RED INTO BLACK
Once again, remodeling for profit; with emphasis this time on commercial structures: hotel, department stores, jewelry store, specialty shop, restaurants and coal yard.

HOUSES
More case histories in the small house series ... interior-exterior photographs ... floor plans ... critical comment ... cost data ... construction outlines.

PLANNING TECHNIQUES NO. 5, DRUG STORES
Trends in drug store design ... data for large and small stores.

PRODUCTS & PRACTICE
The Mobile House: Copper Mobile Houses, Le Tourneau Steel House ... Cooling Congress.

CITY 1960
Norman Bel Geddes' Design for the American city of 1960.

BUILDING MONEY
A look at the latest Harmon venture in subdividing ... Why tax limitation is the unjust solution to reality's biggest problem, and another answer ... Second in the series of portfolios of taxpayers ... Small house construction costs ... Behind the rising prices of two building materials ... A California rental project ... Charts.

MONTH IN BUILDING
FORUM OF EVENTS
The A. I. A. convenes ... Federal artists ... Student-built houses ... Architectural Wind Tunnel ... Safety ray.

BOOKS
European housing ... A town planner and architect looks at London ... Churches ... Technical books.

LETTERS
Anti-social Architects ... Something concrete ... Module Man Heath.
THE MONTH IN BUILDING

VOLUME

<table>
<thead>
<tr>
<th>PERMITS (April)</th>
<th>514,843,461</th>
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<tbody>
<tr>
<td>Residential</td>
<td>88,103,967</td>
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<tr>
<td>Non-residential</td>
<td>50,094,900</td>
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<td>Additions</td>
<td>86,757,204</td>
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<td>March, 1937</td>
<td>171,118,123</td>
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<td>April, 1936</td>
<td>141,783,997</td>
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<td>Permits from the Dept. of Labor</td>
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It is normal to expect a seasonal decline in contracts during the late spring. However, the 11 per cent gain registered in contracts this May over May of 1936 represents the smallest percentage increase made over a similar month of the previous year since 1937 began. Residential contracts slipped from $108,013,600 in April to less than $84,000,000 in May. In the same way, the minuscule increase in permits from March to April is definitely contrasessional. The lift of 2.3 per cent in permits from the 1,474 cities reporting to the Department of Labor is about one-third of the seasonal rise. April's poor permit showing is due in large part to New York City, where the drop from March was 24.4 per cent. By the same token it is logical to expect a still greater slump in permits when national returns are in for May, because New York City during May fell off another 29.6 per cent.

BUILDING COSTS. Wherever two or more building money men got together last month over a glass of beer they could and usually did trade anecdotes about the unhappy rise in building costs which has been the curse of the residential market for the last four months. As is usual, however, the statistics on building costs failed adequately to mirror the true situation, left everybody somewhat at sea. Partially to remedy this situation came an eight-page analysis from the reputable presses of Standard Statistics. Excerpts:

"Labor costs are an important factor in construction expense, and an unfortunate feature of the indexes is that these rely on wage scales rather than on actual wage rates. In other words the increase in labor cost on buildings has been far greater than the indexes would indicate ... From the numerous reports brought directly from the field, it is concluded that average construction costs are now approximately 12 per cent above those prevailing at the end of the 1936 building season. In some sections of the country the increase has been even greater.

"Prices for (material and equipment) now average 10 per cent above those prevailing last December 1... Advanced building costs are definitely restricting the volume of residential construction."

Says Standard Statistics in conclusion: "Total building construction of all types this year, it is estimated, will be at least 25 per cent above that of 1936."

HOUSING HARLEM. One day last month in Manhattan PWA Housing Director Thomas Grey squiggled his name on a lease form, then watched the New York Housing Authority's Langdon Post and Mayor Fiorello LaGuardia do the same. Thus effected was the first transfer of a PWA housing project from the Government to a local housing authority. Under the terms of the one-year lease—which is frankly experimental—the New York Housing Authority will assume the management of the just completed Harlem River project for Negroes, collect its rents, and from them begin to repay the Government 55 per cent of its $4,200,000 investment.

What the New York Housing Authority got were 574 dwelling units in a project of four- and five-story walk-ups covering 25 per cent of its land. The apartments, ranging in size from two to five rooms, will rent for an average of 87 per room per month. Housing students with a statistical turn of mind were quick to figure out that this rate did not constitute an economic rent even after taking the 45 per cent grant into consideration, guessed that the Federal Government was ready to take the added loss by accepting a minuscule rate of interest on its investment.

For comparative data the PWA issued a booklet showing an aerial view of Harlem Houses and its surroundings. Three streets away stands a block of so-called "Old Law" tenements, dark and airless rookeries whose further construction was declared illegal in 1901, and whose rents today are generally below the new PWA rate. Two streets away stands a block of New Law tenements, representing a slight improvement in housing standards. However only 1½ per cent of the New Law tenements built since 1928 rent for less than $11.50 per room per month. And one street away from Harlem Houses stand the famed Dunbar Apartments, an intelligent attempt at good housing financed by Rockefeller money on a limited dividend basis. With rents consistently above $12.50 per room per month, the Dunbar Apartments have failed to show a profit.

NO LIMITATION. Dear to the heart of every real estate owner is the cause of tax limitation, a cause in which he can see no possible wrong. To some it was therefore cause for consternation last month when the important, progressive Twentieth Century Fund published its latest report "Facing the Tax Problem" and presented serious arguments not only against tax limitation but even against most forms of tax reduction (see p. 60).

Chief ground for these objections by the Fund appeared to derive from the concept of "tax justice," under which no category of taxpayers should benefit at the expense of another category less able to stand the burden. At the same time the Fund report takes the stand that present reality taxes are undoubtedly too high, comprising as they do the largest single source of revenue in the U.S. The Fund's tentative suggestion for a tentative solution to this moral dilemma: broadening of the income tax with consequent curtailment of the property tax.

LABOR. In Cincinnati's Hotel Hodlenden last month some 230 delegates from 103 national and international AFL unions met, listened to attacks on the CIO, adopted a program which included the expulsion of all CIO affiliates from the AFL, the increase of per capita dues from one cent per month to two cents per month in order to fill a war chest to combat the CIO, and immediate steps at counter-organization to balance the membership drives of the CIO.

(Continued on page 4)
MAN OF THE MONTH . . . he turned to glass, and won (page 68 Adv.)

BUILDING OF THE MONTH . . . Il Duce ahorse and ablaze in Paris

PRODUCT OF THE MONTH . . . the house that moves (page 53 Ed.)
FROM RED INTO BLACK

Remodeling Emerges with a Convincing Profit Record

Once considered a highly speculative and uncharted venture, remodeling has in the recent past become an enormous and stable field for the real estate investor. Daily new evidence validates the profit possibilities in remodeling obsolete, bankrupt buildings. During the Depression the number of such properties which passed into the hands of strong institutions provided the urge to subject this problem to intensive study and the brains to produce numerous realistic solutions. The field of remodeling for profit cannot be reduced to exact pattern but an examination of many examples discloses that in the hands of an expert architect miracles happen... a musty store
acquires a shiny, new front and a new tenant at a higher rent is not far behind; old apartments are divided into small, popular units and families flock in; decrepit houses are reenforced, cleaned up and re-equipped, and the property moves overnight. As building cost continues to advance, the advantages of recapturing outmoded structures through remodeling obviously advance with it. The list of successes is long; equally long are the profit opportunities which still remain in every city and town for the shrewd investor and his skillful architect. To such, The Forum offers this portfolio of current successes.

SHORELAND HOTEL, CHICAGO, ILL. JAMES F. EPPENSTEIN, ARCHITECT
Something of a tribute to the original architect is the remarkable improvement effected in this apartment hotel by the simple expedient of stripping away rococo ornament, since in the remodeled structure the excellent proportions of the original are revealed. No structural changes were made. Ornamental plaster, including column capitals, brackets, and colonettes at window and door openings, was removed and all surfaces made plain. Arched openings were squared off—window openings being squared on the inside only, since it was impracticable to make any changes in the exterior. Ornamental wrought iron work, including grilles and railings, was replaced with plain. Only additions were the glass brick wall at the rear of the elevator foyer, new lighting fixtures, mirrors and new furnishings. The color effect is rich: beige marble floor and wainscoting, with walls painted to match, rust draperies and ceiling, rust, jade green and royal blue upholstery, woodwork natural finish walnut, and metal work brushed brass. Illustrated on the opposite page are typical changes made in the individual apartments. Here again much has been accomplished by simplification and expert refurnishing, which has clearly been done with an eye to both appearance and convenience. The living room floor plan shown on this page might well serve as a model for rooms of this type.
Product of the collaborative efforts of a department store engineer and an industrial designer, each a recognized expert in his own field, and begun with a clean sweep in which all existing partitions, fixtures, luminaires and carpets were discarded, this remodeled floor of a Cleveland department store may be taken as an authoritative last word on design for merchandising. The major change in space-use was made in what was formerly the coat section. In the original plan this selling area occupied the center of the floor directly opposite the east bank of elevators, with stock and fitting rooms occupying the entire wall area at the windows. No daylight was available in this section: to make color comparisons by daylight the customer had to be taken through narrow aisles past the fitting rooms to the windows. The new plan reverses this arrangement. Stockrooms are now located nearer the center of the floor area, and selling areas have full access to window walls in both sides of the store. The center of the store, valueless as selling space for merchandise which requires natural light, now serves as a combined lobby, passageway and display space,
CLEVELAND, OHIO

BEFORE

FLOOR PLAN BEFORE

VIEW 2.

VIEW 3.

GILBERT ROHDE, DESIGNER; C. A. WHEELER, ENGINEER

FLOOR PLAN AFTER
REMODELED FLOOR OF DEPARTMENT STORE, CLEVELAND, OHIO

GILBERT ROHDE, DESIGNER; C. A. WHEELER, ENGINEER

ROUND STORAGE TABLE

FITTING TABLE FOR FOUR

FITTING TABLE FOR TWO

providing just enough demarcation to make it obvious to the customer that there are two departments without setting up the sales obstacle which arises in the case of isolated shops. In the center of the long curved wall which the customer faces as he leaves the elevator is a twenty-foot stage, which can be used for manikin display of garments, or for fashion shows with living models. Decoration throughout is extremely simple. The walls consist of large plane surfaces, with long, sweeping curves—restful backgrounds which do not conflict with merchandise of bright and varied colors. Use of various veneers, ranging from bird’s-eye maple to walnut and dark rosewood, together with fawn colored and darker brown upholstery, results in a delicate blonde-to-brunette monochrome effect. A feeling of quality and stability appropriate to the character of the store is secured by richness of materials and texture, by quiet dignity and simplicity of design, and evident permanence of construction. Cost, including furnishings, was $85,000.

FINISHES

STRUCTURE: Interior partitions—wood studs and gypsum board covered with Flexwood, U. S. Plywood Co., Inc.

FURNISHINGS: All furniture by Herman Miller Furniture Co.

FLOOR COVERINGS: Total area covered with carpet, Bigelow-Sanford Carpet Co., Inc.

WALL COVERINGS: Major portion—Flexwood, U. S. Plywood Co., Inc.
Remainder—Duraleather, Masland Duraleather Co.

LIGHTING FIXTURES: Fixtures—Edge-Ray, Curtis Lighting Co., Inc.
In line with a local "Modernize Main Street" campaign, both facades of this corner department store were faced with limestone and new windows installed. To provide for necessary expansion, two floors were added to the corner portion, resulting in a more unified mass. Cost of the entire project, including the two-story addition, was $150,000.
An interesting, if somewhat radical experiment, this modernization of a type of enterprise whose premises are generally devoid of any architectural pretensions has been pronounced completely successful by the owners. Sales during February and March this year, after the alteration, were twice the sales for the same period last year, despite a mild winter. The modernization work was decided upon for three reasons: location of a new railroad station overlooking the yard, need for more garage space to accommodate larger fuel trucks, and a desire to overcome the prejudice against the location of this type of business near residential neighborhoods. In connection with the remodeling work, general repairs to all parts of the structure were made. Cost: $8,768.

CONSTRUCTION OUTLINE

FOUNDATIONS
New walls—stucco finish coat of white Atlas cement, ground marble and waterproofing compound.

STRUCTURE
Built-up roofing, Johns-Manville, Inc.

ROOF
Flashing and gutters—copper.

SHEET METAL WORK
Flashings and gutters—copper.

WINDOWS
Sash—Fenestra commercial steel and Fenestra metal screens, Detroit Steel Products Co. Glass—½ in. plate.

FLOORS
Cement in garage; balance—pine.

FLOOR COVERINGS
General office space—linoleum, Armstrong Cork Products Co. Private offices—carpet, Bigelow Sanford Carpet Co., Inc.

WALL COVERINGS
Private offices—Idaho knotty pine, Cross, Austin & Ireland Lumber Co.

WOODWORK

HARDWARE

PAINTING

ELECTRICAL INSTALLATION
Vacant except for an occasional unimportant tenant for some fifteen years, this Grand Rapids property ultimately reverted to the mortgagee, a trust company, who immediately sought a responsible tenant on the basis of modernization to conform to the tenant's needs. One was soon found in the Hub Clothing Company, who had been doing business for twenty-two years only a few doors away, and the property completely renovated to suit the new tenant's needs. Furnishings of the new store are in excellent taste, and a special feature of the interior design is the central stairway, designed to encourage shopping on semi-basement and mezzanine floors at the rear of the store.
The problem here was to attract shoppers, and still maintain an air of dignity and swank in the midst of Atlantic City's blatant boardwalk. Park Avenue jewelers of distinction, Trabert & Hoeffer have long employed the small show window, a device which contributes much to the successful solution of this problem. The plan provides facilities for conferring with clients at individual desks, a requirement of this type of business, and a special feature in the form of an attractively furnished lounge complete with a modern bar. Cost of the project was $6,000.
Commendably simple in almost every respect, this recently modernized store indicates that the modern trend is no mere matter of new fixtures and perhaps a new front. Here replanning, with provision of a broad, straight customer’s aisle and generously spaced show cases, is equally important in creating the final effect. No attempt is made to disguise the fact that the sales room is a deep, narrow space—instead the single longitudinal lighting fixture serves frankly to emphasize this fact. Net result is a dignified interior with a feeling of unity, and little to distract the customer's attention from the merchandise. Cost: $5,800, including fixtures. Gross sales have increased 24 per cent since the alteration.

CONSTRUCTION OUTLINE


BULKHEADS: Stainless steel on shiplap.

VESTIBULE: Floor—terrazzo in red with aluminum strips.

DISPLAY WINDOWS: Floor—cork. Backs—temporary only.

CEILING—pyramid crystal glass set in wood strips. Lights—above glass ceiling. Venetian blinds—recessed in ceiling slot, operated from store.


WALLS: Sheetrock flush with face of wall fixtures, U.S. Gypsum Co.

CEILING: Sheetrock, U.S. Gypsum Co.

LIGHTING FIXTURES: Sanded glass, running entire length of store; clock built into light panel.

STORE FIXTURES: Natural birch finish, stainless steel trim, Westbrook Manufacturing Co.
REMODELED RESTAURANTS FOR CHILDS CO., NEW YORK CITY

TYPICAL BEFORE

GEORGE E. SWEET, ARCHITECT

JULY - 1937
These several examples serve to indicate the trend of the modernization program now under way in the famous Childs chain of service restaurants. The new exterior shown on the preceding page is that of a New York City Childs located in the theatrical district, where something rather flashy is required to attract the customers, and is therefore not necessarily typical of Childs exteriors elsewhere. Interiors on this and the following page indicate that the elaborately decorated Childs which replaced the former and better known tile palace type are in turn being replaced by a somewhat simpler modern—on the whole a healthy trend. Emphasis in the new Childs is more on customer comfort, less on decoration, with reliance on quality furnishings to create the desired atmosphere.
Here remodeling meant structural modernization as well as changes in design. New reinforced concrete walls were built to replace old wall of wood frame construction, the interior refinished and the appearance of the exterior greatly improved by eliminating the cornice and lowering the heads of the show windows. Second floor windows were reused. Cost: $8,000; average net increase in rentals: 140 per cent.
Simplification, both inside and out, was the keynote of this alteration. Work on the exterior consisted only of the removal of the old steps, the creation of a new entry on the ground floor level, the elimination of the cornice, and painting. Inside a half dozen partitions were removed but only one new one built. The chief problem in planning was presented by the width, which was only sixteen feet. By relocating the stairs it was possible to find enough space for a small ground floor apartment; the other apartment occupies the upper three floors. A typical example of the ingenuity in planning is afforded by the curved entry walls on the ground floor: by overlapping the curves space is found in the living room and stair hall for coat closets that would otherwise have had to be omitted. Another simple but effective device was the removal of plaster in the entry and second floor studio, exposing the brick of the party wall; this gained three inches of valuable space in the entry, and provided a richly textured surface in the studio which shows off the severe furniture to great advantage. Since the expense
REMODELED TOWN HOUSE, NEW YORK CITY

SILVER AND SERVING TABLE

THE ARCHITECTURAL FORUM
of removing the old windows and installing more suitable sash was prohibitive, the expedient of hanging thin curtains which reach from floor to ceiling was adopted, with excellent effect, as can be seen from the illustrations of the interiors. The success of the remodeling can be seen in the rent roll, which jumped from $1,200 to $4,500 per year.

CONSTRUCTION OUTLINE

WINDOWS
New sash—wood, special, N. Y. Dormer & Sash Co.
Glass—Mississippi Wire Glass Co.

FLOORS
Living room, bedrooms and halls—wood. Bathrooms—covered with rubber.

WALL COVERINGS
Plaster, brick construction exposed and U. S. Plywood Co., Inc., Flexwood paneling.

PAINTING

ELECTRICAL INSTALLATION
Lighting fixtures—Kurt Versen, Inc.
REMODELED HOUSE FOR LAWRENCE OTTINGER, SCARSDALE, N. Y.
The alteration of such residences as this is by no means uncommon. The plan can be readily altered to produce a more livable layout, and the exterior presents no great difficulties. It is unusual, however, to find so complete a change. The initial problem was presented by the location of the first floor, which was four feet above grade; its solution, as can be seen below, was the creation of a series of terraces around the house, which not only tie it in more closely to the ground, but provide definitely usable living space in warm weather. Changes in the plan opened the entrance hall through to the rear, moved the dining room to the southeast corner, where it belongs, and created a separate suite of children’s bedrooms on the second floor. Brick veneer proved to be a satisfactory and inexpensive material for the alteration; it was painted a light, warm gray, with white used for ironwork, sash, and trim.
CONSTRUCTION OUTLINE

FOUNDATION

STRUCTURE
Exterior walls—4 in. brick veneer, heavy paper sheathing, 4 in. studs and plaster. Floor construction—wood beams and flooring.

ROOF
Covered with slate. Decks—ply membrane and cement.

CHIMNEY
Lining—terra cotta. Dampers and throats—H. W. Covert Co.

SHEET METAL WORK
Flashing, gutters and leaders—copper.

INSULATION
Outside walls and roof—rock wool. Weatherstripping—zinc and copper.

WINDOWS

STAIRS

FLOORS

WALL COVERINGS

HARDWARE
Interior and exterior—brass.

ELECTRICAL INSTALLATION
Wiring—flexible conduit. Switches—toggle.

KITCHEN EQUIPMENT
Range—gas. Refrigerator—electric.

PLUMBING

HEATING AND AIR CONDITIONING
Completely air conditioned except in service section. Split system, steam and forced warm air, humidification and cooling. Radiators—convector type.
The unprepossessing subject of this alteration consisted of a one-story house about 200 years old, and an awkward two-story wing added about 40 years ago. The remodeling was done chiefly because it was a question of repairing the house or letting it collapse. The budget did not permit any alteration of the mass, and the money available, a little over $4,000, was used for repairing the foundations, replacing floor joists, replastering, plumbing, and painting. The house is painted a deep red, with white trim both inside and out. In spite of its small size it was possible to obtain three bedrooms of good size, a living room, and a dining room. Used as a guest house, no maid's room has been provided, as service is furnished from the large house nearby.
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—siding, paper, wood sheathing, 2 x 4 in. studs, wood lath and plaster on new section. Interior partitions—wood frame and plaster.

ROOF: Covered with wood shingles.

CHIMNEY: Damper—H. W. Covert Co.

SHEET METAL WORK: Copper throughout.

INSULATION: Roof—Cabot’s Quilt, Samuel Cabot, Inc. Celotex between old rafters; Celotex between rafters left exposed, The Celotex Co. Weatherstripping on doors—Chamberlin Metal Weather Strip Co.

FLOORS: Living room, bedrooms and halls—wide boards painted with solid color, Stanley Chemical Co. Kitchen and bathrooms—linoleum.

PAINTING: All paint material by Stanley Chemical Co.


SINK—two-compartment tub and sink.


HEATING: Hot air, one large register centrally located. Hot water heater—General Electric Co.
REMODELED APARTMENTS IN PHILADELPHIA, PA.

ENTRANCE

BEFORE

FIRST & THIRD FLOOR PLANS

SECOND FLOOR

THE ARCHITECTURAL FORUM
The income possibilities of depreciated properties are well illustrated by this example. With an original mortgage of $42,000, the properties were finally sold for $8,000 to the present owner, who spent an additional $53,000 to produce what is to all intents and purposes a new building. The twelve small buildings forming the original parcel were recombined into twenty apartments which rent at $45 to $75 per month, giving a total yearly income of $12,480. When taxes, operating costs, etc., are deducted there remains a net income of $9,348, which represents a very satisfactory return on the original investment. The owner notes that on property of this kind a very high depreciation factor must be included, but that even after this and other contingencies are considered, such real estate ventures are still profitable. In spite of the location of these apartments in a run-down section of the city there has been no difficulty in renting them.
The two buildings which formed the basis of this alteration consisted of one which was entirely abandoned and another which was 25 per cent rented. Purchased at a cost of $24,000, and remodeled for an additional expenditure of $60,000, the buildings now contain 32 three-room apartments which produce a gross rental of $17,000 per year. Alterations consisted of removing the front walls, extending the buildings 10 ft. toward the street, installation of new equipment, new stairs, floors, electric wiring, and complete kitchens.
The traditional Southern house is almost invariably characterized by an avoidance of sunlight: small windows, sheltered courtyards, and heavy awnings are the rule. Where a large glass area is desired (in this instance because of the view), some form of projecting shelter inevitably becomes an important part of the design. Even the terrace off the living room has been so planned that it becomes a protection for the loggia below. The plan of the main rooms is open, with the partition between the living room and entrance hall kept low in order that the plane of the ceiling might not be interrupted. A supplementary living room occupies the level below, with full-height windows made possible by the drop in ground level. Two bedrooms, each with a separate roof deck, are provided on the second floor.
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—brush coat, 2 coats stucco, wire mesh, 15 lb. felt, 2 x 4 in. studs, wood lath and plaster. Floor construction—wood frame. Ceilings—wood lath and plaster.
ROOF: Composition roofing.
STAIRS: Oak throughout.
WOODWORK: Trim, cabinets and doors—Oregon pine; ash finish in living room.
HARDWARE: Interior and exterior—Schlage Lock Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.
Work space and shelter for a family of three with a limited budget was the essential problem here. Both husband and wife are writers, and each required a separate study. The dining porch is a pleasant innovation, possible only in a year-around mild climate. The masonry walls are not only structural, but provide the inside and outside finish as well. Trim was eliminated wherever possible. The inadvisability of attempting to apply ornament to the modern house is demonstrated by the incongruous tiled doorway.

CONSTRUCTION OUTLINE


ROOF: Construction—frame, covered with 15-yr. Certain-teed tar and gravel roof, Certain-teed Products Corp.

CHIMNEY: Terra cotta flue lining. Heatilator with ducts to two second floor studies, Heatilator Co.

SHEET METAL WORK: Flashing, gutters and leaders—16 oz. copper.

INSULATION: Roof—Homasote board, Homasote Co. Weatherstripping—Bariand Weatherstrip Material Co.


HARDWARE: Interior and exterior—Schlage Lock Co.


KITCHEN EQUIPMENT: Refrigerator—General Electric Co.

HOUSE FOR ALLEN BREED WALKER, MONTECITO, CALIF.
More formal than the average four-bedroom residence, the character of this house was set by the owner's requirements and its layout by the character of the site. The owner wanted a modernized French design, a flat roof, a living room 18 x 40 ft., an elliptical dining room, three master bedrooms, one servant's room, and a plan which placed all of these rooms on one level. The unusual relationship of the bedrooms and library was also stipulated by the owner. A natural alley of live oaks determined the placing of the living room, and the strung-out plan was dictated by the contours and the view of the sea below. Of particular interest is the extensive use of sliding doors, a method of saving wall space which can be successfully adopted in a climate where infiltration presents no serious problem.

**CONSTRUCTION OUTLINE**

**FOUNDATION**

**STRUCTURE**

**ROOF**
Asbestos roofing, Johns-Manville, Inc.

**CHIMNEY**

**SHEET METAL WORK**
Flashing and leaders—26 gauge Armco galvanized iron, The American Rolling Mill Co.

**INSULATION**
Roof—1 in. rock wool Quilt, Johns-Manville, Inc.

**WINDOWS**

**FLOORS**

**WALL COVERINGS**

**HARDWARE**
Interior—special, shiny brass finish, West & Co.

**ELECTRICAL INSTALLATION**
Wiring system—Steel Tubing conduit, Steel & Tubes, Inc., Switches—General Electric Co. and Bryant Electric Co.

**KITCHEN EQUIPMENT**

**BATHROOM EQUIPMENT**

**PLUMBING**

**HEATING AND AIR CONDITIONING**
Of basic importance in the design of a sculptor's studio is the provision of adequate natural illumination: the satisfactory solution of this problem is generally the factor about which the entire design develops. Clerestory lighting is frequently indicated because of the height required in the studio, and in this case it was possible to place a large window running from wall to wall which gives a maximum of glareless illumination. Under the window is a long, narrow alcove, ideally located for the best view of the brightly lighted studio, and suitable for the entertainment of visitors and clients. On the mezzanine level there is a sitting room, isolated to give greater privacy. The shop, used for the building of armatures, making plaster casts, etc., has large openings at either end so that bulky objects may be conveniently moved in and out of the building. Cubage: 57,177. Cost: (including all built-in furniture) $24,000, at about 42 cents a cubic foot.
CONSTRUCTION OUTLINE

FOUNDATION

STRUCTURE
Exterior walls—Cinucor blocks, Cinder Concrete Units Corp., furred and plastered on inside (except in shop); California stucco on outside. Interior partitions—plaster on wood studs. Floor construction: First floor shop and heater room—concrete. All others—wood. Ceilings—plaster, except Celotex acoustical tile in studio, The Celotex Co.

ROOF
Built up 5-ply tar and gravel roofing on wood frame.

SHEET METAL WORK
Flashing—3 lb. lead and 16 oz. copper, lead coated where exposed. Leaders—3 in. cast iron drains in partition with roof pan and strainers.

INSULATION
Partitions between heater room, studio and bath—filled with rock wool, Johns-Manville, Inc. Roof—1 layer each Type B and C Master Metal Insulation, Reynolds Metal Co., installed over and under roof beams. Terrace floor—2 in. Corkboard under concrete slab, Armstrong Cork Products Co.

WINDOWS

STAIRS
Risers and treads—1/2 in. N. C. pine covered with linoleum with metal nosing.

FLOORS
Wood throughout, covered with linoleum.

WOODWORK

PAINTING
Interior: Walls in sitting room and bath—painted 4 coats lead and oil. Shop, heater room and lavatory—2 coats of Sunflex, Craftex Co.

ELECTRICAL INSTALLATION
Wiring system—rigid conduit in masonry walls or floors, BX elsewhere. Fixtures—special, Bigelow Kennard & Co.

PLUMBING

HEATING AND AIR CONDITIONING

ELEANOR RAYMOND, ARCHITECT

JULY 1937
The planning of suitable accommodations can be considerably complicated by an irregular and thickly wooded site. In this instance it was necessary to lay out the house so that a minimum of good trees was destroyed, and the grades were followed as closely as possible to eliminate cutting and filling. At the rear of the lot, the sharp slope permitted placing garage and laundry under the kitchen. The library is immediately adjacent to the front door, as this room is used for business as well as social purposes, and the vestibule has been designed so that the rest of the house can be closed off, for the same reason. The guest bedroom occupies the first floor for privacy, and its bathroom has been placed so that it may serve as a guest lavatory. On the second floor the entire space is given over to the owner's bedroom and a large storage room. Cubage: 26,936. Cost: $9,500, at about 35 cents a cubic foot.
**CONSTRUCTION OUTLINE**

**FOUNDATION**

**STRUCTURE**

**CHIMNEY**

**SHEET METAL WORK**
Flashings, gutters and leaders—Armco, galvanized iron, American Rolling Mill Co.

**INSULATION**

**WINDOWS**

**FLOORS**

**HARDWARE**

**PAINTING**

**ELECTRICAL INSTALLATION**
Wiring system—triangle flexible metal conduit. Switches—tumbler type.

**KITCHEN EQUIPMENT**

**BATHROOM EQUIPMENT**

**PLUMBING**

**HEATING**
Gas floor furnaces—Ward Furnace Co. Hot water heater—Everhot Heater Co.
The traditional simplicity of the Georgian house is based on an essentially simple plan. Where room requirements become complex, as in this example, it becomes difficult to avoid an expression of this complexity on the exterior. The second floor, for example, contains five bedrooms, a playroom, dressing room, two stairs, and three baths, and it is only due to the dropping of the floor levels in the north wing that the mass of the house is not too bulky. The wing creates a distinct separation between the main and service entrances; the garage, however, is so placed that direct access to the front hall is provided. Plans for future expansion include a large library, bedroom and bath on the rear, to be placed between the living and dining room bay windows.
The appearance of the typical Colonial house can be varied by changes in detail, as shown by this example, which combines traditional mass with simplified trim, a device particularly noticeable in the design of the entrance porch. Orientation requirements determined the placing of the breakfast room, kitchen, and dining room on the east side, and the master bedroom was located to take advantage of the view over a nearby park. As the house occupies a corner lot the porch was placed to gain as much privacy as is possible on a small plot: it is sheltered from both streets and from the service yard. Access to the large game room is conveniently placed under the main stair, and separate stairs to the drying yard lead up from the basement laundry. Cubage: 40,000. Cost: $13,000, at 32.5 cents a cubic foot.

**CONSTRUCTION OUTLINE**


ROOF: Covered with asphalt shingles.


WALL COVERINGS: Living room, bedrooms and halls—wallpaper.

HARDWARE: Interior—Bakelite and brass. Exterior—brass and iron.


A conventional house, both in plan and exterior, this residence was designed for a college professor and his wife. The basement has been utilized as a study for the owner, and as a room where students may come for conferences about their work. The house is situated on a lot approximately 100 feet square; the lot pitches steeply from front to rear, and in order to properly terrace it the house was set far back on the lot, its rear being only 15 ft. from the lot line.
NO. 5. DRUG STORES

There are 56,697* retail drug stores in the United States which do a total annual business of some $81,232,600,000—or about $82,000 per store per year. Drug stores constitute about 4 per cent of all retail establishments and do about 4 per cent of the total retail business. This seemingly equitable arrangement is, however, complicated by one exceedingly important fact, a fact of particular importance in any consideration of drug store layout. Bane of the druggist's existence is, and has been for longer than most druggists can remember, the small size of his typical sale—estimated to average about 30 cents per customer. This means that drug store overhead-per-sale is high, profit on gross revenue consequently low.

Ever since the introduction about 75 years ago of the first soda fountain whose successor is shown in the upper picture on the right, the history of drug store layout and design has therefore been the history of sundry changes keyed to one basic objective: that of creating multiple sales, in an attempt to swell sales-per-customer, reduce overhead-per-sale. Such attempts have met with varying degrees of success. Efforts to build the so-called “impulse sale,” extremely fashionable a few years ago, are today regarded with some skepticism. But what is nowhere denied is that the average druggist is still very much dependent upon the multitudinous stepchildren which have grown up around his original prescription and drug departments.

Recent studies of relative sales volume for various departments of the typical drug store bear this out. Estimates of the part played by prescription business range from but 8 to 16 per cent, while soda fountain, confectionery and other specialty items may account for as much as 20 per cent of total sales volume. Averages, however—especially averages for a field as broad as that included in the term “drug store”—are notoriously deceptive. Actually, the trend in drug store design is toward two more or less distinct types. The first of these is the familiar, large, prominently located store which sells everything from capsules to bathing caps, with breakfast and lunch thrown in. The second type, of relatively more recent origin, is the small, strictly “ethical” pharmacy, concentrating on prescriptions and actual sick room supplies. Each of these types is the answer to a particular problem: the large, general type of store to the problems of high rents and transient trade characteristic of congested areas and the small, specialized shop to the problems of low volume and high overhead which beset the suburban, or neighborhood druggist. Both types are illustrated and analyzed on the following pages.

*Figures are for 1933, the latest available.

Previously published in this series: NO. 1. SERVICE STATIONS, February 1937; NO. 2. SHOE STORES, March 1937; NO. 3. CAFETERIAS AND LUNCHEONETTES, May 1937; NO. 4. WHOLESALE SHOWROOMS, June 1937. Readers wishing detailed information on Drug Stores and other subjects previously published are invited to address inquiries to The Forum’s Editorial Research Department.
FINISHES AND EQUIPMENT
PENNSYLVANIA DRUG CO.
STORE AT 51st STREET & 6TH AVE.,
NEW YORK CITY
FORDYCE & HAMBY, ARCHITECTS

FINISHES AND EQUIPMENT

Large stores of the type shown on this and the preceding page depend on the large volume luncheonette business to attract customers to other departments. Sheer size makes possible an attractive departmentalization of the selling area not always feasible in the smaller store, a departmentalization which has here been competently carried out. In both examples, and particularly in the store on this page, a treatment of the signs and furnishings somewhat more restrained than that typical of this kind of store does much to counteract the effect of a rather crowded layout, without in any way detracting from the customer appeal of the display.

JULY 1937

PLANNING TECHNIQUES NO. 5

DISPLAY DETAIL

FOUNTAIN
KENMORE PHARMACY, BOSTON, MASS.

Representative of the best modern practice in the layout and design of the large pharmacy, this example is prime evidence of the fact that drug store planning techniques are coming of age. Open, orderly and direct, the plan provides proper separation, and—at the same time—appropriate articulation of the various departments. A rather novel feature is the large display island in the center of the store, where display cases, both open and enclosed, are used to screen a series of booths in connection with the soda fountain. Lighting is especially well carried out: special fixtures incorporated in all display cases focus attention on the stock, and unobtrusive units recessed in the ceiling provide general illumination. Note also the relatively small amount of space allotted to window display, a characteristic of drug store planning.

DRUG STORES

DISPLAY COUNTER

FOUNTAIN

ISIDOR RICHMOND, ARCHITECT

FINISHES AND EQUIPMENT


THE ARCHITECTURAL FORUM
Focal point of the small modern pharmacy is the prescription department, which usually occupies the entire back end of the store. Primarily a prestige-making device, the impressive open type "laboratory" has utility-value as well, since it makes it possible for the pharmacist to keep an eye on the store while at work. Usually arranged so as to screen the actual working counter, most designs leave the head and shoulders of the pharmacist, and as much of the drug storage space as possible, exposed to the store. The upper of the two drawings above is a plan of the prescription department shown immediately at the right, a design employing stock elements and carried out in porcelain enamel. The lower drawing is a schematic diagram of the ideal prescription department, based on that in the Evergreen Pharmacy shown on the following page, an unusually successful job. Middle picture at the right shows another type of design now in vogue, particularly in the middle-size and larger store, in which the division between the sales area and compounding room is somewhat more definite. Below is a simple and effective arrangement for the open type prescription department, especially suitable for small, narrow stores.
Just as the Kenmore Pharmacy shown on a preceding page may be considered a model for large-store design, the plan shown above may profitably be studied in connection with the middle-sized store. Typical of the group of stores midway between the large downtown drug store and the new-style "ethical" neighborhood pharmacy, the design in this case has dispensed with the soda fountain but still has considerable sales area devoted to drugs and specialties. Note particularly the attractive recessed booth provided for customers awaiting prescriptions, use of high-key finishes and lighting to draw attention to the prescription department at the rear of the store.

FINISHES AND EQUIPMENT
Floor: terrazzo, floor in prescription dept. raised 6 in.
 Walls: American Walnut veneer.
 Fixtures: Star Show Case Co.
 Lighting: Electrolier.
 Store front: ivory and green Vitrolite, plate glass (Libbey-Owens-Ford Glass Co.), awning box, York Awning Co.
 Sign: Neon, porcelain enamel.
Both of the stores shown on this page are of the strictly “ethical” type, dealing only in prescriptions and sick-room supplies. There is currently a marked trend toward this type of store, explained by the fact that many pharmacists find that by cutting out multitudinous departments and concentrating on this type of business overhead is reduced proportionately more than sales. Not the least advantage accruing to the pharmacist making such a change is the considerable increase in prestige involved. In each of these stores, a simple, utilitarian treatment is employed, tending toward the antiseptic, “hospital” effect. Most interesting feature of the Knight Drug Store, shown below, is the hexagonal cases containing revolving drug cabinets, an excellent means of utilizing otherwise “dead” corners in the shelving.

THE APOTHECARY SHOP, PHILADELPHIA, PA.
MAURICE W. WAITE, OWNER AND DESIGNER

KNIGHT DRUG STORE, ST. LOUIS, MO. PRESTON J. BRADSHAW, INC., ARCHITECTS
This large store, operated in connection with a basement restaurant, is as much luncheonette as pharmacy. Division of the space into two pronounced sections is accounted for by the fact that the owners wished to be prepared for possible Illinois legislation prohibiting the sale of food in drug stores, in a position readily to divide the store completely. The otherwise excellent treatment of furnishings and fixtures is somewhat marred by the rather massive effect of the central cosmetic counter (above), which incidentally tends also to emphasize the division of the store already referred to.

FINISHES AND EQUIPMENT
Controlling factor in the layout of drug store sales and display space is the desire to create multiple sales. Prerequisite for this type of selling is that the customer see as much of the stock as possible, attractively displayed and clearly priced. This has led to a new type of display counter, in which the goods are out in the open where they can readily be examined and handled by the customer. Most efficient arrangement for this kind of display has proved to be the "island" type, which in some stores has replaced the sidewall counter entirely. Islands are kept low, so as not to obstruct a full view of the store, and customer aisles made as generous and invitingly wide as possible. To stimulate customer circulation past display counters, wrapping tables and the cash register are located in the rear of the selling area. Various counter arrangements, and a comparison of old- and new-type layouts, are shown above. Upper pictures at the right show modern display cases, lower pictures typical show windows with prestige-making displays. In the Breitenbach Pharmacy, the entire prescription department is visible through the show window. Note shallow depth of show windows, and below-eye-level backgrounds, typical of new drug store work.
MANDELL'S DRUG STORE, NEW YORK CITY

NICHOLAS H. WEISS, ARCHITECT

FINISHES AND EQUIPMENT


The arrangement of this store takes advantage of a long, narrow wing of the irregular store space for location of the necessarily attenuated luncheonette counter. Drug display and prescription department are opposite, leaving the large end of the store free for booths and tables. Three separate entrances draw trade from opposite streets and from the lobby of the building in which the store is located, and a kitchen is provided to take care of the obviously considerable luncheon trade. Decorations on the whole are simple and reserved, and an open, spacious effect achieved. The mezzanine balcony shown in the picture at the right is used for storage only. Again notable is the small amount of space devoted to window display.
THE MOBILE HOUSE

In Peoria and in Baltimore have recently appeared two independent versions of the mobile house, a construction form based on a radically new method of house assembly. Long known to students of prefabrication as the “truckable unit,” the mobile house is distinguished from all other types of construction by the fact that it is built as a unit which can be moved conveniently from place to place and may therefore be completed in its entirety in the shop.

Such a method of assembly should make possible savings in construction costs. All work may be done under cover and independent of weather conditions, thus assuring continuous—and therefore more economical—use of labor at repetitive tasks. The opportunity to employ fixed, heavy machinery saves labor costs and permits the use of superior materials which cannot be worked with hand tools. The number of trips to the job for both materials and men is materially reduced.

On the merchandising side, the manufacturer of the mobile house can offer the home buyer a complete and finished article, one which he may locate on a plot of his own choice. Again, the owner of the mobile house is not tied down to a particular site, can move at will from a deteriorating neighborhood to protect his investment. Finally, it seems ultimately possible that this very mobility will make the mobile house eligible for a chattel mortgage, a more favorable type of financing than the conventional real estate mortgage.

Just as prefabrication was headline news of the building market of five years ago, the mobile house may well become the most publicized building story of 1937. Whether it will be as slow to materialize as prefabrication has been, only the future can show. Meanwhile, something of a yardstick is provided by the mobile house progenitors, the dining car and the trailer.
PRODUCTS AND PRACTICE

1. 2 ROOMS

2. 4 ROOMS

3. 5 ROOMS

4. 6 ROOMS

5. 4 ROOMS

VARIOUS COMBINATIONS of three basic units, Copper Mobile Houses. Air conditioning duct is located in shaded area.

PROGENITORS

Grandfather of the mobile house was the so-called "diner," or portable lunch wagon, and other portable (rather than sectional) structures. As a completely shop fabricated structure, the dining car has not received the attention it deserved from prefabricators; it provides a valuable reservoir of practical field experience, much of which tends to substantiate the claims which the mobile house is making for itself. One of the greatest advantages of the dining car, for example, has always been its ability to move as conditions change from a poor location to a better. Another has been the fact that it has always been possible to sell the highly equipped diner on terms considerably more favorable than those applying to the equipment itself, owing to the ease of recapture. Other significant and perhaps less favorable diner data applicable to the mobile house: number, 4,000; annual production, 150-160; cost, $810,000 to $815,000; size, 10 ft. 6 in. to 15 ft. wide by 22 ft. to 60 ft. long; haulage costs, sometimes as high as $81,000.

Next in the ancestral line of the mobile house is the automobile trailer about which there is so much misinformation current that it is difficult to sift fact from fancy. For our purpose, however, it is sufficient to note three fairly well established facts. The first of these, the undoubtedly popularity of the trailer, is certainly a good augur for the mobile house. Secondly, there is its wholly unexpected (at least by the trailer makers) use in isolated instances as a fixed, year-round home, and thirdly the trailer manufacturer has demonstrated that he can produce somewhat acceptable living accommodations at low unit cost.

The line between the trailer and the mobile house is not sharply drawn. Both aim to provide dwelling facilities for a single family in a readily transportable form. The chief distinction of the trailer—that it is intended primarily for travel—is even tending to disappear because of the tendency, in some cases, toward its use as a permanent home. At one of the State colleges in the Middle West there is even a trailer with a fully excavated basement. It may be said, however, that at the expense of mobility the mobile house aims to provide more adequate living accommodations and particularly more adequate space than does the trailer.

Some units are designed to observe highway regulations as to maximum width (in most States 11 ft.), while others are shaped like ordinary houses and require special permits for shipment. Some are designed for shipment of only a few miles, others may be economically transported much further. Neatest trick of mobile house design so far, and the one which seems to offer most for the future of mobile housing, is the construction of the house in two or more units narrow enough for shipping, but capable of being fitted together on the site to form a house of normal dimensions.

COPPER MOBILE HOUSES

The last method is the one employed in the design of the Copper Mobile House. Here a basic unit, 11 x 9 1/2 ft., contains all of the mechanical equipment for a complete dwelling unit, and may be expanded by the addition of other units of varying size from a two-room into a four-, five-, or six-room house. Besides having the advantage of making the house easier to transport, this arrangement makes for maximum flexibility, three or four elements being capable of combination into many more house types.

The fundamental Copper Mobile House plan is a four-room, two-unit bungalow, expandable by the addition of a one- or
two-bedroom unit added at the end. Kitchen and bath are located in one corner, together with an air conditioning unit operating through a duct in the hallway ceiling which serves all of the rooms without requiring extension of the ductwork into the other units. The rather narrow width of the living and dining rooms occasioned by the design limitation of an 11-foot overall unit width is somewhat relieved by a large opening between the two rooms.

The walls are constructed with a light weight, welded, steel channel frame, to which steel windows are directly attached. Exterior and interior skins are plywood, the exterior skin being copper covered and painted. (In the one unit so far constructed, outside finish has been made to resemble clapboards.) Plywood sheets are 4 x 8 ft., placed vertically on the outside and horizontally on the inside; the exterior plywood being attached to the framework by screws from behind and the interior finish secured with self-threading nails. An interesting feature of the construction is the use of square copper rain water leaders to fill in the corners.

Floors and roof are framed with light-weight I-beams, walls and roof filled with granular vermiculite insulation. All exterior joints are filled with mastic calking compound.

The houses are set in place on a foundation of precast concrete piers extending below the frost line. Space sufficient to permit easy structural connection is allowed between units, and junction boxes are provided for rapid connection of electric wires, etc. An opening provides access to a space beneath the kitchen sink where all soil and water connections are made. According to the manufacturer, the houses may be installed on the site in a few hours, moved if necessary to a new location for about $100.

Tentative price schedules for the Copper Mobile units call for slightly less than $2,000 for the basic unit containing the mechanical equipment, somewhat more than $1,000 for non-mechanical additions. On this basis a 4-room house would cost about $3,000, one of 5 or 6 rooms about $4,000.

Architect John J. Whelan, of Washington, D. C., who is responsible for the development of the Copper Mobile House, has had considerable practical experience in the field of prefabricated housing. As designer of twenty-four prefabricated sectional houses already erected by Copper Houses, Inc.,* a subsidiary

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*B See Arch. FORUM, Dec., 1935, p. 549.
IN THE SHOP: Completed Le Tourneau unit being jacked-up preparatory to delivery to the site.

INTERIOR, living room, Le Tourneau Steel House.

of the Kennecott Copper Corp., and of fourteen more which are shortly to be built, he has had a unique opportunity to see exactly how this type of construction works out in practice. It is on the basis of this experience that he has turned to the construction of mobile, rather than sectional, prefabricated houses. Foremost among the reasons which he gives for this change is the fact that sectional construction applies the savings of shop fabrication to but one-tenth of the cost items of the finished house. Thus a saving of 30 per cent in this item affects the total cost only 5 per cent. By the mobile house method, on the other hand, he hopes to apply shop fabrication to almost the entire house, thereby effect considerably larger savings.

Another of the economies which Architect Whelan anticipates is of particular importance to architects, since it may provide the key to architect-participation in the low cost house field. This is a saving in design cost. On this point Architect Whelan says, "... we found from our experience with the sectional or module construction that we could not redesign every house to suit the whims and fancies of owners, or the engineering and architectural services would total in expense a sum greater than the cost of the material we were furnishing. In an effort to eliminate these repetitive and costly services we designed the stock truckable units for flexibility of combination in order to avoid monotony but maintain duplicity."

LE TOURNEAU STEEL HOUSE

Of a distinctly different type is the all steel, arc welded five-room bungalow developed by Architect Ephraim Field for R. G. Le Tourneau, Inc., of Peoria, Ill. Normal in size and shape (32 x 44 ft.), and weighing 41 tons, this house requires a special permit for highway transportation. The plan provides a living room, kitchen, breakfast room, two bedrooms, bath and garage. A special aspect of the initial Le Tourneau program, which calls for the construction of six such units for employe housing, involves floating the completed houses across the Illinois River on their own bottoms. Three steel rings are provided in the roof so that the houses may be lifted bodily and set in position by tractor crane.

Production methods, which are being perfected on the five houses now building (one has been completed), clearly indicate the advantages of complete shop fabrication and assembly. Of these, the most important are the freedom from the necessity to provide for innumerable construction joints, as in sectional construction, and the opportunity to apply advanced techniques in the assembly of the various parts.

Floors for the Le Tourneau house are built upside down in two sections. Floor plates are first placed on a steel and concrete platform of the exact ground area of the completed house, 32 x 44 feet. These plates are 3/4 in. thick, 96 in. wide and 44 ft. long, four such plates being used in the construction of the complete floor. Atop these plates 6 in. light-weight I-beams are set crosswise at intervals of 2 ft. and welded to the floor plates. The frame is then boxed-in with 12 in. junior channels and additional junior I-beams placed across the joists to act as girders. Water and soil pipes are next installed, and the entire underside painted with non-corroding paint and black asphalt. The two halves are then separately turned over, tacked together, and beads laid down the 44 ft. length of the three joints between the four plates, making the floor a solid unit.

After the floor structure is completed, it is lifted off the platform to make way for the construction of the roof, which is built right side up. Ceiling plates of No. 10 gauge steel

(Continued on page 82)
CITY 1960
NORMAN BEL GEDDES, DESIGNER

JULY · 1937
This is a model of a city which Mr. Norman Bel Geddes believes we may all be working in twenty-odd years from now. It shows a highly concentrated business center whose use of huge towers, widely spaced, would contain a working population of three to five times the present density average in New York, and supporting a total population of perhaps 15,000,000.

The idea of communities better than those in existence has intrigued men of powerful imagination for centuries: More, Bellamy, Wells, Howard, Corbett, Corbusier and Wright are only a few. The main subject of the Geddes plan, the basis of a promotional program, is the solution of traffic problems; its architectural aspects are incidental, forming only the skeleton upon which the traffic solution is laid. Since the model was built to be photographed, this constituted another controlling factor.

Within these limitations the plan was laid out, its design reflecting three basic assumptions:

1. That the automobile will, in 20 years, be essentially the same type of carrier that it is today, and that it will still be the most common means of transportation. No provision for autogiros and similar possible developments has been considered.

2. That the city of the future will be larger, not smaller than the metropolis of today. There is evidence to suggest that the big city will shrink, and become more decentralized, tending toward a more balanced relation of town and country. The designer believes that while rural areas will become more highly developed, cities will also continue to grow.

3. That all land, and all land use will be completely controlled by the municipality. This planned city, obviously, with its predetermined location of skyscrapers, low buildings, parks, and super-streets would have no place for the type of private initiative which exists in the real estate field today.

It is only within the limitations mentioned, and on the basis of the above premises, that the Geddes plan should be examined. One may question its assumptions, the grid plan, the complete exclusion of dwellings from the commercial section shown by the model. In fairness to the designer it should be noted that the entire model was designed in one week and executed in four additional weeks.

*The model was made under the sponsorship of the Shell oil companies.
Seen from above, the city appears as a grid, with blocks 250 x 500 ft., bounded by streets 80 x 100 ft. wide. Traffic on these streets would flow at about 20 miles an hour.* An average city street has three moving lanes, two parking lanes, and 15 ft. of sidewalk at the sides. In the Geddes scheme the sidewalks are raised a story, providing three more lanes of traffic. Parking and loading take place on the ground floor level of the buildings, thus making available two additional lanes of traffic. These five additional lanes of moving cars increase the street capacity about 65 per cent. At ten-block intervals are the arterial highways, 400 ft. in width, and divided according to the speed and character of the traffic. The small illustration on the left shows a typical intersection: traffic on these roads is one-way, with right-hand turns to other highways and to the low-speed feeder avenues. The bulk of the land is covered with low buildings and parks, with groups of skyscrapers concentrated at intersections, on plazas, and along the various avenues according to organic requirements.

*Present average New York City traffic speed: about six miles an hour.
It is at sunset that Mr. Geddes' brave new city appears at its most romantic, with the last rays of the afternoon sun creating a vast patchwork of black and white. On the highways and subways the crowds stream out to the vast suburbs. By midnight, save for the hotels, watchmen, and late revelers, the city is deserted.
BUILDING MONEY

A monthly section devoted to reporting the news and activities of building finance, real estate, management and construction

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HARMON SUBDIVISION, 1937 MODEL (See Page 64).
HARMON BUILDS AGAIN

this time in Chicago, where “Americanization” is helping to sell $10,000 houses.

When William Burke Harmon was still in kneepants, his father was capitalizing on his ideas about subdividing land in Cincinnati. Before Burke was out of his 'teens, his father was building up Harmon, N. Y. Last month Burke Harmon was, for the second time and the second generation, again proving that Harmon National Real Estate Corp. is no empty title: to add to his developments in New Jersey, on Long Island, and in New York's Westchester County, he opened a development in Chicago called, with more purpose than was immediately self-evident, Colonial Village.

The project Burke Harmon had to develop, publicize, and sell was a 130-acre plat of even ground on the south edge of Chicago. He has owned the land since 1927, has been biding his time for the proper moment to start operations. During depression years, Builder Harmon kept his hand in by building on a constrained scale in the East. Just after the New Year began, Builder Harmon turned to Chicago, broke ground for the first of a projected 283 houses.

Because merchandizing is important in a market of rising costs, Developer Harmon gave considerable care to his publicity. For his market he chose the lower middle-class industrial workers in his neighborhood. Observing that they were mostly first- and second-generation immigrants, he set his theme as the Americanization of the worker. Hence “Colonial Village.”

From the time work started until Colonial Village's formal opening day last month, a matter of five months, there was very little publicity of any kind. No advertisements were run. There was no direct mail campaign. Reason: Developer Harmon feels that large crowds are all right for speculative land sales, but serve simply to surround legitimate home prospects with noisy dead-heads.

Harmon estimates that some 30,000 persons have been through the four completed model houses, arriving at that figure from his count of 7,500 cars which have gone into the subdivision. A boy was hired to sit at the subdivision's entrance and take down license numbers, thus at once getting an estimate of the number of visitors and also compiling a valuable list of prospects, since the license numbers can be keyed to a list of names and addresses. Each morning Harmon's salesmen receive cards with the names of 15 of these potential house-buyers, divided as to the neighborhood in which they live. The salesmen call to find out if they are interested in buying in Colonial Village. If they seem worthy prospects, their names are tabulated in a registration file. For three weeks they are their original salesman's exclusive prospects, and he can exercise an option on them for three more weeks. After that, any salesman can try to sell them.

For his one resounding merchandising coup thus far, Builder Harmon and his publicity man William Harshe have capitalized on the attention accorded Robert S. and Helen M. Lynd's Middletown in Transition, the study of Muncie, Ind., as an average American town. Harmon organized a contest which was run in the Muncie Evening Press to pick the "typical" American family from that typical American town. This family of four was flown to Chicago on a Friday, taken to Colonial Village the next day where the "typical" mother cut a ribbon across the front door of one of the model houses (see cut). The model house had been supplied with the latest in electrical equipment by Commonwealth Edison, and was furnished by a Chicago department store.

What this family was brought up to help sell was 31 houses, which stretch out along either side of one road (see frontispiece). Builder Harmon brought Architect Albert E. Olsen from New York as associate to his Chicago Architect Albert Frederic Heino. These two devised four variations on a floor plan for two types (see p. 65), worked out still further variations by supplying five different surface treatments. All the houses, which range in price from $7,500 to $10,500, have been given a Colonial treatment, varying from Dutch Colonial through Regency. Harmon is also proud of the fact that the houses do not make an unbroken line but are set at different lengths back from the road, in a modified S-curve. Lots are either 40 x 123 ft. or 60 x 123 ft.

Colonial Village was financed by the National Homes Finance Corp. Harmon submitted his plans to the FHA, had the houses approved for FHA-insured mortgages. The National Homes Finance Corp. then advanced 50 per cent of the loan for the houses being constructed. At that time Harmon signed a mortgage for the entire amount. When the houses were built, 25 per cent of the money was advanced, another 25 per cent coming through when the houses were completed. Harmon paid his contractors according to a schedule based on this division of payments.

The National Homes Finance Corp. then sold the mortgage paper on the market. Thus the original investor got its money back, while the mortgage holder draws 5% per cent interest. As the buyers take over, the FHA mortgage will be changed to remove Builder Harmon's responsibility, the buyer becoming the debtor.

Thus far, Builder Harmon has sold only a fraction of his houses, but he has hardly had time enough to realize the benefits of his recent merchandising program. Nor will the "typical" family he his only effort at bringing Colonial Village to the attention of Chicago's buying market. He has already hastened to point out, in the series of advertisements which began last month, that Colonial Village is only 28 minutes away from the Loop by the Illinois Central, that all the houses are completely insulated, completely air conditioned. Another often reiterated statement: These houses could not be duplicated for a price 15 per cent higher, the bulk purchase of materials having been made in 1936.

As testimonial to the fact that although he is up to his neck in work at Colonial Village, he can still think of his Eastern developments, Burke Harmon came out last month with a neat advertising and promotion scheme for his Harbour Green on Long Island, his Orchard Hill in Westchester, and his Chatham Manor in New Jersey. In the New York newspapers appeared a whopping advertisement six columns wide and the full page long announcing the opening of three model houses—one in each of the developments. The advertisement was unique in that it appeared over the name of Wannemaker's, famed Manhattan department store. This was the logical conclusion to an established working partnership. Having decorated and furnished "Shutters and Shingles," a Harmon house on its 8th floor, Wannemaker's had extended its share of the plan to the furnishing and decoration of the three model houses, given its readers explicit directions on how to reach each one, there to see not only Wannemaker furniture, but a Harmon home and a Harmon subdivision.
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—stone veneer, brick veneer, redwood siding or Perfection shingles; yellow pine wood frame, diagonal sheathing, inside—wood lath and plaster. Interior partitions—stud walls, 16 in. o.c. and 3-coats plaster on wood lath.
ROOF: Shingled with 15 lb. roofers' felt and 3-in-1 butt asphalt shingles.
SHEET METAL WORK: Flashing, gutters and leaders—copper bearing galvanized metal.
INSULATION: Outside walls and attic floor—1/4 in. balsam wool. Weatherstripping—galvanized interlocking.
WINDOWS: Sash—wood, double hung. Glass—quality B.
FLOORS: All rooms—select red oak.
ELECTRICAL INSTALLATION: Wiring—rigid conduit for exterior; flexible for interior.
HEATING AND AIR CONDITIONING: Air conditioning unit including fan, filters, humidifier, Fox Furnace Co. and American Radiator Co. Boiler—coal fired. Hot water heater—30 gallon storage tank, gas heater for summer, coil in boiler for winter.

JULY • 1937 • BUILDING • MONEY
REALTY'S KNOTTIEST PROBLEM

is surveyed by the Twentieth Century Fund. Some body blows at the theory of tax limitation together with a ten-point program for realty taxation.

In the fall of 1933 the NAREB, through its Committee on Taxation under able Realtor Adam Schanzt, declared open war on high property taxes (Arch. Forum, July, 1934, p. 68). The first and most important objective in its six-point program was to press for a constitutional property tax limitation in the 43 States still without one. In the 45 months since this brave beginning, only one State has passed any form of tax limitation.

When it is remembered that there are some 14 million home owners in the U.S. with a definite financial stake in property tax reduction, and when it is remembered that this army can be mobilized so quickly that in 1933 in Ohio 600,000 votes for tax limitation were corralled in a single summer, the current standstill of the tax limitation drive demands more than a cursory explanation. That explanation is to be found in the arguments against tax limitation, and like good tacticians, many a realtor in the past year has been reviewing those arguments with care. Last month to the help of this tactical review there came the newest publication from the press of the Twentieth Century Fund, "Facing the Tax Problem." It contained and endorsed every considerable argument ever adduced against the reduction, exemption, or limitation of the property tax.

The Twentieth Century Fund was established in 1919 by President Edward A. Filene of Filene's Sons, Boston department store, and is administered by nine trustees on a mildly liberal, fairly detached basis. Among its best known pieces of research are "The Internal Debt of the U.S.," "Stock Market Control," "Labor and the Government." The committee in charge of the taxation study consisted of Thomas I. Parkinson, conservative anti-New Deal President of the Equitable Life; Lawyer Francis Biddle, onetime chairman of the National Labor Relations Board; President Harry S. Denison of the Demison Manufacturing Co.; Robert M. Haig, consultant on taxation to the U.S. Treasury; Roswell F. Magill, early New Dealer, onetime Assistant to the Secretary of the Treasury on Taxation; Peter Molyneaux, editor of the Texas Weekly; Eustace Seligman, of the famed law firm of Sullivan & Cromwell; and Evans Clark, secretary of the Fund.

"The Public Interest." The property tax in the U.S. today produces about $4,500,000,000 a year, or about two-thirds of the total State and local tax revenues. This is nearly twice as much revenue as is derived from the second largest source of revenue in the U.S., the income tax. This property tax divides itself into two components: the tax on realty and the tax on personal property and intangibles. Taking a nationwide average, the tax on realty produces about 80 per cent of the total property tax,* which is still considerably more than is derived from any other single assessment source.

"In common with practically every other observer, past or present," remarks the Fund committee, "we deplore the obvious injustices found under the property tax. We urge that they be speedily lessened, even though complete elimination is too much to hope for. The best tax system is the one that most fully promotes the public interest . . . The first problem is to determine what the public interest is."

On so much there is general agreement. The point at which the trains of thought of realty and the Twentieth Century Fund part company is where each defines the public interest. To reality it seems obvious that any reduction in property taxes will benefit nearly everybody—not only in reduced tax payments, but in reduced rent, reduced overhead, reduced prices. To the Fund committee, however, the matter appears in another light. "Public interest," it feels, must also be compatible with what it terms "tax justice." On its face, this reservation is a commonplace, readily endorsed by everybody. But the Fund finds in it some hard corollaries. Of these the most fundamental is that the total U.S. tax revenues of $12,500,000,000 must willily and nilly be raised every year; and every exemption in one quarter means a corresponding increased imposition in another. The criterion of what makes a good tax therefore becomes deeply involved in the question of what makes a just tax.

Accepting the need for tax justice, the Fund finds it natural to protest strongly against any reduction in property taxes. The argument against reduction of property taxes is that existing reality values have already been "capitalized" against future taxation: that is, at the time of its

*The latest survey by The National Municipal Review shows that in the 310 leading cities of the U.S. during 1936 only 80 derived less than 80 per cent of the property tax revenue from realty, only five derived less than 70 per cent, and none derived less than 50 per cent.

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<table>
<thead>
<tr>
<th>Tax</th>
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<th>State (including shares to localities)</th>
<th>Local</th>
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</thead>
<tbody>
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<td>0.01</td>
<td>0.01</td>
</tr>
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<td>Income</td>
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<td>0.02</td>
<td>0.02</td>
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<tr>
<td>Property</td>
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<td><strong>Billions of Dollars</strong></td>
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<td><strong>4.3</strong></td>
<td><strong>4.3</strong></td>
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</tbody>
</table>

From property: 36 per cent of the nation's taxes.
A QUINTET OF TAXPAYERS

from Philadelphia, including the world's smallest, fill out the second in a series of portfolios.

In its February issue, The Architectural Forum presented a panel of six taxpayers, prepared a summation of their finances, and examined them with a view to their essential character as hedges on real estate futures. The first portfolio examined a sextet of the buildings which have helped to change the face of Manhattan. This month The Architectural Forum looks at five from Philadelphia, expects in the near future to present a similar number from Chicago.

Philadelphia is famed as the City of Homes, and for considerable reason, since 83 per cent of the dwelling units are in row houses, 13 per cent in semi-detached villas. Absent from the Philadelphia scene are the ten- to twenty-story apartment buildings of Chicago and New York. Even the number of skyscraping office buildings, stores, and hotels does not reach into three figures. Thus is obviated to an extent the cycle which has produced many a taxpayer:

1. This site, before the present improvement, was a parking space, with rents that failed even to meet taxes. A corner lot in a neighborhood with increasing commercial possibilities, its value was high enough to warrant a reasonably ambitious taxpayer. Treatment, with the possible exception of the somewhat pretentious cast stone facing, is simple. The solution of the corner problem is ingenious: two slender columns were run from the height of the building, framing the door; and by a system of partial cantilever construction the piers were kept back of the plane of the glass windows. Architects: Magaziner & Eberhard.

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<tr>
<td>ASSESSED VALUATION</td>
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<tr>
<td>TAXES</td>
<td>1,323</td>
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<tr>
<td>RENTS</td>
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<td>MORTGAGES</td>
<td>none</td>
</tr>
<tr>
<td>COST of demolition and new building</td>
<td>18,000</td>
</tr>
</tbody>
</table>

from prosperity skyscraper to depression debit, to demolition, to parking space, to taxpayer—and around again.

Actually, of the five Philadelphia taxpayers herewith presented, one replaced a vacant four-story residential structure, one a parking-space, one an eighteen-story white elephant, one an office building, and the fifth was erected merely to make a gainful investment out of a plot of embarrassing limitations. Otherwise these taxpayers conform to the few rules-of-thumb and generalities laid down in reference to structures of this type last February (Arch. Forum, February, 1937, p. 138).

Land cost is a basic factor in determining the size and shape of a taxpayer. This is nowhere better exemplified than by a look at No. 3 in the portfolio, a building which fills a plot exactly 45 in. deep, and demonstrates vividly what can be done to protect what appeared to be a hopeless investment.

The neighborhood shapes the design. As a rule, all taxpayers are of modern design, with a sleekness of material and a smoothness of surface and a strong stress on line. But No. 4 is more restrained, not only because it is a swank dress shop whose exterior must impress a wealthy class of prospects, but also because, like an increasing number of merchandise outlets, it has been placed in a residential neighborhood.

Display shapes the taxpayer, and has brought about most of the improvement in its design. Thus, in No. 5, the requirements of display demanded the slender piers and large window spaces, an arrangement which resulted in a sound, dignified design.

The short life of a taxpayer makes heavy construction an unsound practice. The only exception to this rule is that some owners will lay foundations and bearing walls capable of carrying a future load of additional stories. None of these five Philadelphia taxpayers has, however, been planned for such a future.

Rents for taxpayers are based on a graduated scale of percentage leasing. The practice of percentage leasing, long a familiar technique, is doubly popular since depression. Manhattan's rental agents are following these precepts more and more, and the same obtains for any heavily metropolitan district. In Philadelphia, it has not yet taken hold to the marked extent that it has in Manhattan, most realty owners being conservative trust funds, long on investment, short on speculation.
2. Pictured on this page are two of three taxpayers which front two short blocks in the heart of commercial Philadelphia. For an idea of their orientation, see the cut at the right, below: to the extreme left is Taxpayer No. 3 (below, left), in the middle is the Tru-Site Oculist Co., while the remainder of the space is taken up with Taxpayer No. 2 (left). All three taxpayers were built after a city ordinance had been passed to widen the street on which they face. Taxpayer No. 2 is a straightforward example of approved technique: limestone is a popular exterior material; there is some uniformity to shop signs; the first floor is liberally equipped with window space for merchandizing; the piers are slender and widely spaced; shop entrances are cantilevered; there is an arcade entrance to second floor office space. All rents are guaranteed, except for one percentage lease. Architects: Simon & Simon.

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<tbody>
<tr>
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<td>14,640</td>
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<td>RENTS</td>
<td>6,000</td>
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<tr>
<td>COST of demolition and new building</td>
<td>68,000</td>
<td>0</td>
</tr>
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</table>

3. This taxpayer is probably the smallest taxpayer in the world, and is a monument to the ingenuity of its owner. The widening of the street referred to above left a ribbon of land 45 in. deep. Despite this discouraging limitation, the owner erected shelter for three establishments along a 90 ft. front, was able even to supply them with a cellar for storage. For tenants he signed up a soft-drink establishment, a dry cleaning shop, and a jewelry repair shop. A year’s rents have paid the investment for the new building out twice, providing the last and most cogent proof that this taxpayer is one of the neatest expressions of land utilization. Architect: Israel Demchick.

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<tr>
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<td>9,500</td>
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</table>
4. This swank Philadelphia dress shop is in the forefront of a trend which is bringing commercial establishments into residential districts. Its facade is therefore appropriately restrained. Since the display is aimed at a restricted minority there is no necessity for it to shout at every passer-by. The layout of the shop is a workmanlike solution to the problem of keeping circulation to a minimum; the stock rooms are central so that models have easy access both to salon and to lounge.

Architects: Thalheimer & Weitz.

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<tr>
<td>COST of demolition and new building</td>
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</tr>
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</table>

5. This taxpayer (right) replaced a nine-story building originally designed as a hotel, which was subsequently made into an apartment building and finally into an office building. At no point did it make money. In its last years its income did not equal even the cost of operation. At present the bar and grill, seven stores, second-floor office space, and basement barber shop yield a gross income of $26,000, while total operating charges do not exceed $4,000, a minimum made possible by central plant heat and the absence of elevators. Nor is there janitor service, the leases stipulating that each tenant take care of his space. The Flanders Bar and Grill, which has an interior designed by Manhattan's Architects Pruitt & Brown, represents a departure from standard Philadelphia renting practice in that there has been a percentage clause specified. Architects: Register & Pepper.

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<tr>
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<tbody>
<tr>
<td>ASSESSED VALUATION</td>
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<tr>
<td>TAXES</td>
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<td>MORTGAGES</td>
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<td>COST of demolition and new building</td>
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AN INDEX TO LABOR AND MATERIAL

prices in the small house market shows new highs and no declines as the union hits its stride.

Small house costs collected from 26 cities by the Federal Home Loan Bank Board in April show the sharpest increase in prices to be registered in the 15 months of the FHLLBB index, an increase largely attributable to the rise in material prices. Last month the May small house costs from 25 other cities reporting to the FHLLBB were released, showed a similarly high increase. Only difference was that labor rather than material prices were revealed as the decisive factor in the May increase.

Below are shown the cost data from the 25 cities reporting for May, together with similar data for the past five quarters. Another 41 cities report in the intervening months. Similarly collected data are given on the cubic foot cost in the 25 cities reporting this month. Beside the table is given a detailed description of the standard house upon which the bids have been made. The value of such a compilation lies obviously in the relative trends revealed rather than in the absolute values quoted.

The increasingly disturbing rôle being played by labor wages in the residential field was corroborated last month on other fronts, as the full effect of the Spring union contracts began to make itself felt. The plasterers got a six-hour day in New York. In Seattle the six-hour day became nearly universal in the building trades. In Detroit small house construction virtually ceased for a fortnight when negotiations for Spring rates began. In the non-union town of Hartford building labor wages have risen 25 per cent in the last twelve months. In Portland, Ore., there was a general increase in building wages of 18 per cent on January 1, and current demands are for a six-hour day with eight-hour pay. In Denver the unions have practically won their fight for a closed shop, are getting from $1.38 to 1.50 an hour for skilled building labor.

Of the 25 cities reporting to the FHLLBB for May, only three turned in bids of more than $8,000 on the standard house last November. For May the total of bids over $8,000 from the same cities had climbed to 13.

Greatest rate of increase over the last report in February was the 15 per cent registered by Phoenix, Ariz., where the cost of the small house rose from $5,885 to $7,847. Second and third largest increases came from Pittsburgh and Harrisburg with 9 per cent. Only city to show an increase of less than one per cent was San Diego.

Highest absolute costs were registered from Cleveland and Phoenix, where the cubic cost on the FHLLBB house stood at $28.1 cents, and from Pittsburgh, where the rate was a flat 28 cents. Lowest rate was 22 cents in Little Rock, Ark.

The House on Which Costs Are Reported is a detached 6-room home of 24,000 cubic feet volume. Living room, dining room, kitchen, and lavatory on first floor; 3 bedrooms, and bath on second floor. Exterior is wide-board siding with brick and stucco as features of design. Best quality material and workmanship are used throughout.

The house is not completed ready for occupancy. It includes all fundamental structural elements, an attached 1-car garage, an unfinished cellar, an unfinished attic, a fireplace, essential heating, plumbing, and electric wiring equipment, and complete insulation. It does not include wall-paper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor window shades.

Reported costs include, in addition to material and labor costs, compensation insurance, an allowance for contractor’s overhead and transportation of materials, plus 10 per cent for builder’s profit.

Reported costs do not include the cost of land nor of surveying the land, the cost of planting the lot, nor of providing walks and driveways; they do not include architect’s fee, cost of building permit, financing charges, nor sales costs.

In figuring costs, current prices on the same building materials list are obtained every three months from the same dealers, and current wage rates are obtained from the same reputable contractors and operative builders.

The following table gives the cost data from 26 cities:

<table>
<thead>
<tr>
<th>DISTRICTS, STATES, AND CITIES</th>
<th>CUBIC FOOT</th>
<th>TOTAL BUILDING COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEB.</td>
<td>MAY</td>
<td>MAY</td>
</tr>
<tr>
<td>MAY 1937</td>
<td>MAY 1936</td>
<td>MAY 1937</td>
</tr>
<tr>
<td>70</td>
<td>THE • ARCHITECTURAL • FORUM</td>
<td></td>
</tr>
</tbody>
</table>
A house uses copper for:

1. Plumbing
2. Heating
3. Flashing
4. Screens
5. Hardware
6. Roofing
7. Gutters, spouts
8. Insulation
9. Air Conditioning

BEHIND THE PRICES

of two building materials.

Copper and brick futures.

Last month the cost of Copper to building material manufacturers was pegged at 14 cents a pound, a level at which market observers felt that it would stick, barring war scares, until early fall. This cost, although 69 per cent above the 1936 average, is nevertheless a relief from the April level when the word was passed around that buyers' credit was weak and import prices at 17.35 cent a pound. Actually the rise was two-fold. First, European armaments had lifted the bidding to 17.35 cents a pound. Furthermore, the apparent consumption of copper in April was 95,880 tons and since the total U.S. copper production capacity approximates only 1,000,000 tons a year, consumption at the April rate for the balance of 1937 would result in a shortage and an increase in prices.

However, the bottom fell out of the London market when the word was passed around that buyers' credit was weak and that war threats were dissipating. Simultaneously came President Roosevelt's proclamation against the high prices of durable goods, and back went the price of copper to 14 cents a pound.

The drop leaves the cost of copper still so far above the 1936 average that consumers are bound to feel the pressure. For the future, those consumers can console themselves with one hope. The scare handed the copper buyers by the temporary price increase early this year. By the beginning of last month it was reported that plant labor, representing 50 cents of the retail brick dollar, was one-third organized under an ILA charter. Also, month before, up had gone the wholesale price of Hudson River brick from $11 to $12 per thousand due to the rise in fuel costs. In most localities the consumer was protected against the further increase in the price of wholesale brick by early fall.

Last month the price of Brick became complicated by the fast-shifting patterns of Labor. Behind wholesale costs for the next few months will be the figure of an old-line AFL labor leader, Joseph P. Ryan, president of the International Longshoremen's Association.

Reason for brick prices dovetailing into the activities of Laborite Ryan is that for the last three months he has been busy in the organization of brick handlers, having forced his way into the field by way of the bargemen who transport brick from the nation's largest regional group of producers, along the banks of the Hudson River.

Result: the ILA drove a deal for a minimum wage of 890 per month for Hudson River barge captains, thus adding 15 per cent to that area's brick transportation costs on the heels of a voluntary 10 per cent increase early this year. By the beginning of last month it was reported that plant labor, representing 50 cents of the retail brick dollar, was one-third organized under an ILA charter. Also, month before, up had gone the wholesale price of Hudson Valley brick from $11 to $12 per thousand due to the rise in fuel costs. In most localities the consumer was protected from this increase until this month by the other on last month's bargemen's victory, observers predict a substantial increase in the price of wholesale brick by early fall.
A CALIFORNIA RENTAL PROJECT

opens with 100 per cent occupancy, should pay out in ten years.

On the northern coast of California is Eureka, a bustling little city (pop. 18,000) whose chief industries are oil and lumber. Junior executives of these two industries, put down in Eureka for two- and three-year apprenticeships, have created a steady local demand for modern rental units, and it was, therefore, no problem to Owners Grace Hunter Hine and her husband when they sat down to figure out what to do with a corner lot 122 x 159 ft.

Last month this plot, improved with six small Colonial cottages for rent, was displaying a proud record: it has been 100 per cent occupied since its opening last September, and it has never lost a single rental day, despite the departure of two original tenants.

The improved property is one of several in Eureka which the Hunter family has owned for upwards of four decades. On it for a long time stood seven aging and fading houses, for which rentals had sunk to the vanishing point. Mr. and Mrs. Hine approached Architect Harold O. Sexsmith, explained their problem to him. There were several factors which contributed to the solution: the houses were to be small, comparable to apartments; there need not be much land surrounding them, since the tenants would theoretically not have much time to spend on care on lawn or garden; the houses were to be of lumber, since Eureka is a lumber town.

The six houses which resulted are all one-story cottages, and consist of four single houses with the other two attached to form an L. Each has a garage, a living room, one bedroom, a dining room, bath, and kitchen, with ample closet space. There are also storage closets for the wood which is the town’s chief fuel. Each house is equipped with a wood-burning fireplace. Gas lines were laid for heating as well as cooking, but it has been found that the tenants preferred to use wood both in the gas- or-wood stove and in the fireplace. Mrs. Hine now feels that it would perhaps have been better to supply one house with two bedrooms, in order to give the project greater rental flexibility, but the success in renting the six single-bedroom cottages has obviated to an extent the desirability for any larger houses. In point of fact, she has found that the project was so popular in comparison to existing rental houses that, at slightly higher rents than obtainable elsewhere in town, she has rented half her houses to permanent residents of Eureka, only the other half to the junior executives for whom the project was designed.

The high coverage of a small plot presented a knotty problem in orientation of the six units. Each of the living rooms and the porches has relative privacy, as do the bedrooms in relation to the views of the other bedrooms. Most of the bedrooms take advantage of the breezes from the Pacific to the west, and most of the porches and living rooms get the afternoon sun of the southwest.

Construction of the houses is sturdy, since upkeep and depreciation are factors which will bounce back on Mrs. Hine rather than on her tenants. Foundation walls are concrete. Whenever possible materials were indigenous. Thus, redwood shtings were used for the exterior walls, redwood shingles for the roofs, redwood shavings for insulation, and the gutters are likewise of redwood.

Total cost of the six-house project was $26,400, at an average cost per unit of $4,400. Since the total cubage of the sextet is 135,000 cu. ft., its cost worked out at 19 ½ cents per cu. ft. Owner Hine is getting $47.50 per month from each tenant, plans to up this to $80 per month whenever a new tenant moves in. To the $26,400 cost, there was added $400 worth of planting, lawns, and shrubs; stoves, linoleum, curtain rods, shades, fire screens, and wall beds for the dressing rooms were also extras, came to about $1,000. Owner Hine financed the building with money realized by selling bonds. With taxes of $850 per year, depreciation and upkeep will probably not push her annual expenses beyond $1,500. Since her rents will be bringing her $3,600 per year, she will have paid her investment out in ten years. After considering her assertion that she could not have sold the corner property for more than $5,000 before its present improvement, her investment seems a safe one.

The occupancy record of the houses shows the value of routine merchandising that is well-planned. Principal publicity came from advertisements which ran in local papers for a week and personal contact by Owner Hine. Since home renters more often than home buyers demand varied, interesting interiors, the individual attention given to the interior decoration of the cottages was particularly emphasized. Chief additional selling point was the attractive landscaping.

Her eye on the future, Mrs. Hine has also considered the possibility that commercial Eureka will expand close to her property. At present the houses are not more than five blocks from the leading hotel, one block from the main car line, two blocks from the public library. She feels that should the business zone approach her houses too closely, they could be readily converted into doctors’ offices, dentists’ offices, or music studios.
Tenants were attracted by the successful attention which Owner Hine paid to landscaping and interiors. Below, see the relation of the six units to each other. Architect Sexsmith was able to achieve more than adequate privacy.
THE TRAILER THREAT

expertly surveyed, is deflated on legal grounds.

For the past two years there has been no need to listen carefully in order to hear the doleful chorus of warnings which has been uttered in connection with the trailer. They came from all sides and from all prophets. But last month, like a sharp knife cutting a roll of bologna, came a report issued jointly by an impressive roster of experts: the American Municipal Association, the American Public Welfare Association, the American Society of Planning Officials, and the National Association of Housing Officials.

The report, the work chiefly of the American Municipal Association’s Executive Director Clifford W. Ham, posed first the disparate aspects of the trailer problem: as traffic, as taxable properties, in connection with trailer camp planning and layout, and in connection with trailer camp ownership. It concluded by inserting a very cautious pin into remarks like those of Seer Roger W. Babson, who said that half the population of the U.S. would be trailer owners within 20 years. Said the report: “Whether or not the trailer house will play [a beneficial part] as a permanent housing proposition is open to considerable and deeply rooted skepticism.”

Chief reason for the skepticism lay in the report’s reminder that most existent and building codes would outlaw the trailer as a permanent abode or as part of a colony. As the Chicago Daily News pointed out, “No matter how you park it, a trailer is just a house without enough cubic feet of air space per person per room, according to the building codes.”

Regarding the uses of the tens of thousands of mobile houses now in existence, last month’s report gave a passing nod to indisputable fact: “There can be but little doubt that the vacation trailer house—the overnight cottage on wheels—is here to stay.” The report then rolled up its sleeves and tackled the problem of trailers as permanent housing.

Conceivably, some communities are anxious to encourage trailer camps and these, the reporting organizations warn, face administrative problems galore. Four possible types of camps are considered.

Best of the four types, in the organization’s estimation, is the camp operated by the community for privately-owned trailers. The city would install utilities and collect rents from trailer owners, would be able to exercise close control on the tenants. But here, the report points out, the cities might be treading dangerously close to municipal low-cost housing, might thereby be breaking State laws against participation in such a business.

Second type analyzed is paralleled to a “horizontal cooperative apartment,” which would be privately operated for privately owned trailers. The operator would provide utilities and facilities, each family owning the land beneath its trailer’s wheels. Likewise, there is the advantage that one man would be responsible to authorities for law enforcement.

Third possible type considered is, in effect, a tenement: the camp would be privately operated for a corporational owner, who would rent the trailers out. Law enforcement here would “be little more tiresome than that involved in the case of standard tenements or low-rent apartment houses.” Inspection would be more difficult; eviction slightly simpler. A Chicago promoter working on this basis allows tenants to contribute rent payments toward eventual purchase.

The last possibility, that of a municipally operated camp for corporation-owned “to rent” trailers, is considered so implausible thus far that it is dismissed with the comment that its difficulties will be those of the third type.

With its eyebrow cocked at the city manager or council too anxious to get business from transient trailerites, the report winds up: “The most unfortunate result [of public desire to use trailers as permanent dwellings] would be the enactment of statutes and ordinances sanctioning life in trailers under housing conditions which would not be allowed in standard dwellings. It is to be hoped that the public officials responsible... will act with full knowledge of this and the many other important social implications....”