

[A Simmons-Boardman Publication]

AMERICAN BUILDER

and Building Age

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

JULY, 1935

57th Year

Vol. 57—No. 7



AMERICAN BUILDER and BUILDING AGE, with which are incorporated National Builder, Permanent Builder, and the Builder's Journal, is published on the first day of each month by the

AMERICAN BUILDER PUBLISHING CORPORATION

105 West Adams Street,
Chicago, Ill.

NEW YORK
30 Church Street

CLEVELAND
Terminal Tower

WASHINGTON, D.C.
National Press Building

SAN FRANCISCO
55 New Montgomery Street

Samuel O. Dunn, *Chairman of Board*;
Henry Lee, *President*; Bernard L. Johnson, Robert H. Morris, Delbert W. Smith, L. R. Putman, and R. E. Clement, *Vice Presidents*; Elmer T. Howson, *Secretary*; John T. De Mott, *Treasurer*.

Subscription price in the United States and Possessions, 1 year, \$2.00, 2 years, \$3.00, 3 years, \$4.00; Canada, including duty, 1 year \$2.50, 2 years, \$4.00, 3 years, \$5.00; foreign countries, 1 year, \$4.00, 2 years, \$7.00, 3 years, \$10.00. Single copies, 25 cents each.

Member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulation (A. B. C.)

NRA Decision and Recovery, by Samuel O. Dunn.....	17
Editorials	19
Wage Rates and Building Booms	
Modernize the Building Codes	
Probate Judge Writes a Home Owning Editorial	
What's in a Name?	
Frontispiece—Signs of Better Times.....	21
Operative Builders Department.....	22
Building Cellar-less Homes That Grow.....	22
Purchase Hill Building Company, Westchester County, N.Y., Is Building Nine Homes for Growing Families	
New "Take Down" Walls Built of Transite Panels.....	25
Details of New Partition Construction That Is Quickly Assembled	
Yonkers Model Home Goes Modern.....	26
Photograph, Plans and Specifications of the Model Concrete Residence at Yonkers, N.Y.	
Modern Interiors in a New Model Modern Home.....	28
Interior Views of Yonkers Model Home	
Four Charming Home Exteriors from One Compact Floor Plan.....	30
Planning Is KEY to Low Costs.....	32
New Curtis Companies Design Series Offers Thrifty Building Plans	
Today's Small House Requires New Methods and Materials.....	34
Leland R. Reeder, Architect, Analyzes Present Day Home Building Requirements	
Plans for Low Cost Homes for Suburban and Country Homesteads.....	36
What Can Be Accomplished on One-Half Acre	
The House of the Month.....	38
Photograph, Working Drawings and Complete Specifications of Charming Colonial House Built at Purchase Hill, N.Y.	
Doctors' Efficient Bungalow Offices.....	41
Wheaton, Ill., Physicians Plan Convenient Small Office Building	
Unit Plans Recommended.....	42
PWA Housing Division Urges Use of Efficient Layout When Planning Low Cost Housing	
Modernization Department.....	46
Builders Active in City Remodeling.....	47
Interesting Examples Show Opportunities for Contractors in Restoring Old Buildings	
Remodeled Tea Room Attracts New Trade.....	49
Modernizing Gives Old Property Necessary Business Character	
Air Conditioning—Key to Comfort.....	50
V. L. Sherman Maintains That Future Home Standards Will Require Equipment for Proper Air Treatment to Insure Comfortable Indoor Living	
Practical Job Pointers.....	54
What's New Department.....	56
News of the Industry.....	58
Letters from Readers.....	66
Selected List of Manufacturers' Literature.....	70
Advertisers' Index.....	81

BERNARD L. JOHNSON
Editor

JOSEPH B. MASON
Eastern Editor
H. F. LANE
Washington Editor

R. E. SANGSTER
Associate Editor

L. R. PUTMAN
Marketing Editor
A. W. HOLT
Contributing Editor

ROBERT H. MORRIS
Business Manager

KALMAN STEEL JOISTS



bring added values to any home

WHILE fire-safety ranks first among the advantages of Kalman Steel Joists, they bring additional values that appeal to any prospective home-builder.

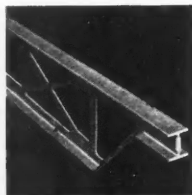
The combination of Kalman Steel Joists with concrete floor slab and plaster makes a floor structure that, while forming an impassable barrier to fire, transmits very little sound and vibration, preventing noises overhead from disturbing occupants of rooms below. A floor structure that cannot shrink to cause cracks where walls and floor meet, and that is immune to the dreaded termite, whose ravages are spreading rapidly.

These advantages, which make a difference in the building cost of only a few cents a square foot, provide the owner with a dwelling that is more

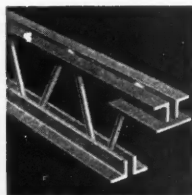
livable. They make his investment sounder, because his home—which often represents the savings of years—is less subject to swift obsolescence, will need fewer repairs.

Kalman Steel Joists in no way complicate the builder's work. Often they simplify it. These joists require no cutting or fitting. They reach the site in the exact lengths needed and are quickly installed and the concrete poured.

Tell the prospective home-owner about the advantages of Kalman Steel Joists. The fact that he may have in mind a relatively small dwelling offers no obstacle to their use. Kalman Joists can be applied as economically to a six-room home as to a large, pretentious one. They are of course adaptable to any style of architecture.



KALMAN JOIST



MACMAR JOIST

KALMAN BUILDING STEEL



KALMAN STEEL CORPORATION, Subsidiary of Bethlehem Steel Corporation. General Offices: Bethlehem, Pa. District Offices: Albany, Atlanta, Baltimore, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Houston, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, St. Paul, Syracuse, Washington. Pacific Coast Distributor: Pacific Coast Steel Corporation, San Francisco, Seattle, Los Angeles, Portland, Honolulu. Export Distributor: Bethlehem Steel Export Corporation, New York.

N. R. A. Decision and Recovery

THE Supreme Court's decision holding N.R.A. unconstitutional will have important effects on business. The *American Builder* believes that from its inception N.R.A. hindered recovery, and that its destruction will stimulate recovery.

N.R.A. was established in June, 1933. There is a great contrast between the progress made since then in other leading countries and in the United States. From June, 1933, to the spring of 1935 industrial production *increased*, in Great Britain, 20 per cent; Germany, 26 per cent; Sweden, 41 per cent; Italy, 31 per cent; Japan and Canada, 17 per cent; Austria, 10 per cent. In the United States it *declined* 9 per cent.

In twelve leading countries total *building construction* in 1934 was 87 per cent as great as in 1928; in the United States, only 24 per cent.

WHY this extreme contrast? It is unquestionably due to government and business policies in this country. As the *American Builder* has said before, we have been stepping on the gas and the brakes at the same time. The brakes have proved too strong.

Depression creates a *buyer's market*, and can not be ended without making wages and prices that buyers will pay. Just when, in the second quarter of 1933, an increase in buying, production and employment was occurring, N.R.A. began boosting hourly wages, production costs and prices. Many buyers immediately rebelled. Hence the stagnation in production and employment, especially in most durable goods industries, that has since prevailed.

Many industries are announcing they will maintain N.R.A. standards of competition, working hours and wages. To what extent this actually will be done will depend, in each industry, upon sales and production. Competition inevitably will increase, because the N.R.A. decision largely restores a freedom to business men, of which they inevitably will take advantage, to do what they consider necessary to reduce their costs, and increase sales and production.

THE largest wealth and income per capita ever known in the world were achieved in this country under a system of freedom of private initiative and enterprise. The more that system is restored the more rapidly and completely will recovery be achieved.

Recovery is now well under way in the home-building industry. Contracts for new residential construction increased in the first five months of 1935 from \$117,000,000 to \$187,000,000, or 51 per cent; in May, from \$28,000,000 to \$54,000,000, or 93 per cent. Recovery in the home-building industry will be stimulated by the improvement in general business that appears certain to be caused by more freedom of business to manage itself.

Samuel O. Drun,

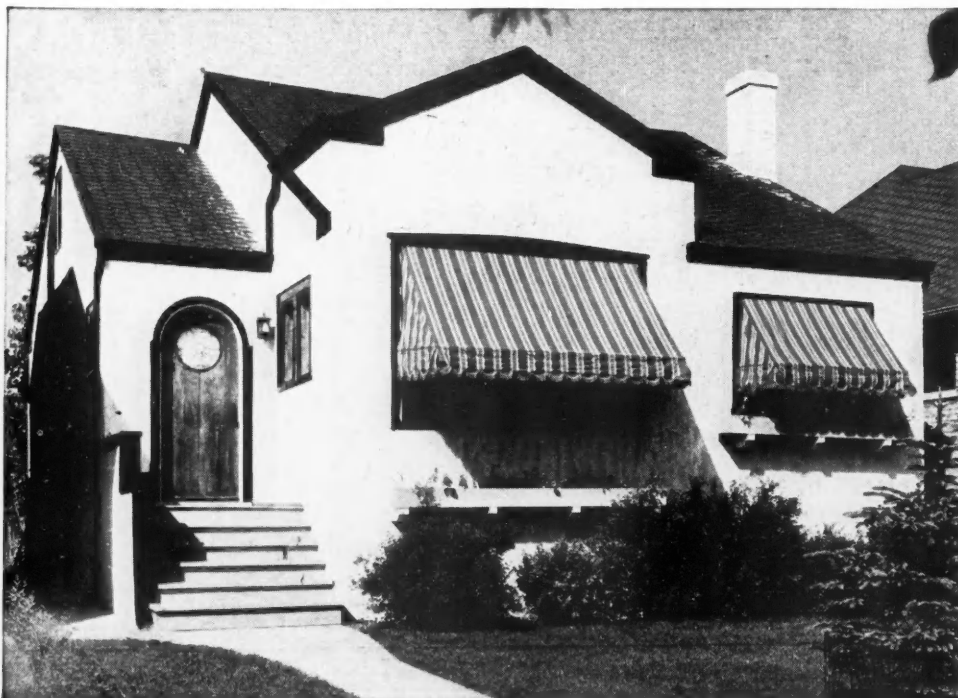
CHAIRMAN,
AMERICAN BUILDER PUBLISHING CORPORATION
SIMMONS-BOARDMAN PUBLISHING CORPORATION

PLEASANT • COLORFUL • STURDY • ECONOMICAL

HOUSES *of* STUCCO

NEW homes are selling. Modernized homes are selling. And homes finished in attractive, eye-inviting stucco are well up in the *profitable* sales parade. ● Stucco as it is made and applied under today's specifications (and did you know that much of it is now *factory-prepared?*) is a finish particularly fitted to home building—both for new construction and for modernizing. ● First of all, portland cement stucco is a durable, strong finish—actually it is a thin wall of concrete, and is comparably permanent, weatherproof and fire-resistant. ● Second, stucco is applied in any texture suited to the architectural design—floated to a smooth finish, troweled in various semi-smooth effects, tooled, stippled, spatter-dashed, rough torn, or treated in other pleasing ways. ● Third, with a finish coat made with *white* portland cement, *any color* is available in stucco—from pure white, through pastel tints of cream and salmon and tan and pink, to rich warm yellows and browns and greens and other shades. ● Durability, texture, color—these are selling points for stucco that help convince your prospects of a home's desirability—and that mean ready turnover and profit to you. Want the details? Write Universal Atlas Cement Co. (*United States Steel Corporation Subsidiary*), 208 South LaSalle Street, Chicago.

STUCCO *made with* ATLAS WHITE PORTLAND CEMENT



This trim and tidy home has been modernized with an Atlas White portland cement stucco finish in a semi-rough texture.

AMERICAN BUILDER AND BUILDING AGE

Wage Rates and Building Booms

LOUIS J. HOROWITZ, former head of the big New York construction firm, Thompson-Starrett Company, Inc., has prominently raised the question of high home building and other construction labor costs, in an article in the *Saturday Evening Post* of June 15. He presents the accompanying table showing that in New York City the present union rates are practically double what they were in 1916-18, and more than 400 per cent higher than they are today in England. In contrast, he points out, the increases in the cost of living and in wages in other industries are nothing like so great. "It is an economic fallacy," he writes, "to expect that a man earning fifty cents an hour can ever support the cost of facilities created by his fellow workers at \$1.50 per hour."

Mr. Horowitz goes on to point out that today there is only a limited amount of private building going on, and that this is chiefly because "labor leaders" persist in maintaining a scale, or rate, of wages for the men they undertake to represent which is out of balance with rates prevailing in other classes of comparable occupations.

"I say 'labor leaders' advisedly," he explains, "because I feel confident that the rank and file of men would prefer to receive, say, \$33 per week for 44 hours' work to having a theoretical rate of \$45 per week for 30 hours' work with little or no work to do."

This prominently displayed article, placed before the *Post's* large and influential audience, will strengthen still further the public's apprehension toward present home building costs. It seems evident that some adjustment will have to be made between these wage rates asked and what the property owners and prospective home buyers are willing to pay before any large amount of building and building trades hiring will be done.

WAGE SCHEDULES—BUILDING TRADES

*Reported by Louis J. Horowitz in Saturday Evening Post,
June 15, 1935*

	Wage Rates per 8-Hour Day 1916-1918	Wage Rates per 8-Hour Day 1935	Approx. Wage Rates in England Ad- justed to an 8-Hour Day
Bricklayers	\$6.50	\$12.00	\$2.88
Carpenters	5.50	11.20	2.88
Electrical Workers	5.00	11.20*	.....
Gas Fitters	6.00	12.00	.....
Hoisting Engineers	6.50	12.00†	.....
Laborers (average)	3.00	7.10	2.16
Marble Fitters	6.00	12.00	.....
Painters	5.00	9.00*	.....
Plasterers	6.50	12.00	2.88
Plumbers	6.00	12.00	2.88
Steam Fitters	6.00	11.20	.....
Stonecutters	6.00	12.00	.....

*Denotes seven-hour day.

†Accepted under protest; claim \$13.20.

Question of Hourly vs. Weekly Wage

What has become of that proposal from the Secretary of Labor last fall that the Unions should exchange their customary high hourly rate with uncertainty of employment for a lower rate figured on a weekly or monthly basis and with continuous employment guaranteed?

That is an objective so desired by all that it should have more serious study and discussion than so far, seemingly, has been given to it. The *real* wages of carpenters, bricklayers and other building trades workers are not high. With only a few hours work per week they yield a bare existence or less to these skilled mechanics and their dependents. Still the *cost* per hour to the hiring public is so high as compared with present day incomes that it is discouraging to the home owner who needs some repairing and modernizing work done and to the prospective home builder who should be coming into the market now, as a large employer of building labor.

Now that NRA is dead and buried and the price fixing codes a thing of the past, the buying public is naturally expecting a reduction in building costs. This, then, is the dramatic moment for the labor unions jointly with the several contractors' associations to come out with announcements of *official wage rates* in line with recent and present *actual rates* and so give buyers of construction labor confidence to go ahead with needed and wanted building improvements.

Under-cover rates, rebates, drawbacks, and other familiar devices for adjusting high, fixed, official wage rates to current market conditions cannot be a safe or satisfactory basis for an extensive building program.

The sane and sensible course would seem to be for the Unions to set the rates at a figure to yield a satisfactory wage for a 44 hour week and then for the contractors' and builders' associations, locally, to guarantee steady employment at that rate. This is a subject that is looming large in the public mind—probably larger than the facts really warrant—and it must be solved in some way satisfactory to the buyers if volume building business is to be achieved.

CODES—ANCIENT AND MODERN

THE first building code is said to have been promulgated by Hammurabi, King of Babylon, about four thousand years ago. He decreed a few simple laws providing that, if a house collapsed and killed the owner, the contractor

was to be put to death. A square foot price for buildings and a wage scale for mechanics was also established.

Some of the building codes (not NRA codes) of American cities are not quite as old or drastic as Hammurabi's but they are just about as out of date. A recent survey of the American Standards Association, in which a questionnaire was sent to all cities of 2,500 population or over, showed that 160 codes are 20 or more years old, 165 are from 15 to 20 years old, 370 are from 10 to 15 years and 620 are from 5 to 10 years. Only 371 have been in force less than 5 years. Some 950 municipalities reported no building code at all.

This is a travesty on modern construction. How can a code 10, 15 or 20 years old be up to date in view of the rapid changes in building materials, methods and processes? We hate to bring in that old comparison with the automobile industry but it does seem pertinent to ask where the automobile industry would be if it were still building autos under the restrictions of a 1910 code.

The American Standards survey also shows a confusing muddle of contradictions, inconsistencies and serious inhibitions to good modern construction.

Although the Supreme Court has defined building as a local industry, manufacturers of building equipment and materials, who have been largely responsible for the amazing progress of modern construction, operate on a national basis, and their standardized products go into all of the States of the Union. There should therefore be a fair degree of uniformity in building codes to permit the use of the latest and most modern developments in equipment and materials.

The construction industry must continue to improve and advance. It cannot be held back by building codes drawn up long before many modern materials and practices were thought of. Building codes need a thorough overhauling and revision to be brought up to date.

PROBATE JUDGE WRITES A HOME OWNING EDITORIAL

A NEWS despatch from Springfield, Ill., dated June 20 states that Probate Judge Benjamin S. De Boice of Sangamon County refused authority to the First State Trust and Savings Bank, as conservator in seven estates, to invest the estate funds in United States government securities. The court in a thousand word opinion recommended investment in mortgages, at the same time commenting that "during this period of business uncertainty and lowering prices the investing public has turned to government obligations as a cyclone cellar in which to place investments.

"This rush for investment in government obligations," Judge De Boice held, "has produced an ever lowering rate of return until the present net return on such obligations is around 2 per cent."

The court recommended instead that the bank hold the funds until such time as investments could be made in *real estate mortgages*. "At the present time the prevailing interest rate upon real estate mortgages is between 5

per cent and 6 per cent and, although as yet real estate is not moving upon the market fast enough to satisfy the demand for this kind of investment, yet we feel safe in predicting that the day is not far distant when such investments will be plentiful," Judge De Boice's opinion said.

"In view of the fact that the national debt is today almost 29 billion dollars, the highest point in our history, we may safely say that there is a greater saturation of investments in government bonds among our people than ever before. Just as soon as the rank and file of our people become convinced that we are on the eve of a period of inflation there will be a wild rush to convert the low interest bearing investment in government obligations into higher interest bearing industrials and tangible property, and we will witness a repetition of the experience of the early '20s, when government bonds sank below 85 under similar conditions.

"This court does not consider that an investment in government obligations at this time, when they yield only about 2 per cent return, is a judicious investment for a conservator to make of its ward's funds."

NEW YOUNG ARCHITECTS

ANY observer of the current crop of small homes cannot help being impressed by the fact that many of them are being designed by young architects who are comparative newcomers to the field. They are doing excellent work and doing it on a practical, low-cost basis that is a refreshing change from some of the hide-bound, high-hat practices of the "best men" of the profession.

American Builder has always urged its readers to make use of the best architectural talent available in the economic sphere in which they operate. Good design and good architecture, we repeat, are extremely important, but we also repeat that good design and good architecture are not an exclusive prerogative of a few Institute men who think they should be the supreme arbiters of building practices.

Operative builders are showing a greater interest than ever before in good architecture. The young architects we have mentioned are getting the work because their prices are reasonable; they are willing to work closely with the builder, and admit he has some knowledge of good practice, and they are willing to spend time on really low-cost small homes.

There is a great future for architects who are willing to devote their talents to this field. Their services are greatly needed. Many contractors are seeking for men of this type. Frequently architects with a wide and valuable experience in residential work are being taken as partners by builders, which is a most sensible and sound procedure. The more home building can be simplified and centralized, the more costs can be brought down and the better it will be for the entire industry.

Builders are going to be confronted with a home-purchasing public constantly being educated to higher standards and increasingly demanding small homes created by the best architectural talent.

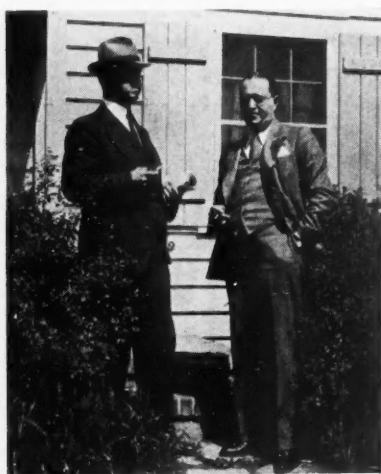
SIGNS of better times



CATCHY names and slogans are widely used by Long Island builders to attract customers to their home offerings. A profusion of signs such as these are to be seen in certain sections of Long Island—truly signs of better times for home builders. The above were photographed early in June in the North Shore section of Long Island where it is estimated more than 1,000 houses are being built for sale by builders.

OPERATIVE BUILDERS

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



LUCIUS S. BEARDSLEY, left; and Charles A. Newburg, right, on the job at Purchase Hill.

Building Cellar-less Homes that Grow

By JOSEPH B. MASON

MANY builders have talked about building houses without basements, planned so that they can be added to later on, but few have done it. In Westchester County, N.Y., however, the Purchase Hill Building Company is building and selling such houses with great success. Charles A. Newburg, president; and Lucius S. Beardsley, secretary and architect of the firm, are enthusiastic about the possibilities for this type of home.

"We save at least 10 percent by eliminating the basement," they told the *American Builder*, "and can put this money above the ground where it can be seen

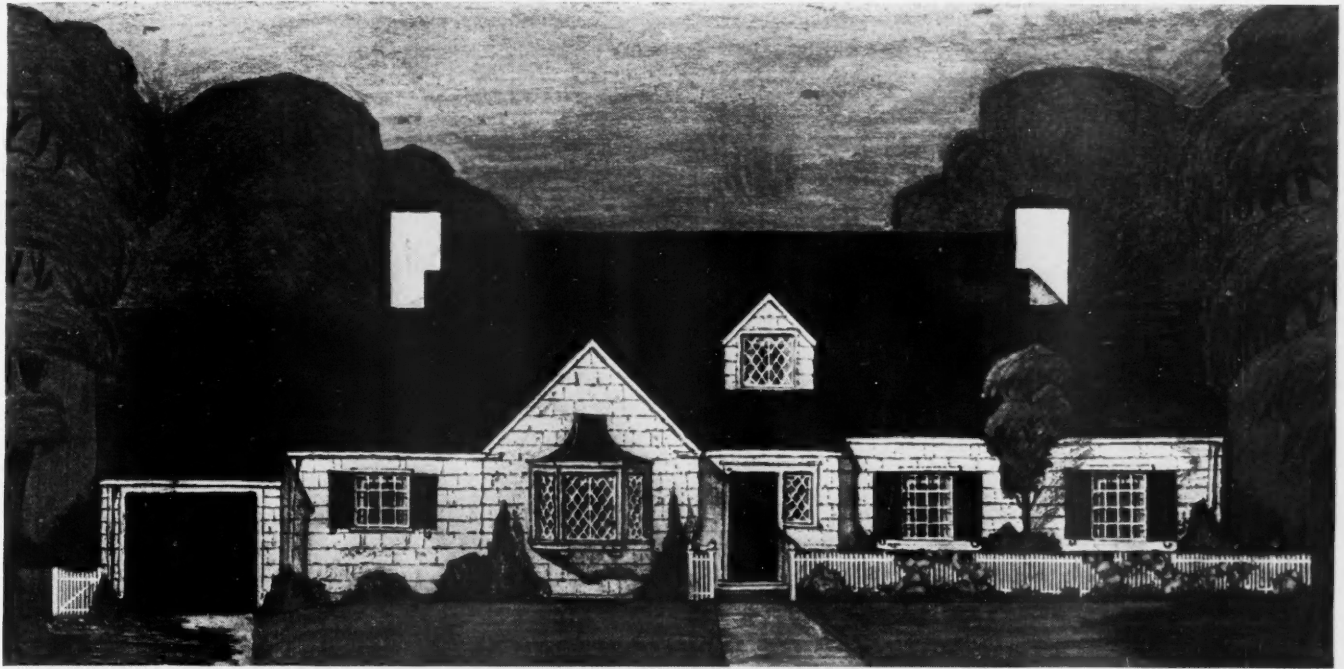
and utilized. It gives us homes of greater utility and better proportions."

Purchase Hill Building Company at the present time has nine houses under construction and plans for ten more completed and ready to start within thirty days. They are building homes in two developments, Pine Hills at Purchase, where \$7,500 to \$10,000 homes are being built, and Purchase Hill, a more expensive section where houses range from \$13,500 to \$35,000.

Both developments have been fully approved by FHA and the company is financing the houses being sold on the 20-year plan of the Federal Housing Act.



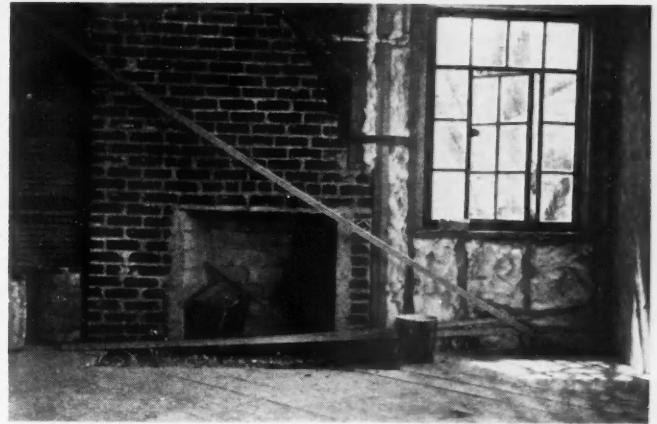
CONSTRUCTION VIEW of colonial cottage pictured on opposite page. Photographed May 11. Four of this type are now under construction.



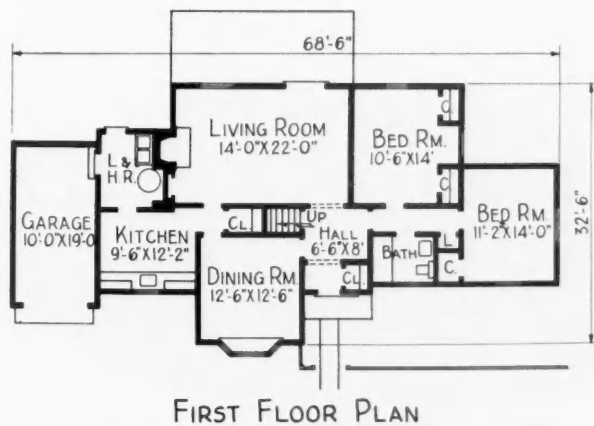
COLONIAL 5-ROOM and bath cottage being built by Purchase Hill Building Company (Design No. 52). It is cellarless and planned for 2 additional rooms and bath on second floor. To RIGHT is construction view of living room fireplace and insulation.

Like most building firms, Purchase Hill Building Company erects houses both on contract and for sale. Several of the lower-priced "cellar-less houses that can grow" are being built for sale in the Pine Hills development. The building plan is unique in these basement-less houses. A thirty-inch cinder concrete block foundation is laid, and a layer of tamped cinders with a top dressing of fine sand placed in it. Thus a thirty-inch space is provided between the ground and the bottom of the floor joists, which is used as a plenum chamber for circulation of air. Cold air returns lead into this plenum chamber and the heating system draws air from it. This creates a circulation underneath the floor of the house which keeps the floor dry and ventilated in a highly desirable fashion.

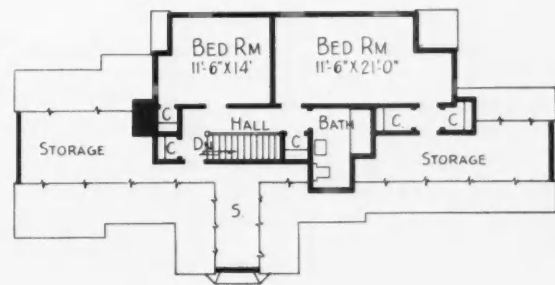
According to Mr. Beardsley, an architect of prominence in the home field who is a member of the firm, this type of foundation construction eliminates dampness caused by digging into the ground, saves the cost of waterproofing and gives a better seasoned and protected floor.



The heating plant is located in a small room off the garage and ample storage space is provided on the second floor, which is much more satisfactory according to Beardsley, than a storage in the basement. The firm is planning rapid expansion of its building program and is buying the latest types of materials and equipment for its homes. All equipment and material is purchased locally through local building channels. Charles

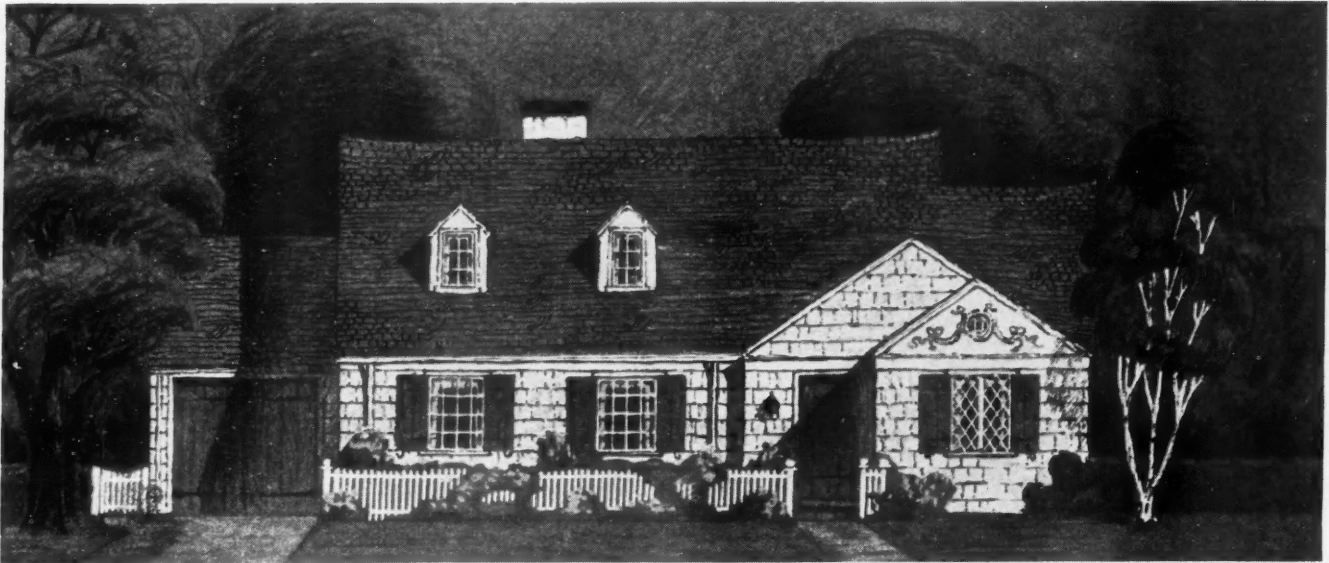


FIRST FLOOR PLAN

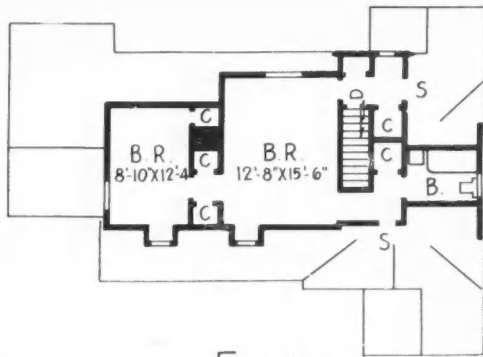


SECOND FLOOR PLAN

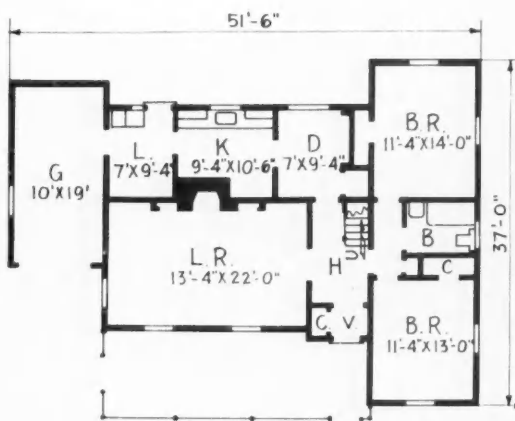
FLOOR PLANS OF COLONIAL COTTAGE illustrated above showing heating plant on first floor and future second floor plan as it will be when finished. Cost Key is 1.935-190-1213-52-22-22.



ARCHITECT'S DRAWING of colonial house No. 54. Below is construction view photographed May 11. House is compact, well planned and provides for 2 future bedrooms and bath on second floor. Cost Key is 1.882-184-1176-50-22-21.



FUTURE SECOND FLOOR PLAN



FIRST FLOOR PLAN

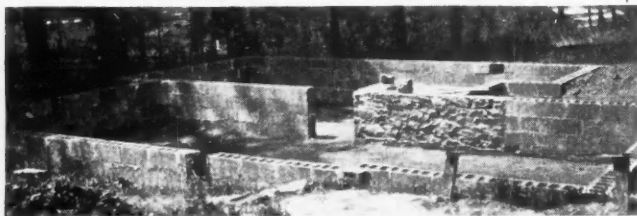


Newburg is a building contractor of long experience, and Beardsley brings an unusually excellent and intimate knowledge of small home architecture to the firm.

Several types of heating equipment are being experimented with in the homes built for sale. The company has placed an order for fifty General Electric oil-burning furnaces which will be featured in some of the houses, and in others complete G-E air conditioning equipment will be used.

In one of the houses an air conditioning system by the Robeson Engineering Company, featuring a novel application of forced circulation through the thirty-inch plenum chamber, previously described, is used. In another a Fitzgibbons tank-saver hot-water system with Delia oil burner is being installed. This system

(Continued on page 68)



FOUNDATION OF ONE of the cellar-less houses showing cinder block and tamped cinder and sand surface. The 30-inch space between ground and floor joists serves as a plenum chamber.

New "Take-Down" Walls Built of Transite Panels

A NEW type of partition wall built of transite panels attached to light weight steel studding was recently demonstrated in New York by the Johns-Manville Company presenting many unusually interesting features.

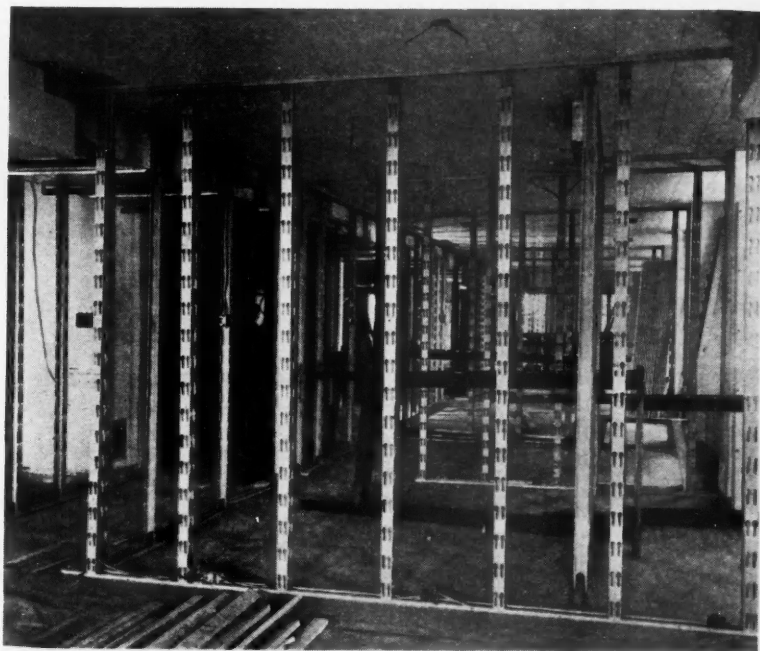
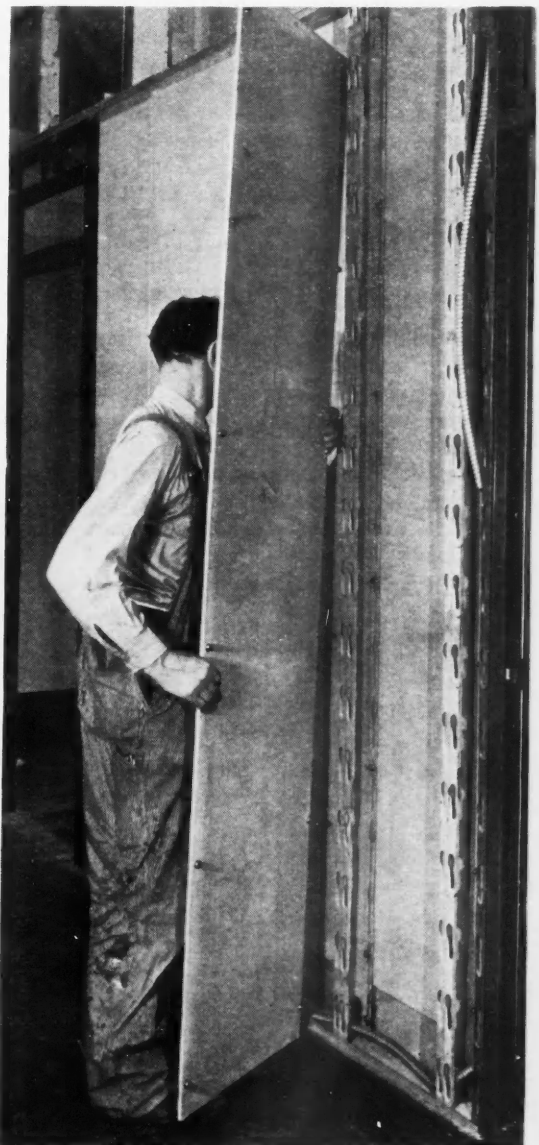
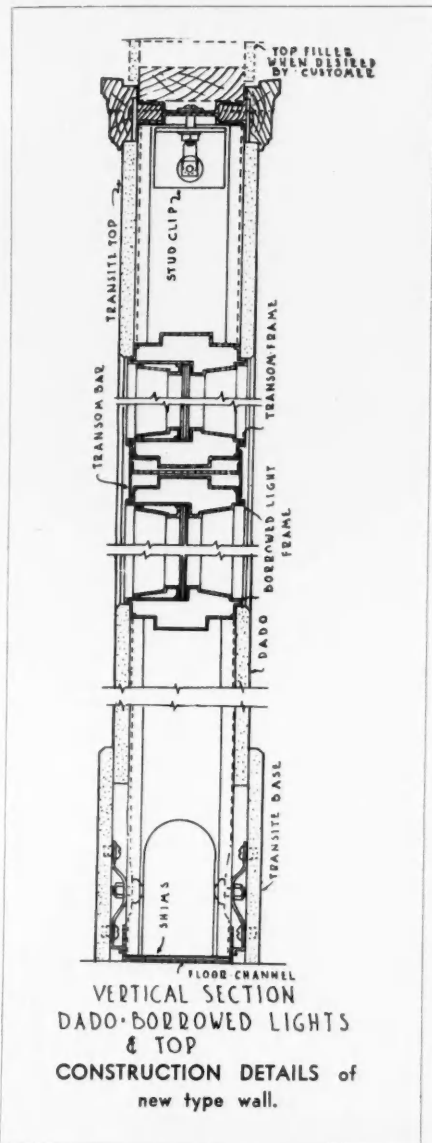
The transite wall has strength, rigidity and permanence to a high degree, but at the same time, due to the ingenious method of attaching the sheets to the steel studding by spring clips which fit into key-hole slots, the partitions can be easily taken down or moved without damage to the materials.

A light weight framework for the partitions has been developed with steel channels and studs having key-hole slots. The channels are fastened to floor and ceiling, then studs are sprung into place. They are held without use of bolts or nails.

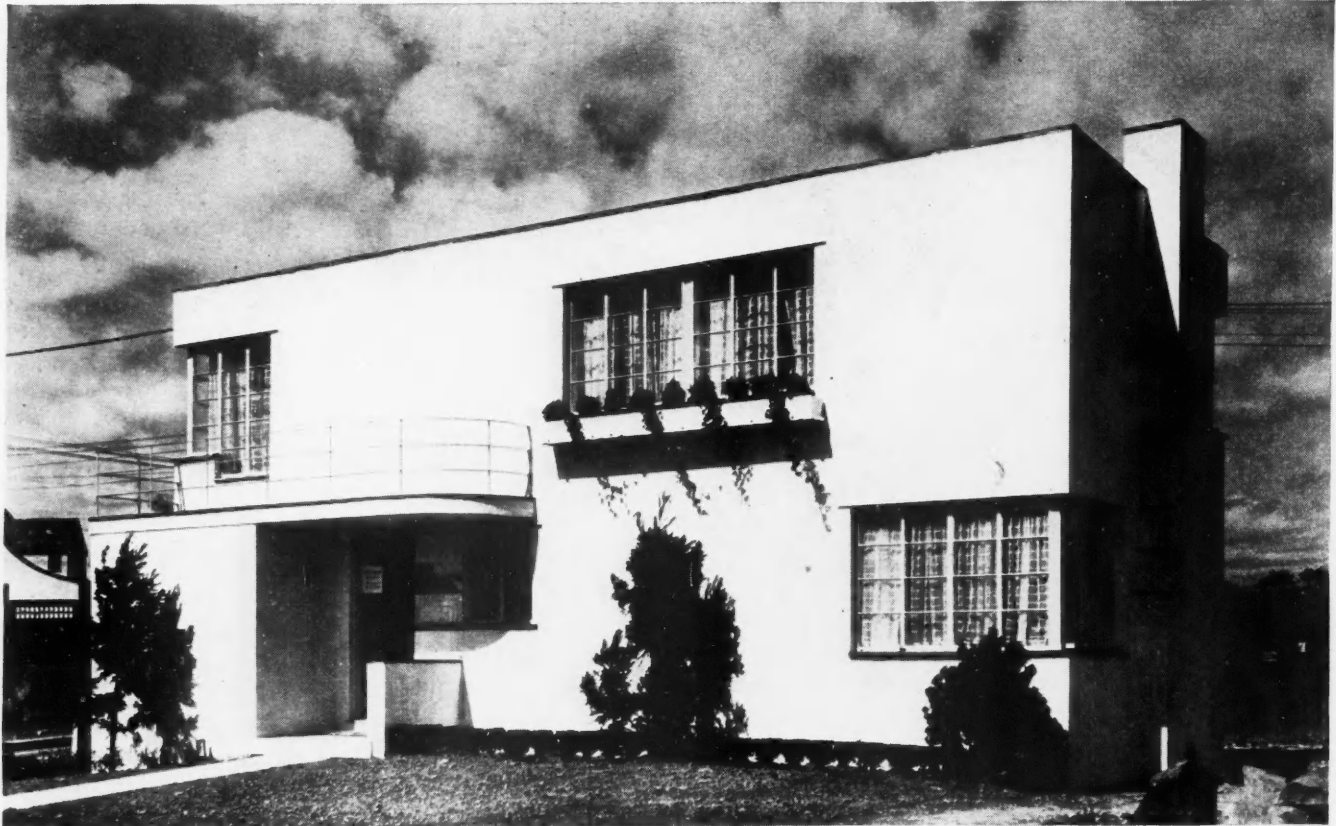
The transite panels in standard two feet width are then hung to the studs by use of the spring fasteners which are designed to resist a pull of 800 pounds.

In the New York demonstration, walls of this type were quickly erected and then taken down with a minimum of time and effort. A metal bead inserted between panels emphasizes the joint and makes it a part of the decorative scheme. The transite surface is then painted or finished as desired. The surface easily adapts itself to applications of leather, fabric, wallpaper, wood veneer or other modern interior coverings.

Walls so built are approximately four inches thick, and fireproof, with good soundproof qualities and great strength. By filling the space between the transite sheets with rockwool insulation the walls can be made highly soundproof.



STEEL CHANNELS AND STUDS with key-hole slots are quickly erected; then transite panels are attached with spring fasteners. View at left shows removable steel partition frame in place. At right workman is hooking transite panel into key-hole slots, quickly producing a finished wall



Yonkers Model Home Goes Modern

ONE of the most interesting of the model homes opened recently in New York state is the concrete masonry "Home of Tomorrow" built at Yonkers and viewed by thousands.

The house makes use of many new ideas and methods of interest to builders everywhere. It was designed by architect Erik Kaeyer and built by Reginald and Herbert Wocher, contractors, all of Yonkers.

Walls are of cinder concrete masonry finished with white cement stucco. Joists are of precast concrete using light weight cinder block fillers. Roof is of concrete and

steel using the Robertson-Keystone steel beam system.

SPECIFICATIONS—YONKERS, N.Y. MODEL HOME

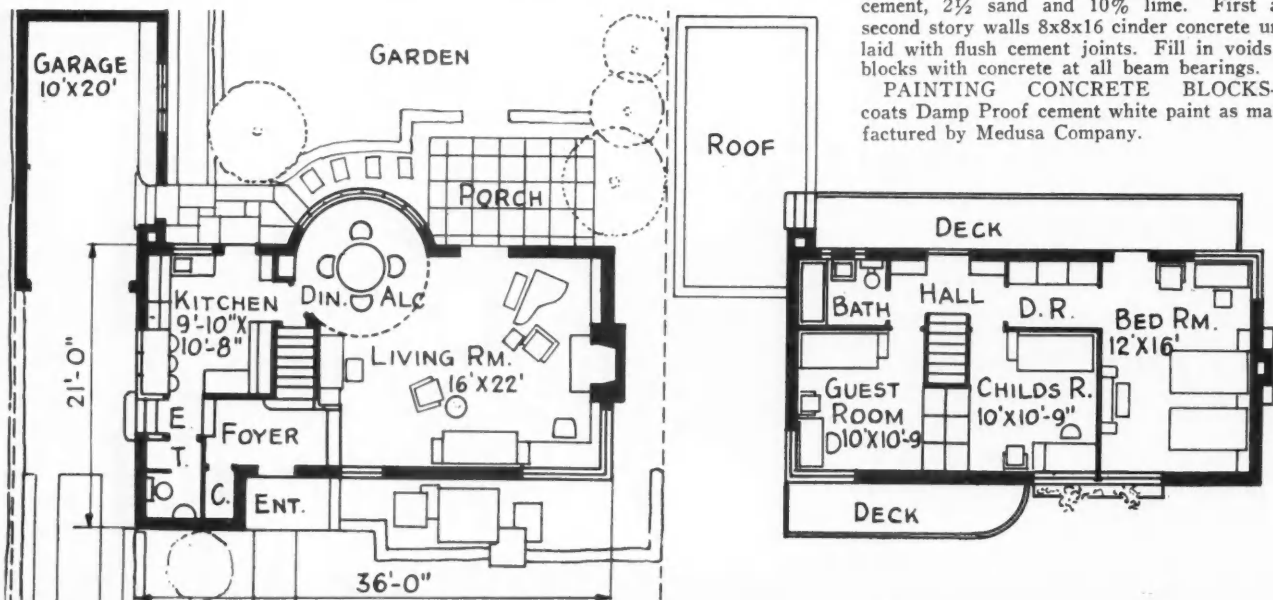
CINDER BLOCK—Shall conform to American Concrete Institute Standard Specification.

MORTAR—Proportion 1 bag cement, 1 bag lime, 6 cu. ft. of sand, sufficient water to make plastic mortar.

FOOTINGS—Concrete 1-3-5 mix. with 6½ gals. water to each bag batch, stones not greater than 1½ inches.

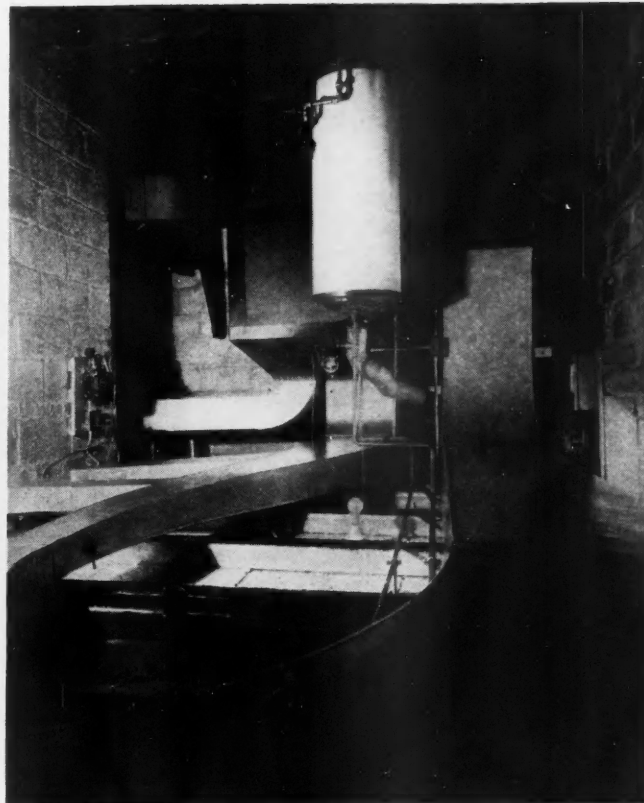
WALLS—Foundation and cellar walls cinder concrete units, 12" thick, laid in cement mortar. Parge outside face cellar walls with ½ inch portland cement in proportion 1 of cement, 2½ sand and 10% lime. First and second story walls 8x8x16 cinder concrete units laid with flush cement joints. Fill in voids of blocks with concrete at all beam bearings.

PAINTING CONCRETE BLOCKS—2 coats Damp Proof cement white paint as manufactured by Medusa Company.





CINDER CONCRETE FLOOR SLABS being placed between precast concrete joists by builder.



THE AIR CONDITIONING SYSTEM has an automatic coal stoker. Basement walls are finished with aluminum paint.

CHIMNEYS—Unglazed tile pipe flues laid in cement mortar.

FLOOR AND ROOF CONSTRUCTION—First floor and garage roof precast concrete floor system Bedford Hills Concrete Products Co. Fill top of fillers to the top of joist with cinder concrete levelled and smoothed off. Second floor 2x10 o.c. fir joists, tongued and grooved flooring wire lath and 3-coat portland cement ceiling. Balcony floors and entrance porch roof to be formed by cantilevering floor joists and lay 1x3 fir flooring and cover with heavy canvas laid in white lead and fasten at seams with copper tacks. Cover soffits of exposed portions with galvanized wire lath and stucco. Form outer edge with wire lath and stucco.

Roof construction Robertson-Keystone Beam steel floor—FK 18-18 units. Ends of panel to rest upon 2x4 wood plate. Fill top of steel joists with cinder concrete to form pitch to roof drain. Garage roof to be cinder concrete joists with concrete fillers and finished with cinder concrete.

GLASS—Plain sheet, double strength glass "A" quality bearing manufacturer's label, back puttied and face puttied with metal sash putty and further secured by glazing clips.

FIREPLACE—Model No. 30—2'7"x2'4" fireplace as manufactured by the Bennett Fireplace Corp. including ducts and grilles.

DOOR FRAMES—Hollow metal door frames Type "B" Jamestown Metal Desk Co., drilled to receive hardware.

WINDOWS—Steel sash Fenestra frames equipped with extended flange to be built into concrete block wall.

SHEET METAL—16 oz. hot rolled copper. Continuous copper flashing where balcony floors connect with exterior walls.

ROOFING—3-ply built-up roof with slag or gravel finish. Barrett 10-year guarantee, carried up and over parapet to within 1/2 inch of outer edges of walls.

INSULATION—3 inches Insulite over entire main roof.

PLASTERING AND METAL LATH—Inside of exterior walls furred with 1"x2" strips 16" o.c. lined with fibre lath as manufactured by Upson Co. Ceiling of dining room to be covered with painted metal lath, 3.4 lbs. All 2" partitions built up of channels and 1 layer of painted rib lath or 2/4" stay-rib metal lath No. 3, manufactured by Milcor. Plaster 3 coat hard white finish. Metal corner beads for all external corners. Interior 2" partitions to be solid.

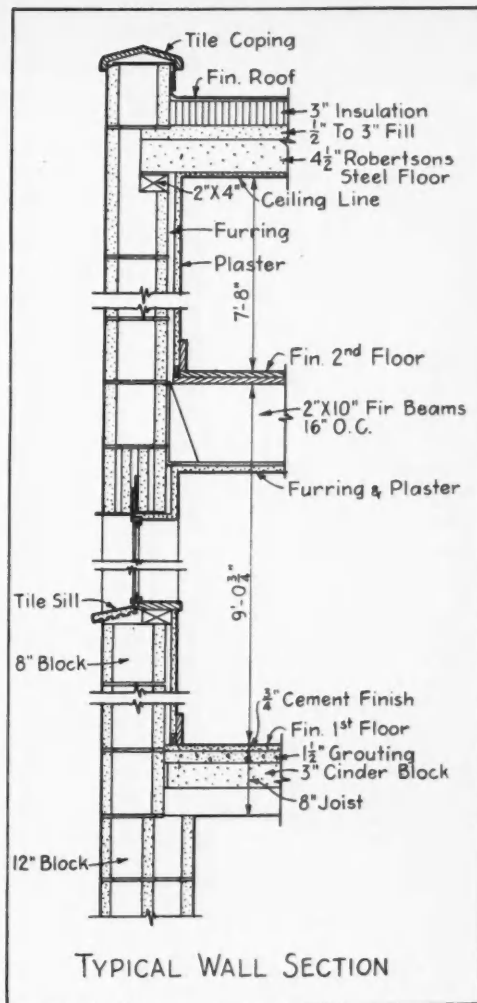
DOORS—Garage door overhead section-fold type as manufactured by the J. G. Wilson Corp. Cover doors with galvanized sheet iron, each side of each section covered with 1 piece and fastened at edges. All other doors flush panel birch veneer. Outside 1 3/4"; inside 1 3/8".

MEDICINE CABINET—Chromium frame recessed cabinet with 17"x24" plate glass mirror; plate glass shelves by Columbia Metal Box Co.

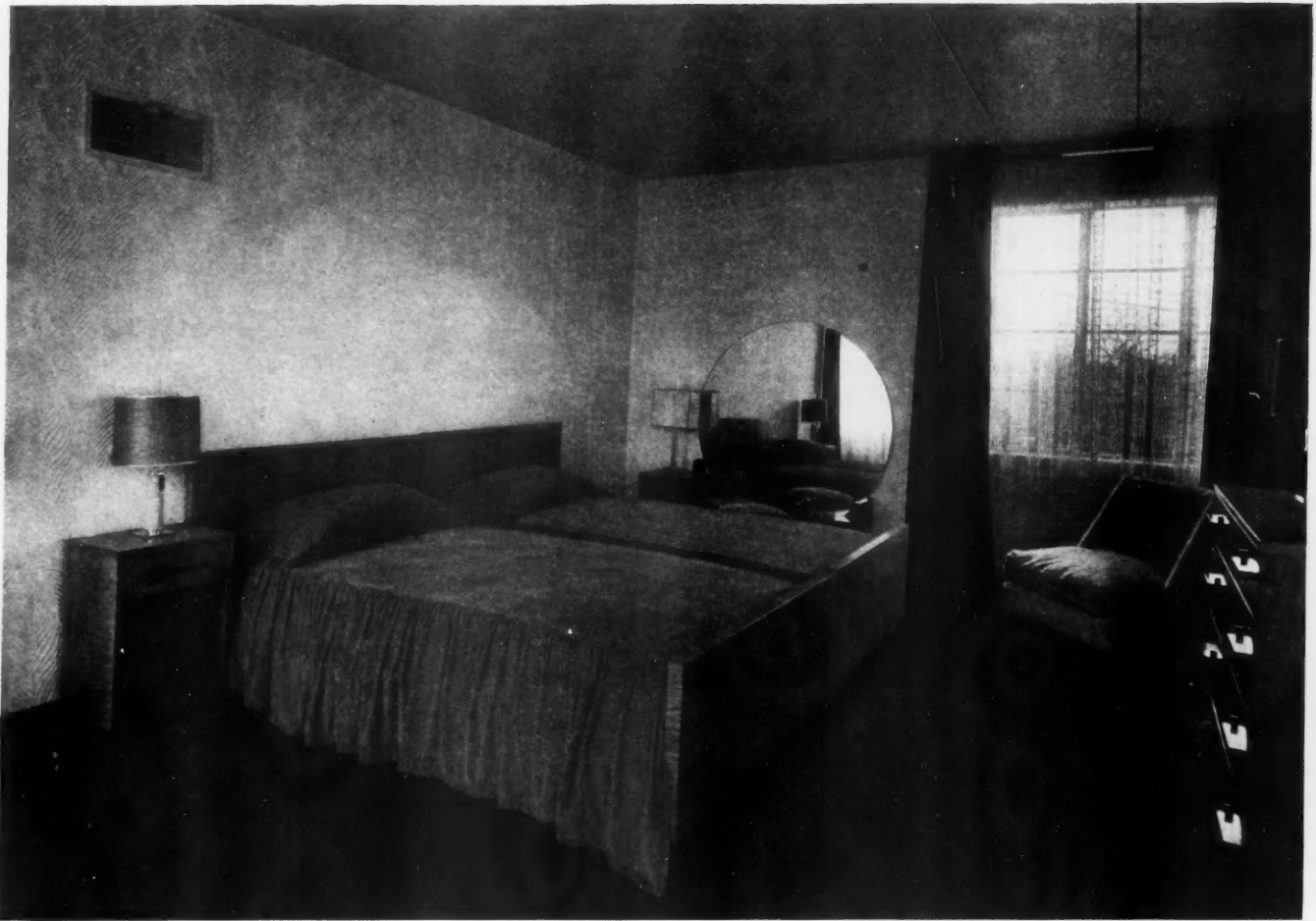
WEATHERSTRIPS—Equip main entrance, service entrance, rear kitchen glass doors, living room to porch and doors from bed rooms to balcony with interlocking cold rolled bronze weather strips. Main entrance door 4" heavy interlocking bronze saddle. All other outside doors 2 1/2" saddles.

HEATING—Richardson & Boynton air conditioned furnace with motor stoker coal feeder, mechanical ash removed. Chronotherm temperature regulator.

PLUMBING—Kohler sink and tubs. Kitchen cabinets by Murphy Door Bed Co., Mello-Chimes doorbell.



PERMANENT fire safe construction is featured in the Yonkers model home.



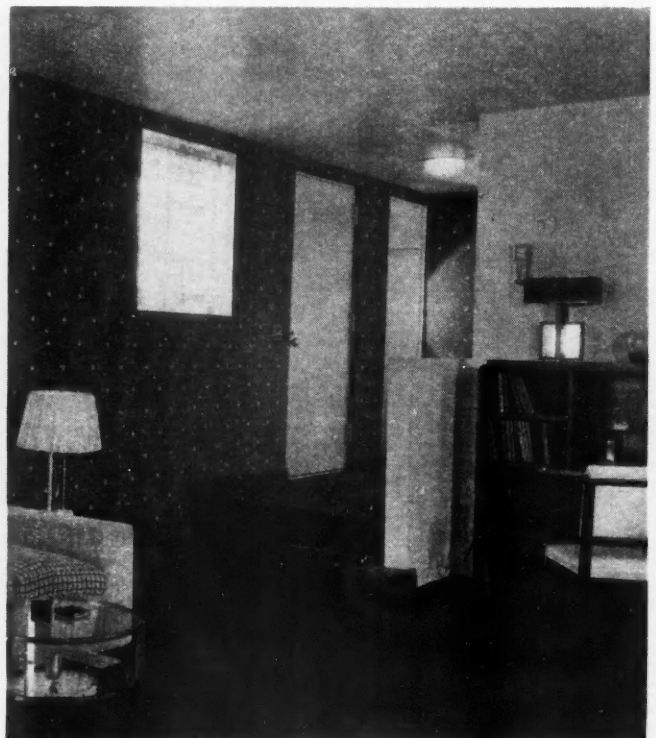
BED ROOM of Yonkers Model Home omits all mouldings. Ceiling paint is applied directly to steel. Washable wallpaper on walls.



THE STEEL CORNER WINDOWS shown above are a popular feature of the Yonkers Model Home.

VIEW OF THE FRONT ENTRANCE DOOR (at right) from living room of model home. Foyer leads to side door and kitchen.

Modern Interiors





A CHEERFUL AND SPACIOUS living room in modern style. Only 16 by 22 feet in size, yet it looks much bigger due to mirror above fireplace, windows and open arrangement.

in a New Model Modern Home

THE YONKERS Model "Home of Tomorrow" interiors were planned by Marianna von Allisch, well-known decorator, with furnishings from Modern-age. The circular dining alcove, diameter 10'6", is an especially fine feature of the house. It faces south and is pleasantly lighted by the bank of windows.

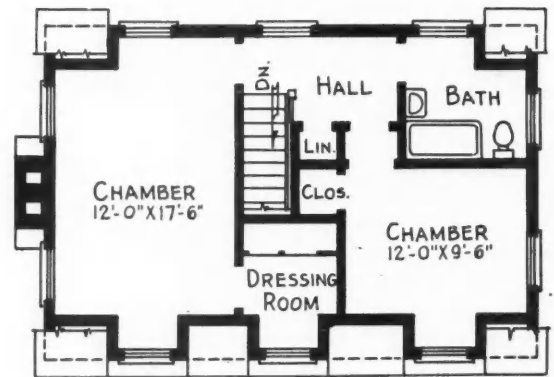




Four Charming Home Exteriors

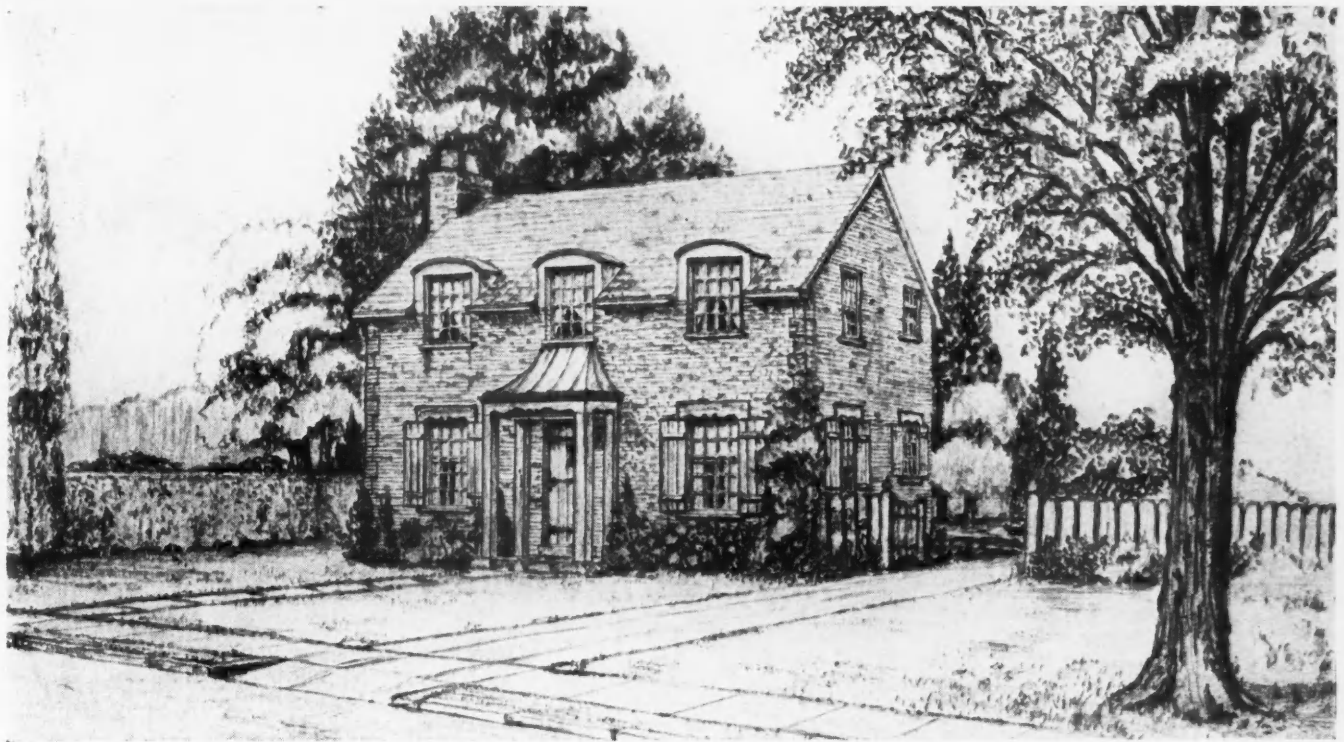
The contractor or operative builder who is looking for economy will be interested in these four attractive designs all built on the same compact, economically arranged floor plan.

Thomas H. Moran, Architect, of New York has prepared complete detailed drawings and specifications for these houses.

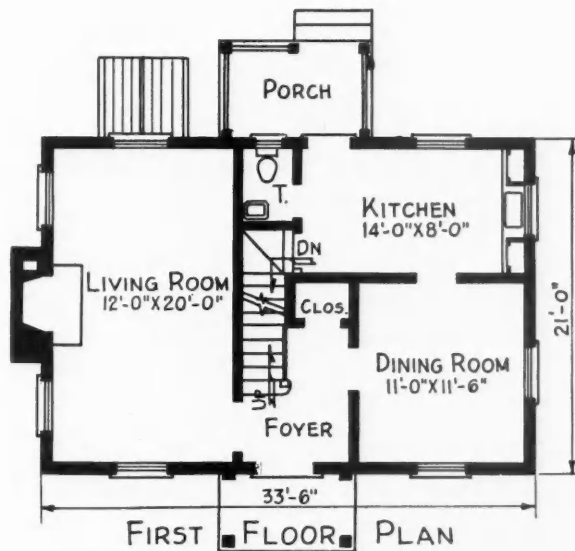


SECOND FLOOR PLAN



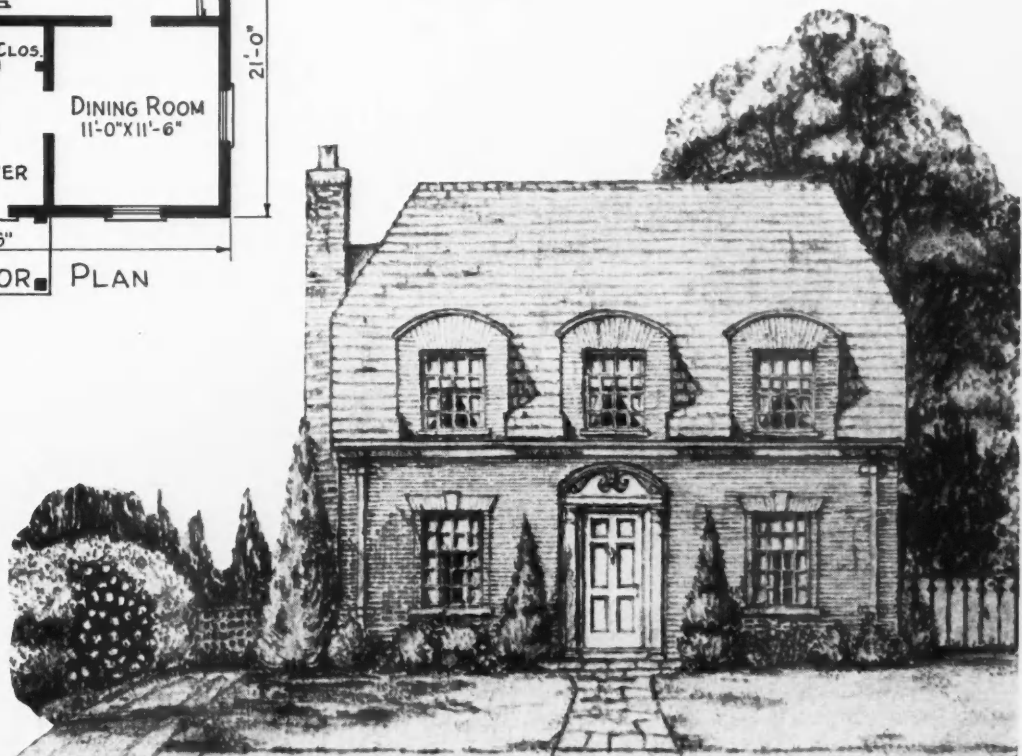


From One Compact Floor Plan



An unusual amount of living has been placed in this 21 by 30-foot structure. The cubic content is 18,900 feet. Cross ventilation, adequate closets and rooms arranged for maximum comfort are featured. A basement recreation room is recommended.

Cost Keys are: Top perspective, opposite, 1.430-108-700-30-18-12; lower perspective, opposite, 1.450-108-700-30-18-12, top perspective, this page, 1.455-108-700-30-19-11; perspective below, 1.460-108-700-30-18-13.





Planning Is KEY to Low Costs

THE success of the "Key Homes" proposition, brought out in 1933 by a group of prominent manufacturers, and offered through Curtis millwork dealers, has led to a further development of the idea and its re-issue this year in the form of 12 new small home designs, of which K-2 illustrated herewith is a sample. Like the earlier set, each of these homes has been very carefully planned to hold down costs to the very minimum by avoiding waste and uncertainties. The lumber dealer acts as sales manager in presenting these homes to the prospective buying public, while general contractor, plumber, heating contractor, electrician, etc., co-operate to aid the sale, to keep the costs down and to perform a good quality job of construction.

Attractive presentation sketches are used to interest prospects and to show them how the house will look when finished. Complete printed working plans are furnished along with detailed specifications, bills of material and cost estimates. The local building men are enabled by this service to figure accurately and to coordinate their work with others to take the uncertainty and grief out of the home building operation.

In these days of FHA supervision of home building finance, the recognized merit of these Key Homes is a big help. FHA regulations require the filing of suitable plans and specifications as the basis of a loan commitment. Both plans and specifications are so prepared as to qualify under FHA standards. The difficulty of securing complete plans in small towns makes the use of this Key Homes series especially worth while.

The Curtis Co. reports instances of how this is working out. In one case a man wanted to build six of these homes and made application to his local lending institution. They went to the State FHA headquarters, he started to tell the story of what he wanted to do and mentioned that he wanted to build six of the Curtis re-

vised Key Homes. The head of the State FHA came right back at him: "Well, if they are the Curtis Key Homes, there is no need of your unrolling the plan. We will give you the insurance loan commitment on those houses so long as their location is right in your town and so long as the proposed owners are sound financially."

Specifications for "Key Homes"

Included in Key Homes are materials nationally known which are generally available in all sizeable towns. These materials, plus good workmanship, make a "Value" home, it is pointed out.

ELECTRICAL—General Electric Co. BX wiring system with duplex base plugs.

WARM AIR HEATING—Fox Furnace Co. Sunbeam furnace. Air conditioning, if desired. For steam, if desired, American Radiator Co., Red Flash Boiler with Corto Radiation. Silent Glow Oil Burner recommended.

PLUMBING—Standard Sanitary Mfg. Co. modern bath fixtures, flat rim sink; two part Granitine laundry tray; hot water storage, 30 gallon; copper coil heater; furnace coil.

GUTTERS AND FLASHING—American Brass Co., 16 ounce copper. **LIGHTING FIXTURES**—Beardslee Chandelier Mfg. Co. especially designed and packaged, hung complete with G. E. Mazda bulbs.

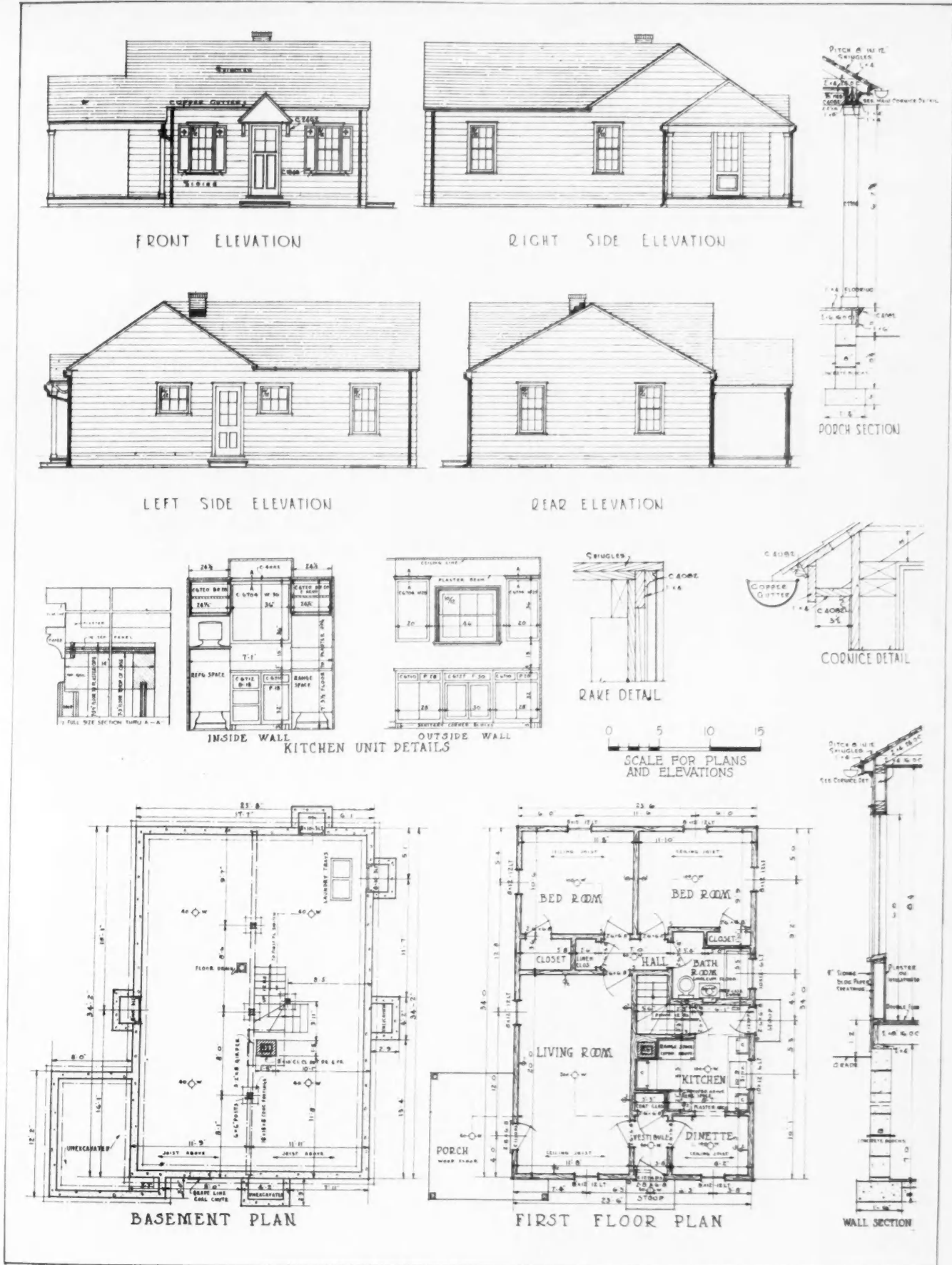
FINISH HARDWARE—Clinton Lock Co. especially designed, packed and tagged, indicating placement.

WINDOW SHADES—Du Pont "Tontine" washable, for all windows and glazed doors.

WALL COVERING—Columbus Coated Fabrics Corporation "Wall-Tex" in kitchen, kitchen-dinette and bath. Two-story homes have tile floor and wainscot in bath.

WOODWORK—Curtis, including Silentite windows, Miterite trim, complete Kitchen Unit assembly.

All exterior walls and exposed ceilings covered with insulating lath as plaster base. Overhead garage door hardware by Lawrence Bros. Delco Appliance Corporation water and gas systems recommended where necessary. Glenwood Range Co. gas range and General Electric Co. electric range and refrigerator recommended.



CURTIS Design K-2 (new series) is illustrated here in working drawings of reduced size, showing plans, elevations and details. Presentation sketch is on opposite page. Great care has been used in planning this home to take advantage of the lower cost of stock sizes and patterns of lumber, millwork, hardware, plumbing, heating, etc. Cost Key is 1.018-115-799-34-16-13.

Today's Small House Requires New Methods and Materials

Declares LELAND R. REEDER, Architect

WITH national and local agencies everywhere united to promote interest in building, it seems apparent that builders and architects are about to enter upon another period of profitable activity. And, as was pointed out in the first article of this series, the field in which there seems to be the greatest possibilities is that of the small house.

This does not mean a cheap house, however, but rather an economical house of very definite specifications. Low cost housing means, first of all, low cost living. The two plans offered here can be altered to bring construction costs far below the five thousand dollar limit placed upon them, but, by doing so, certain economies in maintenance and in future living costs would be sacrificed which would add greatly to the total investment in living over a period of ten years. The architect who realizes the greatest profits from the impending boom will be the one who plans for his clients, low cost living as well as low cost houses.

Guest rooms, dining rooms, basements, and all other little used parts of a house have been eliminated in the plans shown here. People realize, today, that they do not get an adequate return on the money invested in such features. The necessary features of these rooms are provided for elsewhere and in such a way as to actually increase the convenience of the home.

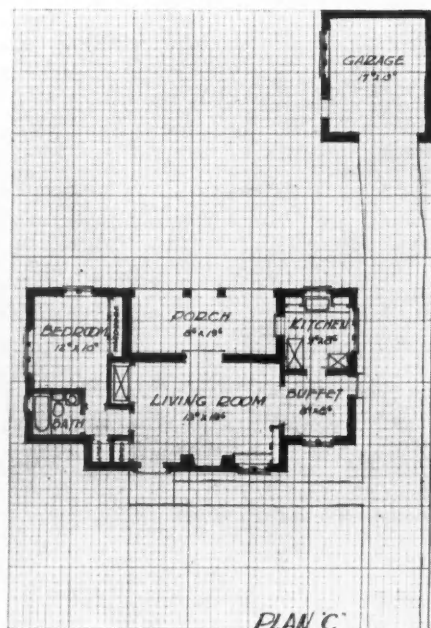
The expense involved in the periodical redecoration of a single room is an expense well worth considering and eliminating wherever possible. Often, too, by decreasing the number of rooms the expense and worry of domestic help are eliminated. These are phases of home planning which haven't, in the past, been the problem of the architect who only designed a house.

In Plan C, the porch is located in the rear to add to the privacy. This also makes it possible to use this space as a sleeping porch in the summer. The roll-out bed in the living room is located so that it can be easily moved onto the porch for use in this way. Enclosed with screen this porch is also useful as a place for summer evening meals, since a door leads directly into the kitchen. By using heavy storm sash enclosures here, it can be converted into a pleasant sun porch and at the same time may be used as a sleeping porch the year around.

The small buffet, except at meal times, is also the motor entrance, since an outside door is provided here. Only two closets are provided, but the built-in wardrobe in the bed room increases the available space and at the same time increases the convenience of the room.

To eliminate the expense of plaster and the continual maintenance costs of wall paper, the living room and buffet walls are of random width knotty pine, finished with antique stain. The bed room walls are of clear white pine run horizontally. A modern effect may be achieved by varying the widths from narrow at the bottom to wide at the ceiling line. These walls are equally attractive when rubbed down and left natural or when painted in pastel tones. The kitchen and bath room walls may be finished in tempered pressed wood, or may be covered with linoleum or plastic wall covering. In either case there is some saving in application, and a very real saving in upkeep in comparison to the expense of plaster walls and paper.

Floors in the bath room and kitchen may be of pressed wood or of linoleum. In fact linoleum may be used throughout the house with very satisfactory and attractive results. In the living room and buffet, either a



COST Key is 1.087-153-(843)-(37)-17-15

pegged plank or dark red tile pattern is appropriate.

All ceilings are of insulation board, either in tile or panel sizes. This gives an inexpensive ceiling which may be tinted to harmonize with rest of the room decorations and at the same time affords a certain amount of sound proofing for the house through the sound absorbing properties of this material. In cases where the paneling is used, wooden beams are spaced four feet on centers to cover the joint.

Additional insulation of the wood wool blanket or rock wool fill type is used in the ceiling, but not on the walls. In this way maximum heat control is possible with a minimum of expense. A certain amount of insulation in the walls is afforded through the use of shingles where the butts are 1/2" or more in thickness.

Plan D, offers an interesting arrangement and highly efficient circulation with greater closet space and more satisfactory window arrangement than is usually possible in a house of this size. Built-in benches in the dinette make this nook an interesting and practical part of the living room, while the studio window here, adds to the effect of space. If desired, French doors may be used here with the same effect and at the same time they will provide a means of access to a lawn or terrace which may be used for hot weather meals.

A coat closet is entered from the small entry, while built in vanity and mirror make the rest of this space into a powder puff nook. The service entry and the garage are so planned that they may be connected with a covered trellis for use in bad weather.

As in Plan C, pine or plastic covered walls are used throughout this house. The unfinished attic is reached by a disappearing ship's ladder which pulls down from the ceiling in the hall leading from the bath room.

This attic is unfinished except for a small floored space where the heating plant is located. The warm air is blown down from this gas fired, positive air circulation type heater, entering the rooms at the ceiling and being drawn off at the floor line and sucked back to the furnace.

The addition of air conditioning equipment should be, at least, anticipated so that the change may be made with a minimum expense at a later date. The increased comfort of air conditioning, to say nothing of the savings

made through increased business efficiency, and greater health for the entire family, makes it something for the architect to reckon with, even in the small house field.

Exterior finish in these houses can be suited to the desires of the client and to local material costs, as the design is readily adaptable to whatever material is most economical. As was mentioned, a certain amount of insulation may be had through the use of shingle, while cement block construction affords the same advantage.

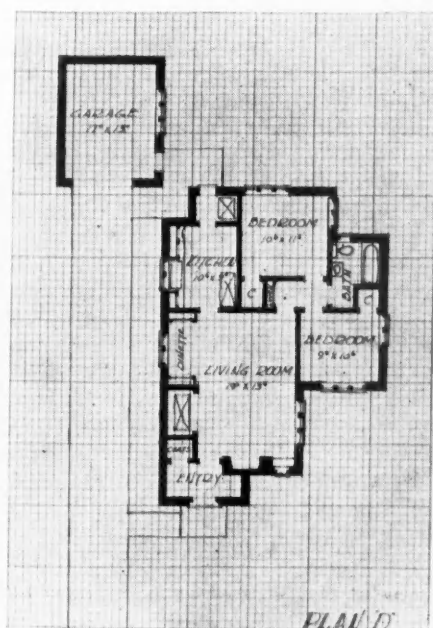
The modified moderne motif, which may be followed in the bed room decoration, makes it possible to use modern furniture in this room. In some cases the architect will find it is desirable to build vanity, chest and bed as permanent parts of the room.

Laundry facilities must be provided in the garage; this necessitates provision for water at this point. While the garages shown in these plans are all detached, they may very easily be built onto the house without ruining the design. Where gas rates make this kind of heat too expensive, it will be necessary to attach the garage to the house to accommodate a coal or oil burning furnace. Should a coal furnace be specified, an automatic stoker using packaged coal will be found very satisfactory.

Additional savings are effected through the use of plain, inexpensive hardware and simple electrical fixtures, although in the case of light fixtures the saving is put back into additional lighting facilities, and careful planning for increased efficiency and convenience through the use of electrical appliances.

Throughout these houses the effort has been to strike a keynote of simplicity and comfort. Decoration is simple and tasteful and intended as an unobtrusive background for the furnishings.

While the four plans presented in this series, embody but a few of the many problems of small house construction, it is hoped that they will be of benefit by drawing attention to a new idea in building which is just beginning to take form. The small house field presents unlimited opportunities for interesting work as well as profit and the architect who approaches it with the idea of producing low cost living with a maximum of comfort and satisfaction, rather than just cheap houses will be the one most likely to cash in on the opportunity.



COST Key is 1.198-142-(985)-(42)-16-14



PLANS for LOW COST HOMES

for

Suburban and Country Homesteads

What Can Be Accomplished on One-Half Acre

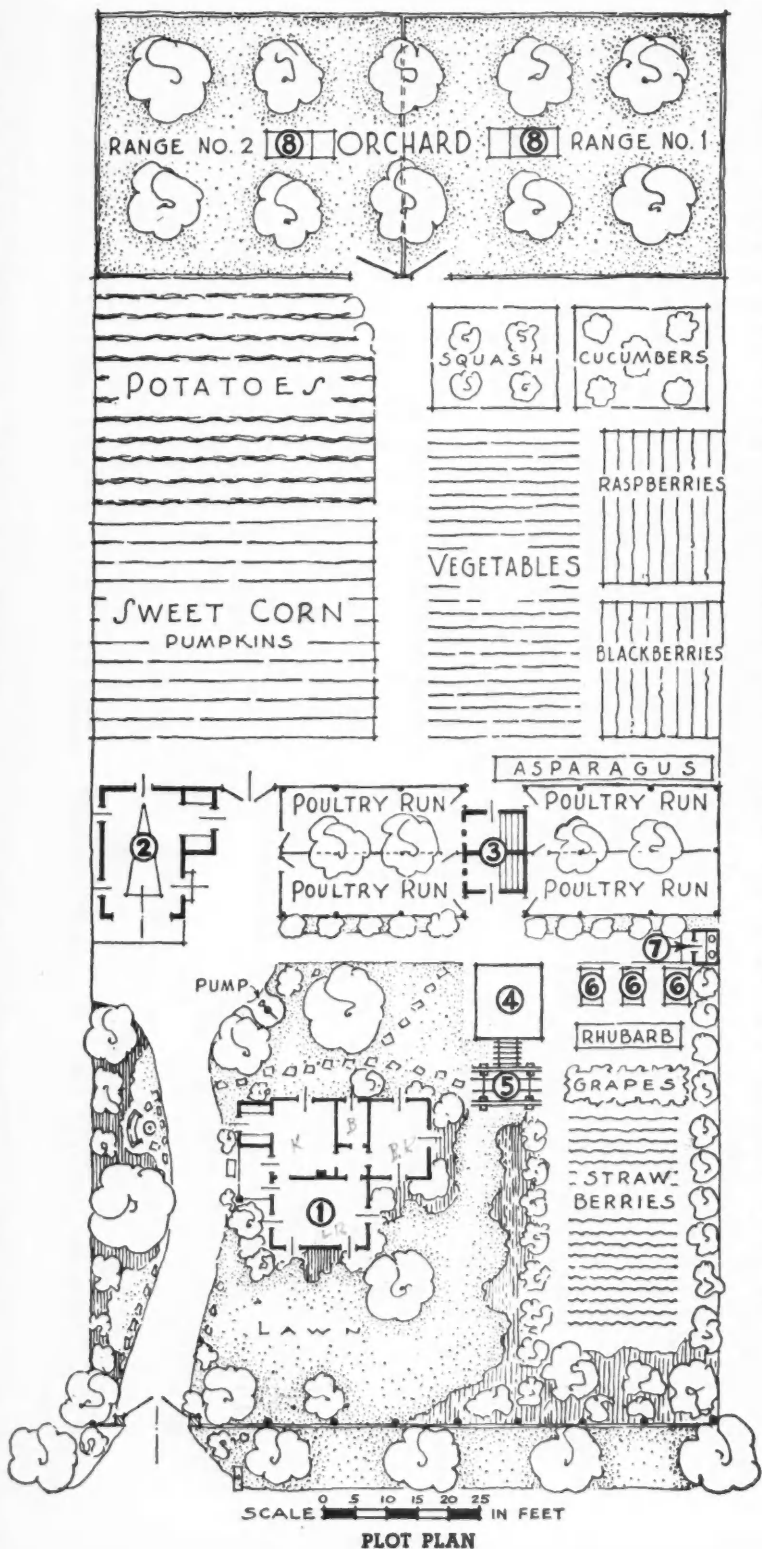
A BUILDING industry with its ear to the ground has certainly by now heard the rising cry of to-day for small homes on big plots, where the family can get back to the land and be largely self-supporting—at the same time enjoying the comforts of a modern, easily maintained home. The Subsistence Homes Division of the PWA has pointed the way to this kind of living; and families in moderate circumstances everywhere are responding by driving out into the far suburbs and into the open country along the hard roads, where they are acquiring from a half acre to ten acres of good productive farm land and then putting up a small, attractive house and necessary outbuildings.

Such projects should, of course, be thoroughly planned, both with respects to the house and also as to the layout of the grounds. The plan service bureau of the Retail Lumber Dealer Associations, recognizing this need, has come out with a new series of small house designs, a collection of poultry and other outbuilding plans, and a general consulting service on plot planning and subsistence management.

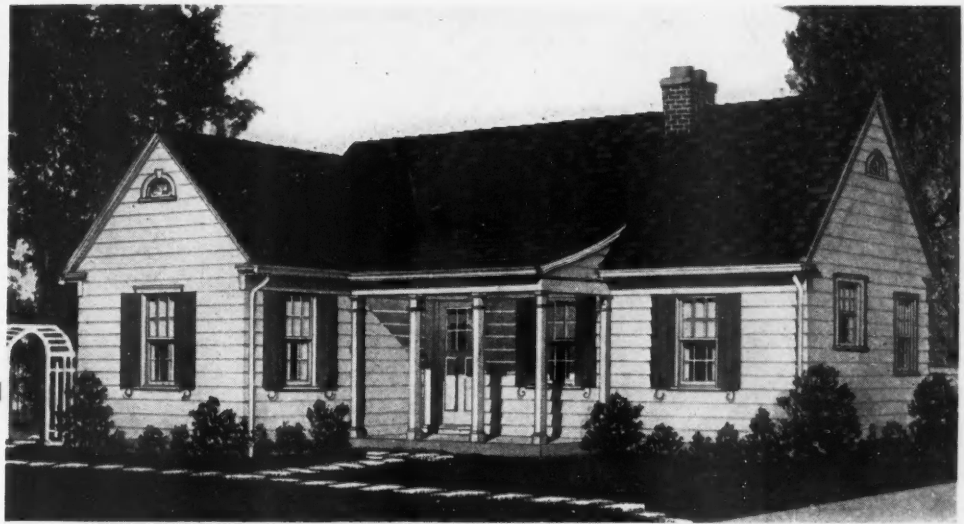
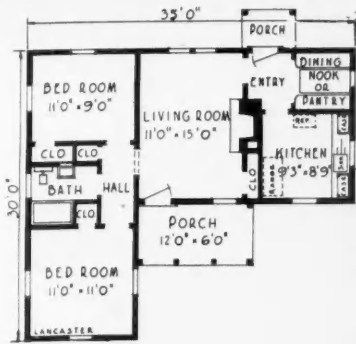
AMERICAN BUILDER is privileged to pass some of these ideas along to its readers—a half-acre layout on this page and three good little homes on the page opposite.

In considering a half-acre tract, the National Plan Service expert points out, the average person at first considers it as little more than a large city lot. However, upon studying the plot plan presented herewith, one is immediately impressed with the amount of available ground that a half-acre affords. Most important, of course, is a good, accurate plan by which maximum efficiency and utmost satisfaction can be obtained. Moreover, it is most necessary that this efficiency be developed in the one-half acre layout. By carefully grouping the main buildings and driveway at one side of the plot, ample room is left for attractive lawns, gardens and orchard plantings.

“Just imagine your table set with vegetables fresh from your garden, with fresh eggs and with fruits from your orchard; and enjoy these bounties with the thought that from no other place can they be obtained for so little cost,” the argument runs. “Contentment is the guarantee, and worry and the well known ‘Wolf at the Door’ are impossibilities to a happy homesteader.”



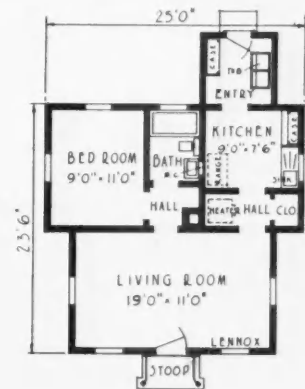
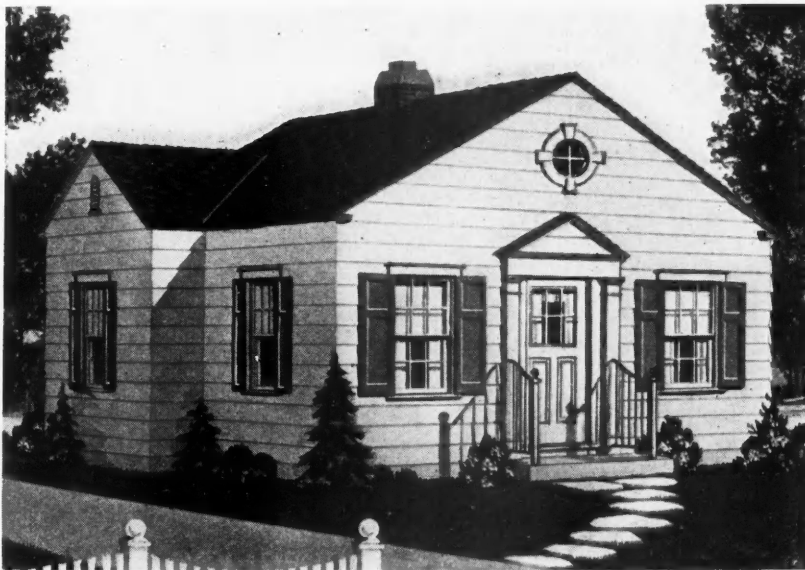
TO THE LEFT is diagramed a one-half acre homestead 100 feet wide by 218 feet deep. The numbered spaces indicate the following homestead buildings: 1—house; 2—garage; 3—poultry house; 4—cave for root storage; 5—pergola; 6—hot bed cold frames; 7—oil storage; 8—range coops or bee hives.



4 Good Rooms

National Plan Service
Design "Lancaster"

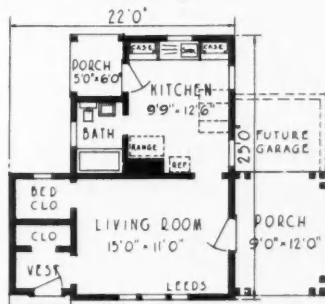
Cost Key is .971-130-(728)-(32)-14-12



3 Rooms and Bath

"Lennox" Design by
National Plan Service

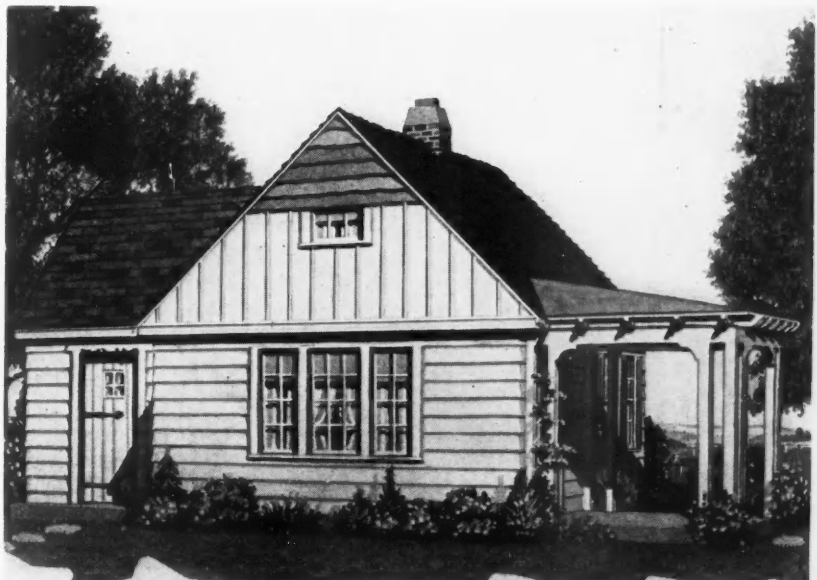
Cost Key is .762-109-(566)-(25)-12-7



2 Rooms Big

"Leeds" Design

Cost Key is .730-94-
(442)-(20)-10-9





Cost Key is 2.079-
190-902-40-26-23

GRACEFUL COLONIAL HOME

Located at Purchase, N. Y.

L. S. Beardsley, Rye, N. Y., Architect



Homes built in the Colonial style always have been popular and the trend today is strongly toward the simple, clean-cut lines which are typical of such design. The fine work of L. S. Beardsley demonstrates how effectively this half acre of countryside with its beautiful trees and rolling landscape has been made a perfect setting for the charming six-room home. The good sized living room with fireplace and built-in bookcases has three exposures; walls of kitchen and baths are tiled; first floor wash room is convenient to kitchen. Little space is wasted in the halls and the bedrooms have good sized closets.

All flashing, gutters and leaders are of copper.

SPECIFICATIONS ASSURE SATISFACTION

Architect L. S. Beardsley's specifications for this house follow:

MASON WORK CONCRETE: Concrete shall be composed of 1 part of portland cement $2\frac{1}{2}$ parts of good sharp sand and 5 parts gravel, well mixed and dry and properly mixed while water is added. Sand shall be clean and coarse and free from loam, dirt, or any other foreign matter.

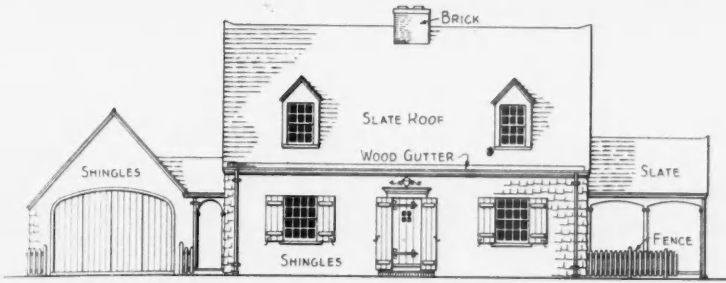
GRAVEL: The gravel used in concrete to be $\frac{3}{4}$ " Cow Bay or equal.

MORTAR: Mortar used shall be composed of 1 part portland cement and 3 parts sand and a small portion of lime.

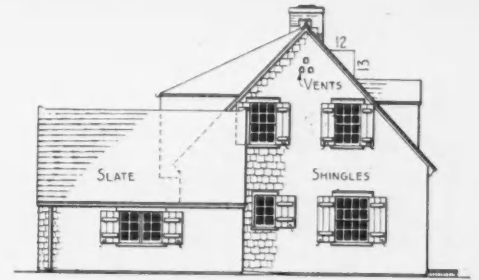
FOOTINGS: Footings shall be of concrete, as described above, and no less than 12" thick and 4" wider each side of masonry above. After concrete is placed in forms it shall be slightly tamped. Foot-

(Continued to second page following)

DETAILS FOR STUDENTS OF GOOD HOME PLANNING



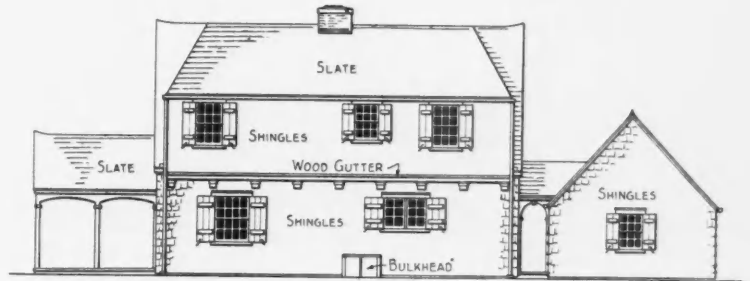
FRONT ELEVATION



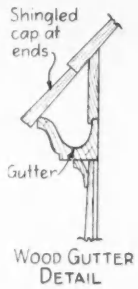
LEFT ELEVATION



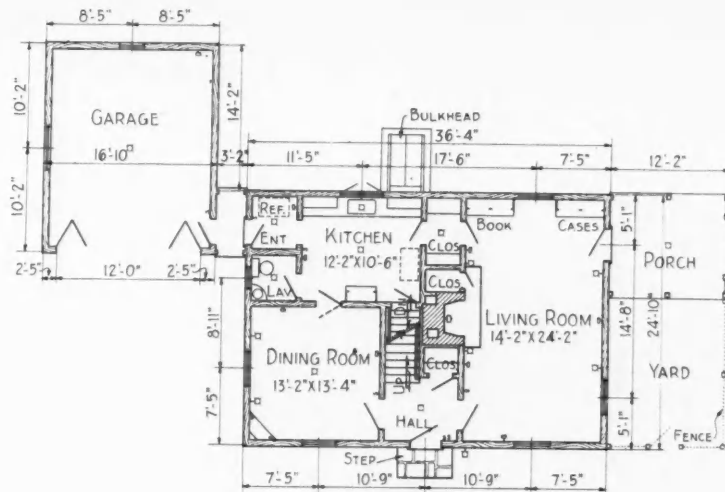
RIGHT ELEVATION



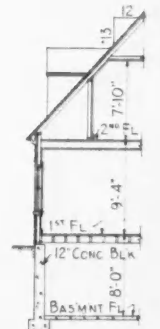
REAR ELEVATION



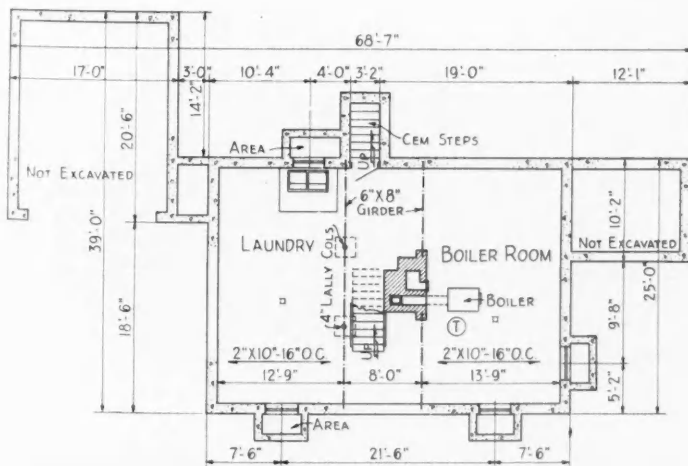
0. 5 10 15 20 25
SCALE IN FEET



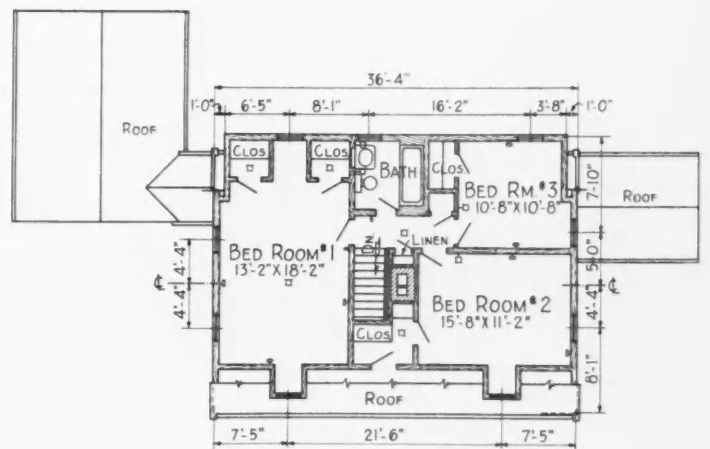
FIRST FLOOR PLAN



WALL SECTION



BASEMENT PLAN



SECOND FLOOR PLAN

Specifications for House of the Month

(Continued from page 38)

ings for cellar columns and piers shall be no less than 12" x 24" x 24.

WALLS: Foundation walls shall be built of 12" concrete blocks below grade as per Building department Code, well laid up plumb and even with joints of portland cement mortar. Interior and exterior of all foundation walls to receive 2 coats of portland cement coating. Masonry walls above to be 8" cement blocks carried to height as shown on plans and given a coat of cement on all exposed surfaces. Coat of pitch or tar waterproofing to be put on exterior walls below grade.

CHIMNEY: Build chimney of stone and brick and top out as shown. Leave smoke pipe opening in cellar and provide metal thimble for same. Build in 48" Covert throat and damper and ash dump with clean-out door in cellar. Terra cotta flue lining in all flues in chimney of sizes as indicated on plans. Draught in chimney to be tested while being constructed and guaranteed to draw. Detail of fireplace will be submitted by Architect.

CELLAR FLOORS: Cellar floors shall be composed of 4" cinder concrete, mixed 1 part portland cement, 2 parts sand, and 5 parts cinders and topped off with 1" portland cement mixed 1 cement and 3 sand, laid smooth and even and pitched to trap pit.

DRAIN PIPES: Lay 4" earthenware drain pipes under earth to carry water from leaders to dry wells 8' from house. These pipes shall be independent of sewer or other drain pipes and shall have the joints well cemented especially on the underside of same. Put in floor drains in cellar at boiler and in garage and run to stone dry wells. Lay septic tank drain pipes in best approved manner under supervision of Architect. 4" earthenware drain tile to be laid around footings of cellar on 4" gravel and covered with 2" gravel.

COLUMNS: Provide and set C. I. concrete filled columns 4" in diameter in cellar for support of wood girder. Columns shall be set immediately after the girder is in place, and shall rest on concrete footings 12" thick and 24" square.

CINDER CONCRETE: In bathrooms prepare floor with cinder concrete 3" thick and to within 1/4" of finished floor. Carpenter will cut in the wood deafening.

LATHING AND PLASTERING: Lath all walls, partitions, ceilings and stair and soffits through 1st and 2nd stories including garage, cellar, ceiling, attic, etc., with black herringbone rib lath, lapping joints, and scratch and brown coat and finish on 1st and 2nd floors with coat of white approved hydrated lime, gauged with plaster of Paris all plumb, even and carefully trowelled to a smooth finish. Metal corner beads to be used on all angles and arched openings.

GRADING: Contractor shall grade premises and lay down 4" rolled cinder driveway to garage and finish same with 3" bluestone. 3'0" wide flagstone walk from driveway to front steps. Terrace to receive 4" cinder concrete well tamped and finished with colored flagstone well cemented down.

SEEDING: Contractor to seed entire lot at such time as directed by owner.

TIMBER: All timber shall be of sound, full dimensioned spruce or fir, free from defects, large or loose knots affecting its durability and strength.

FRAMING: Set all timbers in the usual manner to construct the building in accordance with the design. Frame to be balloon type. The studs shall extend from sill to plate and ribbon strip or girth shall be notched into studs at proper height to receive the floor beams. Sills shall be halved at corners and shall be embedded in cement on the wall. Ends of floor beams shall be spiked against the studs wherever practical and spiked thereto. Floor beams shall be doubled under all partitions running the same way and also for headers and trimmers and stairwell, chimney and other openings. The tail beams and headers shall rest on a 2" x 3" strip or cleat spiked to the header and trimmer, and the tail beams shall be cut over and well spiked to the header. Spiking ends of tail beams to headers and headers to trimmers will not be permitted.

SIZES: Sills 4" x 6", corner posts and intermediate posts 4" x 6", ribbon strips or girts 1 1/4" x 6"; plate 4" x 4", first tier 2" x 10"—16" c.c., 2nd and attic tier of beams, 2" x 8"—16" c.c., and 12" at long span; rafters 2" x 6"—20" c.c. studding 2" x 4"—16" c.c., braces 2" x 4", ridge 2" x 8"; girder in cellar 6" x 8" yellow pine, hip rafters 2" x 8".

BRIDGING: Beams of all tiers shall be bridged with 1 1/4" x 3" herringbone bridging double nailed at each end. Bridging shall be cut in between beams before the underflooring is laid.

STUDDING: Studding shall be double at each window, doors, and other openings, bearing partitions shall in all cases have two 2" x 4" sills and plates. Wherever practical the studs shall extend through the height of the floor beams and rest on the partition plate or story below and also on sill and girder to insure less cracks from shrinkage. Wide openings shall have 2—2" x 8" heads, ends of which shall in all cases rest on top of studs

and not nailed in between same; corners of all intersecting partitions shall in all cases be made solid. Each corner of frame shall be braced with 2" x 4" braces, which shall extend over no less than three studs unless impractical.

SHEATHING: All exterior sides of building shall be enclosed with 1" x 10" N. C. boards dressed one side, shiplap, put on horizontally and well nailed at each bearing. Sheathing shall be covered either with a heavy building paper or singleply tarpaper, which shall also be well lapped behind all door and window casings.

ROOFS: Frame and construct roofs shaped according to drawings and rafters with 1" x 2' shingle lath well nailed and even. Shingle lath to be covered with Pennsylvania Slate or with 18" Weatherbest or Creodipt stained shingles laid 5/8" to the weather. Color of shingles to be as selected by owner.

FRAMES & SASH: All window sash shall be of stock size as marked on plans and shall be double hung. Frames to be Andersen. Sash to be 1 1/8". All sash to be hung with Samson Spot Sash Cord.

SCREENS: Screens to be applied on all window and door openings. Porch to be screened in with entrance door as located by owner. All screens to be No. 18 mesh bronze wire.

EXTERIOR: Exterior of building to be sheathed and covered with black building paper. 18" Weatherbest or Creodipt shingles to be applied over exterior and laid in pattern as directed by owner. Color of shingles to be selected by owner.

GLASS: All glass to be bedded in putty except where wood stops are provided shall be secured with zinc sprigs and back puttied. All glass to be double thick American sheet glass, clear, straight, and free from blisters and imperfections. Upon completion and before acceptance by the Owner, Contractor shall clean all glass and paint stains, etc., and replace all broken and defective glass and leave his portion in good repair and order.

EXTERIOR TRIM: All exterior trim, such as cornices, posts, facia, boards, etc., shall be of cypress. Underside of main cornice projections shall be ceiled with 3/8" T & G. fir. Wherever mouldings occur, they shall be of stock pattern.

DOOR FRAMES: Exterior door frames shall be 1 1/4" outside casing and 2" sills.

FLOOR: Lay 3/4" N. C. underflooring throughout the 1st and 2nd story and in attic, on which lay a 3/4" x 2 1/2" straight grained white oak floor on 1st and 2nd floor. All finished flooring shall be T. & G. and B. N. At the intersection of floor and base provide and put down stock floor mould or quarter round. Lay building paper between rough and finished flooring. Cut in deafening between beams in bathrooms, set about 4" below finished floor. All finished floors on 1st and 2nd floors shall be neatly scraped and sandpapered. Scraping of floors shall be deferred until the very last and at such times when painter can follow up with the finishing of same. Four strip oak border on floors in living room, dining room and master bedroom. Linoleum on kitchen floor to be laid by contractor.

TRIM AND BASE: Trim throughout the house shall be 3/4" x 4" white pine, plain sills and aprons at windows; at doors trim shall extend to floor with base blocks. All trim in living room, dining room, library, and hall to be chestnut. Base shall be of white pine 6" high with 1 1/2" moulding to suit. Closet base 7" high without moulding. Window and door openings shall be 1/2" x 1 1/2" stock moulded stop heads. Built in ironing board in kitchen. Bookcases, dining room cabinet and living room panelled wainscoting to be as shown on drawing supplied by Architect.

WEATHER STRIPPING: All exterior doors and windows to be weather-stripped. Front door to have 4" bronze saddle.

INSULATION: All exterior walls and attic floor beams to be insulated with 4" mineral wool hand packed in a compact manner leaving no air spaces or voids between packing.

JAMBS AND HEADS: Jambs and heads for all interior doors shall be of 3/4" white pine as required.

DOORS: Doors shall be of sizes on drawings and shall be one panelled white pine, "Klimax," or Birch veneer doors. In rooms where chestnut trim might be used, doors to be of similar material. Front door shall be of 2 1/2" oak and other exterior doors 1 3/4" of cypress or white pine. Include 1 panel door about 18" x 24" for bathroom waste valve. Door openings throughout to have moulded saddles of oak same as floors.

CLOSETS: All closets shall have on 12" shelf, strip for hooks. Linen closet, however, shall have five 12" shelves. Any special closets shall be built as per detail by architect or "Morgan Millwork" plate number.

STAIRS: Cellar stairs shall be 1 1/2" strings, 1 1/4" x 9" treads and necessary handrails, all of spruce. Main stairs shall have 1 1/4" wall and string planks, 1 1/2" treads 3/8" risers with moulded nosing, newels, platforms, etc., all of chestnut with red oak treads and platforms, except handrail, which shall be of wrought iron. Stairs shall be properly housed, wedged and glued, provide a 1" well-hole facia, mouldings, etc., and necessary carriage timbers and furring for lathing.

The stair contractor shall take measurements of

well-hole and head room and shall submit layout of all staircases to Architect before building same.

HARDWARE: The carpenter shall provide all hardware such as nails, screws, cellar, window hardware, etc., and shall also include furnishing and application of finished hardware of hammered metal type. Hardware to be selected by owner. Allowance for same to be One Hundred Twenty-five (\$125.00) Dollars.

DRESSERS: Dressers in kitchen and pantry shall be of wood with swinging sash doors, shelves, drawers and pannelled cupboard doors, plate strip and shall extend to ceiling.

MEDICINE CABINETS: Provide and set in one iron white enameled medicine cabinet in each bathroom with two shelves and bevel edge mirror in door. Cabinet to be about 21" x 27" in size, of Venetian Medicine Cabinet type.

WINDOW SHUTTERS: Window shutters to be 1 1/4" stock and built as per detail shown on plans.

CUTTING: Do all necessary cutting for all trades and put up usual cleats for plumber.

RUBBISH: The carpenter shall remove from the building all rubbish except that of the mason and leave the building broom clean.

SCAFFOLDING: Carpenter shall provide all necessary scaffolding for mason.

PAINTING EXTERIOR: All exterior woodwork shall have all knots killed with shellac and all holes puttied and shall be painted 3 coats of Atlantic White Lead and pure linseed oil, or two coats of stain and one coat of varnish.

INTERIOR: All interior woodwork shall be stained with an oil stain, all nail holes puttied and then varnished two coats with an approved make of varnish or at option of Owner, interior woodwork to be painted three coats of lead and oil including a finished coat of enamel. All woodwork to be well sandpapered and cleaned before the first coat is applied. All inside walls to receive three coats of lead and oil. Bathrooms and kitchen walls to receive finished coat of enamel. Any textured plaster to be stained and glazed. Cellar walls white-washed.

FLASHING, GUTTERS & LEADERS: Use 16 oz. copper throughout for all the flashings. Flash the sides of the chimney where it intersects the roof and counterflash, same to be saw-tooth. Flash over all window heads, sides of dormers, junctions of porches, and extensions to house, etc.

Gutters and leaders to be copper as above. Gutters to be 1/2" round 5" wide and securely held in place with copper hangers placed about 3' apart.

Provide the necessary sleeves and collars to connect to the leaders. All gutters to have the proper pitch to leaders.

All leaders to be 3" round corrugated or square and are to be of copper as above.

Provide copper wire baskets at all leader openings in the gutters.

TILING WORK: Kitchen walls 4'6" above floor to be prepared with wire lath and scratched with cement plaster to receive 4" x 4" tile. Bathroom walls to be tiled 4'6" high and floors to receive one inch hexagonal or square ceramic tile with ornamental border. Sanitary cove and base to be used. Tile to be 4'6" above bathtubs. Hearths to receive 4" x 4" quarry tile of colors to be selected by the Owner. Tile in master bathroom and lavatory and kitchen to be colored and selected by Owner. Bathroom accessories to consist of the following and shall be built-in with the tile: 1 soap and grab dish over bathtub, 1 glass holder, 1 shelf and soap dish under medicine chest, 1 toilet paper holder, 1 tooth brush holder, 2 towel bars, 2 towel bars in kitchen.

All tile work to be neatly butchered and at completion washed with white cement and thoroughly cleaned of all foreign substance.

PLUMBING, GENERAL: The plumbing shall be done in the best manner complying with all requirements of the Board of Health. The plumber shall pay all fees and get all the necessary permits, also doing all excavations and refilling for the laying of pipes. Cast iron pipes and fittings, etc., which are underground shall be of extra heavy cast iron. House sewer shall be earthenware within 2' of the house wall and house drain, trap, fresh air inlet, and soil shall be of cast iron and vent and waste line of standard galvanized iron and all short branches to waste and soil and soil lines shall be of lead. Pure pig lead shall be used for caulking, and connections between lead and lead shall be by wiped joints and between lead and iron by brass ferrules and caulking. All horizontal runs shall have no less fall than 1/4" per foot. Use Y and 45 degree elbows for changes of direction and all vertical lines by 90 degree Y, all properly fastened and supported.

SEPTIC TANK: The plumber shall make p-pper connection with septic tank by means of a 4" earthenware pipe, which shall be continued to within two feet of the house line where it shall be connected with the cast iron house drain. Septic tank shall be 900 gallon capacity built of concrete as manufactured by the Nustone Products Corporation.

HOUSE DRAIN, ETC.: House drain shall be 4" cast iron, screw cap and trap placed in cellar. Trap shall have a 4" cast iron, fresh air inlet, place in house side of trap and carried to outside with a cast iron perforated plate in wall. Drains in cellar to be piped to blind drain.



Doctors' Efficient Bungalow Offices

THE LAND-POOR owner of vacant business sites and two professional men found the answer to their problems in the building illustrated above; tax paying and income revenue for the owner, more ideal working conditions for the doctor and dentist tenants.

The structure is well located, a half-block from the business center of Wheaton, Ill. At a cost of under \$6500, the rentals should amortize the investment in from seven to eight years.

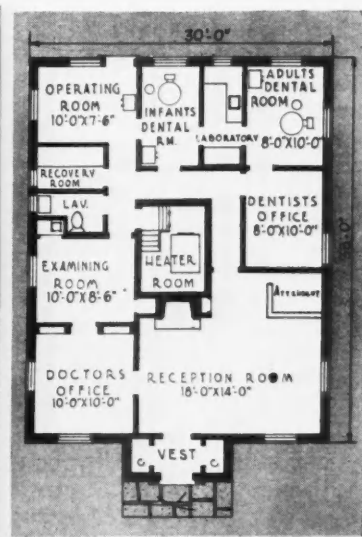
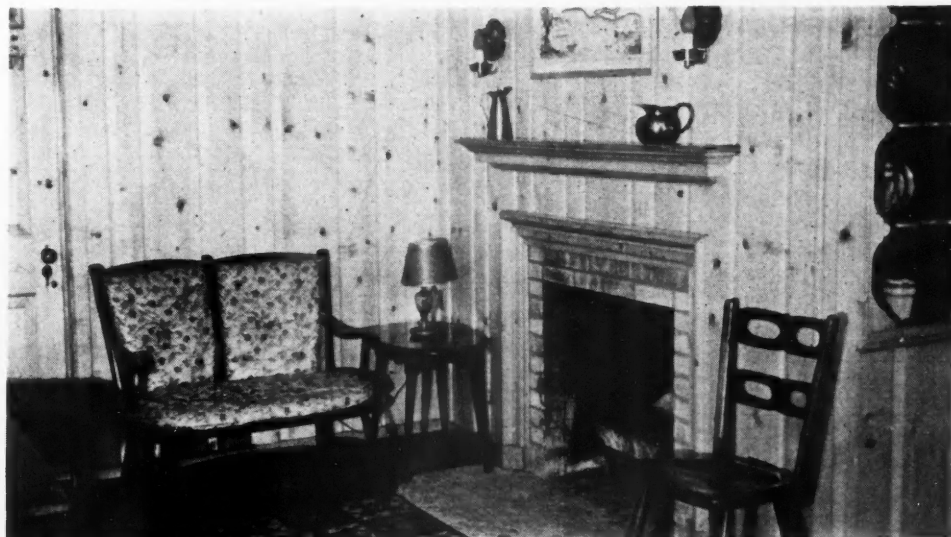
The attractive Colonial bungalow was not yet painted when photographed. The shade trees, and dignified, clean cut design give it character suitable to its purpose. The reception room (shown below) with stained pine paneling and wood-burning fireplace further carries out a friendly and soothing atmosphere that is agreeable to the patients.

A Sunbeam air conditioning unit, gas-fired and located centrally (see plan) allows for automatic heating which requires little attention and makes the working conditions

ideal. The capacity of the unit allows for five to seven air changes per hour, maintaining an average of 43 per cent humidity at 70° temperature. Exposures on all four sides provide good light. These important features can seldom be had in most professional office suites.

The building has no basement; walls are 8-inch brick insulated with 2-inch rock wool and 4 inches of the same insulation in the ceiling. Edward Guck, contractor, and C. M. Olsen, architect, are both from Wheaton.

Some of the advantages of such offices are the handy ground floor location, good light, inviting exterior, year round comfort, and adequate space. Such properties are attractive both to the owner and the professional tenants and should suggest a profitable field to builders. Since there are hundreds of communities where similar circumstances exist, there is a splendid opportunity to sell doctors and dentists on advantages of this type of office. Further, FHA financing would make the monthly payments as convenient and reasonable as rental.



UNIT PLANS Recommended

PWA Housing Division Urges Use of Efficient Apartment Layouts When Planning Low Cost Housing

THE first comprehensive manual on architectural plans for apartment buildings suitable for efficient or low-rent housing projects was released on June 6 with publication of the handbook, "Unit Plans," by the Housing Division of the Public Works Administration.

Showing typical room arrangements, site plans and details to be followed in planning apartment buildings, the book was developed to serve as a handbook for architects and builders. It sets forth the various types of building unit arrangements adaptable to low-rent housing requirements and shows in actual plans desirable room arrangement, best grouping of apartments for maximum efficiency and minimum expense, and treatment of site plans for best orientation of buildings. Minimum dimensions are set for all rooms, the smallest measurement set for an apartment living room being 11 feet with a minimum area of 150 square feet. Likewise main bedrooms must contain at least 100 square feet with a minimum dimension of 10 feet. Kitchens must contain at least 65 square feet.

The plans developed by the PWA Housing Division provide for cross-currents of air for kitchens wherever possible; for location of kitchens near entrances, requiring careful arrangement of equipment to obviate lost motion. Bathrooms are required to have standardized layouts to effect economy.

Incinerators are required for apartment buildings and every apartment must have a coat closet, a linen closet and a closet in every bedroom. Emphasizing the importance of light and air, each dwelling unit is required to have windows equal to at least one-tenth of floor area and never less than 12 square feet. At least one bedroom per apartment must be able to accommodate twin beds.

Aiming at privacy, the plans provide for each dwelling to be arranged so that bedrooms may be reached from the entrance without it being necessary to cross the living room. This is accomplished in most instances by crossing through the kitchen, as an alternate route. Such arrangement makes it possible to utilize the living room for sleeping quarters with complete privacy.

Care in design of rooms is emphasized. "After a minimum schedule of room sizes has been adopted, it will be found in most cases the efficiency of a unit will be better satisfied through a proper sequence and arrangement of rooms rather than by simply increasing the room dimensions," the book states. "A well designed kitchen or bathroom with properly arranged fixtures and equipment is more useful than a larger room in which little or no thought has been given to room layout."

In all, some 64 possible plans covering all efficient housing arrangements are presented. In developing projects, four major features must be considered: 1. Location of the project; 2. Design of the buildings; 3. Treatment of grounds; 4. Costs as determined by selection of materials and equipment.

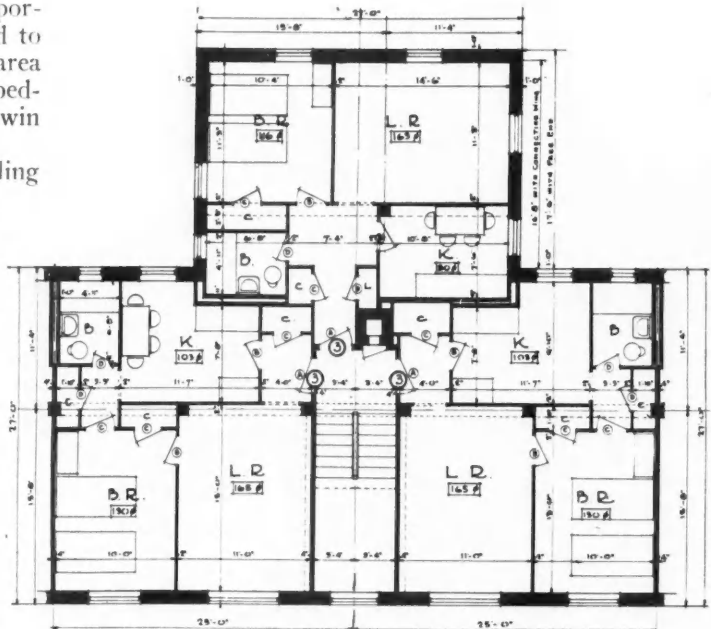
The plans as presented by the book are unit plans;

that is, groupings of apartments into single building units of varying types, such as Tees, Crosses, Ribbons, etc.

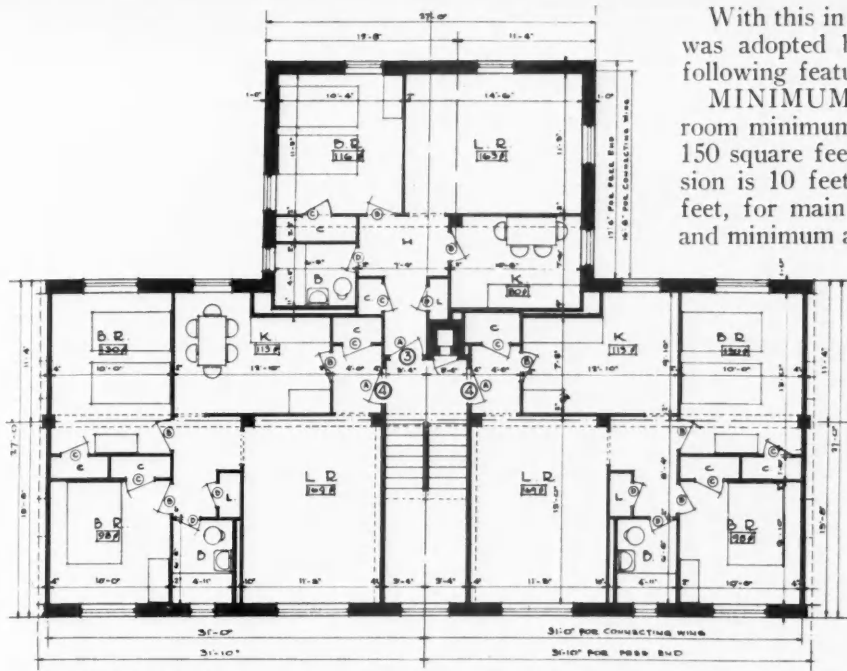
The book was assembled by the Housing Division from its working blueprints chiefly as a means of simplifying the work of architects. The presentation of various combinations of dwelling units which may be assembled into compact groups permits the architect to devote a good part of his time to the proper assemblage and orientation of the units rather than to the creation of workable plan combinations. The chief function of the unit plans will be as guides, as no attempt has been made to solve individual problems or local site conditions. According to the text, the "effort has been made to present typical layouts covering different units and combinations of units in the belief that the architects will use them as aids to develop their own ideas, both for the individual unit and the group plan."

Housing Standards

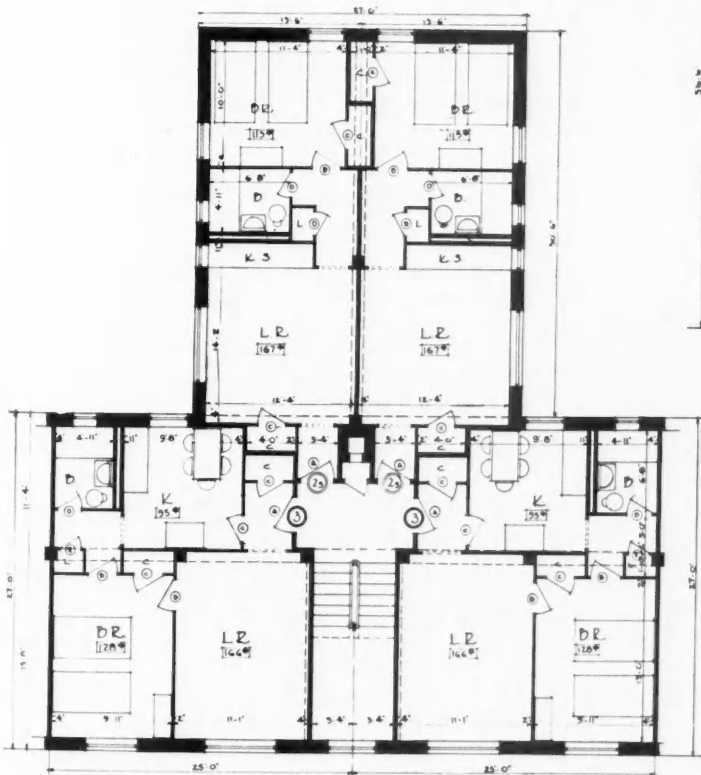
To make a housing project successful, the dwelling units must be tenanted by those who are not only attracted by the original appeal but who find them so livable that they continue to be happy as occupants. This not only makes "satisfied customers" but reduces the tenant turn-over to a necessary minimum. At the same time every known rule of basic economy must be exercised.



PLAN NUMBER HD-15; type of plan, T-unit; characteristics: bathrooms same throughout, may be used as point of meeting of 3 intersecting ribbon units, 9 rooms in unit, total occupancy 9 persons, total gross area 1,800 sq. ft., average gross room area 200 sq. ft., total net area 1,155 sq. ft., average net room area 128 sq. ft., percent efficiency—gross vs. net area—64.2%, outside wall per room: 12 lin. ft. with no end wall, 15 lin. ft. including end wall, interior partitions per room 34 lin. ft.



PLAN NUMBER HD-18; type of plan, T-unit; characteristics: bathrooms same throughout, may be used as a run of T-plans or as a point of meeting of three intersecting ribbon units, 11 rooms in unit, total occupancy 13 persons, total gross area 2,124 sq. ft., average gross room area 191 sq. ft., total net area 1,379 sq. ft., average net room area 125 sq. ft., percent efficiency—gross vs. net area—64.9%, outside wall per room: 12 lin. ft. with no end wall, 14 ft. 6 in. including end wall, partitions per rm. 33 ft. 7 in.



PLAN NUMBER HD-23; type of plan, T-unit; this plan is to be used only in connection with end wall applied to center apartments; note the absence of privacy of circulation in two center apartments; average room area figure increase due to use of strip kitchens, 10 rooms in unit, total occupancy 12 persons, total gross area 2,149 sq. ft., average gross room area 215 sq. ft., total net area 1,338 sq. ft., average net room area 134 sq. ft., percent efficiency—gross vs. net area—62.3%, outside wall per room: 15 ft. 4 in. including end wall, partitions per rm. 36 ft. 8 in.

With this in mind a schedule of architectural standards was adopted by the Housing Division embodying the following features applicable to low-rent housing:

MINIMUM ROOM SIZES: For apartment living room minimum dimension is 11 feet and minimum area 150 square feet, for house living room minimum dimension is 10 feet 6 inches and minimum area 150 square feet, for main bedroom minimum dimension is 10 feet and minimum area 110 square feet, for apartment second bedroom minimum dimension is 9 feet 3 inches and minimum area 100 square feet, for house second bedroom minimum dimension is 8 feet 6 inches and minimum area 100 square feet, for kitchen minimum dimension is 7 feet 4 inches and minimum area 65 square feet, for bathroom, standard dimensions are 4 feet 11 inches by 6 feet 8 inches.

RECOMMENDED DOOR SIZES: For entrance door minimum width is 2 feet 8 inches and desirable width 2 feet 10 inches, for bedroom door minimum width is 2 feet 6 inches and desirable width 2 feet 6 inches, for bathroom door minimum width is 2 feet and desirable width 2 feet 4 inches, for closet door minimum width



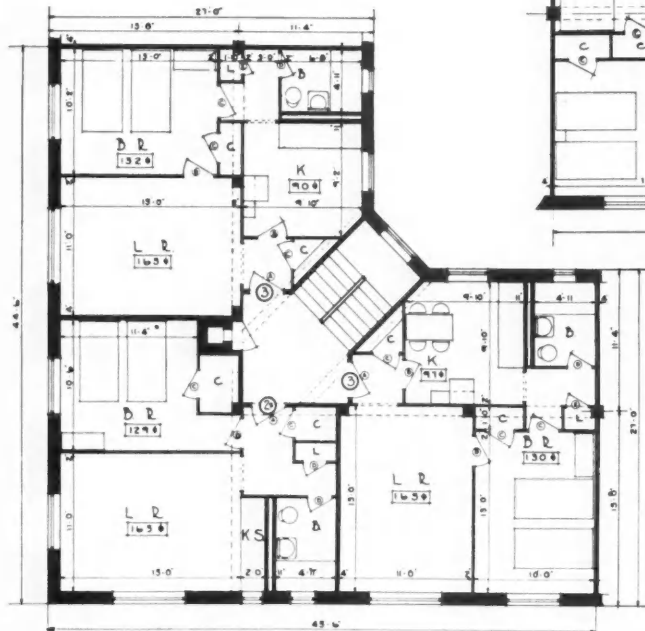
PLAN NUMBER HD-25; type of plan, corner unit; characteristics: bathrooms same throughout, used as a corner for joining of other plan types; not a very efficient unit because one stair and incinerator serves only two apartments per floor; 7 rooms in unit, total occupancy 8 persons, total gross area 1,462 sq. ft., average gross room area 209 sq. ft., total net area 899 sq. ft., average net room area 128 sq. ft., percent efficiency—gross vs. net area—61.5%, outside wall per room: 15 ft. 7 in. with no end wall, interior partitions per room 31 ft. 4 in.

is 2 feet 4 inches and desirable width 2 feet 4 inches, for linen closet door minimum width is 1 foot 8 inches and desirable width 2 feet.

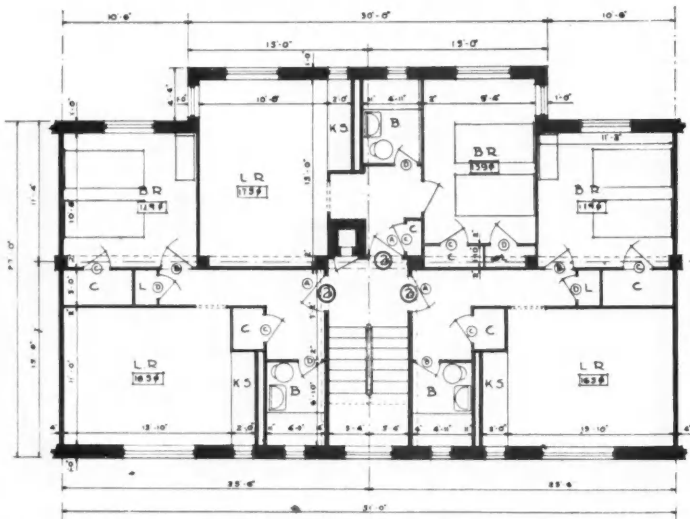
KITCHENS: Cross currents of air desirable but not readily had. Advisable to install ready-made cabinets. Arrangement studied to avoid lost motion, unnecessary stretching or stooping, and to allow for easy opening and tight closing of doors, windows and drawers. Preferable to have kitchen located near entrance. Good artificial lighting for night, suitably located, so as to reach all corners. Eating in kitchens must be considered and space allowed for this in planning.

BATHROOMS: Layout standardized throughout project. Preferable to locate bathrooms adjoining kitchen so as to use one set of plumbing stacks. Walls of hard white cement. Floors and base of tile. One medicine cabinet in each bathroom.

PORCHES AND BALCONIES: Mainly a matter of study applied to the locality of a project. Care should be exercised in the placing of porches so as not to reduce unduly the amount of



PLAN NUMBER HD-26; type of plan, corner unit; characteristics: plan with one strip kitchen and two complete kitchens, used as a corner for joining of other plan types, average room area figure increase due to existence of strip kitchen, 8 rooms in unit, total occupancy 9 persons, total gross area 1,711 sq. ft., average gross room area 214 sq. ft., total net area 1,073 sq. ft., average net room area 134 sq. ft., percent efficiency—gross vs. net area—62.7%, outside wall per room: 15 ft. 4 in. with no end wall, interior partitions per room 33 ft. 3 in.



PLAN NUMBER HD-27; type of plan, T-unit; characteristics: plan with strip kitchens throughout, used as a ribbon, average room area increase due to the use of strip kitchens, 6 rooms in unit, total occupancy 9 persons, total gross area 1,507 sq. ft., average gross room area 251 sq. ft., total net area 882 sq. ft., average net room area 147 sq. ft., percent efficiency—gross vs. net area—58.5%, outside wall per room: 18 ft. 5 in. with no end wall, interior partitions per room 41 ft. 4 in., stairs and incinerators 1/6 per room, closet space per room 6 ft.



PLAN NUMBER HD-28; type of plan, T-unit; characteristics: plan with strip kitchens throughout, used as a ribbon, compulsory passing through living rooms in left and right apartments, no entry in left and right apartments, average room area increase due to the use of strip kitchens, 8 rooms in unit, total occupancy 13 persons, total gross area 1,791 sq. ft., average gross room area 224 sq. ft., total net area 1,187 sq. ft., average net room area 148 sq. ft., percent efficiency—gross vs. net area—66.3%, outside wall per room: 16 ft. 6 in. with no end wall, interior partitions per room 36 ft. 5 in.

natural lighting in rooms off porches when provided.

VESTIBULES: Considered desirable on ground floor leading into stair hall. No announcer bells required except for apartments with separate entrance stairways. Mail boxes installed in vestibules; architects should consult with Post Office Department for arrangement of mail boxes and secure official approval of the site plan for mail deliveries and house numbers.

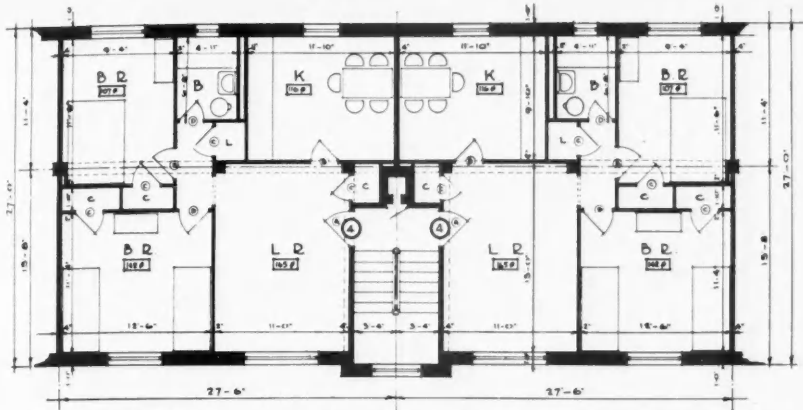
STAIRS AND STAIR HALLS: Walls of apartment houses to be built of hard, washable, glazed tile, except for special conditions. Incinerators, rather than dumbwaiters, in all apartment houses structures over two stories in height. Steep stairs to be avoided. Stair landings to be broad and triangular turns or winders to be avoided. Handrails on both sides provided throughout. All stairways to be adequately lighted.

STORAGE SPACE: In apartment houses storage space to be provided for each unit—one method of putting basements to good use. In row houses and flats storage space may be either in basement (group or individual) or in superstructure utility room.

CLOSETS: Standard formula to determine number of closets: For each dwelling unit one coat closet (preferably in entry or vestibule), one linen closet, and at least one for each bedroom. Minimum depth 1 foot 10 inches. Use of doors on closets depends on individual project. Closets to be kept away from exterior walls in all cases—this is done to conserve light area. No cutting into rooms with closets.

WINDOW AREA: To be at least one-tenth of floor area and not less than 12 square feet. Minimum bathroom windows 1 foot 8 inches by 3 feet. Windows to run up close to ceiling so that light penetrates deeply into rooms.

STORY HEIGHTS: Except as required otherwise by local ordinances, story heights to be 9 feet from finished floor to finished floor. No room to have less than 8 feet 6 inches from finished floor to finished underside of ceiling slab, except basements, which may be 8 feet.



PLAN NUMBER HD-30; type of plan, ribbon unit; characteristics: used as a ribbon, direct entry into apartments through living rooms, not as efficient as T-units because one stair and incinerator serves only two apartments per floor; useful however as connecting or "spreader" unit for T and cross types; 8 rooms in unit, total occupancy 10 persons, total gross area 1,494 sq. ft., average gross room area 187 sq. ft., total net area 1,060 sq. ft., average net room area 132 sq. ft., percent efficiency—gross vs. net area—71.0%, outside wall per room: 13 ft. 9 in. with no end wall, interior partitions per room 28 ft. 11 in.

MISCELLANEOUS: At least one chamber in each dwelling unit to be designed for twin beds. Essential to eliminate whole beams in ceilings of all important rooms. No compulsory passing through living rooms except in special cases.

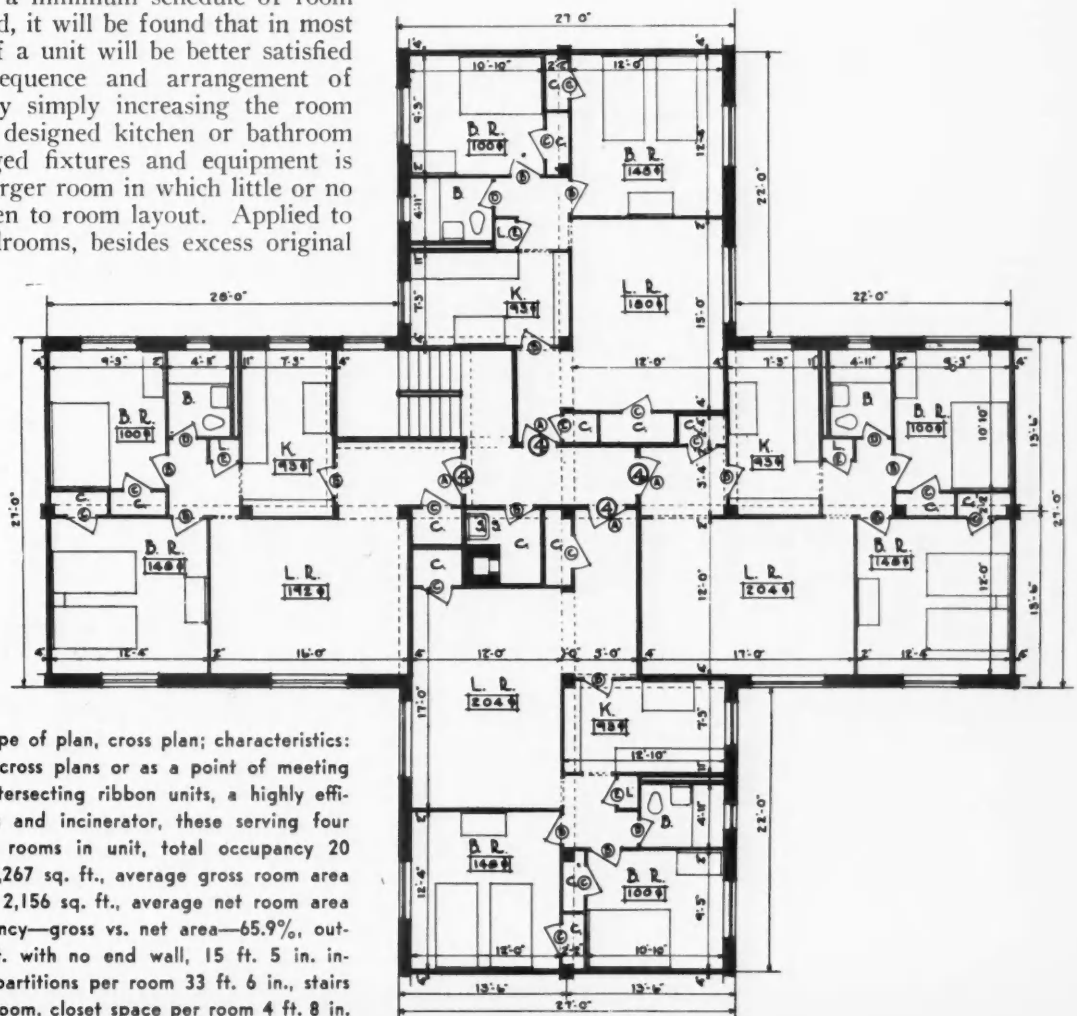
In addition to the above, due consideration should be given to the fact that an economy in plan layout must be accomplished without the loss of any desirable features, and at the same time allowing for a certain amount of flexibility. After a minimum schedule of room sizes has been adopted, it will be found that in most cases the efficiency of a unit will be better satisfied through a proper sequence and arrangement of rooms rather than by simply increasing the room dimensions. A well designed kitchen or bathroom with properly arranged fixtures and equipment is more useful than a larger room in which little or no thought has been given to room layout. Applied to living rooms and bedrooms, besides excess original

construction cost, too much furniture would be needed by the tenant in projects where those rooms are made excessively large.

Other factors, such as the proper use and layout of basement (if one is to be built), the most efficient type of construction to be used and many others are so much of a local problem that they should be handled individually, and therefore no attempt has been made to adopt standards for them.

It should be noted that the minimum desirable sizes shown in the sample plans might be increased efficiently and would add to the desirability of the plan from the renting standpoint, as these plans were conceived to cover minimum requirements only, in practically every case. However, it should be observed that no plans can possibly be decreased without seriously affecting rentability. On the contrary, great improvements may be obtained by increasing either or both dimensions by 1 or 2 feet. This should result in fewer vacancies as the initial construction cost is but slightly increased, with a correspondingly small difference in maintenance costs existing between the minimum size plan and one that has been increased by about 10 per cent.

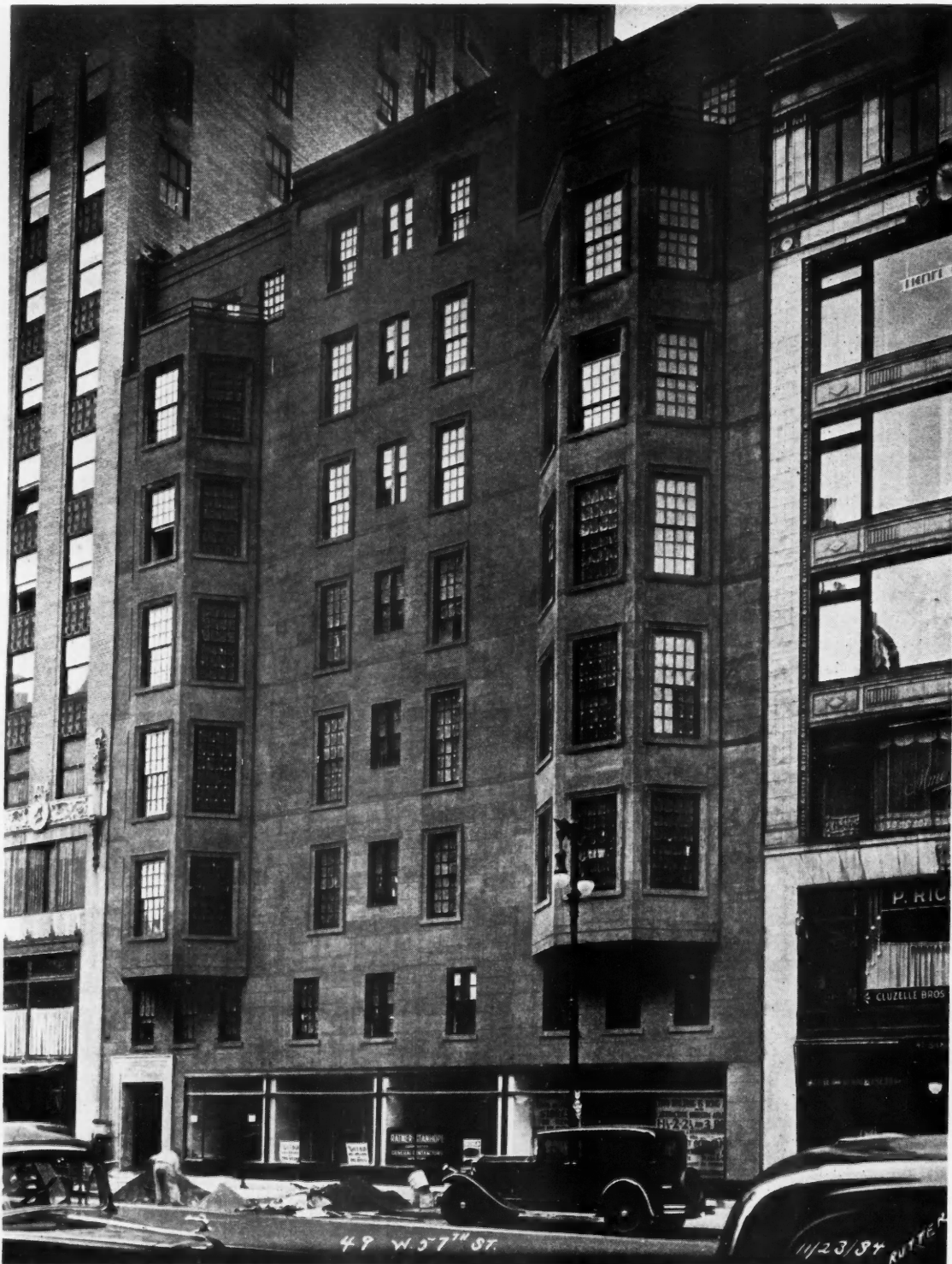
A second group of Unit Plans from this valuable study will be presented in the August American Builder.—Editor.



PLAN NUMBER HD-35; type of plan, cross plan; characteristics: may be used as a run of cross plans or as a point of meeting of either three or four intersecting ribbon units, a highly efficient unit regarding stairs and incinerator, these serving four apartments per floor; 16 rooms in unit, total occupancy 20 persons, total gross area 3,267 sq. ft., average gross room area 204 sq. ft., total net area 2,156 sq. ft., average net room area 135 sq. ft., percent efficiency—gross vs. net area—65.9%, outside wall per room: 12 ft. with no end wall, 15 ft. 5 in. including end wall, interior partitions per room 33 ft. 6 in., stairs and incinerators 1/16 per room, closet space per room 4 ft. 8 in.

MODERNIZATION

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



BEFORE AND AFTER photos and floor plans of New York apartment at 49 W. 57th St. show how old-fashioned 6 to 8 room suites were transformed into modern small apartments in demand today. Ratner Stanhope Company, contractors. Sylvan Bien, architect.

AFTER



Builders Active in City Remodeling

Interesting examples show opportunities for contractors in restoring old buildings

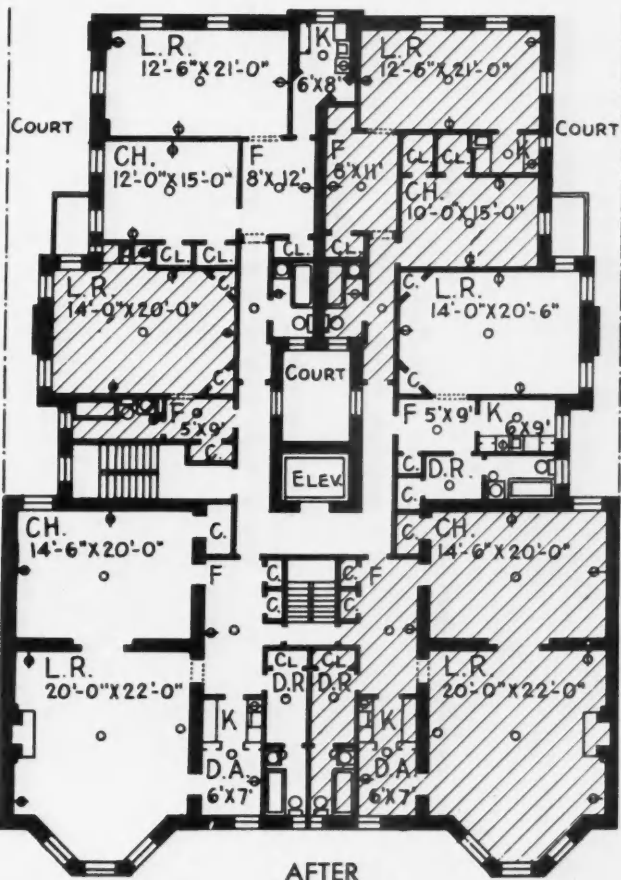
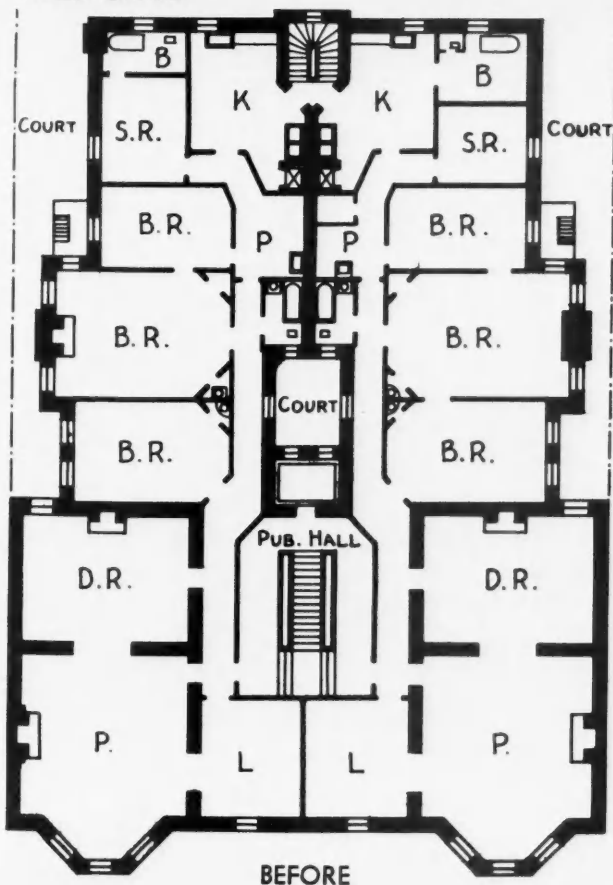
A MARKED pick-up in remodeling of city properties of all kinds is reported by New York builders and modernizing contractors. Liberalization of credit has released hundreds of jobs that had been held up. A change in sentiment of property owners is also largely responsible for the improvement.

Some of the largest sources of remodeling work are the large banks and insurance companies which turn over to contractors the bulk of the work they do. Many contractors are also buying foreclosed and rundown properties, obtaining financial backing and improving them themselves.

Two interesting examples of city modernizing work are shown on this and the following page. One is a large project at 49-53 West 57th Street, New York City in which an old seven-story building dating back to 1880 was completely rebuilt by the Ratner Stanhope Company, New York contractors. The architect for the job was Sylvan Bien.

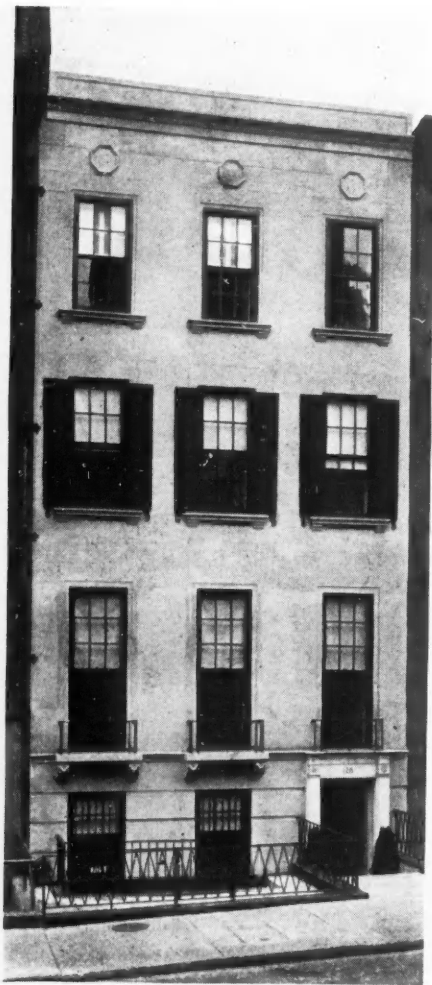
The old building contained large suites of six, seven and eight rooms. The building was completely remodeled to produce small apartments of from one to four rooms. The facade of the building on 57th Street

BEFORE

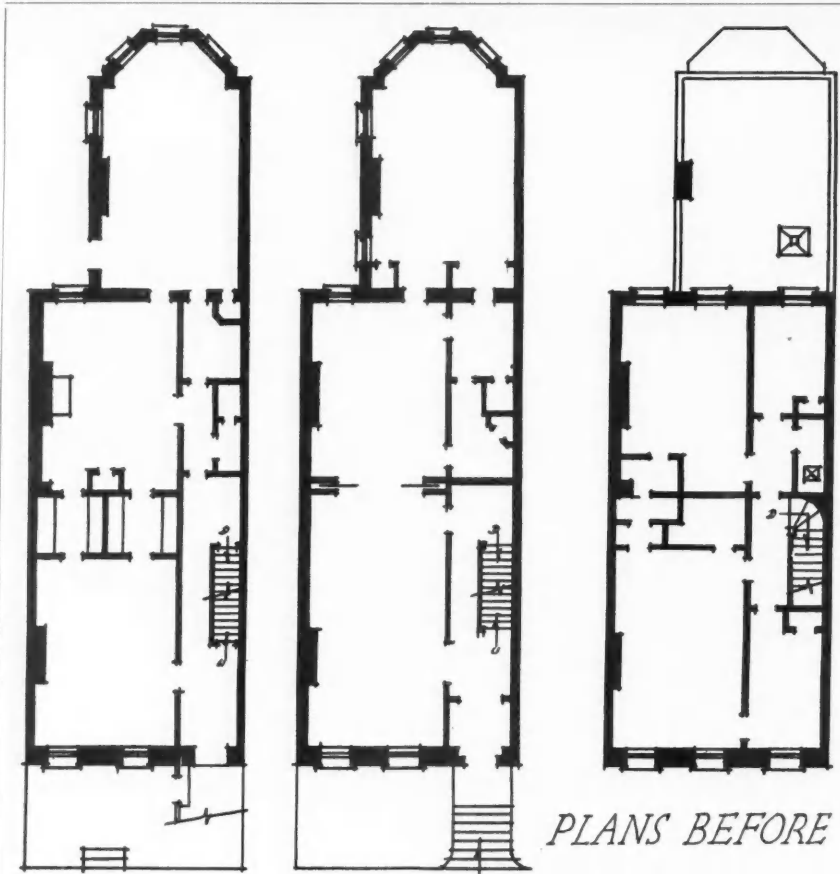


was simplified and refinished although no extensive structural changes were made. Four new stores were built in on the ground floor, which also increased the building's income. Cost of the rebuilding operation for this and a similar building on 48th Street was approximately \$250,000.

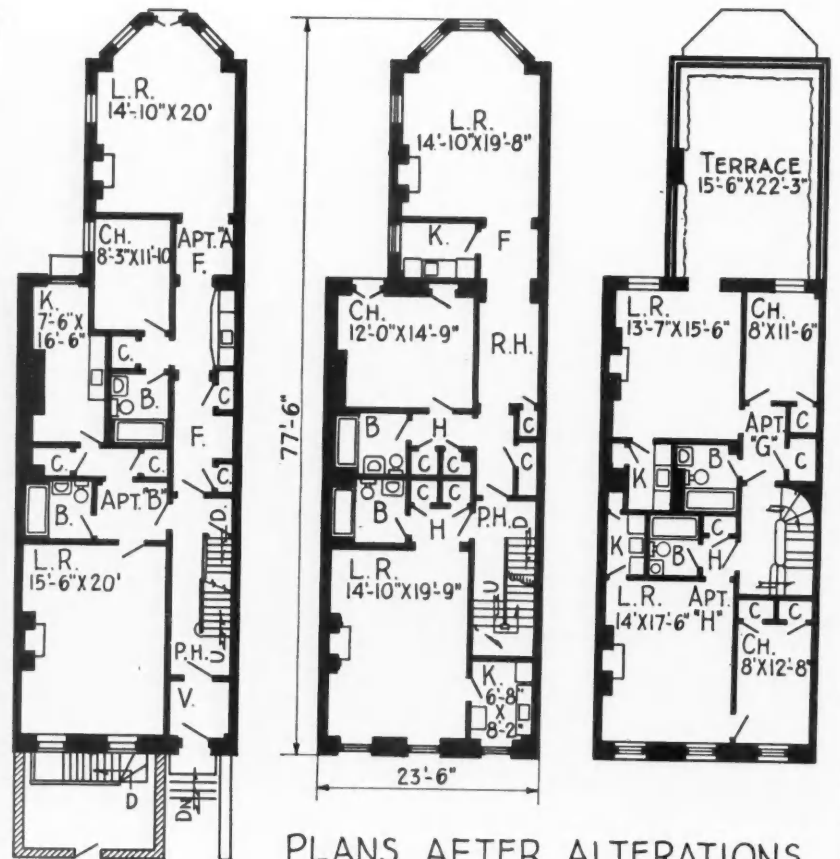
The other job is at 128 East 35th Street, done by the Midtown Contracting Company and designed by Harry M. Clawson, architect. Originally built in 1890 as a private residence, this structure was so rundown that it was no longer rentable even as a third-rate rooming house. The plans prepared by Architect Clawson give an idea of the changes made. Eight housekeeping apartments of from one and a half to three rooms were built in the old structure. New and modern bath rooms and new fixtures and equipment throughout were provided. Cost of the alterations was approximately \$15,000, and the house was one hundred percent rented before completion of work. The gross annual rental of the property is \$6,000.



AN OLD high stoop brownstone in New York was not rentable even as a rooming house. At a cost of \$15,000 it was transformed into 8 housekeeping apartments.



FIRST FLOOR SECOND FLOOR FOURTH FLOOR



FIRST FLOOR SECOND FLOOR FOURTH FLOOR

Remodeled Tea Room Attracts New Trade

Modernizing Gives Old Property Necessary Business Character



THE TALLY-HO TEA ROOM, located near the business district of Park Ridge, Ill., went through two stages of existence before reaching its present form. Originally a square brick residence of the type dating back half a century, to be found in practically every community, seven years ago it was converted into a tea room with the addition of a one-story, concrete block dining room built out to the front of the lot. In this condition it had little architectural character and was not large enough. The owner decided to add a kitchen wing to give the required extra space and at the same time remodel both interior and exterior of the existing structure.

The cleverness with which the details are carried out lends a feeling of hospitality so necessary to an inn. The miniature replica of the columned carriage entrance, the colorful flower boxes, nicely detailed en-

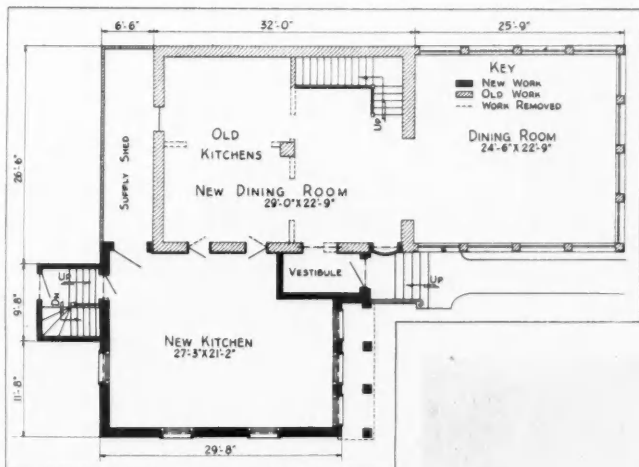
trance with hand rail and small bay window are some of these features. White paint, blinds, awnings and decorative railing above the eaves tie the wings and original building together.

On the interior, knotty pine paneling, Colonial wallpaper and lighting fixtures make the dining room unusually attractive. Old partitions have been torn out, leaving the floor space practically clear. Celotex insulation is used on the kitchen ceiling and plenty of windows insure good lighting. The stairway leads to the owner's apartment above.

S. S. Beaman, Chicago, was the architect; with Nelson Bros., Chicago, doing the carpentry, Albert Nelson, Glen View, the brick work, and concrete by Austin Cement Construction Co. The cost of the alterations amounted to about \$3000.

Mr. J. M. Young, Jr., proprietor of the Tally-Ho, reports an increased business that justifies the remodeling expense. He states that many favorable comments have been received on the improvements and people who formerly thought it was merely an old house which they have been passing for years stop now because it looks so attractive.

There are numerous communities where old residences have been turned into tea rooms, some very similar to the one described and illustrated in this story. Builders are developing business in this field by pointing out the possibilities of increased patronage for such owners by a reasonable expenditure to improve the appearance and efficiency of such properties.



THE TALLY-HO TEA ROOM, at top of page, as it appeared with dining room built to front of 57-year old residence; the plan, above, shows new kitchen wing and entrance added to old structure now used for dining room; at the right, the attractively designed addition and improvements give new character to the completed structure.



Air Conditioning—Key to Comfort

Future Home Standards Will Require Equipment for Proper Air Treatment to Insure Comfortable Indoor Living

By V. L. SHERMAN

Department of Mechanical Engineering,
Lewis Institute of Technology, Chicago

THE PROPOSALS of the Federal Housing Administration have come at a time when they are most welcome to a large and rather discriminating group of younger people. This group is composed of young people who have been reared in home surroundings but have, as individuals, left to establish "bachelor quarters," then married and have established themselves in apartments. A few years of this experience and the young people are ready to admit that there is no place like home, where they, the baby, and even the radio can have individuality.

But like all young people there has been developed in them a sort of selfishness which demands a few more comforts than they enjoyed in their earlier life. They want to be comfortable. And true to type their dread of discomfort makes them work a little harder to obtain comfort. The urge is entirely wholesome. And since the future market in homes is so largely to be made up of this type the FHA is altogether right in its policies of a single long-term mortgage, completeness of the home, and substantial building and equipment. Some say the days of pioneering are gone. I don't think so. Ten years from now these younger

folks and the FHA will have shown some of us older ones what chumps we were in the ways of housing.

When I undertook to discuss refrigeration in connection with air cooling and conditioning a great difficulty arose in confining it to the space allotted, so it is only fair to say that what is contained in the present writing is far from all that could be written, and that the subject of cooling is likely to crop up again at any time.

Figure 1 is a "comfort chart" for still air, that is, air having a movement up to 25 feet per minute. The findings are the result of repeated tests with a large group of people. And it may be mentioned that these findings were made in spaces where the enclosing walls were of approximately the same temperatures as the dry-bulb room readings. Where the wall temperatures were higher or lower consequent lower and higher effective temperatures were the result. This is due to the heat gain or loss to people by radiation.

The wall temperatures are of importance in air cooling and air conditioning. Care in providing insulation at a relatively small cost will prevent disturbing conditions insofar as comfort goes and large heat losses or gains along the wall surfaces. There is also a disturbance of the air moisture which may be costly in some cases.

From the chart it will be seen that if the relative humidity percentage is as high as 70, then the room thermometer should be no higher than 74 if the majority are to be comfortable. And if the thermometer reads as high as 79, then the relative humidity should not be greater than 30%. These are about ideal conditions and in air that has practically no motion. Where there is air motion the effective temperatures are different, and it is more comfortable for most of us to have warm weather air at least a little "turbulent," for it is through this air motion that our skin is cooled by evaporation. It does not take long, in warm weather, for the air which surrounds us to load up with the moisture our skin and lungs rid us of.

Heat and moisture are closely related in air conditions. It is said that in dry climates excessive heat is not so unendurable. That may be so if a person remains in a constant flow of air. But if the air is still or if a person remains in-doors the same feeling of "humidity" again makes one uncomfortable. These conditions of discomfort within a house are most unbearable to those less active and to those who must of necessity stay in the house. And few of us can play golf all of the time.

That there is likelihood of considerable discomfort is shown by the map, Figure 2, which gives the average number of days when the thermometer reaches ninety or above in different localities. These numbers are only the average. Whenever ninety is reached we have long passed comfort conditions, and these numbers mean ninety or above. How much worth while then is cooling equipment which can be operated

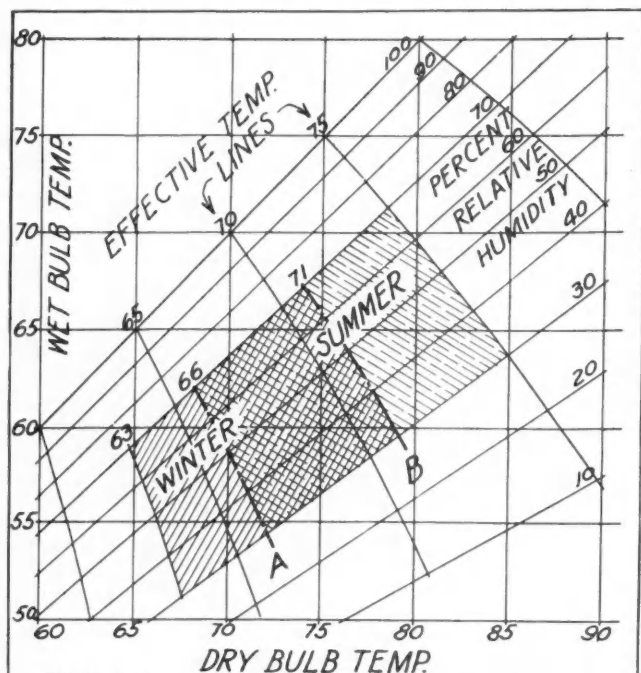


FIG. 1 A PORTION OF THE "COMFORT CHART" AS SHOWN IN THE A.S.H. & V.E. GUIDE. NOTE SUMMER AND WINTER DIFFERENCE OF FIVE DEGREES IN AGREEABLE EFFECTIVE TEMPERATURES.

A = HIGHEST PERCENTAGE WINTER COMFORT.
B = HIGHEST PERCENTAGE SUMMER COMFORT.

HEATING—AIR CONDITIONING—PLUMBING AND WIRING

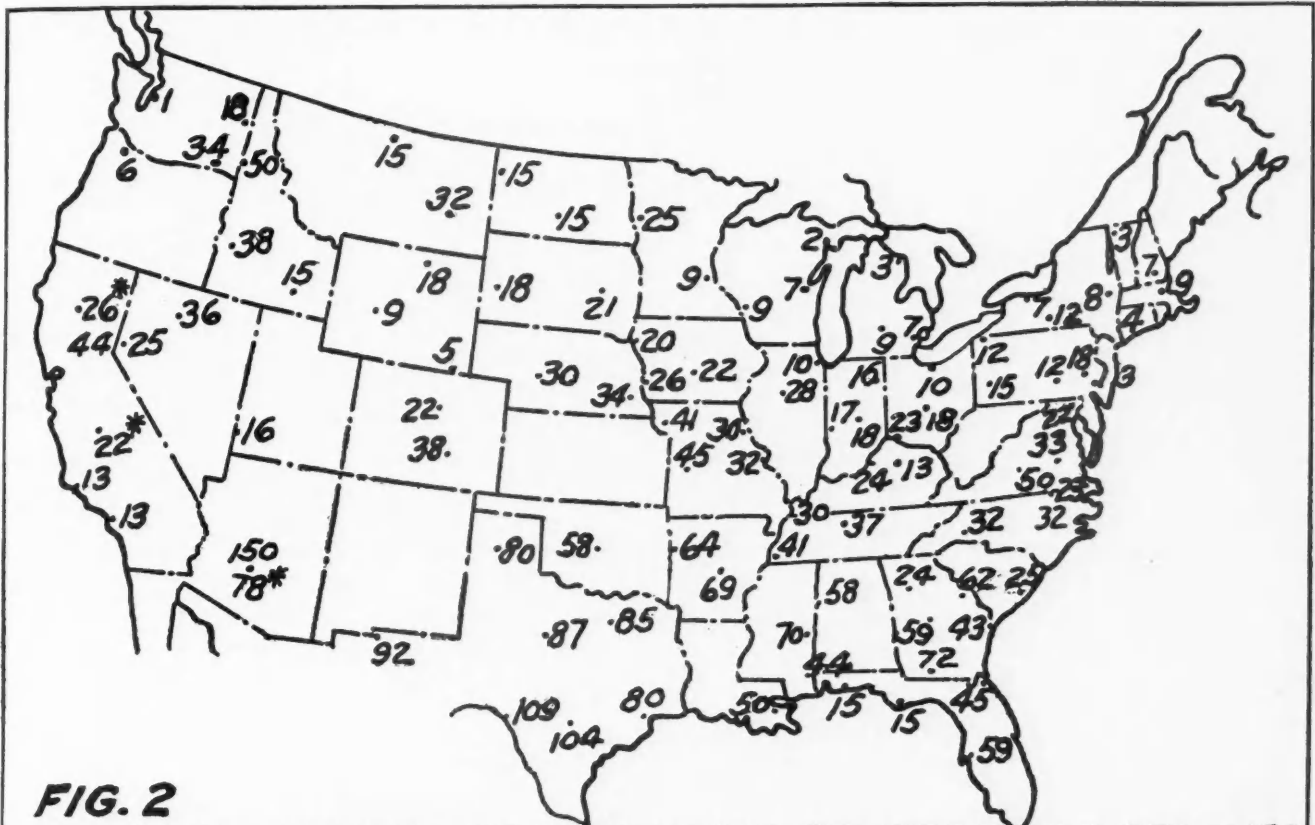


FIG. 2
 AVERAGE NUMBER OF DAYS WHEN TEMPERATURE REACHES
 90° OR ABOVE (* 100° OR ABOVE). FROM A MAP MADE
 BY JOSEPH B. KINSER, METEOROLOGIST, U.S. WEATHER BUREAU.

over these periods of excessive heat.

To get back to the question of moisture in the air it can be seen that besides cooling the air within the house and that coming in from outside it is necessary to remove some of the moisture. That is just what all good air coolers and air conditioners are carefully designed for. This moisture is either to be condensed or absorbed. (The absorbing of moisture will come up at another time.)

Figure 3 shows a room cooling unit of length 31 inches, and height 31½ inches. This is really a portable unit since its location is only restricted by power and tube connections. Since such a unit is generally placed by a window in order to dehumidify the entering air, there is really no restriction in these connections. Either freon or water may be used as a medium. This unit handles about 500 cubic feet of air per minute and has a cooling rating of about 15,000 B.T.U. per hour. Another unit of this same type handles the same amount of air but has about half the refrigeration.

Figure 4 shows a room air conditioning unit which is limited in location by one thing only. That limitation provides one of its great features. This unit is directly connected to a window by means of an adapter. The feature mentioned is the use of air as a condensing medium. There must be some means of efficiently disposing of the heat and the moisture gathered from the air. If there is no such means the unit is not doing the work required of it. In this particular

case room air is drawn through a filter and over cooling surfaces. This cool clean air is mixed with fresh air from the outside which has been drawn through a filter in the window adapter. Dampers are provided to regulate the fresh air intake. The mixed air is then

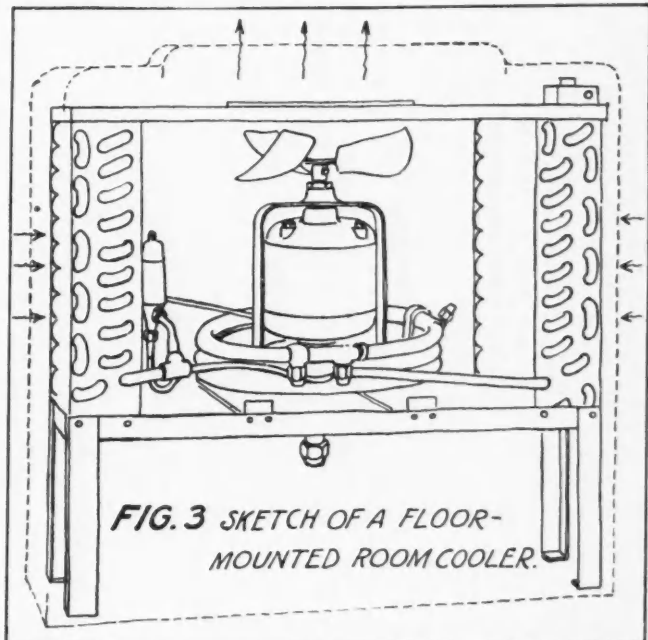


FIG. 3 SKETCH OF A FLOOR-MOUNTED ROOM COOLER.

MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

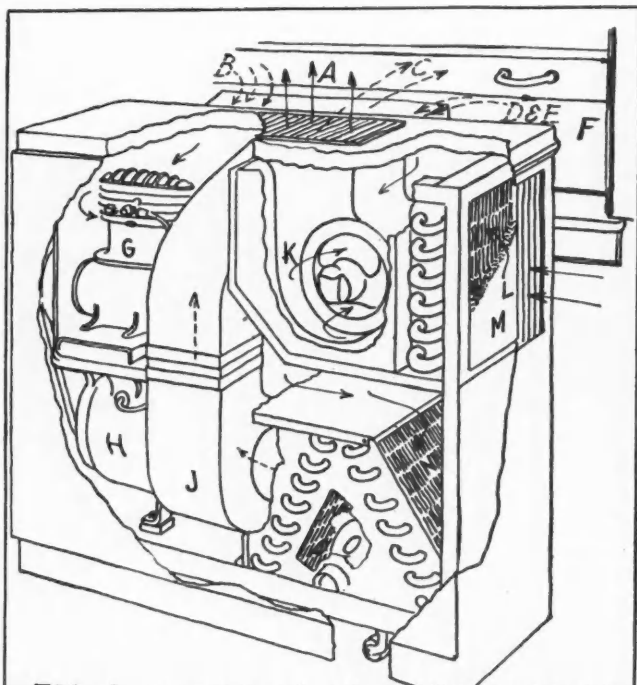


FIG. 4 A PORTABLE AIR CONDITIONING UNIT FOR ROOM USE. OUTSIDE AIR FOR CONDENSING.
A CONDITIONED AIR. **H** MOTOR.
B CONDENSER-AIR SUCTION. **J** CONDENSER-AIR FAN.
C CONDENSER-AIR DISCHARGE. **K** CONDITIONED-AIR FAN.
D FRESH AIR INLET. **L** COOLING SURFACE.
E FRESH AIR FILTER. **M** ROOM-AIR FILTER.
F WINDOW ADAPTER. **N** CONDENSER SURFACE.
G COMPRESSOR. **O** ROTARY VAPORIZER.

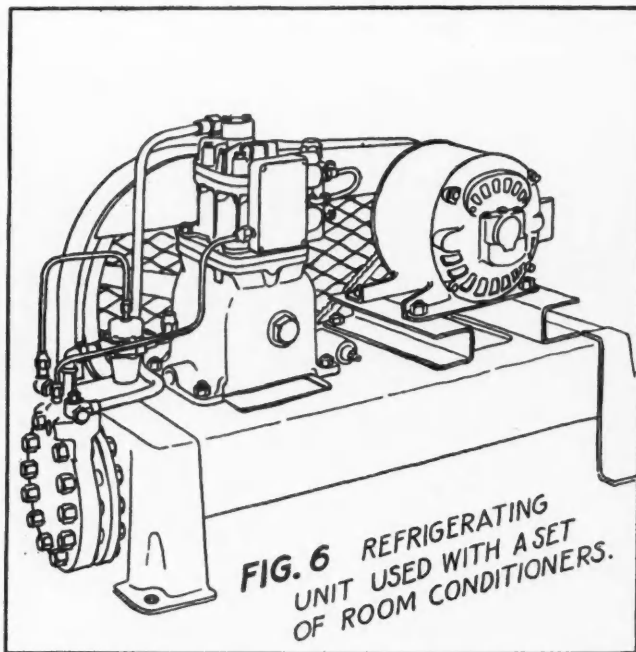


FIG. 6 REFRIGERATING UNIT USED WITH A SET OF ROOM CONDITIONERS.

drawn through the fan and thrown upward through the grille. On the far side of the unit is the compressor with the motor below. Between this and conditioned-air fan stands the condenser-air fan and its discharge trunk. Below the conditioned-air fan are the condenser surfaces.

The condenser-air fan draws in fresh air through the window adapter, passes part of it over the compressor and motor and then all of it to the condenser surfaces. Onto these surfaces the moisture, taken from the room air by the cooling surfaces above, drips in the form of water. Some of this water vaporizes on the condenser surfaces thereby helping along the cooling effect of the steady air stream. What does not drop into a pan where it is vaporized by a rotary vaporizer. All of the air and vapor is then drawn through the condenser-air fan and discharged through the adapter to the out-of-doors.

The only connection needed besides the window is the cord to the electric light plug.

A fruitful question for discussion is whether a home should be entirely fitted for air conditioning or with these

individual units. The unit just described, for instance, is a conditioner. But it is not used except for summer weather. Other units such as the one pictured in the June number of *American Builder* are for year-round conditions. In the average home, however, there is usually little desire or means to isolate parts of the house. In the average apartment this is not quite so general.

The question settles itself very largely on this point—how many rooms are in general use. There are times when a single central unit is much to be preferred and there are times when individual room units are more to the point. In Figure 5 is a basement layout used in a large residence. In this layout there is a centrally placed gas-fired boiler. On either side is an air-conditioning unit with its refrigerating machine. When such a layout as this is employed, with regulating devices to control the loads, there is the flexibility and efficiency to give comfort and low operating costs.

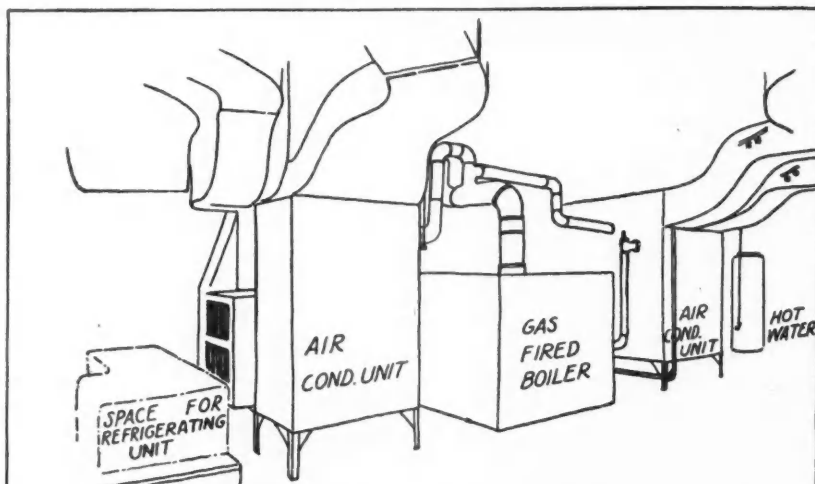
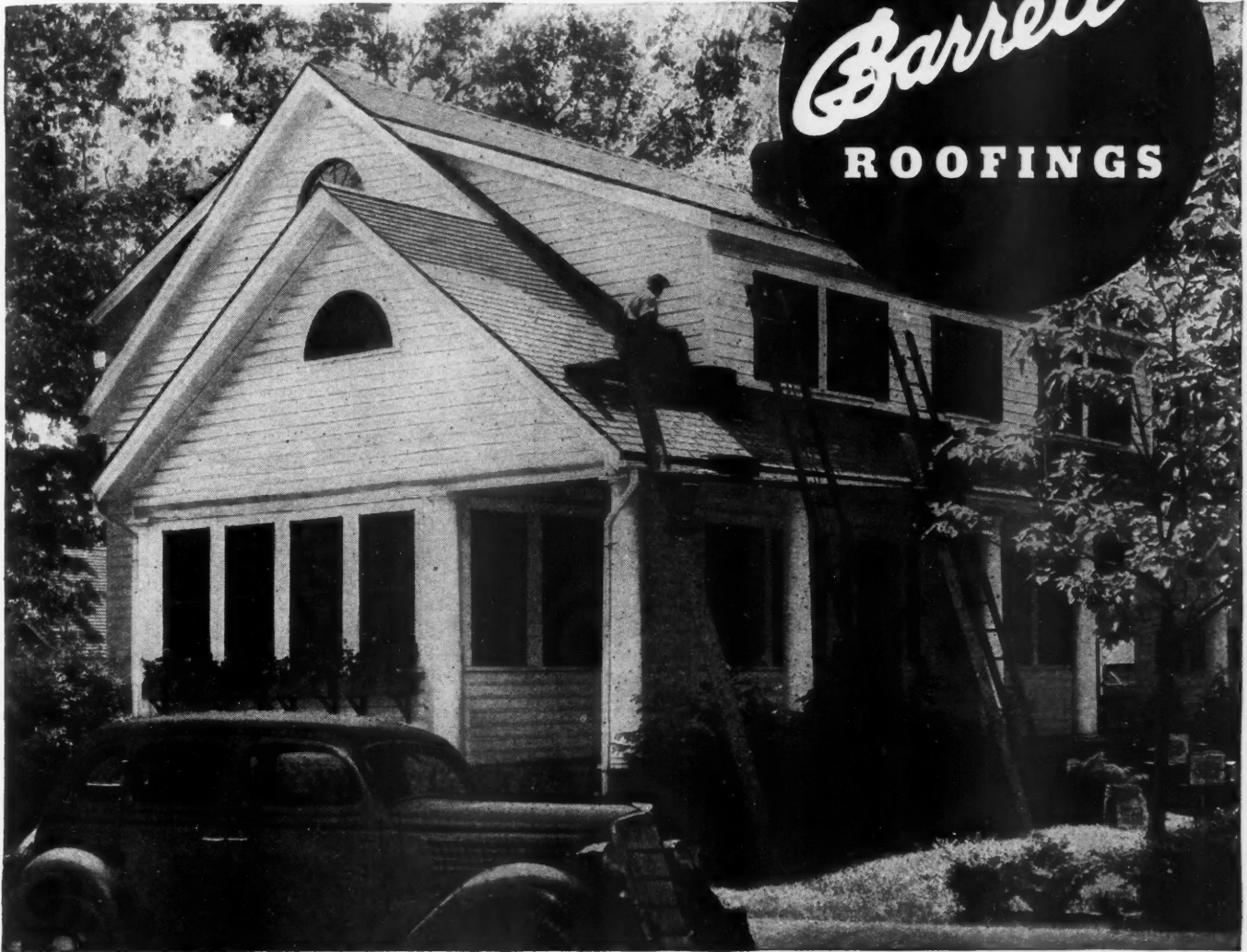


FIG. 5. BASEMENT INSTALLATION. SKETCH SHOWING THE ARRANGEMENT OF A CENTRAL PLANT FOR AIR CONDITIONING A LARGE RESIDENCE. THIS PLANT USES TWO CONDITIONERS.

The ease with which Barrett Shingles can be laid right over the old roof appeals strongly to home-owners who dread the inconvenience of an ordinary reshingling job.



A ROOF LIKE THIS sells many others

Every good-looking Barrett Shingle Roof you sell makes a lasting advertisement for your business.

People like to know how Barrett Shingles actually look on a house. A folder of photographs of Barrett-roofed houses in your town, or a list of such houses for your customer to inspect at his leisure, makes good sales material.

Point out that besides being colorful and enduring, a Barrett Roof is fire-safe and soundly economical in first cost as well as in cost per year of service.

Then play your trump card—the Barrett Monthly Payment Plan. No money down and three years to pay. If you are not familiar with this sure-fire business-builder, send for the booklet at the right, or ask our representative to call and explain in detail just how the plan works.



This booklet describes the Barrett Monthly Payment Plan in detail—shows you how simple and easy-working it is. Write or wire for your copy.

THE BARRETT COMPANY, 40 RECTOR STREET, NEW YORK, N. Y.

2800 So. Sacramento Avenue, Chicago, Illinois • Birmingham, Alabama

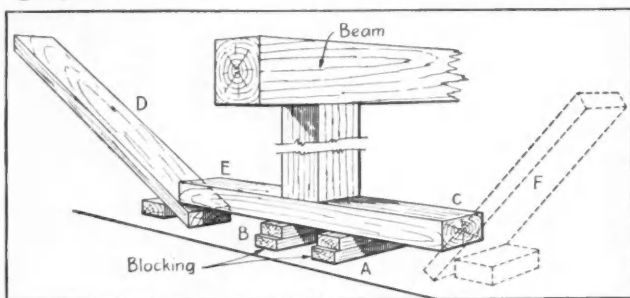
PRACTICAL JOB POINTERS

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.

Raising Beam or Heavy Weight

I AM SENDING a sketch showing a plan I have used to raise a sagging beam or other heavy weight where no jack or other tool was available. A very heavy load can be raised with this plan, depending on the size and length of the lever timber (at D & F) used in the operation. Raise one end of cross support (at E) with lever (D), block up under that end (at B), then change to other end (C) and repeat blocking (at A). Continue until the required height is reached.

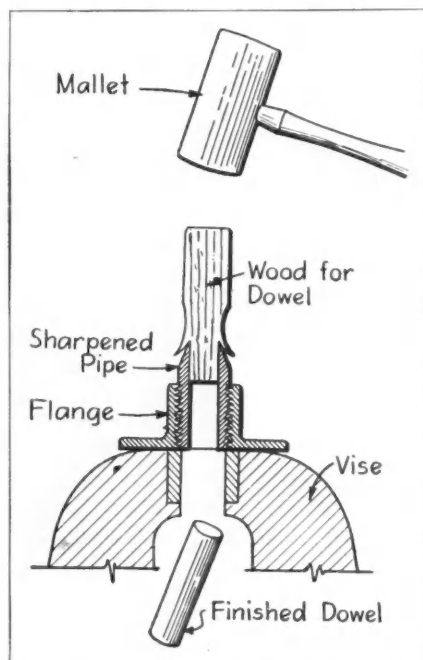
If you can make use of it you may send me the American Builder for one year.—M. H. TROTTER, Carpenter, Washington, D.C.



RAISING beam or other heavy weight.

Making Round Dowels

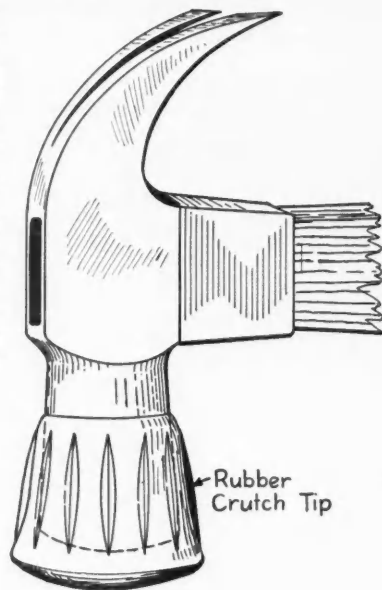
WHEN MAKING round dowels I have found it very convenient to take a short end of gas pipe of the desired size and sharpen one end. If one is handy, a flange screwed on the other end of pipe makes a good base. Then make the dowels a little larger than required with a hatchet, set the short piece of gas pipe on a vise or other firm base and drive the dowels through the gas pipe. This will be found very convenient when numerous dowels are required for driving in holes drilled in concrete.—FRED W. LEHKER, San Antonio, Tex.



SHARPENED pipe for making round wooden dowels.

Rubber Mallet from Claw-Hammer

I WISH TO SUBMIT a practical method I use when in need of a rubber mallet. I simply slip a crutch tip over the head of my claw-hammer. This gives me the use of an extra tool at small cost when needed, and the crutch tip does not take up much room in the box when on the job.—CHARLES F. BEERHALTER, Building Contractor, Wamego, Kans.



CHANGING claw-hammer to rubber mallet

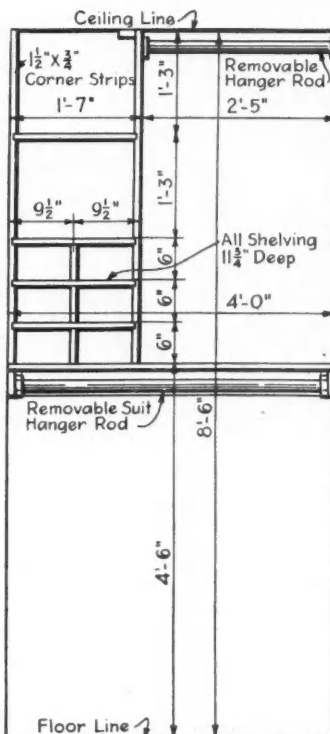
Closet Shelving

I RECENTLY rebuilt the interior of the closet in my bedroom at home, in such a way as to secure almost twice the original storage space, at very little cost, and I thought the idea might be of interest to others in need of additional closet space in their homes but unable to obtain it without expensive rearrangement of partitions, etc.

The idea is to make better use of the normally wasted space above the shelf in the closet, as will be noted from the enclosed sketch. The regular shelf provided in the closet was lowered until overcoats hung on a rod beneath the shelf clear the floor sufficiently to permit going under them with a vacuum cleaner. The space above this shelf was then divided into two parts, the left hand part being divided into six compartments for shoes and having two shelves above for hats, gloves, books, etc., and the right hand one being retained in its full height and equipped with a cross rod at the top for supporting suit and trouser hangers.

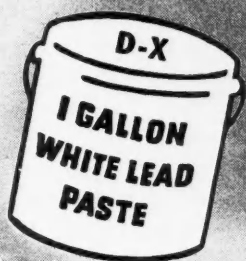
This arrangement has worked out very nicely in that it keeps the closet floor clear for easy cleaning, locates shoes, etc., where they are easily seen, and permits the separation of summer and winter clothes necessary for access and ventilation.

Of course it is necessary to stand on something to reach the suits in the upper compartment, but this is necessary only once a year or so.—JAMES T. RE-SIDE, Washington, D.C.



LAYOUT of closet shelving to give handy arrangement and save unused space.

NEW Eagle D-X WHITE LEAD



+



in QUARTS, GALLONS and
2½ GALLON KITS

Mixes quickly—gallon for gallon—with linseed oil into an easy-brushing pure white lead paint for interiors and exteriors . . .

● At last—a pure white lead paint that's easy to figure for any kind of job!

No more ordering of lead by the *pound*—and converting it into *gallons*.

Now contractors can quickly estimate the exact amount of paint they need in *quarts or gallons*—and buy half that amount of Eagle D-X White Lead in *quarts, gallons, or 2½ gallon kits*.

Eagle White Lead in this new easy-to-use form is a soft paste. Simply thin it with an equal part of linseed oil. Mixing takes less than 3 minutes—and then it's ready for brushing—either for flat interior work or for glossy outdoor painting.

It's the most economical, most convenient way to buy good paint. Eagle D-X White Lead is made by a company that has been making white lead by the Old Dutch process for nearly 100 years. Test after test has proved this quality product to be the longest-wearing, most fool-proof paint you can buy.

If your local paint dealer doesn't carry Eagle D-X White Lead, write The Eagle-Picher Lead Co., Cincinnati, Ohio.

PAINT DEALERS!



If you are not already stocking the new quick-selling Eagle D-X White Lead, mail coupon today for complete information on special introductory deal.

**THE EAGLE-PICHER LEAD
COMPANY, CINCINNATI, OHIO**

The Eagle-Picher Lead Company, Dept. AB7, Cincinnati, Ohio.

Please send me complete information about the new Eagle D-X White Lead that comes in gallons and quarts, also 2½ gallon kits.

Name _____

Address _____

City _____ State _____

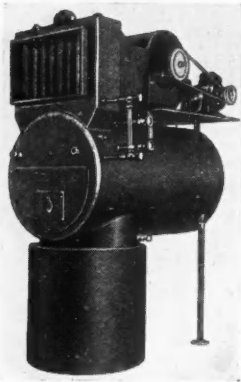
NEW PRODUCTS

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

Air Conditioning and Heating Unit

AN AIR CONDITIONING and heating unit, the "Winter-master," is being manufactured by International Boiler Works Co., East Stroudsburg, Pa. This unit can be either oil or stoker fired and is built to allow for "Split System" heating, steam being used to heat the air. This makes it possible for certain rooms to be heated by direct radiation where that is advisable and supply conditioned air through ducts to other rooms. Domestic hot water is provided by a copper tube heater submerged in the boiler water.

Features of the unit are steel tubular design, mounted on insulated and refractory lined base; vertical copper tube and fin type air heat exchanger; double inlet centrifugal type fan; spun glass filters impregnated with oil; automatic spray type humidifier; V-belt drive, resilient mounted motor.



"WINTERMASTER" with enclosing jacket removed showing mechanical structure.

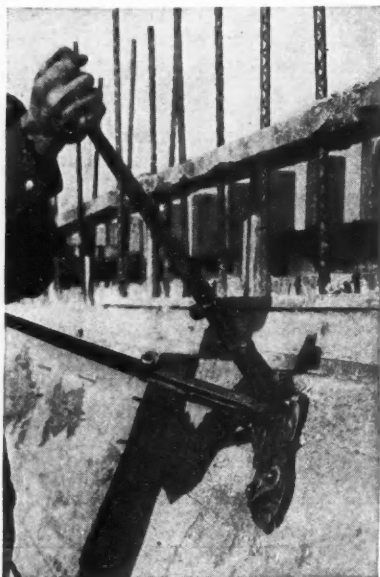
Swivel Head Cutter

AN INGENIOUS but simple device has made the standard bolt clipper of H. K. Porter, Inc., Everett, Mass., a tool practically universal in its application.

The new swivel head cutter works equally well up or down, right or left, behind or before, in or out, because the cutting head swivels to any angle on either side of the handles (from nothing to a right angle).

A special section joined by a ball and socket joint, with a shoe for holding the cutter head and a positioning spring to hold the head in the desired position, are all the changes employed.

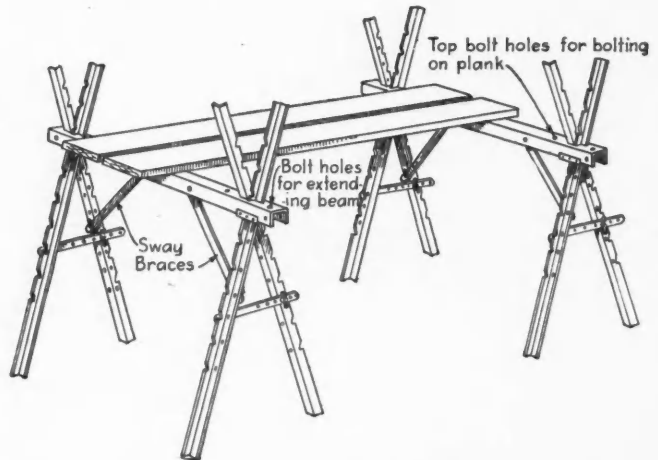
The shoe will hold any standard head of a given size, clipper cut, center cut, chain cutter, nut splitter, etc., and the change from one head to another can be made in a jiffy and on the job.



SWIVEL Head Cutter demonstrating operation of tool on the job.

Adjustable Steel Horses

STEEL HORSES which adjust on the job to high or low positions in less than two minutes and may be taken down or nested for storing are being manufactured by the M & M Wire Clamp Co., Minneapolis, Minn. One horse requires a storage space 4 inches by 4 inches by 7 feet. The 6 foot horses weigh 50 pounds each.



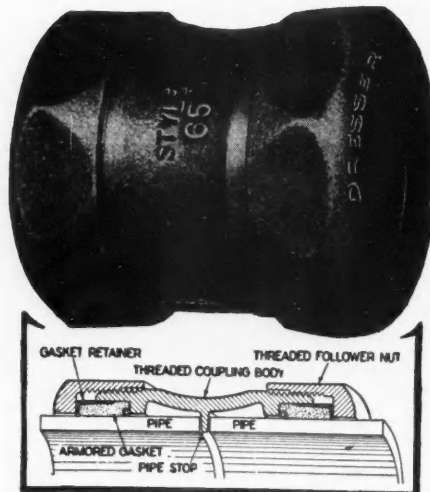
The M & M steel horses adjust at each 6 inches from 3 feet to 6 feet of height. Their adjustment is positive and cannot slip or move under a load at any height. The horses are well sway braced and make a rigid staging.

The four legs slide inside the steel beam for storing or moving. The leg braces fold flat onto the angle iron legs and the sway braces are folded down inside the beam section.

Compression Pipe Coupling

A NEW, SELF contained pipe joint has been announced by the S. R. Dresser Manufacturing Company of Bradford, Pa. To make a connection with this new joint, called the Dresser Style 65 Compression Coupling, insert the pipe ends into the coupling (which comes assembled) and then tighten two threaded octagonal nuts. As the nuts are tightened, two resilient "armored" gaskets are compressed tightly around the pipe.

The compression couplings are supplied, black or galvanized, in standard steel pipe sizes from $\frac{3}{8}$ inches I. D. to 2 inches I.D. inclusive.



Flexible-Rigid Steel Rules

STANLEY TOOLS, New Britain, Conn., is making two new "Pull-Push" rules of the popular removable blade type. The case is totally enclosed against dirt. The flexible-rigid steel blade can be removed entirely from the case. The six-foot blade is graduated on both edges in 16ths the entire length, and in 32nds on upper edge for six inches. One has a two tone chromium plated brass case with red decorations, the other, a gun black finished steel case.



LEVITT & SONS, Manhasset, N. Y., know the value of advertised names and products. They point with pride to the fact that the best-known, tried and true products are the ones prospective buyers will find in Levitt-built homes.

And Levitt & Sons are selling exclusive homes with much greater success than most builders. Why? Because Levitt travels in well-advertised company. You will find Armstrong's Linoleum Floors used throughout . . . kitchen, bath, dining-room, entrance hall.

You, too, can tie up with Armstrong's widespread consumer acceptance. Advertise—and tell prospects—that your floors are "Armstrong's." You'll find it pays . . . whether you build homes or rent them, and whether your clients have large bank accounts or ordinary salaries. Armstrong Cork Products Company, Floor Division, 1218 State Street, Lancaster, Pennsylvania.



Armstrong's
LINOLEUM FLOORS

**GENUINE
1896
MODEL**



Sold!

. . . . *but not in 1935!* Back in the "gay nineties" Granddad looked upon this as the answer to his fondest dreams, as it exemplified the latest in architectural design as well as construction methods and materials. It was a perfect *1896 Model Home*.

TODAY the home buyer looks for up-to-date features as did Granddad in '96. He demands not only 1935 architectural design, but also construction methods and materials that typify the period in which he lives. He wants a perfect *1935 Model Home*.

TO be a true 1935 model, the home must be fire-safe, lightning-proof, termite-proof and crack-proof—affording *permanent* protection both to the occupants and to the investment.

BECOME identified with economical steel framing *NOW* and be prepared to meet the increasing demand for moderately priced fire-safe homes. Let us tell you about **STRAN-STEEL**. The coupon below is for your convenience.



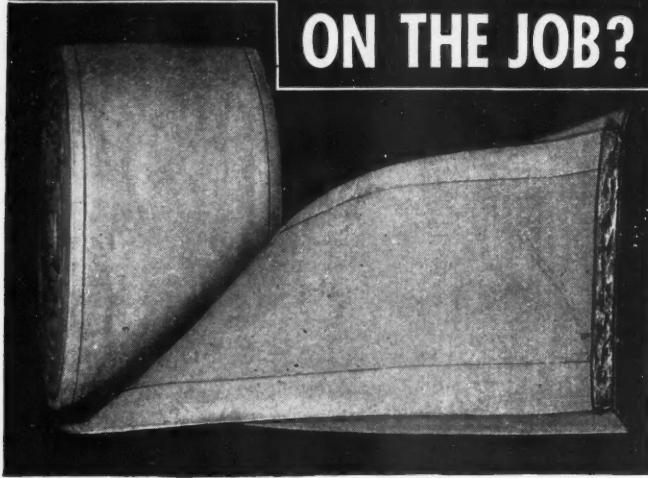
Gentlemen:
Please tell me about STRAN-STEEL framing. I am interested as a
 builder realtor architect

Name _____

Address _____ AB7

STRAN-STEEL
CORPORATION
6100 McGRAW AVE. DETROIT

WHAT WILL IT DO ON THE JOB?



A FEW UNVARNISHED FACTS • • • ABOUT INSULATION

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



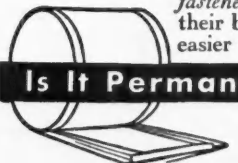
Is It Moisture-PROOF?

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



Is It POSITIVE in Application?

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



Is It Permanent in EFFECTIVENESS?

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

Does It Offer the RIGHT Thickness for the Job?

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

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

BALSAM-WOOL

WOOD CONVERSION COMPANY,
ST. PAUL, MINNESOTA



Made by the Makers of
NU-WOOD

NEWS OF THE MONTH

Building Activities and Meetings

New Mortgage Insurance Rules

THE NEW administrative rules and regulations governing the mutual mortgage insurance plan under the amended National Housing Act went into effect June 24 in every insuring office in each of the States, and the District of Columbia, Hawaii and Alaska. The chief features of the revised regulations are as follows:

1. The maximum interest rate allowed for all classes of home mortgages insured by the Federal Housing Administration is established at five per cent per annum. Any financial institution making a mortgage loan may charge a rate less than five per cent.

Under the old regulations, the maximum interest rate on certain classes of mortgages was five per cent, while five and one-half per cent was the maximum for other classes.

2. Insurance premiums on all classes of mortgages are reduced to one-half of one per cent per annum of the original face value of the mortgage, and this regulation is made retroactive. Home owners who have been paying the old premium rate of one per cent on certain classes of mortgages will receive a credit of one-half of one per cent of the insurance premiums already paid as advance payments on future insurance premiums. Annual premiums on mortgages insured under the new regulations will be payable on the date the mortgage was insured rather than as heretofore on July 1 of each year.

3. The maximum charge a financial institution is permitted to make for servicing all classes of mortgages is one-half of one per cent per annum for the purpose of reimbursing the institution for the service in connection with making monthly collections, payment of taxes, fire insurance, etc.

4. The regulations have been liberalized so that mortgage companies with sound capital funds of \$100,000 instead of the previous requirement of \$250,000 may now qualify as approved mortgagees if otherwise acceptable. The principal activity of an approved mortgagee must be in the mortgage business, unless it is under the inspection and supervision of a government agency, or unless it is an organization investing permanent trust or endowment funds.

5. Organizations investing permanent trust or endowment funds may be approved as mortgagees even if they are not corporations.

Important Interest Change

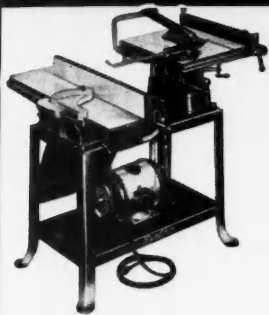
6. One of the most important changes is that the institutions holding an insured mortgage which is in default will, in effect, receive interest on the outstanding principal amount of the mortgage loan from the time foreclosure proceedings are instituted. This interest, from the date of the beginning of the foreclosure proceedings to the date the debenture bonds are issued by the Federal Housing Administration in exchange for the foreclosed property, is added to the face amount of the debenture bonds, and is calculated at the same rate which is provided in the debenture bond. This provision is made retroactive to cover mortgages insured on or after May 28, 1935, the date when the amendment providing for such payment became effective.

Heretofore, the holder of a defaulted mortgage lost the interest on the investment from the time the home owner defaulted in payments until such time as the mortgage was foreclosed and the property turned over to the Federal Housing Administrator, unless the proceeds from the sale of the property were enough to cover this item.

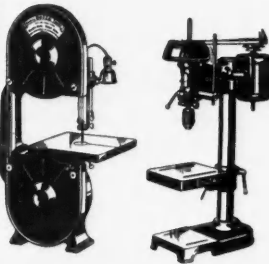
This provision, it was explained, vaults the main objection to the mutual mortgage plan in states where long periods of redemption prevail—especially where moratorium laws are in effect.

7. Insured mortgages will become due on the first day of any month making 12 maturity classifications in each year. Under the old regulations, all insured mortgages matured only on one day of each year, June 30.

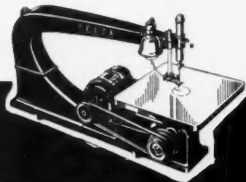
NEW DELTA TOOLS SAVE MONEY FOR YOU



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



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



DELTA MFG. CO.

604 East Vienna Ave.
Milwaukee, Wis.

AMERICAN STEEL SHEETS

FOR ALL KNOWN USES



KEYSTONE Copper Steel Sheets Excel in the Building Field

Use sheets of recognized reputation and value. For roofing, siding, gutters, spouting, air conditioning systems, and general sheet metal work—Keystone Copper Steel gives maximum rust resistance.

Insist upon AMERICAN Black Sheets, Keystone Rust Resisting Copper Steel Sheets, Apollo Best Bloom Galvanized Sheets, Galvanized Sheets, Heavy-Coated Galvanized Sheets, Formed Roofing and Siding Products, Terme Plates, etc. Write for information.

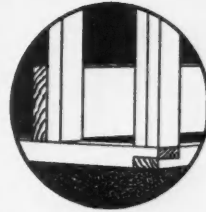
This Company also manufactures U S S STAINLESS and Heat Resisting Steel Sheets and Light Plates for all uses to which these products are adapted.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

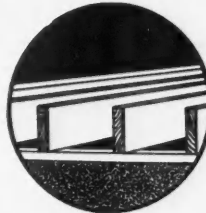
SUBSIDIARY of UNITED STATES STEEL CORPORATION

How Can You Prevent Vulnerable points for Termite damage

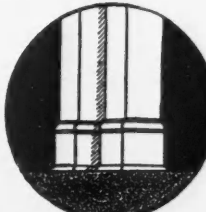
TERMITE DAMAGE?



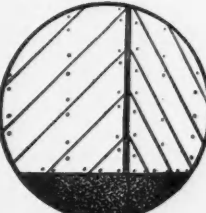
1. Plates and corner posts.



2. Sills.



3. Porch columns.



4. Sheathing.

TERMITES are not a new pest, nor is protection against them a new study. The findings of all research in this line agree on certain fundamentals.

Since termites live by consuming wood, their attack can be effectively prevented by rendering wood unfit for their use. This can be accomplished with substances known to be repellent to termites.

To make such substances fully effective, they must be forced into the wood. This is done by pressure impregnation.

All the authoritative research in this field has proved that creosote and zinc chloride when properly applied in timber, will prevent termite damage. AmCreCo timber is impregnated with these proven preservatives. Further information on request.



AMERICAN CREOSOTING COMPANY

COLONIAL
CREOSOTING
COMPANY



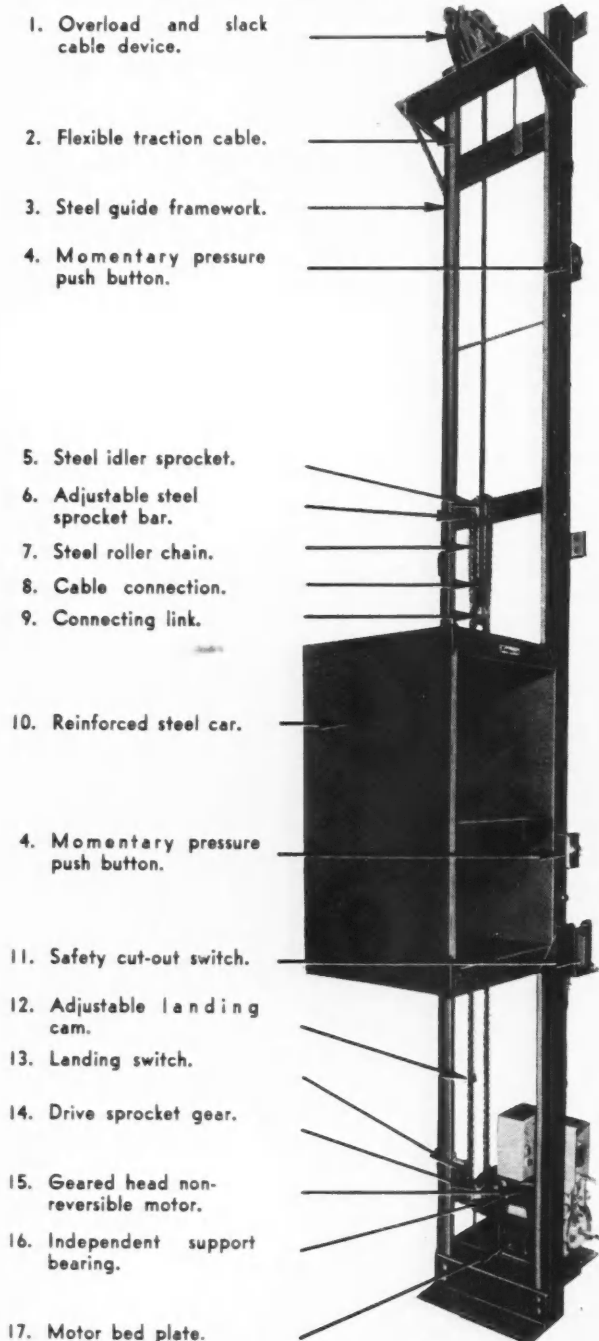
GEORGIA
CREOSOTING
COMPANY

LOUISVILLE — KENTUCKY

THE NEW SEDGWICK ELECTRIC ROTO-WAITER

Registered Trade Mark
Patented in the United States and Canada

THE MODERN WORD FOR FULL
AUTOMATIC ELECTRIC DUMB
WAITER EQUIPMENT



1. Overload and slack cable device.
2. Flexible traction cable.
3. Steel guide framework.
4. Momentary pressure push button.
5. Steel idler sprocket.
6. Adjustable steel sprocket bar.
7. Steel roller chain.
8. Cable connection.
9. Connecting link.
10. Reinforced steel car.
4. Momentary pressure push button.
11. Safety cut-out switch.
12. Adjustable landing cam.
13. Landing switch.
14. Drive sprocket gear.
15. Geared head non-reversible motor.
16. Independent support bearing.
17. Motor bed plate.

*Better Service at Lower Cost
Safe, Compact, Durable and Economical*

WRITE **FREE FOLDER** TODAY

SEDGWICK MACHINE WORKS

Established 1893

154 West 15th Street,

New York, N. Y.

A New Southern Pine Advertising Manager

V. A. STIBOLT, Hammond, La., has been appointed manager for the Advertising and Trade Extension department of the Southern Pine Association. Mr. Stibolt comes to the Association from the position of assistant general manager of the Natalbany Lumber Co., at Hammond, and affiliated companies, in charge of manufacture and sales. He is widely known among lumber manufacturers and distributors not only in the South, but throughout the country, and also is noted as a structural engineer.



V. A. STIBOLT

During the life of the Lumber Code he was chairman of the Southern Pine Division's committee on Cost Protection and a member of the Code Control Committee. For some years he has been chairman of the Committee on Economics, and a member of the Forestry Committee of the Association.

Announce Store Modernizing Competition

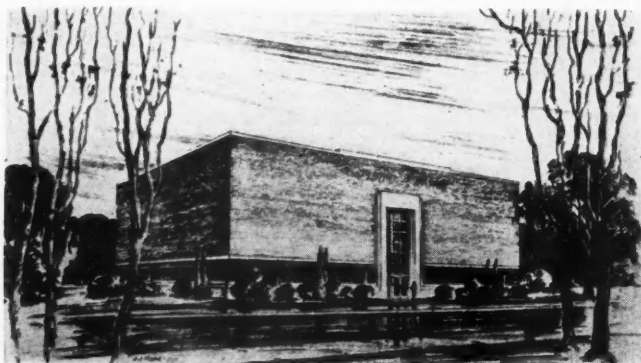
THE "Modernize Main Street" Competition, to be conducted by The Architectural Record and sponsored by The Libbey-Owens-Ford Glass Company of Toledo, offers a total of \$11,000 in cash prizes with four first-place awards of \$1,000 each, to be distributed in the four divisions of competition. Each division will carry a second prize of \$750 and a third prize of \$500. There also will be 40 honorable Mentions, each receiving \$50.

The problem consists of designing a new or modernization plan for existing buildings of four types familiar to Main Street of every city, town, village and community—the food store, the drug store, the apparel shop and the automotive sales and service station. The contest closes Aug. 12, 1935.

Hold National Homes Conference

THE PURDUE Research Foundation Homes Conference, at which about 100 national leaders of the building industries including lumber, steel, equipment and others were present, revealed details for the most comprehensive study of modern living conditions ever undertaken by a university.

Plans are already under way at Purdue to consider the erection of a model housing community on a 143 acre tract of land donated by David Ross, steering gear magnate, where students, members of the faculty and associates will live and use every form of domestic life in and about the colony as a basis for housing study. In addition, a large testing laboratory, one of the first of its kind to be constructed, will test entire homes in thirty days which only twenty years of actual weather conditions could produce. Rain, sleet, snow, hail, heat and severe temperatures including high winds and even miniature earthquakes can be created in the new laboratory. The structure, of which a drawing is shown below, will be approximately 100 feet wide, 140 feet long and 60 feet high.



HUNDREDS ARE DOING THIS

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

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

Name

Address

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

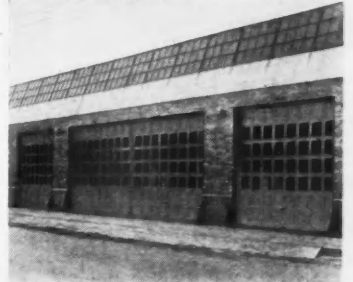
Mail to: **OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.** AB 7-35

PRIVATE GARAGE	.....
PUBLIC GARAGE	.....
WAREHOUSE	.....
FILLING STATION	.....
HANGAR	.....
WOOD DOORS	.....
STEEL DOORS	.....
FACTORY DOORS	.....
OTHER BUILDINGS	.....
ELECTRIC CONTROLS	.....

THIS IS YOUR OPPORTUNITY TOO!
THE



**BUILT
TO GIVE
Lasting and Satisfactory
SERVICE**



You need no longer worry about what door to buy or sell—Back of The "OVERHEAD DOOR" is that personal service, always welcomed by the user, which not only establishes satisfaction but permits them to conscientiously recommend it to their friends.

**A MILLION USERS
OUR BEST RECOMMENDATION**

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

**NEW MODEL "A"
PLANING MILL SPECIAL
8 MACHINES IN ONE
ALL BALL BEARING**

\$685 without motor

Largest working surface of any combination machine on the market. 8 full-sized machines in one, each independently operated. All bearings high-grade ball bearings. Includes cast-iron double table rip and cross-cut saw, 22" band saw, swing cut-off saw, 12" jointer, tenoner, upright hollow chisel mortiser and borer, reversible spindle shaper, and 18" sanding disc.

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

THE PARKS WOODWORKING MACHINE CO.
Dept. BL-7, 1524 Knowlton St., Cincinnati, O.

KWIK-MIX MIXERS

Full anti-friction bearing. Light weight. Skip shaker. Automatic water tank. Spring mounting. Sizes: 3½-S, 5-S, 7-S, 10-S.

3½-S Trailer — Roller Bearing — Spring Mounting.

NEW LOW PRICE
Write for information and new low prices on Kwik-Mix Trailer Mixers

Kwik-Mix

Plaster and Mortar Mixers
Trailer and 4 Wheel Type. *Write for Catalog AB*

KWIK-MIX CONCRETE MIXER CO.
PORT WASHINGTON WISCONSIN



"The Home of Tomorrow" built by the Yonkers Housing Committee under the auspices of the Chamber of Commerce. Concrete masonry walls, portland cement stucco exterior, and concrete-joint first floor with joists exposed to give beam ceiling to basement play room.

STILL MORE EVIDENCE OF THE APPEAL OF CONCRETE

THE Yonkers "Home of Tomorrow," advertised as a "concrete house" drew 5,000 visitors on the first day of exhibition—in the rain! 20,000 visitors in the first two weeks.

There's nothing magical about this public interest in Concrete. It's simply a question of value.

People appreciate the smartness and appealing beauty of Concrete. They know that it is strong and enduring—decay-proof, vermin-proof, fireproof and storm-proof—that it banishes the fear of heavy upkeep charges. And one look at the price tag tells them that it is low in first cost as well.

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

PORTLAND CEMENT ASSOCIATION Room 157, 33 W. Grand Ave., Chicago, Ill.

Please send literature on the subjects checked.

- | | |
|---|---|
| <input type="checkbox"/> Fireproof house design. | <input type="checkbox"/> Concrete residence floors. |
| <input type="checkbox"/> Portland cement stucco. | <input type="checkbox"/> Concrete ashlar masonry. |
| <input type="checkbox"/> Quality concrete making. | <input type="checkbox"/> Concrete for modernizing. |

Name.....

Address.....

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

\$50,000 Modernizing Loans Approved

THE PRESIDENT has approved an amendment to the National Housing Act permitting the insurance of loans on practically every type of structure except private family dwellings, in amounts up to \$50,000, opening a new field for modernization effort.

Change Mortgage Association Provisions

ORGANIZATION of national mortgage associations is made more feasible through the amendments to the National Housing Act which have recently become effective. Through these amendments the minimum capitalization of an association may be lowered from \$5,000,000 to \$2,000,000 under proper circumstances when the association is chartered in a district away from the larger financial centers.

Each national mortgage association is authorized under the amended act to issue and have outstanding at any time notes, bonds, debentures, or other such obligations in an amount not to exceed twelve times the aggregate par value of its outstanding capital stock. The original legislation limited this to ten times the aggregate. In no event, however, is the aggregate amount of its outstanding obligations to exceed the current face value of insured mortgages held by it, plus the amount of cash and bonds or other obligations of the United States.

Start Better Housing Day Projects

EVERY STATE in the Union was included in the list of those participating in the nationwide ground breaking exercises held on National Better Housing Day, June 15, when 3,774 houses were started under the sponsorship of Better Housing Committees throughout the country. The majority of these houses are being built according to standards set up by the Federal Housing Administration and financed under the Mutual Mortgage Insurance Plan.

Building Men See G-E Film

THE PREMIERE of "Three Women," a technicolor movie, was staged in Cleveland under the sponsorship of Electrical Housekeeping, Inc., local General Electric appliance distributors. Previous to the showing of the picture, P. B. Zimmerman, manager of the specialty appliance department, explained the "New American" home building plan, while Frank Connolly, of the Federal Housing Administration, discussed the FHA activities. Architects, builders, bankers, realtors, home-makers, prospects, civic leaders and others interested in home modernization and new home construction were invited to the showing. The movie, produced in Hollywood, with an all-star cast headed by Johnny Mack Brown, deals entertainingly with electric kitchen appliances. The action is woven around an interesting human interest and love plot. The film is available for showing throughout the country, through General Electric home appliance distributors.



For a tighter, more workmanlike job, use Reading Cut Nails. Because

they're wedge-

shaped,

they have more than twice the holding power of round nails.



For complete information, write

READING IRON COMPANY
PHILADELPHIA

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

**LOTS OF WORK
—BIG PROFITS**

This is your big opportunity to get into a good-paying proposition for yourself. The floor surfacing season is at its height—business is improving—lots of remodeling and repairing being done.



Get Started NOW with an
AMERICAN FLOOR SANDER

We'll help you—No large capital or experience required. Write for complete details. There's no obligation. FLOOR-MEN—Use the American Spinner. It eliminates tedious back-breaking hand work on edges, closets and stairs. Free Demonstration.



AMERICAN SPINNER R

THE AMERICAN FLOOR SURFACING MACHINE COMPANY

511 South St. Clair St. Toledo, Ohio

STUCCO SPRAYING MACHINE

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

OFFERS BIG EARNINGS

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

COLORCRETE INDUSTRIES, INC.
500 Ottawa Ave., Holland, Mich.

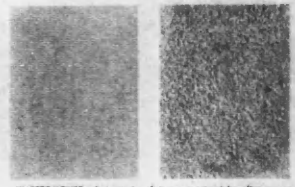


American Builder, June 1935.

57

Quality of Concrete Improved 248 per cent

Tests Prove Value of Paper Covering While Curing



UNRETouched photographs of two concrete slabs after severe sandblasting. The concrete in both was identical in every way except that the one at the right was allowed to dry without any protection and the one at the left was "cured" under Sisalkraft.

EVERYBODY knows that all too often concrete is soft, dusty, or full of fine cracks and that it "goes to pieces" in a disconcertingly short time. But it is not so commonly known how important a factor "curing" has become to "cure" every little sidewalk and driveway job. Repeated comparisons by well known testing engineers show that without changing any other factor in concrete, the addition of a simple "cover cure" increases the strength 248 percent—or from 1400 lb. per sq. in. to 4880 lb. Another way of checking the same thing is to sandblast two samples, identical except as to curing. The accompanying illustrations show the result—the cured surface smooth and hard, while the uncured one is rough and coarse.

"Curing," as a practical step in laying concrete, has meant little or nothing to the average contractor. If he knew anything about it he has thought of an elaborate and expensive process required only on concrete floors in big skyscrapers or on concrete pavements. But it's time to get a new idea on this subject.

To get it clearly, we must first ask ourselves: how does concrete harden? Not by quick drying out, as is commonly thought. It is a gradual chemical action requiring water to combine with the cement particles. Tests prove that concrete continues to gain hardness and strength for months—often for years—if moisture is present. This gradual hardening is called "curing." The value of concrete in walks, drives, floors or any flat slab is largely dependent on its hardness. If it is hard and dense, it has strength to resist surface wear and crushing; it is much less likely to crack, dust, check or spall. The problem in getting hard, dense, long-lived concrete, then, is to keep the slab damp.

Every decent contractor knows how quickly a concrete slab can dry out on the surface—particularly un-

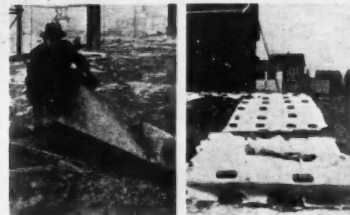
der a hot sun and wind. That's why he repeatedly writes it down for a day or two or tries to cover it up with something. There is plenty of water in the concrete at the time it is poured to provide the maximum ultimate strength if it can be kept in the concrete long enough. That is the thoughtful lack of the single idea of laying an airtight sheet of paper over the concrete as soon as it has taken its initial set, and of leaving it there for ten days or longer. Since no air can reach the damp concrete, the moisture vapor is not carried away and evaporation is greatly retarded.

In theory that's very simple. In actual practice it is equally simple if two problems are solved: (1) maintaining the air-tightness of the paper under job conditions and, (2) keeping the paper in place for the required time. Engineers and general contractors on big building and highway projects have proved that a very tough, reinforced paper is essential. Obviously, it must have positive, air-proof qualities, but that is not enough unless the reinforcing gives it sufficient strength to retain these qualities during application and during the entire curing period. A sisal-reinforced paper has demonstrated its suitability for this class of service and is widely used throughout the country.

While conditions may not be as severe on small jobs as on some large ones, a work sheet of paper is of little use in a wind or after being dragged over rough ground, form lumber, etc. The surest way to solve the problem on small work, as on big, is to use the tough, reinforced paper that has stood the test.

Methods of keeping paper in place vary somewhat with conditions. On big jobs the strips of paper (from 3 to 7 ft. wide) are glued together with a special glue furnished by the manufacturer and the edges are weighted down with boards, dirt or most anything handy. On small jobs the glue is not ordinarily needed, although as shown in one of the accompanying views, it may be used on sidewalks to assure a quiet job with a minimum interference to traffic.

An incidental advantage of this curing method is that rain, dirt and stains of all kinds are kept off the newly laid concrete by the same sheet that keeps the moisture in. And this sheet can be used over and over. It may protect a mixer or a pile of cement when not in place for curing. Even on severe use like highways this paper is often re-used as many as 8 or 10 times. The cost of curing small jobs is trifling.



CONCRETE curing in a severe test for paper under conditions like those. The same concrete surface under the paper is clearly shown when the paper is lifted. (To left): Sisyphus curing used for this driveway. This paper has been used a number of times already and is still good for many reuses.

Prove this value on your own job!

CURING concrete under paper is a new idea to most contractors. But it's backed by several years experience on big buildings and on highway work. It is the preferred method of curing among contractors who have seen it.

Note the above article in last month's American Builder. (Will send a reprint if you have lost your copy.) The startling claims for Sisalkraft curing can easily be proved on your own work. See your lumber dealer for further information. Get a roll of Sisalkraft and use it right now—in the heat of summer. You'll see a big difference in the quality of your concrete walks, drives or floors.

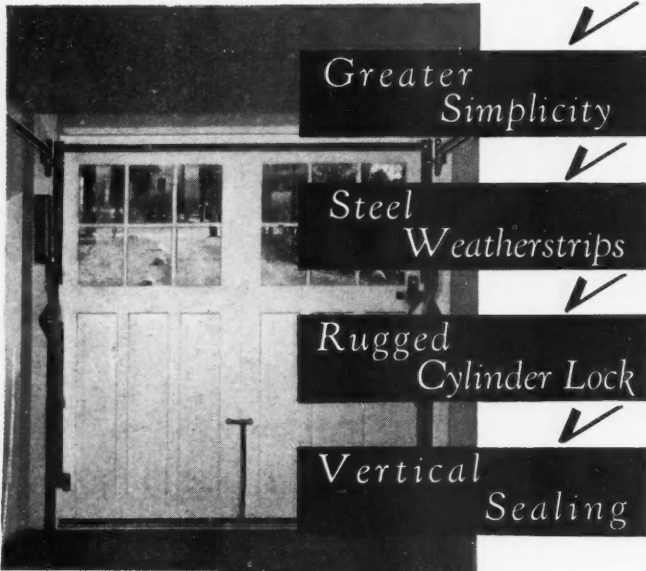
The Sisalkraft Co.

205 W. Wacker Drive

Chicago

Illinois

CHECK THESE *Plus* FEATURES



TIP-TOP DOOR HARDWARE

At last! An IDEAL set for modernizing the old style garage doors. Offering new simplicity, ease of installing and economy . . . and yet, so complete in every respect.

TIP-TOP puts a new meaning on upward-acting doors. Combining easy, convenient year-around operation with new advantages. A 2" vertical movement seals the door, when closed, to steel weatherstrips . . . and when opening, raises it over snow, ice and other obstructions. A heavy cylinder lock, operable from outside by key, provides real burglar-protection. Tracks, rollers and every part of TIP-TOP is built for permanence . . . and so simple that after easily and quickly installed your worries are over. Nothing to get out of fix . . . no after-installation adjustments. 40 years experience in counterbalancing doors has made this remarkable equipment possible, so be sure to see it right away.



Balanced Perfectly Like A Scale

Yes! Just like a balance-scale. A unique "Balance-Lever" fitted with neat weights perfectly balances the door. No springs. No complicated, intricate devices . . . only the fewest possible parts ruggedly built to withstand hard, rough usage. That's TIP-TOP.

See It At Your Dealer's

The **KINNEAR MFG. CO.**
1660-80 Fields Ave. Columbus, Ohio

Modernizing Films Released

THE PITTSBURGH Plate Glass Company and Westinghouse announce that the four slide sound films, concerning store fronts and lighting, previously mentioned in this department, are now available through the branch offices of these companies. They deal with the theory and practice of proper store fronts and illumination, showing many excellent examples which should be invaluable to progressive merchants and property owners. Each film is a complete story in itself and lasts ten minutes. Operators and complete equipment will be furnished free of charge to clubs, business organizations or other groups interested in the subject of modernization.

Reports Condition of Housing Projects

A REPORT on the progress of 18 of the 74 slum clearance projects being considered by the Housing Division of PWA, showing the status of those on which action has been taken is as follows:

ATLANTA, Techwood—under construction; University—under construction. INDIANAPOLIS, Community Housing—construction contract accepted, site cleared. NEW YORK, Williamsburg—site under condemnation. CHICAGO, West Side—reduced site being acquired, condemnation pending, plans in preparation; South Park Gardens—condemnation pending, plans in preparation; Blackhawk Park—condemnation pending, plans in preparation. CLEVELAND, Cedar Central—construction contract accepted, site cleared; Outwaite—title acquired, demolition pending; West Side—title acquired, demolition pending. CINCINNATI, Basin Housing—site being acquired. DETROIT, Title acquired, demolition pending. MONTGOMERY, Thurman Street—ready for construction; Bell Street—title acquired, plans in preparation. LOUISVILLE, Condemnation pending, case in Circuit Court. BOSTON, Condemnation pending, plans in preparation. MILWAUKEE, Site acquired, plans in preparation. NASHVILLE, Site acquired, plans made.

Of the limited dividend corporation housing projects on the PWA housing program, the conditions at present are:

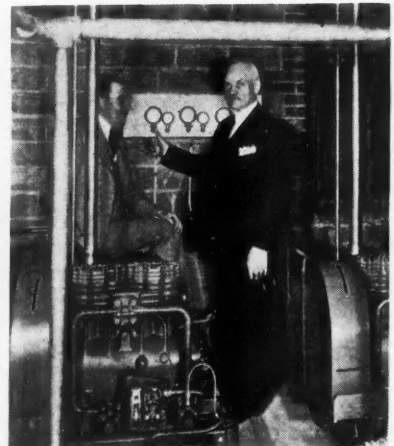
NEW YORK, Hillside Housing Corporation—First unit occupied; Boulevard Gardens—nearing completion. PHILADELPHIA, Juniata Park Housing Corporation (Carl Mackley Houses)—occupied. EUCLID, OHIO, Euclid Housing Corporation—14 homes completed, 19 under construction. ST. LOUIS, Neighborhood Gardens Housing Corporation—approaching completion. ALTA VISTA, Alta Vista Housing Corporation—occupied. RALEIGH, N.C., Boylan Realty Company—under construction.

Joins Trane Company

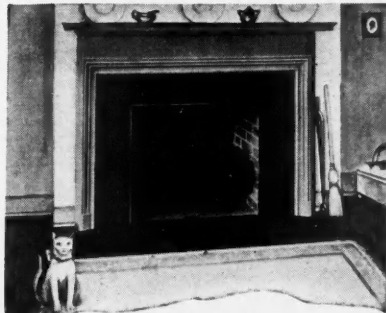
MR. WILLIAM GOODMAN, formerly consulting engineer of Chicago, has joined the engineering staff of The Trane Company, air conditioning manufacturers, of LaCrosse, Wis.

He was formerly associated with the Paramount Theatres Corporation in connection with air conditioning work and more recently with Warner Bros. Theatres Corporation in charge of design, maintenance, and operation of air conditioning.

F. L. MAYTAG, washing machine manufacturer, at right in illustration, recently turned on the 100-ton Frigidaire air conditioning system of Hotel Maytag, Newton, Ia., making it one of the few completely air conditioned hotels in the world. That a hotel in a community of only 12,000 persons should outstrip hotels in larger cities by adopting modern methods has caused considerable comment



THERE IS NO SUBSTITUTE FOR A GENUINE WOOD MANTEL PIECE



Write for our catalog showing 60 Wood Mantels of genuine period design for rooms of any type. Made by craftsmen according to the standards of the finest cabinet furniture from selected, thoroughly seasoned poplar—screwed at joints and sanded to a satin finish ready for decoration. Design shown, (mantel only) No. 688—72" long 52" high, crated f.o.b. Louisville, special this month only \$19.95.

WRITE FOR CATALOGUE

The Brecher Company

441 West Jefferson Street
Louisville, Kentucky

COLUMBIA MANTELS

SKILSAW

Powerful—Efficient—Dependable! Thousands Now in Use!

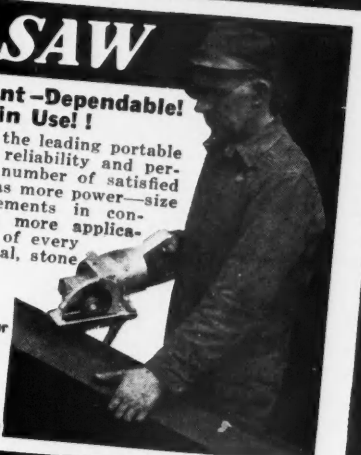
SKILSAW is, by far, the leading portable electric hand saw in reliability and performance and in the number of satisfied users everywhere. Has more power—size for size, more refinements in construction and design, more applications in sawing work of every kind. Cuts wood, metal, stone and compositions.

6 Powerful Sizes

See your dealer or write for our new complete catalog.

SKILSAW, INC.

3314 Elston Ave., Chicago



Capitalize on the advantages of

Insulite Lok-Joint Lath

It assures an easily and quickly applied, rigid, continuous, level plastering surface . . . requires less plaster, holds it with twice the grip of wood lath . . . keeps plaster moisture from entering the building framework . . . insures greater freedom from plaster cracks . . . insulates effectively.

Write for complete information.

THE INSULITE COMPANY

Dept. AB7 Builders Exchange
Minneapolis, Minnesota



"I SAVED

\$125 PER HOUSE"

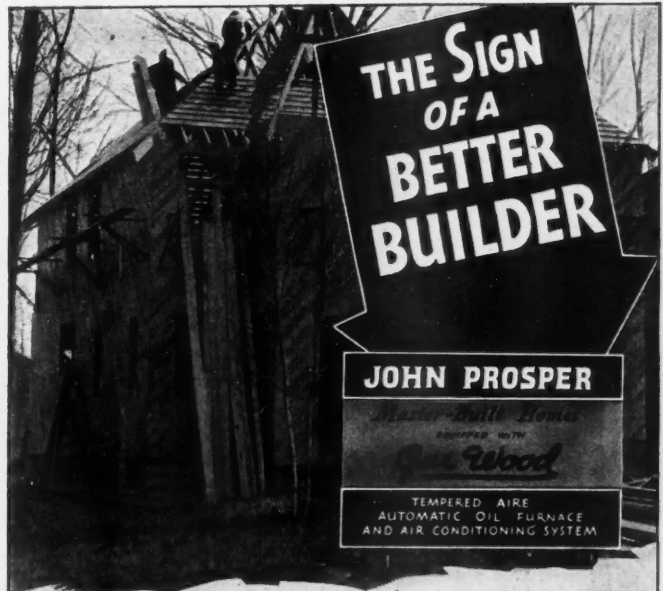
10,000 owners testify to the profit that can be made with DeWalt Equipment, cutting wood, metal or stone.



Write for information.

DEWALT PRODUCTS CORPORATION

250 Fountain Ave., Lancaster, Pa.



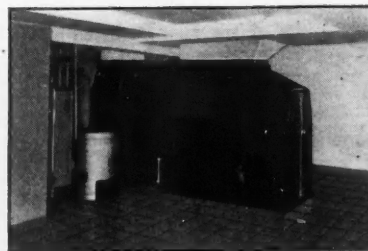
THE SIGN OF A BETTER BUILDER

JOHN PROSPER

TEMPERED AIRE
AUTOMATIC OIL FURNACE
AND AIR CONDITIONING SYSTEM

ANY HOUSE WITH A GAR WOOD SYSTEM IS A BETTER HOME

● When you build a home with a Gar Wood Tempered Aire Automatic Oil Furnace and Air Conditioning System, you provide health, comfort and convenience the year round. Modern appliances and equipment are important building features. They give your homes added value. They increase your local prestige as a better builder . . . for Gar Wood Systems are nationally known for their economy of operation and year after year dependability. Every builder should have our free booklet, "Home Heating Data." Write for your copy today.



MAKE THE BASEMENT YOUR SALES CLINCHER

Point out the advantages of automatic oil heating and air conditioning and see how easy it is to satisfy your clients.

Air Conditioning Division

GAR WOOD INDUSTRIES, INC.

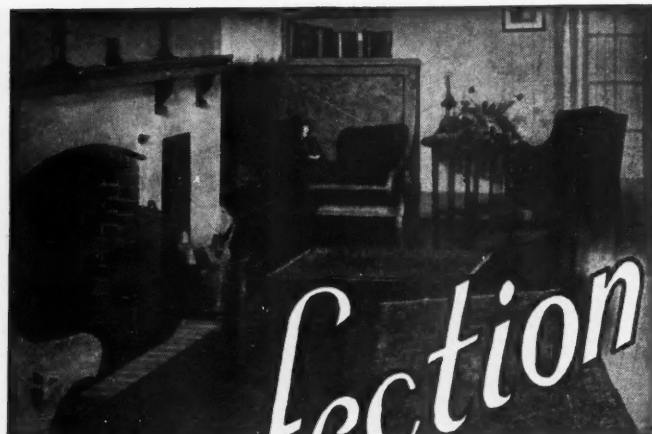
7925 RIOPELLE STREET • • DETROIT, MICHIGAN

OWNERS SAY:

Gar Wood

OIL HEAT COSTS LESS THAN COAL

WE ARE COOPERATING WITH THE FEDERAL HOUSING PROGRAM



Perfection

BRAND OAK FLOORS

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

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

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

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



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

Faster Scaffolding

Ever figure how long it takes—what it costs to erect and tear down scaffolding. Its cost will surprise you. That is why thousands of builders are using Reliable Scaffolding Brackets. They're stronger and cheaper to use than costly wooden scaffolding. You can erect and remove them faster. Use them on wood or stucco. Let us prove their value. Send for free catalog, then ask us to ship first pair C.O.D. for your inspection and trial. You'll never do without them again.

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

RELIABLE
SCAFFOLDING BRACKETS



LETTERS from readers on all subjects

Facts, opinions and advice welcomed here

Earley Indorses "Sane View"

Washington, D.C.

To the Editor:

Permit me to congratulate you on your editorial "A Sane View of a Much Ballyhooed Subject" which appeared in *American Builder*, June 1935.

A clear view of the building industry from the vantage point of anyone professionally engaged in it shows that prefabricated parts are becoming increasingly more important but that prefabricated houses have not yet become part of the industry.

The prefabricated house seems to presuppose a new industry, a period of development, strife and replacement, also an undetermined period of time. This change may come and that in our day, but all the elements are not yet before us, therefore, we cannot yet picture what such a change will be.

JOHN J. EARLEY,
Architectural Sculptor.

"—the Cost of High Homes"

Chicago, Ill.

To the Editor:

I am very much interested and want to compliment you on the way you have handled the prefabricated house subject in your June issue. It is quite along the line of thought that I expressed at a conference in Urbana early in May.

We had heard for a year or two previous to the *Century of Progress*, so much about the prefabricated house and its reduction in cost! What you say is true about the human mind accepting new methods of construction and distributing, for certain types of panel houses.

Our homes of fabricated panels of reinforced brick masonry, built at the building site with local material and local labor, and permitting all types of house designs—not stereotyped in any way—still must be sold to the home owner.

Undoubtedly you are familiar with the *New York Times Magazine* Edition, of May 12th, featuring a double spread illustration of prefabricated dwellings. It makes good reading and copy for the papers, but it can all be boiled down to the yardstick of your editorial.

I am still enthusiastic, for out of it all the building and construction industry will get on higher ground and produce homes at lower costs. This, of course, is the goal today.

I am rather inclined to believe that it is not the high cost of homes, but the cost of high homes, that is the trouble. In the comparison of today's method of living and dwellings and those that were occupied when I was a boy, while they all have four walls, what a lot more is in the home today than was ever thought of at that time—the central heating plant, automatically stoked; fuel—gas or oil; plumbing; electric wiring; plug-ins everywhere; telephones; mechanical refrigeration; insulation; air conditioning; interior finishes; gadgets of one type or another! Many of these things are seemingly forgotten when we today give the comparison price of a home.

ALBERT W. LUSE, Secy.-Mgr.
Chicago Face Brick Bureau.

Private Slum Clearance

Birmingham, Ala.

To the Editor:

Slum clearance is a job that should be tackled by the property owner and not left alone to the government. That is the sentiment of Harold M. Henderson, prominent Birmingham

(Continued to page 68)



ACCURATE METAL WEATHER STRIP

DON'T be misled by the lure of a few extra pennies of profit by using inferior materials on a weather strip job. Your real profits come from satisfied customers. For 30 years "ACCURATE" has been the recognized precision-built leader.

Send for details regarding jobber set-up. Valuable territory now open to right men. Unlimited opportunity. Quick returns.

Write today

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

SpeedWay Electric SAWS



Cuts Wood, Tile, Marble, Cement, Slate . . . with ease.

For Stamina and Speed, for all-around usefulness take the SpeedWay 185. It has the power (1 1/5 h.p.) and speed (4,600 r.p.m.) to handle any job, still weighs only 25 lbs. Ball bearing thruout. Guaranteed spiral-bevel gears. Grease twice a year. Ripping guide. Accurate bevel adjustment. 5 other types.

More Tool for the Money

SpeedWay Manufacturing Co.,
1823 So. 52nd Ave., CINCERO, ILL. WRITE FOR CIRCULAR

IRON RAILING
of every description
FOR INTERIOR AND EXTERIOR USE



Also Iron Fence, Gates, Iron and Wire window guards, Chain Link Wire Fence, etc.

Send measurements showing your requirements and we will forward illustrations suitable for your enclosure.

CINCINNATI IRON FENCE CO. INC.
3010 Spring Grove Ave.
CINCINNATI OHIO

DEALERS WANTED

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

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

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

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




no REPLACEMENT COSTS in thirty years

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

More than forty years of actual use substantiates these tests.

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

SAMSON CORDAGE WORKS
89 Broad St. Boston, Mass.



ONE GRADE
Positive identification

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

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

THE REID-WAY

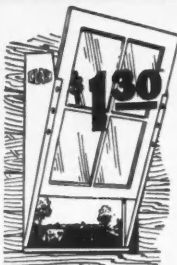
Every contractor can make profitable use of this Reid-Way high production machine. Weighing only 75 pounds it will out-perform machines weighing three times as much. A demonstration will prove this amazing fact. Write for circulars describing the Reid-Way line of "One moving part" sanders.



THE REID-WAY
2962 FIRST AVE., E.
CEDAR RAPIDS, IOWA

"ONE
MOVING
PART"

NEW AIR-FLO WINDOWS CLAY



New—simple—low priced Window Frames . . . ideal for farm buildings and the many other structures. Price of \$1.30 includes galv. metal casing, metal ventilating wings and metal frame. Easily installed. Use regular wood sash 4 ft. 9x12" available at any lumber yard. Sash furnished with Clay Vita-Glass at small additional cost. Vita-Glass—sensational new glass, not a substitute, guarantees a continuous flow of health-bringing Ultra Violet Rays to poultry and livestock. Write for prices.

WOOD SASH WITH
VITA-GLASS

CLAY EQUIPMENT CORPORATION, Dept. AB-7
Cedar Falls, Ia.

WANTED!

CARPENTER CONTRACTORS •

To whom we can refer inquiries received from advertising. To men able to estimate costs and equipped to install weatherstrips, a splendid money-making opportunity is offered. This nationally known firm has set all standards of quality for 30 years. Now introducing a new selling plan for an improved, lower cost line having an established high factor of efficiency. Two member adjustable strip easy to apply—entirely different. Every selling aid furnished. No investment required. Write today for complete details. Address: Alfred M. Lane, President, Monarch Metal Weatherstrip Co., 6335 Etzel Ave., St. Louis, Missouri.



STARLINE INC.

HARVARD, ILL. ALBANY, N.Y.
BARN EQUIPMENT
For Any Type Farm Building



We supply everything to equip any type barn—Door Hangers—Hay Carriers—Stalls—Stanchions—Pens—Water Bowls—Litter Carriers—Ventilators and Ventilating Systems—Poultry Equipment—also complete hardware for Garage Doors.

Before you remodel or build any farm building, ask our Architectural Department for free plans.

Write Department AB7

50 YEARS SERVING BARN BUILDERS

Building Cellarless Homes

(Continued from page 24)

has aquastatic controls, domestic hot water, a circulating Thrush system and clock thermostat.

The houses are carefully and tightly built and are fully insulated with U.S. Gypsum Co's rock wool. In the Pine Hills smaller homes the builders and heating manufacturers guarantee the cost of heat will be less than \$100 a year due to the efficiency of the systems and well insulated construction.

One of the construction features commented on by the builders is the use of Fenestra steel sash which have wood surrounds attached at factory and are delivered on the job ready for quick and easy installation. This is viewed as another type of prefabrication of building units which saves the home builder money by eliminating costly labor expense on the job.

Houses are fully flashed and guttered with sixteen-ounce copper, are roofed and sided with Weyerhaeuser red cedar shingles, equipped with Standard plumbing fixtures and make use of interior colonial trim by the Curtis Company.

The second story of the Pine Hills homes is left unfinished but all plumbing and heating lines are installed and stairs provided. For a very minimum cost therefore, the home owner can add two rooms and bath at a later date.

"We feel that houses planned for expansion are very desirable in these times of stress," says Mr. Beardsley. "They answer the problem of young people who say they cannot afford a big house, yet hesitate to build one that is too small for their future needs. By leaving the second story unfinished we keep the original investment and carrying charges low, and the heating and operating costs are kept low. By the time the young couple needs the additional rooms they can afford to finish them, and this can be done at very small cost to them since the additional rooms have been carefully planned in advance."

Mr. Beardsley emphasizes the importance of the garden plot which goes with each house and which is enclosed with an attractive picket fence. He feels that people want ample ground and a small garden, well enclosed.

Some 200 plots of minimum size of 100 by 100 feet make up the Pine Hills development, and the firm expects rapidly to expand this section. All the atmosphere of a quaint New England village is being maintained in this section, with colonial architecture, colonial lamp fixtures and streets given authentic New England names.

Letters From Readers

(Continued from page 66)

builder and former president of the Birmingham Real Estate Board.

Mr. Henderson had a bunch of unsightly negro shanties on his hands with no rent and no prospects of any kind, so he decided to perform a plastic surgery operation on them. Houses were torn down or else cut in parts. One house was divided to make two. Two were put together to make one. Another was cut into three sections, two of which were dressed into new dwellings, while the third was thrown in the scrap heap.

When it was all over eleven neat cottages of three rooms each stood where had been crowded a conglomeration of some 25 buildings of varying sizes with a total of 80 rooms. Quite a face lifting operation had been performed and already the property is bringing in \$40 a month with half of the houses yet to be rented. Prospective tenants are making application daily.

GEO. H. WATSON,
Southern News Service.

The ALBION Modernized PRESSURE GUN



Entirely NEW Features
 No handle springs, dogs, pawls or ratchets. Made in various sizes. Cadmium Finish. Mechanical Accuracy—Super Pressure. Tremendous pressure developed with ordinary effort.

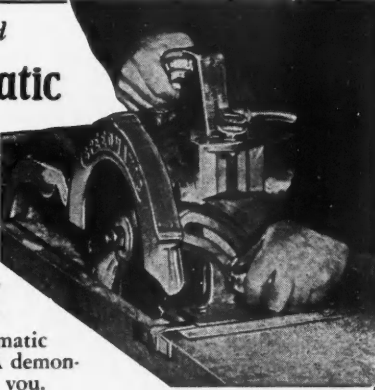
for CAULKING and GLAZING

GUARANTEED ONE YEAR

Order Direct or Through Your Jobber
 Send for Descriptive Circular

ALBION MFG. CO.
 Albert & Martha Sts. Philadelphia, Pa.

Production Guaranteed with a **Speedmatic**



Here is a portable electric saw that rips 3" stock 14' per minute—**GUARANTEED**. Finger tip depth and bevel adjustment. Powerful, efficient and dependable. saves money on every cutting and dading job.

You should own a Speedmatic Saw—but—first try one. A demonstration will not obligate you.

PORTER-CABLE MACH. CO., 1721-7 No. Salina St., Syracuse, N. Y.



SUMMER BUNGALOW PLANS

12 COMPLETE BLUEPRINT \$6.00
WORKING PLANS WITH MATERIAL LISTS • CUBAGE \$6.11
 \$600. to \$1400. small homes

NATIONWIDE HOUSE PLAN SERVICE
 36 EXCHANGE PLACE
 PROVIDENCE RHODE ISLAND

The Big Name in

HEATING and AIR CONDITIONING

is

MUELLER-MILWAUKEE

P E E R L E S S




dome damper

Guarantee perfect operation of the fireplace. Install Peerless Dampers. They eliminate heat loss and unhealthy drafts when the fireplace is not in use.

Peerless dampers will wear a lifetime. Their small cost is repaid hundreds of times by properly burning fireplaces. Made in all standard sizes—three models to choose from—Rotary Control—Poker Control—Chain Control.

Write for details and prices

OTHER PEERLESS PRODUCTS
 Fireplace Fixtures—Ash Dumps—Coal Windows—Ash Pit Doors—Garbage Receivers and Hearth Fire Gas Heaters

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

ADDS CHARM AND COMFORT

BAYER-BRICE WITH THIS MACHINE



CAPACITY 24,000 PER DAY

CONTROL THE BRICK MARKET IN FLINT

Bayer-Brice are practical business men, experienced in the building field. They realized that the building unit of the future must cut costs by eliminating the tremendous waste in manufacture and distribution. They found their answer in the DUNBRIK LINE PRODUCTION MACHINE.

DUNBRIK GETS THE OUTSTANDING JOBS

The Architect for the Dailey Brewery demanded unusual strength for the tremendous wall load, so DUNBRIK were selected. The City of Flint needed over a million units for underground construction. Again DUNBRIK were used. The State of Michigan built an addition to the School for the Blind. Bayer-Brice got the job. Now they are pointing the way for new, low cost homes with modern, fireproof bungalows for \$2000. DUNBRIK Manufacturers the country over show records equally good.

YOUR OPPORTUNITY STILL GREATER

The Great National Building Program now multiplies the opportunity for DUNBRIK in your territory. Don't let it slip. Investigate today. Ask for free book "4 KEYS TO SUCCESS."

W.E. DUNN MFG. CO., 450 W. 24th St., HOLLAND, MICH.

Selected List of Manufacturers' Literature

For the Service of Builders, Contractors, Architects and Dealers

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

MASONRY MATERIALS

PORTLAND CEMENT ASSN., 33 W. Grand Ave., Chicago, Ill.

428—**Earthquake-Proof Construction**—"Analysis of Small Monolithic Concrete Buildings for Earthquake Forces," a handbook of 56 pages analyzing various details of construction and their resistance to earthquake shock. A pioneer work on this subject for the small construction industry.

429—**Concrete Modernizing**—"Modernizing Magic," an illustrated brochure of 16 pages suggesting many ways of restyling and reconstructing homes and garden structures, including new foundations, walks, drives, pools, etc.

LOUISVILLE CEMENT CO., Louisville, Ky.

430—**Mortar**—"Brixment for Perfect Mortar," a 4-page specification and discussion of Brixment and its use for masonry mortar, including colored mortar.

NATIONAL LIME ASSN., Washington, D.C.

431—**Mortar**—"Lime Mortar, Its Relation to Water-Tight Masonry," a 36-page handbook discussing various mortar formulae, their characteristics and reaction to tests.

CARPENTRY MATERIALS

THE UPSON CO., Lockport, N.Y.

432—**De Luxe Wallboard Finish**—"Classic Ceilings," a beautifully illustrated brochure showing how to secure paneled walls and ceilings of truly artistic worth. A complete handbook of modern wallboard practice.

433—**Beautiful Interiors**—"The Home Maker"; the Interior Decoration Number of this publication is a 24-page illustrated magazine in rotogravure presenting many beautiful photographs with detailed specifications.

THE INSULITE CO., Minneapolis, Minn.

434—**Warm Garage Plans**—"How to Solve Your Garage Problem"; plans for one- and two-car garages of Insulite Board are presented in quarter-inch scale drawings with wall detail 1/2 inches to the foot.

HUTTIG MFG. CO., Muscatine, Iowa.

435—**Window Frames**—"Clear Pine Frames with Aluminum Primed Joints," a 6-page illustrated folder giving full details of this improved window frame.

HARDWARE SPECIALTIES

MICKLIN MFG. CO., Omaha, Nebr.

436—**Frame Corners**—"Features of Micklin Dual and Single Corners," a

leaflet illustrating several uses for this ingenious little reinforcing corner—helps to build strong screens, tables, shelves, doors, etc.

ALLMETAL WEATHERSTRIP CO., 231 W. Illinois St., Chicago, Ill.

437—**Weatherstrip Opportunities**—A weatherstrippers' sales kit is offered to ambitious carpenters and builders who want to push weatherstrip selling and installing as a business.

TIMBER ENGINEERING CO., 1337 Connecticut Ave., N.W., Washington, D.C.

438—**Barn Frame Connectors**—"Trusses for Farm Structures"; construction drawing sheet analyzing several types of plank frame barn roof trusses made stronger and simpler by the use of Teco steel connections.

ALLITH-PROUTY CO., Danville, Ill.

439—**Heavy Door Hangers**—"Allith Airport Door Hardware," an illustrated catalog of 100 pages showing best examples of commercial airports and how the big doors are hung and operated.

THE F. E. MYERS & BRO. CO., Ashland, Ohio.

440—**Builders' Hardware**—"Myers Door Hanger Catalog," the 1935 edition, is a catalog of 24 pages presenting full details of the complete Myers door hanger line.

READING IRON CO., 401 N. Broad St., Philadelphia, Pa.

441—**Wrought Iron**—Information regarding the Genuine Puddled Wrought Iron Products offered by this company.

THE GILBERT & BENNETT MFG. CO., Chicago, Ill.

442—**Wire Goods**—"G & B Wire Goods, Quality Products," a deluxe handbook of 62 pages featuring sand, gravel and other screens, wire lathing, tree guards, pearl screen cloth, woven wire fences, and other G & B wire goods.

KEWANEE MANUFACTURING CO., Kewanee, Ill.

443—**Steel Sash**—"Kewanee Building Products," a 14-page illustrated catalog of Kewanee coal chutes, cellar sash, residence casements, commercial sash, fireplace dampers, garbage receivers and other metal specialties.

F. D. KEES MANUFACTURING CO., Beatrice, Nebr.

444—**Hardware Specialties**—"Kees Builders Hardware, Catalog No. H-14," a 28-page illustrated catalog of screen and sash hardware, metal building corners, wall ties, etc.

HOME EQUIPMENT

FRAZIER STAIR CO., INC., Banksville Ave., Pittsburgh, Pa.

445—**Disappearing Stairs**—Information regarding the Frazier self balanced disappearing stair offered in five models.

STANDARD GAS EQUIPMENT CORP., 18 E. 41st St., New York City.

446—**Kitchen Ranges**—"This New Cooking," a 32-page gas range catalog that will interest housewives because of its recipes, ideas for convenient kitchen arrangement, and details of the Smooth-top gas range which makes possible "one burner meals."

LIGHTOLIER CO., 11 E. 36th St., New York City.

447—**Lighting Fixtures**—"Lightolier Style Book for 1934-1935," a big 96-page handbook illustrating the Lightolier line, printed for distribution to those professionally or commercially engaged in the field of lighting equipment.

HEATING AND AIR CONDITIONING

NATIONAL RADIATOR CORP., Johnstown, Pa.

448—**Concealed Radiation**—"Invisible Warmth," a collection of data sheets, spirally bound, presenting the Aero Convecter for concealed radiation.

UNIVERSAL INSULATION CO., 120 S. LaSalle St., Chicago, Ill.

449—**Insulation**—"Your Fuel Savings Pay for This High Efficiency Insulation," an informative folder regarding Unifil, together with a sample envelope of this interesting fireproof, expanded mica insulation material.

ILG ELECTRIC VENTILATING CO., Chicago, Ill.

450—**Air Conditioning**—"Ilgair Cooling and Air Conditioning"; 24 pages of photographs of retail stores and other business buildings from coast to coast air conditioned, with instructive details of how the results were accomplished.

KELVINATOR CORP., 14250 Plymouth Rd., Detroit, Mich.

451—**Air Conditioning**—"Kelvinator Exact Selection Air Conditioning," an illustrated brochure of 20 pages for architects, engineers, contractors, manufacturers, merchants and home owners showing recommended practice in air conditioning.

FAIRBANKS, MORSE & CO., 900 S. Wabash Ave., Chicago, Ill.

452—**Stokers**—"Fairbanks-Morse Automatic Coal Burners," 4-page data sheet

presenting the Fairbanks-Morse De-Luxe automatic coal burner, and showing how it operates.

THE TRANE CO., La Crosse, Wis.

453—Coolers—"Trane Comfort Coolers for Low Cost Air Conditioning," a 4-page data sheet pertaining to air conditioning in small stores, halls, lobbies, offices, beauty shops, cafes, restaurants, etc.

FITZGIBBONS BOILER CO., INC., 570 Seventh Ave., New York City.

454—Oil Burners—"Fitzgibbons Oil-Eighty Automatic," a 16-page handbook on this modern oil burning steel boiler for home heat and domestic hot water.

THE LENNOX FURNACE CO., INC., Marshalltown, Iowa

455—Furnace Heat—"The Book of the Home," a deluxe pictorial presentation of the Lennox riveted steel furnaces, how they are made and how they serve.

AIRMASTER CORP., 140 S. Dearborn St., Chicago, Ill.

456—Attic Ventilation—"Air Conditioning via Attic Ventilation with Air-master Exhaust Fans," 10 pages of valuable data on the much discussed and argued subject of attic ventilation; the modern approach to this old subject.

CONTRACTOR'S EQUIPMENT

CONSTRUCTION MACHINERY CO., Waterloo, Ia.

457—Wheelbarrows—16-page vest pocket handbook on the line of wheelbarrows and concrete carts offered by this firm.

RANSOME CONCRETE MACHINERY CO., Dunellen, N.J.

458—Concrete Mixers—"Bulletin No. 118A, Ransome 10-S Standard Building Mixer," a 4-page specification and data sheet on this sturdy machine.

INTERNATIONAL HARVESTER CO., Chicago, Ill.

459—Power Units—Four bulletins on new McCormick-Deering power units for dependable, low cost power, including Diesel power unit, 6-cylinder engine variable speed unit, heavy duty 4-cylinder engine, No. PA-50 power unit, and No. P-30 power unit.

WHISLER MANUFACTURING CO., Ottumwa, Iowa.

460—Power Woodworkers—"Wood Workers' Friend Saw"; data sheets regarding this popular small electric power saw, with needed equipment accessories.

W. B. & J. E. BOICE, 1730 Norwood Ave., Toledo, Ohio

461—Woodworkers—"Boice-Crane Power Woodcraft Tools," a 32-page illustrated catalog showing the complete line of the Boice Company's Silver Anniversary models.

FOREST CITY BIT & TOOL CO., Rockford, Ill.

462—Mortising and Boring Tools—"Forest City Catalog No. 35," a 64-page illustrated catalog presenting a very extensive line of boring and mortising bits for machine and hand use.

THE T. L. SMITH CO., 2835 N. Thirty-Second St., Milwaukee, Wis.

463—Concrete Mixers—Full information, illustrated, on the Smith 3½-S tilter, a handy 2-wheel trailer mixer.

CHAIN BELT CO., Milwaukee, Wis.

464—Material Handling—"How to Handle It," a 28-page illustrated handbook on all forms of progressive assembly and material handling equipment for industrial plants of all kinds.

LAY-MORE TILE MACHINE CO., Crawfordsville, Ind.

465—Business Opportunity—"Lay-More Tile, a Cheaper Building Unit," a 16-page illustrated handbook presenting the Lay-More patented mold and process for concrete block manufacture. How to establish a block-making plant, how to lay up a low cost, quality wall, and other interesting details.

THE STUDEBAKER CORP., South Bend, Ind.

466—Low Priced Trucks—"Studebaker Crashes Low-Priced Field with Quality Trucks," a big illustrated folio on the new Studebaker line of 1½ to 3½ ton models.

OUTBOARD MOTORS CORP., Milwaukee, Wis.

467—Shop-King Woodworker—"Make It Yourself with Shop-King" is a stimulating booklet of 32 pages featuring Ole Evinrude's Shop-King woodworker and its many uses.

THE B. F. GOODRICH CO., Mechanical Div., Akron, O.

468—Belting, Hose & Packing—"Goodrich Engineering Data, Industrial Rubber Goods," a 24-page illustrated manual, a guide to the selection of belting, hose, and other rubber products.

SPECIAL ITEMS OF INTEREST

THE MULTIPLEX CONCRETE MACHINERY CO., Elmore, Ohio

469—Concrete Products Equipment—"Turn Your Idle Minutes into Profits" is the title of the small folder describing concrete products equipment for

making flue blocks, tile, concrete blocks and other products of quality at low cost. Also describes molds for lintel forms.

ARKANSAS OAK FLOORING CO., Pine Bluff, Ark.

470—Better Oak Floors—"How to Lay and Finish Perfection Brand Oak Floors" is a handy little booklet describing approved methods of floor construction that give satisfactory modern floors. Data on sub-floor work, nailing, furring, preserved lumber for sleepers, etc. 32 pages.

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

471—New Oil Furnace—Folder describing the new completely automatic oil furnace with most modern features and high efficiency rating, built into compact, attractive units. A modern automatic furnace for steam, hot water or vapor heating systems.

BLACK SERVANT COAL STOKER CO., 2951 N. Market St., St. Louis, Mo.

472—Black Servant—The title of a folder which describes the automatic coal stoker of that name. Reduces fuel costs, labor. For residences, apartments and larger structures.

EMERSON ELECTRIC MFG. CO., St. Louis, Mo.

473—Modern Kitchen Ventilation—Descriptive details of new Emerson ventilating fan for kitchens and other rooms in the house. Built-in installations, panel and transom installations described.

THE SULLIVAN CO., Memphis, Tenn.

474—Konset Waterproofing Compound—Folder describes improved waterproofing compound that waterproofs concrete, cement mortar and stucco, eliminates waste and difficulties.

THE KITCHEN MAID CORP., Andrews, Ind.

475—Kitchen Equipment—"Cabinet-Equipment and Household Conveniences," an attractive folder in 4 colors describing Kitchen Maid equipment.

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

(July, 1935)

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

Numbers.....

.....

Name.....

Street.....

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

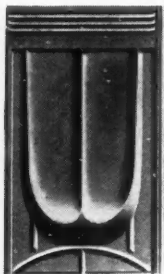
OCCUPATION*.....

*Please note that occupation must be stated if full service is to be given.



EDWARDS STEEL SHINGLES

Overcome Owner's Objections



"OHIO" Pattern
Size 14" x 20"

Edwards Steel Shingles are admirably adapted for application over old shingle roofs, avoiding the noise, dirt and delay of removing the old covering. They are rigid: do not soften from sun and heat and do not follow the sags of the roof. Over sized, with interlocking expansion joints locked together with weather tight grip, they cover every nail.

Edwards Steel Shingles look better, protect from fire, lightning and weather for a lifetime. Send roofing measurements for estimate. Ask for Shingle Catalog No. 72.

THE EDWARDS MANUFACTURING CO.
542-562 Eggleston Ave. Cincinnati, Ohio
Metal Roofing, Siding, Ceilings, Spanish Tile and Shingles

A CALLING CARD TO NEW BUSINESS

EACH SALE MEANS MORE SALES



● LASTING
LUSTROUS
COLORFUL
INEXPENSIVE
AND EASY
TO INSTALL.
WRITE FOR
FOLDER AND
PRICES ●

Marsh tile

MARSH WALL TILE COMPANY • DOVER, OHIO



It's a JAEGER



Recognized biggest value.

Fast 3 1/2 S Trailers.
Power Load Tilters 3 1/2,
7, 10S. Non-Tilts 7S
to 56S sizes.



GET OUR
LOW PRICES

THE JAEGER MACHINE COMPANY
521 Dublin Avenue, Columbus, Ohio

800 TONS

STEEL FLOOR JOISTS

From A Century of Progress

STANDARD HEIGHTS • LENGTHS 16'-30'

Manufactured by

TRUSCON - KALMAN - BATES

60% Saving

Midland Steel & Equipment Co.
400 So. Clinton St. Chicago, Ill.

The Building Cost Calculator

By J. R. Smith, Architect

By using tables giving costs of all materials and labor for all types of construction, on the basis of the decimal system of measurement, the author says that estimating costs can be reduced 75%. His book contains 160 tables showing material and labor costs at any material price and wage scale. The Material Cost Tables give the cost at a glance, per unit of materials in place, with all waste and extras included. The Labor Cost Tables give the cost of the labor required for placing a unit of the different materials, at any wage scale.

Surface areas are measured in squares of 100 square feet. Linear measurement is based upon units of 100 linear feet, and cubic measurement upon units of 100 cubic feet. When areas are once determined it is unnecessary to refigure for the different materials entering into the construction, as all materials and labor costs are based upon the same units of measurement.

For the convenience of the estimator the book is divided into sections covering the different types of construction and materials, with each section multigraphed on different colored paper. Estimating blanks itemizing all materials and labor within each section, with marginal reference to the different tables, are provided. With a summary sheet listing the totals of each section and all additional charges that should be included, oversight or omission of important items is prevented.

1934. 168 Pages, Tables, 8 1/2 x 11 Inches
Imitation Leather, \$10.00

Money Back if Not Satisfied

Book Service Department

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