



Checking the line.

from a blue-print, then set the work out on a "setting-out board." Both drawings and setting out must be checked and passed before he touches tool to timber. The timber used is all rough, and each man has to dress his own, thus gaining experience and the feel of both tools and timber. Beginners are apt to chafe at this insistence on the drawing and theory of even the simplest exercise, and at the large amount of time in the workshop spent on theoretical work, but it is emphasized that a man who cannot use paper and pencil as easily as saw and hammer stands little chance of ever being anything but a labourer directed by some one else's brains.

Each man makes himself a tool-box, again drawing it from the blue-print; some of these tool boxes are finished with all the care of the born craftsman, even having the owner's initials inlaid in wood of a contrasting colour.

The trainee continues through a series of graduated exercises, each designed to teach something new, and each one drawn, set out, and made with sufficient "finish" to take its place as part of a State house. From fairly simple articles he works his way up to external door frames, casement sashes and frames, and finally to a complete scale model roof. During this period, too, he pays several visits to actual building operations to see

the practical application of theoretical points.

On the theoretical side he learns the technique of trade drawing, and is initiated into the mysteries of reading plans and blue-prints. Before passing out from the workshop he has to design a complete house to the satisfaction of the instructors. He learns a great deal of trade calculations, including the "taking-off" of quantities, the use of fractions and decimals, and superficial and linear measurement. He must also be able to calculate quantities of concrete and earth-work, and be able to work out costs. In addition to all this he must learn the common types and uses of timbers, and their special treatments. This is no mean task for the first four months, but the men tackle it with a determination that makes light of labour. Notebooks are kept, written up at home, and at the end of the workshop period these should show a complete record of the processes involved in building a house.

At the end of the first four months the trainees move out on to actual building work, and a new group enters the workshop. These groups generally are about twenty-four, and every four months each group moves one stage further, the trainees from the workshop becoming juniors "on the job," the juniors becoming seniors, and the seniors leaving as journeymen to gain speed and wider experience under normal conditions of employment.

Fresh from the workshop the juniors are paired with seniors, grouped in "gangs" of six, and set to work on the actual construction of houses. Here again they work from blue-prints, making their own measurements and calculations



Studying a model roof.