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AMERICAN BUILDER

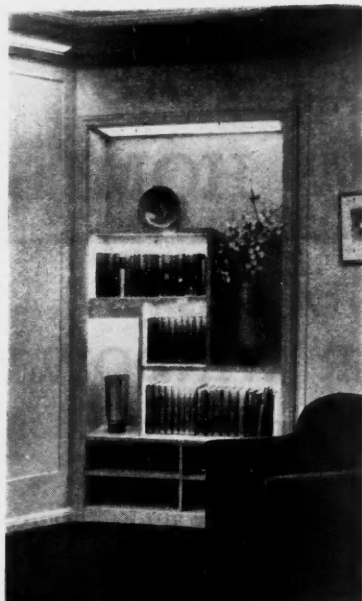
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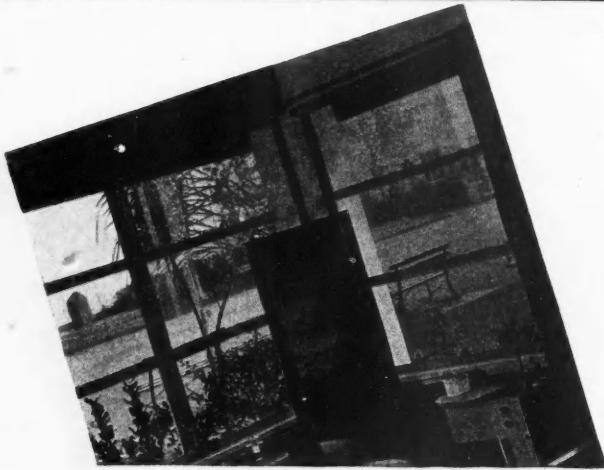
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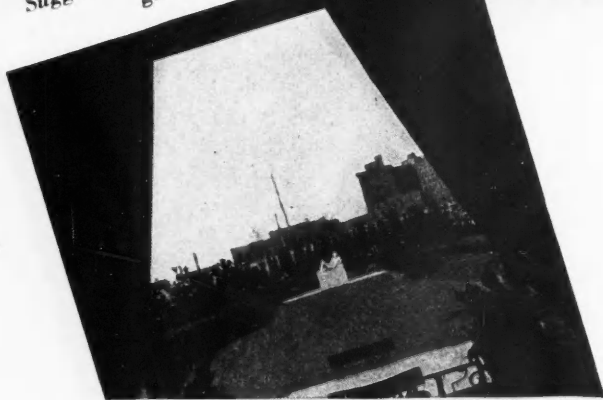
NEW TYPE DESIGN POPULAR AS MANY FAMILIES PLAN NEW HOMES



Try Corner Windows of L·O·F Quality Glass for the extra daylight that is so necessary and desirable.



Suggest a Picture Window of L·O·F Polished Plate Glass to give the house a distinctive personality.



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MORE WINDOWS BIGGER WINDOWS Keynote of modern construction

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AMERICAN BUILDER AND BUILDING AGE

Federal Home Loans and Recovery

THERE are many reasons why every active man in the building industry should be vitally interested in the drive now under way to persuade Congress to provide a billion dollars for long-term financing of home building on reasonable terms. But there is one reason that overshadows all others and carries the most weight with people inside and outside of the building industry as well as with congressmen, taxpayers and the unemployed. That reason is the economic benefits that would result from a resumption of home building. It would do more than any other industry or any other activity to put men back to work and end the depression.

From the secretary-manager of a great trade association, who says "The stagnation of home building is now the largest obstacle in the path of relief from the depression," to the contractor in Muskegon, Mich., who says, "If money were available, I could start work tomorrow; I have three customers now who are waiting for just that," the hundreds of messages received by the AMERICAN BUILDER confirm the fact that (1) lack of long-term financing is holding back millions of dollars of home construction work and (2) the almost complete disappearance of home construction is the greatest cause of unemployment and depression.

A 4-Billion Dollar Industry

In the years 1923 through 1926, home construction was a four-billion dollar industry. It gave employment not only in the large cities and industrial centers but also in the towns and villages and rural sections of the nation. Its beneficial effects were widespread, penetrating to every class and condition of the American public. It went forward on a thousand small fronts, in mountain valleys and on desert plains. No statistical service or government survey was ever able to catalog or classify it, but its effects were there. They were prosperity in its best sense.

What Has Happened

Let us see what has happened to this gigantic industry since then. The best index of current construction in the United States is the record of building permits kept by the United States Bureau of Labor Statistics. The following table gives the history of home building in 257 cities with a population today of 46,600,000.

Here is what has happened: in the four years 1923-26, the annual average number of families provided for in new homes was 462,500, or 116 residential units per 10,000 population. The nation was prosperous.

HOME BUILDING IN 257 CITIES

Year	Estimated Expenditures	Index Number	No. Families Provided For
1921	\$ 937,352,739	100.0	224,545
1922	1,612,352,921	172.0	377,305
1923	2,000,986,900	213.5	453,673
1924	2,070,276,772	220.9	442,919
1925	2,461,546,270	262.6	491,222
1926	2,255,994,627	240.7	462,214
1927	1,906,003,260	203.3	406,095
1928	1,859,429,751	198.4	388,678
1929	1,433,111,774	152.9	244,394
1930	601,269,847	64.1	125,322
1931	426,270,111	45.5	98,178
1932	103,452,079	11.0	27,381
1933 (est.)	101,000,000	10.8	26,800

In the four years 1930-33, the annual average number of families provided for was 68,700, or 15 units per 10,000 population. This is a drop of 85 per cent (for the four-year average) in number of families provided for, and of 87 per cent in the ratio to population. The drop in dollar value of residential construction was from a yearly average of \$2,200,000,000 for the 1923-1926 era to \$300,000,000 per year for the 1930-33 period. This is an 85 per cent decline.

Residential construction in these 257 cities in 1932 totalled only 11 per cent of the 1921 volume, and only 4.2 per cent of the 1929 volume. In 1933 it dropped still lower. For the country as a whole, the decline has been almost, but not quite, as drastic.

Shock to Economic System

The serious shock to the economic system of the nation caused by this disappearance of a four to five billion dollar industry employing several millions of men directly on the job and an equal number in mines, forests and factories, is hard to overstate.

The AMERICAN BUILDER proposes that a billion dollars be allocated by Congress for the financing of home building and repairs on a long-term basis at a reasonable rate of interest. Loans up to 75 per cent of the cost of the project direct to the home owner with a minimum of red tape are urged. While determination of the details of the plan will be in the hands of Congress, it is suggested that loans be made and serviced through the Home Owners' Loan Corporation, with facilities expanded to handle such a job. Proper safeguards should be set up of a non-political nature to insure a safe loan on a well-located, well-built home suited to the requirements of the owner and his ability to pay. Loans for repairs or remodeling on reasonable terms should also

be made available direct from Uncle Sam to the home owner, stimulating this huge potential market.

The economic effects of such a plan are exactly suited to the present needs of the nation, namely: it will give employment over widely-scattered areas in the towns, villages and rural sections, as well as in the big cities. The benefits would be more widespread than from money spent on great public works or slum clearance projects. Every home built would be a private project, the money loaned for which would be paid back in full with interest at a reasonable rate. Thus the government would be achieving its worthy end of putting men to work, but would not increase already high taxes.

Building Normally 50 Per Cent Residential

Over a period of years, residential construction normally accounts for 50 to 60 per cent of the total volume of building construction. In the 257 cities reported by the Bureau of Labor Statistics above, taking the ten-year period 1921-30, residential construction comprised 57 per cent of the total building construction volume. It is difficult to obtain precise figures as to the part played by home building alone in the economic life of the nation. Some very excellent studies have just been made by the Construction League of the United States, however, which give a picture of the entire industry. Bearing in mind that residential construction is the largest single item of the construction industry as a whole, consider some of the following figures for 1929:

More than 4,500,000 men were directly or indirectly employed by the construction industry, which was one-tenth of all gainfully employed workers. Some 2,400,000 were directly employed on construction sites and 2,100,000 in the mining and manufacture of materials and their transportation and sale.

One out of every five carloads of freight in 1929 consisted of construction materials, contributing 22 per cent of the total freight tonnage and 15 per cent of all freight revenue.

Immense Number Affected

Included in those engaged in construction were, according to 1930 Census figures: 167,500 builders and building contractors, 929,400 carpenters, 170,900 brick and stone masons and tile setters, 22,000 architects, 33,700 designers and draftsmen, 34,070 lumber and building material dealers, 23,636 roofers and slaters, 237,800 plumbers, gas and steam fitters, 430,105 painters, glaziers and varnishers, 85,480 plasterers and cement finishers.

It would be possible to go on for many pages with statistics showing the way in which construction and that most important part of construction, residential building, affects every part of the economic life of the nation. There is much evidence to indicate that most economic depressions are caused by a decline in construction. Private home building is especially important.

In his thorough-going volume, "Industrial Depressions," George H. Hull argues with conviction that not only has each depression in American history been caused by the stopping of construction but the decline in construction in each instance was caused by high labor and material costs. This is a point that both labor leaders and material manufacturers may well bear in mind at the present time, for if building costs continue to rise, resumption of home building will be arrested before it ever has a chance to make headway.

A Growing Housing Need

In the past four lean years of home building, and especially in 1932 and 1933 when home building dropped to 4.2 per cent of 1929, a housing need of large extent has grown up. It is not readily apparent to the man on the street because he sees only the conspicuous, expensive type houses which are in distress. In practically every city and in large areas of the rural section of the nation, there is an actual shortage of single-family dwellings in a price class that is within reach of the greater part of our population.

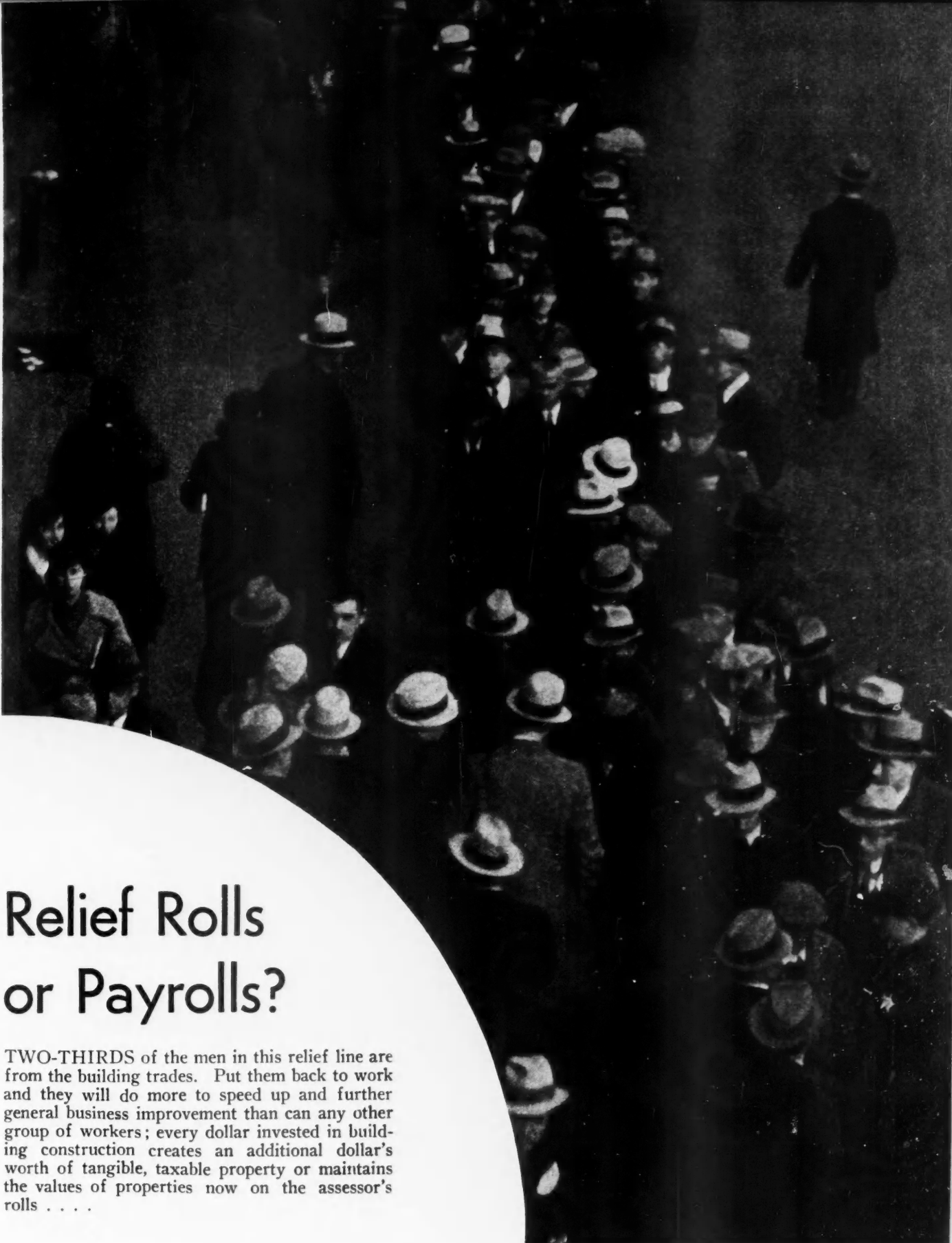
A survey by the Philadelphia Housing Association last year showed single-family dwelling vacancies of only 3.6 per cent. In Akron, the survey conducted by the real estate board with the aid of the United States Post Office carriers late in 1933 showed a vacancy in single-family dwellings to be exactly the same, 3.6 per cent, with a total vacancy in all types of housing units of only 6.6 per cent. This survey showed 1,109 instances where two families were occupying units intended for a single family.

\$200,000,000 Per Month Recommended

Doubling up of families, delayed marriages, temporary reduction in births and shortage of funds which makes people put up, for the time being, with quarters with which they are not satisfied, are all factors that make the actual shortage of single-family dwellings not readily apparent.

The most conclusive recent statement of residential need is that of the NRA Division of Economic Research and Planning under the direction of Alexander Sachs which says there is an immediate need for construction of 800,000 residential units per year. A home building program at the rate of \$200,000,000 a month or a \$4,532,000,000 total for two years is recommended.

Long-term Federal mortgage money made available immediately on a large national scale to hundreds of thousands of persons who need and can afford to build a home will get the results the President and his advisors are working for. The AMERICAN BUILDER urges its readers to write to their senators and congressmen and in other ways to take part in this drive to obtain the necessary legislation by Congress early in its session. In no other way can unemployment be permanently remedied in a manner that is so economically and socially sound. United support by the building industry is needed.



Relief Rolls or Payrolls?

TWO-THIRDS of the men in this relief line are from the building trades. Put them back to work and they will do more to speed up and further general business improvement than can any other group of workers; every dollar invested in building construction creates an additional dollar's worth of tangible, taxable property or maintains the values of properties now on the assessor's rolls

"A Billion Dollars in Federal Mortgage Money for Self-Liquidating Loans on Residential Properties"

Drive for Federal Financing of

By JOSEPH B. MASON

1—NRA SURVEY shows need for 800,000 homes per year. Recommends Federal funds for mortgage loans.

2—AMERICAN BUILDER READERS report millions of dollars of home construction held up by lack of financing.

3—CONGRESSMEN, labor leaders, contractors, architects, businessmen voice support of direct construction loans by Uncle Sam to lot owners for building of private new homes.

WHILE the Federal government is spending \$12,000,000 daily on Civil Works payrolls, the building industry's proposal to strike at the heart of unemployment by stimulating construction of new homes is making great headway. Trained observers of the building business say that never in history has this great disorganized industry been so thoroughly aroused as it is at the present time over the current drive for Federal funds to finance home building.

Briefly stated, the plan proposed by the building industry and stated in an editorial, "Home Loans for the Forgotten Man" in the December AMERICAN BUILDER, is that Congress set aside a billion dollars or more for immediate direct loans to lot owners to finance the construction of new homes. It is suggested that the loans be made through such an agency as the Home Owners' Loan Corporation to the extent of 75 per cent of the value of the house and lot, with interest at a reasonable rate. Loans for home repairs and modernizing to be paid off over a period of years at a low rate of interest are also recommended.

Both Opposition and Support

Hundreds of letters have been received by the AMERICAN BUILDER endorsing such a program, and many groups in the building industry are working with their various congressmen in the preparation of bills for presentation at the next session of Congress.

At the same time, opposition to the plan is growing and has been expressed by the interests who have selfish reasons for opposing such action. As the battle lines are drawn for the next session of Congress, it is apparent that the securing of the needed legislation will not be an easy matter. It will call for the backing of the entire building industry for some unified, broad plan.

The size, extent and disorganized nature of the industry as usual acts adversely to its interests, making it

difficult for united expression on this subject. As a result, numerous groups are working on special bills or suggested legislative procedure, many of which are designed for the special interests of particular groups rather than the welfare of the industry as a whole.

It cannot be stated too strongly that what is needed more than any other thing, to secure the passage of legislation in time to be of benefit in 1934, is a home building industry united on a broad, general plan such as is outlined above. The AMERICAN BUILDER is collecting data and endorsements in support of such a broad financing program, and assembling figures to present to Congress to show the need for homes and for financing. It believes that, to be effective, at least a billion dollars should be allocated for distribution to home owners direct through Federal agencies, possibly the Home Owners' Loan Corporation in an enlarged form. The loans should be long term, at reasonable rates of interest, with reasonable safeguards to see that they are paid back.

The extraordinary interest of men both inside and outside of the building industry in Federal financing of homes is evidenced by the flood of letters received by the AMERICAN BUILDER since mailing the "Forgotten Man" editorial to every daily newspaper in the United States as well as to all congressmen, building manufacturers, trade associations and leaders in the building industry. To date, letters have been received from 9 senators, of which 7 indicate their support. Letters from 14 representatives in Congress favor such legislation while only 2 oppose it. Extracts from only a few of the letters received from Capitol Hill include:

SENATOR ARTHUR CAPPER, Kansas. "I think your suggestion is sound. I am in favor of setting up a program for Federal loans to finance new homes. The Home Owners' Loan Corporation is good as far as it goes, but it is entirely too restricted in its operations."

SENATOR ROBERT S. WAGNER, New York. "... if we must resort to direct loans, there could hardly be anything better than Federal loans for home building and repairs."

SENATOR GERALD P. NYE, N. Dak. "I see the greatest merit in the urge for Federal loans for home building and repairs. ... With the Home Loan law made truly effective, I see no reason why there should not be advanced steps taken to accomplish that further program which would aim at home building and home repairs."

ARTHUR H. GREENWOOD, Representative from Indiana, Democratic Whip. "I am very much in favor of Federal loans

MORE NEXT MONTH

CONTINUING ITS WORK in behalf of Federal financing for home building the AMERICAN BUILDER will present in its February issue extensive facts and figures showing the need for homes and for Federal financing, and urging early action by Congress.

New Home Building Forges Ahead

being made for repairs on homes. . . . There is nothing that would give every part of the country such a uniform advantage in putting men back to work."

FRED A. BRITTEN, Representative from Illinois. "No governmental activity would be as far reaching in destruction of the depression and the unemployment conditions than would a Federal policy for the making of first mortgage loans on new homes and small two-story apartment buildings.

"The Federal government could afford to be very liberal on loans of this character. They should be made without commission charges and at a very low rate of interest not exceeding 4 per cent. The government could reasonably loan 90 to 100 per cent of the actual cost of labor and material going into the building.

"New home building and home ownership could be made the very backbone of the reconstruction movement which would benefit every walk of commercial and industrial life."

JOSEPH P. MONAGHAN, Representative from Montana. "This plan is a very excellent one and will stimulate the building industry, thus giving employment to many thousands of men now out of work."

E. W. MARLAND, Representative from Oklahoma. "I am very much in sympathy with the idea of extending the functions of the Home Owners' Loan Corporation so that it can make direct loans to individuals desiring to build or improve their homes, and I am in favor of making an appropriation to the Corporation for that purpose. The benefits to be derived from such a proposition are so obvious they need no comment."

MARTIN F. SMITH, Representative from Washington. ". . . the favorable results would be far reaching. It would stimulate employment all over the nation and both the skilled and the unskilled workers would be used in producing the necessary materials."

WALTER M. PIERCE, Representative from Oregon. "The Federal government should advance money for home building and repairs. Money so advanced would be scattered over the country. Much of it would be in the hands of those who would spend it. It would add to buying power, would materially benefit the lumber business and stimulate the sale of all kinds of building materials."

Home Building Need Recognized

Washington is at last awakening to the fact that it is the great home building and improvement industry that is the largest contributor to unemployment and to the economic distress of the nation. The NRA Division of Economic Research and Planning under the direction of Alexander Sachs has just completed a survey. A preliminary report states that there is immediate need for construction of 800,000 residential units per year without including replacement of sub-standard shelter. With replacement of sub-standard shelter, there is a need for 2,000,000 residential units, the survey shows.

(Continued to page 56)

WHAT LEADERS SAY

SENATOR ARTHUR CAPPER, Topeka, Kans.—
"I am very much interested in your editorial in the AMERICAN BUILDER (Dec. '33). I think your suggestion is sound. I am in favor of setting up a program for Federal loans to finance new homes. The Home Owners' Loan Corporation is good as far as it goes, but it is entirely too limited in its operations."

WALTER J. KOHLER, former Governor of Wisconsin and President of the Home Modernizing Bureau—
"If loan funds can be made available by the Federal government as suggested in your letter of December 12, there is no doubt that there will be a marked improvement in the construction business with its consequent increase in re-employment."

WILSON COMPTON, Secy. Manager, National Lumber Mfrs. Assn.—
"I am in agreement with your suggestions that these loans (for new home construction and repair work) should be made, and preferably through the machinery set up under the supervision of the Federal Home Loan Bank Board.

"As you so plainly point out, here is the trained personnel which should be able to rapidly and effectively handle loans for new construction and modernizing."

WILLIAM C. O'NEILL, Secretary-Treasurer, Building Trades Dept., American Federation of Labor—
"We are vitally interested in such a proposal and would heartily endorse any legislation or ruling that would bring about the loaning of money to home owners."

CHAS. H. SAND, Secretary Cook County (Ill.) Council, United Brotherhood Carpenters and Joiners—
"Long term loans made by Uncle Sam direct to prospective home owners eliminating the customary high cost of financing would certainly appeal to anyone who wants to own a home.

"In times of normal employment, the building industry is a giant spender of money. Put that giant to work. Federal loans as advocated in your editorial will serve the twofold purpose of creating purchasing power and make home owning profitable and therefore desirable."

DON S. MONTGOMERY, Secretary Wisconsin Retail Lumbermen's Assn.—
"You have hit the bull's-eye again in urging that Congress provide funds through the Home Owners' Loan Corporation for the building of new homes and for modernizing of old homes. This is the largest missing link in the entire chain of Federal activities."

JOHN R. FUGARD, President, Illinois Society of Architects—
"There is no doubt in my mind but that government money must be provided directly to individuals for home building purposes before the building industry can function. Probably today there are more employees of building trades on relief rolls than from any other line of industry."

1933 BUILDING AND

BUILDING construction has been, for several years, the sleeping giant of industries. Normally an active factor in the business life of communities ranging from the smallest roadside hamlets to the greatest cities, building activity has been the subject for statistics which have proved their value as a prime index to general business conditions. Long before the stock market debacle of 1929, current reports of building activity forecast trouble ahead; similarly, prior to the boom years building construction revealed an irrepressible optimism.

Building statistics do not derive their value as an index from any mysterious source; shelter is obviously essential to life, and for the essential things there has always been a more or less constant demand. Minor fluctuations may occur due to temporary or emergency conditions; but in general the demand for essentials is directly related to the gradual changes in population. After food is obtained, clothing and shelter are most important to each individual; the demand for adequate shelter can be repressed for only a limited time and must sooner or later express itself in building activity.

Because building satisfies a basic need, it should be entirely possible to forecast building volume 12 months in advance, within certain limitations. However, there are many factors to be considered in such forecasting which tend to make the degree of error in figures an indeterminate element; it is impossible to obtain, for instance, complete factual evidence of building activity from all parts of the country. Nevertheless, experience in the study of typical areas of representative sections has pointed the way, and makes it possible to forecast building volume within reasonable bounds.

What's Happened in 5 Years?

Back in 1928 we spent nearly 9 billion dollars for building construction of all kinds; since then the moving point of building activity has traced a constantly downward line—until May, 1933, when, for the first time in five years, New Residential building showed a substantial increase over the corresponding month of the year before. Figures for total construction did not show this kind of improvement until October, 1933; but the residential figures, which have considerable value as trend indicators, revealed improvement six months before other classes of construction. The last five years have been sad ones, as far as volume of business is concerned, for the entire construction industry and several million persons will be able to look forward with restored confidence, now that the trend is discernibly upward.

Changed Conditions Affect Building Backlog

Buildings wear out, just as automobiles, clothing and other materials depreciate with age and use; the only difference between the obsolescence and depreciation of buildings and other products is that buildings wear out a little more slowly. Normally people try to take care of their real property, making necessary repairs and changes each year; but since 1929 it has been stylish to economize, many people have been sorely pressed for funds, and a false sense of conservatism has governed the expenditure of money for building Repairs, Alterations and Modernization. As a consequence, structures of all kinds have been allowed to "run down" to the point where more than 90 per cent of all the buildings in the United States today need some immediate repair, alteration or modernization!

The tremendous backlog in modernization and repair work is estimated to exceed \$17,000,000,000 or about \$136 per capita. The enormity of this figure is best appreciated when we recall that during the boom years total expenditures for new building construction of all kinds did not exceed \$68 per capita in any one year. Eventually this work must be done.

New building construction reports can be obtained in many ways, all of which are more or less reliable. Building permits are one source of statistics; reports from architects provide good data; examination of assessment records furnishes a relative type of statistical information. But the average residential job reported by the Department of Labor during the first eight months of 1933 was valued at \$4,464, and the average non-residential job was valued at \$3,342, whereas the average alteration, repair or modernization job of either residential or non-residential classification reported by the same agency during the same period amounted to only \$531; it is evident, therefore, that "dollar for dollar" it requires less field and office work to tabulate the larger (new) building jobs. On the other hand the Department of Labor shows that there were nearly 10 Alteration, Repair or Modernization

TABLE A: BUILDING CONSTRUCTION VOLUME, ENTIRE U. S.,
COMPLETE YEAR 1933*

Classification	Dollars	No. of Jobs	Per Job Average
New Residential, including low cost houses.....	\$312,389,887	69,972	\$ 4,464
Alterations, Repairs, etc..... (All types)	275,153,013	518,179	531
Sub-totals.....	587,542,900	588,151	—
Non Residential.....	401,558,040	120,144	3,342
Public Works & Utilities.....	495,227,600	**	**
GRAND TOTALS.....	1,484,328,540	708,295	—

*December, 1933, figures estimated. **Not yet available.

THE OUTLOOK FOR 1934

By E. L. GILBERT

jobs of all kinds to each new residential job; and there were nearly four Alteration, Repair or Modernization jobs to every new non-residential job. Naturally, the increased importance of Alteration, Repair and Modernization work must be noted in any forecast of building volume for the coming year; we believe it fair to group this type of work with Residential because it is usually handled by the contractors and builders who do Residential work.

Even during depressions there are some people who have accumulated money or who still enjoy good incomes; and a number of these people are concerned to own their own homes. This results in a certain amount of new building each year; the fact that thousands of families have delayed building during the last few years, despite the fact they are able to finance, makes certain that this deferred demand must be expressed soon; the upturn in new residential construction which began in May, 1933, very likely is the evidence of strong pressure from this "new building" backlog.

Although the need for both new buildings and repair and modernization work is evident, actual demand may lag behind, for several reasons. In all parts of the country structures intended to accommodate only one family are actually housing from two to six families; it is conceded that 1,500,000 families have doubled with others in this manner; this "doubling up" will be as temporary as the families involved can make it; but meanwhile the demand for additional housing facilities is not prominent, although the need undeniably exists. As soon as employment conditions improve sufficiently to furnish income for families now living in cramped quarters with somebody else, there will be a strong demand for additional rental space; hundreds of communities will undoubtedly be faced with a serious shortage of living quarters for rent, as general business conditions improve.

A New Type of Builder

With a strong rental market in prospect it may be that during the next few years there will be noted a new type of builder—the man or organization building for tenants. It is possible to produce residential structures for rental which will show a handsome return on the investment, under the influence of modern construction methods. Such structures will be designed to amortize themselves from rental income over a period of years, the builder retaining title and renting on leases.

The development of this type of building would be a very good thing for the residential building fraternity, for it would swing the emphasis more prominently to good construction; both materials and labor would be carefully scrutinized to insure construction that would not depreciate or become obsolete quickly. If this happens, the cost per cubic foot may mount; but manufacturers of quality materials, and good craftsmen, will benefit immensely.

Financing and Its Effect

At present there are thousands of pieces of distressed property on the market, many of which are being held by banks, mortgage companies and other building finance sources. Before advancing additional monies for build-

TABLE B: DEPARTMENT OF LABOR BUILDING PERMIT RECORDS, 774 CITIES, 1ST 8 MONTHS OF 1933

Month	Dollars	No. of Jobs
RESIDENTIAL		
January.....	\$ 5,286,187	1,309
February.....	7,241,728	1,076
March.....	6,741,394	1,576
April.....	7,316,472	1,990
May.....	12,985,359	2,763
June.....	13,964,626	3,154
July.....	12,665,986	2,927
August.....	11,231,018	2,549
ALTERATIONS, REPAIRS, ETC. (All Kinds)		
January.....	\$ 7,110,885	11,897
February.....	6,081,764	10,926
March.....	9,202,262	19,393
April.....	9,939,399	23,130
May.....	13,077,038	26,164
June.....	14,849,360	24,389
July.....	11,900,971	21,461
August.....	13,121,222	23,228
NON-RESIDENTIAL		
January.....	\$33,379,472	3,487
February.....	10,998,166	2,961
March.....	8,616,520	4,422
April.....	12,033,849	6,367
May.....	41,321,161	7,477
June.....	14,041,223	6,628
July.....	13,452,440	6,049
August.....	12,812,328	6,488

This table of building permits covering the first 8 months of 1933 for 774 cities, shows very clearly the relation between number of jobs and dollar volume importance of the three principal divisions of building work handled by the average contractor and builder

ing or repair activities, these holders of distressed properties feel that they must "unload." "The banks are in the real estate business today," says William J. Obenaus, Albany, N. Y., architect, "and that is the principal reason why they will not lend money for new building." However, the formation of quasi-public corporations to protect mortgage investors, recent activities of Federal, State and local Governments as well as the gradual absorption of distressed properties by the general public, all indicate that this condition is righting itself.

One thing is certain regarding mortgage money—hundreds (perhaps thousands) of men and organizations having to do with this division of business are working constantly to solve the financing problems of the building field and property owners; it is to be expected that these same men will aid materially in providing more mortgage money as the demand for housing and other structures improves.

Summary of 1933 Building

Total building volume in the year 1932 reached the lowest point in ten years and it was feared that 1933 total construction figures would be far below the 1932 volume. During the first four months of 1933 total building volume dropped about 35 per cent below the same period of the year before; for the period May-September, however, total volume in 1933 was only 25 per cent below the corresponding period of 1932; in October, 1933, total volume exceeded that of the same month of the year before by 35 per cent! This is definite statistical evidence of improvement. It is apparent that 1933 total building volume is very close to the 1932 total—indication that we have definitely started upward after passing the low point. Total construction for 1933 is estimated to exceed \$1,484,000,000, as shown in detail in Table A.

In New Residential Building the upturn became evident with the May figures; for this month and the succeeding four months each showed increased volume over the same month of the year before. This is probably explained as pressure of jobs required some time ago, but which were delayed. There is every reason to believe that this pressure will not only continue, but will increase as time goes on. New Residential Building for 1933 involves nearly 70,000 jobs with a value of approximately 313 million dollars.

In addition to New Residential construction, Alterations, Modernization and Repairs have piled up a considerable volume covering more than 518,000 individual jobs with a total valuation of approximately 275 million.

Non-Residential Building was much below 1932 volume during the first half of 1933; however, the third

quarter showed a gain of about 15 per cent, indicating a slight upward tendency in this division. Non-Residential Building construction in 1933 includes about 120,000 jobs with a total valuation of nearly 402 million dollars.

Public Works do not show much of a gain over 1932; the Utilities group has not been able to make as good a showing as had been hoped. The total for Public Works and Utilities in 1933 is approximately 495 million.

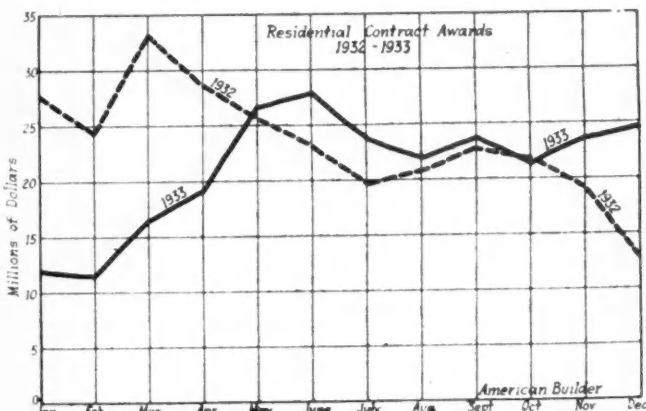
The Outlook for 1934

Generally speaking, the next twelve months promise a great deal more business than developed during 1933. Total construction figures, which will be enlarged by considerable expenditures from the \$3,300,000,000 appropriated by the Federal Government, plus the undoubted upturn in residential building and the increasing numbers of small Alterations, Modernizations and Repairs, plus a renewed confidence in business circles which should promote commercial and other non-residential types of activity, may mount to the 4 or 5 billion dollar plane in 1934.

Bearing in mind that all estimates or forecasts of future activity are subject to a greater degree of error during troubled economic periods, it nevertheless seems probable that 1934 total construction will exceed 1933 building volume by not less than 100 per cent—the statistical outlook inclines to be even more optimistic than this.

AMERICAN BUILDER MINIMUM ESTIMATES FOR 1934 BUILDING VOLUME

Classification	Dollars	No. of Jobs
a New Residential, including new low cost houses	\$ 468,000,000	99,000
b Alterations, Repairs, etc.....	455,000,000	910,000
Sub-totals.....	923,000,000	1,009,000
c Non-Residential.....	458,000,000	132,000
d Utilities.....	300,000,000	
e Public Works.....	1,700,000,000	
GRAND TOTALS.....	\$3,381,000,000	



The "turn" in residential building occurred in February, 1933; the October upswing forecasts a better volume for 1934

a This classification includes both reported and unreported residential building, for the entire United States, but does not include any estimates for Federally financed housing; b No building statistics claim to cover completely the tremendous number of small alteration, repair and modernization jobs; we believe this estimate to be very conservative; c With an abundance of industrial and commercial floor space available, and people generally antagonistic to increasing taxation for local community buildings, etc., we cannot see that this classification will show greater improvement in 1934 than given herewith; d This includes those items of Utility construction which may properly, in our estimation, be included in this forecast; e Federal activity may cause this figure to expand or contract, dependent upon the decisions of the next Congress; figures given include construction by Cities, Counties, States and Federal Government, including projects involving Federal aid.



George B. Mayer, Architect, Cleveland, has drawn 18 small house designs for the Euclid folks to choose from. Illustrated is the first to be built, a six-room, to cost \$4,777.00

Euclid Housing Gets Under Way

Work Started on December 14 on First House of Projects Approved and Financed by Federal Bureau

HAILED as "the first practical start of housing in the entire program for the nation," ground was broken on Thursday, December 14, at Euclid, Ohio, for the initial house of the federally sponsored Euclid Housing Corp. project. Writing to Mayor Charles R. Ely from Washington, N. Max Dunning, architect and chief assistant to Housing Director Kohn of the Public Works Administration, said, "Turning of the first shovelful of earth in your city marks the first practical start of housing in the entire program of the nation. Success thus far in the project is due almost entirely to the splendid interest shown by your group and that group's willingness to devote time and money, without compensation, to a great public service."

The Euclid housing project is of particular interest to the men of the home building industry because it is not mass housing or slum clearance but rather the building by independent contractors of inexpensive detached houses, each on its own plot and these plots widely separated. Federal financing of an extremely generous type has been granted the citizens of Euclid for individual home building through their non-profit housing corporation. The funds are allocated as part of the Public Works program under the 1933 Recovery Act. Director Robert D. Kohn of the PWA Housing Division states that other communities will receive the same consideration provided they can present an equally good case, and that the Public Works authorities regard the Euclid project as a model for the low cost housing field.

The house for which ground was broken on the 14th will be a six-room two-story frame dwelling, brick veneered first floor and clapboards above, the second story overhanging in Colonial style. The cost of this house complete is \$4,777. Specifications call for ordinary house construction with oak floors, hard plaster finish, warm air furnace, one 3-fixture bath room, copper piping, asphalt shingles and copper flashings. The site is a plot 50 by 135 feet located within reasonable distance of the industrial center of Euclid. Other plots on which similar applications have already been filed are scattered throughout the village. They are not grouped as one is accustomed to think of in connection with housing projects. Any one in Euclid owning a lot free

and clear and wanting to build a house to cost not more than \$5,000 can qualify for this federal money at 4¾ per cent interest and 15 years to repay.

A study of the contract between the Public Works Administration and the Euclid Housing Corporation, of the contract between the Euclid Housing Corporation and the general contractor awarded any house job and of the application form which the home seeker fills out—all shown on the next pages—will give other community builders the essential details.

Digest of the E. H. C.-U. S. A. Contract

By Allan C. Williams in Millar's Housing Letter

The contract between the Euclid Housing Corporation and the U. S. A. is a document 26 pages long. Its highlights are the following:

Purpose:

The E. H. C. has been organized for the purpose of assisting owners of lots in and near the industrial section of the City of Euclid, Ohio, in the construction of low-cost dwelling houses upon said lots, or in financing the construction of said dwelling houses. It is contemplated that the E. H. C. will build or cause to be built approximately 250 of such houses at an aggregate cost of not exceeding \$1,000,000.

To aid the E. H. C. in carrying out the Project, the E. H. C. will sell and the Government will purchase not to exceed \$1,000,000 principal amount of the debentures to be issued by the E. H. C. at 100% of the principal amount thereof, plus interest accrued to the date of delivery.

Description of debentures.

- (a) Designation: 4% Secured Debentures.
- (b) Authorized Principal Amount: \$1,000,000.
- (c) Interest: 4% per annum, payable semi-annually on May 1 and November 1 in each year.
- (d) Date: The Debentures shall be dated the May 1 or November 1 next preceding the date of issue, except in the case of Debentures issued on May 1 or November 1, which shall be dated the date of issue.
- (e) Maturity: The Debentures shall be due and payable on or before 15 years from their respective dates.
- (f) Denomination: \$1,000 and multiples thereof.

Disbursements by E. H. C.:

No payments shall be made for construction costs until the Cleveland Trust Co. shall have received in respect of such Unit the following:

(1) The Note of the owner of the lot in question, in an amount equal to the entire cost of construction of the Unit in question, including the \$250 for the expenses of the E. H. C.;

(2) A Mortgage of such lot, duly executed by such lot owner and his spouse (if any), securing said Note and any other indebtedness of the lot owner to the E. H. C.;

(3) A location survey and a photograph of such lot, taken and dated as of a date subsequent to, but not later than one week after, the date of filing of the Mortgage for record, and showing that at such date construction had not been started;

(4) An opinion of counsel for the E. H. C., satisfactory to the Government, that said Note is a valid and binding obligation of the maker thereof, and that the Mortgage securing the same is a valid first mortgage upon the lot in question, subject to no prior lien or encumbrance or interest whatsoever and has been duly recorded;

(5) The affidavit of the lot owner setting forth the purchase price of said lot, the person from whom the same was purchased, the date of such purchase and that he is not indebted to the vendor thereof in respect of any part of the purchase price of said lot; and

(6) A written statement of the (U. S. A.) Supervising Engineer approving the purchase price of said lot and stating that the appraised value thereof is adequate

Form No. 1

APPLICATION NO.

To The Euclid Housing Corporation: Euclid, Ohio, 193

The undersigned hereby represents that he is the owner of Sublot No., in 's Subdivision of Original Euclid Township Lot No. by a deed dated, and recorded in Vol., P. of Cuyahoga County Records of Deeds; that said subplot is located on Street and under the zoning ordinances of the City of Euclid is suitable for the erection of a residence type of building; that said subplot is free from all encumbrances, except restrictions of record and zoning ordinances; that the taxes and assessments thereon now due and payable have been fully paid as appears from the tax receipt submitted herewith; that he desires The Euclid Housing Corporation to erect thereon a building of the type known as Design No., according to plans and specifications prepared by George B. Mayer, Architect, for the price of \$..... If said dwelling is erected, it is his present intention

- to occupy it himself;
- to lease it to a tenant;
- to occupy a portion of it and to lease the remainder.

The sum of \$..... is tendered herewith toward the cost of the examination of the title of said subplot, title insurance, for appraisal expense and for incidental expenses in connection with the investigation of this application and the cost of legal forms. The Euclid Housing Corporation may expend all or any part of said sum for said purposes, it being understood that any balance will be repaid to the undersigned.

I submit the following information concerning myself:

1. Age () ; Married () ; Single () ; Number in family () .
2. Occupation
3. Employed now ; Where (Yes or No) How long?
4. Previous employment during last three years

5. My gross earnings monthly \$.....
6. Other family income monthly \$.....
7. I purchased Sublot No. from on the day of, 19..... and paid \$..... therefor, and I am not indebted to said vendor in respect to the purchase price thereof.

8. I am not indebted to any other person in respect to the purchase of said subplot, except as follows:

Name	Address	Amount
------	---------	--------

I authorize you to make such investigation concerning my standings, financial and otherwise, as you may see fit.

Address:

STATE OF OHIO ss
CUYAHOGA COUNTY

Before me, a Notary Public in and for Cuyahoga County, Ohio, personally appeared who being by me first duly sworn, deposes and says that the facts stated and representations made in the foregoing application are true, as he verily believes.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this day of, 19.....

Notary Public.

APPROVED: Supervising Engineer or Agent of U. S. Government
APPROVED: Counsel for The Euclid Housing Corporation

This is the blank that an applicant for a house has to sign when he applies to the Euclid Housing Corporation. He pays a fee of \$25 for investigation expenses. (This blank is shown here for the information of readers and is not to be filled in and used.—Editor.)

to provide reasonable security for the aforesaid Mortgage.

All the notes received by the E. H. C. and the Mortgages securing the same shall be pledged under this contract; and this contract shall constitute a first lien thereon ***.

The money in the Construction Fund shall be held by the Cleveland Trust Co. in trust for the further security of the Debentures, *** and shall be secured in manner satisfactory to the Government.

Notes:

All payments by lot owners in respect of Notes shall be applied at reasonable intervals *** to the payment of interest on and principal of the Debentures.

The Notes to be executed by the respective lot-owners shall be in form satisfactory to counsel for the Government ***. Each Note shall be dated as of the date of execution by the E. H. C. of the contract for the construction of the Unit to be constructed for such lot owner *** shall be in an amount equal to the contract price specified in the applicable Construction Contract, such contract price to include the sum of \$250 for architects' fees, including supervision and inspection, attorneys' fees and other expenses of the E. H. C.; shall bear interest at the rate of 4% per annum from their date; shall require the payment of a service charge in the amount of 3/4 of 1% per annum upon the original face amount thereof from the date of said Note until payment thereof in full: the principal thereof and interest thereon and the service charge to be payable in 179 monthly installments, beginning one month from date, of \$7.00 for each \$1,000 face amount and one installment of \$257 to be due and payable fifteen years from date: shall be subject to acceleration upon certain defaults ***; and shall be secured by a mortgage from the lot owner to the E. H. C. ***.

Mortgages:

The mortgages securing the Notes *** shall be in form satisfactory to counsel for the Government. Each Mortgage shall be dated as of the date of execution (being the same as the date of the Note secured thereby): shall be executed by the lot owner and his or her spouse (if any) and shall cover the lot in question and all improvements erected and to be erected thereon: shall contain provisions or conditions to the effect that no owner thereof shall collect directly or indirectly rent therefor in excess of the annual payments referred to in Section 5 hereof plus taxes, special assessments and fire insurance premiums, and that the lot owner will not, for a period of not less than 15 years from the date of the Note or such longer period (not in any event to exceed 21 years) as the Note may be outstanding, sell or assign the premises or any part thereof, or make any agreement for that purpose, without the consent of the Government: shall provide that the maturity of the Note may be accelerated and payment thereof enforced in the event of

(1) Default in the payment of any monthly installment or any part thereof, when due, whether at maturity or otherwise;

(2) The filing by the lot-owner of a voluntary petition in bankruptcy or the adjudication of the lot owner as a bankrupt or the making by the lot owner of an assignment for the benefit of creditors; or

(3) Default by the lot owner under any other covenant or provision of the Note or the Mortgage and the continuation thereof for thirty days after written notice to the lot owner from the holder of the Note, specifying such default.

Applications:

The E. H. C. will consider each application in the light of the financial condition and integrity of the applicant, the place and character of his business, trade or occupation, and the amount requested as a loan in said application, and will make such investigation thereof as may in its opinion be necessary.

The E. H. C. will appraise or cause to be appraised, by appraisers satisfactory to the Government, the lot upon which the Unit is to be built and which is proposed to be

mortgaged by such applicant to secure the note of the applicant.

The compensation of the architects for the E. H. C. for the preparation of such designs, plans and specifications and for periodic supervision and inspection of construction upon the lot pursuant to the Construction Contract, shall not exceed 4% of the cost of labor and materials of the Unit in question. Said fee shall be included in the Construction Contract and shall be deemed to be part of the construction costs as that term is used herein, but shall be payable only out of the \$250 above referred to.

If the Supervising Engineer or other authorized representative of the Government approves the granting of the application, the E. H. C. will notify the applicant of the final approval of his application, and upon receipt of a Note and Mortgage from the applicant, *** the E. H. C. will enter into a Construction Contract for the construction of said house with a contractor approved by the (U. S. A.) Supervising Engineer, such construction contract and any sub-contracts to be let in manner satisfactory to the Government by competitive bidding among contractors satisfactory to the (U. S. A.) Supervising Engineer.

No construction loan shall be made or Construction Contract entered into by the E. H. C., for the construction of a particular Unit unless:

(1) The value of the lot upon which the Unit is to be constructed, as fixed by the appraisal above mentioned and approved by the Supervising Engineer, plus any amounts paid by the lot owner to the E. H. C. as part of the construction cost of such Unit, shall at least be one-third the principal amount of the Note to be given by the lot owner.

(2) The E. H. C. shall have received a title guaranty policy in form, and issued by a title company, satisfactory to the Government, in the amount of the Note, insuring the title of the lot owner to the lot and the lien of the Mortgage thereon.

(3) The E. H. C. shall have received an opinion of its counsel that the lot owner has title in fee simple to the lot, and that the same is free of all liens and encumbrances except specified building restrictions of record and zoning ordinances, and that all taxes and assessments against the property due and payable at the time of the execution of the Mortgage have been duly paid and that the Mortgage is a first and direct lien upon the property.

Counsel:

The E. H. C. shall retain competent counsel satisfactory to the Government to advise it in connection with the granting of loans and the construction of Units, the total compensation to be paid such counsel not to exceed \$80 in respect of any single Unit or \$150 in respect of a double Unit, which shall be payable only out of the \$250 (paid by each lot owner) above referred to.

Contracts:

No contract for construction shall be entered into at a cost to the lot owner in excess of \$5,000 for any single house or \$4,500 (to each lot owner) for any double house, including the incidental costs in connection therewith.

Labor:

No convict labor shall be employed on the Project, and no materials manufactured or produced by convict labor shall be used on the Project.

Except in executive, administrative and supervisory positions, so far as practicable and feasible in the judgment of the Government, no individual directly employed on the Project shall be permitted to work more than thirty hours in any one week, or, except in cases of emergency, on any Sundays or legal holidays; but in accordance with rules and regulations from time to time made by the Government, this provision shall be construed to permit working time lost because of inclement weather or unavoidable delays in any one week to be made up in the succeeding twenty days.

All employees shall be paid just and reasonable wages which shall be compensation sufficient to provide for the hours of labor as limited, a

**CONTRACT BETWEEN
THE EUCLID HOUSING CORPORATION
and the
GENERAL CONTRACTOR**

THIS AGREEMENT, made the _____ day of _____ in the year Nineteen Hundred and _____ by and between _____ hereinafter called the CONTRACTOR, and THE EUCLID HOUSING CORPORATION, an Ohio Corporation, hereinafter called the Housing Corporation, for the use and benefit of _____ hereinafter called the Owner.

WITNESSETH, that the Contractor and the Housing Corporation for the considerations hereinafter named agree as follows:

Art. 1. Scope of the Work: The Contractor shall furnish all of the materials and perform all of the work shown on the drawings and described in the specifications prepared by George B. Mayer, Architect, acting as and in the Contract Documents specified in Article 6 entitled the "Architect"; and shall do everything required by said Contract Documents.

Art. 2. Time of Completion: The work to be performed under the contract shall be commenced on _____ and shall be substantially completed by _____

Art. 3. The Contract Sum: The Housing Corporation shall cause to be paid to the Contractor for the performance of the contract in current funds the sum of \$ _____ less the sum of \$250 required by Article 47 of The General Conditions of the Contract, hereinafter mentioned, to be included in his contract price for the uses and purposes of the Housing Corporation.

Art. 4. Progress Payments: The Housing Corporation shall cause payments to be made on account of the contract as follows:

On or about the 10th day of each month, 90% of the value, based upon progress estimates, of the work performed and materials furnished to the end of the preceding calendar month, less the aggregate of previous payments, upon receipt by the Housing Corporation of

(a) Certificate of the Architect, setting forth such progress estimates and showing that the work so performed and materials so furnished have been performed and furnished in accordance with the aforesaid drawings and specifications and said General Conditions of the Contract; and

(b) The written approval thereof by an Architect or Engineer (herein called the "Supervising Engineer") designated by the Federal Emergency Administrator of Public Works approving the same and stating that such work and materials have been performed or furnished in accordance with the aforesaid drawings and specifications;

and upon substantial completion of the entire work, evidenced by a certificate as aforesaid of the Architect and the written approval thereof by the Supervising Engineer, a sum sufficient to increase the total payments to 90% of the contract price.

Art. 5. Acceptance and Final Payment: Final payment shall be due seventy (70) days after the entire work shall have been fully completed and the contract fully performed.

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Architect shall promptly make such inspection, and when he finds the work acceptable under the contract and the contract fully performed, he shall promptly issue a final certificate, over his own signature, stating that the work provided for in the contract has been fully completed and is accepted by him under the terms and conditions thereof, and that the entire balance found to be due the Contractor, and noted in said final certificate, is due and payable.

Before issuance of final certificate the Contractor shall submit evidence satisfactory to the Architect that all payrolls, material bills, and other indebtedness connected with the work have been paid in full.

Such final payment shall be made only upon receipt by the Housing Corporation of

(a) The aforesaid final certificate of the Architect;

(b) The written statement of the Supervising Engineer that he has examined the work and that based upon such examination he approves said final certificate of the Architect and the facts stated therein; and

(c) The written opinion of counsel for the Housing Corporation that he has examined the appropriate records for mechanics' and other liens upon the premises where the work is located and that there are no such liens of record and that, in his opinion, the time to file or perfect such liens has expired.

Art. 6. The Contract Documents: The General Conditions of the Contract, the Specifications and the Drawings, enumerated in this Article 6, together with this agreement, herein together referred to as the "Contract Documents", form the contract, and said General Conditions of the Contract, Specifications and Drawings are as fully a part of the contract as if hereto attached or herein repeated. The following is an enumeration of the Contract Documents, other than this agreement:

IN WITNESS WHEREOF the parties hereto have executed this agreement in triplicate the day and year first above written.

Contractor

Attest: _____
THE EUCLID HOUSING CORPORATION,
By _____

What the general contractor signs. On the first job lot (\$4,777) five bidding contractors were only \$80 apart

standard of living in decency and comfort.

All contracts and subcontracts shall further prescribe such minimum wage rates for skilled and unskilled labor as may be determined by the Government and shall be subject to all rules and regulations which the Government may promulgate in connection therewith. Such minimum rates, if any, shall also be stated in all proposals of bids submitted, including those of subcontractors; and a clearly legible statement of all wage rates to be paid the several classes of labor employed on the work shall be posted in a prominent and easily accessible place at the site of the work. All contractors shall keep a true and accurate record of the hours worked by and the wages paid to each employee and shall furnish the Government with sworn statements thereof on demand.

All employees shall be paid in full not less often than once each week and in lawful money of the United States of America in the full amount accrued to each individual at the time of closing of the pay roll, which shall be at the latest date practicable prior to the date of payment, and there shall be no deductions on account of goods purchased, rent, or other obligations, but such obligations shall be subject to collection only by legal process.

In accordance with such rules and regulations as the Government may prescribe, the maximum of human labor shall be used in lieu of machinery wherever practicable and consistent with sound economy and public advantage; and to the extent that the work may be accomplished at no greater expense by human labor than by the use of machinery, and labor of requisite qualifications is available, such human labor shall be employed.

Expenses:

The E. H. C. will pay or cause to be paid all costs, charges, and expenses incident to the performance of all terms and conditions of this contract on its part to be performed, including, without limiting the generality of the foregoing, the cost of preparing and executing the Debentures and the contract, all taxes and recording fees and the cost of obtaining all legal opinions to be furnished by the E. H. C. If requested by the Government, the E. H. C. will pay to the Government or reimburse it for all traveling, telegraphic, telephone and similar expenses hereafter incurred by it in connection with the financing herein contemplated, the reasonable cost of any investigation or inspection made by or on behalf of the Government as permitted hereunder, and the reasonable fees and expenses of such special counsel and engineers as the Government in its discretion may employ in connection therewith.

New Deal Homes for Tennessee

BY EARLE S. DRAPER

Director of Land Planning and Housing, Tennessee Valley Authority

PROMINENT among other provisions of the Act of the 73rd Congress defining the scope of the Tennessee Valley Authority's work in the Tennessee Valley is this clause: ". . . to provide for the agricultural and industrial development of said valley," and this: ". . . fostering an orderly and proper physical, economic and social development of such areas."

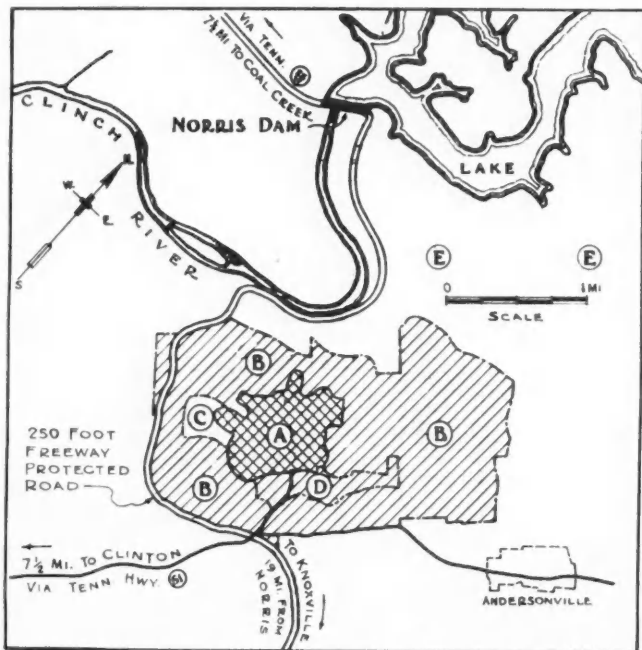
In the development of plans for housing the workers at Norris Dam, the TVA is following this mandate. From the start it was recognized that merely to provide for the temporary housing of 2,000 or more workers during the construction period of the dam would in-

volve the large-scale erection of reasonably durable and habitable buildings, the installation of extensive water supply and sanitary systems, roadbuilding, lighting and other expensive works, most of which would largely be abandoned upon completion of the dam.

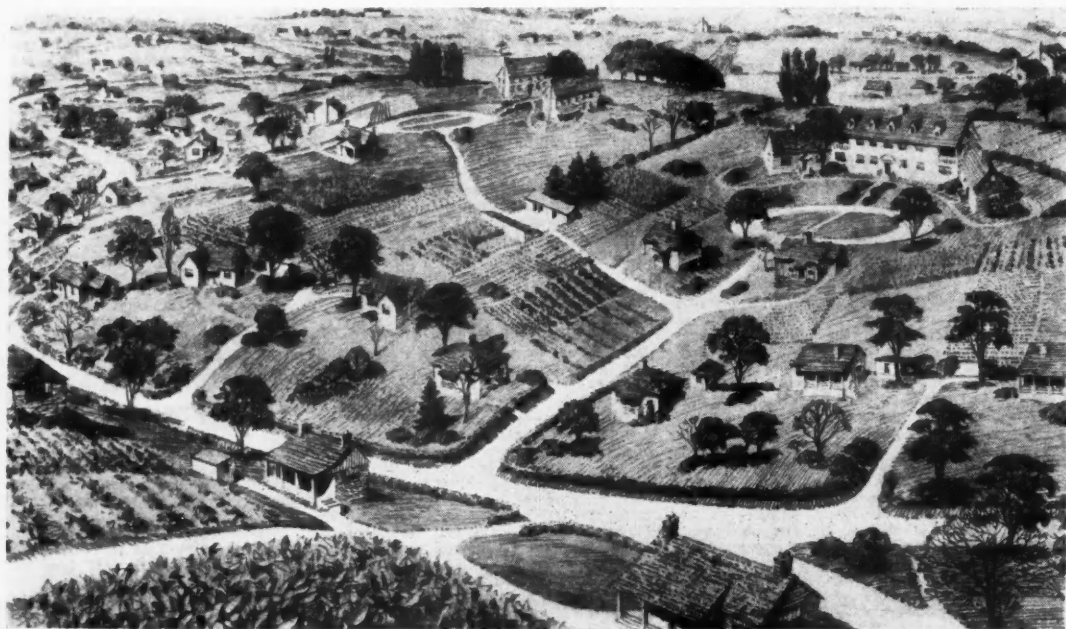
To avoid this waste and at the same time to provide for future contemplated developments in the region, the housing program now adopted provides for the building of a permanent town for about 500 families; further, for the establishment of a community based upon the orderly combination of industrial work and subsistence farming. The immediate building program calls for 250 houses.

In Norris, home-building lots will average about 75 by 200 feet in size, giving an area of about one-third acre in each case. This proportionately narrow frontage tends to reduce the costs of such public improvements as roadways, sewer and water mains, street lighting and so on; while the unusual depth provides more private usable yard space for gardening and other outdoor uses and activities. In addition, subsistence farm plots, averaging about four acres each, will be located within easy access of all dwellers in the town who desire to carry on small-scale farming in connection with their other work.

To serve the entire community, a complete town center has been laid out adjacent to a 14 acre public recreation ground or park. Here will be grouped the public hall and administration building, a small hotel, stores, public market, bus station and service garage and other community features as the need arises. Centered on the main axis of this group will be the public school, away from traffic, yet so located that a designated section of the park may be used as a school playground. On a low ridge, somewhat isolated but easily accessible, is the hospital location. Small, neighborhood parks and playgrounds are also provided for, as is a well equipped demonstration farm.



Location of Norris, Tenn., 19 miles Northwest of Knoxville on the Clinch River. "A" is town building area, "B" gardens, pastures and woodlots, "C," Construction Camp, "D," demonstration farm, "E," town forest



Artist's conception of the way Norris will look. The home gardens shown here are to supplement the subsistence farms on the outskirts

Valley Project

A complete water supply and sewer system, including a modern sewage disposal plant, will be installed. Water from Clear Creek Spring will be pumped into a high reservoir from which it will flow by gravity throughout the community.

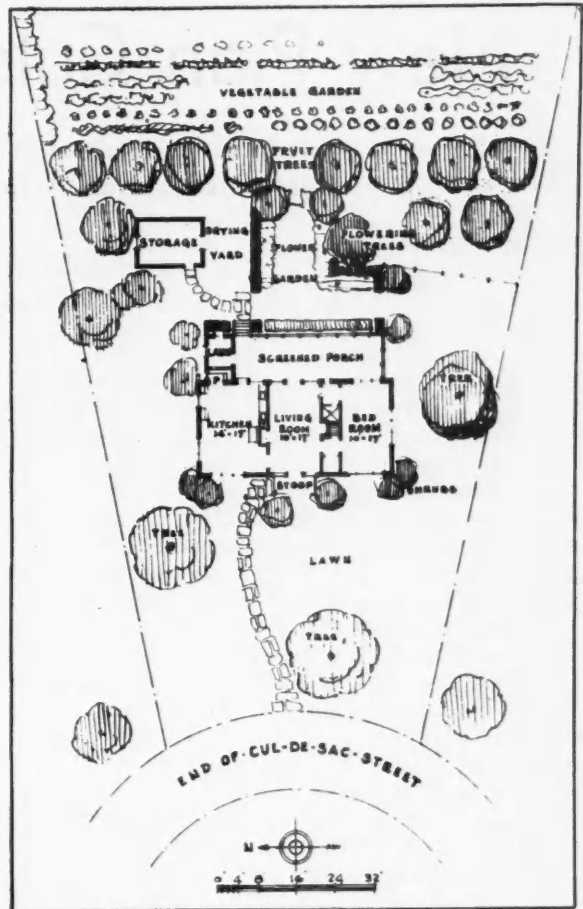
So far about a dozen general or basic types of house plans have been worked out. These plans are not inflexibly fixed in arrangement, in number, or in design. Even when built from the same basic plans, the houses will be varied in exterior appearance.

Through changed position and arrangement of porches, windows and the like; by the use of different forms and slopes of roofs; by difference of grouping, planting and ground contours, and other ways of manipulation, sufficient variety will be introduced to avoid the sameness and deadly monotony of houses too much alike.

The houses will vary in size from 2 to 7 rooms, with 3 and 4 room houses predominating, and all of them will be generously provided with porches.

In a period of advancing wage and material costs it is obviously impossible to determine construction and rental charges down to the last penny. It is certain, though, that \$2100 will cover cost of labor and materials for a 3-room house at Norris, with bath, screened porches, laundry, and usable attic space; fully equipped with electrified range, refrigerator, water heater and electric house-heating units, and including garage and bulk storage space all complete. A house of this type will rent for under \$20.00 per month. Rentals for larger houses may range up to \$45.00.

The construction costs of the houses are based upon New Deal wages varying from 45 cents to \$1.00 per hour.



Above: Typical plot plan of Norris home with garden. Below: Sketch of exterior, one of the designs being used; it is simple modernism adapted to local standards



New Plan Cuts Apartment Cost

The Viking, Milwaukee, Exemplifies Entirely New System of Space Arrangement—Tenants Approve

By HERBERT W. TULLGREN
of Martin Tullgren & Sons, Architects

IN 1931, our company (operating in Milwaukee) owned an unimproved lot and began to think of ideas that we might apply to make it bear profits. If it had not been for depressed conditions then prevailing we might have built just another apartment house. As it was, we worked until we found an idea we believed good enough to attract and keep tenants in spite of existing resistances. In so doing we found we had developed an entirely new idea in multiple family residences. It has since been patented.

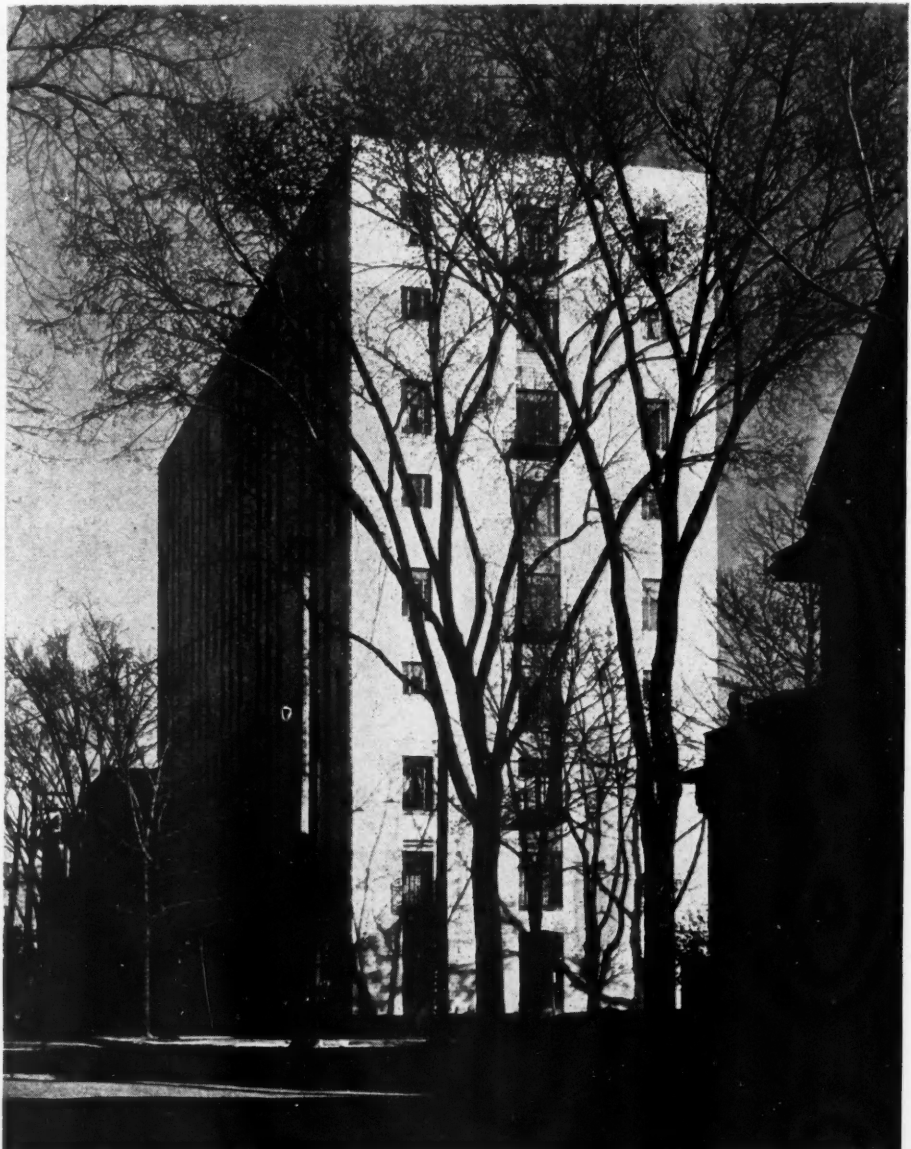
Simply explained, the idea consists of building two story rather than single floor suites; each apartment having living room, dining room, kitchen and toilet room on the lower floor, and a private stairway communicating with bedrooms and bath room on the floor above. These tiers of two-story dwellings are superimposed through the nine-floor height of the building except that the first floor is occupied by single story garden apartments. By this arrangement, public corridors are not needed on sleeping room floors. So we converted the corridor space into extra room space, giving tenants more room at no extra cost and effecting savings in maintenance and equipment by this elimination of corridors on alternate floors.

Elimination of corridors on alternate floors not only results in a saving in construction costs but also accounts for the 20 per cent saving in maintenance. There are only half the usual number of corridors to furnish, equip, light, heat and clean.

This particular apartment building, the Viking, an exterior view of which is shown here, consists of tiers of two story rather than single floor suites,

each apartment having living room, dining room, kitchen and toilet room on the lower floor and a private stairway communicating with bed rooms and bath room on the floor above. By this arrangement, public corridors are not needed on sleeping room floors, and are eliminated, with this space being converted into extra room space.

Tenants appreciate the additional privacy and home-like arrangement of these suites. They like the extra bedroom space, advantages of better light and ventilation and the quietness of sleeping quarters. There are a number of other factors that enter into the success of this particular building, but of greatest importance from the owner's and builder's viewpoint are these factors:



The Viking, Milwaukee, an apartment building, completed in October 1931 D.D. (during depression) shows a record of 92 per cent occupancy since the time of its completion, in comparison with a prevailing average of about 60 per cent in other apartments throughout the city.



Typical living room showing private stair to sleeping rooms above

That the patented principle (arrangement of two story suites with public corridors eliminated on alternate floors and with corridor space used to provide extra room space) incorporated in this building made possible a saving in construction costs of 15 per cent, show a savings in maintenance costs of 20 per cent, and that the design is so fundamental that it permits numerous variations in architectural detail while remaining

structure in an apartment building amount to about 20 per cent of the total cost, while outside walls, inside partitions, roof, ceilings and floors account for approximately 80 per cent of the total. In this plan, the units that account for 80 per cent of the total building cost are standardized and it is therefore possible to apply the fundamental principles of prefabrication by assembly of these units. This type of prefabrication obvi-

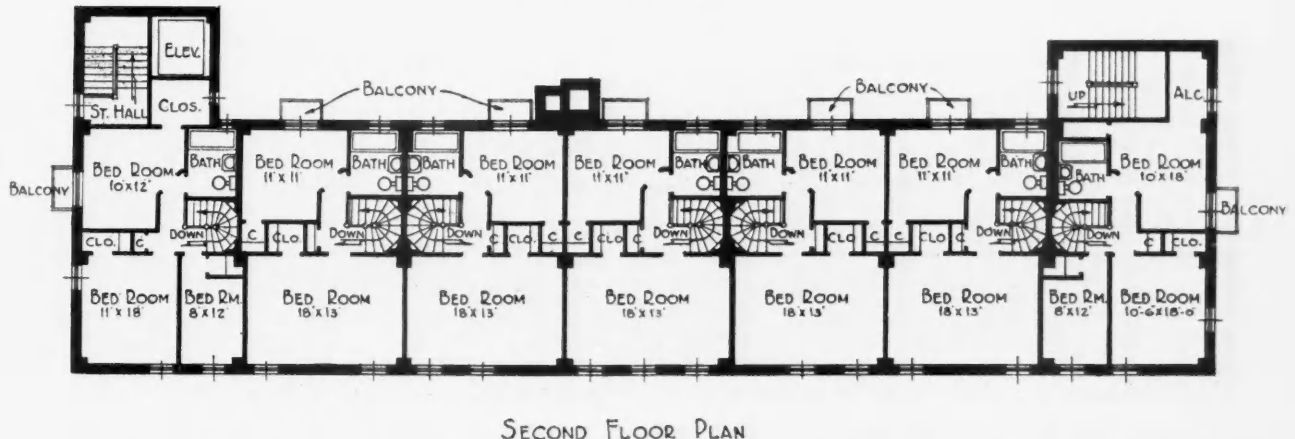
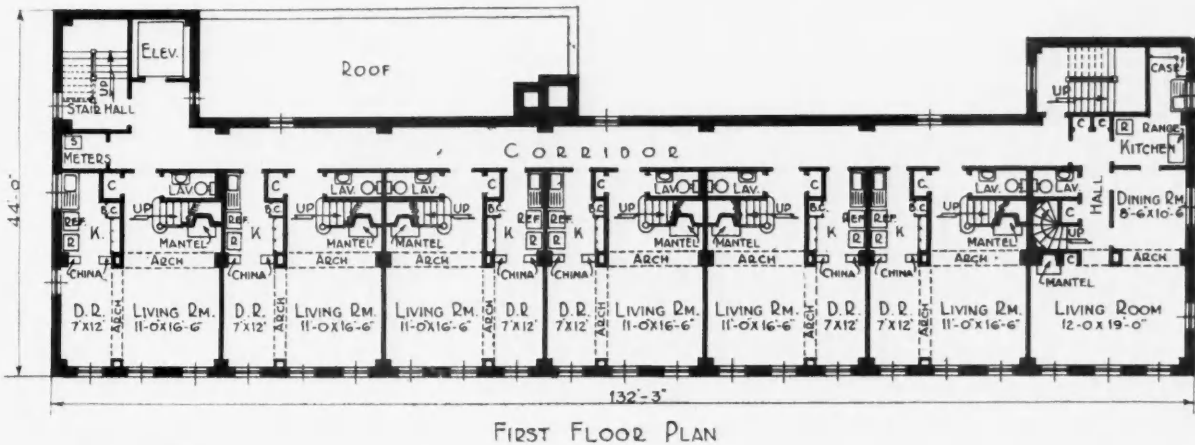
essentially a standardized type of building.

This arrangement affords 15 per cent more room space in a given structure than would be possible with conventional single floor apartments, which accounts for the 15 per cent saving in construction.

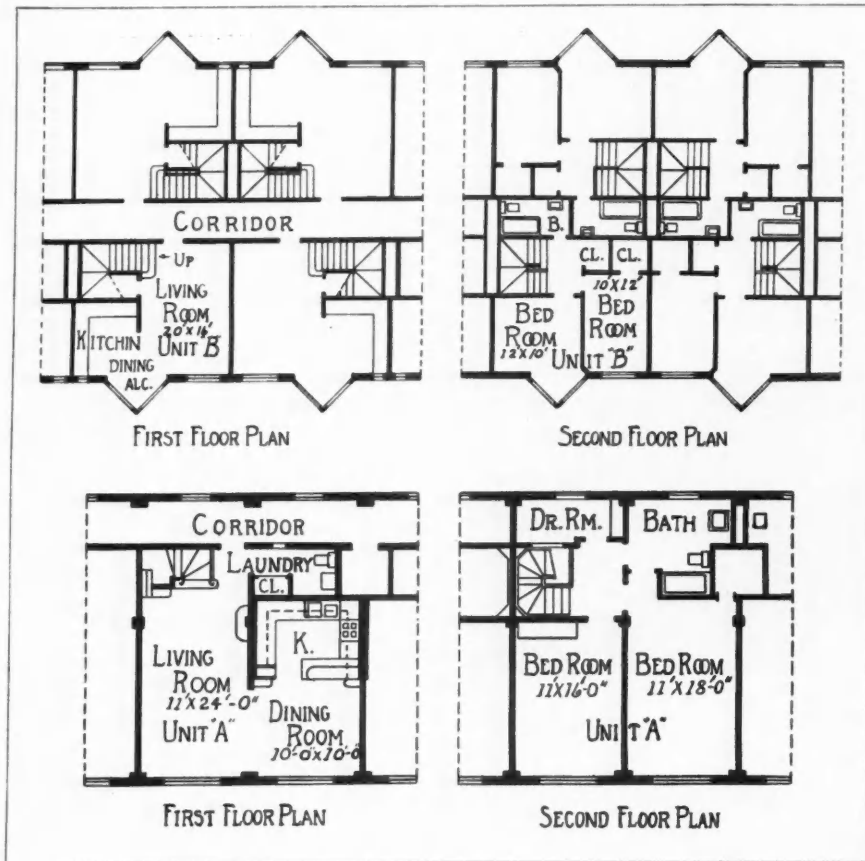
Maintenance costs are reduced because there is only half the usual area of public corridor space to furnish, equip, light, heat and clean.

The sketches shown here illustrate how simply standardized units are combined in the Viking apartments and a possible variation by use of a double bank of apartment units with central corridor.

Normally, excavation, footings and foundation walls and supporting



Floor plans of Viking Apartment, Milwaukee. Upper floors alternate these two arrangements. Saving public corridor space on every second floor



ously may be used without appreciably changing conventional building practice.

This particular apartment project, beyond contributing new ideas in design and construction, also indicates that even in times like these it is possible to design and build apartments, and homes too, that can be rented and sold, and that is a matter that must more and more concern the building industry.

The proof that tenants do like these dwellings lies in the record of 92 per cent complete occupancy. Since it

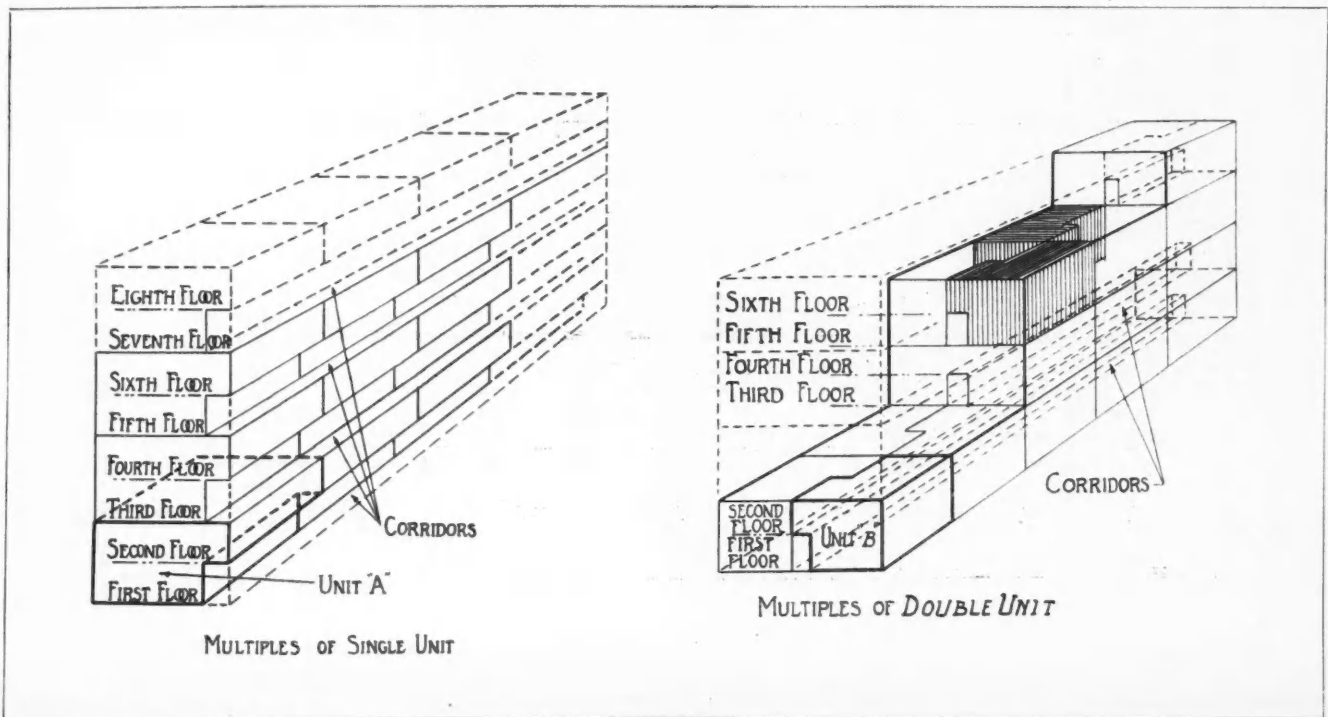
ings in a number of other cities indicates that our belief is shared by other apartment house owners.

Also, there is great interest just now in mass housing projects for slum clearance. Analyzed in comparison with modern housing projects, both in the United States and in Europe, the Tullgren Plan reveals a considerably higher standard of housing at a cost well below the average. The average cost per room of eleven recent projects here and in Europe is \$1,076.47, while the cost per room of the Tullgren project is only \$580.

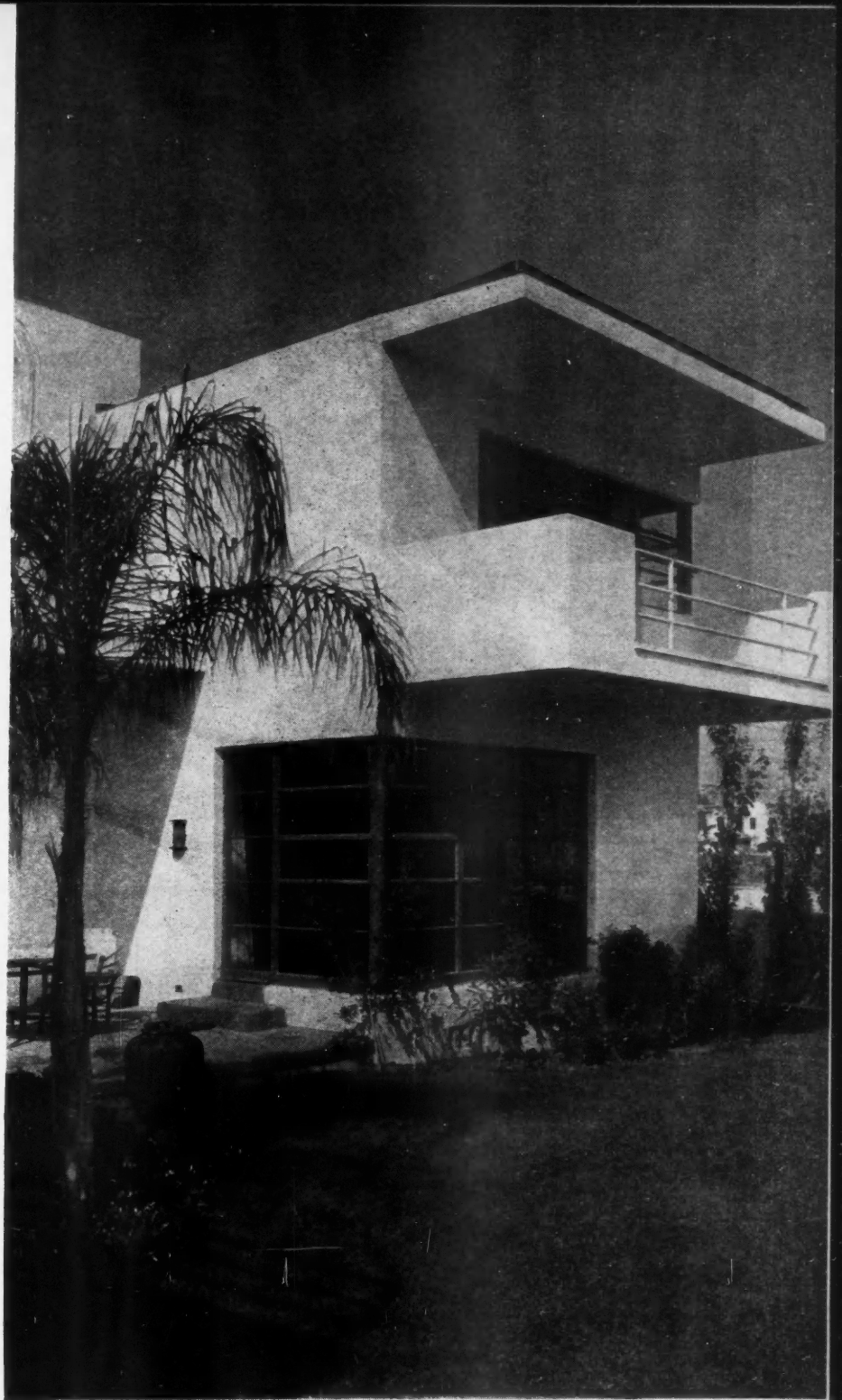
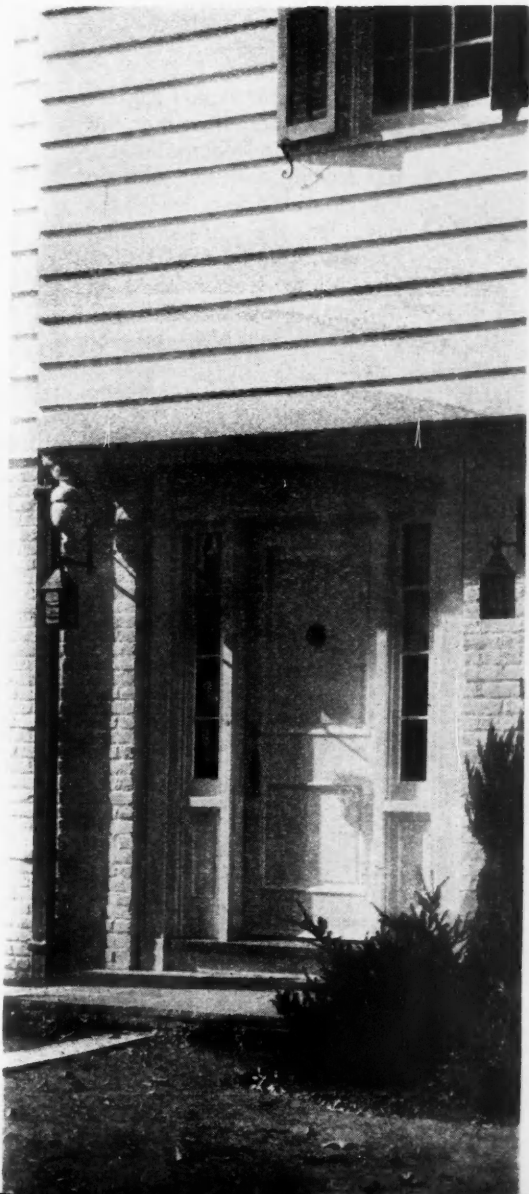
is common policy for apartment house owners normally to allow 10 per cent vacancy, our three-year depression record is generally conceded to be remarkable.

This record was not obtained by sacrificing fair return on investment. We passed on to tenants a saving of 15 per cent in construction costs and savings of 20 per cent in maintenance costs. It is simply an application of the fundamentals which have been applied successfully in practically all specialty product manufacturing and merchandising: first, designing for the consumer, in this case the tenant; second, giving progressively greater value at progressively lower cost; and third, developing vital distinction. We have taken a leaf from the casebook of manufacturers who have been successful in promoting their manufactured products, and have applied this lesson to housing.

We do not maintain we have solved all housing problems but we have convinced ourselves that even in times like these there is possibility for profit in apartment house ownership. Application of these patented features in remodeling of existing apartments and proposed new build-

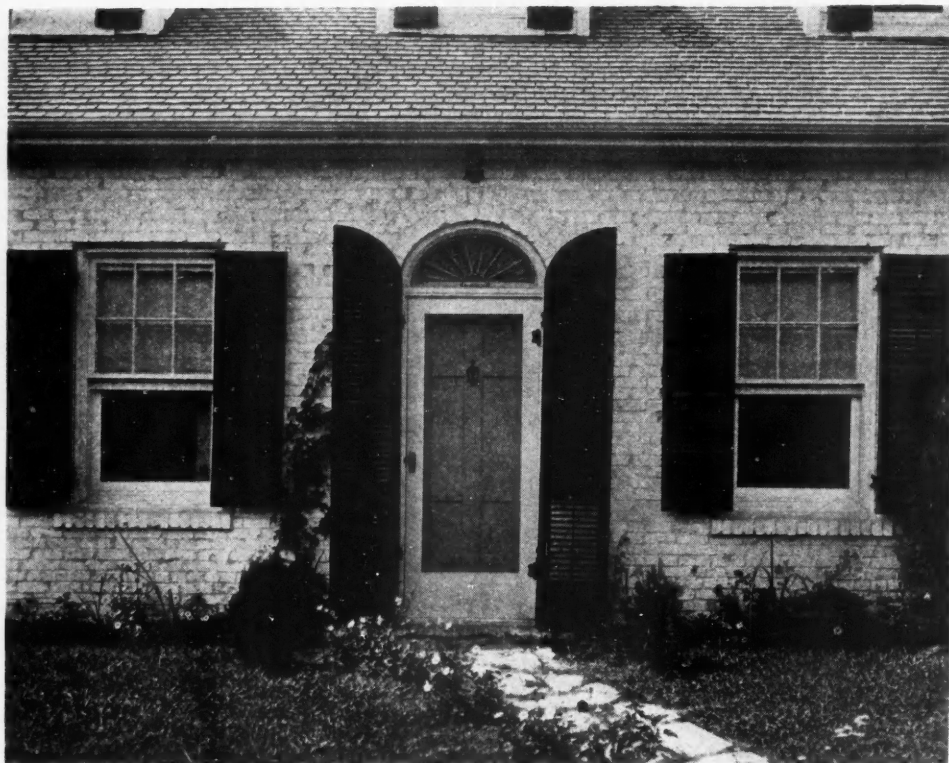


Details and Plans of Better Homes



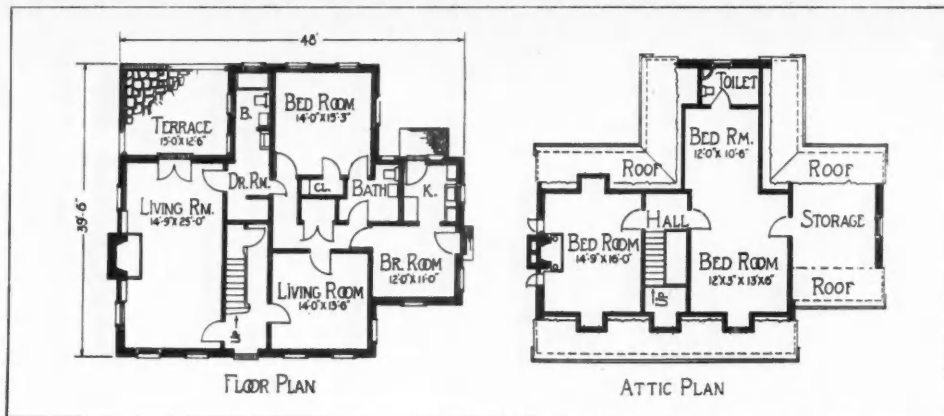
EXPERT HANDLING OF important architectural details is what makes the homes of today popular. An excellent example is the entrance detail, shown at the left, of a home located at Madison, N. J., designed by Architect R. C. Hunter. This charming Colonial house follows tradition in an interesting way but is thoroughly modern in spirit. Careful detailing of the door and entrance windows, the interesting flagstone porch and the carefully wrought lamps and downspout contribute to its success. Brick is used in the first story, wide siding on the second.

WHETHER YOU LIKE IT OR NOT, modern architecture of the type beautifully illustrated above must play an important part in the calculations of architects and builders planning for the 1934 market. The delightful corner window is a typical detail that the public has found especially attractive. Note that a section of the window on the left also serves as the door. The overhanging balcony is another feature found in modern houses, which is well illustrated above. Straight lines, solid masses handled with simplicity, predominate in this style architecture.

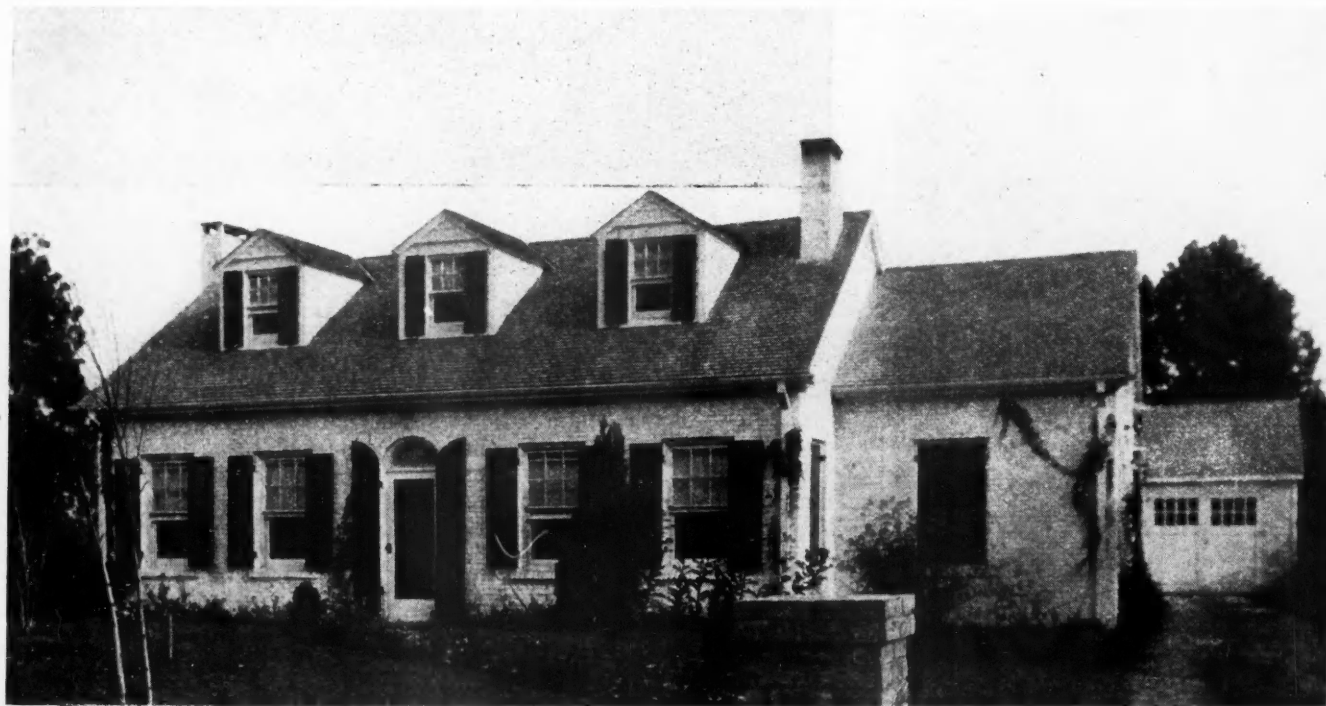


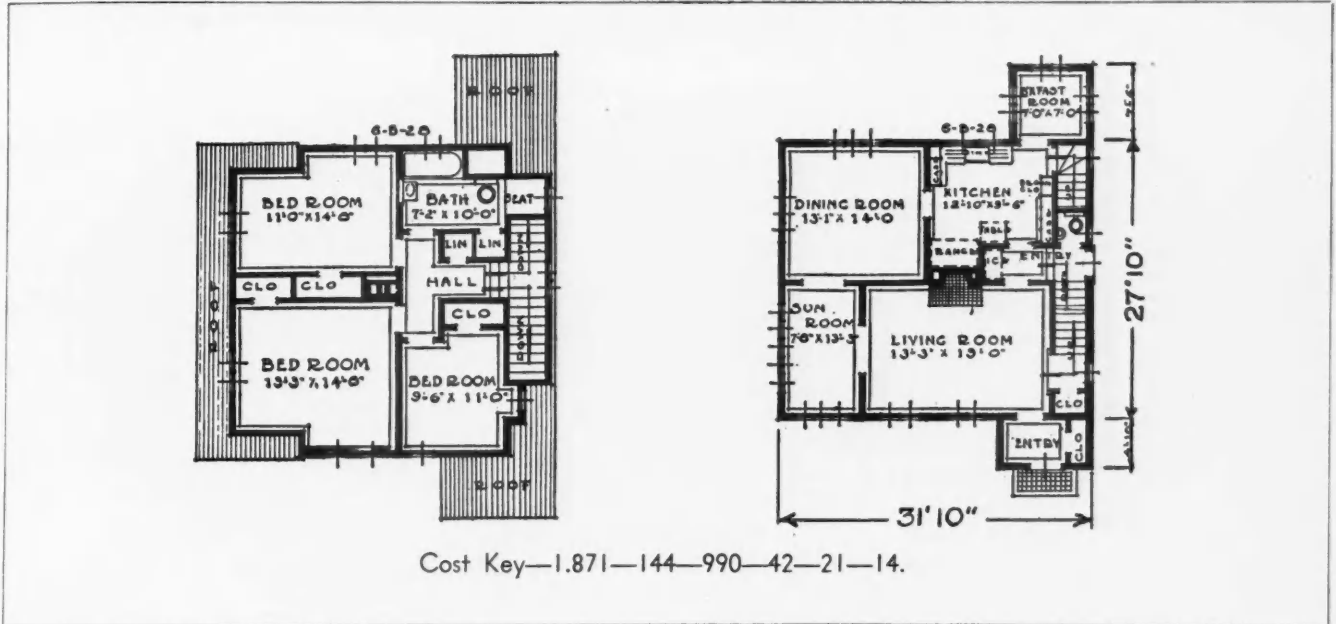
Texas Likes This House

BEN E. IRBY, architect, of Beaumont, Tex., designed this brick house for a local residence and thereby set a new standard of architecture for his town. The door detail at left shows an interesting treatment that is well adapted to the community.



THE FLOOR PLAN differs from most homes in that the owner has her niece and husband living with her who do the housekeeping while she occupies the larger living room and the upstairs rooms. The house was finished in January, 1930. Cost Key is 2.161—175—1454—60—26—22.

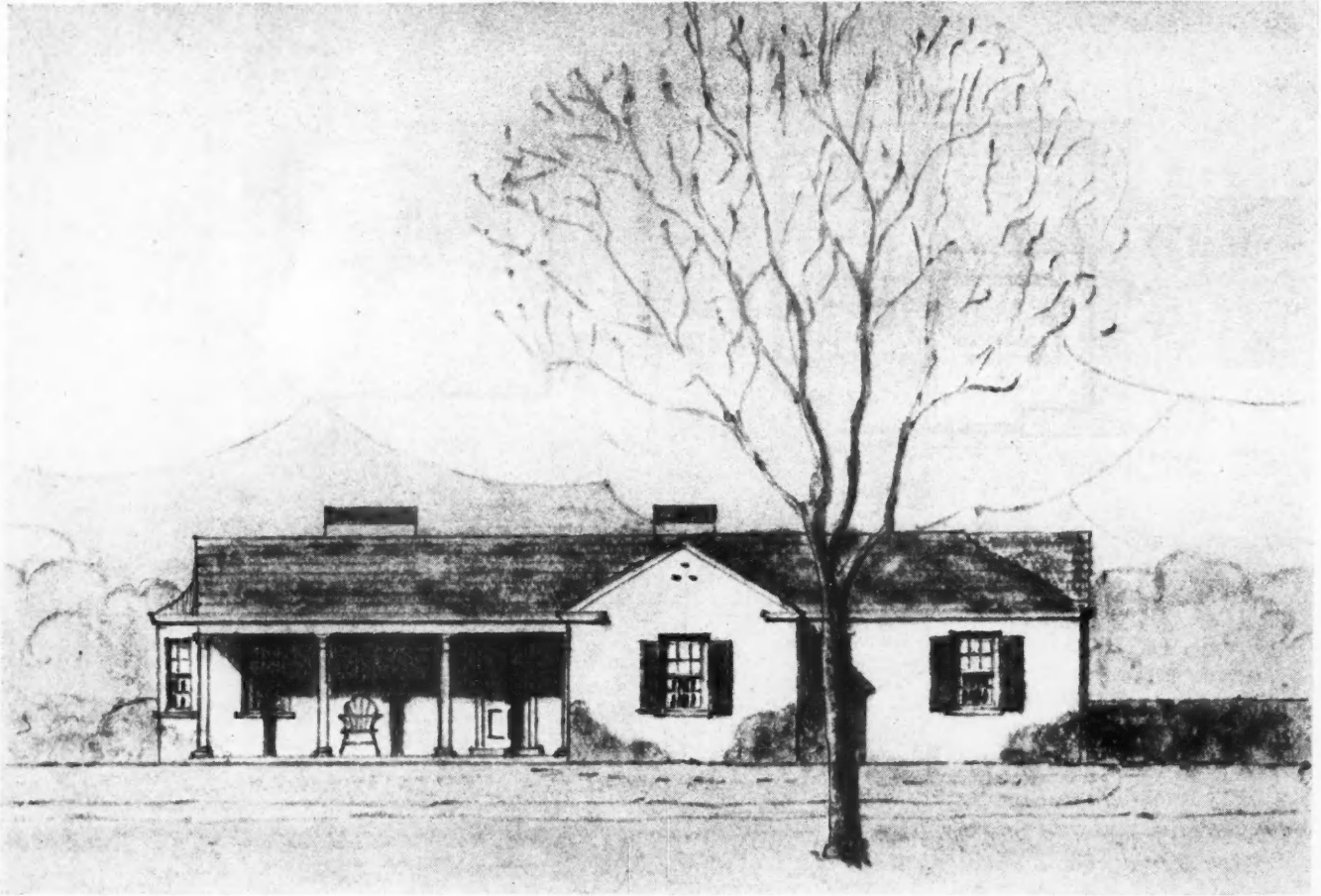




For a Sizable Family

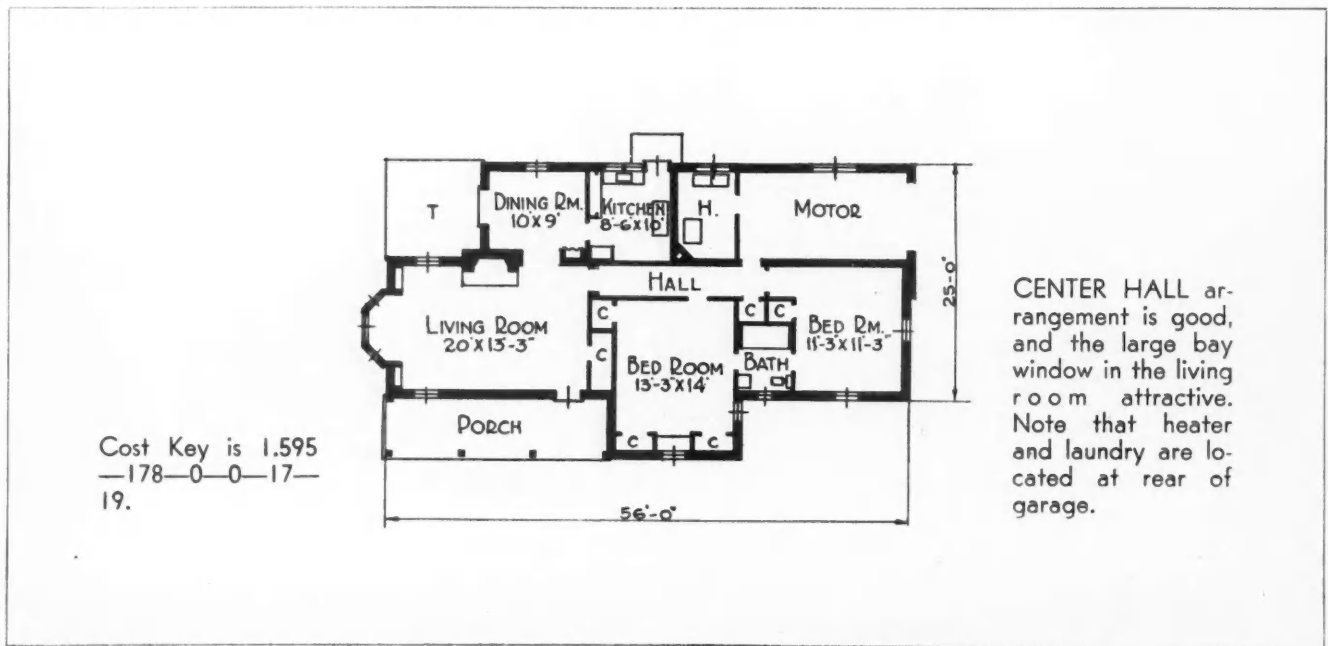
FEATURES OF THIS DESIGN INCLUDE the gabled entrance, clapboard walls, pilasters at corners, sun porch, numerous windows, long dormers, close cornice, low foundation. Architects' Small House Service Bureau design No. 6-B-28.

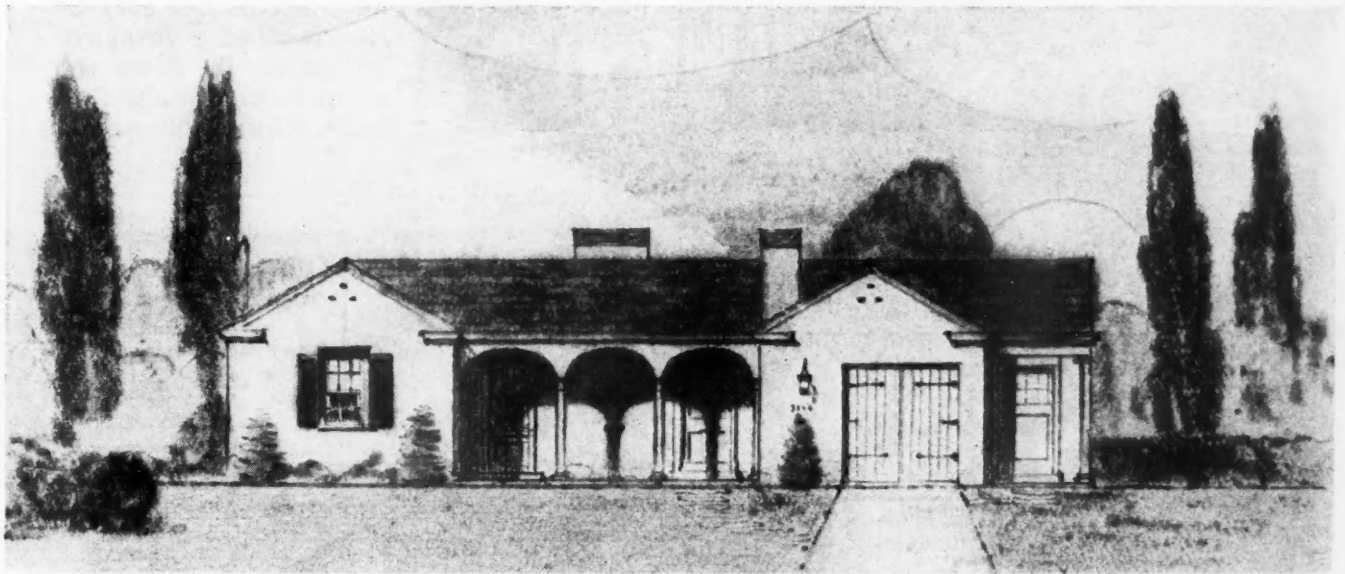
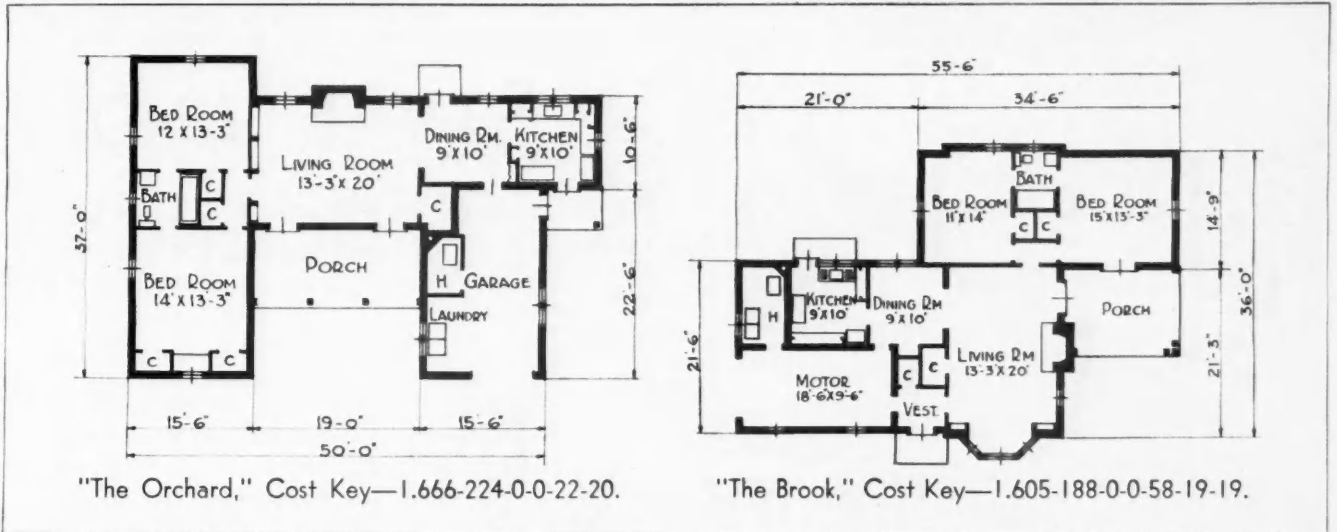




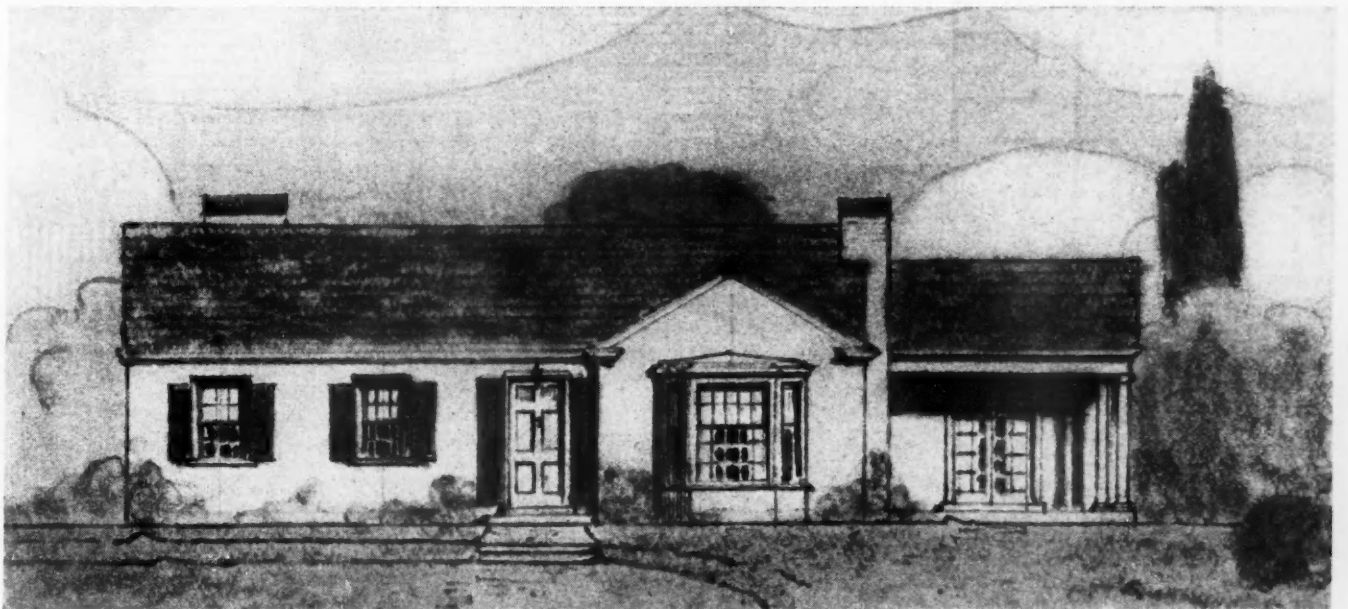
Low Cost Cottages For Court Projects

THESE THREE COTTAGES representing the latest thought in small home design at low cost were planned for construction in a group located about Hawthorne Court. The firm of Lowe & Speer, Evanston, Ill., architects, prepared the plans. The exteriors may be finished in whitewashed brick, stucco or siding. All are estimated by the architects to cost less than \$5,000. A study of the plans will show many advanced and modern ideas, such as location of the heater room and laundry in the garage, and elimination of the expensive basement.

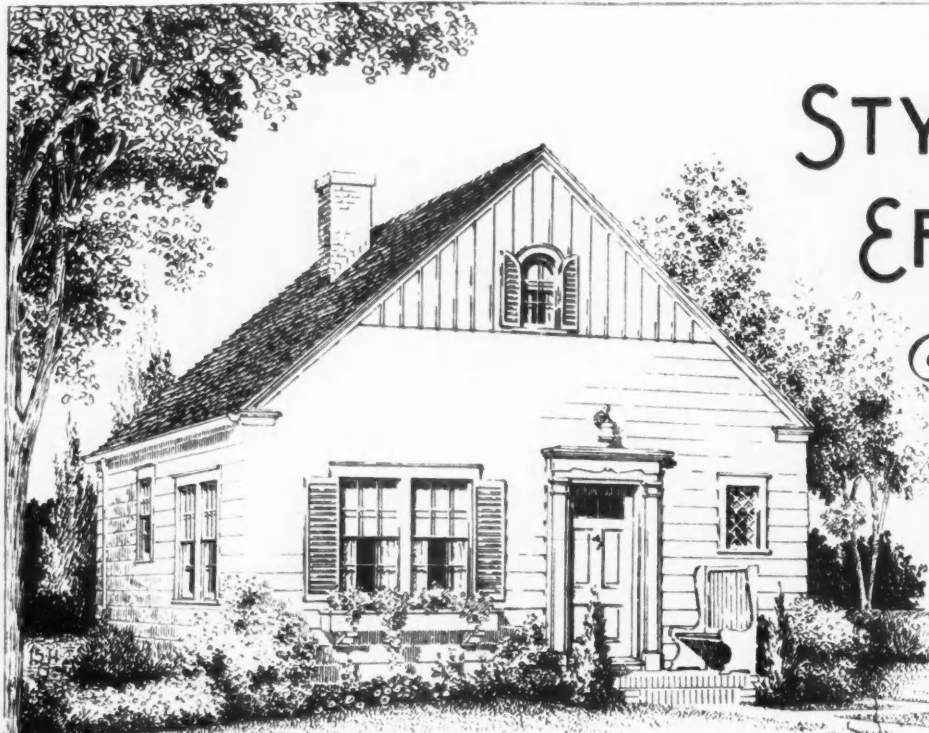




"THE ORCHARD" DESIGN HAS A PARTICULARLY EFFECTIVE ARRANGEMENT of living room, dining room and kitchen. Heater and laundry are in garage. Open porch in center is a good feature.



"THE BROOK" DESIGN ABOVE HAS COMMODIOUS ROOMS pleasantly arranged. The open porch and bay window are attractive. Heater and laundry are next to kitchen. Bay window gives charm.



STYLE AND EFFICIENCY

When building the original home one must be sure to set it back on the lot far enough to allow for the attractive future additions which may be added to the front. Both designs are attractive and either will make a pleasing feature for any community. Designed particularly for those who wisely contemplate what the future requirements may be.

3 ROOMS ORIGINAL HOME SIZE 24'0" X 23'6"
 A three room cottage with the efficiency of four. The large front closet can be used for the storage of a disappearing bed and the dining room can be used as a bed room at night. See illustrations below for future additions.

CUBIC CONTENTS	
ORIGINAL HOME	11000 CU.FT.
FUTURE FRONT ADDITION	4400 CU.FT.
TOTAL	15400 CU.FT.



FLOOR PLAN KEY
 ——— WALLS OF ORIGINAL 3 ROOM HOUSE
 - - - - - WALLS OF FUTURE ROOMS



5 ROOMS SIZE 34'0" X 36'6"

Illustrating the front elevation of the five room home.

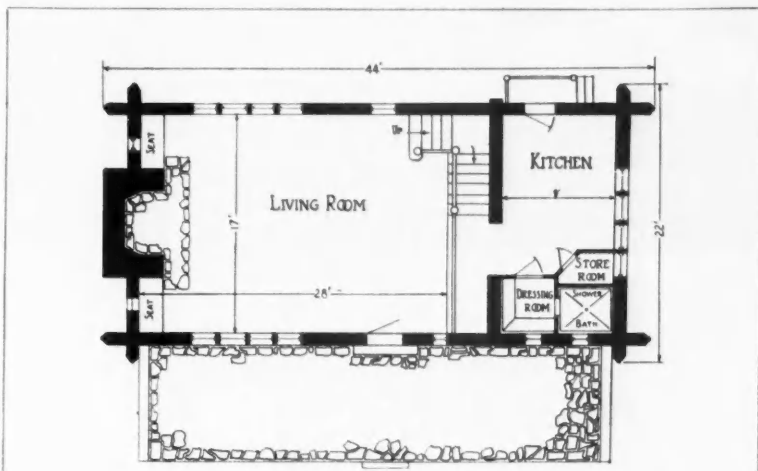
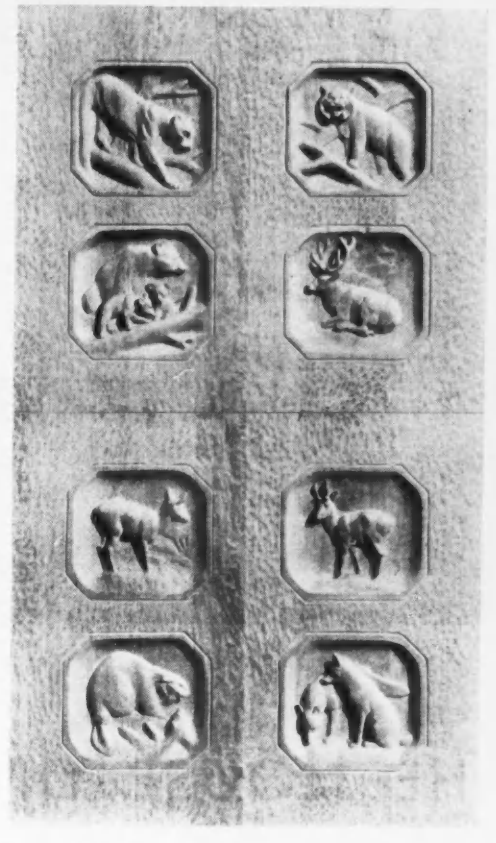
N.P.S. HOMES THAT GROW NO.15-HG.

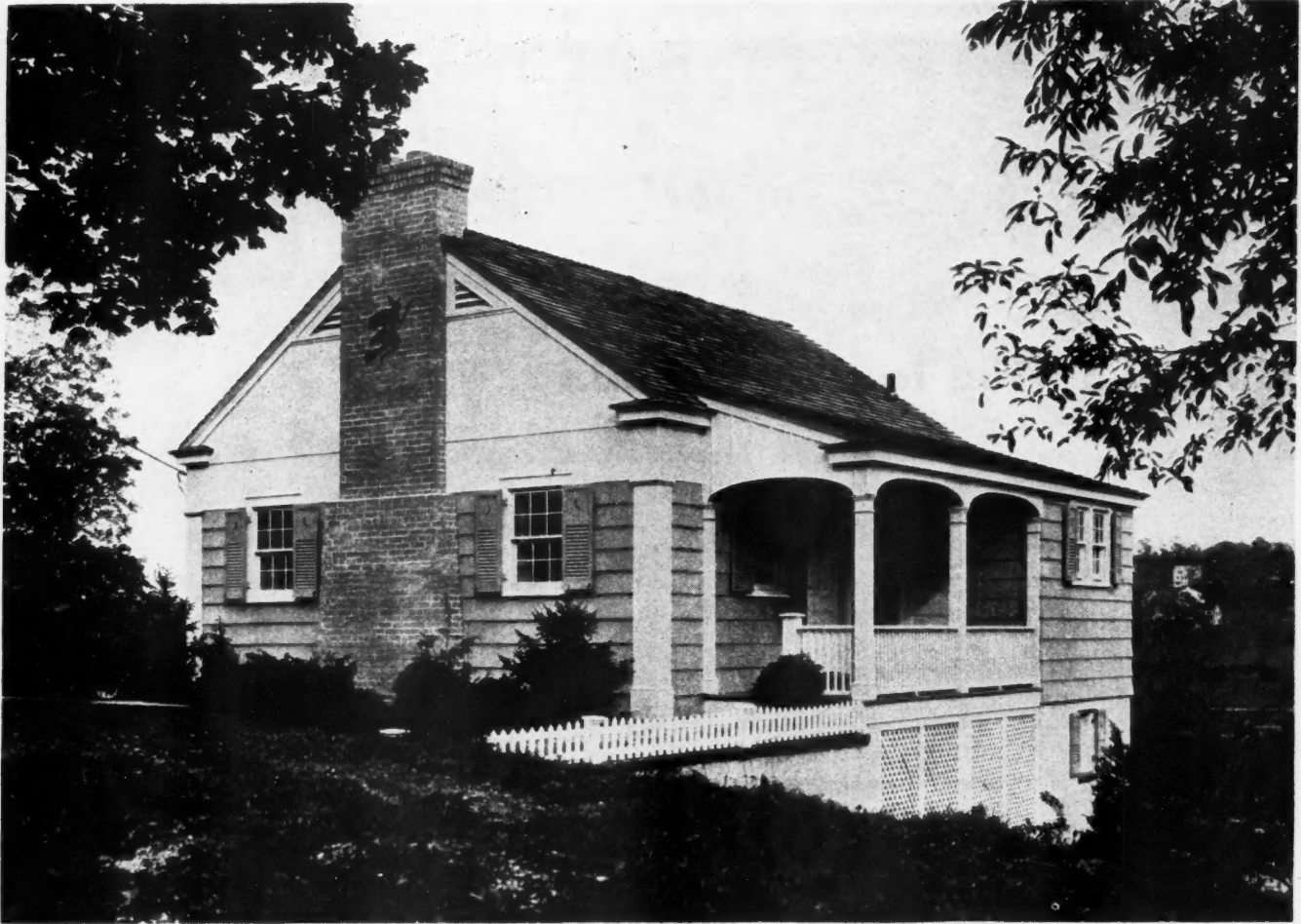
SO THAT FUTURE ADDITIONS CAN BE MADE, THIS HOUSE WAS DESIGNED by National Plan Service with especial care. Cost Key of the original plan is .792-95-564-25-12-8. Cost Key of the complete 5-room plan if built originally would be 1.195-133-933-39-16-17. If the additions are built later, the cost would be greater.



Hand Carving in a Log Cabin

E. B. QUIGLEY, ARTIST AND ILLUSTRATOR, of Portland, Ore., built the attractive cabin shown on this page, and did the remarkably fine carving illustrated. The lintel above the cabin fireplace, is 6 feet long by 16 inches wide and $3\frac{3}{4}$ inches thick. The carving is $2\frac{1}{2}$ inches deep in some places, and is done on a well seated fir plank. Mr. Quigley reports an active interest in wood carving for homes, clubs and churches as well as cabins.





THE HOUSE OF THE MONTH

Attractive Low Cost 3-Room Colonial

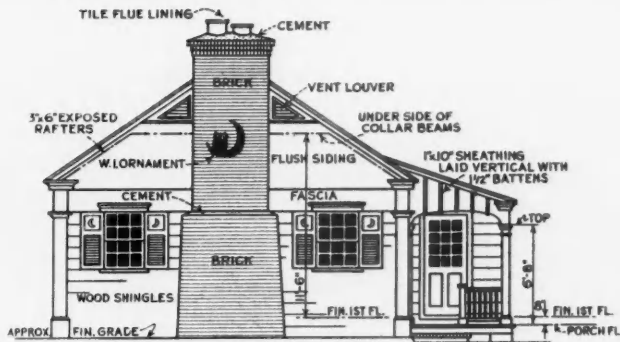
William P. Cain, Architect
The Homeland Co., New York, Builders

Cost Key 1.004-118-752-32-13-10

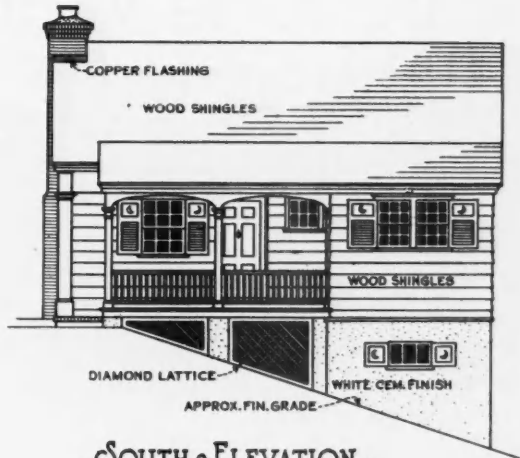
AS ITS HOUSE OF THE MONTH THIS ISSUE, the American Builder is glad to be able to present an unusually attractive Colonial of popular type that is thoroughly in keeping with the architectural trend of the times. The Homeland Co. of New York has designed and built a number of houses of this type which sell for less than \$4,000 exclusive of land. It is primarily designed for elderly couples who demand comfort and convenience with a minimum of upkeep expense and labor.

THE LARGE LIVING ROOM is the outstanding feature of the house, being 13 by 22 feet. It is worked out in Colonial fashion with knotty pine panels and beamed ceiling. The large fireplace dominates the room.

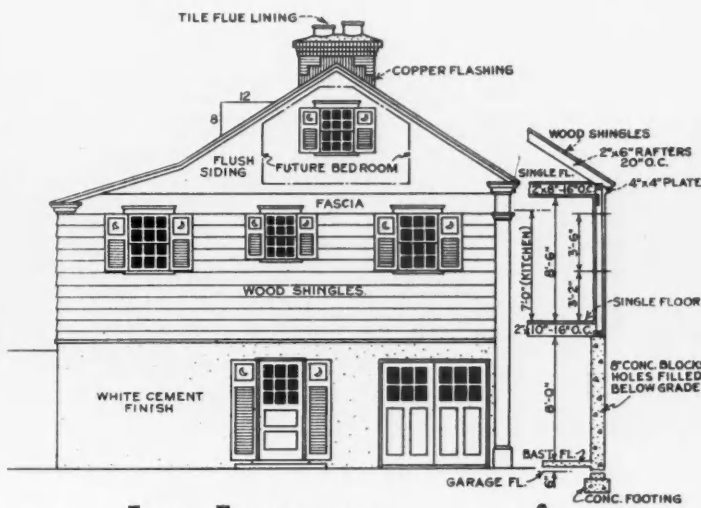
AN UNUSUAL FEATURE is the built-in garage which, due to the sloping of the land, could be located under the house. It is large enough to accommodate two cars and is in a very convenient position. While the attic is small, there is space enough for a future bedroom to be reached by means of disappearing stairs above the center hall.



• WEST • ELEVATION •

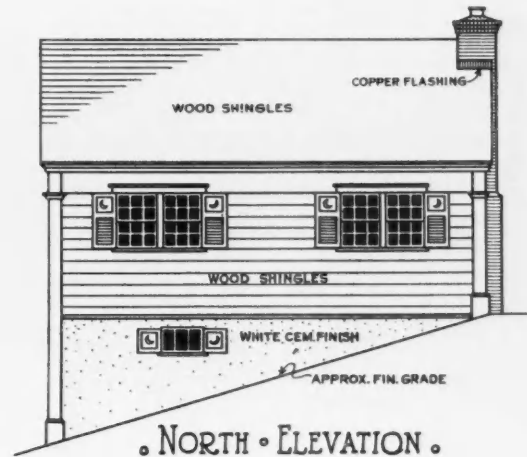


• SOUTH • ELEVATION •

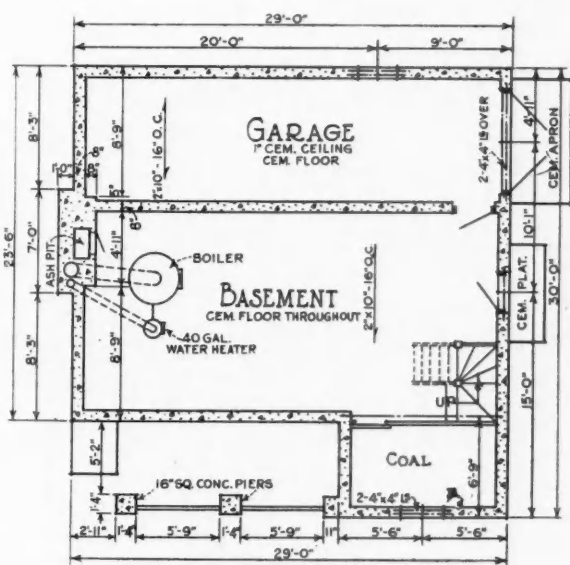
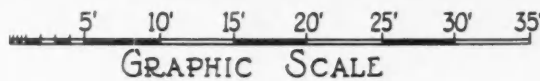


• EAST • ELEVATION •

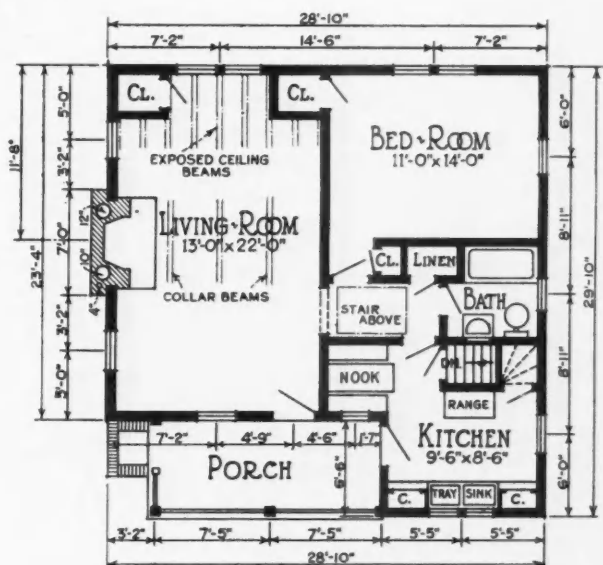
• SECTION •



• NORTH • ELEVATION •



• BASEMENT • FLOOR • PLAN •



• FIRST • FLOOR • PLAN •

CAREFULLY DRAWN DETAILS of three-room Colonial cottage designed by William P. Cain. Every detail is drawn accurately to scale, which is clearly indicated on the large graphic scale in the middle of the page.

Spare Time Work

Selected Designs from a New Manual Prepared for the Committee on Wood Utilization of the U. S. Department of Commerce

By H. CONRAD HOOVER

SO MANY have expressed delight in the "Make It for Profit" designs presented in the November magazine that we are offering three more projects for spare time work. These are from the new "You Can Make It" book from Washington.

These designs are popular and practical, well suited both to the amateur and the professional user of wood-working tools. They make useful and appreciated additions to one's own home, and in many places would, no doubt, find a market if offered for sale.

Little need be said of these pieces of home equipment since each is so fully portrayed by dimensioned working drawing and also in the itemized stock bills. Many lumber yards today are paying special attention to the requirements of manual training and home workshop devotees, stocking the materials needed and in some cases also providing printed directions for finishing the work.

Storage Chest

In small apartments, bungalows, or wherever there is a limited amount of storage space, a spacious chest which may be pushed under the bed will be appreciated. See Figure 7.

Material required.—Two pieces 25/32 by 9½ by 60 inches, sides A. Two pieces 25/32 by 9½ by 37 7/8 inches, ends B. One piece 25/32 by 11¼ by 60 inches, C. Sufficient 25/32-inch material for lid, D, 27½ by 60 inches. Sufficient 25/32-inch material for bottom, E, 39 by 60 inches. Four pieces 25/32 by 25/32 by 9½ inches, corner cleats, F. Two pieces 25/32 by 2¼ by 24 inches, lid cleats, G. Four plate ball-bearing casters.

Dog House

What is home without a dog? The dog house shown in Figure 8 is both practical and attractive.

Material required.—Two pieces 25/32 by 3¾/38 7/8 inches, A. Two pieces 25/32 by 3¾ by 28 inches, B. Sufficient 25/32-inch material for floor 28 by 40 inches. Sufficient 25/32-inch material for sides, D, 23¾ by 40 inches. Sufficient 25/32-inch material for ends, E, 26 7/8 by 23¾ inches. Four pieces 25/32 by 1¾ by 25¾ inches, cleats F. Two pieces 25/32 by 1¾ by 23¾ inches, cleats, G, on each side of doorway. Two pieces 25/32 by 2¾ by 40 inches, H. Sufficient 25/32-inch material for gable ends, I. Sufficient 25/32-inch material for side of roof, J, 22¾ by 48 inches. Sufficient 25/32-inch material for side of roof, K, 22 by 48 inches. Four pieces 25/32 by 1¾ by 21¼ inches, gable cleats L.

Pieces marked "A" and "B" keep the floor off the ground and the vent holes permit air circulation.

Modernistic Reading Table

The modernistic reading table shown in Fig. 64 will appeal to anyone carrying out the modernistic idea in the home.

Material required.—One piece 25/32 by 8½ by 31¾ inches, A. One piece 25/32 by 8½ by 48½ inches, B. One piece 25/32 by 8½ by 9¾ inches, C. One piece 25/32 by 8½ by 12¾ inches, D. Sufficient 25/32-inch material for end E and back F. One piece 25/32 by 8¾ by 8¾ inches, G. One piece 25/32 by 8½ by 10¾ inches, H. One piece 25/32 by 7½ by 8¾ inches, I. One piece 25/32 by 8½ by 34 1/8 inches, bottom J. One piece 25/32 by 8½ by 9 9/32 inches, bottom K. Two pieces 9/16 by 7 23/32 inches, L. Two pieces 7/8 by 7/8 by 15 1/8 inches drawer runners. Two pieces 7/8 by 7/8 by 7 1/8 inches, drawer runners. Two pieces 9/16 by 7 23/32 by 16 7/32 inches, shelves M. One piece 25/32 by 9 9/32 by 17 inches, N. Two pieces 25/32 by 8½ by 8½ inches, P. One piece 7/8 by 7 23/32 by 7 23/32 inches shelf, Q. One piece 25/32 by 8½ by 24 25/32 inches, R. Two pieces 7/8 by 8½ by 24 inches, shelves, S. One piece 7/8 by 1¾ by 12 inches, T. Two pieces 7/8 by 11 1/8 by 12 inches, doors, U. One piece 7/8 by 7 23/32 by 7 1/8 inches, drawer front, V. Two pieces 7/8 by 7 1/8 by 16 1/8 inches, sides of drawer V. Two pieces 7/8 by 6 27/32 by 16 1/8 inches for bottoms of drawers V and W. One piece 7/8 by 6 27/32 by 7 inches, back of drawer V. Three pieces 7/8 by 3¾ by 7 23/32 inches, drawer fronts W and X. Two pieces 7/8 by 3¾ by 16 1/8 inches, sides for drawer W. Three pieces 7/8 by 6 27/32 by 3 inches, backs of drawers W and X. Four pieces 7/8 by 3¾ by 7 1/8 inches, sides for drawers X. Two pieces 7/8 by 6 27/32 by 7 1/8 inches, bottoms of drawers X. Hardware for doors and drawers.

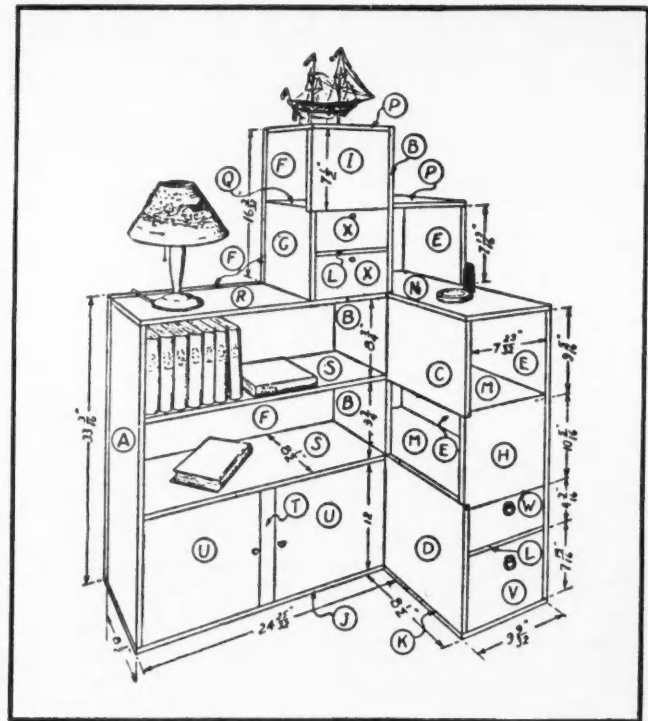


Fig. 9. Modernistic Reading Table

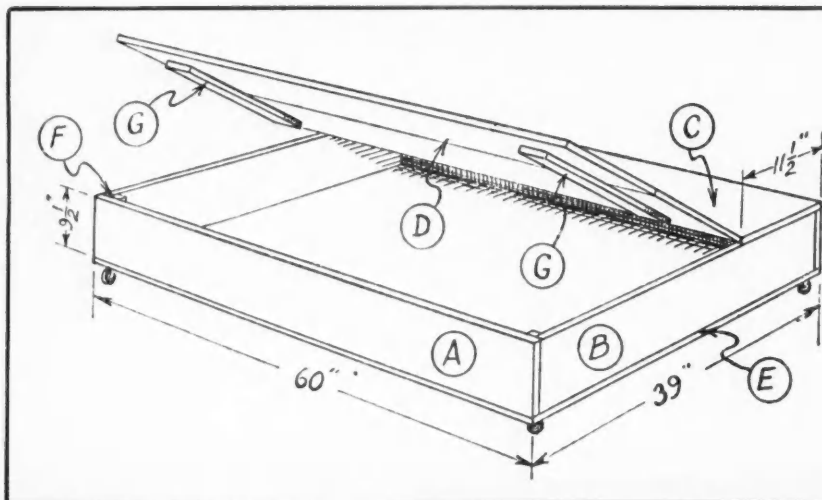


Fig. 7. Under Bed Storage Chest

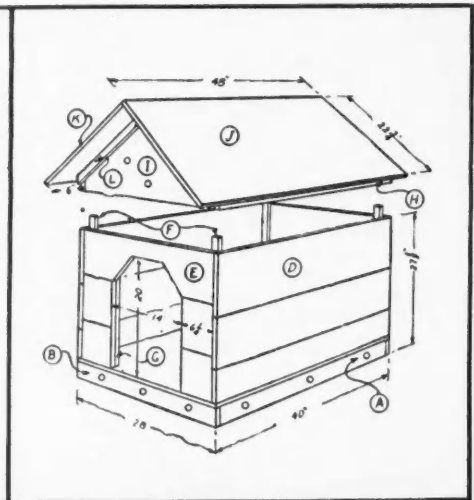


Fig. 8. Dog House



Before

THE Public Service Company of New Jersey recently "modernized" their Demonstration Kitchen at Newark with gratifying results. Although good equipment is always the important feature in a demonstration kitchen, new products and new schemes of decoration or efficiency make it necessary for displays of this nature to be brought up to date rather frequently. Miss Bessie Swann has received many compliments on her ability to incorporate

so much more color and cheerfulness in a kitchen which was already highly attractive.

Linoleum played a big part in this job, being used for both floor and walls, the colorful patterns separated by clever metal mouldings in chromium finish. Be sure to note the modern illumination above the monel metal sink and the toe-space provided below range, sink and cupboard; the ladies like these features.



After

"DEAR EDITOR—"

AND THEREBY we discover one of the most interesting modernization stories to date . . . told by a real operator . . . about a real job . . . with a reproduction of the actual correspondence, which we believe you will enjoy reading. . . .

—1—

Providence, R. I., November 18, 1933.

AMERICAN BUILDER & BUILDING AGE,
30 Church Street, New York, N. Y.

Gentlemen:—

Since our recent renovizing campaign in Rhode Island, we have modernized several homes. Our most interesting and difficult job was the modernizing of a 150-year-old farm house. We will be glad to send you the photographs of this project, "before and after" modernizing, if you are interested and agree to return the photographs.

Yours very truly,

AUGUST W. MENDE

—2—

New York, N. Y., November 22, 1933.

Mr. August W. Mende,
Providence, R. I.

Dear Mr. Mende:

Thanks very much for your recent letter about the modernization of the 150-year-old farm house. We certainly are interested in this job and hope you will send the "before and after" photographs at once. If possible, we would like to have sketches of the old and new floor plans, too.

Cordially yours,

E. L. GILBERT, Eastern Editor.

—3—

Providence, R. I., November 28, 1933.

AMERICAN BUILDER & BUILDING AGE,
30 Church Street, New York, N. Y.

Att: Mr. E. L. Gilbert:

Under separate cover I have forwarded the photographs of the farm house and rough sketches of the old and new floor plans, as requested. It may interest you to know that a natural spring was located in the cellar, making the basement very damp. A 2-inch layer of waterproof

cement had to be laid to block this spring. Also, in order to have electric lights and power for the appliances desired, it was necessary to run three miles of poles and wires through the woods to the nearest main thoroughfare for connections. The appliances which were installed were an electric water pump, electric oil heating system, electric range and refrigerator.

Yours very truly,

AUGUST W. MENDE.

—4—

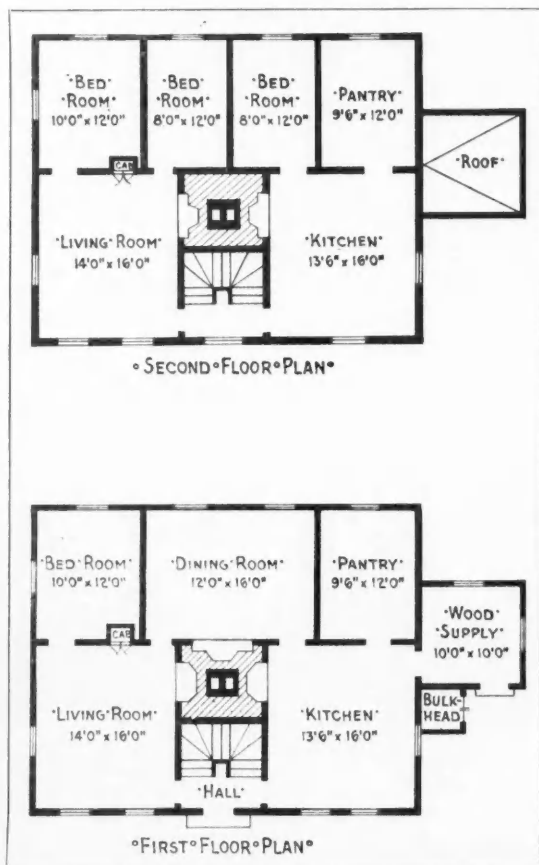
New York, N. Y., December 6, 1933.

Dear Mr. Mende:

Your letter of November 28th was indeed interesting, with its details of the farm house which was modernized. The two photographs and sketches arrived yesterday. If possible, we would like to obtain more information about this job, such as: the cost of specific items; the cost of the entire job; the advantages remarked by the owner, due to modernization. We would also like to know the exact location of the job. In fact, any further data you may be able to furnish will be most useful. Can you send this soon?

Cordially yours,

E. L. GILBERT, Eastern Editor.



The Old Farmhouse and original floor plan before modernization

—5—
Providence, R. I., December 8, 1933.

Dear Mr. Gilbert:

I am glad to send you the following information in regard to the modernizing of the farmhouse, as requested in your letter of the 6th.

This property is located in North Kingstown, R. I., near the territory of Queen's Fort (an old Indian fort) and approximately 18 miles from Providence. According to some of the legends, the spring in the cellar of this house was actually used by the occupants, when the Indians were on the war path and the people were afraid to go to the outside well for water.

The owner of this property first came to us several years ago upon the recommendation of one of our clients. At that time this man wanted an apartment renovated and re-modeled. No supervising architect was engaged on the job, for the owner had his own ideas of what he wanted and with our working knowledge he developed a very distinctive and individual apartment. The apartment job led to the farmhouse modernizing job; again the owner had his own ideas as to what he wanted and my men worked accordingly.

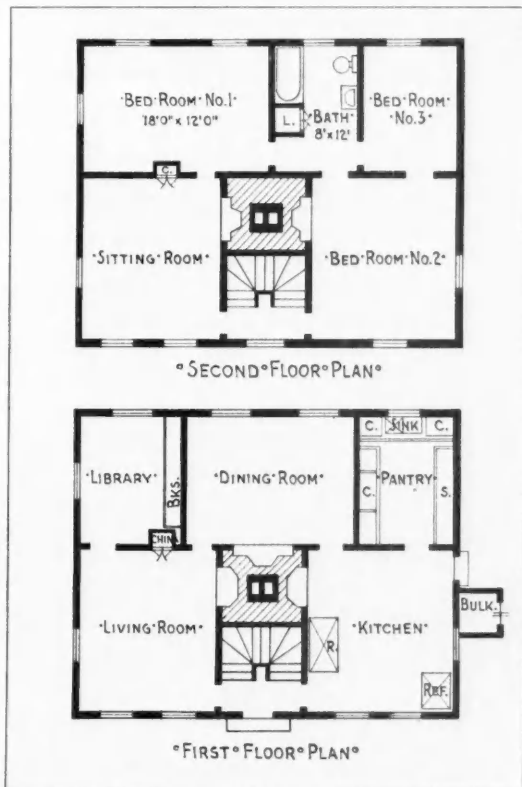
This 40-acre farm with farmhouse and barn was purchased

for the sum of \$2,500. No one had lived there for a good number of years and the buildings and grounds had been very much neglected; however, this old house with its historical surroundings was just what he wanted.

The old house is now livable the year around, with every convenience and plenty of room for guests, although the owner prefers to use it as a summer home with occasional holiday and week-end visits during the winter months. A



The Old Farmhouse as it looks today, after modernization



New floor plan after modernization

caretaker stays on the place all the time and has a room in the garage; the maid has a room in the attic. In keeping with its Colonial exterior, the owner has equipped the house with Colonial furniture.

The cost of modernizing is listed herewith. We cannot vouch for the exactitude of all the individual items, as some of the jobs were sub-let and cost figures cannot be separated easily. The total amount given, however, is correct.

ITEM	AMOUNT
All carpenter work and masonry for exterior, interior, attic & cellar	\$2,075
All work, modernizing barn for use as garage and room for caretaker	675
Painting and papering interiors	225
Electric poles and wire from main thorofare (3 miles away) to house	700
Plumbing, bathroom fixtures & oil heating system	1,000
Electric wiring and fixtures (house)	215
Electric appliances: water pump and connections; electric range; refrigerator	450
Landscaping: brush cleared, walks made, grass sods, stonewalls	1,000
Total	\$6,340

The owner has been offered \$10,000 by several people who have seen this estate now, whereas the same people advised against this project at the beginning. The owner says this farm will not be sold.

This is about all the information that we can give you, and trust it is sufficient.

Very truly yours,
AUGUST W. MENDE.

A New Porch Added to Home



VIEW OF THE W. H. SHAFFER, JR., HOUSE at Mt. Lebanon, Pa., before addition of porch, terrace and pool. North elevation was unsatisfactory

THE interesting addition of a porch, terrace and pool to the home of W. H. Shaffer, Jr., of Mt. Lebanon, Pa., pictured on this page shows what a lot can be accomplished for little money these days. According to Mr. Shaffer, the work was done in 1933 at a cost of 60 per cent below estimates made in 1931. At that time he had the plans drawn up and obtained bids from four contractors. All assured him this would be a hard job and mentioned the difficulties involved to such an extent that he called it off. When bids were again taken in 1933 the price was 60 per cent less than the lowest in 1931.

The north elevation of the house had never been altogether pleasing to the owner or the architect. It was decided to modify the north and the east elevation, and add a porch, terrace and pool that would add to the features of the rear lawn and flower garden. The job is typical of many that will go ahead in 1934, as funds for home improvements become available.

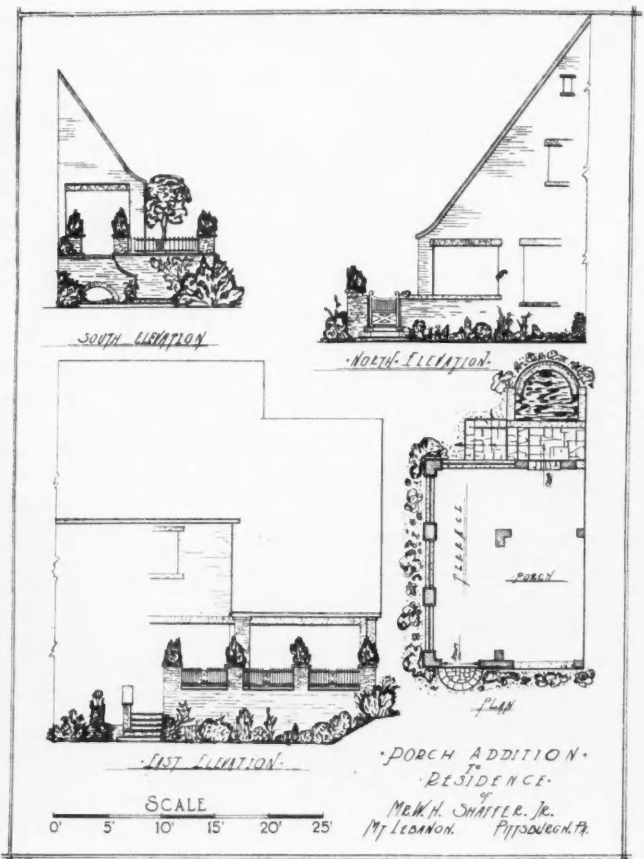
Among the materials employed are brick, steel beams, wrought iron for railing, steel mesh reinforcing, lumber, shingles and cement. The house, which was built four years ago, was one of the first steel frame structures in the Pittsburgh district, employing a super-wall construction in which the brick veneer is backed up by one-inch cement slabs reinforced with ribbed steel lath.



CONSTRUCTION OF ADDITION in progress, showing workmen applying reinforced steel mesh for concrete backing of face brick



VIEW OF SHAFFER HOUSE as new addition nears completion. Cost of work was 60 per cent less than a 1931 estimate



ARCHITECT'S DRAWING SHOWING DETAILS of porch addition, which added greatly to beauty of home. Careful planning was necessary

New Style for Office

Reception Room of Minnesota and Ontario Paper Co. Offices at Minneapolis Rebuilt in Modern Style

A DRAMATIC example of modernization of commercial space for purely business motives is the recent transformation of the Minneapolis offices of the Minnesota and Ontario Paper Co. Located on the 11th floor of the Builders Exchange Building, the space occupied was the customary office layout, practical and supposedly efficient but entirely devoid of "styling" in present day standards. The "before" picture below shows the lobby just as it was for many years since the building was first erected. It presented a vista of glass, shining marble and a terrazzo floor. The ceiling was hard plaster, trowled smooth. The room lacked warmth and receptiveness and among other things was improperly lighted.

When the decision to remodel the lobby entrance was reached it was decided that, as far as possible, only those materials would be used which were manufactured by the various companies subsidiary to the Minnesota and Ontario Paper Co. Exclusive of the companies manufacturing paper and allied products, the ones that collaborated in the decoration of this lobby entrance were the Insulite Co. and the International Lumber Co. The single exception was in the case of the chromium bands which separate the courses of insulite hardboard. This material was supplied by the Chicago Metallic Sash Co.

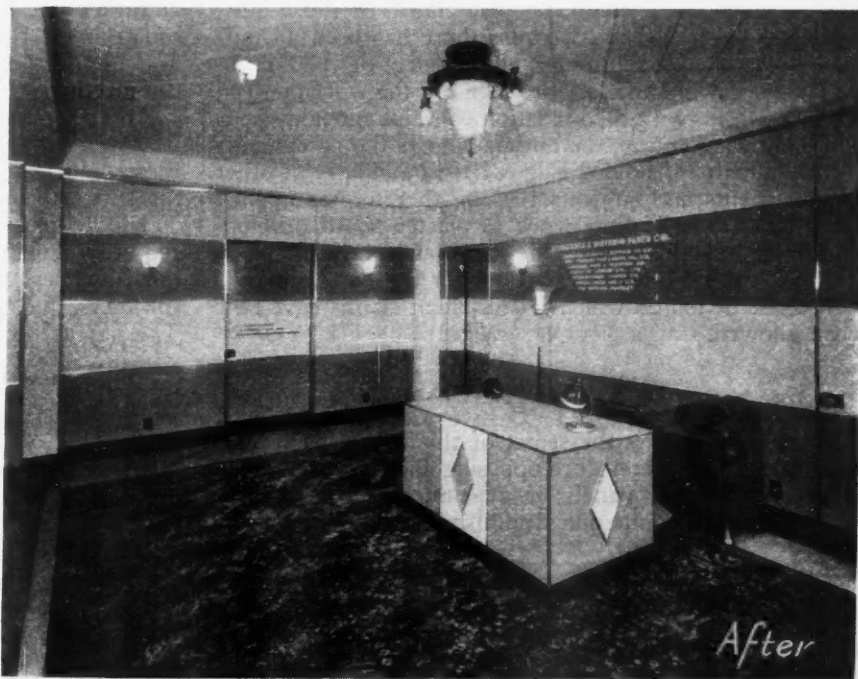
The thought motivating this modernizing job was to produce something modern and yet to incorporate the feel-

ing of warmth, hospitality and comfort. It also gave this manufacturing organization the opportunity to make an interesting and attractive display of its materials and to demonstrate to architects, contractors and builders a new use for them.

Furring out from the walls, the succeeding courses of hardboard were applied to the framing. The chromium strips are equipped with a flange on either side into which the hardboard fitted closely. The doors in the photograph marked "before" are the same doors shown in the photograph marked "after" except their having been covered with hardboard and decorated with the same chromium strip treatment as the walls.

The corner pilasters are knotty pine furnished by the International Lumber Co.

The ceiling is insulite acoustile. The desk is the old one to which has been added an "overcoating" of hardboard and chromium strips.



Above: The completely restyled lobby is a dramatic demonstration of company products. Side walls are alternate courses of light and dark hardboard finished with two coats of prepared wax

To left: Typical of hundreds of thousands of old style offices, this Minneapolis reception room invited complete rebuilding in which flat bands of hardboard took the place of marble and glass, and acoustical tile covered the hard plaster ceiling

No Cracks with New Plaster Board Joint

Description of new Flexor joint system for applying Plaster Board

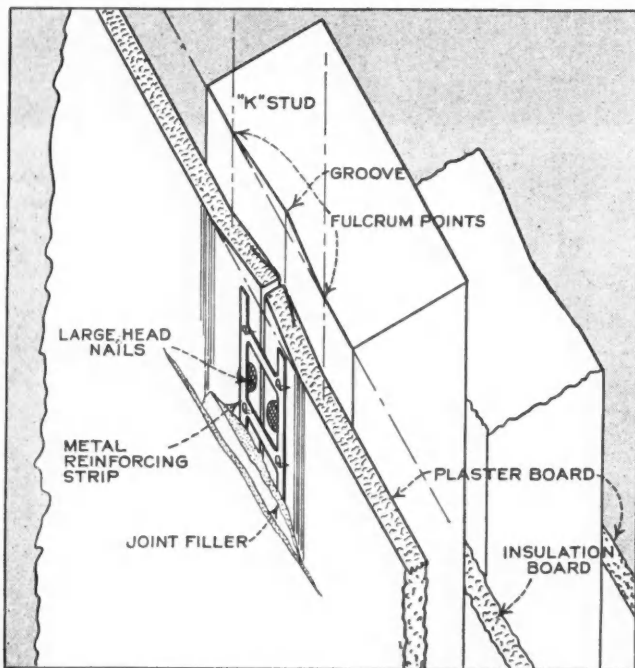
By C. W. UTZMAN

THE stumbling block in gypsum wall board construction, which for nearly a quarter of a century has bothered engineers and builders alike, is passing out. A hope, long deferred, has materialized. The perfect concealment of joints easily and effectively is no longer an operation requiring finesse or the special skill of a trained operator. The ability of the average mechanic is sufficient. Yes, surely! there are fine examples of wall boarding to be found, but where and at what expense were they done? The vast first class construction field has remained quite immune to the charm of the beautiful big panels. Why? Because there has been no universally acceptable solution of the problem of joint elimination—one which the architect knows the workmen can easily do—one with a foundation of value outside itself.

To such a solution, the author who is the patentee of the Plaster Board Folded Edge of 1912 and later of other improvements and subjects relating thereto, has applied the results of a lifetime work in plaster board development and methods to get this material rightly placed in service. An outline is given now for the first time of a new construction on which broad patent claims have now been allowed.

"K" Stud the Key

A grooved stud is the secret of this new system. By co-ordination of heretofore opposing factors, the smooth machine-made dry panels of gypsum board are solidly erected and the joints quickly finished off absolutely flat.



View of 4 inch insulated wall cut open to show method of construction. The "K" stud is a 2 x 4 set flatwise; one face is grooved slightly to give a depressed plasterboard joint in which the stress comes not at the joint line but back at the fulcrum points. Mr. Utzman believes that this simple improvement in plasterboard application is destined to open up vast new markets for this material

They may be reinforced if desired. There is no sand-papering or fussing. A good kalsomine or paint decoration obliterates all traces of the joining. The heretofore impracticable is made easy because these new plaster wall board joints are built depressed instead of flat or flush.

The sketch reproduced shows one form of the construction. In the stud will be seen the master (K) foundation or groove. Note the adequate bearing for the edge of each wall board sheet. The fulcrum points on the face of the stud give a toehold which deflects destructive vibration stresses away from the joint. In customary construction, the broken cement and reinforcement show how the greatest resistance may be concentrated right at the meeting of the two panels.

Another improved detail is a special nail with the large bearing under the head. It is of paper thinness. With these nails, the core is not crushed but solidly flexed to the support, making a depression.

The flexor system, as I call this new method, does not require folded edge boards or patent covered products to deliver its message. Should the edges be a bit off in thickness, this system absorbs the variable in its ensemble. The surface of the board forms a natural screed over which a stiff straightedge afterwards strikes off the cement filled depression. The ease of filling and leveling off the joint is at once apparent.

Encourages Sound-Stop Partitions

Turning the stud supports sideways to get adequate bearing for the edge of the board makes possible much narrower partition widths. When the usual 4-inch width is maintained, the new arrangement allows the insertion of sound stops between studs.

The device for flexing the edge down may be put into the support, as shown in the sketch, at the planing mill. The timber then has an increased value.

In place of this grooved or K stud, as it is called, a paper fulcrum strip may be laid on the face of the stud over which the edge is drawn.

The sketch shows a standard run plaster board which will give a very satisfactory effect. For the higher class of work, thicker board specially run for the flexor system may be used.

One Type Board For All Uses

Another phase of the flexor method of joining plaster board, important alike to manufacturer and consumer, is the dual character and value it gives to the product. The same kind of board that lines the garage may, with this system, also line the drawing room. One may be nailed with butted joints and left unfinished. The other may have flexor joints in perfect concealment.

Actual field work of new construction surfaced with $\frac{3}{8}$ inch regular stock gypsum board, insulated throughout, after more than a year of service, has had the unqualified endorsement of the owners.

With a full understanding of its effect on the character to the whole structure, this new way of applying gypsum board opens doors in every direction to new and better business.

New Joist and Plywood Floor Panel Tested

A NEW TYPE of floor panel built on a principle borrowed from airplane design is demonstrating high strength and efficiency in tests at the U. S. Forest Products Laboratory. Among the possibilities indicated are a substantial increase in speed of floor construction, a considerable saving of materials, and a distinct gain of head room in each story by the use of the new units, in which plywood sheets are glued to the top and bottom of several joists.

The new panel is regarded as a contribution to the idea of wood housing of unit construction. The top plywood, which is relatively thick, serves as a subfloor, and the thinner bottom plywood forms the ceiling for the room below. By virtue of its being glued to the joists, the plywood helps to resist the bending stress, forming what is now called in airplane construction a "stressed covering"—that is, a shell which not only distributes but to a large extent relieves the load on the framework which supports it. In the present experiments it has been determined that, for spans common in house construction, the required strength and stiffness can be obtained with nominal 6-inch joist instead of the usual 10-inch joist—a net saving of 4 inches in the thickness of the floor system.

Of the panel types tested, that which appears to offer the best possibilities, in the opinion of George W. Trayer, engineer in charge of the investigation, is one having a width of 4 feet, with a nominal 2 by 6 inch joist on either side and one of the same size running down the middle, the side joists being grooved at mid-height to receive a spline connector, top covering five plies thick, and bottom covering three plies.

The accompanying illustration shows a "practical" loading of two 2-foot panels laid together over a span of 13½ feet. In this width, the joist down either side of the panel was resawed to half thickness, and one joist of full nominal thickness occupied the middle. The "live" load as shown, minus the piano, weighed 2,806 pounds, representing 100 pounds in excess of the residential floor load of 50 pounds per square foot commonly allowed in building codes.

Under this excess loading, the deflection of the panels at the middle was only 0.26 inch, whereas 0.45 inch deflection was allowable under the ordinary rule of 1/360 of the span. Commenting on this very strong showing, Mr. Trayer pointed out that extra quality material was used in the joists. "For the ordinary run of commercial joist," he said, "we should expect a central deflection of about 0.36 inch in a glued-up panel of this specific type under a uniform loading of 50 pounds per square foot. Of course, that would be quite within safe allowances.

"However, the panel two feet wide does not seem to be the ultimate in economy possible. Counting the resawed and full joists together, it is seen that the equivalent of four joists occupies the four-foot width of panel in the group picture. For practical fabrication, we prefer a unit four feet wide, made up with three joists of full thickness. As a matter of fact, the joists have less to do with the strength of this kind of floor than one might think at first glance. What we have, and it comes as a direct result of gluing instead of nailing, is a series of box girders, in which the main tensile and compressive stresses are thrown into the plywood 'flanges.' The joists serve excellently as web and spacing members. The net result is that a 3-joist 4-foot unit turned out as effective for all practical purposes as the two in the



Testing new airplane design floor panel of joist and plywood at U. S. Food Products Laboratory

group picture. At an equivalent load and figured for the average run of commercial material, it gave only 10 percent more deflection, and a full 15 percent less than the common building code allowance."

The plywood used in the tests was 5-ply on the upper or subfloor face and 3-ply below for ceiling. The grain in three of the five plies above was placed crosswise of the joist for the better distribution of the load between joists, and in two of the three plies below the grain was placed lengthwise of joists so that maximum lengthwise grain might be presented to carry the tensile stresses.

Are Fewer Trades Possible?

BY NELSON L. BURBANK

A STUDY of the 30 major building trades shows many points of similarity. Since instruction programs are so extensive and the demand for trained specialists less than ever before, could not the training for many trades be combined? Could not kindred trades be taught together so that the worker would be more in demand? Not jack of all trades but master of kindred trades whose services would be in much greater demand than a one trade specialist.

The following list classifies the 30 major trades into 12 groups, for instruction purposes. Laboring and hod carrying not included.

- | | | |
|--------------------------------|----------------------------|------------------------------|
| A. <i>Asbestos trades</i> | Asbestos work | Structural iron work |
| B. <i>Carpentry trades</i> | Carpentry | Ornamental iron work |
| C. <i>Glazing trades</i> | Glazing | I. <i>Painting trades</i> |
| D. <i>Heating trades</i> | Furnace setting | Painting |
| E. <i>Hoisting engineering</i> | Hoisting trades | J. <i>Roofing trades</i> |
| F. <i>Lathing trades</i> | Lathing | Roofing (Composition) |
| G. <i>Mechanical trades</i> | Electrical work | Roofing (Slate) |
| | Electrical fixture hanging | Roofing (Tile) |
| | Plumbing | K. <i>Sheet metal trades</i> |
| | Steam fitting | Sheet metal work |
| | Elevator construction | L. <i>Trowel trades</i> |
| H. <i>Metal trades</i> | Rodmen | Bricklaying |
| | | Cement finishing |
| | | Marble setting |
| | | Plastering |
| | | Stone Masonry |
| | | Tile setting |
| | | Terrazzo work |
| | | Stone cutting |
| | | Stone setting |

Trained journeymen versed in several trades would at once have distinct advantages over others; some of which are:

- A. Days of employment per year would be greater.
- B. More master mechanics would be needed.
- C. Unfit or unsuited workers would be eliminated.

Re-grouping and combining of allied skills and technical information would be possible by careful study on the part of the present teaching corps. The entire construction field would benefit by greater co-ordination and co-operation.

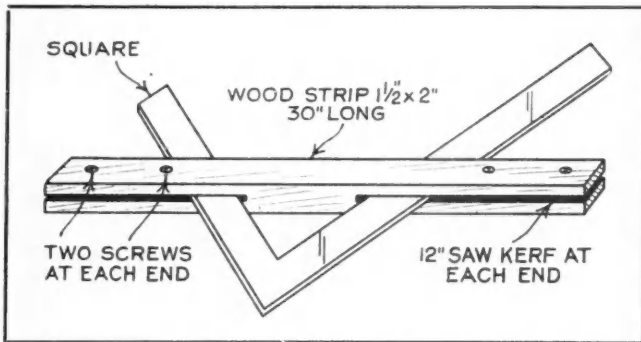
PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to American Builder is paid for each item published. State business connection or trade.

Fence for Stair Marking

HERE is a little "Job Pointer" which you might like to pass on to other readers.

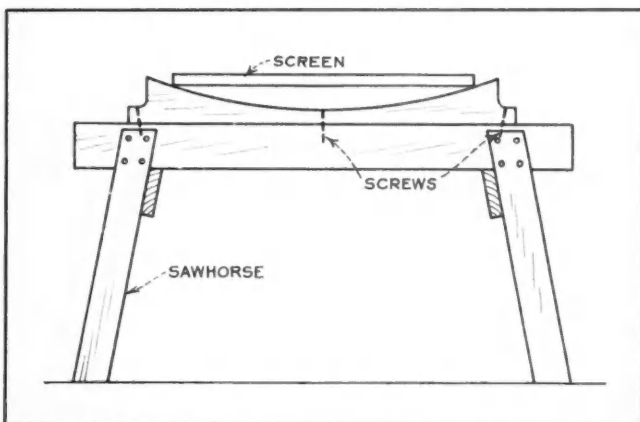
I find that instead of going to the expense of buying a pair of metal stair gauge fixtures to attach to their steel squares when cutting stair stringers or rafters, most carpenters go without. This causes uneven marking, and sometimes mistakes. Here is a wooden fence that can be made of a strip of wood $1\frac{1}{4}$ or $1\frac{1}{2}$ " thick, $1\frac{3}{4}$ or 2" wide and 30" long. Saw kerfs are cut in from each end, leaving from 6 to 8" of solid wood in the center, as shown. Two holes are bored through each end, and two screws are inserted, as shown, to bind the fence on the square.—ROMEO LAROSE, Rochester, N. Y.



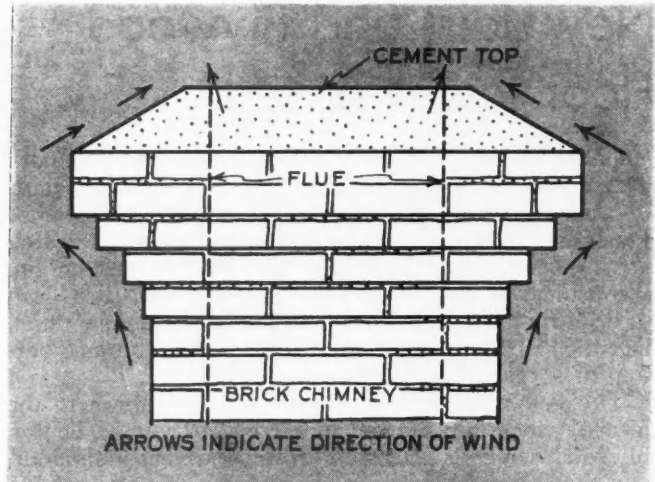
This fence saves cost of metal stair gauge fixtures

Simplifies Screen Painting

AN easy and efficient method to paint or varnish screens and storm sash is shown in the accompanying sketch. Screw a $1\frac{1}{8}$ x 5" piece, cut out as shown, to each horse. When not in use it can be removed and stored for further use. I know this is good because we use it constantly in our screen and storm sash work.—W. R. BLUHM, Finlay Construction Co., Rochester, N. Y.



Curved piece on saw horse used in handling screens



How Elizabethtown, N. Y., builder shapes chimney tops

Smokeless Chimney Top

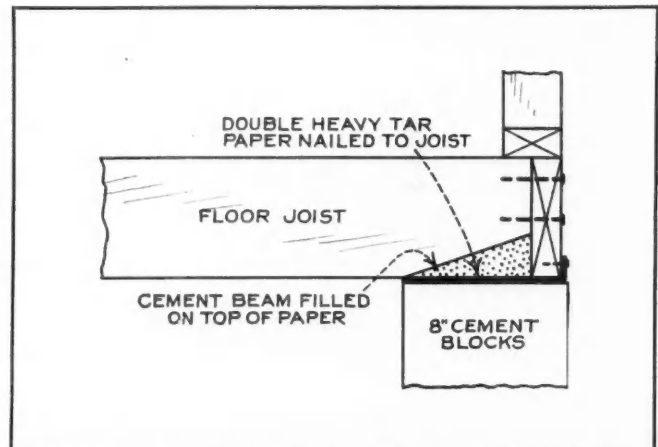
WHILE reading your magazine today I happened to see an item in the "Job Pointers" which was a big help to me. So I am sending an item which will be of help to someone, I hope. If this misses the waste basket, I'll endeavor to try again.

When the wind strikes the top of the ordinary straight flat-top chimney, it curls over and enters the chimney, forcing the ascending smoke and air down again. This trouble can be readily overcome by topping the chimney as shown in the drawing, which causes all air currents to move upward and away from the opening. A chimney so built need not be so high as the ordinary type, especially where roofs pitch up and away from it. In repairing old, broken chimneys it is worth while to use a few bricks and cement to make them conform to this shape. A chimney should have 1 foot of draft to every 10 square feet of open fireplace, in order to draw properly.—LEIGHTON COLLINS, Elizabethtown, N. Y.

Keeps Out Basement Wind

I AM sending in a sketch of our system of beam filling to make a house wind-proof at the foundation, as we have done on about 12 houses a year for the past seven years. It would be surprising the amount of fuel that could be saved in heating if all builders would do the same, as I have found out in repair work.

After the floor joists have all been laid, they are lifted just enough to insert a piece of heavy folded tar paper which is nailed in place. Then the beam is filled, keeping the cement out of the blocks at the same time.—ARTHUR BRUNDAGE, Rochester, Minn.



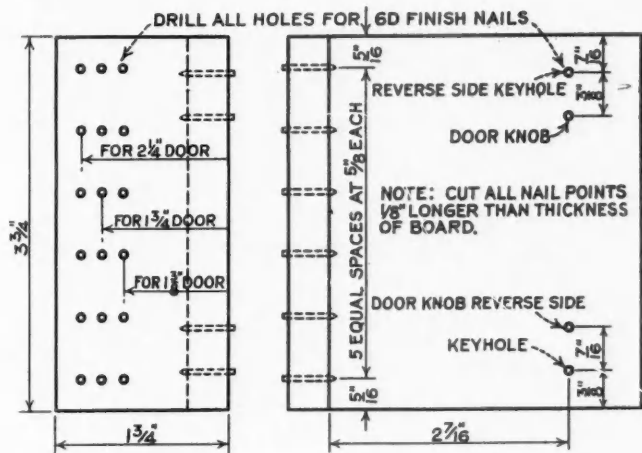
Cement on tar paper used to keep out wind

Template for Locks

HERE is a sketch showing a template I use when I put in locks. It is made of 1/2" lumber, usually scrap pieces of base or casing. The holes are made a little smaller than a sixpenny finish nail to keep them from falling out.

I hold the template on the door at the correct height and give each nail a tap with the hammer. This marks the point to place bit for boring all the holes for door knob, keyhole and mortise. It is a very accurate and quick way of marking. The holes for the mortise are all uniform which makes work with the chisel easy. It can be used for different thicknesses of doors by pulling out the nails with a nipper or plier and placing them in the right row of holes.

If you do not use a 3/4" or 1 1/8" bit for the keyhole, but use a 3/8" bit and keyhole saw, the nail for the keyhole would have to be moved up to the right place.—EDWIN E. LARSON, Ne-koosa, Wis.

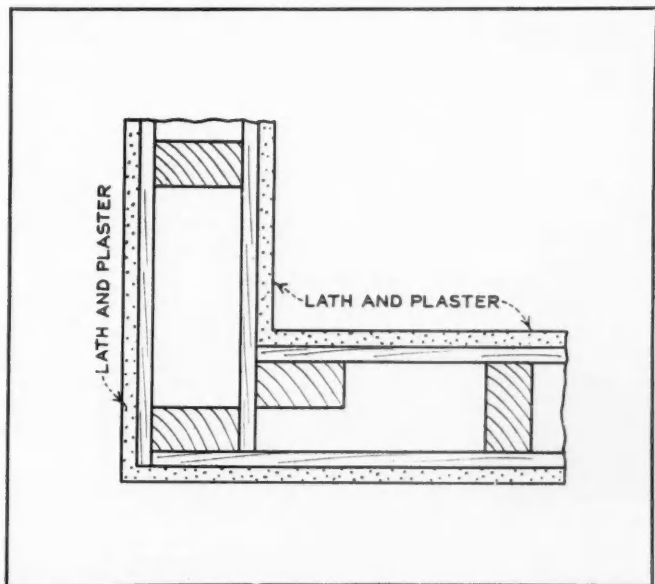


Template simplifies placing door locks, knob, mortise

More on Corners

I AM enclosing a sketch showing another corner framing idea. It is a method whereby one 2x4 can be saved on a corner of an inside partition with both sides plastered where it is not necessary to have so many 2x4's for supporting structural members above. By this method two 2x4's are used for a corner instead of the usual three and yet all ends of lath are nailed.

The corner may be stiffened by spiking one short 2x4 between



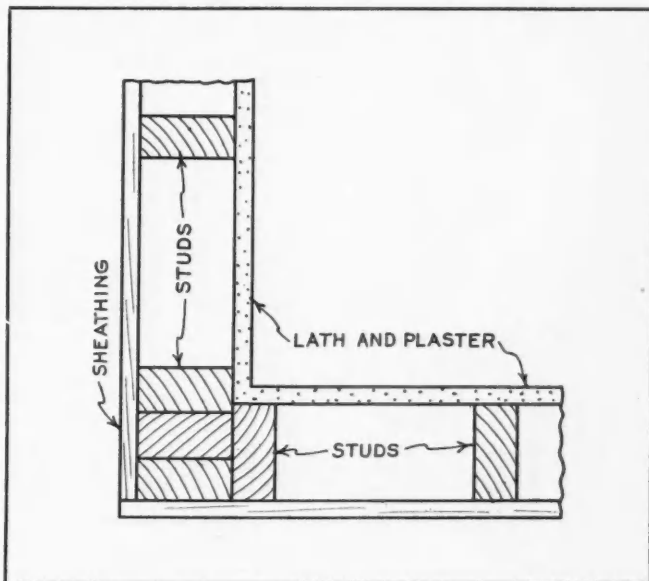
Another builder sends in his corner framing idea

line studs in one partition (half-way up) to first stud in partition running at right angles from it. This 2x4 should extend 3/8" beyond face of studs (or flush with lath) and plaster applied direct to it.

Regarding the corner method described in the October issue: this method is used extensively, but contrary to the description given, it does need a 3/8" padding or shim on inside. Two pieces of 2x4 (1 5/8" x 3 5/8") spiked together would make corner only 3 1/4" which would not line with both sides of partition studs which are 3 5/8".—CHESTER HIBBERD, Hibberd Brothers, Builders, Centerville, O.

Still More on Corners

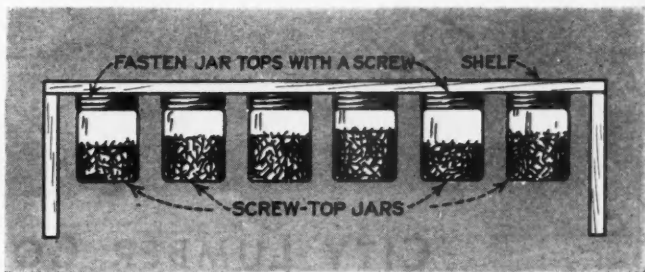
BUILDING up a corner stud out of 2x4's as told by Mr. Linton in your October issue is all right for 2x4's, but here our 2x4's measure 1 3/4" x 3 3/4". We use a short piece of 2x4 about 1' long for blocks as shown in sketch. In an 8' corner stud we use three blocks. In this way we get a perfect corner.—WM. F. DAVIS, Carpenter & Bldr., Rome, N. Y.



Rome, N. Y. builder constructs corners this way

For Nails and Brads

A GOOD method of keeping small brads, nails, etc., where they will be instantly available without guessing, and at the same time protected from dampness and dirt, is one I use as follows: Take as many small screw-top bottles as you have different kinds of articles to keep, and fasten these to a shelf by putting a screw through the top of the jar into the under side of the shelf, then the jar can be screwed into the top or cover, which holds it in place until wanted, and the top or cover is never mislaid. A turn or so frees the jar wanted and replaces it, and the contents are always visible.—REN M. LEE, Morro Bay, Calif.



Fruit jars keep nails and brads clean and easy to get

Clearing Decks for the New Deal

By L. R. PUTMAN
Marketing Editor, American Builder

THE smart manufacturer is constantly looking over his product to see if there is anything he can do to make it more attractive and interesting to the prospective buyers. Sometimes he finds a slight change that, when made, causes his sales to take a spurt. The automobile people have been leaders in modernizing their product and thereby have been outstanding in their successful merchandising.

The building industry, while not so well organized as the automobile and other more modern industries, has the same problem in competing for the public dollar. In the complete home we have something to sell. Right often it is a question in the minds of the family as to where the five hundred dollars it has saved up shall go.

Shall it be used for a down payment on a new home, a new roof on the old house, a new bathroom, repairs and paint, or shall it go for the many things the family is urged to buy? And this urge to buy is keeping up the sales on a lot of merchandise.

Some say that what the home needs is finance. In this the AMERICAN BUILDER heartily agrees, and is backing its judgment with a most comprehensive campaign to divert Federal funds into the home building field. But there has been, and still is, plenty of money to finance automobiles and many other expensive items bought on deferred payment plans, and yet the pro-

ducers find it necessary to develop new sales appeal.

As we have said so many times, this home building business is in the hands of the local builders. No man can sit in New York or Chicago or even Washington and successfully do a home building business in your town. A large mail order concern recently found that out and quit trying. It hopes to continue shipping building materials in a national way. How successful it is depends upon the intelligence and co-operation of the local building interests. When I see headlines in newspapers telling of the great increases in sales by the big city mail order houses, it seems to me a reflection on the local dealers throughout the country. What is the principal sales appeal sent out by the mail order houses? It's true they have some of the best advertising writers they can get but price is the principal appeal and they adhere strictly to a cash and carry basis.

These mail order fellows cut all the corners and have standardized their operations to a high degree. Even much of their correspondence is standardized. One man wrote back to the mail order house that he was short an automobile tire in his last shipment and to please send it to him. In due time he got a letter from the "Automobile Supply Department" which read in part, "Kindly examine the saw dust in the box containing the shipment referred to and you will undoubtedly find the missing article."

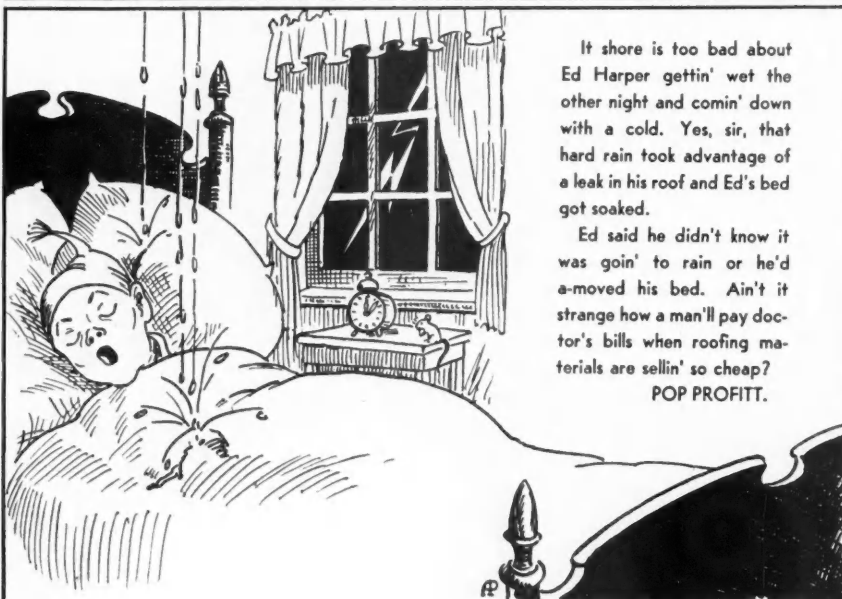
The customer who got the letter thought it seemed a little thick and on examination, found there were two letters stuck together. On pulling them apart, he found his original letter had become stuck to the back of the mail order reply. Across the face of the customer's letter the mail order complaint man had written with a blue pencil, "Send this duck our stock form number 211-G."

Now, a lot of folks seem to think that NRA spells Santa Claus. It is or can be made a wonderful aid to business. That's the President's aim, but it isn't meant to be a Roman holiday for folks who have stuff to sell. Minimum prices can be set by any group but that doesn't mean that the public will pay them. The railroads set minimum prices on their passenger and
(Continued to page 57)

CARTOONS ARE SELLING GOODS

4th of American Builder Series of Free Adv. Suggestions

FIX THAT ROOF



It shore is too bad about Ed Harper gettin' wet the other night and comin' down with a cold. Yes, sir, that hard rain took advantage of a leak in his roof and Ed's bed got soaked.

Ed said he didn't know it was goin' to rain or he'd a-moved his bed. Ain't it strange how a man'll pay doctor's bills when roofing materials are sellin' so cheap?
POP PROFITT.

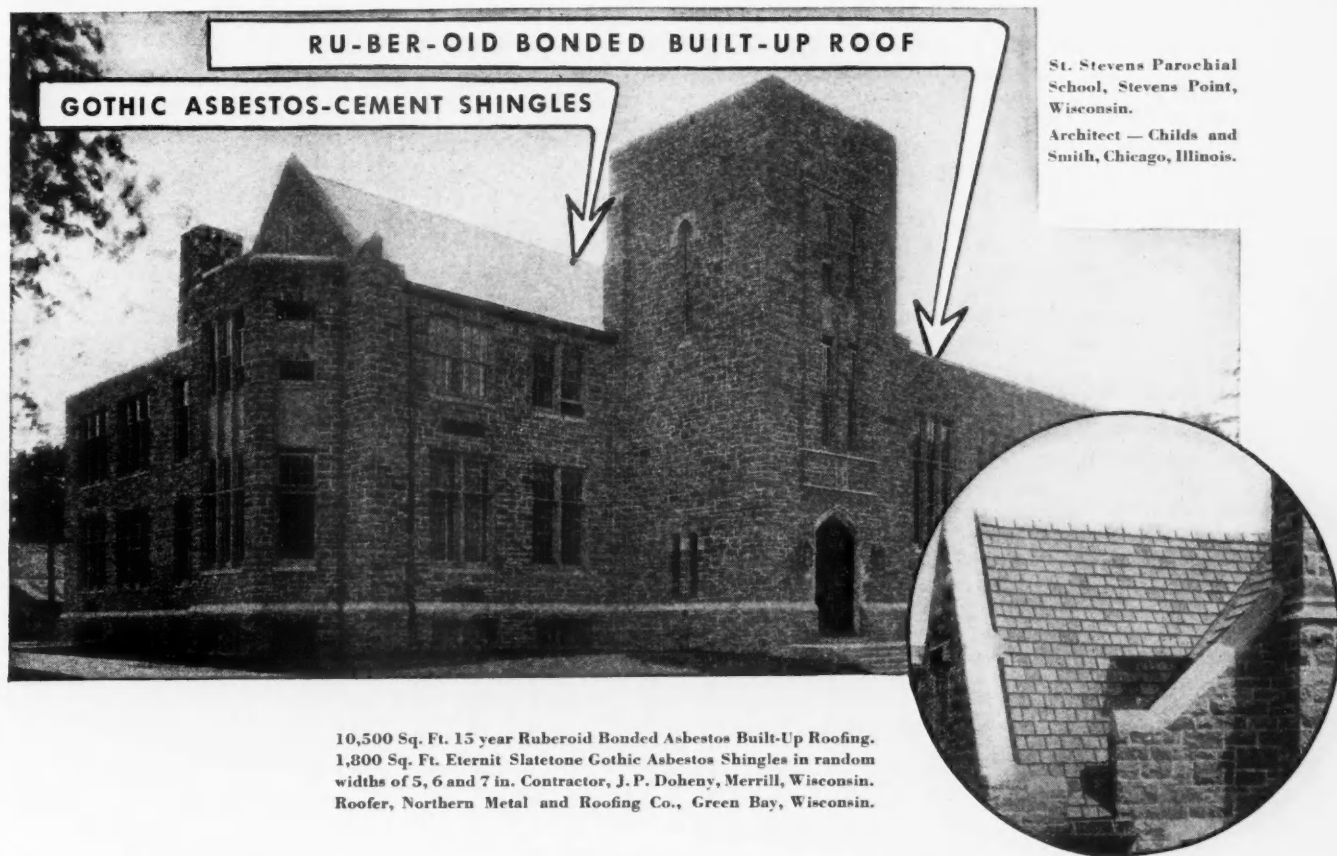
CITY LUMBER CO.

711 CENTER STREET

PHONE 524R

Mr. Putman has written this local newspaper advertisement for any dealer or builder who wants to use it. Your local newspaper can engrave the illustration direct from this proof

Two Types of Roofing Selected for School Job—Both RU-BER-OID



St. Stevens Parochial School, Stevens Point, Wisconsin.
 Architect — Childs and Smith, Chicago, Illinois.

10,500 Sq. Ft. 15 year Ruberoid Bonded Asbestos Built-Up Roofing.
 1,800 Sq. Ft. Eternit Slatetone Gothic Asbestos Shingles in random widths of 5, 6 and 7 in. Contractor, J. P. Doheny, Merrill, Wisconsin.
 Roofer, Northern Metal and Roofing Co., Green Bay, Wisconsin.

No matter what type of construction you desire to build or modernize, if the job requires a good roof you can centralize your roofing responsibility on The Ruberoid Co. Today in the Ruberoid line there are asphalt shingles and roll roofings: Asbestos-Cement Shingles and Built-Up Roofing in types, styles, weights and finishes to fit every class of construction and in the price range of every purse. For over 40 years The Ruberoid Co. has devoted its entire energy to providing quality

roofings and building products. How well this company has succeeded may be judged by Ruberoid's constant widening of its line of products and the reception of these products by leading architects and contractors the world over.

When you have roofings to select, centralize this responsibility on RU-BER-OID. Your Ruberoid Dealer can offer you a complete line. Literature for your files will be gladly forwarded if you fill in and mail the coupon.

THIS COUPON WILL BRING YOU SAMPLES

The RUBEROID Co.
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NEWS—building activities of the month

Approval of Construction Code By President Expected Daily

PRESIDENTIAL approval of the code of fair competition for the construction industry and eight of its most important divisions is expected daily. This will bring the country's greatest capital goods and employment-providing industry under responsible self-regulation which guarantees the elimination of "chiseling," the maintenance of reasonable wage rates and hours of labor, and a unified effort to work the nation back to prosperity upon a fair competitive basis.

The code will go into effect thirty days after approval, ending a period of uncertainty which has retarded recovery. It definitely outlaws "bid peddling" and other unfair trade practices, and invokes stringent credit regulations and terms of settlement which will have a far-reaching effect on labor, subcontractors, material and supply dealers, construction owners and the public.

Construction Shows Increase

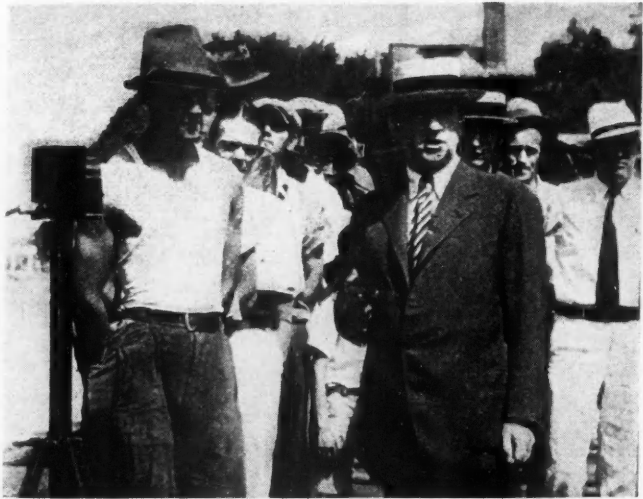
CONTRACTS for construction projects of every description placed during the first half of December totaled \$122,877,200 in the 37 eastern states according to figures of F. W. Dodge Corporation. This total for the half-month was more than 50 per cent larger than the total reported for the entire month of December, 1932. In addition the figures were more than 70 per cent ahead of the total reported during the first half of November, 1933.

Residential building contracts placed during the first half of December totaled \$13,629,200 as against \$12,957,500 for the entire month of December, 1932. For public works and utilities contracts were almost twice as large as the total reported during all of December last year, while for non-residential building the total of \$25,423,100 for the first half of December compares with \$24,944,900 for the entire month of December, 1932.

During November residential awards totaled \$23,615,700 as against \$21,525,700 in October and \$19,245,300 in November, 1932.

Another item of decided encouragement, according to F. W. Dodge Corp., is to be found in the November data on contemplated construction which totaled \$939,131,100 as contrasted with \$886,627,300 in October and only \$114,349,000 in November, 1932. The current contemplated total is larger than that reported in any other month since April, 1930, and holds large promise for early translation into increased totals for contracts.

Reports of the U. S. Bureau of Labor Statistics from the 760 cities having a population of 10,000 or over show that there was an increase of 22.2 per cent in the number of new residential buildings and an increase of 66.3 per cent in the estimated cost of these buildings in November.



PWA Administrator Harold L. Ickes hands pay envelope to construction worker on one of the Public Works projects

Public Works Boom Construction

THOUSANDS of men, many of whom have been idle for several years, today are responding to work whistles in factory, shop and shipyard as the Federal government's great \$3,300,000,000 Public Works program gets into full swing. Other thousands are working in the forests, on construction projects, on river and harbor projects and on roads in every state in the Union.

New PWA jobs are being opened up daily. They are of every character and description. Under the National Recovery Act no person works more than 30 hours per week on a PWA project except in executive, administrative and supervisory positions. Minimum wage rates have been established, assuring workers just and reasonable wages, and all workers are paid at least once each week.

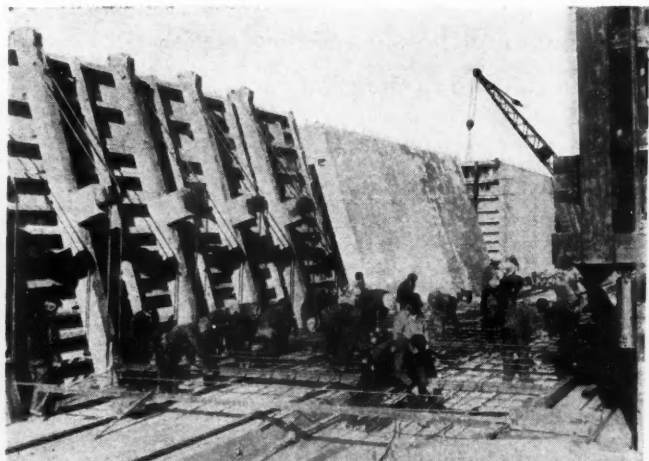
From the nature of the allocation of funds so far made something like a half a billion every three months of next year will be going out for construction.

A movement is on foot to have Congress increase the appropriation for public works to \$5,000,000,000 thereby adding at least \$1,700,000,000 to the amounts previously authorized. If the increased appropriation is made by Congress it seems assured that new public works will be starting next year to a total of at least \$2,000,000,000.

(Continued to page 48)



Carpenters at work on a building job at Puget Sound, part of the Federal \$3,300,000,000 Public Works program



Workmen constructing concrete caissons in Milwaukee. More payrolls for building workers indicated

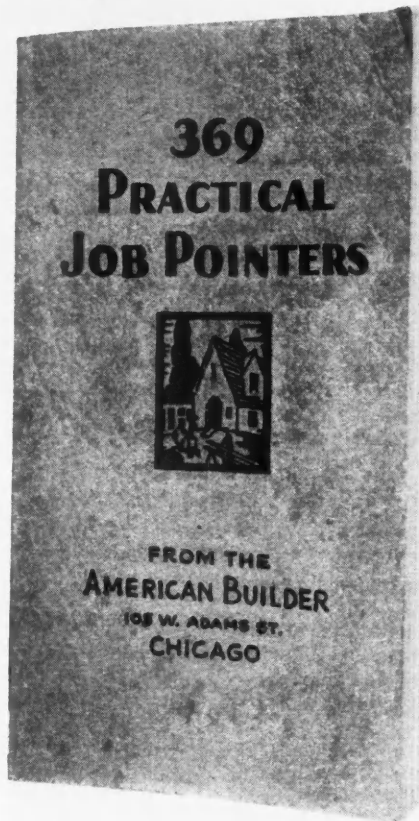
THE AMERICAN BUILDER CAN HELP YOU IN 1934

HOME BUILDING PROSPECTS ARE VERY FAVORABLE
and the aggressive contractor-builder, who is alert to the many changes in style and practise—who is familiar with the many new methods and materials—who is able to win the confidence of home owners and prospective home owners—will benefit.

Careful study of the monthly issues of the AMERICAN BUILDER will help any one with these problems.

IF YOU ARE A REGULAR SUBSCRIBER, whose subscription is due for renewal send us your instructions at once. Take advantage of the liberal subscription offers available now to assure yourself that you will not miss any edition this year. And remember, there is a considerable saving by entering your new order for 2 or 3 years.

IF YOU ARE NOT A REGULAR SUBSCRIBER, the same liberal offers are open to you. Just send us your instructions on the coupon below; choose the terms and premium book desired. Every edition of the AMERICAN BUILDER is useful and helpful and full of material to help you get ahead under the "New Deal" trade practises.



369 JOB POINTERS, handy pocket size 4½ x 8½; has attractive heavy paper cover—printed on good stock—fully illustrated

WITH YOUR NEW OR RENEWAL SUBSCRIPTION, you may have 369 JOB POINTERS, a manual to help you cut costs on the job. It is a remarkably instructive reference book for the most skilled artisan, or for the ambitious young craftsman or designer. And you may have it for **JUST 50c more than the regular one, two or three year subscription price.**

OR, IF YOU PREFER, a modern design book which you will be proud to show to your customers—a real sales aid—SMALL HOMES OF CHARM—will be sent to you **free of charge** with a paid-up new or renewal subscription. Just indicate your wishes on the coupon below and mail it to us at once.

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ADDRESS CITY & STATE

AB 1-34

(These prices good in the United States and its possessions only.)

NEWS OF THE MONTH

(Continued from page 46)

U. S. Survey in 60 Cities to Show Vacancies, Rentals, Housing Need

MORE than 11,000 men and women are being taken from the unemployment rolls throughout the country in carrying out the work involved in a Real Property Inventory of 60 cities recently authorized by the Civil Works Administration, to be completed by Feb. 15.

The survey will determine clearly present conditions and adequacy of national housing facilities. This in turn will aid in a program of stimulation of the construction industries.

Included in the formation will be data showing the condition of residential property with regard to repairs and improvements, the number of vacant properties of both houses and apartments, the number of families that have doubled with others because of the depression, the physical character of the structures, the equipment installed, and information of a similar character.

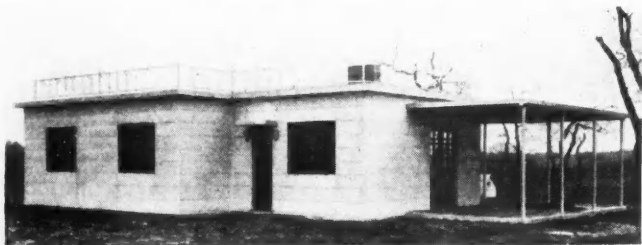
It will also show the average current rental which can then be compared with Census data for 1929. The range of basic facts and figures is wide and is believed essential in establishing for the guidance of the public, the building industry, and the government, the exact status of the housing situation as it exists in this country today.

Steel House Dedicated

ON Sunday afternoon, December 10, a new type steel house was dedicated at Zanesville, O. Developed by Edward L. Garrett and his associates of the Universal House Corporation, Zanesville, this structure makes use of insulated sheet steel sections for walls, floor and roof, producing a rigid structure. The initial house contains large living room with wood burning fireplace, kitchen, bath and three bedrooms. Excavation for cold storage cellar and for heating plant is under the side porch terrace. Hot water heat is installed.

The cost of this little home—\$2,770—indicates possibilities of this method for achieving some really low costs.

Congressman Robert T. Secrest, Hugh S. Wright of the American Rolling Mill Company and Bernard L. Johnson, editor of the AMERICAN BUILDER, spoke at the dedication, which was largely attended by local building interests.



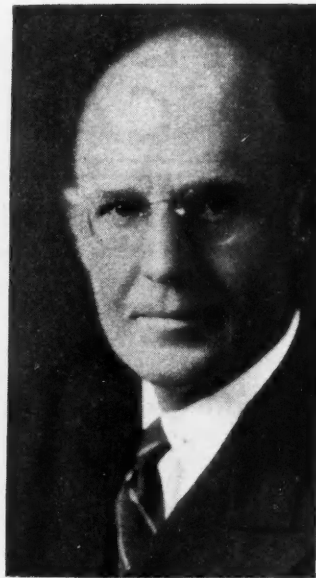
First steel house of the Universal House Corporation which was dedicated at Zanesville, Ohio, December 10

Weyerhaeuser Sales Up

FOR the first time since 1929 lumber sales show a definite upward trend, reported Frederick K. Weyerhaeuser, president of the Weyerhaeuser Sales Company, at the close of the annual meeting of the company held recently at Spokane, Wash.

"We are greatly encouraged," said Mr. Weyerhaeuser. "While the increase is not large it is the first upturn since construction began to drop off four years ago." Other officials expressed the opinion that pent-up demand for new construction, repairing and remodeling would break loose were it possible to obtain more readily the needed financing.

Important advancements were made in the personnel of the officers of the company at the meeting. I. N. Tate, who has been general manager since 1926, was advanced to the post of vice president. Harry T. Kendall, formerly general sales manager for Central Coal and Coke, who joined the Weyerhaeuser organ-



I. N. Tate (at right) and Harry T. Kendall (left) who were advanced to positions of Vice President and General Manager respectively of Weyerhaeuser Sales Co. at annual meeting

ization in 1932, was elected to succeed Mr. Tate. C. J. Mulrooney was made assistant general manager with J. E. Morris and Don Lawrence who were re-elected.

U. S. to Finance Homesteads

SECRETARY of the Interior Ickes announced the organization, on Dec. 5, of a Federal Subsistence Homesteads Corporation to serve as a means through which subsistence homestead projects will be set up and administered under section 208 of the Recovery Act, which provided \$25,000,000 as a revolving fund for initiating this program.

The parent corporation will make loans to local corporations, which will select sites to be divided into homestead tracts of from one to five acres, and erect homes. The combined cost of land and home is to range from \$2,300 to \$3,000.

Proposals for projects aggregating more than \$750,000,000 have been received by the Subsistence Homesteads Division.

Wilson Compton Becomes NRA Chief

GENERAL HUGH S. JOHNSON on Dec. 12 appointed Dr. Wilson Compton, well known lumber industry leader, to be chief of the Trade Association Division of the NRA. Under the plan for Code Administration, NRA is seeking to co-ordinate the facilities of the various industries with those established by the Administration. Dr. Compton, it is reported, has agreed to undertake this work until the means of industrial self-regulation has been firmly established.

As a member of the Industrial Advisory Board Dr. Compton has been consulted on many points in connection with Code administration, and will be of the greatest help, construction industry men know, in solving NRA problems.

50 Small Homes for Altavista, Va.

A PUBLIC works allotment of \$84,000 as a loan to a limited dividend corporation to construct 50 small houses in the mill town of Altavista, Va., has been announced by the Public Works Administration. It is estimated the rents will be as low as \$4.25 per room per month.

The limited dividend corporation proposes to contribute a cash equity of \$16,000, making the total cost of the project \$100,000. The loan would be repaid to the Public Works Administration with interest at 4 per cent. The proposed project will provide accommodations for the employees of the mills. There are approximately 150 workers who are now unable to live in the town because of the lack of housing facilities. Fifty one-story, single-family, frame dwellings will be built, each containing four principal rooms, bath, hot water and storage tank facilities.

"I'm glad I had an Architect"



"I'M strong for professional advice. When I'm ill, I consult a doctor. When I want legal advice, I see a lawyer. . . So naturally, when I decided to build a home I called in an architect.

"I admit that when he spoke about steel joist construction for the first floor, I wasn't too enthusiastic. I supposed it would mean extra cost. But I offered no objection, reasoning that when you pay for professional advice you ought to follow it.

"That house has made me a stronger believer in professional advice than ever. These steel-joist floors won't creak or sag, and the architect assures me they can't ever shrink, to

form ugly cracks. Best of all, they provide a fire-safe barrier between the basement where, I understand, 70 per cent of fires start, and the living and sleeping rooms.

"Extra cost? There wasn't any, to speak of. This steel floor construction with its fire-resistance and other advantages meant a difference in cost of only a few cents a square foot."

* * * * *

Kalman Floor Construction adds only a trifle to the cost of a home, or any type of building, because it simplifies the builder's work. Kalman

Joists are easily and quickly erected, without cutting or fitting; and the builder runs conduit and piping right through the open webs.

Kalman manufactures two distinct types of steel joist; Kalman-truss Joists (one-piece steel trusses) and MacMar Trussjoists (steel trusses assembled by pressure welding). Either type, in combination with concrete slab and plaster, provides fire-safe floor construction at very moderate cost.

Kalman Steel Corporation, Subsidiary of Bethlehem Steel Corporation, General Offices: Bethlehem, Pa.

KALMAN STEEL JOISTS



CATALOGS FOR BUILDERS

Publications listed on these pages may be secured without cost by filling in their numbers or names on the coupon at right below and sending to American Builder, 105 W. Adams St., Chicago.

WALL, FLOOR, ROOF MATERIALS

98—NEWMARBLE AND NEWTILE

Asbestos panels simulating marble known as "Newmarble," and asbestos tiling in sheet form, known as "Newtile," which offer the advantages of marble or tile at a mere fraction of their cost are described in detail in a new circular from The Ruberoid Co., 95 Madison Ave., New York City.

99—FORMICA STORE FRONTS

Several store front designs in color utilizing Formica sheets and bright metal in the modern manner are illustrated in a new portfolio from The Formica Insulation Co., 4620 Spring Grove Ave., Cincinnati, Ohio.

100—WALL COVERINGS

"What Sanitas Can Do to Modernize Your Rooms" is a 16-page booklet in full color from The Standard Textile Products Co., 320 Broadway, New York City.

101—MORTAR COLORS

"Standard Specifications and Recommendations for Using Clinton Mortar Colors and Clinton Cement Colors" have been prepared for the convenience of architects and builders by the Clinton Metallic Paint Co., Clinton, N. Y.

102—CARBON BLACKS

Emulsified carbon blacks, non-fading and non-injurious pigments for concrete roads, streets, sidewalks, and all forms of architectural concrete, are described in booklets from Binney & Smith Co., 41 E. 42nd St., New York City, makers of "Hiblack," and Godfrey L. Cabot, Inc., Old South Bldg., Boston, makers of "Charon."

HOME EQUIPMENT

103—ARTYLE GAS RANGES

"Artyle, Another Big Step Ahead" illustrates a new Magic Chef line of gas ranges in many smart effects offered by the American Stove Co., Cleveland, Ohio.

104—ELECTRIC DISHWASHERS

"New Dishwasher Convenience for Modern Kitchens" presents the new Conover electric dishwashers from The Conover Co., 3123 Carroll Ave., Chicago.

105—CLOTHES CLOSET FIXTURES

"Tidy Clothes Closets" by Anna May Sprague, a well known authority, presents a wealth of ideas on wardrobe cases and fixtures showing many K-Veniences from Knape & Vogt Mfg. Co., Grand Rapids, Mich.

106—VENETIAN BLINDS

A portfolio of architectural details showing Higgin Venetian blinds, as well as the Higgin all-metal screens, weather strips and access panels, has been prepared by The Higgin Manufacturing Co., Newport, Ky.

GLASS AND PAINTS

107—A CENTURY OF PROGRESS IN COLORS

"Color and Protection" is the title of a gorgeous book prepared by the American Asphalt Paint Co., Chicago, presenting 33 views of the buildings at the 1933 World's Fair. The painting and protection of these buildings are discussed.

108—PITTSBURGH GLASS AND PAINT

The 1934 condensed catalog of glass and paint products of the Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, presents concise information and specifications on paint, varnish and lacquer, as well as including plate glass, tapestry glass, pennvernon window glass, copper back mirrors, safety glass, and easynet metal store front construction in combination with carrara structural glass. Carrara structural glass for bathrooms and kitchens illustrated in four colors.

109—WATERPROOFING

Bondex waterproof cement paint, with questions and answers on the uses of bondex waterproofing are presented by The Reardon Co., St. Louis, Mo.

ELECTRICAL GOODS

110—WIRING DEVICES

"The Show Part of the Wiring Job" is an 8-page illustrated specification sheet of switch plates and convenience outlets from the Hart & Hegeman Division of The Arrow-Hart & Hegeman Electric Co., Hartford, Conn.

STEEL PRODUCTS

111—STRAN-STEEL DETAILS

Stran-Steel data sheets for architects, contractors and builders, including standard details of construction and safe load and span tables are presented in an 18-page pamphlet from the Stran-Steel Corp., 6100 McGraw Ave., Detroit, Mich.

112—TONCAN IRON PIPE

Two new catalogs on toncan iron pipe, one a presentation of the technical data on the manufacture, applications and performance of toncan iron pipe, and the other a larger book, 64 pages, presenting both the technical data and illustrating numerous installations and giving service records in a wide variety of applications. The Republic Steel Corp., Youngstown, Ohio.

113—ENAMELED IRON

"Relation of Porcelain Enameled Iron to Modern Architecture" is a stimulating illustrated discussion of modern style trends in commercial exteriors and interiors, prepared by The American Rolling Mill Co., Middletown, Ohio.

114—METAL COLUMNS

Pressed metal columns, architecturally correct, for lighting standards, pergolas, and porches are effectively presented in a 40-page catalog "Columns" by The Union Metal Manufacturing Co., Canton, Ohio.

115—WIRE MESH

"Wickwire Products," Catalog R, has been issued by Wickwire Brothers, Cortland, N. Y., to illustrate their line of nails, wire, netting and screen cloth.

HARDWARE

116—SASH CHAIN

"Acco No. 8 Sash Chain," a chain designed to run over any sash cord pulley, is a pamphlet from the American Chain Co., Inc., Bridgeport, Conn.

117—GARAGE DOORS

A complete manual on the new Barcol over-door for the use of architects, builders, and engineers has been prepared by the Barber-Colman Co., Rockford, Ill. It presents 33 pages of details including numerous special designs.

118—WAGNER DOOR EQUIPMENT

The Wagner tripl-fold garage door equipment is clearly presented in a set of detail sheets from the Wagner Manufacturing Co., Cedar Falls, Iowa.

EQUIPMENT FOR BUILDINGS

119—DUMBWAITERS

The Energy line of elevators and dumbwaiters is fully specified and detailed in a portfolio from the Energy Elevator Co., 210 New St., Philadelphia.

120—TRANE UNIT HEATERS

The Trane system of unit heating for factories, shops and offices is presented in a 28-page catalog from The Trane Co., La Crosse, Wis.

121—VENTILATING FANS

The Ilg line of self-cooled motor propeller fans for all types of ventilation service is presented by the Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago.

CONTRACTORS' EQUIPMENT

122—POWER KING WOODWORKERS

A line of lathes, band saws, carvers, routers, shapers, sanders, etc., offered by the Portable Power Tool Corp., Warsaw, Ind., is described and illustrated.

123—WALLACE WOODWORKERS

"Workace Woodworking Machines" is the title of Catalog No. 409, of J. D. Wallace & Co., Chicago, illustrating the present line of small power woodworkers suitable for bench use, developed by the Wallace Co.

124—AIRLESS PAINTING

The Norris painting machine paints by electric motor rotor, not by air pressure. Descriptive circular is available from the Electrical Painting Equipment Co., Inc., 247 Park Ave., New York City.

125—ALUNDUM ABRASIVE

A pamphlet presenting the research back of alundum abrasives has been prepared by the Norton Co., Worcester, Mass.

126—FLEXIBLE SHAFT MACHINES

The Mall Tool Co., 7740 South Chicago Ave., Chicago, has prepared General Catalog No. 831, showing the uses of flexible shaft machines and attachments for a thousand different uses.

January, 1934

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

Please have the following Catalogs listed in
his issue sent me—

Numbers

Name

Street

City

State

Occupation

CHICAGO SUNDAY TRIBUNE; DECEMBER 24, 1933.

Predicts 1934 Will Be Best Home Building Year Since 1929

CRAIG SEES END OF FOUR YEARS OF 'HIBERNATION'

Lists Big Projects Duo for Construction.

BY AL CHASE.

It is a little early to gauge the estimated 1934 estimate of local home building activities, but indications point to it being the best home building year since 1929," said Mr. Craig. A nation wide shortage of one million homes resulted from the 1921 depression. Along with other housing types it was the lavish home building activities of the years following 1921 that transformed depression into prosperity.

"At this time a general situation exists, although the accumulated building shortage has swollen to a total of probably 1,700,000 dwellings."

What It Would Mean.

Mr. Craig points out that the construction of 1,700,000 dwellings would not only be a tremendous boon to the laborer in wages and to the manufacturer in profits, but would benefit transportation, coal mines and power plants. In addition the erection of 1,700,000 homes would mean the manufacture of millions of dollars worth of home furnishings for these dwellings.

He calls attention to the all important question—where will the money come from to erect these homes? He answers it by expressing the hope that federal funds may be available during 1934 for home construction purposes.

"But not until the building industry is stimulated can it be truthfully stated that a lasting recovery is here," concludes Mr. Craig.

HOMES BUILT IN NOVEMBER INCREASE 66%

New York Permits Boost Total.

Washington, D. C., Dec. 25.—(AP)—A 66 per cent increase in residential building permits issued during November as compared with the previous month was reported today by the labor department. The gain was due to permits in New York for \$5,000,000 worth of new apartment houses.

The estimated cost of all buildings, however, was \$35,114,781 in November, against \$18,515 in October. As compared with November, 1932, the residential building permits increased 122 per cent, the bureau said.

The report, which covers 158 cities with a population of 10,000 or more, also showed an increase of 22.2 per cent in the number of new buildings.

The total estimated cost of residential buildings for which permits were issued in November was given as \$135,768,765, compared with \$8,724,227 in October.

CONTRACT GAIN OF 70 PCT. FOR BUILDING NOTED

First Half of December Beats Previous Month, All of December, '32.

BY CHARLES SCHWARZ.

Contracts for construction projects of every description placed during the first half of December totaled \$122,477,200 in the thirty-seven states east of the Rocky mountains, it was reported today by the P. W. Dodge Corporation.

The figure was 70 per cent above the total for the first half of November of this year and more than 50 per cent ahead of the total for the entire month of December in 1932.

When All Agree, It Must Be True

Current reports of residential building, railway car loadings, electric power output, steel production, and other recognized indices all show increasing activity. Evidences of recovery are common to all sections of the country. Home building and modernization are again becoming "news", as shown by typical clippings from the daily press.

The same evidence of renewed activity is apparent among retail lumber and material dealers, the men who are first to detect evidences of activity in the home building industry. American Builder field representatives, who have interviewed thousands of these men within recent weeks, find a rapidly growing feeling of optimism, which is reflected by a large increase in subscriptions to the AMERICAN BUILDER.

The manufacturer who desires to profit from this upturn in business must command the attention of those who are active in building and planning now. The AMERICAN BUILDER reaches these men. Your sales message in its pages will, therefore, command the attention of thousands who will specify, warehouse and install the materials and products that will be used in 1934 home building, repairing and modernizing.

What's Ahead for 1934



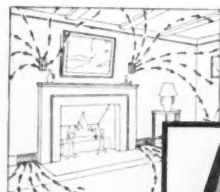
PROFIT
from remodeling—
HEATILATOR
opens the way!

THE building outlook is improving but you certainly don't need to wait for a decided lift in building to make money. In the last 12 months more people have read Heatilator advertising and asked for additional information than in any previous 12 months in our history. This can mean only one thing—the remodeling market is wide open for a real sales talk on fireplaces and what a story you have to tell them on Heatilator!

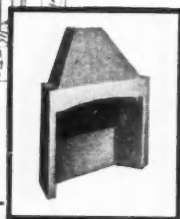
First of all, Heatilator does what the ordinary fireplace can't do. It circulates the heat—doesn't waste 95% of it up the chimney. Every corner of the room feels the warmth of the fire. Not only that, but the adjoining rooms, too. Heatilator is really a secondary heating plant.

Then there's the question of smoking—half of all present fireplaces do smoke at some time. Heatilator won't smoke. There's a money-back guarantee to back up that statement. Finally, the owner can have any style of fireplace he chooses. Heatilator doesn't alter either the hearth or the mantel in appearance.

That's not all, but it is all we have room for here. Send us the coupon below and we'll send you more information on Heatilator—the fireplace that will help you get profitable remodeling jobs in 1934.



Heatilator Fireplace



Warm air rises—spreads over room. Air currents return to fireplace along floor.

The Heatilator Unit—complete and ready to install.

Pats. Pend.

HEATILATOR COMPANY
611 Brighton Avenue, Syracuse, New York

Give me some more facts about Heatilator—facts that I can use in my selling.

Name.....

Address.....

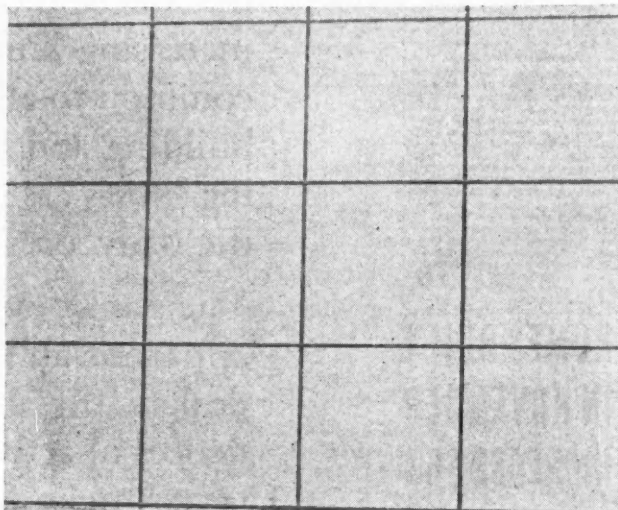
NEW PRODUCTS

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

Asbestos Tile and Marble

ONE of the large manufacturers of roofing and siding is now producing a strong asbestos tiling in sheet form, which is designed for use in kitchens, bathrooms, pantries, sunrooms, etc. It consists of 32 x 48 x 3/16 inch sheets of a rigid asbestos base finished with a hard, highly polished surface marked to produce the effect of square tiles. The surface resists moisture and fire, and has ability to withstand long wear.

A companion product is an asbestos panel of the same size which looks like marble. It is adaptable for bathrooms, foy-



Rigid asbestos tiling in sheet form has hard, highly polished surface, is easy to apply, low in cost. Especially good for kitchens and bathrooms

ers and interiors of restaurants, stores, etc. It is easily cut and easily applied, and is supplied in five variegated colors.

There has been an increased demand in the last few years for improved low cost tile and marble materials that can be quickly installed by carpenters. These new asbestos panels meet this need, and are especially suitable for modernizing and remodeling work. They may be attached to any kind of surface, taking no longer than to put on wallboard. The tile panels produce an exact duplication of tile, are available in



Asbestos panel looks like marble, is easily handled, provides low cost interior finish for bathrooms, foyers, restaurants, stores, etc.

cream, green, blue, white or black. The surface is smooth, glossy and easy to keep clean; it will not warp, crack, craze or stain. Base and cap in matching colors are supplied.

Cutting the asbestos tile panels may be done with an eighth-inch carborundum wheel, hack saw, or by scoring deeply with a blunt instrument and breaking, after which edges are smoothed with a file. Attaching is done with 4 penny finishing nails for which holes are made with a No. 45 twist drill. Nail holes are then covered up with special filler.

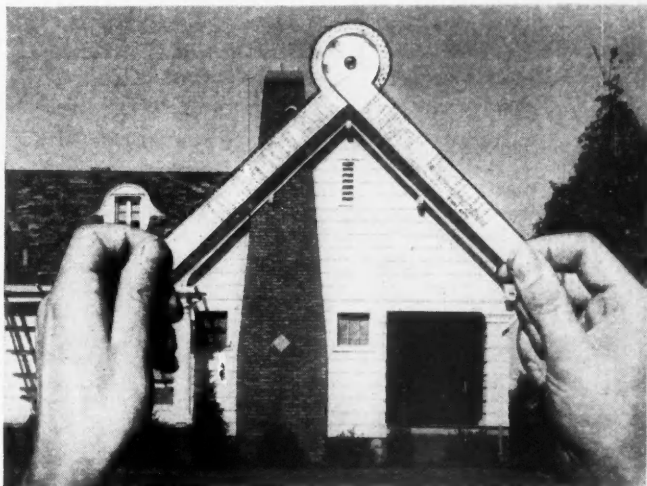
This is a product that meets the needs of today for a low cost tile surface that will last. For further details or information write the AMERICAN BUILDER.

Roof Pitch Indicator

A NEW and clever device for builders and dealers is the roof gauge shown below. This works as follows:

Cross the arms of indicator, as shown, stand on ground facing the gable, holding the indicator up, so that roof will line up with inside edge of arms. After this adjustment is made read the rise per foot run on dial marked "Pitch."

To find the length of common rafter for a building, 26'0" wide with 1'0" cornice, Roof Pitch, 12" rise per 1 foot run. Referring to roof table under "Common Rafter" on line with 12" rise we find (X1.414) take one-half width of building plus



Celluloid roof gauge and indicator makes it easy to figure roof area, angles, pitch from ground

cornice = $14'0" \times 1.414 = 19.796$ feet length of common rafter. No allowance made for plumb cuts.

To find the roof area of a building 26'0" wide by 38'0" long with 1'0" cornice and Roof Pitch:

12" rise per 1'0" run.

26'0" width plus 1'0" cornice on each side = 28'0".

38'0" length plus 1'0" cornice on each side = 40'0".

$28'0" \times 40'0" = 1120$ sq. ft. referring to roof table under "Roof Area" on line with 12" rise we find (plus 42%) 42% of 1120 = 471.

1120 plus 471 = 1591 sq. ft. area of roof.

No allowance has been made for waste.

To find the length of hip or valley rafter for a building 26'0" wide 1'0" cornice.

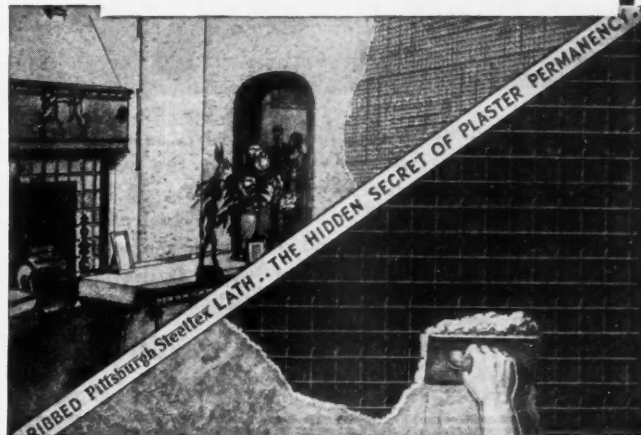
Roof pitch 12" rise per 1'0" run.

Referring to roof table under "Hip or Valley Rafter" on line with 12" rise we find (X 1.73).

Take one half width of building plus 1'0" cornice = $14'0" \times 1.73 = 24.22$ feet, length of hip or valley rafter, or you may add 22% to common rafter length. No allowance made for plumb cut.

This little device also will find plumb cuts, heel cuts, degrees of any angle. On the back side of indicator there is a 12" rule and $\frac{1}{4}$ " scale. Also joist spacing 16" o.c. at $\frac{1}{4}$ " scale. They are made of .030 white fibre and .030 celluloid and are wrapped with instruction sheet and enclosed in Cellophane envelopes.

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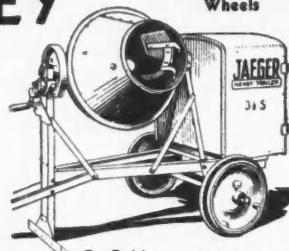
This remarkable machine cuts costs as quickly and as surely as it cuts wood! Does the work of five ordinary machines—eighteen different everyday jobs—faster and at less cost! Cross-cut saw, rip saw, jointer, shaper and router—five machines in one . . . at the cost of one. Ball-bearing throughout. Write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

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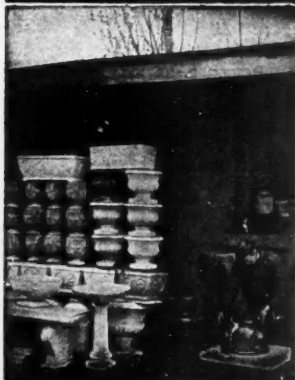
Get latest catalog on Jaeger all-steel, roller-bearing 3 1/2 S trailers with "Dual-Mix" high speed drum.
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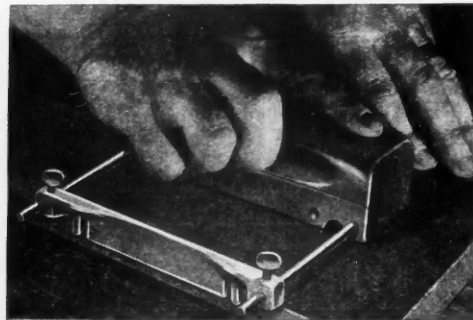
NEW PRODUCTS

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

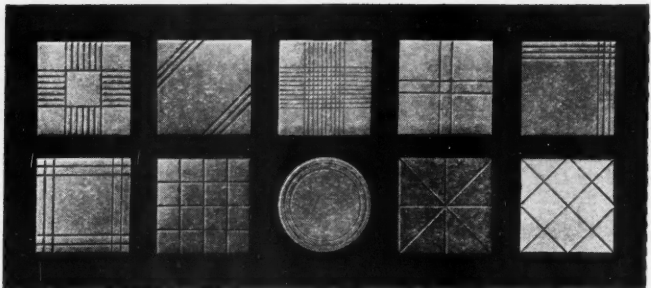
Tool for Cutting Wallboard

ONE of the handiest new tools on the market is a hand-sized block device which holds a razor blade at any desired cutting angle, and which greatly simplifies the beveling, slicing or grooving of insulation board, wallboard, linoleum, rubber floor covering, etc.

One or two razor blades are held rigidly in place as desired, and by various arrangements of the blades, a large number of



Handy tool cuts, bevels, trims wall and fibre boards easily



clean cut, attractive patterns can be made. The lower illustration shows some of these patterns which are performed on various types of insulation and fibre board quickly, accurately and with little effort.

The tool is accurately machined and highly polished. It has ten sharp, strong blades, beveling and grooving attachments, and instructions for cutting designs and decorative effects. Information will be sent on request.

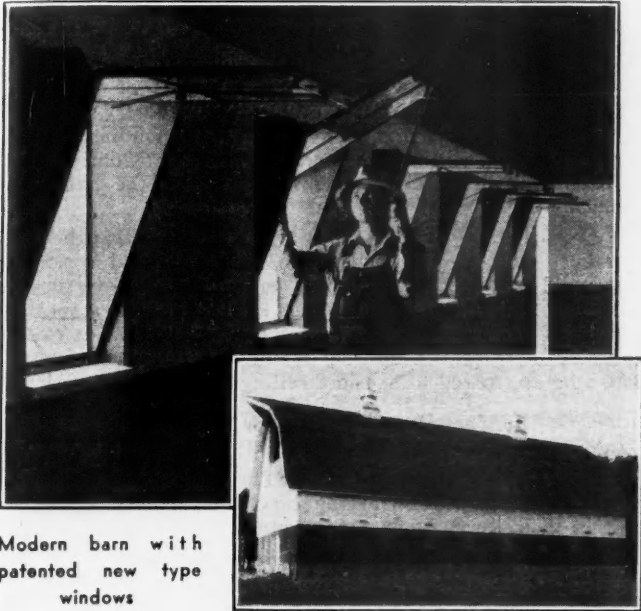
Farm Building Windows

THE growing appreciation of the value of sunlight in barns, poultry houses and other farm structures has encouraged the development of simplified window installations. An Iowa man-



Special farm building windows increase productivity of hens

Manufacturer has developed a line of special windows and frames for this work that are simply and easily installed at low cost. Strong metal frames come knocked down. They are quickly assembled and inserted in the opening and nailed in place. Through the patented arrangement, these windows are easy to open and adjust for ventilation. Roof windows of 26 gauge copper-bearing steel are also included, which simplifies the problem of getting light into many farm structures. Of outstanding interest is the furnishing by the manufacturer of a special glass that permits a larger proportion of the ultra-violet rays to pass through than does ordinary window glass. It is claimed that use of this type of glass aids the health of poultry, cows, and other farm animals and increases their productive ability.



Modern barn with patented new type windows

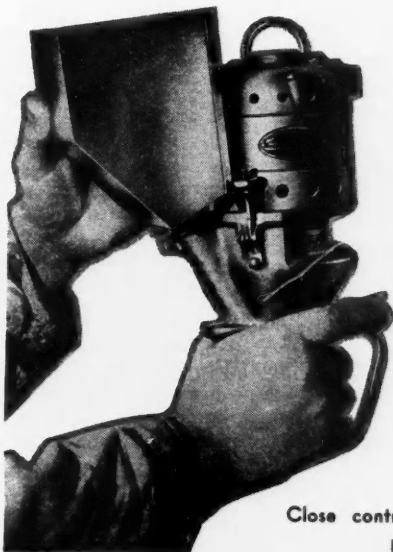
Airless Painting Machine

MECCHANICAL painting is greatly advanced through introduction into the market of a new electrical (airless) painting machine. This self-contained electrical unit, which is easily held in the hand, utilizes centrifugal force in applying the paint and other material, rather than the customary air pressure method.

Foremost in the characteristics of this machine is its ability to reduce costs as its rapid application of paint, enamel, etc., makes it possible to complete a job five times faster than by brush. The manufacturers state it will cover 1500 square feet of wall surface per hour.

Paint is forced out in an even, fan shaped spray which, by quick adjustment of the distributor, may be varied from less than one to eighteen inches in width. The cut-off on all four sides can be held sharp at the option of the operator, making it possible to paint up to door frames, picture mouldings and base-boards with great accuracy and without splattering these trims. The machine paints stencils perfectly.

The consumption of paint is regulated by a control valve.

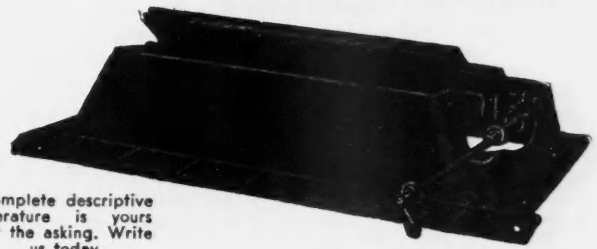


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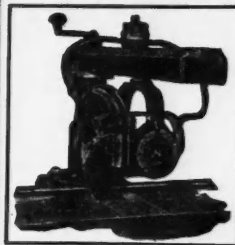
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These dampers are simple in construction, easily installed and operated, and will last indefinitely.

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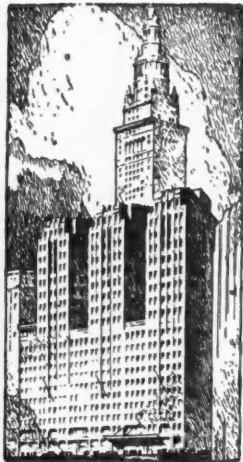
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Complete working drawings in blueprint form have been included for a 5 and 6-room New England house, 6-room Colonial Cottage and a 5-room English Cottage. Specifications and bills of material are given in each case.

114 pages, 206 illustrations, 9x12 inches, paper, \$1.50

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30 Church Street New York

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Drive for Federal Home Financing

(Continued from page 13)

A significant paragraph in the report states: "The Federal Government has the resources to enable it to underwrite the financing of such a program. By setting up a Federal corporation to purchase new mortgages and to sell mortgage bonds, money could be made available which would unloose this program. There now exists a Federal agency—the Federal Home Loan Bank—which is capable of extension in function and scope to serve the purpose of the large scale home building program."

The total figure recommended by the NRA board for needed housing construction for a two-year program is \$4,532,000,000, or construction at the rate of \$200,000,000 a month. "A sustained recovery movement is extremely difficult, if not impossible, of accomplishment unless expansion and stimulus are transmitted to underlying capital goods industries, of which one of the important classes is the construction industry," the report says. The program is said to be "based upon the premise of government credit but the government would assume a contingent liability only and assets would exceed the liabilities assumed."

The report states further: "It is argued by some that there is at present no need for construction, that additional construction would be uneconomic, adding to an existing oversupply. But this surplus of vacant dwellings exists alongside a surplus of families forced to double with others for shelter. It exists alongside more than a million families by conservative estimate who are forced to live in dwellings unfit for habitation."

Builders Report Need For Financing

As part of its program to build up information to take to Washington, the AMERICAN BUILDER has sent out 5,000 questionnaires to its readers asking how many homes would be built in their towns if financing were available. The results of the first returns received up to time of going to press are startling. In the first 108 replies tabulated, \$30,000,000 of home building and repairs was indicated as being held back by lack of financing in only 43 towns. Typical remarks were: "Local funds totally frozen"—"Am in personal contact with 12 prospects who want financing"—"Could build and sell 200 homes at \$5,000 each"—"Many prospects willing to go ahead if they can get money"—"At least 100 homes would be built here if financing were available"—"Could build 3 homes immediately if money was available."

An important and influential group that is backing this program for Federal financing of home building is manufacturers of building materials, equipment and supplies. From the dozens of letters of endorsement received by the AMERICAN BUILDER, the following give some idea of the support this group will give:

WALTER J. KOHLER, Kohler Co., Kohler, Wis. "No permanent recovery from the present depression can be expected until there is a real activity in the construction field and particularly in home building and modernizing. If loan funds can be made available by the Federal government, there is no doubt that there will be a marked improvement, with consequent increased re-employment."

C. A. STRAND, Stran-Steel Corp. "We are for your suggestion that Federal loans be made directly to home owners to finance new homes. Only in this manner can we get under way with a building program in this country, that will mean anything from the standpoint of accelerating the upward trend."

RALPH E. HILL, National Oak Flooring Mfrs. Assn. "The country will not reduce its unemployment until the construction industry is active in a large way. The stimulant most certain at this time to get things started would be a large sum of mortgage money."

H. J. REINHARDT, Vice President, Frank Adam Electric Co. "I am heartily in accord with the program you have instituted to push Federal loans to finance home building. . . . I can see no better way that the government could adopt to actually put money to work on a financial basis that would be repaid to the government 100 per cent, and that, of course, is more than can be said of many of the other government projects that have actually been instituted."

Lumbermen Favor Loans

Retail lumbermen and the lumbermen's associations have lined up solidly in favor of Federal loans for home building. Excerpts from a few of the letters received by the AMERICAN BUILDER include the following:

ORMIE C. LANCE, Northwestern Lumbermen's Assn. "... Under present conditions I am very much in favor of the plan. We wish to co-operate with you fully in this movement."

DON. S. MONTGOMERY, Wisconsin Retail Lumbermen's Assn. "You have hit the bull's-eye again in urging that Congress provide funds through the Home Owners' Loan Corporation for the building of new homes and for modernizing of old ones. This is the largest missing link in the entire chain of Federal activities."

"When money is used in the home building field, its uses are multiplied twenty-five times in passing through the various channels of labor and business. One billion dollars would be multiplied twenty-five times in usefulness."

J. F. BRYAN, Illinois Lumber & Material Dealers Assn. "There is no more important matter right now than some plan that will give prospective home builders financial assistance. There are thousands of people who saved some money who would gladly have a home if they could have financial assistance with reasonable interest rates and terms of payment. To revive home building will put more men to work than any other industry and the United States needs jobs for deserving mechanics and laboring men more than any one thing."

FINDLEY M. TORRENCE, Ohio Assn. of Retail Lumber Dealers. "We certainly welcome the support your publication has given to our efforts to secure direct construction loans from the Home Owners' Loan Corporation. If this bill should secure favorable action, it will do more to further the NRA program than anything that has yet been undertaken."

Clearing the Decks for the New Deal

(Continued from page 44)

freight business but these prices didn't suit the public. Now the roads are bringing business and profits back by lowering their rates and adding to their services.

The public is still price-conscious. You yourself will find that you are constantly watching the prices on the things you are thinking of buying. You are not necessarily looking for something cheap, but you are looking for something you think worth the money. The bulding public is no different.

The public began to lose interest in home building and home buying away back in 1927 and 1928, long before the stock market crash. At that time there was plenty of money, and loans were being made with very small down payments. But word got out that a home wasn't worth the price and the market slid away.

Now, as I see it, we've got to resell the public on home ownership. The local dealer and the local builder must bear the principal sales burden. They meet the public and must answer its questions. "How's the price of lumber?" "What are you getting for paint?" "Have brick gone up?" "Is this a good time to build?" "Where can I get a loan?" "Can I build this year as cheaply as I could last year?" "My income has been cut in half; how are building wages?"

It's no use kidding ourselves; we've got a real selling job ahead of us and we've got to analyze it honestly and face the facts. It's true, thousands of people have a longing for homes but that doesn't mean they would buy or build them if they had a chance. There are thousands of foreclosed homes on the market today that can be bought cheaper than new ones can be built. That's real competition. How can we meet that competition? That's something to think about. That's one of the greatest problems the automobile people have to meet.

But, you say, why keep harping on the automobile; I'm a contractor or I'm a carpenter, or an architect or a lumber

(Continued to page 58)

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Rip and cross-cut saw, 22" band saw, 12" jointer, tenoner, hollow chisel, mortiser and borer, swing cut off saw, reversible shaper and sand disc.

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supplies the most effective of all insulating materials. Cold or heat cannot penetrate it—sound is deadened—fire hazard reduced—and vermin cannot live in it.

Our booklet explains how it actually saves money for you and increases the comfort of your home.

Sample and booklet on request, address nearest office.

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DUNBRIK CONTROL THE MARKET WITH THIS AUTOMATIC MACHINE

Make them for **40%** Less

A 20% LIGHTER UNIT LESS MATERIAL EASIER TO LAY BETTER STRONGER BOND

Send for Actual Operating Cost Data

GET SET
FOR BIG THREE BILLION DOLLAR public building program—a revolutionary process—Makes both face and common brick of highest grade at lowest cost—Used in the finest and largest buildings wherever made—Established plants furnish definite evidence of Stability and earning power. United Cement Products Company of Wichita supplies both face and common units for large group Sinclair Oil Stations. Bayer & Brice of Flint fill order for over half million DUNBRIK for brewery. Kalamazoo firm sells at 100% mark-up with orders exceeding a million units in one month. Learn about this new and profitable business—Why DUNBRIK can be made for less. How it cuts building costs, and how you can secure exclusive franchise—Send for complete Manufacturing Data now.

450 W. 24th St. W. E. DUNN MFG. CO. Holland, Mich.

Clearing the Decks for the New Deal

(Continued from page 57)

dealer? That's what I said in the beginning. We're not so well organized as the automobile industry. You are part of the public and you think of an automobile as a complete unit. You don't think of it in terms of tires and wheels and bodies and frames. That's just the way the public thinks of home building. People want a home or a roof or a bathroom. They're not thinking in terms of two by fours, pipe fittings, buckets of paint and the like.

The various parts of the home building industry must sit down together and pool their interests in favor of an article that the public can visualize. If some one or more elements is out of line, then it should be corrected. And it will be corrected before the public really begins to buy.

If lumber or brick or steel is too high, then something else will take its place. All other materials will have to stand the same examination. If any particular kind of labor is too high, then some other form of construction will be used.

Labor plays a bigger part in the building business than in any other. Lumber in the tree may be worth \$5.00 per thousand, but the lumber in the window frames in your house may be worth \$100 per thousand. The difference represents profit or labor. It's the same with steel, paint, roofing and all the rest. If profits or labor get out of line, then the use of that product slows up.

Let's get back to the automobile or any other industry that produces for the public. Some smart fellow comes along and produces an article and gets the public to like it. Right away some other fellow competes with him. Then the public has something for comparison. Each competitor starts up a research department to find out how he can make the article

cheaper or better. That's what we've got to do in the home building field.

Somebody must take the lead. I've been saying that the local dealer in building materials should be that leader. He has a large investment, materials on hand, an office and many times a woodworking plant. He is or should be in close touch with the best workmen in town. Beginning with the cost of materials he should be able, through the proper co-operation with these workmen, to give the customer the price of any sort of building job that customer may want.

Just at this point as I am writing this story, I have been handed a long and interesting letter from Mr. Albert Hargrave, a contractor in San Jose, Calif. Let me quote one paragraph from his letter:

"I want to express my approval of the ideas and sentiments set forth in your article in the November number. 'The Opportunity and Responsibility of Local Dealers and Builders.' I would like to see an article like it every month, calling attention of the builders to the many dishonest and discreditable practices and customs that are so thoroughly established that they are generally taken for granted and expected. I would like to see articles showing how the principles of the 'Voluntary Co-operatives' may be applied to the building industry."

It is my firm opinion that Federal funds will be made available for home builders in 1934. But the cost of construction is going to come in for close examination. The crooks in the building business from jerry builders to thieving financiers will have hard sailing. The "Forgotten Man" who we think is the man anxious to live in his own home is going to get a break.

As I said in a former article, NRA means more than "We Do Our Part." It means, "I do my part." He who finds it impossible to clear his own decks whether he be producer, dealer or builder, isn't going to draw a very good hand in the New Deal we are about to get in the home building and small construction field.

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NOTICE TO ADVERTISERS

Forms for the February Number of the American Builder and Building Age will close promptly on January 15. New copy, changes, orders for omissions of advertisements must reach our business office, 105 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 15th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

AMERICAN BUILDER AND BUILDING AGE.

Q This section of the *American Builder* discusses the sales and management aspects of the retailers' business.

Q Distribution of this section is to retail dealers only.

L. R. PUTMAN, Editor

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SPENCER D. BALDWIN

¶ *American Builder* nominates for the dealer Hall of Fame Spencer D. Baldwin of Jersey City, N. J., because—

¶ *As president of the National Retail Lumber Dealers Association, he is actively campaigning for Federal funds for new home building, rallying the immense influence of that far-flung organization to the cause of home building revival.*

¶ *Because of his untiring efforts in behalf of retail lumber dealers in connection with the code negotiations.*

¶ *And because of his resemblance in face and in voice to a certain distinguished Democrat of national prominence—Al Smith.*

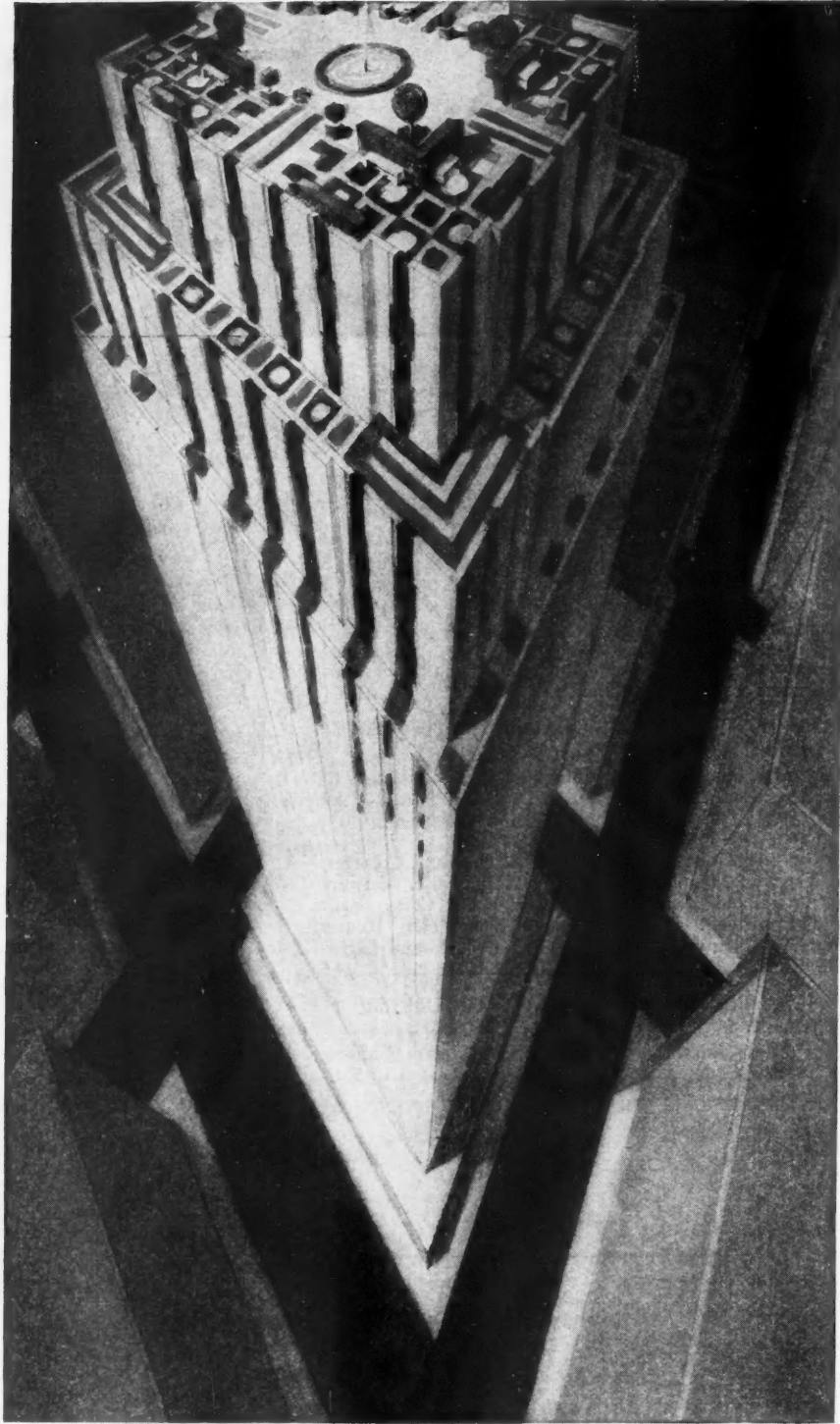


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As "PUT" Sees It

Our First Anniversary

THIS issue marks the first anniversary of the Dealer Edition in the *AMERICAN BUILDER*. And what a year!

We joined the ranks of the Retail Lumber and Building Material Dealers when they were at the lowest ebb they have ever reached in the memory of any living man. When others were trimming, we began to spread sails. To retain its leadership in the home building field, the *AMERICAN BUILDER* made up its mind to practice its own preaching—modernization. Today this magazine occupies a position unique among publications. Through its unique make-up and the segregation of its subscribers, it serves the purpose of two distinct magazines.

We have two audiences whose interests are not always identical except through co-operation—the dealers who buy and sell and the builders who specify and fabricate. We have nothing to say to the builders which should not be heard by the dealers. In our discussion of intimate selling problems, we are able to confine our remarks to dealers only, as the Dealer Marketing Section is bound only into those copies going to dealers. The dealers get the complete magazine including the Dealer Section, while all the others get the magazine with the same covers but it does not contain the Dealer Section.

In November, 1932, we decided on the make-up of the modernized magazine and began the preparation of the first new Dealer Section. In the first paragraph of our first article in that first issue, we stated our platform, consisting of the following five planks:

1. Re-adoption of the Golden Rule.
2. Recognition of honest, courageous, intelligent, constructive leadership.
3. Promotion of a sound plan for presenting the building business to the American public.
4. Development of financial institutions, willing and able to finance sound building projects.
5. Education of the local building industry in better merchandising and a lower cost of distribution.

There have been a lot of radical thinking and radical changes in the business and political world during these past fourteen months, but we are still standing on the same platform.

During this period we have elected a new president. In his New Deal he has hastened the general adoption of our planks one, two and four. The other two must be handled by the industry itself. Better merchandising at a lower cost of distribution and a sound plan for presenting home building to the American public is the job before us at this time. As in the past, we will continue to do our best in this field.

We appreciate the fine letters of endorsement we have received from dealers and manufacturers throughout the country. We are proud of the fact that more retail lum-

ber dealers subscribe to the *AMERICAN BUILDER* than to any other trade magazine published.

We made another statement in our first article a year ago which also still holds good. It was this—"and if my ideas do not run exactly parallel with those of my readers, I shall always welcome differences of opinion and constructive criticism."

The home building field looks brighter than it has in many years. Our success depends upon yours. May 1934 be both pleasant and profitable to you.

Dealers Like Our Advertising Suggestions

BEGINNING with the first of 1934, we expect to see more advertising by the local building interests than has been done in many years.

Here is a paragraph from the letter received recently from Charles S. Rickel & Son, building material dealer of Burket, Indiana:

"I anxiously await the next edition of the *AMERICAN BUILDER AND BUILDING AGE* to see if there is another cartoon on some phase of repair work that is needed about every home and farm. We expect to start a very vigorous advertising campaign the first of the year, and this sort of newspaper copy is just what we have been looking for. Since we will be able to use a great deal of this kind of material, we are wondering if you are in a position to help us out?"

Lumber Dealers Are Adding Lines

NOT only are wide awake lumber dealers pushing their present lines but constantly adding new ones in the home building field. Among the letters recently, is one from a dealer in Virginia who says in part: "We are interested in sink shown in your *AMERICAN BUILDER* but we also want bath room and kitchen plumbing fixtures. We are thinking of stocking."

And here's one from a past president of one of the principal retail lumbermen's associations: "The thing I am needing 'Put' is a bigger line for my sales effort. My son Joe is active in my company and I would like to take on another line. What do you know about air conditioning? Is it practical for home use yet? Do you know of any other line that I could handle without much capital investment?"

How a Small Town Dealer Got Profits From Demonstrating

A few years ago, before our boom-time bubble burst, many a lumber and building material manufacturer, in the privacy of his inner sanctum, opined that the retail lumber dealer was the world's worst merchandiser. Behind his back, the yard manager was accused of lazily accepting what business came his way while refusing to "sell" his merchandise as other retailers did. He was charged with lack of initiative and a want of that spirit marking the endeavors of the progressive druggist, grocer and dry

goods man. In private, an interminable list of glaring faults were chalked up against him.

The first years of the depression intensified these opinions, despite conclusive evidence that numerous dealers were making strenuous efforts of one kind or another to stimulate sales. Because these endeavors did not work miracles, the dealers using them were suspected of ineptness and an absence of the guts—brutally speaking—required to fight against depression odds.

I DO NOT propose to argue the merit of these opinions as applied to the pre-depression activities of retail lumber merchants. It is sufficient to point out that most manufacturers, whether they make drugs, radios, washing machines or shoes, consider their particular retail outlets the worst in the field, because it's a habit and because it furnishes an excuse for their own shortcomings. But I will fight, verbally at least, any man who says that during the past two years the retail lumber merchant has loafed on the job. During this time many lumber merchants have proved themselves progressive and even daring merchandisers. They have broken with tradition on a dozen fronts. They have dared to employ radical methods, ingeniously devised, to arouse the public from its lethargy. In doing this, they have, naturally, made mistakes, but they have also learned valuable lessons. Today, I would be inclined to back a good lumber retailer against almost any other merchant in a contest for the consumer's dollar.

Examples of heroic retailing by lumber dealers have come to my attention scores of times during the past

year. If I had space and time to recount a tenth of them, I could prove to the most dyspeptic skeptic that the lumber dealer is a merchant with courage and ingenuity aplenty.

Consider, for example, the case of the Foster Lumber Company's yard in Oberlin, Kansas. Although this is a big and long-established company with headquarters in Kansas City, Oberlin is a small town with a population of 1,700. Despite this Foster's Oberlin yard, managed by L. L. Steinshouer, this summer did a bit of home remodeling promotion worthy of a city many times Oberlin's size. Every angle of this job was covered with an adroitness and care not witnessed in connection with many bigger, flashier pieces of work. Every step was guided with thoughtful regard for local conditions. Greatest praise, however, should be bestowed on the daring required to conceive and execute such a promotional plan in so little a community.

Old, ramshackle dwellings have been used for remodeling demonstrations many times within the past two years but never, to my knowledge, in a little town like Oberlin. That is why I choose the job done there to indicate the courageous spirit of today's lumber merchants.

The dwelling selected by the Foster yard was a municipal eyesore located on the main street close to the business district. No one living in the vicinity of Oberlin could have failed to see it many times. Picking this particular house was one of the shrewdest steps of the entire campaign. Its location and every citizen's familiarity with it gave the project maximum advertising circulation. Nothing done to that dwelling could possibly escape the notice of any normally active resident of Oberlin.

Step Number Two was to secure the cooperation of local craftsmen, who agreed to join in the project when they realized it would stimulate work for them as well as material sales for the lumber yard. Local merchants and storekeepers agreed to furnish and equip the house. The next move was preparation of a design and altered floor plan for the dwelling, which was done by the company's architectural department in Kansas City under the supervision of Henry Hoffman, its head. A small addition

Foster's Demonstration of Home Modernization

Due to the adverse weather conditions, work has not progressed as well as we had hoped, and the shingling has not been completed yet. However, this week should see it completely enclosed. Just a few remarks about the shingles we are using. As we told you last week, they are one hundred per-cent vertical grained and one hundred per-cent clear. A vertical grained shingle will not curl or warp when exposed to the weather, thus assuring the user of a flat, weather-proof roof, as does the absence of knots and bark stripped edges; yet the cost is only a few cents more than the average 5/2 clear shingle. They are being laid with galvanized nails, which will not rust and will last as long as the shingle, a period of from thirty-five to forty years.

Guy Morrish has the plumbing roughed in, and we will tell you about the high grade material and workmanship he is putting into the job next week. The plumbing fixtures are of the latest type, and well worth the consideration of the prospective home builder.

Foster Lumber Company

L. L. STEINSHOUER, Mgr.

A SINCERE and convincing conversational type of advertising copy was used in the local newspaper while the work was on.

Old



By HAROLD KNAPP
General Sales Manager
The Celotex Company

House

Modernizing

was included in the modernized plan and the roof lines were completely altered.

During this time plans were also made for a newspaper advertising and publicity program to run synchronously as modernizing work progressed on the dwelling. Here again, the skillful manner in which the promotion was handled is evident. The newspaper copy was written in an intimate and gossipy tone, and carefully timed to keep pace with progress on the house. As work was about to begin, the first advertisement appeared. It contained a picture of the dilapidated dwelling with its broken windows and missing doors. "Keep this cut, see the transformation," advised the headline. The copy invited week-to-week inspection of the work as it progressed. Succeeding advertisements and publicity described the work just finished and the next job on the program. The simple straightforward tone of the advertising copy no doubt contributed much to the program's success. Here is a sample:

"Due to adverse weather conditions, work has not progressed as well as we had hoped, and the shingling has not yet been completed. However, this week should see it completely enclosed. Just a few remarks about the shingles we are using. As we told you last week, they are one hundred per cent vertical grained and one hundred per cent clear. A vertical grained shingle will not curl or warp when exposed to the weather, thus assuring the user"

Here is another:

"Due to the fact that other people have gotten the remodeling spirit, work hasn't progressed as rapidly as we anticipated on our own remodel house. Our carpenters are busy on another job; but another week should see the entire interior insulated with celotex lath, insuring the home owner of perfect insulation, even temperature throughout the house, no lath buckling and no cracked plaster walls"

Sincerity is evident in this advertising copy. Also it is newsy:

"George McMullen and son are this week painting the shingles on our remodel house, using Black Gold preservative paint, mixed half and half with kerosene. This not only adds greatly to the life of your shingles but also to the appearance, and it is very economical"

So it goes down to the final advertisement announcing that the house is to be opened for public display. A picture of the finished job shows the amazing transformation in the dwelling. During the three day display,

964 persons visited the house, not counting children. Many came two or three times. Among the visitors was a man who had been born in the house 40 years ago. Another had lived in it for three years and another was a former owner.

More interesting than these, however, were the prospects who intimated they might *buy* the house. One woman, who had followed every step of the remodeling and had offered several suggestions which were incorporated in the job, was among the potential buyers. Perhaps, as this is written, the house has been sold.

Not enough time has elapsed to indicate the volume



Foster's Demonstration of Home Modernization



HERE IS THE PHOTOGRAPHER'S PICTURE OF THE HOUSE AT 105 N. CASS AVENUE AS IT APPEARED BEFORE CONTRACTOR HUGHES STARTED MODERNIZATION WORK.

KEEP THIS CUT, SEE THE TRANSFORMATION

The idea which prompted the Foster Lumber Company to remodel this old house into a new modern residence is to demonstrate to the public the practicability and economy of home modernization . . . how easily and at what little expense YOU could transform YOUR old house into a modern convenient HOME.

This week the roof is being remodeled and we are using double SK Duplex paper under the shingles. This paper, while new in this locality, is a tried product of the Sisalkraft Company. Asphalt coating sandwiched between the double paper makes it water-proof, storm-proof and much stronger than ordinary tar paper commonly used. Yet it costs but a few cents more. Our shingles will be 5 to 2, 5X perfects 100% vertical grain, 100% clear. A roof of this kind insures good insulation.

A cordial invitation is extended to the public at any and all times to inspect the construction and various materials used in this home. Upon completion it will be formally opened for thorough inspection.

WATCH THIS SPACE FOR
FURTHER ANNOUNCEMENTS

Foster's Demonstration of Home Modernization

George McMullen and son are this week painting the shingles on our remodel house, using Black Gold preservative paint, mixed half and half with kerosene. This not only adds greatly to the life of your shingles but also to the appearance, and is very economical.

Black Gold Preservative Paint is designed especially for weather-exposed surfaces, and with that in mind is purposely made to dry slowly into a tough, long-wearing film with little or no checking and cracking. It will retain its deep color indefinitely.

The gutters are being coated inside with Black Gold Fibered Coating, used to prevent rusting. A gutter so coated with Black Gold will last many years longer than ordinary untreated gutter.

Black Gold Preservative paint can be used on any kind of surface, and is of real value to the farmer in painting barns, windmills, implements, and metal roofs. It is obtainable in three colors, Red Green and Black, and sold only by Foster Lumber Co.

Foster's Demonstration of Home Modernization

Did you ever stop to think just how much better your home would look if you dressed up the roof with new shingles. Nothing spoils the outward appearance of a home more than a shabby, run-down roof. These days it is so easy and inexpensive to have bright colorful new shingles placed over old. You do not need to take off the old shingles to re-roof, just lay the new shingles over the old ones with the special length shingle nail, and avoid the muss of old shingles laying around. This new method will also give you double insulation against heat and cold, and should you be only half thru with a shingling job and it would rain, you are no worse off than you would be had you not started. This method has proved to be a great help to the property owner, and is stimulating the desire to re-roof now while prices are low.

Tests have proven that this system of shingling will make wood shingles last longer, for the old covering acts as a cushion for the new shingles thus eliminating the splitting up with heavy hail.

Don't let a poor roof that can be made good for a few dollars ruin the interior of your home We will be glad to quote you on any job you may have.

of business for the Foster Lumber Company generated by its sally into remodeling promotion, according to Mr. Hoffman and Mr. Steinshouer. They plan, however, to keep an accurate record of such business.

This simple story about Foster's enterprise shows it lacked the glitter of many promotional projects. It embodied nothing sensational. It might not be well to recommend, indiscriminately, similar endeavor by others. But when we step behind the scenes, we see the courage, ingenuity and intelligence, which I maintain, are typical

Foster's Demonstration of Home Modernization

Work hasn't progressed on our remodeling project as we had anticipated, Mr. Hughes has been working on another job, and it was our idea to work on our remodel house at odd times, but it would seem that if we have this place ready for your inspection that we will have to call a halt in the weather and finish up the work.

Hayes and Son have installed the furnace, an EXL all-steel furnace, and a real one too. We are mighty well pleased with the manner in which this was installed, it was arranged in such a way as to leave us a nice space in the basement for an extra room, the basement being of tile will insure a nice dry place at all times. A good tile basement that can be used for a spare room is an added advantage to every home owner, and the cost is very little more than with cement. The Truscon Steel Basement Sash gives plenty of light and is an insurance against rotted basement window frames. By this time next week we trust we will have the house completely insulated and ready for the plaster.

SAMPLES of the newspaper advertising used by the Foster Lumber Co. The upper left (reduced about one half) was the first announcement of the rehabilitation enterprise. The other ads are typical of the series.

of many retail lumber merchants today. This Foster job is one of several I like to think about when somebody tries to tell me lumber dealers are all lazy, over-cautious, unenterprising fellows. It takes more brains and daring to put on a remodeling demonstration like Foster's in Oberlin than it does to run an August linen sale in a department store or a dollar day sale at a drug store.

My hat comes off to these lumber dealers they used to call "the world's worst merchandisers!"

In commenting on this project the dealer said, "Any demonstration of this kind would be an utter failure if the confidence of the women of the community is not

enlisted. We have even gone so far as to ask and accept personal ideas or advice on many details of this house. This makes for a more intimate and personal interest in the project. Many women in this community have already voluntarily told us that when building or re-modeling they intend using materials and methods demonstrated and explained during this demonstration.

"The local furniture dealer is co-operating to the extent that he is going to furnish the house complete, to drapes, china, utensils, silverware and linens for the demonstration which is planned to be held the first two weeks in July."

Foster's Demonstration Home Modernization

Before



In Complete Readiness

for the

Public Opening

to be held

Saturday—Sunday—Monday

Sept. 16-17-18

THIS week closes our remodeling program on the demonstration home at 105 N. Cass Avenue. Everything is in complete readiness for the public opening and we cordially invite the general public to visit the home on the above dates.

COMPARE THE APPEARANCE OF THESE TWO HOUSES

These photographs were taken just before and immediately after the renovizing, and illustrates what can be done with a reasonable expenditure of time and money.

In order to introduce our popular line of Sewall's Outside Paint, Interior Paint and 4-Hour Floor and Trim Varnish, we are arranging a pleasant surprise for those visiting this Demonstration.

After



COMPLETELY FURNISHED

THIS home will be completely furnished—every room with modern furniture, fixtures and appliances during the demonstration. For this we are indebted and very grateful to—

V. H. GRIFFITH FURNITURE CO.	GUY B. MORRISH
D. G. CAMPBELL	HAYES & SON
J. C. NITSCH	GIERHART MUSIC CO.
OBERLIN GREEN HOUSE	UNITED TELEPHONE CO.

Visiting Hours

SATURDAY—8:30 a. m. to 9 p. m.

SUNDAY—1:30 p. m. to 6:30 p. m.

MONDAY—2 p. m. to 5 p. m.

THE FINAL announcement (reduced about one half) invited the public to attend the opening, gave credit to the co-operating firms and promised extra inducements to visitors.

Plans for Your Farm Trade

THROUGH the courtesy of Henry Geise, head of the extension department of Iowa State College, Ames, Iowa, and chairman of the committee of co-ordination, we are privileged to illustrate farm building plans developed by experts in farm building design at various state colleges and universities in the middle West, and now are available at any one of the fifteen schools participating in the Midwest Farm Building Plan Service:

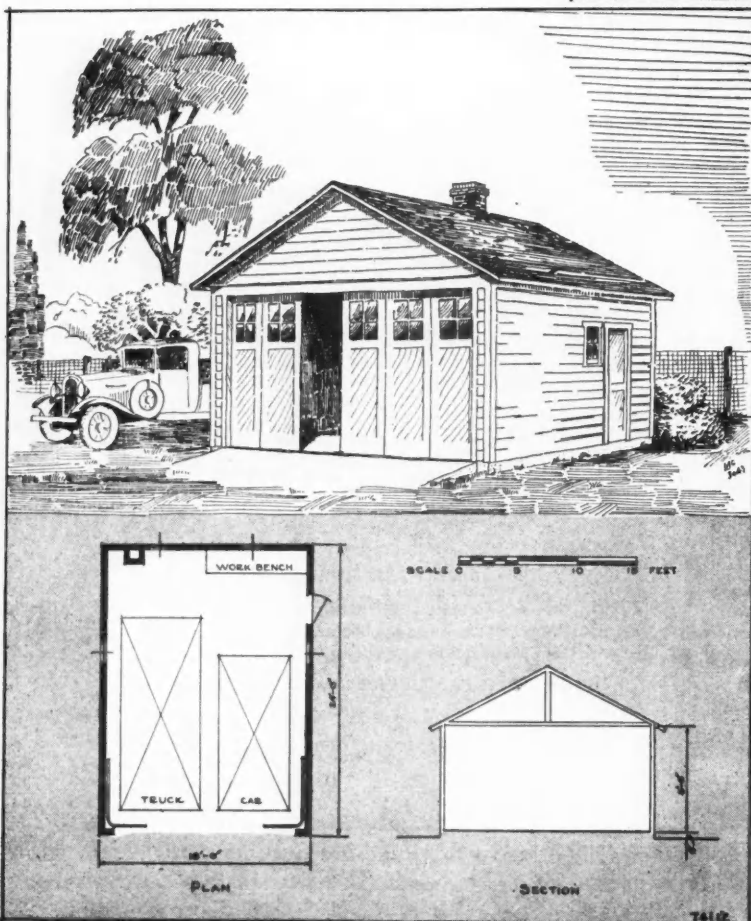
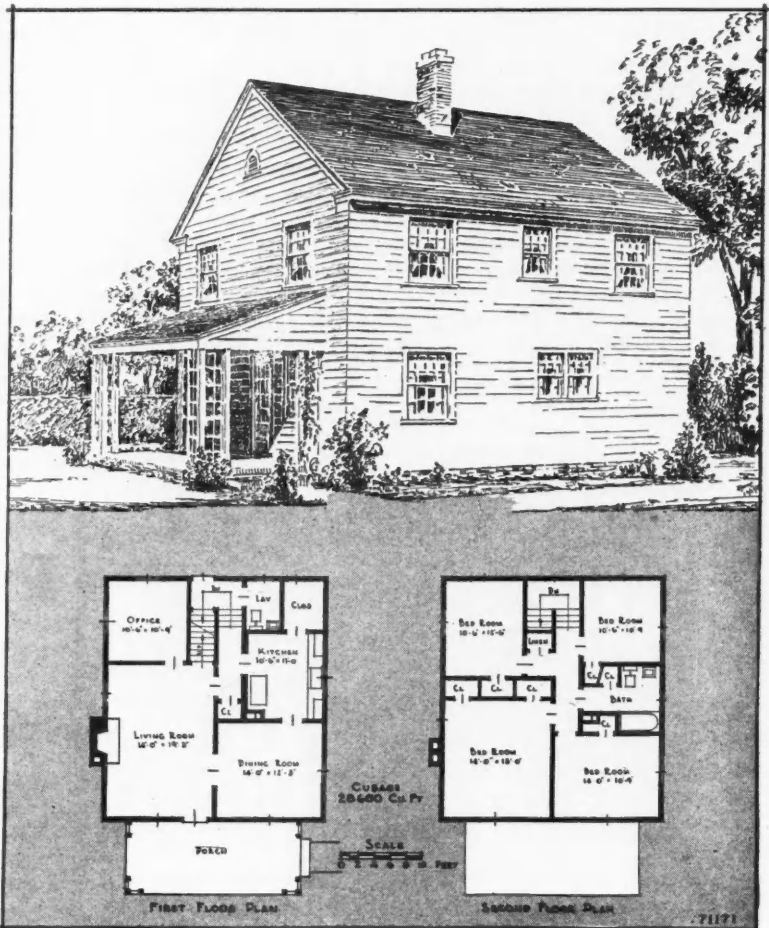
University of Arkansas, University of Illinois, Purdue University, Iowa State College, Kansas State College, University of Kentucky, Michigan State College, University of Minnesota, University of Missouri, University of Nebraska, North Dakota Agricultural College, Ohio State University, Oklahoma A. & M. College, South Dakota State College, University of Wisconsin.

EIGHT ROOM FARM HOUSE

Still showing traces of its origin, this colonial house has been revised and adapted to meet the needs of the larger farm families for whom comfort and economy dictate the use of a two-story house. The long porch across its front with the steps near the drive provides an inviting entrance.

The very important first-floor room—the kitchen—is designed not only for internal convenience, but for easy access to the dining room, the service entry and the food closet or pantry as well. The pantry space may prove more serviceable as a breakfast nook for some families. The working men will find a wash room adjoining the entrance landing on their way to the dinner table. Farming has been recognized here as an important business enterprise in allocating a corner room for an office. The dining room and living room are both roomy and livable. The fireplace has become almost an essential especially in the larger homes.

Midwest Plan No. 71171



FARM SHOP AND GARAGE

An economical use of space is made in the structure illustrated to left by combining a shop with a double garage. With the car and truck removed a large space is made available for repairing farm machinery. The doors in the end slide back against the sides to give a good clearance for bringing in the wider implements.

The workbench is rigidly attached to the front wall, and well lighted by the window above. A drill press, a vise, an anvil and a forge, no doubt, will be considered necessary pieces of equipment and others may be added as desired.

A stove installed near the chimney will be conducive to making repairs during the winter. Timely repairs made during this season may avoid costly breakdowns in the field later.

Frame wall construction is shown in the illustration. The walls are covered with six-inch drop-siding, and the roof with wood shingles. However, asphalt shingles or a good grade of prepared roll roofing may be used on the roof if preferred.

The walls should be anchored to a concrete foundation. Concrete floors are recommended although a good cinder fill may be used as a substitute.

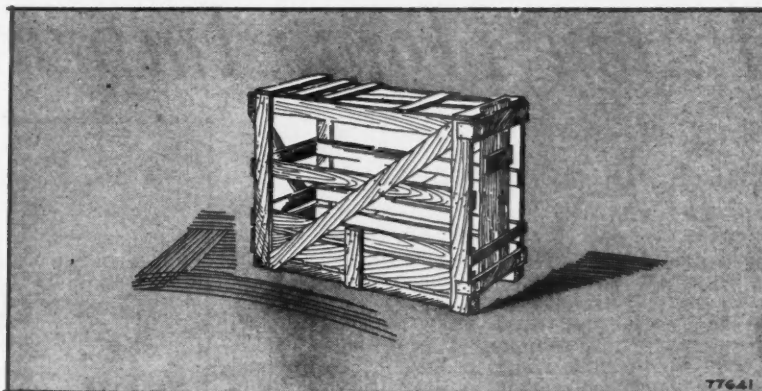
Midwest Plan No. 74112

SHIPPING CRATE

Many of the breeding animals used to improve herds and flocks are shipped by rail from one farm to another. The crate illustrated to right is for use in shipping either hogs or sheep.

Because of the rough handling likely to be experienced it is well constructed. Diagonal bracing on the front end, top and sides give it desired rigidity. Joints with nailing in the end grain have been avoided. Metal nailing strips on the corners add much to the life of service. The end-gate is designed to slide behind a substantial stop to avoid the use of nails in shutting the crate.

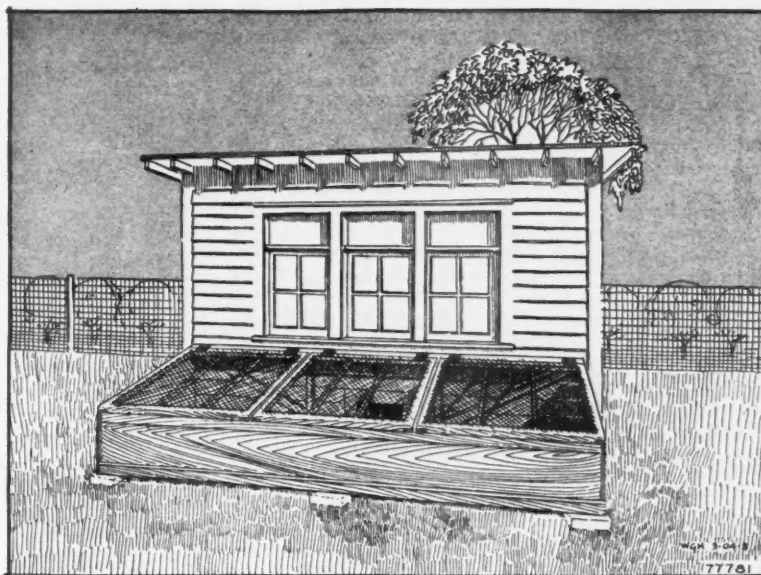
Midwest Plan No. 77641



POULTRY SUN PARLOR

It is difficult to construct brooder houses in such a way as to get much sunshine into them. An outside pen or the so-called "sun parlor" may be used to permit chicks to have free access to sunshine which is so essential to their health and growth. By placing it across the front of the brooder house added protection is obtained. The one shown to right has tight sides and bottom. The top is covered with poultry netting to obtain full benefit of the sun's rays. For severe weather conditions it might pay to cover at least part of the top with glass substitutes which allow ultra-violet rays to pass through.

Midwest Plan No. 77781



SHED ROOF POULTRY HOUSE

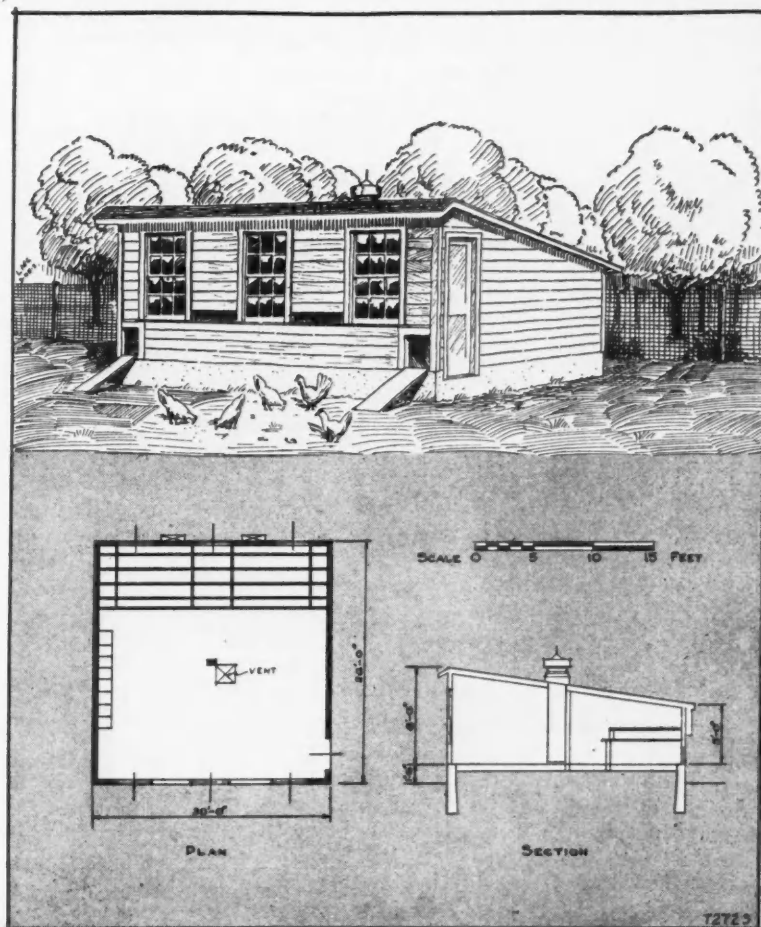
To secure proper ventilation for supplying fresh air and for removing moist foul air is most important in poultry management. A ventilation system is shown in the house to right which includes the use of inlets in both front and rear walls, and an outlet duct in the center of the house.

Fresh air enters the flue in the front wall near the floor, and rises in a duct between the studdings to enter the room under the plate. The rear intakes bring air into the center of the room by means of a flue built on the outside of the wall, and which is connected with the flue enclosed between the rafters. This arrangement prevents a direct draft. The outlet flue for foul air, located near the center of the house, extends to about 18 inches above the floor. The cupola on top is well above the roof line to insure a good up draft.

Either common window glass or glass substitute may be used in the front windows. The windows are in two sections and hinged at both top and bottom to swing in at the middle.

Details of construction show a concrete foundation and floor, the floor slab being poured over a layer of waterproof paper and an 8-inch gravel fill. The walls above are frame with horizontal siding used on the outside. For greater warmth, the inside walls may be lined with insulation board or flooring. The roof should be covered with composition roll roofing.

Midwest Plan No. 72723



Farm Home Improvements

TWO ROOM MILK HOUSE

Although this milk house was designed originally to meet the public health ordinances of one certain milk-shed area, its many desirable features of construction and arrangement have extended its use to other parts of the country as well.

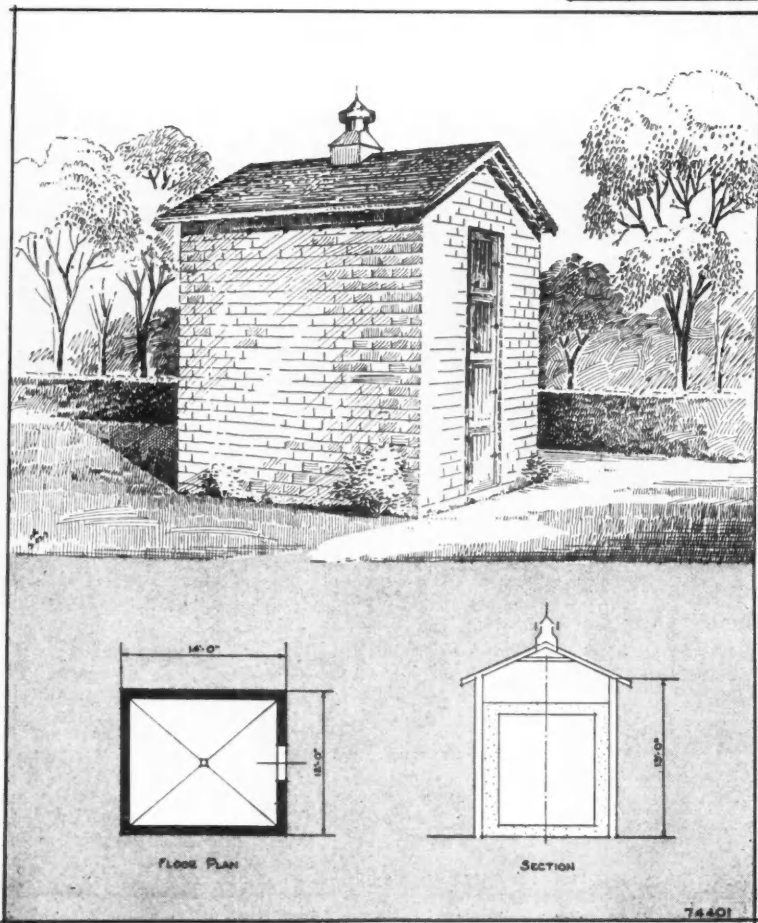
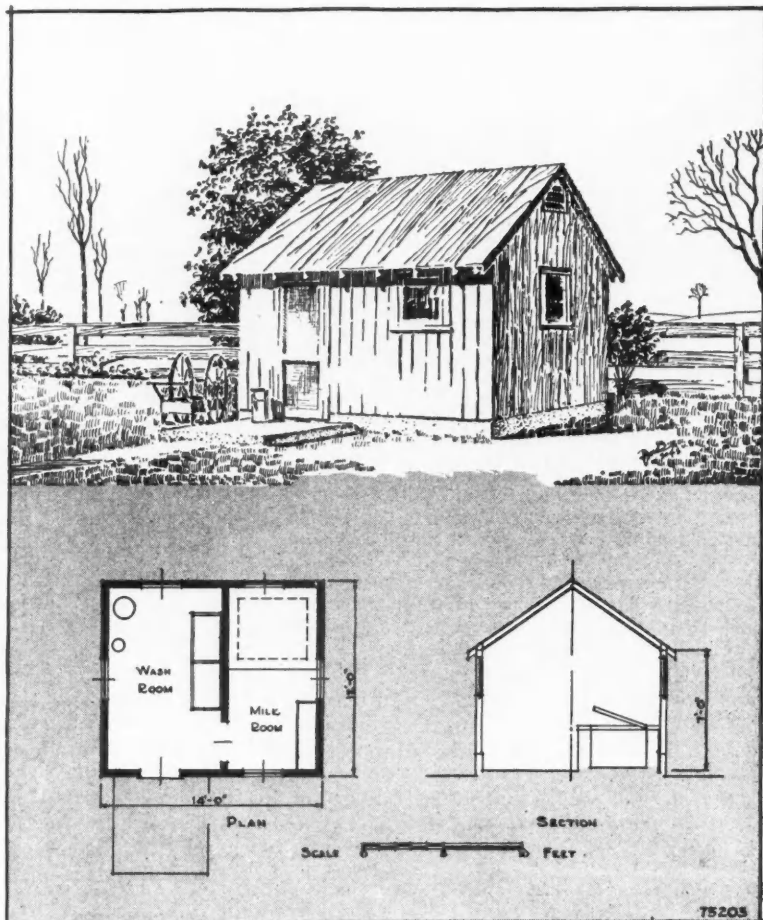
The 12' x 14' size, which meets the minimum requirements of this ordinance for producing grades A and B milk, is large enough for handling, cooling, and storing 40 gallons of milk in 10 gallon cans. If a larger amount is to be cared for, the width of the milk room and the length of the milk tank should be increased 2 feet 2 inches for each additional two cans of milk to be stored.

Either frame or masonry block walls may be used, but in either case the interior including the ceiling should have a smooth finish for painting. If frame construction is used, the inside walls and ceiling should be lined with matched and dressed flooring. Wood or asphalt shingles or roll roofing may be used for roof covering.

Adequate ventilation is secured through the side windows and the louvres in the gable ends. All openings including doors, windows and louvres should be screened.

A convenient floor plan is shown here, with a partition separating the wash room from the milk house. Because of the great variety of water heating systems available, only a possible location for this equipment is indicated on the floor plan. The cooling tank recommended is insulated with standard insulation packages designed especially for that purpose. The plumbing system is adequate yet very simple and inexpensive.

Midwest Plan No. 75203



12' X 14' ICE HOUSE

Local conditions very likely will determine the investment to be made for an ice storage house. In locations where ice is expensive or difficult to obtain a well constructed, well insulated house probably will be advisable. Where natural ice is obtained easily, and the loss due to melting in storage is of little concern, the more expensive structure may not be justified. To meet these varying conditions, several different types of wall construction are shown on the detailed plans.

The masonry block construction shown above represents the more substantial type of construction well adapted to the wet conditions of ice storage. The ice is packed with a 12-inch layer of sawdust around the sides, top and bottom for insulation. Double-walled doors and an insulated ceiling help further in reducing the ice shrinkage.

The frame construction meeting the minimum requirements consists of a single wall of drop siding on the outside of the studdings. Alternate construction, however, shows inside lining for the walls and the proper use of insulating materials.

With frame construction louvres in the gable ends may be used best for ventilation, but with masonry construction, a cupola may prove more satisfactory. Foundation and floors should be made of concrete. A drain should be provided in the center to remove the water as the ice melts.

The capacity of the building is approximately 16 to 18 tons.

Midwest Plan No. 74401

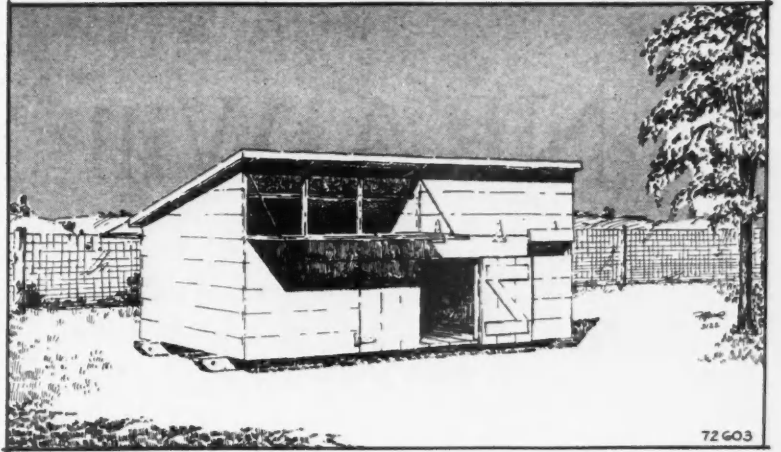
STRAW LOFT FARROWING HOUSE

Many desirable features are incorporated into the design of this multiple hog house to make it usable the year around.

The straw loft insures warm dry pens for use at farrowing time in spring and fall. The small doors in front may be opened for ventilation in cold weather. The straw racks are hinged at the rear and counterbalanced by the large doors in front so that they are raised out of the way by opening these doors.

For summer use the partition and the fenders may be removed, and when shade is at a premium, the rear wall sections, which are hinged at the top, may be raised. This feature allows thorough circulation of air.

Midwest Plan No. 72603

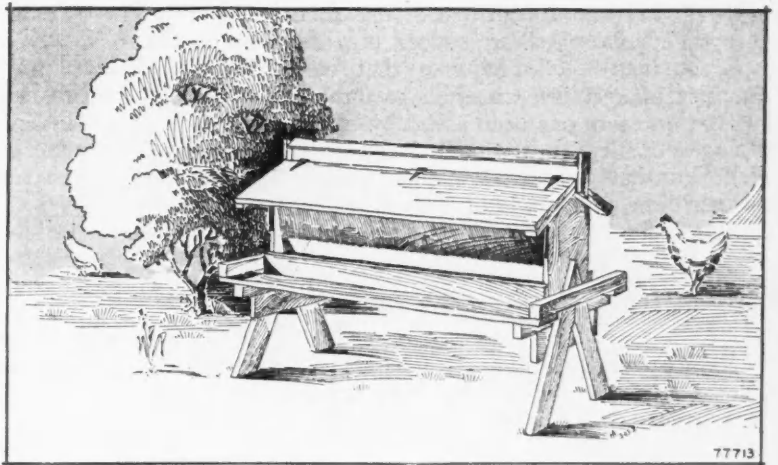


72603

OUTDOOR FEEDER

This is a very popular type of feeder for poultry. It may be used inside or outside, with or without legs. As illustrated it is satisfactory for mature poultry, while for young chickens, the legs may be easily removed, making it possible for month old chicks to reach the feed. It is made of standard 1 by 12 and 1 by 4 inch stock, is easy to construct, practically water proof, rigid, and may well be called a universal feeder. The capacity is about 4 bushels.

Midwest Plan No. 77713



77713

CONCRETE MANURE PIT

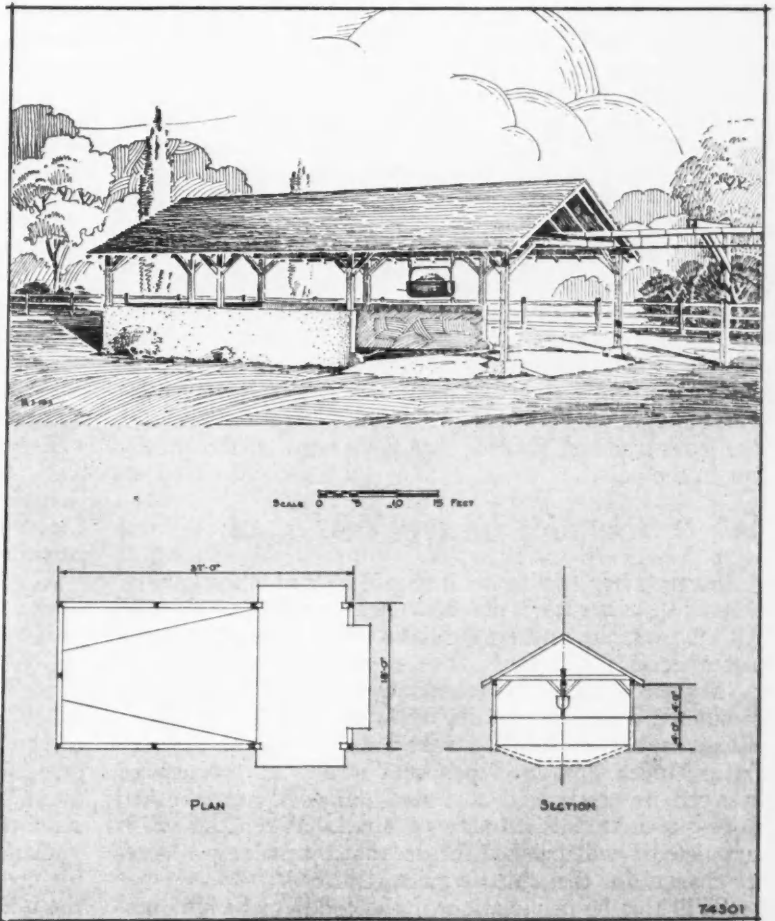
The common waste of valuable fertilizing elements occasioned by piling manure in the yard may be reduced by the use of a storage pit similar to the one shown to right.

A structure of this size is suitable for use with a herd of 18 dairy cows. Concrete floors and walls are used to prevent losses of the valuable liquid portion of the manure. Although the sides are left open above the concrete, the structure should be roofed over to prevent accumulation of rain water. The roof is supported on 6" x 6" posts, and may be covered with shingles, sheet metal or prepared roll roofing as desired. The carrier track is supported on cross beams.

The spreader may be filled directly from the litter carrier in the covered driveway, and stored there when not in use.

Both local and state milk ordinances should be consulted in determining the location of this structure with respect to the milk house and barn. Also some ordinances require the use of screens over all openings.

Midwest Plan No. 74301



74301

How

NRA Will Help "House-

Estimating House Bills by the Quick Cost-Key Method can be safely used under NRA Retailer Code, says Mr. Holt

HOW can I continue to use House Valuator in actually selling houses now that our lumbermen's code requires that we sell a definite quantity of specified materials at our published price?"

That question has been asked by several of the House Valuator dealers I have called on the past few weeks. Believing that you have wondered about that also, I will explain how you can actually sell on the basis of your House Valuator figures and abide by the requirements of your code, as follows:

"Factor of Safety" Quoting

Figure your Basic House at your published price and add about 5 per cent as your "factor of safety." After you have valued any desired home you may be sure that this 5 per cent will protect you when you quote your "it-won't-cost-any-more" price. Explain that the actual cost when completed will be less than this price but that NRA will not permit your actually selling except on the basis of materials actually required at your published price, thereby giving everyone the desired same deal as intended by the New Deal.

"With prices equalized," I explained to one dealer, "you will sell the job if they want to buy from you because you can serve your prospective customer as they want to be served. Your own personality plus the reputation and responsibility of your firm plus the service you can render will get you the business when NRA has eliminated the chiseler."

That dealer readily agreed that his ability to quote in terms that interest a buyer—which is the first principle of salesmanship—would enable him to sell by serving and I am certain that House Valuator will prove to be even more valuable to him in the future than it has under the "hoss-trading" policies that have been all too prevalent in the past.

"Service Charge" Method

Shortly after talking with that dealer another user of House Valuator told me how he intended to actually sell the complete unit on the basis of his House Valuator prices, or as follows:

"My customers want to know beforehand what the completed cost will be," he told me, "and I feel that I should serve them as they want to be served. I have my Basic House figured 5 per cent strong as a 'cushion' between my estimated cost and the cost, at published prices, of materials actually required. When the job is completed I will balance the account by making a 'service charge' for the added service rendered."

"Will this be in violation of the code?" was his ques-

tion and I answered as follows:

"Everyone knows that it is not the purpose of NRA to prevent dealers from giving the best of service to prospective builders in their community. It must not hinder. So long as you charge your published price for materials actually required and otherwise live up to requirements of your NRA code, you need never worry."

"Approximation" Method

That, of course, is my personal opinion and not a ruling by the code authority. In case I am mistaken, and I am positive I am not, I know that you and the several thousand other dealers who have House Valuator or any of my other books will win in this way:

If you will limit House Valuator to approximating the cost of a proposed house, without quoting definite prices, you may be assured that the added confidence which your customer will have in you will cause him to prefer to buy from you. Having his preference and knowing that chiselers cannot chisel, what more could you want?

To help you in your efforts to learn more about the building end of the retail lumber business, the following lesson is made available to you.

Lesson on Estimating

The National Plan Service's plan book, "Homes That Grow," has filled a long-felt want for small homes that can be built with a view of adding rooms later. A sample plan is illustrated on page 30. To answer the question, "What will this house cost?", which is uppermost in the mind of most prospective builders, fill in a valuation form for the original unit, as follows:

Total Rooms. The original rear unit, shown by the black lines, contains a total of ten rooms, or Dining Room, Kitchen, 2 stairs, Chamber, Hall, Bath, Linen Closet and 2 Closets. Note that the front closet is not partitioned off until the future front rooms are added.

Roof Pitch. Laying the 5/12 pitch of MC Roof Gauge on the front gable of the lower orthographic elevation gives the pitch almost instantly.

Cornice. A glance at the picture shows this is a "C & F" or crown-and-frieze cornice.

Size. Adding 1' 6" for the three walls to the 12' width of the Dining Room and 10' 6" width of the Chamber, gives the outside width as 24' 0". The depth is 23' 6" or 18" more than the 11' 3" Dining Room plus 10' 9" Kitchen.

Cost-Rate. Refer to page 48 of either House Valuator or Holt's Rapid Estimator. This table provides for the odd number of nine total rooms so one minor room

Valuator" Lumber Dealers

By A. W. HOLT

Director of Service, Merchandising Council,
Retail Lumber Dealer Associations

must be added as an extra. Calling the cornice 12" will result in a gain that will more than cover the cost of the 5/12 pitch when using the cost-rate for 1/3 pitch. The cost-rate for 24' x 26' size, 8' 6" ceiling, 12" cornice and 1/3 pitch roof is .771. The respective rate for this house 2' longer is .801 or .030 more. Therefore, 2' shorter will have a cost-rate of .741.

Extras. Besides the minor room, which was "rated" at .015, there are two gable sash, 2 pairs of blinds, the flower box and the seat, which Cost Keys *always* include, to be added to arrive at the Special Cost-Rate of .792 given for this original unit of this plan.

Foundation, etc. Refer to page 28 of either book and make corrections for 24' x 24' size as follows: Deduct one linear foot foundation wall, 12 sq. ft. basement floor and 12/27 cu. yards excavation, which is less than 1/2 cu. yard less than the 25.0 given, and you have the next three figures of the Cost Key.

Walls. The wall area will be the perimeter of 95 linear feet multiplied by 9' 6" walls for 903 sq. ft. wall to the plate and the two gables will add 240 sq. ft. more because the pitch fraction (5/12) of the 24' span gives the height of the gables as 10' and 10 x 24 equals 240 sq. ft. This is explained on page 12 of House Valuator but not in the earlier edition, Holt's Rapid Estimator. This was called 12 squares and will result in a discrepancy of 60c for each \$1.00 difference in the price per square of desired wall covering as compared to your standard specifications for the Basic House.

Roof. Adding the roof projection of 95 x .5 or 48 sq. ft. to the floor area of 564 sq. ft. gives 612 sq. ft. as the horizontal plane or "flat roof." Adding 30 per cent for 5/12 pitch, as given by the roof gauge or page 13 of House Valuator, gives the roof area as 796 sq. ft. Even if it had been 840 the Cost Key would still be 8 squares, because wall and roof areas are always given in even squares.

Self-Test. To have complete confidence in your ability to use House Valuator, so as to inspire confidence of others, try valuating the complete unit and check yourself against the following analysis and valuation.

Rooms. Two more rooms plus the partition in the front closet makes a total of 13 rooms, major and minor.

Roof Pitch and Cornice. The rise of the cross-ridged roof is obviously about 11'. As Living Room Projection is 10' 6" inside or 11' 6" outside, this makes that roof 11/11.5 pitch (rise over the span always gives pitch fraction) so that would be called full pitch or 24" rise per foot of run. The front gable and the original unit would still be 5/12 pitch. In view of the C & F cornice, calling this 1/2 pitch and 12" cornice would be very close so far as material is concerned. If labor is included, add 20 to 30 hours extra. I added 30 hours when I rated

this plan. Therefore, the Cost Key will be a trifle liberal if material only is figured, as is always the case for irregular houses with cut-up roof.

House Units and Sizes. The main unit is 24' x 35' 6", or 12' longer than the original unit. In view of the projection for the front door, call it 24' x 36'. Its cost-rate is given at the top of page 53 of either book. From 1.088 for 24' x 38' size, 12" cornice and 1/2 pitch, deduct .030 as the difference in cost-rates for 2' longer, for a cost-rate of 1.058.

The Living Room projects 7' because its size is 7' greater than the Dining Room. It is 11' 6" wide if the off-set at the front corner is 12". Refer to page 37 of estimating hand book and split the difference between .067 for 6' x 12' and .085 for 8' x 12' sizes for a cost-rate of .076. In view of the judgement involved by this mixed-pitch roof, a variation of .015 either way from this total cost-rate (without extras) of 1.134 would be considered accurate.

Extras. There will be no extra minor rooms in this case and the 14 windows shown check with the 14 provided by the 13 room table. The two extra gable or attic windows, 2 pair of blinds and the porch seat and flower box are the only extras besides the extra labor for the roof.

Foundation, etc. The extreme width of 31' plus the depth of 35' 6" multiplied by 2 gives 133 linear feet foundation. The basement floor area will equal 852 for the main unit plus 81 for the projecting Living Room. Adding the perimeter to the floor area and dividing by 27 cu. ft. per cu. yd. gives 39 cu. yds. excavating per foot deep.

Walls. The result of 133 multiplied by 9' 6" (height of walls) equals 1,263 sq. ft. main wall. The front and rear gables area of 240 and the two side gables are 11' times 11.5', or 126 sq. ft.; this gives a total wall area of 1,629 sq. ft.

Roof. The floor area of 933 sq. ft. plus 67 sq. ft. for roof projection makes 1,000 sq. ft. of horizontal plane under this roof. Adding 30 per cent gives 1,300 sq. ft. if the roof was all 5/12 pitch. As 124 per cent should be added for the full pitch roof, it will be necessary to add 94 per cent more to the horizontal plane under the steeper pitch. The living room projection is 12' 6" from eave to eave so the two triangles under the valleys would be 12' 6" by half the 24' width of the main unit or 150 sq. ft. Technically it is a trifle more as the ridges do not meet. Adding 7 x 12 1/2 under the living room projection makes 237 sq. ft. which could be increased to 250 or 260 sq. ft. because the ridges do not meet. Adding 94 per cent of 250 makes 1,530 sq. ft. of actual roof surface, which is increased to 16 squares to provide for waste of the four valleys.

THE PROGRESSIVE DEALER To Capitalize

CO-OPERATION FROM CUSTOMERS Is Essential TO SUCCESS

If you enter a subscription to the AMERICAN BUILDER for every man in the building trades and professions in your community the total annual cost to you will be less than the cost of one sizeable advertisement in your local newspaper, or the cost of one direct by mail effort. *One fairly good sized order from one man pays for the whole year's campaign.* Every order you can get helps to swell your sales volume and this is one way to continually bid for every order to be placed through the entire year.

"The Importance Of The Local Lumber And Material Dealer" is the subject of an editorial campaign which the AMERICAN BUILDER is conducting to impress on the minds of the building professions and trades the necessity for supporting their local dealers in their battle against mail order and unfair competition.

This series started in our October edition and will be continuous. It is to the dealer's great advantage to see that no member of the professions and trades in his community fails to get this story every month in the Contractor Edition of the AMERICAN BUILDER—which is the regular edition without the supplement containing the Dealer Marketing Section.

At a total cost of but \$1.00 per year per man (on lists containing five or more names) you send your trade and professional customers 12 editions of the AMERICAN BUILDER, each edition of which contains refreshing ideas and good suggestions on good construction methods, new home and building designs, home and utility building repairs and modernizing. Support of your institution is continually urged in the editorial columns in a manner very difficult for you to do personally. Your status as a local merchant of importance is brought to their attention every month.

The Contractor Edition Serves Your Customers

IS LAYING HIS PLANS NOW Improved Conditions

EDUCATION OF EMPLOYEES

Is Paramount TO SUCCESS

The complete edition of the **AMERICAN BUILDER**, containing the regular Contractor edition, plus the Dealer Marketing Section is for dealers only. Each and every one of your officials and employees who has anything to do with management or who has contact with the public can benefit materially from a short study of the **AMERICAN BUILDER** every month. The dealer should be "the best informed" in any transaction: he should have full knowledge of every phase of building activity and the **AMERICAN BUILDER** affords the facility at exceptionally low cost.

A contractor-Builder in a small city in Georgia recently wrote us that he had sold a five room house "right out of the Builder." He went on to say,

"Those cost-keys did the work. My dealer had the exact cost information for me thirty minutes after I asked for his help. It strikes me that this plan of yours gives the dealer and the contractor the best opportunity for co-operation I ever saw. And the Lord knows we need to co-operate now that they have us pinned down on a lot of restrictions we never had to consider before. Keep up the good work."

A. W. Holt, merchandising counsellor for the Retail Lumber Dealers' Association conducts an estimating lesson in the Dealer Marketing Section every month. This is the most outstanding regular feature of any trade journal published in the building field—an invaluable service for your officials and employees. It gives you up to date information on all systems of estimating as well as preparing you for special service to your customers. *And the cost is but \$1.00 per year per subscription on lists containing five or more names.*

The Dealer Edition Is For Dealers Only

(Continued from page 71)

Building "In Installments"

In case this house is built "in installments," to minimize waste and extra labor the siding for the front wall should be nailed with a finish nail so it can be easily and quickly removed by inserting a stiff putty knife under the siding and forcing it off the nail, pulling the nail out afterwards. The frames should be attached with screws to facilitate removing and using again. The openings should be framed for the complete home and sub-framed under the windows of the original unit. This will simplify adding the future unit without injury to interior finish of walls of original unit.

All small homes should be built with the view of adding rooms later. Many plans are adapted to this idea and it is better to select the plan on the basis of the completed unit and building part instead of adopting a plan of a small home without regard to future additions.

Many of the built-to-grow plans disregard economy of future additions. The roof design must permit future additions without cutting into the old roof and taking a chance on inclement weather spoiling the walls and ceilings of the completed unit. The design illustrated is particularly good and a little study of the floor plan will enable you quickly to identify other plans that are suitable for small homes with a view of adding rooms.

When your code is functioning as it is intended the dealers who can analyze any picture plan and quickly figure the cost and then answer any question asked by a prospective builder will have a distinct advantage. As one House Valuator dealer puts it, "You will be sitting in the golden chair." When you can serve your prospects as they want to be served you will have many more occasions to make deliveries than the fellow who trusts to luck to get business. This is a good time to prepare for the good times that are in store for worth-while lumber dealers and most of the dealers I have talked with lately feel very optimistic about 1934. So, let's get ready to go.



Plan U.S. Loans for Rebuilding Farms

A FEDERAL corporation to finance farm home renovation and rehabilitation on liberal credit terms is being worked out by experts of the Department of Agriculture, Washington dispatches say. A census of farm dwellers to determine the prospects of the proposed corporation is to be undertaken by the Civil Works Administration.

The project contemplates the extension of Federal credit for every type of farm home reconditioning, or for complete rebuilding. The project sheet outlining the nature of the information to be gathered by the census takers discloses that loans are contemplated for repairs and improvements, for the addition of rooms, and for the repair, replacement or installation of such facilities as sanitary facilities, electric refrigeration, electric lights, plumbing, landscaping, built-in equipment.

The census workers, of whom 5,000 are expected to be recruited under the CWA, are instructed to obtain "some idea of willingness to have any or all of these facilities installed, if provided on liberal credit with amortization."

The questionnaire includes a request for information as to which of these items the farmer would use the money on if he had \$500, \$250, or \$100.

To Mark and Identify All Lumber

THE Lumber Code Authority, in compliance with the Lumber Code, is undertaking to bring about the marking of all lumber and timber products in such a way as to indicate the quality grade of each product, designation of the association responsible for the grading, the designation of the manufacturer, the species and dimensions, and condition with respect to dryness. The organized lumber industry has long sought to universalize grade and trade marking of lumber. A provision in the Lumber Code requires such practice.

Lumber Code Violator Cited

THE first alleged violator of the code of fair competition for the Lumber and Timber Products Industry was cited by the NRA for action by the Department of Justice on Dec. 12. W. E. Belcher, lumber producer of Centerville, Ala., was cited for alleged failure to comply with minimum wage and maximum hour provisions of the code.

Among the documents submitted in the transfer file were an affidavit to the effect that laborers at the Belcher mill stated their hours of work were unlimited, and their pay 15 cents an hour; a further affidavit to the effect that laborers, on October 27, were receiving 10 cents an hour and up; and an admission by Belcher, to the Code Authority on Oct. 18, that he was not operating under the code.

550 Home Loans a Day

MORE than 550 loans on small urban homes are being closed daily by the Home Owners' Loan Corporation, it was announced by the Corporation Dec. 4 in making public the report of its national operation. Loans closed during the week totaled 3,339, with total dollar volume of \$9,540,310, representing a rate of more than \$1,500,000 a day.

The report showed that to Dec. 4 a total of 15,547 loans, amounting to \$44,898,375, had been paid out by the Corporation. Tentative approvals reported numbered 176,741, with dollar volume of \$500,244,668.

Reynolds Buys Ecod

WITH the purchase from E. D. Coddington Manufacturing Co. of Milwaukee of the rights, materials and machinery for the manufacture of Ecod fabric, the Reynolds Metals Co. has definitely entered the building supplies field.

The raw materials and machinery formerly owned by the Coddington Co. have been divided and shipped to two of the Reynolds plants at Louisville, Ky., and Glendale, L. I., where the new material, to be known as Reynolds Metallated Ecod, will be manufactured. "Metallation" is a coined name for aluminum insulation already in manufacture by the Reynolds Co.

Regulations for Financing Retail Trade Code Authority

REGULATIONS for financing the operation of the Retail Trade Code Authority and for the award of the Blue Eagle to members of the retail trade were made public Dec. 11 at National Recovery Administration headquarters. An annual assessment of 25 cents for each local retail employee is provided for the expenses of the National Retail Trade Authority. Local Retail Code Authorities may levy additional funds for their local expenses, not exceeding a total of \$1 a year, all told for each local worker.