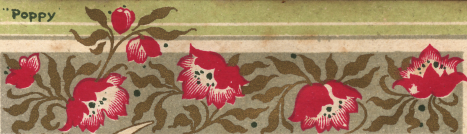


# THINGS TO MAKE





"Poppy"



*Grestonch*

**W**ESLEYAN  
SUNDAY SCHOOL

AWARDED TO

*Jack Roberts*  
FOR

*Regular Attendance*  
*1st Class*

*Jan 12/1918*



2 & 3 Ludgate Circus Buildings, London E. C.



# THINGS TO MAKE

BY

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AUTHOR OF "VICTORIES OF THE ENGINEER"

"HOW IT WORKS," "HOW IT IS  
MADE," ETC., ETC.

THOMAS NELSON AND SONS

LONDON, EDINBURGH, DUBLIN, AND NEW YORK



## THINGS TO MAKE.

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### I.

#### A SAWING TRESTLE.

A STRONG and stable sawing trestle is one of the most important accessories of the carpenter's shop, whether amateur or professional. The saw is constantly being used, and for it to do its work accurately the material must be properly supported, so that it cannot sway or shift. Anybody who has been in the habit of using a wobbly chair or box to saw on will be surprised to find how much more easily wood can be cut when resting on a trestle like that illustrated by Figs. 1 to 3.

The top, *a*, of the trestle is 29 inches long, 4 inches wide, and 2 inches thick. At one end it has a deep nick, to serve much the same purpose as the notched board used in fretworking; also to hold on edge such



things as doors while their edges are planed up. Pushed back against the wall the trestle is then "as good as a boy."

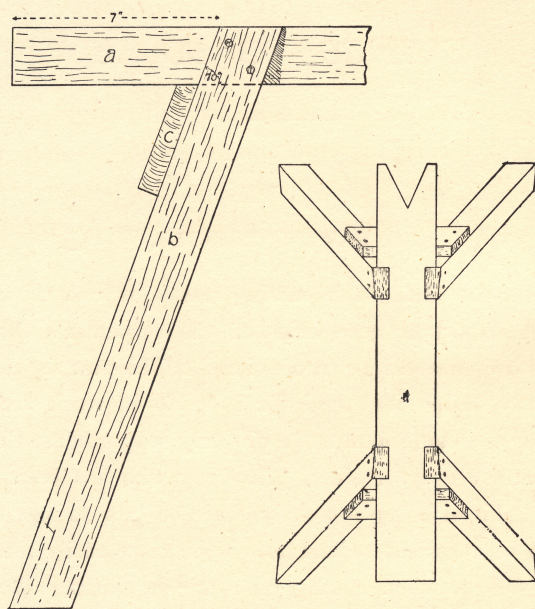


FIG. 1.—Leg of sawing trestle (left). Trestle seen from above (right).

The four legs are made of 2 by 2 inch stuff. To start with, the pieces should be 24 inches long, to allow for the waste of cutting on the angle



**Cutting the Notches.**—Make four marks 7 inches from the four corners of the top, set your bevel to an angle of  $70^\circ$  (or cut an angle out of a card with the help of a protractor), and lay a leg against each mark in turn, the end projecting an inch or so above the top. Move the leg about till it makes the proper angle at the mark, and draw a pencil line down each side of the leg as close up as possible. Since the legs may vary slightly in size, use each once only for marking, and number it and the place to which it belongs.

Lines must now be drawn along the upper and under sides of the top, parallel to and  $\frac{3}{4}$  inch from the edge, to complete the marking out of the notches.

Cut just inside the side marks with a fine tenon saw, and remove the wood between the cuts back to the top and bottom marks with a broad, sharp chisel, making the surface of the cut as true and flat as you can. Then "offer" the leg that belongs to the cut, its end projecting an inch or so. If it won't enter, bevel off the sides of the cut very slightly till it will. A good driving fit is what one should aim at. While the leg is in place, draw your pencil in the angles which it makes with the top above and below, to obtain the lines A B, C D (Fig. 2, *a*).



Bevelling the Legs.—The marking out of the bevells will be much expedited if a template is cut out of

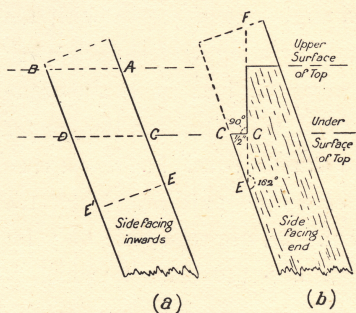


FIG. 2.—Showing how to cut sloping joint for trestle leg.

tin or card. It should be just as wide as the legs, and at a point 4 inches from one end run off at an angle of 162° from one edge. (See Fig. 2, b.)

Draw with a square a line,  $EE^1$ , across what is to be the inside of the leg. The template is applied to the end side of the leg and moved up till its sloping edge occupies a position in which a perpendicular dropped on to it from C is  $\frac{1}{2}$  inch long. Mark the line EF (Fig. 2, b) and the perpendicular CG. The bevel is marked on the other side of the leg, the angle of the template being at  $E^1$  (Fig. 2, a) to guide the saw, which is passed down through the leg just outside the marks till in line with CD. The piece is detached by a cross cut along CG, CD.

This procedure, which sounds very complicated, but is really very simple, and performed much more



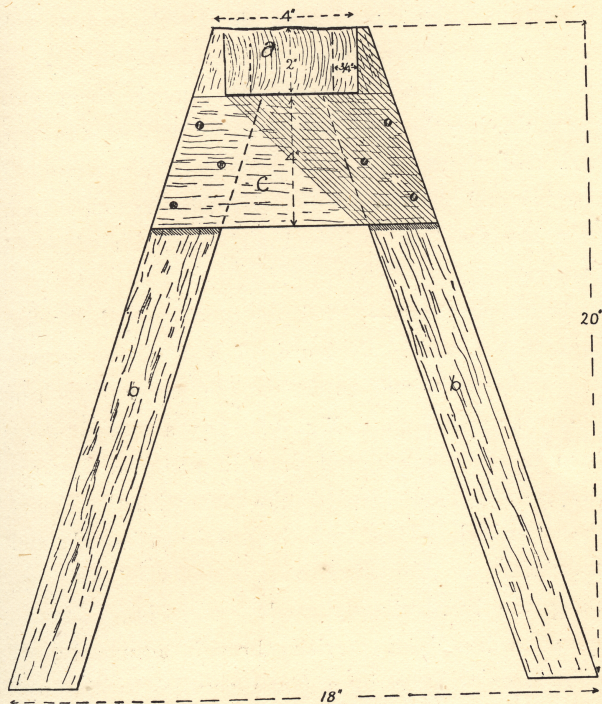


FIG. 3.—End elevation of sawing trestle.

quickly than it can be described, yields a leg properly bevelled and provided with a shoulder to take the weight of the top.

The leg at the diagonally opposite corner is an exact replica of the one first made; the other two are



similar, but the direction of the bevels is reversed, as will be evident after a little consideration.

When all the legs are ready, knock them into place, driving the shoulders tight up against the top, and nail them on. The projections are sawn off roughly and planed down flush with the top. Then affix the tie C at each end, and plane its edges off neatly.

**Truing the Legs.**—Stand the stool on end, top flat against the wall. Measure off a 20-inch perpendicular from the wall to the outside corner of each of the two upper legs. (Fig. 3.) Lay a straight-edge from mark to mark, and draw lines across the legs. Reverse the trestle, and do the same with the legs at the other end. Then turn the trestle on its side, and draw lines on the other outside faces of the legs, using the lines already made as guides. If the operation has been carried through accurately, all eight lines will be in a plane parallel to the top. Cut off the ends of the legs below the lines, and the trestle is finished.