is to secure an easily operated closure that a woman or child can handle. At the same time the garage door has to be so constructed and hung that it makes a storm-tight contact on all four sides and can be opened or closed in any

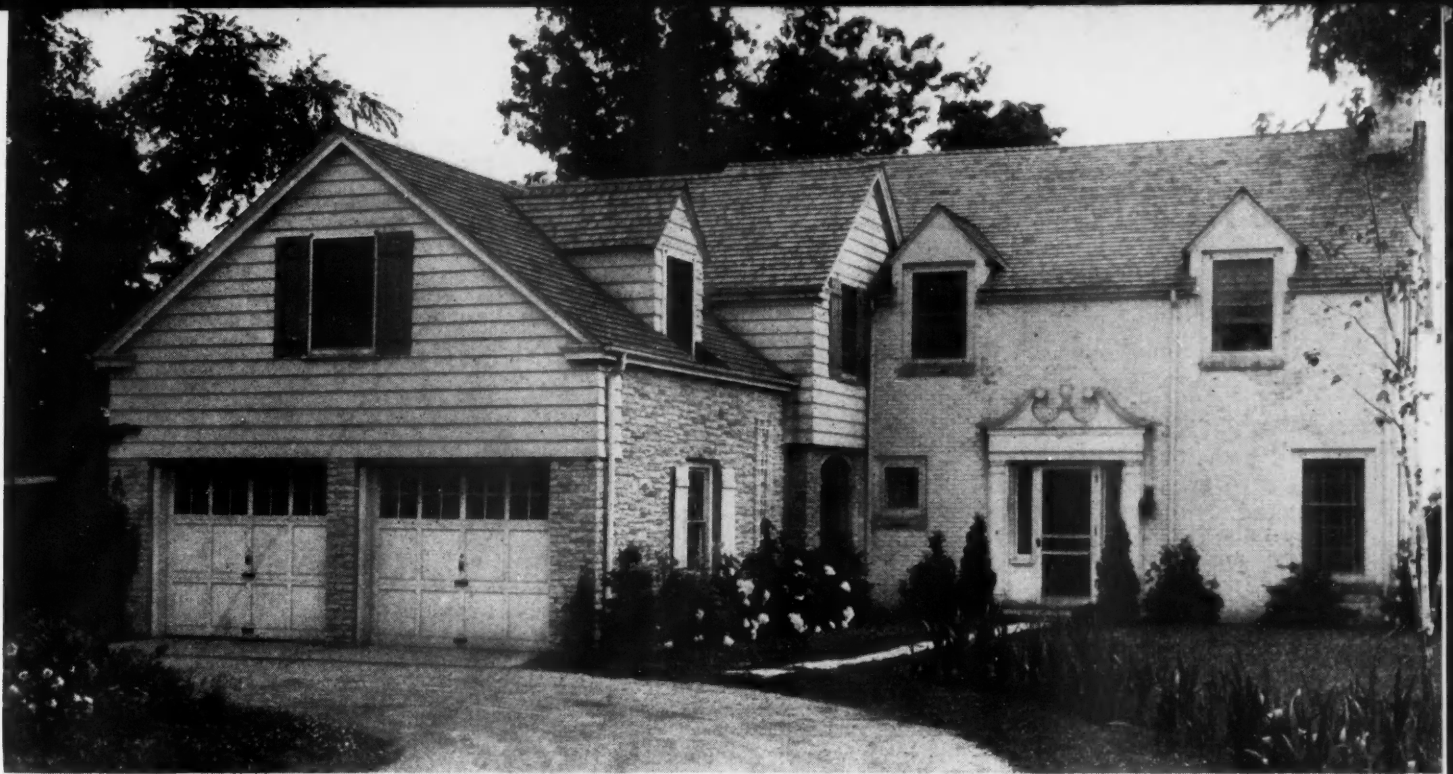
ABOVE: Modern standards demand easy operation. Illustrated is a Kinnear Rol-Top installation.



ABOVE: Three-section motor room in basement of large Louisville home; C. A. Zeigler of Philadelphia, Architect; Palmer Graham of Louisville, Contractor; Richards-Wilcox Slidetite garage door hardware used.



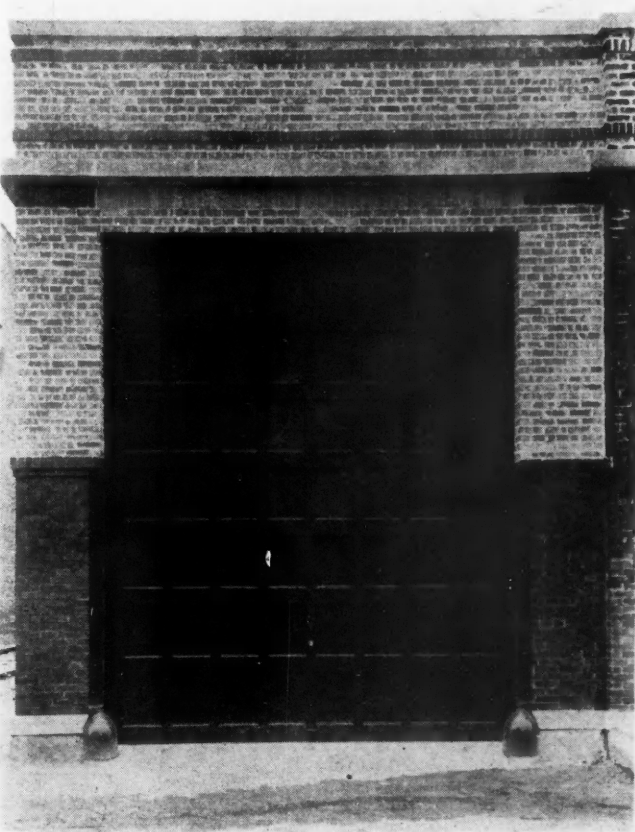
TO LEFT: Covered approach from house to these garage doors is appreciated in rainy weather, besides giving architectural character to this motor wing. Cornell Float-Over doors were used by the builder, Masten & Wicht, of Oceanside, L.I.



weather. The manufacturers of garage door equipment have perfected a number of very practical and efficient types combining ruggedness with simplicity; and many of them counterbalanced with springs or weights.

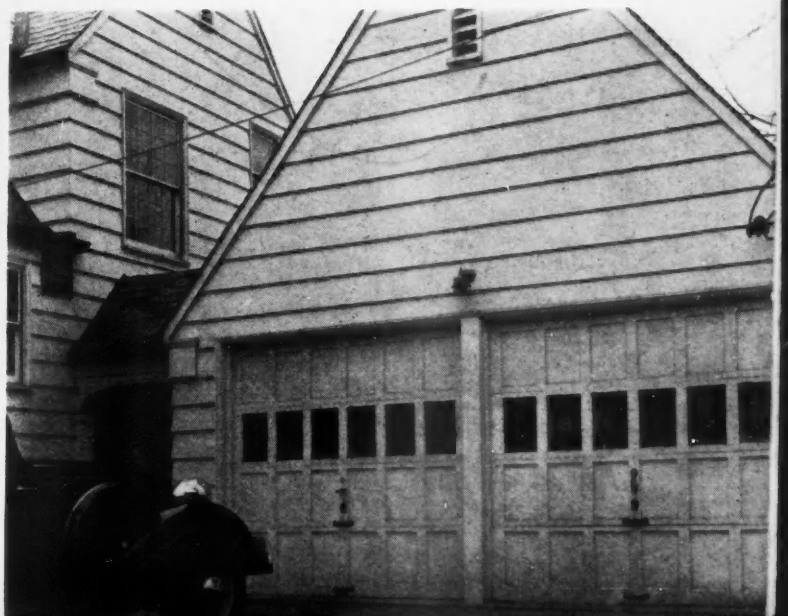
These new door sets are being used this year not only for new work but also for rehabilitating many old sagging garage doors. For fine homes with garages built in, heavy paneled doors are liked.

ABOVE we see a clever handling of the ever-present problem of how to put the garage out in front—toward the street—and still leave an attractive facade and entrance for the house itself. This home in Appleton, Wis., was designed by Thomas Van Alwey, Architect, Milwaukee, and built by Attractive Home Builders, Appleton, of which firm Mr. K. Tillman is president. The garage doors are equipped with National Mfg. Co. upward acting door sets.



ABOVE: Often in commercial buildings door openings of unusual size are encountered. This one in the plant of the Chicago Curtain Stretcher Company measures 12 feet wide by 14 feet 4 inches high. This big door was fitted with Wagner Manufacturing Co. hardware and is easily opened and closed.

BELOW is a good idea in attaching a double motor annex to the side or rear of a nice dwelling by means of a covered walk, giving direct access from the grade entrance door of the house to a side door in the garage. These two large motor doors are the lift-up, spring counterbalanced type, introduced by the Overhead Door Corporation.

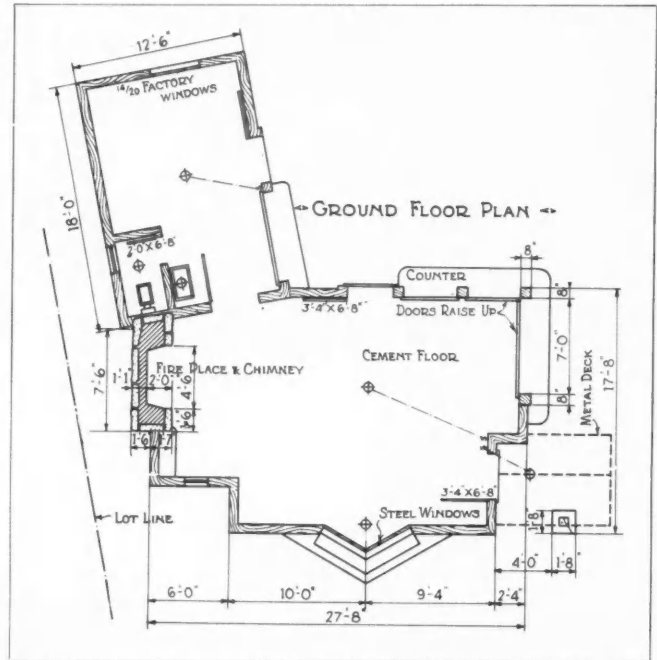


# Unique Sales Office Draws Trade

Roadside Stand Designed by R. H. Zook Builds  
Business for Naperville (Ill.) Nurseries

**O**F THE THOUSANDS of business places along the highways, few are those which are well designed—either to catch the eye of the passing motorist or to serve him efficiently if he does stop. The roadside mart illustrated on this page, designed by Architect R. Harold Zook of Chicago for the Naperville (Ill.) Nurseries combines both of these requirements. Used mostly during the spring and fall seasons to market cut flowers, it is well located at a road junction where it can be easily seen from three directions.

The owners of this large nursery reported that business was increased the first year enough to warrant the \$3,000 cost of construction. Redwood siding, 16-inch red cedar shingles laid in irregular thatch, and a large natural stone fireplace and chimney, together with the unusual large window bay in the front, give an enchanted feeling to the structure. Plywood is used on the interior and a cement septic tank handles the sewage. William Cramer, Chicago, was the contractor.

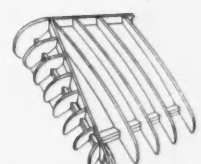
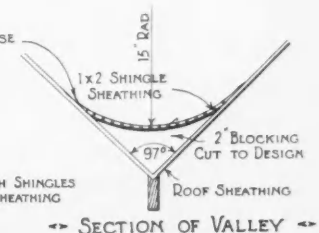
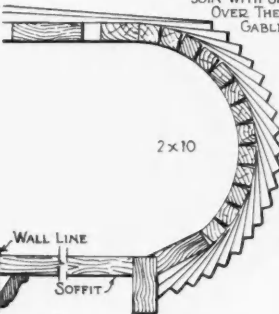
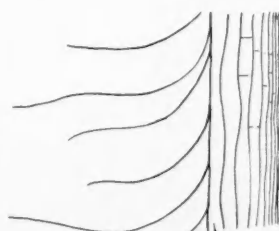
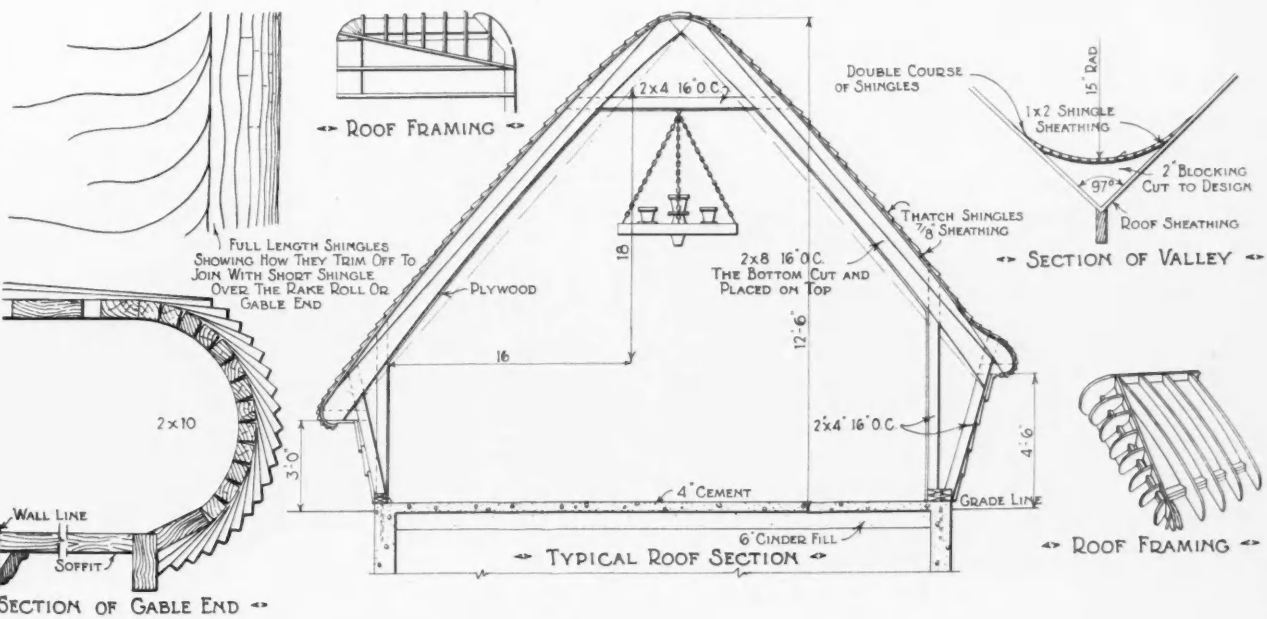
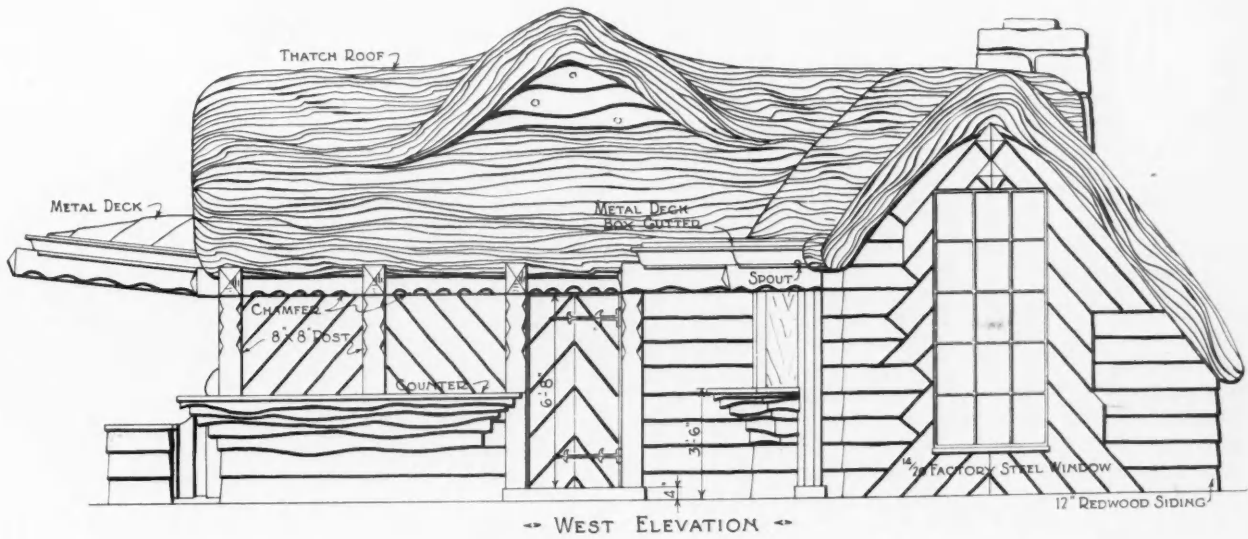
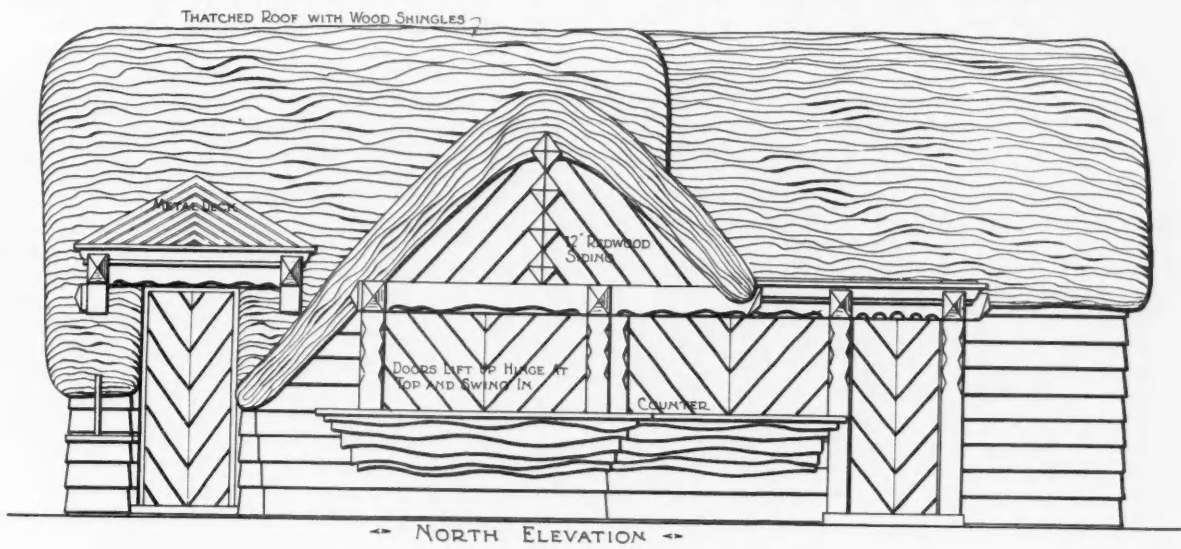


ABOVE: Floor plan of the roadside mart; the smaller room could be adapted to other purposes with few changes. Left: North elevation showing the counters and doors which are raised when a display is set out. Below: East elevation as seen from road junction; the large sign is visible for a good distance. Opposite page: Elevations and details.



RIGHT: East elevation as seen from the highway junction; the unique character of this little sales room compels attention.





# Seasonal and Year 'Round Air Conditioning

Quoting Dr. Lloyd Arnold,  
of the Univ. of Illinois, on  
The Health Aspects of Air Conditioning

By V. L. SHERMAN

Department of Mechanical Engineering,  
Lewis Institute of Technology, Chicago

**D**URING this present and most humid of summers interest in air conditioning has pushed far ahead of what it was a year ago. Listed homes to be built under the provisions of the Federal Housing Administration are wisely being provided with equipment for year 'round air conditioning or with winter conditioning to be later fully equipped if desired. As has been previously pointed out, the installation of summer equipment is no unreasonable expense if the home is already provided with winter conditioning and the addition of summer equipment has been anticipated.

In my own neighborhood there is such a home being built, so I took my kodak along with me to inspect the place. Figures 1 and 2 will help to illustrate what I mean by "anticipating." This home will be in brick veneer. The walls are to be insulated with mineral wool, and the plaster base is rock lath. In Figure 1 we look from the kitchen toward the stair hall. To the left, just beyond the switchbox, is a small lavatory which will be heated from the grille opening *B*. *A* is a stack to an upstairs bedroom. *C* is a return from another bedroom. *D* is a delivery stack to the upper hall. *E* is a return from a bedroom.

Notice the compactness possible, the total lack of interference. In Figure 2 the outlet grille to be placed at the upper end of the stack *A* is centered six feet six inches from the floor. Another outlet is placed along the stair wall. One of the return grilles is to go into the opening *B* placed directly below the window. Considering winter conditioning alone, there is one important item that cannot escape us should we merely consider the appearance and construction of the home. Winter air is so deficient in moisture that the simple addition of heat does not provide air for the house that is at all suitable. Its remarked dryness is about as bad for the house and furniture as it is for those who have to live in it.

So I want to point out Figure 3. One of the show-places of Chicago's west suburbs is Morton's Arboretum where a great stretch of valley and hillside is devoted to the study and growth of trees. This is a tract of rare beauty. And in keeping with it are the new buildings. Figure 3 shows a corner of the lobby in the administration building. The entrance wall is entirely glazed, and the walls are wonderfully panelled. The warm-air grille, indirect heat from hot water coils, is balanced with another of the same size directly opposite. When so much of this type of wall finish (panelling) is being used we cannot afford to stop short of winter conditioning. Extreme dryness of house air together with its higher temperature is so often ruinous, especially at joints. Door and window frames suffer, panelings shrink, in fact the very doors and windows rattle in the cold wind.

There is the opposite picture during the hot and damp summer days when everything seems to stick; and when we wish we had put more paint on the back of the trim, and when we none too regretfully leave the lifting and cleaning of the cold air faces to a time when they do not

have to be pried out with a crow-bar. Maybe we swear—that the next time we build it will be with full air conditioning and with no need for cleaning out the cold-air faces.

The important part of the present article has to do with air conditioning, but with the people who live in the house rather than the house itself. From every viewpoint they are by far of the greater importance. By good fortune I am somewhat acquainted with portions of the research work being carried on at the University of Illinois College of Medicine. Dr. Lloyd Arnold, who is professor of Bacteriology and Public Health, puts me much in his debt when he consents to be quoted. His statements will be

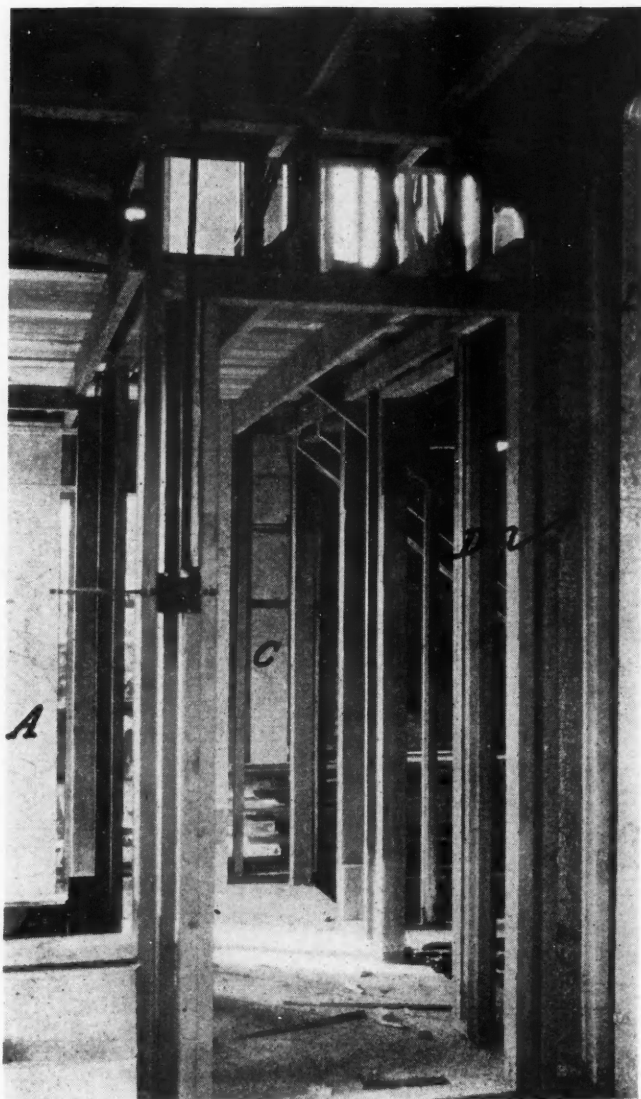


Figure 1. Framing kitchen and stair hall. Stacks and returns placed.

## MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

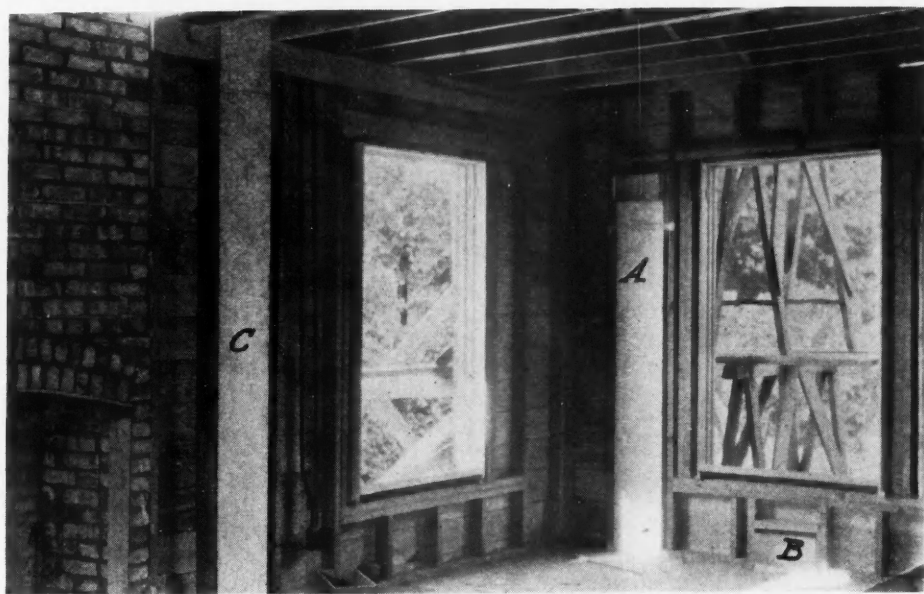


Figure 2. Corner of Living Room. A, Air Delivery Stack. B, Return. C, Bedroom Return.

those of one who is not only conversant with artificial air conditioning, but its direct relation to public health. Let me present Doctor Arnold:

"The human skin is a very different organ from the skin of any other animal. There are two new structures added to man's skin, a system of sweat glands and a different architectural blood capillary plexus in the skin. These two new systems were added for the purpose of aiding in the regulation of internal temperature. The ability of man to move about from one climate or geographical area to another is made possible to a great extent by his superior skin function. He has the best heat regulatory system of any animal. He has retained the best of Mother Nature's experiments during past ages and has, in addition, added new structures which make him more independent of his climatic environment than other animals.

"All animals have sweat glands, but these belong to the excretory system. But a whole new system of small

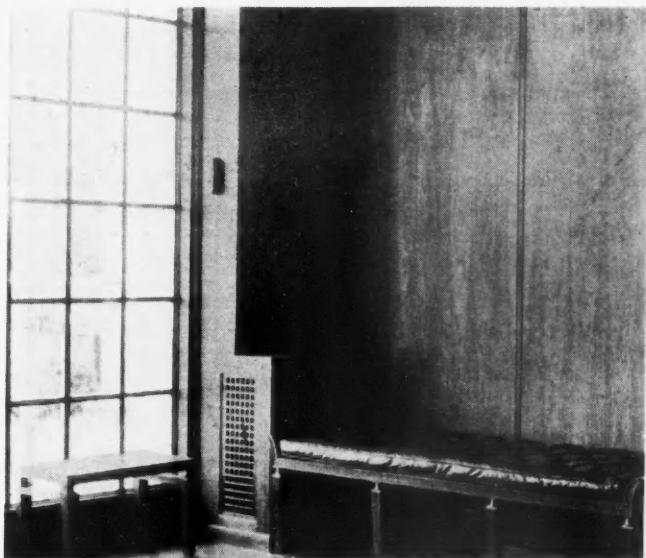


Figure 3; Corner of Lobby, Morton's Arboretum Administration Building.

sweat glands have been developed and added to man's skin. These glands are distributed over the whole body surface. There are millions of them, and they secrete water with a little sodium chloride (0.6%), and bare traces of organic substances. These glands belong to the temperature regulating system of our bodies.

"The blood supply of the skin of animals is approximately the same supply system as to any other organ. There are networks of intertwining capillaries similar to a fish net. These capillaries are spread out on a flat plan just beneath the skin. Man has an entirely new principle of capillary circulation. He has several hundred loops or horse-shoe shaped bends in every inch of the flat capillaries beneath the skin. These horse-shoe shaped loops have the

toe of the loop pointing outwards. Man can control the amount of blood flowing from his skin by controlling the size of the lumen of these capillaries. He can increase or decrease the volumes of the peripheral or skin blood according to his needs. This new capillary architecture is part and parcel of his heat regulatory system.

"The fundamental problem and purpose of artificial air conditioning should be to keep the skin in a state of physiological equilibrium with the body as a whole. If the outside air is of such a physical state that the skin must increase its blood supply to several times its ordinary volume and set the sweat glands system to secreting water at a rapid pace, then man is really a "skin-animal." Under these conditions his skin is his most active organ.

"It should be remembered that man's skin is the largest organ he has. If it were stretched out its size would be that of a seven by nine foot rug.

"The circulatory system is composed of a series of large vessels leading from the central automatic pump toward the organs of the body. The diameter of these vessels becomes smaller as they branch and break up into separate supply systems. Thin, hair-sized capillaries with tissue-paper-like walls are the actual dispensing parts of this system. The blood collects beyond these intertwining capillary net-works into veins. These gradually increase in size as the blood is returned to the heart.

"Now the volume of fluid within the closed circulatory system is constant. When the skin demands an increased amount of blood, then some other system has less blood. There is a balance between the various capillary beds. When one big system opens up, another vascular bed closes up in relative proportion. Otherwise the central pump would run too fast because of lessened volume and pressure. (For purposes of simplicity we are not introducing the central brain stem controlling nervous centers for temperature adjustment. This would lead us into too detailed discussion.)

"A person at rest, several hours after a meal, has a balance between the skin or peripheral system and the digestive or splanchnic system. The blood can be thought of as equally divided between these two systems. If one observes the skin by means of a microscope under such conditions, one sees several small loops, capillaries with

# HEATING—AIR CONDITIONING—PLUMBING AND WIRING

blood passing through the lumen. As one observes the field, one sees the capillaries change. Old ones disappear and new ones become visible. But if heat is applied to the skin one sees many more capillaries in the same field. They are not only numerically increased but they are wider and blood flows through them faster. The volume of blood in the skin is increased several times, and sweat secretion begins when the blood volume increases. If the stomach is studied at this time it will be seen to contract, secrete less acids and ferments. The stomach lining becomes pale, just the opposite from the skin.

"If the skin is chilled instead of heated, the opposite reaction takes place. The skin blanches, only a few capillary loops can be seen in the microscopic field. The stomach dilates, secretes acids and ferments, and the lining membrane becomes red in color, due to an increased blood supply. These are some of the body changes going on in connection with atmospheric changes.

"The perfection of summer air conditioning in homes, offices, transportation systems, etc., will increase man's sense of comfort and well-being. But even a broader viewpoint may be taken, namely, we may increase man's resistance to hot weather diseases such as diarrhea, dysentery, typhoid fever, and change the epidemiological parasite picture as a whole."

Now I am sure that Doctor Arnold, as Bacteriologist in charge of the Research Laboratories of the Illinois Department of Public Health, could, but for politeness' sake, say some very direct things about false temperatures, sensational temperatures one might call them (resorted to by some through ignorance), to produce a sense of coolness at the first but with a disastrous chill to follow. Too low a dry-bulb temperature and too much moisture left in the air, which will show in a high wet-bulb reading. This is more or less of a trick on the senses.

In last month's article air was traced from 95 degrees dry-bulb to its dew-point at 73 degrees, thence, through condensation, to a dew-point of 65 degrees. From this point it was heated to 80 degrees dry-bulb. This would give a relative humidity of 60 per cent, and would be, from our present knowledge, on the very upper edge of the comfort zone. As a matter of fact for that temperature, which is all of a fifteen degree drop from the outside temperature, considerably more moisture should be taken out.

If real air conditioning equipment is used, this is not only possible but the reduction of moisture in the air to a still lower level would make for comfortable temperatures at higher dry-bulb temperatures. There is no question as to the capacities of air conditioning equipment of the better types to handle both heat and moisture. Cheap equipment will not do it.

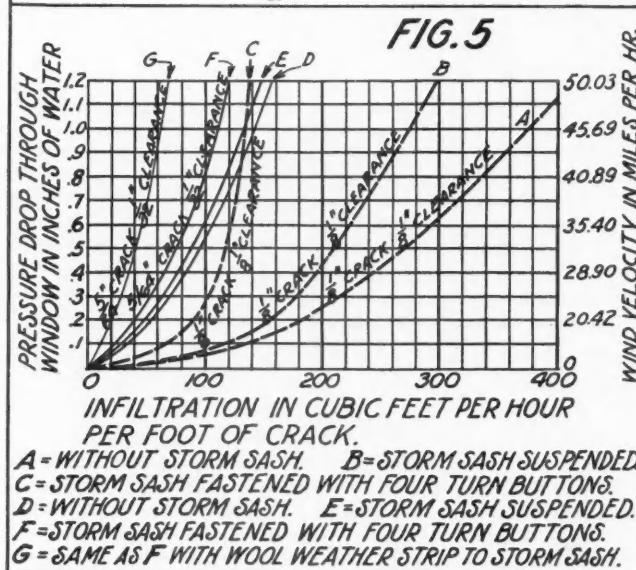
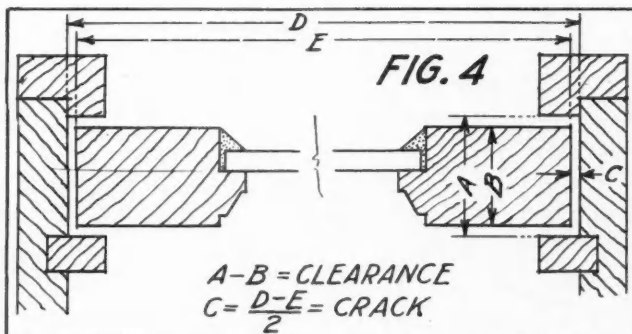
The opportunities offered by air conditioning are not to be abused with impunity. On the other hand the opportunities offered by air conditioning may prove a wider field than we have so far pictured it. One last quotation points this out. "The allergic group,—hay fever sufferers, food-sensitive persons, the frequent headcold and sore throat people—all will find it difficult to control the circulation through the capillary beds. Spasms or involuntary contractions of these vascular systems are part of their trouble. This lack of automatic control seems to be an inherited characteristic. Just how to handle this rather significant proportion of our population represents one of the problems associated with air conditioning."

Before concluding this piece on air conditioning it is of importance to repeat inside wall-temperatures are not

to be at variance with room-temperatures if satisfactory results are to be obtained. Exposed walls should be well insulated.

In Figures 4 and 5 I have combined two charts from the "Guide" of the American Society of Heating and Ventilating Engineers. The amount of outside air coming into a house through the "crack" between sash and frames is neglected at times in surprising fashion. In Figure 5 the solid curves to the left represent windows with a clearance of 1/32 inch and crack of 5/64 inch. The broken curves to the right represent windows with a clearance of 1/8 inch and a crack of 1/8 inch. Winter winds on cold, stormy days are frequently thirty miles per hour, and through the principle northern storm tracks gets up to fifty and sometimes sixty miles per hour. Notice the volume of air coming through at these velocities. Why not see to it that provision is made against such leakage when the FHA terms are sensible in providing substantial and complete building under a single long-term mortgage at so low an interest rate.

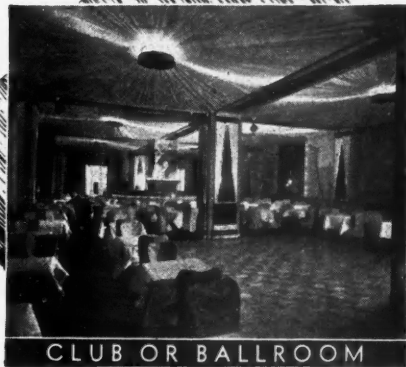
Efficiency of operation in air conditioning and adequate control are possible only when admission of out-of-door air is known and provided for. Control is obviously out of the question when half of the house, in winter or in summer, gains air from the outside and the other half loses conditioned air to the out-of-doors. Again, cold window panes, through continual frosting, reduce the air moisture. In the summer misty windows are the result if single glazing is used and conditions are severe.



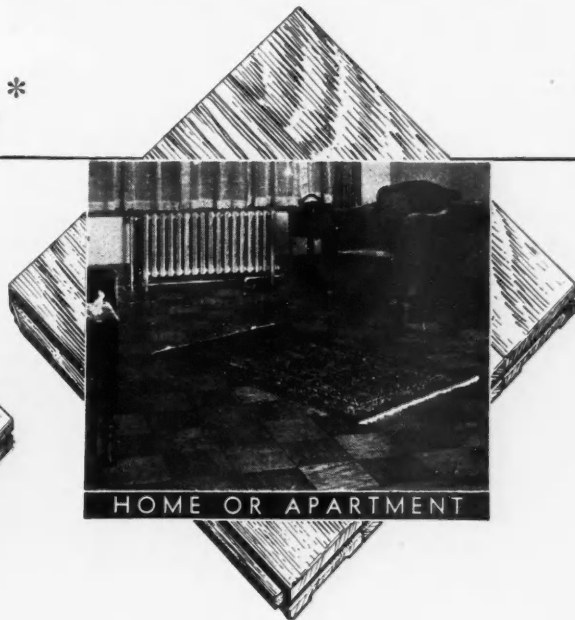
Window Air Leakage Chart adapted from A.S.H. & V.E. "Guide."

# NO OTHER FLOORING

Has All These  
Distinctive Features\*

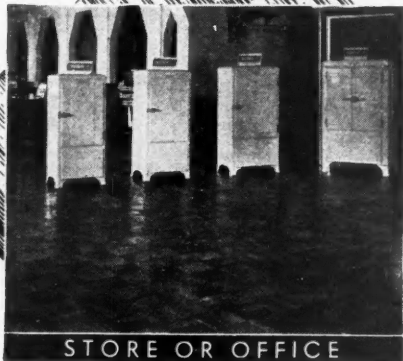


CLUB OR BALLROOM



HOME OR APARTMENT

Bruce Finished Blocks are completely sanded, filled, finished, waxed and polished at the Bruce Plants. Available in Oak, Maple, Walnut, or Beech.



STORE OR OFFICE

\* Here, at last, is a hardwood flooring that "has everything"—the Bruce Finished Block. It combines the natural beauty, warmth and durability of hardwood with the style and variety of block design—yet is simple and economical to install. And consider this outstanding feature: Each Block is given a complete finish at the Bruce Plants, even to waxing and polishing. Not only does the ready-finished feature insure superior beauty and durability. It also means time saved in laying. No waiting for days with rooms all torn up for finishes to dry. "When It's Laid—It's Finished."

Few building materials offer so great an opportunity for stimulating business and satisfying customers. With Bruce Finished Block Flooring you can go out and actually create new business for yourself. One job sold in your community will lead to many others. Your prospect field includes residences, apartments, offices, stores, hotels, clubs—or any building where a distinctive, durable floor is desired.

**EASY TO LAY**—Bruce Finished Blocks are just as easy to lay as regular strip flooring. In fact, easier because little or no sawing or fitting is required on the job. Blocks can be installed either by blind nailing or by laying in mastic—thus being adapted for use over any type of sub-floor or old floor.



## BRUCE FINISHED BLOCK HARDWOOD FLOORS

**FREE!** We want you to have an actual sample of the Bruce Finished Block, so that you can see its many features and judge its merit for yourself. Simply fill in the coupon at the right and drop it in the mail, and a beautifully finished Block will be sent you—along with illustrated literature and simple laying instructions.

E. L. BRUCE CO., Memphis, Tenn.

Please send an actual sample of Bruce Finished Block Flooring, together with illustrated literature and simple laying instructions.

SAMPLE BLOCKS—LITERATURE

AB935

# Weatherstrip Cuts Conditioning Costs

## Excessive Air Leakage Must Be Eliminated for Efficient Operation

**I**N CONSIDERING year 'round air conditioning, the advantages of tight construction are doubly important because not only must a maximum of heat be retained in winter but the successful operation of such a plant also requires that outside heat must be excluded during summer. Proper insulation of exposed areas will reduce the amount of heat transferred through them; the second consideration is the leakage around windows and doors.

Infiltration also involves the economical and successful operation of the plant in maintaining the proper moisture and dust content as well as air motion. If large amounts of air enter around doors and windows, the excessive load on the conditioning equipment will greatly reduce efficiency and raise operating costs. For these reasons any building which is planned for air conditioning should be provided with proper equipment to reduce to a minimum such air changes.

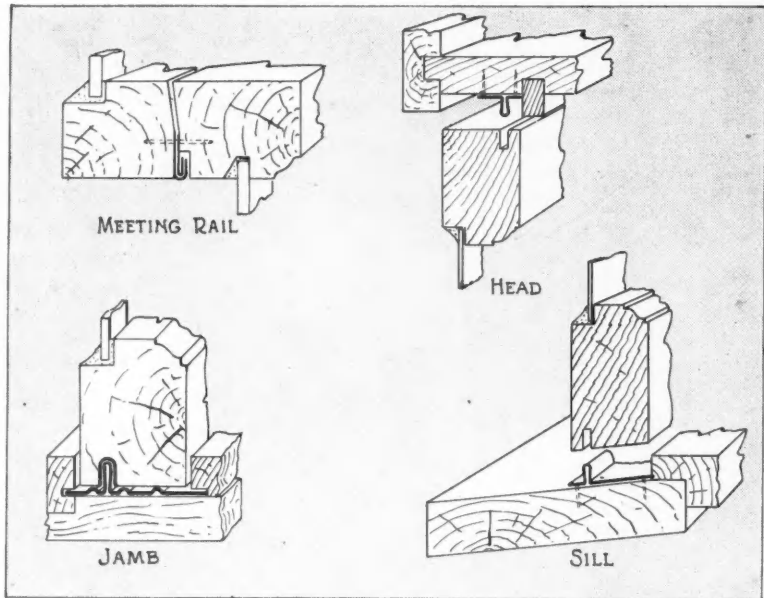
Weatherstrip has long been recognized as a winter fuel saver and is developed to do the job effectively. Now such installations prove even more economical with year 'round operation. The chart illustrated on this page shows graphically the amounts of infiltration around double-hung windows plain and stripped according to tests made at the University of Wisconsin.

The U. S. Department of Agriculture Weather Bureau for a yearly average records a wind velocity of approximately 11 miles per hour for the Chicago area. This would mean a leakage of about 10 cubic feet per hour per foot

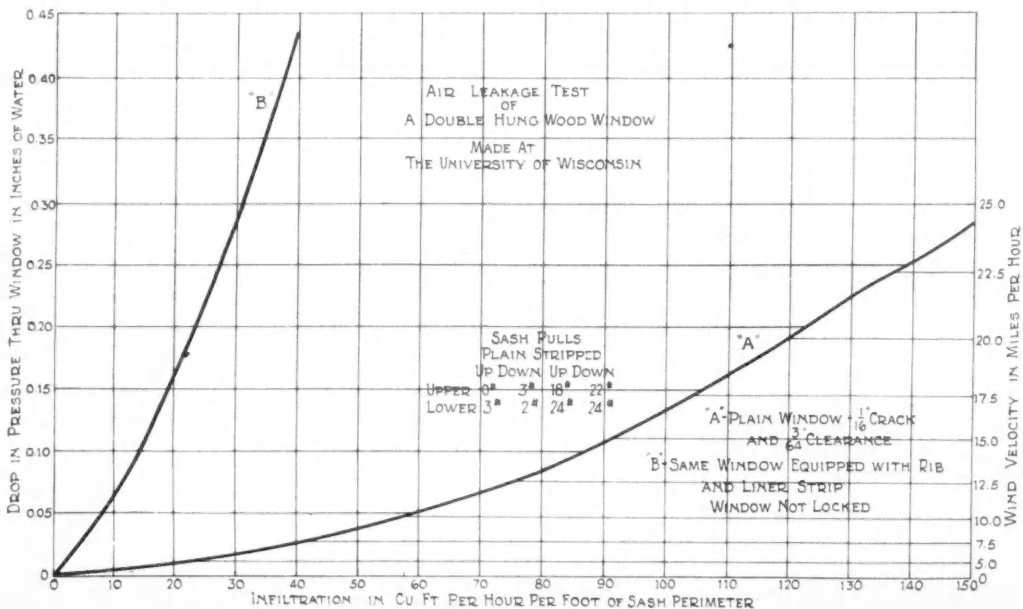
of weatherstripped sash as compared to 70 cubic feet for unstripped windows—or seven times as large a volume of infiltration to be heated or cooled, humidified or dehumidified and filtered.

Around a double-hung window having a clearance of 1/16 inch which is considered good construction, and a 15 mile wind velocity, 20 cubic feet of air per minute would enter. Three such windows in a room 13 feet wide by 20 feet long and a nine foot ceiling under these conditions would allow a complete air change every 40 minutes, which is over twice as often as required for ventilating purposes. Under certain conditions it will be found that several changes an hour will occur.

It has frequently been reported that winter fuel savings even above 25 per cent have resulted from weatherstrip installation; with a plant in operation during the summer as well, the desirability of low operating costs becomes doubly important.



ABOVE: Sectional drawings of window sill, head, jamb and meeting rails showing typical weatherstrip as applied and used in the tests recorded at the University of Wisconsin.



LEFT: Chart developed during tests of plain and stripped double hung windows to illustrate the relative infiltration around both windows under same conditions.

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Main Office & Factory, Hartford City, Indiana  
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Each "OVERHEAD DOOR" installed anywhere, is backed by a conscientious Nation-Wide Sales-Service Organization of skilled door engineers. This Organization adds soundness to each purchaser's investment of "OVERHEAD DOOR" equipment.

It is the functioning of this Organization which permits us to say, "Our interest in The 'OVERHEAD DOOR' does not terminate with the sale but continues long thereafter."

A MILLION USERS THE BEST RECOMMENDATION

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

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

Name ..... Address ..... City..... State..... Mail to: <b>OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.</b>	PRIVATE GARAGE..... PUBLIC GARAGE..... WAREHOUSE..... FILLING STATION..... HANGAR..... WOOD DOORS..... STEEL DOORS..... FACTORY DOORS..... OTHER BUILDINGS..... ELECTRIC CONTROLS.....
------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

AB 9-35

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



## New Style in Bath Room and Kitchen

Entirely new style conceptions in design and coloring of plumbing ware and bath room arrangement are shown in this view of a model bath room, left, and kitchen, above, exhibited by the Briggs Manufacturing Company at the Master Plumbers' show in Chicago recently. Briggs new ware is made of drawn steel while advances in the art of ceramics makes available any color or color combination desired. Generally speaking, the new ware is streamlined and ultra-modernistic in every detail. Building stylists believe that this new mode in the styling of bath rooms and kitchens will provide an important appeal and stimulus in reviving activity in the construction industry. The kitchen cabinet sink is an example of drawn metal construction which has started a new trend in plumbing style and utility. The sinks are available in any color.



# READ THIS LETTER, MR. CONTRACTOR!

HERE is a contractor who has had so much success with his Ford V-8 Trucks that he is now using a Ford V-8 engine to drive his welding generator. His letter gives you all the proof you need of V-8 Reliability and V-8 Economy, as well as V-8 Performance both as a truck engine and as a stationary power plant.

## THEN MAKE YOUR OWN "ON-THE-JOB" TEST

Lindsley Brothers are enthusiastic V-8 boosters. In this respect, they are in complete agreement with hundreds of other contractors all over the country. But Ford does not expect you to buy a Ford V-8 Truck without first knowing what it will do for you. Your Ford dealer is ready to let you make an "on-the-job" test with your own loads, over your own routes, with your own driver. Without cost or obligation, he invites you to make your own test of V-8 Performance, V-8 Economy and V-8 Reliability. Call him today!

**LINDSLEY BROS.**  
 PORTABLE  
 ELECTRIC AND ACETYLENE  
**WELDING**  
 ENGINEERS AND CONTRACTORS

Ford Motor Company  
 Detroit, Michigan

Gentlemen:

In June 1934 we purchased a model 40 V 8 Ford Motor and mounted it to drive a four hundred ampere Lincoln Shield arc welding generator and have had remarkable success with this motor.

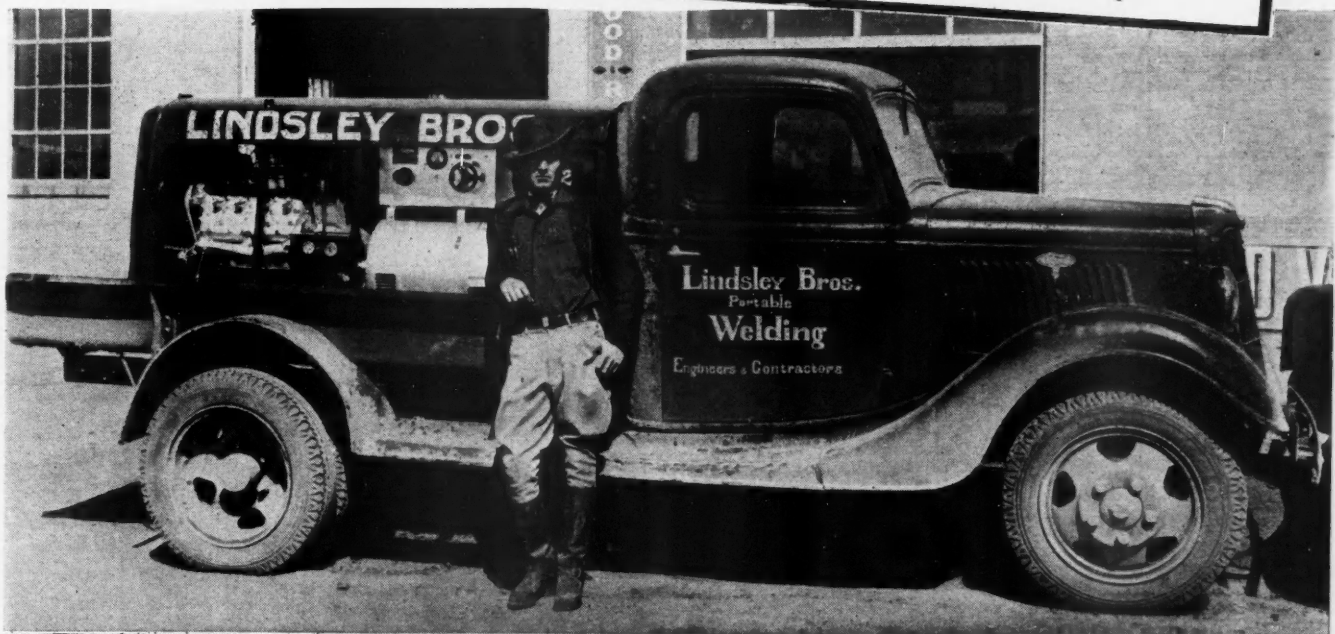
Up to this date we have run this motor a little over eight hundred hours at a speed of approximately forty miles per hour and have spent sixty cents on it for repairs, we run it one hundred hours on an oil change without adding any additional oil during that time.

Our gasoline consumption has been very low, on a test run it burned fifteen gallons in twenty-two hours continuous running which is considerably lower than other motors we have used for this purpose.

One feature especially is the starting in cold weather, we used this machine all through the winter on outside work when it was twenty and thirty degrees below zero and had no difficulty whatever in starting.

In February of this year we decided to build another portable welding machine and bought a 1935 V 8 motor to drive the welding generator and a 1935 V 8 truck to mount it on. We have proved market to-day that there is no motor car or truck on the line where we sometimes work a hundred miles from any source of repairs, will appreciate dependable equipment such as we have found Fords to be.

Very truly,  
 LINDSLEY BROS  
*L. L. Lindsley*

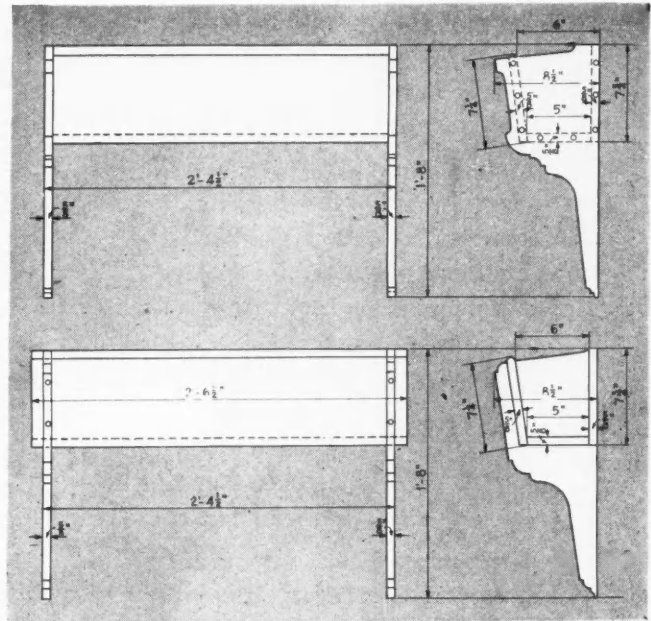


# FORD V-8 TRUCKS

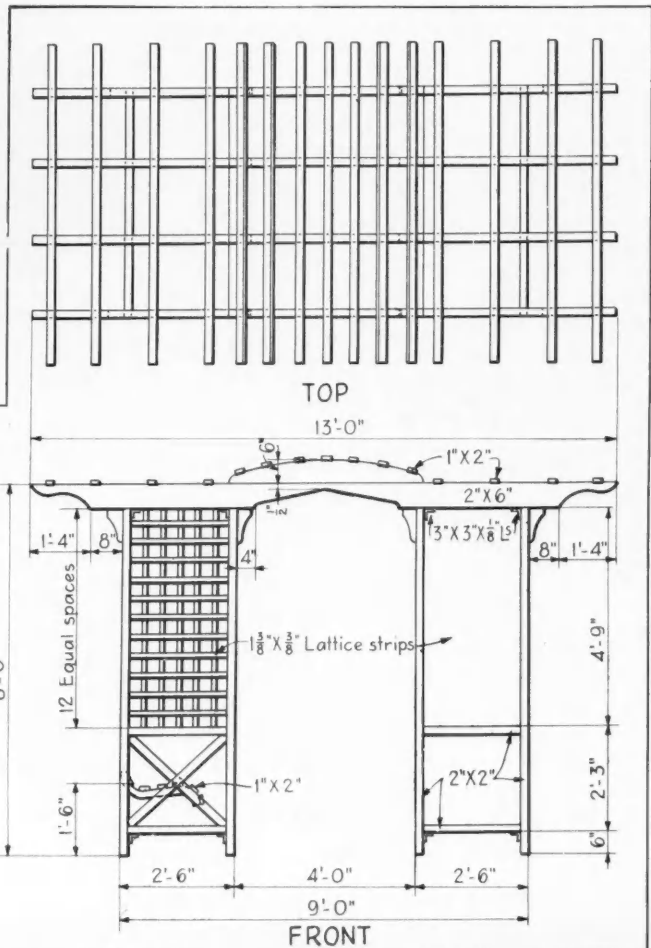
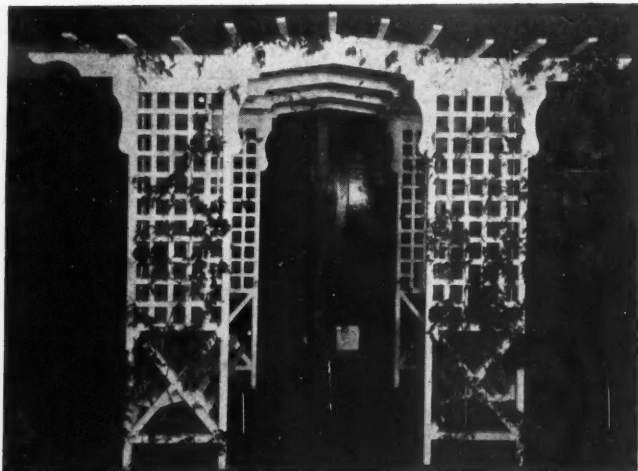
# The SHOPCRAFTER'S Corner

## A Workshop Department of Things To Build for Profit or Pleasure

ON THIS PAGE the plans for two useful outdoor items are shown. Window boxes always add to the attractiveness of a new or old home—these are to be attached by the brackets which are part of the simple but graceful design. The inside can be given a coat of heavy paint or pitch or lined with a sheet metal box. Holes for drainage should be provided. The pergola garden seat makes a pleasing outdoor feature which is easy to build. At this time of year, when newly built homes are getting the finishing touches of painting and landscaping, there should be many spots where such a feature would add to the appearance of the yard. Metal angles such as can be bought cheaply in any hardware store will simplify the construction when assembling the parts. Paint and nails (bolts can be used at points where seat frames are attached) are not included in the bill of materials. A variation in the design is possible by using alternate width vertical slats in place of the crossed pieces at the bottom.

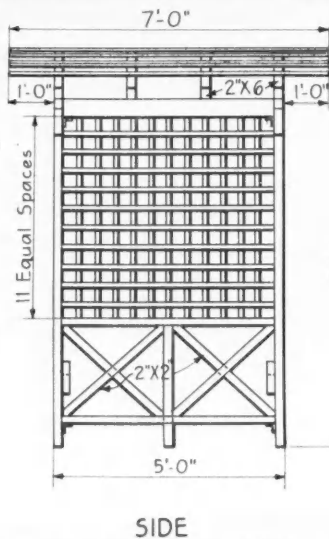


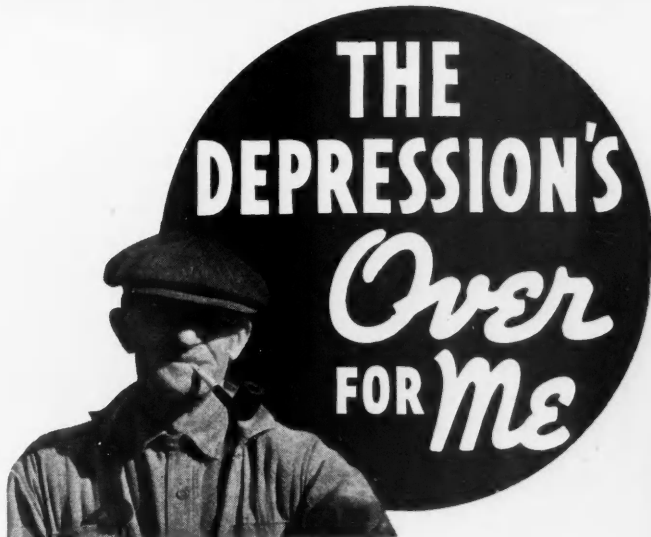
ABOVE, the working drawings for two window boxes with fastening brackets. Below, plans for the garden seat illustrated at the left. These designs were furnished by Edward F. Worst, formerly Director of Industrial Arts of Chicago Schools.



### BILL OF MATERIAL

- 4 Pcs. 2"x6" - 13'-0" Rafters
- 4 Pcs. 2"x6" - 5'-0" Arch
- 4 Pcs. 2"x6" - 1'-6" Seats
- 4 Pcs. 2"x4" - 5'-0" Cross Frame
- 1 Pc. 2"x4" - 6'-0" Brackets
- 8 Pcs. 2"x2" - 7'-6" Uprights
- 4 Pcs. 2"x2" - 5'-0" Ends
- 8 Pcs. 2"x2" - 2'-6" Sides
- 16 Pcs. 2"x2" - 2'-6" Cross Br.
- 12 Pcs. 1"x2" - 7'-0" Roof strips
- 12 Pcs. 1"x2" - 5'-0" Seat pieces
- 450' of 3/8" x 1 3/8" Lattice strips
- 28 - 3" x 3" x 1 1/8" x 1" Steel Angles.



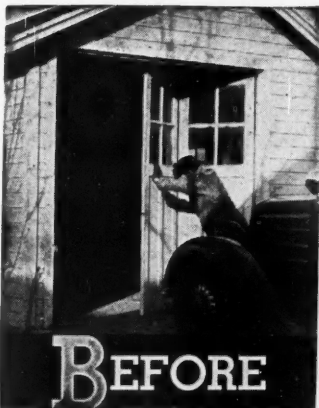


"Enthusiastic? You bet I am! I ran into 'Over-the-Top' door equipment a year ago and that marked the beginning of the end of the depression for me.

"When I heard about this remarkable outfit, I went and had a talk with the dealer here. He made me a proposition to split the profits on every job I sold. I started ringing door bells and found it really easy to sell car owners on modernizing their garage doors. The inexpensiveness of 'Over-the-Top'—especially if the old doors are used—is what gets 'em. I found it took me 3 to 4 hours to complete an installation. I did my selling evenings and installing day times. In the last year, I've made a darn good living in this manner."

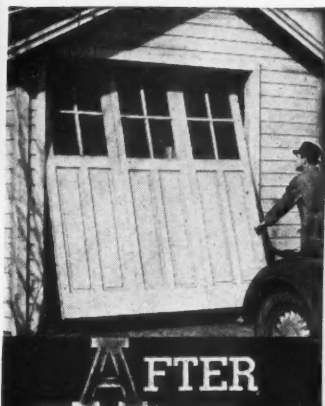
This Builder's experience is typical of many who have gone after the big market for "Over-the-Top" Door Equipment. You, too, will find it worth your while to investigate. Write for complete information today.

**FRANTZ MANUFACTURING Co.**  
Dept. AB9 Sterling, Ill.

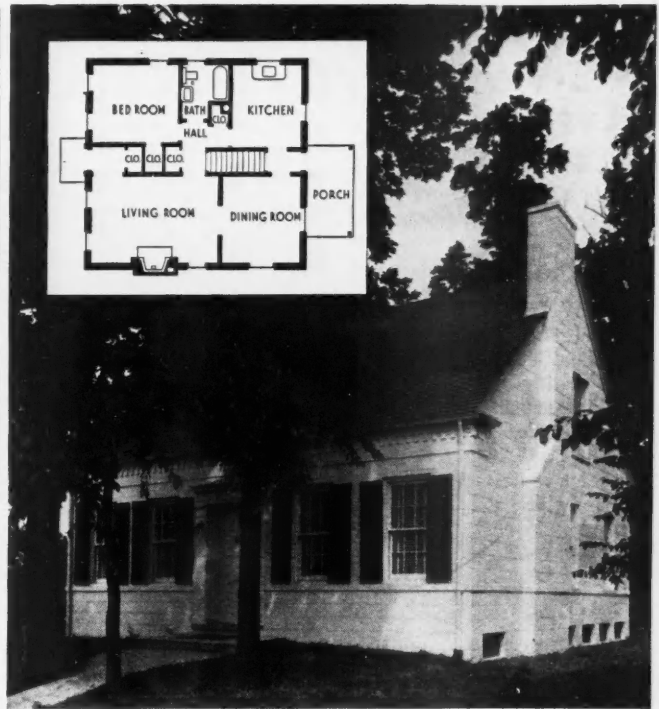


- Easily operated by women and children.
- Weather-tight—no snow or ice worries.
- Never needs adjustment or servicing.
- Priced within the reach of every purse.

- Applicable to old or new vertical doors.
- Lifts the door overhead—quickly, easily.
- For openings up to 18' wide x 12' high.
- Quickly installed—no costly cutting, etc.



**Over-the-Top**  
Door Equipment



Six rooms—4 down and 2 upstairs. Walls of cinder concrete block painted white, with cinder concrete dental course. Built by Albert E. Bill, Detroit, Mich. Masonry units furnished by Cinder Block, Inc.



**THIS \$5100 HOUSE**

**SOLD 10 LIKE IT**

**..... IMMEDIATELY!**

The low selling price of this Detroit concrete masonry home included lot and a builder's profit. Thousands flocked to see it. Contractor Albert E. Bill quickly landed orders for ten similar homes, nearly all with concrete floors.

Says Mr. Bill, "I have never built a model home which met with so nearly 100% approval by the public. One of the features they like best is the concrete masonry."

People like the smartness and beauty of concrete. They know that it is strong and enduring—decay-proof, vermin-proof, firesafe and storm-proof—that it ends heavy upkeep. And low first cost clinches the value.

Talk Concrete to your prospects. Build with Concrete for quicker sale, better renting.

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Room 159, 33 W. Grand Ave., Chicago, Ill.

Please send literature on the subjects checked:

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- Fireproof house design
- Portland cement stucco
- Quality concrete making
- Concrete residence floors
- Concrete ashlar masonry
- Concrete for modernizing

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

## NEW PRODUCTS

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

### One Hand Rapid Tacker

A NEW DEVICE for simplifying the installation of insulation and similar jobs is known as the Kling-Tite Automatic One-Hand Tacker, Model T-4, and the staples used are known as No. 44 Kling-Tite Tack-Points, so named because the points are tack-like in sharpness, there being two points to each tack-pointed staple. A product of the A. L. Hansen Mfg. Co., Chicago, it provides a tool that permits holding the materials with one hand while tacking them in place by tack-point staples from a strip which are driven by compression as fast as the hand can grip.



Applying insulation with new tacker

### Oil Burning Air Conditioning Unit

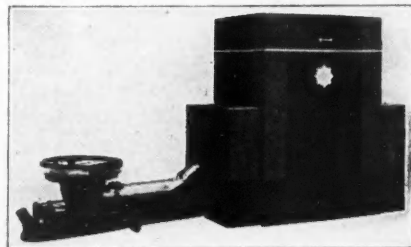
THE NEW SUNBEAM oil burning air conditioning unit manufactured by The Fox Furnace Co., Elyria, Ohio, a division of American Radiator & Standard Sanitary Corporation, has recently been announced. The designers of the new unit placed special stress on attractive appearance—the finish is smooth, glossy green enamel baked on a cabinet of heavy, cold-rolled, furniture stock. Chromium plated trimming strips contrast pleasingly with the colored surfaces. All corners are rounded. All bolts and screws are concealed. The new Sunbeam product is designed for oil burning exclusively. In one model the oil burner connects to the front of the heating element, where it is concealed by the door of the cabinet. In a second model, the oil burner connects to the rear of the heating element.



New Sunbeam Conditioner

### Automatic Anthracite Stokers

THE ADDITION of household anthracite automatic stokers to the complete line of bituminous coal burners has been made by the Link-Belt Co., Chicago. Three sizes are available, with maximum coal feeds of 25, 35 and 50 pounds per hour. It is said that performance and operating economy have been thoroughly checked by many installations in service for at least two heating seasons.



One of the new household size anthracite automatic stokers

### Floor Sanding Machine

THE AMERICAN Floor Surfacing Machine Co., Toledo, is marketing a new model American Standard Floor Sander, which is made with both 8-inch and 12-inch sanding drums. The smaller one is fitted with a 1½ H.P. motor, the larger with a 2 H.P. motor.

Features of the new machine are—full width paper clamps; easily detached, one-piece solid casting drum; special control and sustaining device to regulate pressure. A quiet vacuum fan picks up the dust and deposits it in a new compact dust unit. One piece guard and "V" type belt drive are incorporated in the design. The complete 8-inch machine weighs 197 pounds, and the 12-inch, 235 pounds.



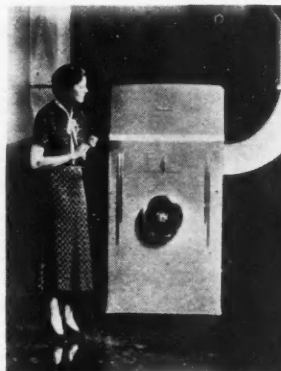
The American Standard Eight, new model floor sanding machine.

### Direct-Fired Warm Air Conditioner

A NEW direct-fired warm air conditioner, designed for the small home of about six rooms and combining the functions of heating and air conditioning in one compact oil-burning unit, has been placed on the market by the General Electric Co.

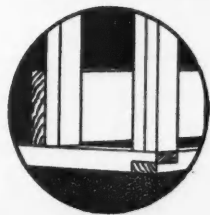
The principle of impact expansion atomization is incorporated in the new warm air conditioner. It has a heat rating of 133,000 B.T.U.'s per hour, and will deliver and properly circulate approximately 1,680 cubic feet a minute of cleaned, humidified, tempered air. Not less than a gallon of water per hour will be used to give adequate humidification in cold weather. A hot water supply heating coil and also a cooling unit will be available for use with the new unit.

The unit is housed in an attractive rolled sheet steel jacket in two-tone gray, with black and chromium trimmings. Standing 5'6" high, it occupies but 2'9" by 5'7" of floor space. It is described as very quiet, clean and free from vibration, and is automatically regulated by electrically operated controls.

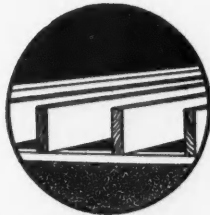


Small home oil-burning unit for heating and air conditioning

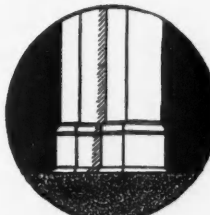
# You Don't Have to Experiment with TERMITE PROTECTION



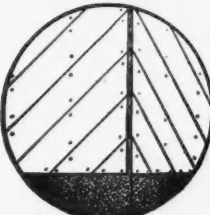
1. Plates and corner posts.



2. Sills.



3. Porch columns.



4. Sheathing.

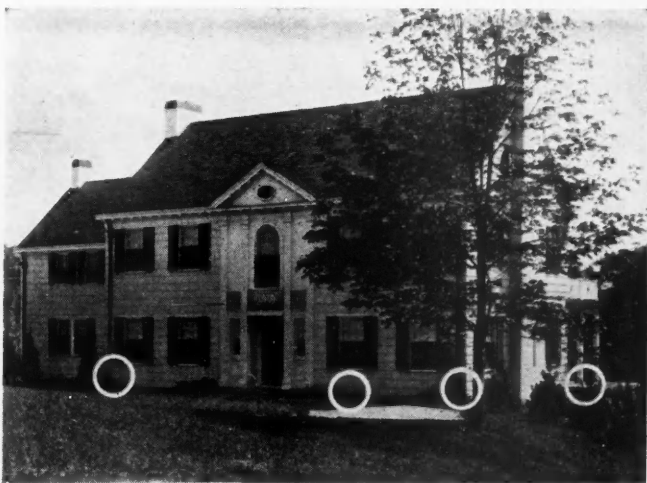
**Vulnerable points for Termite damage**

YOUR customers and friends will naturally turn to you as trusted authority on construction matters when they become worried about protecting timber against termites. What can you tell them? Have you had actual experience with these pests over a sufficiently long time and under sufficiently varied conditions to speak with assurance?

But the lack of such positive personal knowledge does not leave you dependent on haphazard experiments with all the products offered for this use. You will find one fact agreed upon by all independent authorities in this field—viz. that creosote and zinc chloride are the two time-tested preservatives which make wood resistant to termite attacks.

This organization has been treating timber with these preservatives for more than 30 years. The service record of AmCreCo products is ample evidence of their dependability.

You take no chances with your reputation when you recommend AmCreCo products for any application subject to possible attack by termites.



AMERICAN CREOSOTING COMPANY

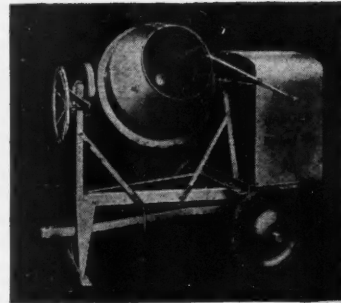
COLONIAL CREOSOTING COMPANY  
INCORPORATED



GEORGIA CREOSOTING COMPANY  
INCORPORATED

LOUISVILLE — KENTUCKY

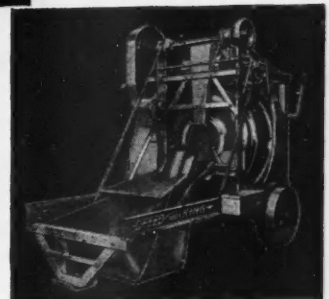
# JAEGER offers MORE for YOUR MONEY---



---in "Dual-Mix" Tilters (TIMKEN BEARING)

half-bag trailers and 3½S, 7S, 10S power loaders with double the mixing action of any other tilter made.

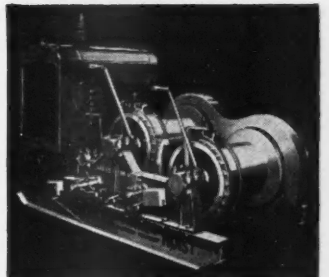
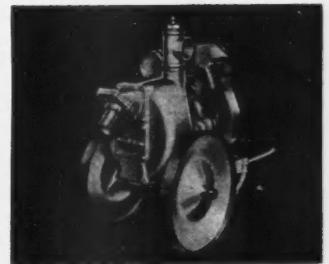
---in Non-Tilters that Outperform all Others: from SPEED KING 7S trailer to 56S, a size and type to fit your job and handle it to best advantage.



---in Improved, Lower Priced PUMPS and HOISTS!

From Jaeger's "Handy Model" Self-Priming Centrifugal (lowest priced 8,500 gallon pump built) up to 135,000 gallon, 8" sizes, Jaeger Pumps offer improved performance at remarkably low prices—an opportunity to save real money on your drainage work this year.

Jaeger Timken Screw Thrust Hoists offer new speed, compactness, power. Single or double drum (convertible), gas or electric, sizes 10 to 50 H.P.



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Our specification book makes the preparation of painting and decorating specifications remarkably easy. It contains specifications covering every type of job—from the smallest to the largest. And these specifications can be copied word for word.

This helpful book is free to you at any store where Lowe Brothers products are sold. Ask for your copy today. Also ask the Lowe Brothers dealer about the Lowe Brothers Pictorial Color Chart.

The Pictorial Color Chart eliminates all guessing about color combinations. In large, full color illustrations, *made with actual paint*, this chart shows correct color schemes for various types of houses and every kind of room. The dealer in Lowe Brothers products will be glad to arrange for you to use the chart without cost or obligation. The Lowe Brothers Co., Dayton, O.



The new and attractive Lowe Brothers Pictorial Color Chart

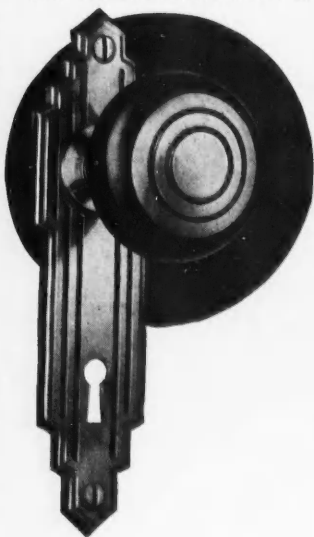
**Lowe Brothers**  
PAINTS • VARNISHES

Quality Unsurpassed Since 1869

## Lockwood "Patrician" Locksets

A NEW LINE of residence locksets, known as the Patrician, has been developed by the Lockwood Hardware Mfg. Company, Fitchburg, Mass.

The Patrician knob has a molded plastic body; top and shank are of solid die cast metal, being also available in brass and bronze at a slight increase in cost. The plastic knob body, solid color throughout, has permanence at the point of greatest wear. Colors available are ivory and ebony for general use throughout the house, pastel orchid and green for the kitchen or bath, mahogany and red for occasional use in keeping with the decorative scheme of individual rooms. The knob construction securely fastens the knob body to the top and shank so that there can be no twisting as sometimes occurs with the old fashioned glass knob.



## New Use for Cement Paint

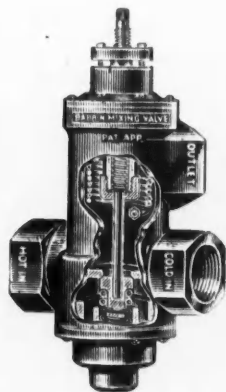
THE DESIRE of owners of soft pressed brick houses to do something has resulted in a new use for Reardon's Bondex.

Several hundred houses in a large western city have recently been painted with this waterproof cement paint, each brick being individually handled to give an impression of fire brick and tapestry brick. Three or more colors are usually used in combination and worked at random as the job progresses. The joints are finally lined in dark gray or black.

An even simpler method, although probably not quite as artistically satisfactory, is to paint the entire structure with a light color and then spot in a few bricks in darker colors.

## New Hot Water Valve

THE BABBIN thermostatic mixing valve, distributed by the Evry-Use Products Co., Inc., New York, automatically regulates the delivery from copper coils or tubes submerged in the boiler of hot water for domestic or manufacturing uses at any desired evenly controlled temperature. It is of sturdy all-bronze construction, has only one moving part, with no sleeves or valves. The Babbin will deliver hot water at any desired temperature ranging from 140 to 190 degrees. Temperature adjustments are readily and quickly made. Babbin valves are ready in three sizes, 1, 1½ and 2 inches.



## Liquid Copper

WIDER SERVICE from copper, "the everlasting metal," is now offered the building field as a result of the discovery of a new process for reducing the elemental metal to a form whereby it can be applied to any surface as a liquid.

Announcement of the discovery of the method has been made by the Nichols Copper Company of Chicago, a unit of the Phelps-Dodge Corporation. After working for nearly eight years in a secret laboratory, two university graduate scientists have finally found a way to break the copper down into an exceedingly fine, non-crystalline form. Mixed with a special vehicle, which has also just been developed, the copper, 98.3 per cent pure, can now be applied as a liquid to form a protective coating over practically any surface.



An average service of 30 years has been established by test for Samson Spot Cord.

More than forty years of actual use substantiates these tests.

Samson Spot Cord is specified by architects because such specification is definite and positive—Spot Cord is made in one grade only and is identified by the trade mark, the colored spots. Substitution is easily detected and is unnecessary because Samson Spot Cord is available to contractors and builders through Hardware and Supply dealers in every section of the United States.

**SAMSON CORDAGE WORKS**

89 Broad St.

Boston, Mass.



Made of extra quality fine three ply yarn, and guaranteed free from imperfections. Firmly braided, smoothly finished. Six standard sizes.

If you haven't a Spot Cord specification folder in your files write for copy. It gives complete data, comparative tests, etc.

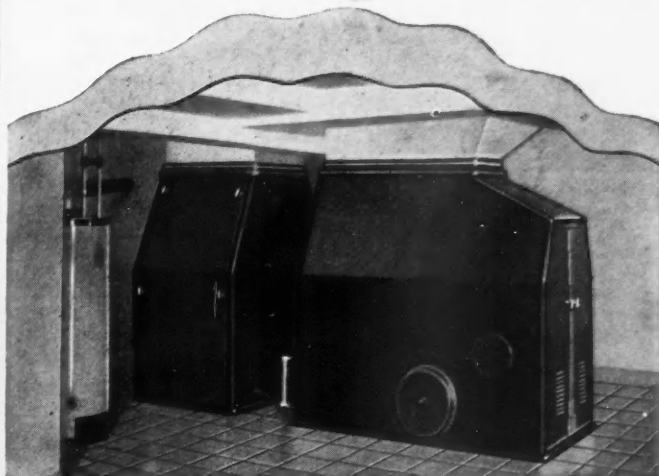
**UP GO LIVING STANDARDS**

**DOWN GO EXPENSES**

with the *Gar Wood* SYSTEM

SAY OWNERS

● Builders, everywhere, realize the value of a modernly equipped home . . . because today's living standards are higher. It is easy to convince home buyers of the advantages of automatic oil heat and air conditioning. But, the question of expense is another matter. They want operating cost figures. With the Gar Wood System that is easy, too . . . for owners say Gar Wood automatic oil heat costs less than coal.



The Gar Wood Tempered Aire automatic oil furnace and air conditioning system for homes

Write today for free literature and find out how the Gar Wood Tempered Aire System provides health, comfort and economy the year round at low cost.

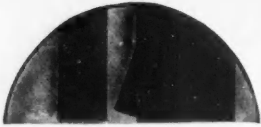
ANY HOUSE WITH A

*Gar Wood*

SYSTEM IS A BETTER HOME

Air Conditioning Division, GAR WOOD INDUSTRIES, INC.  
7930 Riopelle Street • Detroit, Michigan

## Friction-free Opening Draft-tight Closing



Both Made Possible by  
this Exclusive Feature  
**"SEAL-TITE"**

A simple gravity-operated cam (Fig. B) instantly frees the lower section of the door in opening, and just as effectively seals the door tight on closing. You will find this exclusive Ro-Way feature a most effective order-closer, and one that "out talks" all competitors. When you show a prospect how this simple device reduces friction by 90% and insures positive draft-tight closing under all conditions, you strike the two points of greatest interest to him.



### RO-WAY OVER-HEAD TYPE DOORS

also offer other advantages which make them easier to sell. They are priced right. They are architecturally and mechanically correct. They are simpler to install in new buildings, and require fewer alterations in old buildings. This means more *net* profit for you on every job.



### 16 Different Types for Commercial and Residential Use

with headroom requirements of 8½ to 21 inches. All Standard Sizes, as well as Special Sizes and heavy duty doors with special heavy tracking are available. Ask especially about the Ro-Way low priced doors for residence garages and the Ro-Way specially designed torsion spring high lift doors for use in public service stations.

Write for Complete Catalog Folder

**ROWE MANUFACTURING CO.**  
722 Holton Street  
GALESBURG, ILL., U. S. A.



## NEWS OF THE MONTH

Building Activities and Meetings

### Heads Algoma Plywood Industrial Division

**ANNOUNCEMENT** has been made of the appointment of James R. Fitzpatrick as director of sales of the Technical Division of the Algoma Plywood and Veneer Company with headquarters for sales, research, and engineering service at 1616 Builders Building, 228 North La Salle St., Chicago. Mr. Fitzpatrick is well known in this field through his work with the Haskelite Manufacturing Corporation, having recently resigned from the position of vice president in charge of sales, which he held during the past twelve years.

The main plant and factory of the Algoma organization is

located at Algoma, Wis., where it has been in business more than sixty years and is known for the manufacture of plywood panels for interior use such as in walls, doors and similar application. Installation was recently completed of the world's largest hot-plate press which is capable of producing water-proof, resins-glued panels in twelve-foot widths and in any length and thickness desired.



J. R. FITZPATRICK

### First Half of August Construction

**T**HE VOLUME of all classes of construction is still substantially better than the figures for the same period a year ago, according to the F. W. Dodge Corporation report for the first half of August, 1935. Of a \$89,633,200 total, residential construction amounted to \$19,736,200 for the period indicating a monthly volume for August of about \$41,000,000—better than double the August 1934 figure.

Class	Projects	Bldgs.	Sq. Ft.	Valuation
Residential	2,937	3,357	5,736,800	\$19,736,200
Non-Residential	1,635	.....	5,779,200	36,309,600
Pub. Wks. & Util.	683	.....	66,000	33,587,400
	5,255	.....	11,582,000	\$89,633,200

### C. A. Bruce Returns to Memphis

**O**F INTEREST to many in the building industry is the statement issued by his firm that C. Arthur Bruce, vice-president of E. L. Bruce Company, who for the past year has been handling the Washington office of the company, has returned to the executive offices at Memphis, Tenn. Mr. Bruce will be in charge of trade promotion activities of the company.

### HOLC Promotes D. H. McNeal

**T**HE BOARD of Directors of the Home Owners' Loan Corporation has announced the appointment of Donald H. McNeal, of Chicago, Ill., as deputy to Preston Delano, general manager of the Corporation, effective immediately.

Mr. McNeal has been associated with the Board since April 9, 1934, at which time he was called to Washington to organize the reconditioning department and serve as housing advisor to the Board. His promotion comes as recognition of his success in this work. In his new capacity, Mr. McNeal will be in direct charge of the Reconditioning and Appraisal Divisions of the Corporation.



# Up-to-Date Building Books

## Types of Houses

### A Century of Progress Homes and Furnishings

Edited by Dorothy Raley

Outside and inside views with descriptions of modern homes in the housing exhibit at the Century of Progress Exposition. Shows the Armco-Ferro-Mayflower House and Guest House; the Brick House; Crystal House; Cyprus Log Cabin; Florida Tropical House; General Houses' Steel House; "The House of Tomorrow"; Lumber House; Masonite House; Stran Steel-Irwin Town House and Garden Home; Universal House's Country Home; Weiboldt-Rostone House.  
1934. 127 pages, illus., 8 x 11 inches, bound in permatex, \$2.50.

### The Colonial and Federal House

By Rexford Newcomb

The Dean of the College of Fine and Applied Arts of the University of Illinois describes America's most important architectural type of house. Features of good Colonial homes are described and detailed plans of 100 antique and modern houses are shown. The author tells how to build an authentic Colonial house.  
1933. 174 pages, 100 illus., 7 x 9 1/2 inches, cloth, \$3.50.

### American Country Houses of Today

Edited by Lewis A. Coffin

In this volume are illustrated 112 beautiful small houses recently built throughout the country, designed in all styles by 70 leading architects. Each house is shown with a floor plan. A special section covers the prize winning houses of the last two years of the Better Homes in America Small House Competitions.  
1935. 160 pages, 350 illus., 8 1/2 x 11, cloth, \$8.00.

### The Modern House

By F. R. S. Yorke

Presents successful examples of advanced house design in the United States, England, Holland, Belgium, Germany and other European countries and describes the main problems of modern house design. Requirements to be met in the new type of home are discussed in component parts such as plan, walls, windows and roof. A section of more than 100 pages presents typical houses erected from 1924 to 1934.  
1934. 200 pages, 500 photographs, plans and detail sketches, 7 1/2 x 10, cloth, \$6.00.

## Plan Books

### The House to Live In

Views of 40 houses with floor plans and brief descriptions of each. Includes wood, stucco and brick veneer in English and Colonial design. Each house has been designed for a particular need or climate by an experienced architect. Plans are available at small extra cost.  
1932. 22 pages, illus., 8 1/2 x 11 inches, paper, \$1.00.

### The House for Modern Living

Contains 107 small house designs, including 54 prize winners in the General Electric Architectural Competition; with 48 selected entries and 7 prize houses from the 1935 Better Homes in America Competition.  
1935. 140 pages, illustrated with drawings and diagrams, 9 1/2 x 12 inches, paper, \$1.50.

### The Home Moderne, Vol. 1.

By Duncan Hunter

Plates showing homes of various sizes and types designed in modern style and giving wide variety in treatment of details and materials. The plan layouts are suited to conditions of modern living. Complete working drawings for any of these buildings can be supplied.  
1930. 25 plates, 6 3/4 x 8 3/4, paper folder, \$6.00.

### Bungalows

By Harry Marshak

Sketches, floor plans and brief descriptions of 16 bungalows of modern style and of Eastern design. These houses are practical and can be built at low cost. Plans and specifications are available.  
1932. 20 pages, illus., 9 x 7 inches, paper, \$3.50.

### Camps in the Woods

By Augustus D. Shepard

Photographs, sketches and floor plans explaining the designing of camps which serve as summer homes. These are in the higher cost class, built for permanent occupancy and provided with every modern convenience.  
1931. 104 pages, illus., 9 1/2 x 12 1/2 inches, cloth, \$6.00.

### Summer Cottages, Log Cabins and Garages

By J. W. Lindstrom

Plans and photographs of exteriors, including 10 in color. This is a good selection of Minnesota types.  
1931. 64 pages, illus., 7 1/2 x 11 1/2 inches, paper, \$1.00.

## FREE—Book Guide

A copy of the "Building Age Book Guide," brought up-to-date with a mimeographed supplement, is free upon request. All of the books described, including those listed on this page, are sold on a "money back if not satisfied" guarantee.

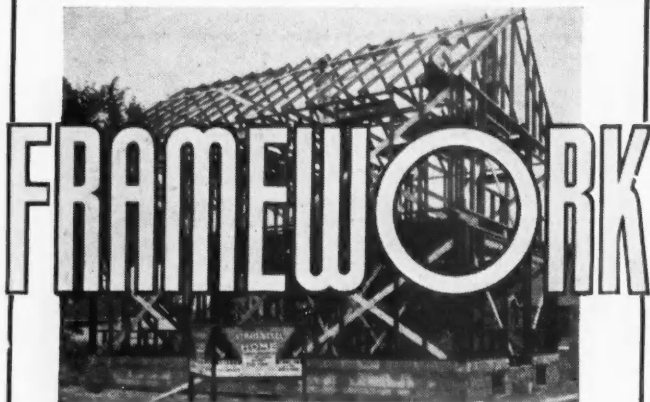
Book Service Department

**AMERICAN BUILDER and BUILDING AGE**

30 Church Street

New York, N. Y.

# STRAN-STEEL



## *attracts* BUILDING PROSPECTS!



From every part of the country, we receive letters from builders who are absolutely *amazed* by the great number of spectators who gather during the construction of their STRAN-STEEL residences. In Detroit alone, over 40,000 enthusiastic visitors—many of whom were *live prospects*—were attracted during erection of STRAN-STEEL framed homes in that area. A progressive realtor-builder in the Nation's Capital writes that of the fifty STRAN-STEEL homes he has built during the past fifteen months, the majority were *sold before completion*, because of their rigid, sturdy framework. STRAN-STEEL *attracts prospects, and sells them!*

**WRITE** us now for information regarding this new and proven framing material that has completely revolutionized the building industry in so short a time!



Gentlemen:

Please tell me about STRAN-STEEL framing.  
I am interested as a

builder       realtor       architect

Name \_\_\_\_\_

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ABO

# STRAN-STEEL CORPORATION

6100 McGRAW AVE.

DETROIT

## News of the Month

(Continued from page 68)

### Houses, Inc., Becomes G-E Unit

FOR THE PRIME purpose of co-operating in the encouragement of house-building of all worthy types, the General Electric Company has organized a separate company known as Houses, Incorporated, to work with others in the development of houses of any type which seems worthy and promising; to conduct research work; and to assist in the management and financing of such enterprises.

Charles E. Wilson, vice president of the General Electric Company, will be chairman of the board of the new enterprise; Foster Gunnison, who has been associated with Houses, Incorporated, since its inception, will be president; James L. Hagar and J. A. Olson, vice presidents. The directors, in addition to Messrs. Wilson, Gunnison, and Hagar, will include P. D. Reed, J. W. Lewis, and Vice President T. K. Quinn of the General Electric Company. Offices will be located in the General Electric Building, 570 Lexington Avenue, New York.

Since it is primarily concerned with the interior mechanism of the house, the General Electric Company has not been, nor will Houses, Incorporated, be, the proponent of any particular type of construction enclosure whether it be prefabricated, partly prefabricated, or the traditional enclosure.

### RFC to Purchase New Home Mortgages

IN REGARD to the efforts which have been made to provide banks with an outlet for insured mortgages if and when necessary for them to be disposed of, the present status is disclosed in a recent letter to Administrator McDonald from RFC Chairman Jones. The letter reads:

Mr. Stewart McDonald,  
Acting Administrator, FHA

In reply to your inquiry as to whether the RFC Mortgage Company would buy mortgages insured by the Federal Housing Administration without recourse, beg to advise that to the extent that the RFC Mortgage Company has available funds for investment in such mortgages, it will buy and sell insured mortgages given for construction of new homes.

It will only buy these mortgages from banks and insurance companies qualified under Title II of the National Housing Act, and then only when the bank or insurance company can show need for converting such bonds into cash.

We regard the mortgages well, and as safe investments for banks and insurance companies within proper limitations to the total lending funds of such institutions, but naturally we cannot give a continuing Government guarantee to purchase these mortgages in unlimited amounts.

Very truly yours,

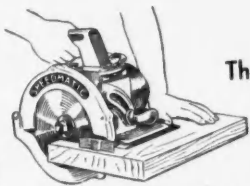
Jesse H. Jones,  
Chairman RFC

### Seek Change in Proposed Taxes

IT IS BELIEVED that real estate would suffer heavy losses, and market clogging would threaten the small as well as the large investor, through forced liquidations resulting from inheritance tax provisions of the pending Federal tax bill as it now stands. Walter S. Schmidt, president of the National Association of Real Estate Boards, points out that real estate by reason of its very nature as a commodity is peculiar as to forced liquidations, which are apt to result in huge losses.

Payment of the taxes is due within 18 months of death of decedent. The Commissioner of Internal Revenue at his discretion may extend the payment time for as much as 10 years from the due date where hardship would otherwise be entailed. The public interest demands, however, that orderly liquidation be assured, rather than be obtainable only at Commissioner's consent, where large estates may be made up chiefly of real estate and where the real estate must be sold to pay the levy. Provision should be made in the law itself whereby owners and mortgage lenders may be assured that no sudden dumping of a great estate, coming at a depression period, will clog the local real estate market.

# MONEY MAKERS FOR YOU



## Speedmatic

The most powerful and dependable electric hand saw ever built!

Saves time and material—easy to handle—fingertip angle and depth adjustments—built to stand up under hard and constant use—guaranteed to make the savings shown in our booklet "Manual on the Use of Electric Hand Saws in House Building." Be sure to send for your FREE copy today.

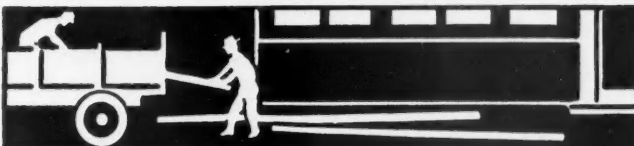
## Speedmatic FLOOR SANDERS

Save money on floor work with this Speedmatic that does a better job in less time . . . easily handled by one man . . . powerful 1/2 H.P. motor . . . operates from lighting circuit. Write for full details, or no-obligation demonstration.

We also make Floor Edgers, Take-About Sanders, Band Saws, Disc, Spindle and Belt Sanders for shop use. Ask for catalog.



**PORTER-CABLE MACH. CO.**  
1721-9 N. Salina St., Syracuse, N. Y.



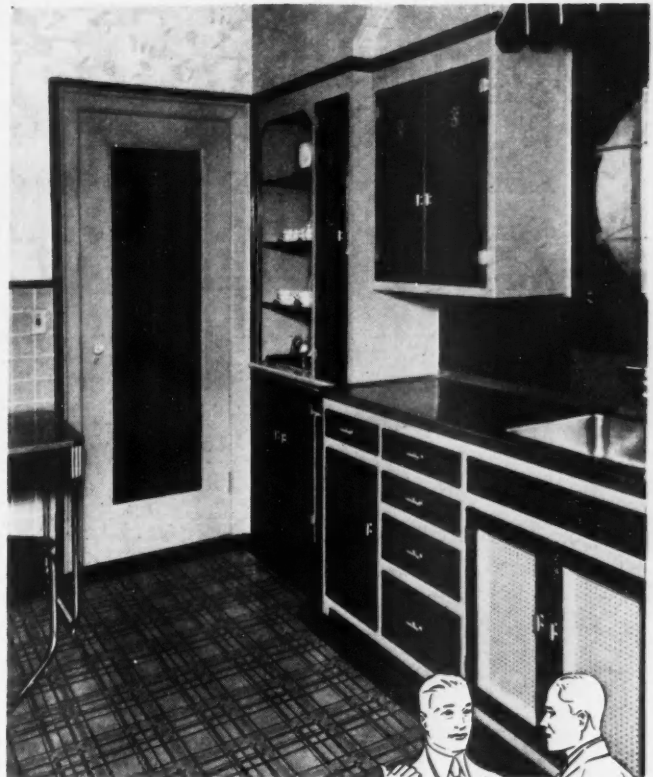
Vents, downspouts and waste lines should be Reading Genuine Puddled Wrought Iron Pipe everywhere in the country.

For the right pipe for other lines, write



**READING IRON COMPANY**  
PHILADELPHIA

SCIENCE AND INVENTION HAVE NEVER FOUND A SATISFACTORY SUBSTITUTE FOR GENUINE PUDDED WROUGHT IRON



Armstrong's Linoleum in a brown, yellow, and green plaid design gives this kitchen the "finishing touch" that increases rentability.

"I SEE you've finally rented that old McDougall place. I thought it was haunted or something, it stood vacant for so long!"

"Yep, I thought I'd never get it off our hands—but I did, all right!"

"How?"

"Simple! I figured that a swell kitchen and bathroom would carry the whole works, so I concentrated on those two rooms—fixed 'em up, just cleaned house and put down bright new Armstrong Floors. Then I told the prospect, 'That's genuine Armstrong's Linoleum!'—and the deal was closed."

(One of our representatives will tell you how little it costs to let an Armstrong's Linoleum Floor help move your white elephants. Armstrong Cork Products Co., Floor Div., 1218 State St., Lancaster, Pa.)



**Armstrong's**  
**LINOLEUM FLOORS**

**IN YOUR BIDS FOR  
REMODELING OR  
IMPROVEMENT—There's  
Extra Profit for You and  
Quicker Loan Approval  
for Your Customer**

**with WALL • TEX**  
**The Durable Canvas Wall Covering**

●  
A FEW  
OF  
WALL-TEX'S  
MANY  
FEATURES



Easy to hang on  
any smooth  
surface



Prevents, hides  
plaster cracks



Can be washed  
and washed



Resists scuffs and  
tearing

**Practicable Beauty**

Wall-Tex will often permit savings in wall construction costs, because it is a strong, flexible, coated canvas which can be easily hung over other smooth surfaces in addition to plaster. When old plaster cracks are filled, and then covered with Wall-Tex, plaster is protected and further cracks will not occur. New plaster is strengthened and cracks will not appear to spoil the job.

**Profit Opportunity**

Unlike perishable paper, Wall-Tex has permanency which facilitates loan approval, thereby helping to clinch additional jobs. It offers a *real* profit on decorating work, adding to your *total* income on each contract. And every WALL-TEXED job is a constant advertisement of your work—helps to make your service more distinctive, more complete.

**Owner Satisfaction**

Wall-Tex beautifies walls as an artist would do them (pure oil colors on canvas). Its permanency and protection eliminate the grief of soiled, scarred walls and premature redecoration. Its beauty is kept constantly fresh and new through years of repeated washing. The nearly 200 beautiful Wall-Tex patterns assure a broad and pleasing variety for decorative treatment and include many plain colors and textured surfaces—and lining cloths, the perfect, protective base for painting and tinting.

MAIL THE COUPON TODAY FOR COMPLETE DETAILS

COLUMBUS COATED FABRICS CORPORATION,  
Dept. AB-95, Columbus, Ohio

Please send me Wall-Tex file folder 28-C-1, including Wall-Tex samples.

Name .....

Address .....

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

**WALL • TEX**  
*decorative wall canvas*

**Real Estate Survey Shows Improvement**

THE REPORT of the twenty-fifth semi-annual survey of the real estate market, released by the National Association of Real Estate Boards and drawn from confidential statements of member real estate boards in 251 cities, shows:

Market activity increased in 81 per cent of all cities reporting. Prices received now higher than a year ago in 61 per cent of cities. Not at any time since activity-trend and price-trend tables have been compiled by the Association (beginning December, 1925 and December, 1926 respectively), has so high a proportion of cities shown an up trend.

Definite trend of capital to seek real estate investment.

Rents for single-family dwellings going up in 71 per cent of cities. (Have reached in metropolitan centers approximately 75.9 per cent of the 1926 level.)

Apartment rent movement is upward in 65 per cent of cities. (Rates still at 52.5 per cent of 1926 level. Currently marking time.) Some business property rents up for down-town space.

Striking change in degree to which mortgage loans are available for new home building. Real estate boards in 81 per cent of the cities state it is now actually possible to obtain such loans in their communities. But they add that loans actually negotiated are still generally few, and extremely conservative. Tend to be 50 per cent loans, 60 per cent for new home construction. Much-advertised long-term low-rate loans are non-existent as yet in most communities. Many cities say banks, particularly, are reluctant to act under FHA plan. Few communities show loans on practicable terms for operative builders.

Extreme geographical variations, particularly in sales activity. But improvement is general over the country in every major real estate factor.

Large cities are very definitely leading in recovery.

Shortage of single-family space in 69 per cent of cities. But with adjustment going on as to loan terms and loan practices, uncertainty still felt by families as to their future income, and construction costs still in unfavorable ratio to rent levels, there is in general an extremely conservative amount, as yet, of new home building. Many cities cite need of new dwellings but lack of available financing.

Real estate market activity has shown itself predominantly increasing since mid-summer survey of 1933. Price levels began to show measurable up change a year later. In the present survey, every city of over 200,000 population reporting is experiencing a more active market.

**Home Loan Bank Rates Reduced**

THE DIRECTORS of the Federal Home Loan Bank of Cincinnati have reduced the interest rate on advances to member institutions to the new low rate of 3 per cent. The Federal Home Loan Bank Board several weeks ago acted to permit the twelve regional Home Loan Banks to reduce their lending rates to their 3326 member home-financing institutions to 3 per cent for the purpose of making a greater volume of long-term mortgage money available to home owners at lower interest rates than have prevailed in the past.

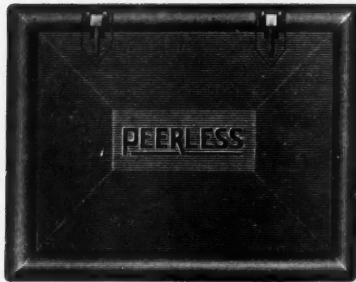
The prompt action of the Cincinnati Bank makes this new low rate effective on loans to any of its 385 member building and loan associations throughout Ohio, Kentucky and Tennessee. The full public benefits of this step, however, it is said, will depend upon the initiative of the local associations themselves in making mortgage loans freely to home owners at correspondingly lower interest rates than have prevailed in many cases.

**Farm Home Remodeling Film**

A TWO-REEL motion picture, "The Will and the Way," showing how an 80-year-old farmhouse in Wisconsin was turned into a modern home by an ambitious couple, who inherited it, has been released by the Division of Motion Pictures, Extension Service, of the U. S. Department of Agriculture, for the use of schools, colleges, social organizations and any others interested in the remodeling of farmhouses.

The film is available in 16 and 25 millimeter sizes and takes about 20 minutes to show. A short film strip, used by the Federal Housing administration in illustrating its house remodeling program is also available.

# PEERLESS COAL WINDOWS



**HEAVY**  
...  
**DURABLE**  
...  
**SECURE**  
...

## INSTALL PEERLESS No. 5 ON ALL JOBS

And right now is the best season of the year to go after modernizing jobs and new homes. Peerless windows will satisfy your client's needs for a sturdy, safe and easily operated coal window . . . Look at these features: **FRAME AND DOOR**—heavy gauge copper bearing rust-resisting steel: **HINGES**—malleable iron with brass pins: **BODY**—steel and rigid construction: **SECURITY**—door fitted with heavy cast iron catch which can be opened from the inside only.

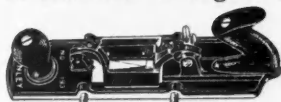
## WRITE TODAY FOR FULL INFORMATION

We will pleased to send you descriptive literature giving prices, weights, dimensions on Peerless Windows and other Peerless products—Fireplace Fixtures, Ash Dumps, Ash Pit Doors, Garbage Receivers, Hearth Fire Gas Heaters.

**PEERLESS MANUFACTURING CORP.**  
1400 W. Ormsby Ave. Louisville, Ky.

# NEWER, QUICKER, BETTER

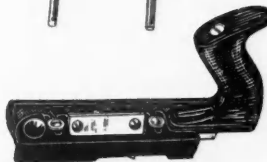
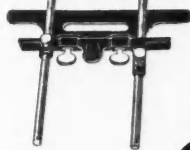
From **STANLEY — THE TOOL BOX OF AMERICA** come these new tools for cutting and decorating all types of Fibre Board. Quicker and better results can be obtained through their use.



**STANLEY  
FIBRE BOARD CUTTER  
No. 193**

Recommended and used by fibre board manufacturers for cutting off, slitting, beveling, grooving and mitering fibre board.

The finest tool made for this work  
Price — \$10.00 complete with attachments.



**STANLEY INDEPENDENT  
FIBRE BOARD BEVELER  
No. 194**

Companion tool to the Fibre Board Cutter—can be used for cutting chamfers while No. 193 is set up for other cuts.  
Price—\$1.80.

## STANLEY KNIFE No. 199

Handy tool for cutting fibre board—Furnished complete with six replacement blades which are held in hollow handle.

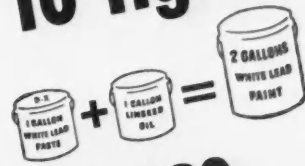
Send for literature describing these tools and showing what they will do.

**STANLEY TOOLS**  
New Britain, Conn.



COMPANION TOOLS TO THE FAMOUS STANLEY BAILEY PLANE

Easier to figure . . .



Easier to use . . .



# NEW Eagle D-X WHITE LEAD

● Now you can buy pure Eagle White Lead in quarts, gallons and 2½-gallon kits!

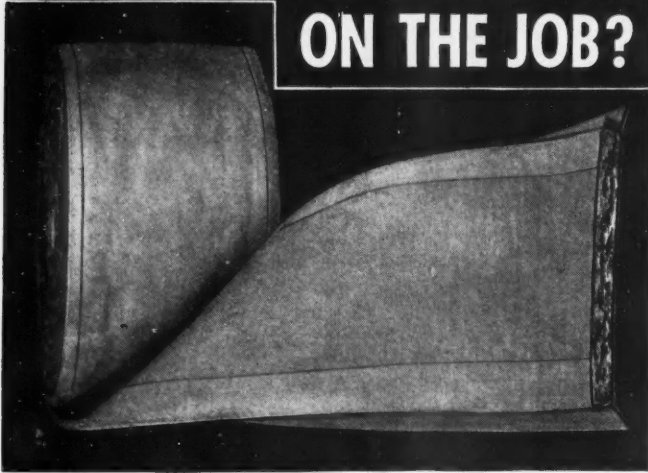
The new Eagle D-X comes in soft paste form . . . ready for easy thinning, gallon for gallon, with linseed oil. Mixing takes only a few minutes.

No need now for contractors to take chances with paint. Play safe . . . specify Eagle D-X . . . the new white lead that's easier to figure, easier to use . . . for all exterior work. If your local dealer doesn't carry Eagle D-X White Lead, write The Eagle-Picher Lead Company, Cincinnati, Ohio.

**DEALERS . . . MAIL COUPON** No matter what kind of paint you are now carrying, there are extra profits for you in the new Eagle D-X. For attractive terms on handling this new easier-to-use white lead specialty, mail coupon to The Eagle-Picher Lead Company, Dept. AB9, Cincinnati, Ohio.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

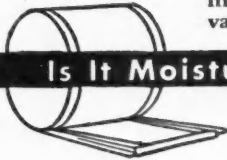
## WHAT WILL IT DO ON THE JOB?



### A FEW UNVARNISHED FACTS • • • ABOUT INSULATION

We have plenty of laboratory figures to show why BALSAM-WOOL is better insulation. But your customers don't want laboratory figures. They want insulation efficiency—on the job. Here are a few questions every contractor should ask . . . if he is interested in giving his customers more insulation value per dollar:

#### Is It Moisture-PROOF?



We know—and you know—that moisture destroys the effectiveness of insulation. We know—and you know—that moisture gets into any insulation which is not adequately protected as a whole. BALSAM-WOOL is completely and permanently protected from moisture . . . sealed in a waterproof covering. In addition, it is chemically treated to make it verminproof and fire-resistant.

#### Is It POSITIVE in Application?



To be effective, insulation must have no weak spots—leave no loophole for wind, heat or cold to get through. But you cannot be sure of continuous insulation with materials that are merely poured or dumped in by common labor. BALSAM-WOOL is positive in application—fastened in place by qualified carpenters who know their business. Flanged edges now make it even easier to apply than ever before.

#### Is It Permanent in EFFECTIVENESS?



Materials that settle or that change their form, cannot be permanently effective. BALSAM-WOOL lasts as long as the building in which it is applied—stays where it is put and does not change its form.

#### Does It Offer the RIGHT Thickness for the Job?

For every home and every climate there is a right thickness of insulation beyond which it does not pay to go. BALSAM-WOOL comes in thicknesses to fit every insulation need, everywhere.

Let us tell you all of the facts about BALSAM-WOOL.  
We believe you will find them worth knowing!

**BALSAM-WOOL**

WOOD CONVERSION COMPANY  
ST. PAUL · MINNESOTA



Made by the Makers of  
**NU-WOOD**

## LETTERS from readers on all subjects

Facts, opinions and advice welcomed here

### 51 Years—Who Has Longer Record?

West Actor, Mass.

To the Editor:

Enclosed please find my check for 3 dollars, for a renewal of my subscription to the American Builder, 2 years.

It is 51 years ago last April since I subscribed for the old building magazine called Carpentry and Building. I have taken it continuously since, although under different names as it changed two or three times, finally calling itself Building Age. And then after some years you took it over. It had published meanwhile some other magazines connected with the building trade which I have taken. Your American Builder Magazine (The Radford Publication) I took from its first printing in April 1905 and have continued too without a break. This renewal for two years will make me a subscriber for 53 years. I don't believe you have many who have taken your magazine longer.

JOHN S. HOAR

Contractor and Builder.

### Favors Local Architectural Service

Newton, N.J.

To the Editor:

I have been a reader of the *American Builder* for a long time and I notice that you advocate that all materials for construction be purchased from local dealers and that local contractors be given the work. You are right in urging that this be done, for as Mr. L. R. Putman has pointed out "The success of any town depends upon the success of its local merchants." Too often the small home owner buys a ready cut house and has some out-of-town jerry builder do the work because he charges a few dollars less than a reputable local contractor, a few dollars that mean the difference between a good job and a poor one. Certainly such practice is to be condemned.

However, if this idea applies to supply dealers and contractors why shouldn't it apply to architects and architectural draftsmen? Unconsciously, perhaps, many building magazines and supply houses have been injuring local designers and draftsmen by offering plans and specifications at ridiculously low prices, prices made possible by mass blue printing of plans and mimeographing of specifications. It is absolutely impossible for local architects to compete against such odds.

I recently talked with a man who was considering building a home and after explaining what he desired and getting my opinion on several points he asked me what I would charge to design the house, furnishing plans and specifications, I told him and he exclaimed, "What? I can go to the —&— supply company and get a set of plans and specifications for fifteen dollars." I have seen many of these plans and specifications and they are excellent in every respect; neat, accurate drawings and details and clear, complete specifications that leave nothing to be desired. I was forced to admit this to him but then I tried to show him the advantages of a local man designing his home, pointing out that the stock plans did not take into consideration his individual wants and that the local architects and draftsmen needed the work and that they probably bought locally thus supporting his own business. Yet, fifteen dollars for plans and specifications is a powerful argument.

Thus it would seem only fair that the local architects be given a little more consideration by those interested in building, for the business of most of them is as bad as the business in other lines of the building industry. Why not give them a boost?

CHAS. E. THOMPSON

Answer:

We agree with you heartily in your contention that architectural service is something that should be supplied by local talent  
(Continued to page 76)

# KLING-TITE TACKER

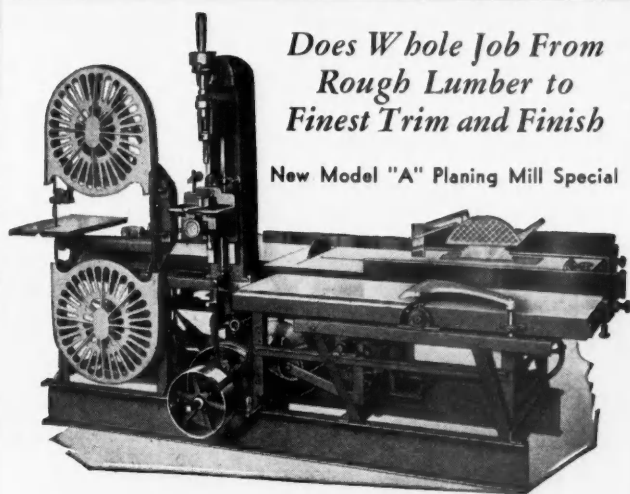
ONE-HAND OPERATION! AUTOMATIC!

MODEL T-4  
LEAVES ONE HAND FREE!



—The Modern Way To Tack Insulation  
DEALERS, BUILDERS, attention! At last! a modern way to tack insulation, sheathing paper, screens, etc. It's the MODEL T-4 KLING-TITE TACKER and NO. 44 KLING-TITE TACK-POINTS. Hold insulation with one hand, drive Tack-Points with the other—fast as you grip! CCC Camps and others use Kling-Tite. Investigate! *Ask for folder!*

**A. L. HANSEN MFG. CO.**  
5051 Ravenswood Ave. CHICAGO, ILL.



*Does Whole Job From  
Rough Lumber to  
Finest Trim and Finish*

New Model "A" Planing Mill Special

Carpenters—save money and meet every need with this wonderful new Model "A"—8 full-sized machines in all, each independently operated, and all bearings high-grade ball bearing. Sturdy, with least possible excess weight, the Planing Mill Special is built for lasting service. Low operating cost and low price—\$685 without power.

*Send for catalog of our complete line of individual and combination machines.*

THE PARKS WOODWORKING MACHINE CO.  
Dept. BL-9 1524 Knowlton St., Cincinnati, O.



# A Winner! from the Start

**TIP-TOP DOOR HARDWARE**

## ITS Simplicity MEANS A QUICKER, BETTER INSTALLATION

There's no wonder that TIP-TOP has so quickly become the choice of Builders everywhere! Never before could the old style garage doors be given convenient overhead operation, so easily and economically . . . providing a modern door that raises over snow and ice; never sags or binds; affords a clear opening. One that operates easily and quickly the whole year around.

TIP-TOP'S remarkable simplicity not only means lower installation costs for you but also permanent Owner satisfaction. Counterbalanced perfectly by a unique "Balance-Lever" there are no springs . . . no complicated mechanism . . . nothing to require after-installation adjustment. Though composed of only a few ruggedly built moving parts TIP-TOP is complete in every respect, including sturdy cylinder lock, steel weatherstrips, neatly designed weights . . . and detailed installation instructions. Through an ingenious arrangement the door is given a 2" vertical movement for clearing ground obstructions . . . another valuable feature found only in TIP-TOP.

With the simplicity, permanence and completeness of TIP-TOP you take no gamble when installing upward-acting doors. It's the sure bet . . . one that you should investigate without delay.



## The Door MILLIONS Are Reading About

Nothing wins your clients' confidence more quickly than by recommending nationally known products. Through Kinnear's National Magazine Advertising, Direct Mail Advertising and various Dealer Helps millions of home owners are reading of the permanent convenience of a TIP-TOP equipped door. Back your reputation for good work with a "Winner" like TIP-TOP.

If your Dealer can not show you TIP-TOP write for complete details . . .

*Today!*

### THE KINNEAR MANUFACTURING CO.

1660-80 Fields Ave. Columbus, Ohio

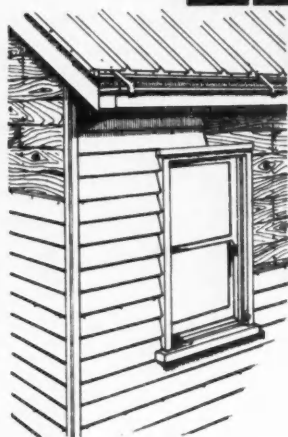
Please send me, without obligation, complete details on your TIP-TOP DOOR HARDWARE.

Name .....

Type of Business .....

Address .....

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



# EDWARDS METAL SIDINGS

are replacing  
other materials

Many of our customers are profiting from the revived demand for our metal sidings for garages, warehouses and other buildings.

They combine fire resistance and long-time economy with very attractive appearance. So easy to apply, direct to new studding or over old side walls. Easy to fit at gables. We also have them in brick, stone, shingle, stucco and beaded patterns.

*Write for low prices, freight paid, and for catalog No. 80.*

## THE EDWARDS MANUFACTURING CO.

542-562 Eggleston Ave.

Cincinnati, Ohio

Cut your  
sawing costs  
in HALF  
with  
**SKILSAW**

The Original and Most Widely Used Portable Electric Handsaw

"PROFITS are what we want!", say contractors and builders. *SKILSAW makes profits by reducing costs.* SKILSAW gets the job done quicker, better and cheaper than you can do it by hand. Size for size, it has more power, more refinements of construction and design, more applications in sawing work of every kind. Cuts wood, metal, stone, compositions. Thousands of satisfied users.

### Made in 6 Powerful Models

There is a size for every purpose. Each model has been improved in every detail for greater speed and performance.

See Your Dealer or Write for Our New Catalog

**SKILSAW, INC., 3314 Elston Ave., Chicago**

## Letters from Readers

(Continued from page 74)

quite as much as the building materials by local dealers and the construction labor by the local craftsmen. It has long been a cardinal policy of the *American Builder* to stand for just this thing, and I hope you do not confuse our publication with some that have offered, and are offering, stock plans. The *American Builder* is not in the architectural business in any shape or form, and does not have stock plans either to sell or to give away. The designs that we illustrate in our magazine are, for the most part, from representative architects all over the country, and in every instance letters of inquiry which come to us from subscribers who are interested in architectural plans are referred to the architect responsible for the design referred to.

By following this policy consistently for many years, the *American Builder* has secured the co-operation and endorsement of a great many of the architects, and we are proud to carry on our regular subscription list more than 1,000 architects as regular subscribers.

EDITOR, AMERICAN BUILDER

### Needs Up-to-Date Plans

Canton, Ohio

To the Editor:

We wish you would send us a copy of "New Era Home Designs and Modernization Plans" which you have advertised.

We are very anxious to have this book as we find our present set of designs quite obsolete, and for the first time in five years we find ourselves with some inquiry for new home construction.

E. WILLIAMS, Secy. & Treas.  
The Harvey Loehr Lumber Company.

### Attention to Business Brings Results

Columbus, Ohio

To the Editor:

Back in April of this year, we received quite a few lists from you regarding inquiries on Jaeger Construction and Road Machinery. One of these was from Paul E. Bonelli, a contractor of Prineville, Ore. As is our usual custom, we immediately took care of these prospects sending them catalogs and writing them letters; and in due course of time, we followed up with our regular follow up letters and as a result we have received a reply from Mr. Bonelli which we believe will be very interesting to you.

THE JAEGER MACHINE COMPANY.  
G. Healy, Sales Department.

This reply follows:

The Jaeger Machine Co.:

I wish to thank you for your kind attention, your catalogue and the information as to who your representative is, in this territory.

The time I have neglected in answering your previous communication has been used in negotiations with the Howard-Cooper Corp. of Portland, Oregon. I have placed an order with them for a new Jaeger, 3½ S "Handy" Mixer and should receive delivery on same, tomorrow morning (June 13th). Your efforts have not been in vain and I would appreciate it if you would inform the "American Builder" (the monthly magazine that I receive and to whom I originally made inquiry in regard to your Company) that it was through their magazine that I became interested in your machine, and as there were other machines and other building supplies which I made inquiry about, over six weeks ago through the same channel and have never received any information about them.

I have always believed in advertising, but at the same time felt that if I were going to spend the expense and time to advertise that it was good business to follow through.

My purchase was not a big one but it might have been and I think it is a fair example. This lengthy reply may not be interesting to you but is to me in this way, I received one reply out of fifteen and one sale was made when there were chances for seven sure ones, as I have already placed that many sales, yours being the only one for following through.

PAUL E. BONELLI,  
Builder, Prineville, Ore.



# THE LURIE STEEL HOUSE

THE BEST STANDARD PRACTICES in steel and concrete construction ingeniously applied to home building.

FLEXIBILITY OF DESIGN: Unlimited floor planning and exterior design because there are no set sizes and forms.

NO EXPERIMENTS: All materials are carried in building material or steel warehouses everywhere. Every contractor familiar with metal lath and light steel construction can erect this house. No new tools, no new equipment and no new practices.

INEXPENSIVE: In price competition with wood frame or any other inexpensive construction.

NEW HANDBOOK describing this Lurie Steel House is just off the press and will be sent you free on request.

## METAL LATH MANUFACTURERS ASSOCIATION

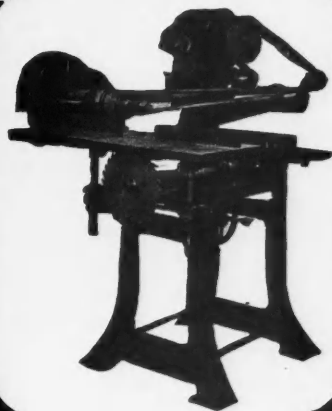
208 SOUTH LaSALLE STREET

Department A

CHICAGO, ILL.

*time-saver!*  
*space-saver!*  
*power-saver!*

**MONEY  
MAKER**



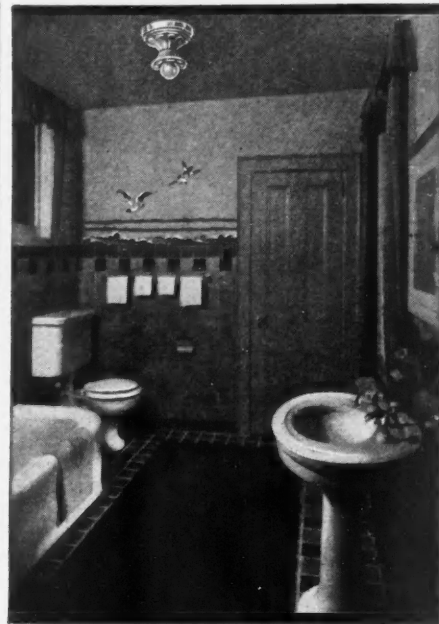
This remarkable machine cuts costs as quickly and as surely as it cuts wood! Does the work of five ordinary machines—eighteen different everyday jobs—faster and at less cost! Cross-cut saw, rip saw, jointer, shaper and router—five machines in one . . . at the cost of one. Ball-bearing throughout. Write for full particulars.

**AMERICAN SAW MILL MACHINERY CO.**

61 Main Street

Hackettstown, N. J.

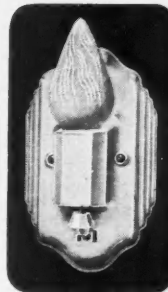
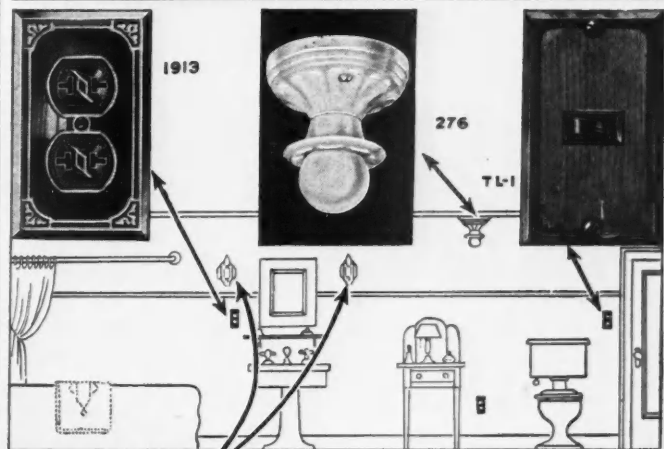
**THE 20<sup>th</sup> CENTURY  
WOODWORKER**



**BATHROOM**

**ARROW  
H&H**

*conveniently wired*



270

To wire your Bathroom conveniently, install at the door a Tumbler Switch No. TL-1 to control white porcelain overhead lighting unit No. 276—necessary for general illumination. Install Duplex Convenience Outlet No. 1913 to provide for a glow heater besides giving additional outlet for electric curling iron or other convenience. Use Porcelain Wall Brackets No. 270 for illumination of mirror and medicine cabinet from both sides. The Wall Bracket units may be

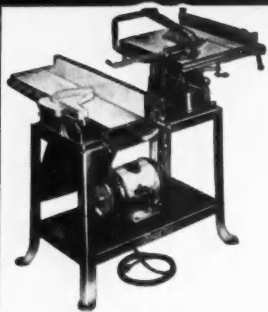
had with or without convenience outlets integral. . . With this equipment, the Bathroom will be conveniently and economically wired for every purpose. For complete information on each or all of the above numbers, just fill out and mail Coupon below.

**THE ARROW-HART & HEGEMAN ELECTRIC CO.**  
HARTFORD, CONNECTICUT, U. S. A.

COUPON: To Arrow-Hart & Hegeman Electric Co., Hartford, Conn.  
SEND ME illustrated data-sheets on the following numbers:

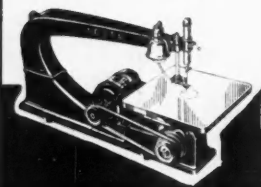
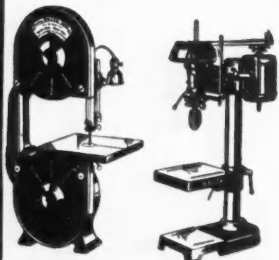
Name: .....  
Address: .....  
City and State: .....

## NEW DELTA TOOLS SAVE MONEY FOR YOU



Contractors all over the United States are employing these sturdy, efficient Delta tools to reduce their labor costs and save time on Modernization and Repair Work. Delta tools can be taken right out on the job. Although compact and portable they are so skillfully designed and carefully built they turn out clean accurate jobs even under the heavy grind of production work. Best of all they are so moderately priced as to require a minimum initial investment. The complete Delta line includes: Circular Saws, Jointers, Band Saws, Scroll Saws, Drill Presses, Router, Mortising and Sanding Units, Lathes and a complete line of motors, accessories and stands.

For full details, prices, and name of nearest Delta dealer write to



### DELTA MFG. CO.

613 East Vienna Ave.  
Milwaukee, Wis.



**For garages—factories—  
warehouses — service  
stations and markets**

## WAGNER GLIDE OVER GARAGE DOORS

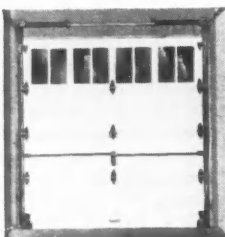
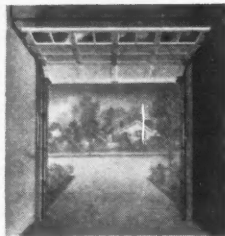
Easy to operate—attractive appearance—simple to install—weather-proof. Here is perfection in overhead door construction . . . no bulky or complicated mechanism to clutter up the interior of the building—so easy to operate women and children can easily open and close the Glideover door.

The Wagner Manufacturing Company have had many years of experience in building high speed elevator door operating equipment. This experience has been utilized in the design of the Glideover Door which accounts for the 100% satisfactory performance. Wagner Electric Door Controls may be furnished for Glideover or any other type of door.

Get the facts on Glideover Doors. Write for new bulletin giving complete details.

### Wagner Mfg. Co.

985 First Street, Cedar Falls, Iowa  
Serving The Building Trade For Over  
33 Years



## Air Conditioning Leads

(Continued from page 29)

ture therefore, every advantage should be taken of all that is known that will add to the enjoyment of the home.

No building program for housing can be considered forward looking unless it provides for the latest ideas in making the home more livable. That means in this climate, provision for the maintenance of what is recognized as healthful, comfortable atmospheric conditions the year round. Equipment that will provide dehumidifying and cooling in summer, humidifying and warming in winter, with a circulation of pure, clean air at all times. In order that this may be possible of accomplishment in an economic, satisfactory manner, the building construction itself should be given more attention than it has in the past. Building materials and designs should be so selected that they will offer high resistance to the transfer of heat from one side of the walls and roof to the other. The building should be free of large cracks and crevices as nothing will destroy comfort more rapidly and nothing will make control of heating and cooling more difficult than excessive, uncontrollable air leakage. Consideration must be given also to the effects of solar radiation, an important factor that has not been given enough attention in the past.

Space cooling for comfort has brought all of these matters into the limelight in the last few years. Space cooling costs money and it is necessary to conserve it. Therefore research has been made to show us how the cooling load can be materially reduced by careful, intelligent design and construction, by guarding the rooms against absorption of solar radiation and by making use in this climate of the advantages of cooling the building at night by removing the heated air from the upper story and letting the night cooled air enter near the ground level, thus taking advantage of the fly wheel action of the building construction itself which serves to make the twenty-four hour inside temperature nearly a mean between the day time and night time outdoor temperatures.

### Homes Out-Moded If Not Air-Conditioned

A very excellent job of making people air minded for comfort conscious has been done and as a consequence the popular demand and the popular conception of its advantages will have a tremendous bearing on the house design of the future. The demand for year round comfort will spread from public institutions and public conveyances to the homes themselves. I heard a real estate operator make the statement just a few weeks ago that any man today who is wise and who owns a bungalow that was modern, say ten years ago, had better sell it; for the new homes that will be built in the immediate future will be all air conditioned for summer and winter comfort and the home without it will be in the obsolete class to be offered to the low price bidders.

So I believe the Heating, Ventilating and Air Conditioning Engineers have in the past five years done as much perhaps to bring new ideas into new construction as any other group. They have brought to the knowledge of everyone the advantage of controlling conditions inside regardless of outside weather conditions, the necessity of insulating the homes against heat transfer through walls and ceilings, the necessity of a building construction that will prevent excessive

(Continued to page 80)

# DUNBRIK Gets the best 1935 Jobs IN KALAMAZOO



**WHY?** Because the DUNBRIK Manufacturer can sell a better brick for less and still make a substantial profit for himself.

## HOW CAN HE DO IT?

1st—Because a standardized DUNBRIK Plant with a fraction of the investment does the work of the large, most efficient plant,—makes units in multiple sizes, common brick and face brick in more than 40 colors, shades and textures.

2nd—Because the DUNBRIK Manufacturer uses local material and labor and delivers direct from factory to job, eliminating transportation costs running as high as 25% of the price of the brick itself.

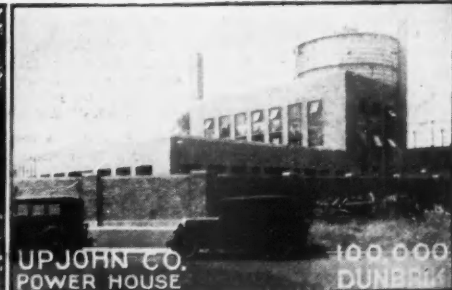
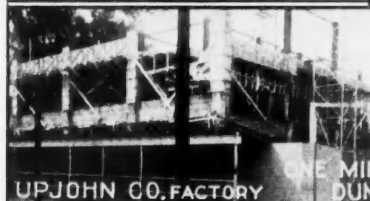
3rd—Because of its recess design, DUNBRIK makes a saving of 20% in material, as well as a saving in hauling, handling and laying.

4th—Because the DUNBRIK Machine eliminates every chance for human error and enables the small sized crew to do the work of a large force.

THAT IS WHY wherever located—from Spokane to Newport News—from St. Petersburg to Montreal—DUNBRIK Manufacturers are getting as high as 80% of the good jobs in their territories. Your own opportunity may be equally good. Why not learn how you can become the exclusive DUNBRIK Manufacturer in your territory. Write today. Ask for "4 Keys to Success."

**W. E. DUNN MFG. CO.**

450 W. 24th St.  
Holland, Mich.



The Big Name in

# HEATING

and AIR

# CONDITIONING

is

# MUELLER-MILWAUKEE

## SpeedWay

Electric HAMMERS

**Saves More Than Any Other Tool**  
**GUARANTEES Your Profit**

Thru stone, concrete, plaster, brick—nothing stands in the way of a SpeedWay Electric Hammer. 1,800 powerful blows per minute. Takes drills to 1 1/2" diameter. Handy—weight 26 lb. Built for 20-year service. It's a money-maker—makes 1 man equal to 10. Always the standard—there are more SpeedWays in use than any others.

**WRITE FOR CATALOG** **SPEEDWAY MANUFACTURING CO.**  
1823 So. 52nd. Ave. Cicero, Ill. *More Tool for the Money*

# MASTER

INSIDE—MEASURE RULE

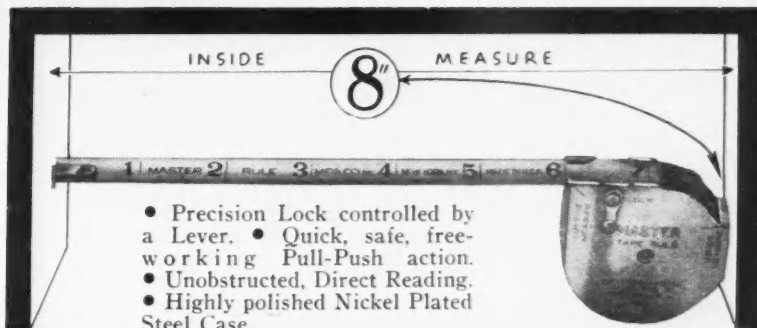
with PRECISION LOCK

- Measures Quicker and More Accurately*
- No. 906—6 ft. (Tape 13/32" wide) \$1.25
  - No. 506—6 ft. (Tape 9/16" wide) \$1.50
  - Above models graduated on one side
  - No. 806—6 ft. (Tape 13/32" wide) \$1.75
  - No. 406—6 ft. (Tape 9/16" wide) \$2.00
  - Above models graduated on both sides

**BUY FROM YOUR DEALER OR ORDER DIRECT POSTPAID**

# 8 NEW USES

Inside, Outside, Height Gauge, Depth Gauge, Caliper, Marking, Radius and Layout.



- Precision Lock controlled by a Lever.
- Quick, safe, free-working Pull-Push action.
- Unobstructed, Direct Reading.
- Highly polished Nickel Plated Steel Case.

**MASTER RULE MANUFACTURING CO., Inc., Dept. AB, 815-819 E. 136th St., New York, N. Y.**



# Perfection

## BRAND OAK FLOORS

In old homes or new, whether for renting or selling "PERFECTION" BRAND Oak Floors give service and satisfaction. The greatest value for the money.

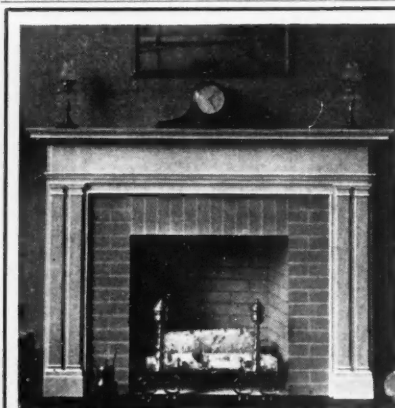
Take advantage of the new Housing Administration Act and sell good Oak Floors on your modernizing jobs.

"PERFECTION" BRAND Oak Flooring as furnished by your local dealer is carefully manufactured from selected timber, scientifically seasoned and kiln dried easily finished. Ask your dealer today to show you the "PERFECTION" BRAND.

Complete information is yours for the asking. Write us today. Sold only through retail lumber dealers.



**ARKANSAS OAK FLOORING CO**  
**PINE BLUFF** **ARKANSAS**



### These Period Wood Mantels are not Expensive

This is one of sixty wood mantels of genuine period design shown in the new Brecher catalog. Each mantel made by craftsmen according to finest standards of cabinet furniture building. Made throughout of thoroughly seasoned, selected Poplar—screwed at the joints—all prices F.O.B. Louisville.

THE BRECHER COMPANY,  
441 West Jefferson St.,  
Louisville, Kentucky

**COLUMBIA MANTELS**



This marvelous machine completely solves the problem for renovating masonry buildings, walls, etc. It fuses a plastic mixture to any masonry surface. This plastic waterproof material fills all cracks and checks. It can be applied in varying thicknesses desired and in 30 colors and shades. Process proven by over six years of actual use under all conditions and in practically every climate.

### OFFERS BIG EARNINGS

Many operators report costs of only 8c to 10c with sales at 20c to 35c per sq. yd. The profit on one order often pays for machine. Now the big government renovating campaign and the increasing demand for color offers large profits in your territory. Machine furnished on free trial and easy payments. Territory protected. Learn about this wonderful machine and what it has accomplished for others. Send for complete data. Write today.

**COLORCRETE INDUSTRIES, INC.**  
505 Ottawa Ave., **Holland, Mich.**



## Air Conditioning Leads

(Continued from page 78)

eration and the necessity of making provision at least for a complete air conditioning for every space intended for every living room in the home.

I have repeatedly used the expression "year round comfort." I have done so because I believe you as owners and agents of buildings will hear more of it as time goes by. It must be admitted that in most cases there is not year round comfort today. Your home or your apartment is more comfortable in the months of January and February than it is in the months of July and August. Why should you go to your homes for comfort in winter and have to leave your homes to find comfort in summer. The ordinances of the City of Chicago cover the heating season only and require that during that season a comfortable condition must be maintained. They do not cover the summer condition because when those ordinances were drafted nothing was known of this industry. Is it not logical to assume that city ordinances of the future will cover year round comfort and not comfort for only seven out of twelve months, and whether the ordinances cover this matter or not, the tenant demand on owners and agents of buildings will compel it, for it is fast becoming educated to the advantages and possibilities that lie in it. If an apartment is not heated to a comfortable, livable condition during the heating months the tenant is justified in moving out. How long is it going to be before he takes the same attitude if the summer temperatures in his apartment are so high he cannot stay in it.

Perhaps you think I am painting the picture with too vivid colors. Well, I had the honor of being appointed on an Advisory Committee to the Purdue Research Foundation in its housing program. A Conference was held at Purdue University on June 1st, 1935, which I attended. One of the speakers at the conference was Owen D. Young, Chairman of the Board of the General Electric Company. He spoke very interestingly on what he terms the science of better living; among other things he said the following:

"Housing is today a new art because we are for the first time planning among other things, by air conditioning to master the ice bound north and the tropic south in a home which at all times of the year, in all places, under all conditions will give equal comfort. No mastery of the elements of nature is more important whether it is viewed from the standpoint of health or that of comfort than this particular conquest of the air."

When an outstanding industrialist like Owen D. Young who is a man of practical vision points the way as he has done in this message, I believe it is well for us to look in the direction pointed.

It must be evident to you who are in the business of building and managing real estate properties that you are to deal more and more with comfort air conditioning as the years go by. I will leave with you a warning and an advice; a warning that the air conditioning field is no field in which the novice or amateur should be permitted to play. Air conditioning is a complicated science requiring skill, training and experience. It deals with reactions of the human machine, the most complicated of all machines on earth. If you have a job of air conditioning to install in any of your buildings, the best guaranty of satisfaction is planning by a competent air conditioning engineer who can co-ordinate all of the different parts that go into a complete system.

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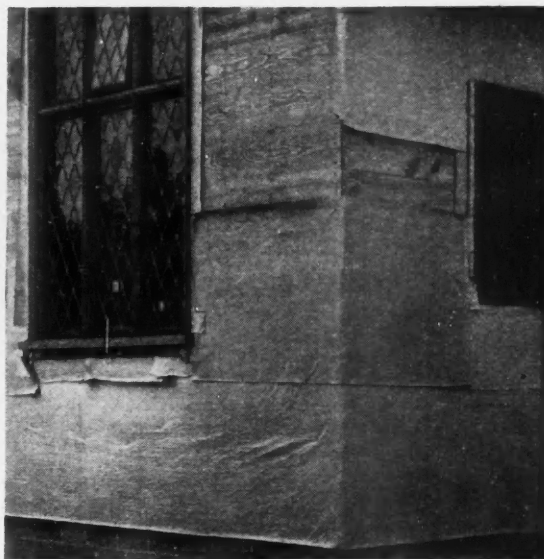
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# Selected List of Manufacturers' Literature

## For the Service of Builders, Contractors, Architects and Dealers

THE publications listed on this page may be obtained without charge either by using the coupon, listing the numbers of the catalogs desired and mailing to *American Builder*, 105 West Adams Street, Chicago, or by applying on your business stationery to the manufacturers direct, in which case kindly mention this publication. Either the titles or the numbers may be used in ordering. This list is an editorial feature for convenience of our readers.

### OF SPECIAL INTEREST

A. L. HANSEN MFG. Co., 5049 Ravenswood Ave., Chicago, Ill.

495—**Automatic Stapler**—“Kling-Tile One Hand Tackers,” an illustrated circular on this labor-saving tool with examples of its numerous uses.

BRUNSWICK BALKE COLLENDER Co., 623 S. Wabash Ave., Chicago, Ill.

496—**Recreation Room Equipment**—“Billiards Are Back,” a brochure describing a new home billiard table, with tips to billiard players. Details of recreation room equipment.

BRIGGS MANUFACTURING Co., Detroit, Mich.

497—**Brigsteel Beautyware**—“Here's Something New”; a display in full colors of the sinks, tubs and lavatories in acid-resisting porcelain enamel—65% lighter than cast iron fixtures.

ARROW-HART & HEGEMAN ELECTRIC Co., Hartford, Conn.

498—**Wiring Devices**—“Catalog No. 25, Arrow Wiring Devices,” a 57-page catalog giving a complete listing of electric switches, receptacles and wiring devices used in all types of buildings, including the Multi-Coupler System of Radio wave distribution which provides one aerial for a plurality of radio sets.

THE INSULITE Co., Minneapolis, Minn.

499—**Cabin Plans**—Two new specification sheets illustrating plans and construction of two little lake camps of insulation board construction.

SHERWIN-WILLIAMS Co., 101 Prospect Ave., Cleveland, Ohio.

500—**Paint Information**—“The Truth About House Paint,” an extremely in-

formative handbook of 24 pages, with a discussion of painting developments and recommended current practice.

### HEATING AND AIR CONDITIONING

DAIL STEEL PRODUCTS Co., Lansing, Mich.

501—**Summer and Winter Comfort**—“Dailaire Conditioner,” a 4-page bulletin presenting details and specifications for this equipment.

THE PEERLESS ELECTRIC Co., Warren, O.

502—**Cooler Attics**—“Peerless Safe, Silent Attic Ventilation,” a new illustrated bulletin detailing and specifying this equipment.

FRIGIDAIRE CORP., Dayton, Ohio.

503—**Condensed Facts**—“A Guide for Those Who Contemplate Air Conditioning,” a 16-page booklet on fundamentals in air conditioning of interest to architects, builders and contractors.

SCOTT-NEWCOMB, INC., St. Louis, Mo.

504—**Air Conditioner**—“Perfect Weather All Year Round”; 4-page illustrated data sheet on the S-N air conditioner; completely automatic.

THE FOX FURNACE Co., Elyria, Ohio.

505—**Air Conditioning**—“Modern Heating”; 16 pages and covers, presenting complete details of the Sunbeam automatic air conditioning equipment burning coal, oil or gas.

THE MEYER FURNACE Co., Peoria, Ill.

506—**Modern Heat**—“Health, Comfort, Economy and Convenience for Your Home”; full details regarding the Weir

M Series steel furnace and the Weir Conditioned-air unit presented in illustrated data sheets.

NATIONAL RADIATOR CORP., Johnstown, Pa.

507—**Oil Burning Boiler**—“National-Williams Oil-O-Matic Boiler-Burner Unit”; 4-page data sheet on this new, modernly styled piece of heating equipment.

### HOME EQUIPMENT

THE HANWOOD PRODUCTS Co., North Baltimore, Ohio.

508—**Thurman Garage Door**—“Makes Garage Doors Easy to Open,” an illustrated bulletin presenting details of this upward-acting “Floating” door equipment.

SPEAKMAN Co., Wilmington, Del.

509—**Showers and Fixtures**—“Speakman Showers and Fixtures,” a 42-page illustrated catalog presenting the Speakman line for schools, colleges, institutions, industrial plants and other installations.

THE INTERNATIONAL NICKEL Co., INC., 67 Wall St., New York City.

510—**De Luxe Fixtures**—“Nickel Silver for Grace and Endurance”; new bulletins No. 1 and No. 2 illustrating nickel silver faucets and fittings, and showing buildings wherein used.

THE SHEPARD ELEVATOR Co., Cincinnati, Ohio.

511—**Home Lifts**—“The Open Door to a New Life”; 6-page illustrated data sheet on the Shepard line of home elevators and lifts.

THE KINNEAR MFG. Co., Columbus, Ohio.

512—**Garage Hardware**—“Tip-Top Door Hardware,” an attractive broadside presenting the new model Tip-Top line of garage door hardware.

### NEW BUILDING MATERIALS

MEDUSA PRODUCTS Co., Subsidiary, Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, O.

513—**Flat Wall Finish**—“New Medusa-Lite, the Super Flat Wall Finish,” is an illustrated announcement of this latest Medusa achievement, a flat wall finish—one coat covers. Companion product to Medusa floor coating and cement paint.

WOOSTER PRODUCTS, INC., Wooster, Ohio.

514—**Wooster Treads**—Portfolio of details, giving all information.

American Builder,  
105 W. Adams St.,  
Chicago, Ill.

(September, 1935)

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