

# Our future homes

Progress

enamel, steel and glass.

**A**N architect has just shown me the model of a house that I think is what we are coming to; the type of house that our children and grandchildren will be living in. Every surface is flat; every line straight and every angle a right angle. There are no overhangs or projections; no ornaments. In effect, the main part is a large cube with smaller cubes for wings and extensions. The roofs are flat and intended to be used as outside rooms. At first sight it seemed very plain. But the longer I looked at it the better I liked it for its dignity and strength and fitness. It did not imitate anything. It stood by itself as the expression of a new thought and point of view; a house conceived for the America of to-day. Especially it struck me as a type of house that offered a way out of our present impasse in building: the rise in costs that forces a full half of American families to live under conditions of health and decency that are below the standards set up as minimum.

It is one of the tragic failures of civilization that this should be so; that in a home-loving country, home ownership should be beyond the reach of most of its families. One of the reasons is the excessively high costs of house building through archaic methods, and it is inevitable that our designers, our manufacturers, should produce acceptable houses at prices within the means of moderate and small incomes. Such houses will be different in appearance from those of the past and present, but I am convinced that we will approve of them; that we will like their looks and like to live in them. Whatever their form, houses of new types are coming, just as automobiles were coming in 1900 and for the same reason: the time is ripe for them. And they will come through the same processes that pro-

By December-1932  
Roger B. Whitman

Author, "Homo Owner's Fact Book," "Beauty in Gardens," etc.

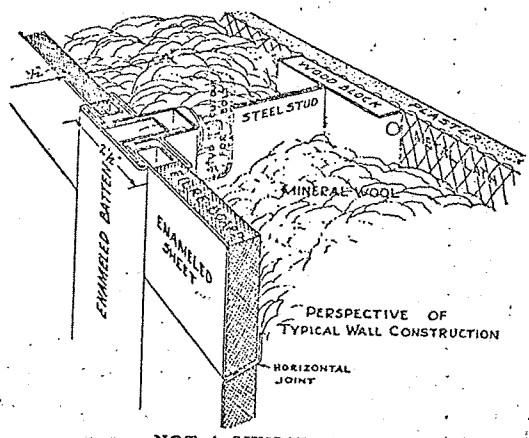
duced the modern car: through doing things by machinery instead of by hand.

If automobiles were still handmade, with the pieces cut and fitted one at a time, they would be too expensive for any but the rich. As spe-

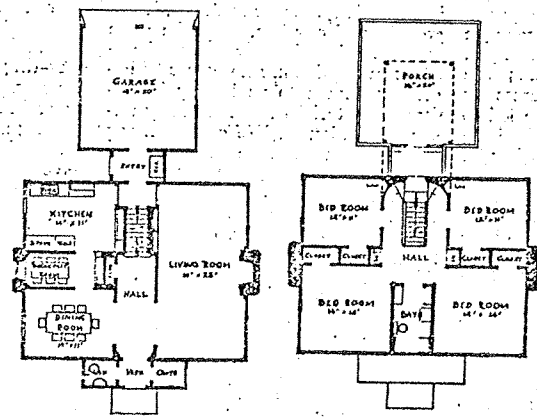
cific examples, in 1905 a 2-cylinder 22 H. P. Buick cost \$1200; the price of a 2-cylinder 15 H. P. Studebaker was \$1350, and of a 4-cylinder 28 H. P. Packard \$3500. Being vehicles, the early cars were imitations of carriages, and automobile making did not become an industry, prices did not go down, until the evolution of a design adapted to manufacture by machinery instead of by hand. Mass production and mass buying followed.

It is on this point that our houses are anachronisms. They are copies of houses designed before the machine era and intended to be hand built. Disregarding our resources in machinery, the possibilities that lie in our factories, the advantages and economies of quantity buying and volume production, we still cling to house designs that involve us in building methods so extravagantly wasteful that other industries long ago scrapped them as obsolete. As a conservative estimate, half of the money spent in building a house would be saved were the job to be done by processes common in any modern factory.

In building a house by our hand methods, all of the parts must be small enough to be handled by one man, or two at most; thousands of pieces to be put together one at a time. Error or carelessness in putting on any one of them may result in a leak or a squeak or a crack; some defect that will lead to depreciation. Working in the open and with the confusion of building, there can be no strict watch over what goes on; little protection against shoddy workmanship. Bad weather will interrupt, there will be delays in the delivery of materials, and in still other situations the men will be idle although drawing their pay. Besides these losses and wastes, the materials are bought at retail prices, for there will not be enough of any one of them to gain the advantage of



**NOT A SKYSCRAPER**  
... but the details of construction for the walls of a private home, using ferro enamel exterior plates. The house may be fabricated at the factory, erected at its site.



**RIGHT THIS WAY, SIR**  
... into the various rooms of the first and second floors (left and right respectively) of the house pictured at the bottom of following page. Little space is consumed by interior walls.

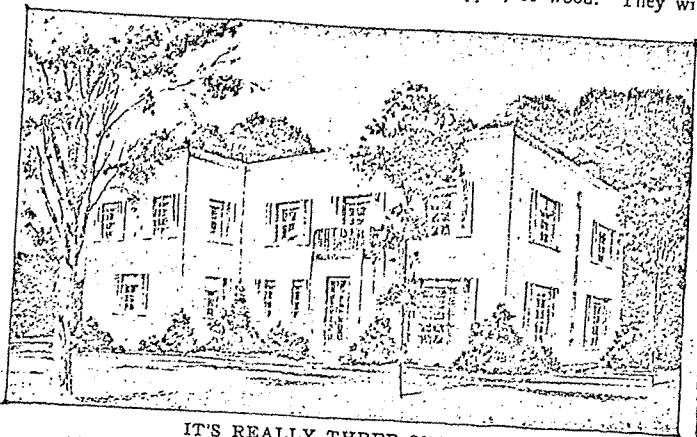
quantity buying. Without question, there is no form of manufacture so wasteful and extravagant as house building, nor any commodity that returns so little value for its cost as a house.

Home owners deserve something better than that, and the change will come through building houses as we build other things—with power and machinery and quantity buying, and by the cutting out of every form of waste; by doing as much as possible in the factory, where conditions are under control, and as little as possible on the site where they are not.

But this cannot be with the house designs of to-day. The economies of factory production are gained through standardization—the setting up of patterns that can be duplicated at low costs in material and labor. It will be for the architects to produce appropriate designs. Factory production might indicate monotony, although as a matter of fact, we already have monotony in the rows of present-day houses in many of our suburbs. Monotony of a kind there will be, for the demand for the five and six-room houses that satisfy the needs of most of our families will result in a floor plan that will utilize the space to the greatest advantage. The exteriors of such houses, however, although built of standardized sections, can show the widest variations through differences in materials, color and arrangement. In this a comparison can be made with

materials and textures. In general appearance, the exteriors of the future houses will probably be more of a kind than those of to-day, for we shall use the forms that are best suited to factory production; something in

are already deep in research and experiment in this new field. At the Chicago Exposition next year there will be several factory-built houses; of steel enameled in appropriate colors, of copper, of wood. They will



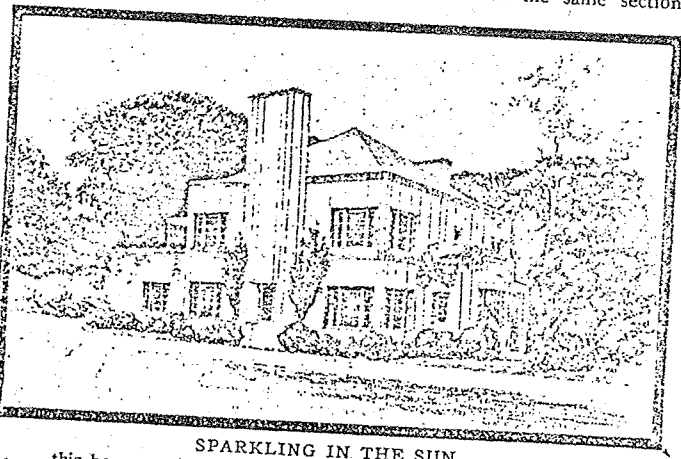
**IT'S REALLY THREE STORIES**  
 . . . high, for the flat roof can be used as outside rooms. The house, of insulated steel, may be seen at Solon, Ohio. It may be finished exteriorly as desired.

the nature of the house of which I have spoken, possibly. Metal houses will undoubtedly become common. Germany has already started at this with a company that offers ten small house designs, all combinations of the same sections.

be made up of sections as large as can be transported, assembled by derricks instead of by human muscle, and with bolts, welding, and the modern glues replacing the less permanent nailing of to-day. And as time goes on we will build houses of materials as yet unused for that purpose but that every year are finding wider applications—the plastics and synthetic resins that in molded forms are unaffected by time, weather and wear.

The difference between work in the field and in the factory is shown in the making of an inside wall, which starts with a timber framework that will be true and solid only as the workman is skilled and careful. Lath having been nailed on both sides, it is coated with plaster that must dry for some weeks before it can be finished and decorated. There is no mechanical or other reason why such an inside wall cannot be made in a factory and delivered complete. The frame would be accurate in dimension because it would be built up on a form, and if finished with plaster, this would be of special qualities and applied with a machine. Should plywood or some other sheet material be used, this might not be nailed, but attached more solidly with a glue that is waterproof and of permanent holding power. Swung into position with a derrick and secured with something better than nails, that wall, low in cost, stout and crack-proof, would be ready for immediate finishing—if not

*Non-White Castle*



**SPARKLING IN THE SUN**

. . . this home, made of enameled steel, reflects the summer sun, keeps its rooms cool. Erected this past summer, its address is Cleveland, Ohio.

automobiles, for although factory produced, each make is distinctive, and the models of each make are so varied that any car can be individual to its owner. The differences are in form and color, while with factory-made houses the range will be far wider through additional choices in

These are copper on the outside and steel within, with insulation between, and the building of one of these houses is a matter of but two or three days of assembly. The idea can be carried out in any metal, in wood, and in any other material suitable for manufacture. American designers

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already finished at the factory. With no difference in appearance, the use of such interior walls would greatly lower the first cost of the house, and in increasing the stiffness of the structure go far in resisting depreciation.

Floors can also be factory made, with finish flooring on one side and ceiling on the other; large enough for an entire room, they would be lighter for their strength than our present built-up floors, and permanently squeak-proof. There are proposals to make bathrooms and kitchens in the factory, with walls, floor, ceiling and all equipment, completely finished, to be set in a house as units and be ready for use with the connect-

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ing of the plumbing. Even chimneys can be made in a factory, to be hauled to the site and upended on a factory-made foundation.

There will be as much need for architectural service in that new era as in this, with the house designed by a good architect as distinctive then as it is now. In some respects the architect will be more limited, for as sections and units will be standardized as to sizes and methods of joining, he will work to stock dimensions. In others he will be freer, for he will

have a wider choice in materials and finishes.

It is quite probable that the more staid of our house owners will feel about these houses as they did about bobbed hair; that no saving of expense and effort and trouble can justify a change from the old order of things. The progressive will hail the new house for its low first cost, its comforts and economies, and its modernity; he will glory in its practicality and admire it as an expression of the present. But whatever may be the feeling of the moment, the mind should be kept open, for the factory-built house is more than a theory; it is inevitable and well on the way.