



**The first saw ; and the timber proceeding to the second saw. The numbered patterns can be seen hanging on the wall at the rear.**

the house must be broken into pieces of an easily handled size and shape. These pieces are called "panels." There are seventy-six different panels available, each with its code number, and each composed of so many numbered boards or timbers from the bins. A house takes from seventeen to thirty-nine exterior panels, and from thirty-four to forty-seven interior panels, according to the type of house being built. There are also the porch panels, eight in number, and the roof-trusses, of which seventeen are required for a simple gabled roof. This does not mean that all the houses thus produced will look alike: actually forty-six different types of houses, of varying sizes, can be built from a combination of different numbers of panels.

The actual assembly of panels is done on jig tables. These are low benches, with steel flanges and channels into which to drop the timbers. There are six of these tables, but by the ingenious use of interchangeable flanges the whole seventy-six panels can be made up on them.

Timbers are drawn from the bins, dropped into the appropriate channels, the braces drop into the previously cut checks and the whole is nailed up. Tarred paper is laid over the frame, and the weatherboard or rustication is drawn from the bins, laid on and nailed. The panel is then lifted off, given a number and stacked. The simplest wall panel contains only nine pieces—the largest has thirty-two.

They are stacked in a definite order, so many panels to a stack. This is the

order in which they will be loaded on to the truck, so that they may be unloaded in the order in which they will be assembled on the site of the house. It may remind you of a meccano set, but the whole process is an example of expert organization. It is this sense of organization and control that is the most impressive feature of the whole factory.

Some of the most important parts of a house come under the joinery department—doors, window sashes and so on. In this factory the joinery is made in a parallel department.

The timber used for sashes is mostly redwood. New Zealand totara is good but takes so long to dry that stocks of it are unobtainable at the moment. The timber comes in in the usual way, is dressed, squared and planed to accurate sizes, by buzzers, the planer and the "thicknesser." Then it passes to the moulder, or shaper, which cuts it to the shape required, putting in the recess for the glass and so on. Another saw cuts it into required lengths, further machines cut the mortises and tenons, and the pieces are sorted into lots.

There are quite a number of clamps hanging on the wall. If you look closely you will find that the dust is setting thickly on them, for the clamping of frames is done by another machine which operates at the touch of a foot. Wedges are glued and driven in, aluminium "star pins" driven through to strengthen the whole, and it is unclamped and put aside for the glue to dry. Aluminium nails, by the way, are used so that, if it is required to plane a shade off the sash the nails will not gap the plane.

Next we come to the magician with the glass-cutter. A lightning scratch, a gentle tap, and a six-foot sheet of glass falls into two halves. He places a "three-light" sash on his bench, runs putty round the edges, cuts three panes of glass, drops them in, tacks them in place with a self-feeding hammer, trims off excess putty, and the window is off the bench complete, exactly two minutes after it started as a bare sash. If you think that's as easy as it sounds, try it.