

such that it will make an expensive panel, although it is possible for any mill equipped with a cabinet-planer, band-saw and plenty of handscrews to put up this kind of work as cheaply as it can be bought from a panel concern, in case the proper skill can be brought to bear in the preparation of the veneers. If the shop has no one capable of resawing and planing thin or cross-grained veneers without spoiling a large per cent. of the stock, it would be much cheaper to buy the panels all ready to put in the job. If the mill has a good drum sander, veneers that are too wide or too curly to put through the planer can be brought to a surfaced thickness with practically no loss from spoiled stock, although the power bill is necessarily higher in reducing stock with sandpaper.

Generally speaking, it is not necessary to make panels more than three ply, and this is especially true when all the stuff is got out in the mill where it is easy to make the middle member or core as thick as is necessary to bring the whole panel to size, regardless of what the veneers may be. In panel works, where all the core stock is made up of cheap-cut veneers, the plies may be any number in thickness, and, of course, the more, the better the panel will hold its flatness.

Where veneers are gotten out in the mill and have to be glued up in two or more pieces to make up width, it is best to resaw the pieces to about  $\frac{3}{4}$  inch in thickness and then glue up in the clamps, being careful the pieces match the way the grain runs, as well as the face for appearance, and if the stock can be brought to thickness on the planer so much the better.

In the planing mill very little is known of the taping machines, and the quantity of thin veneer work done would not warrant the purchase of one, so that when it becomes necessary to join the edges of thin veneers, the workman must tack his veneer on top of a board, letting the edge come about even with the edge of the board, so that it can be jointed off. In case the veneer is quite thin, the edge may be placed so as to slightly protrude between the edges of two pieces of board, and in this position may be brought to a straight edge, either by hand or by running over the jointer. But in this last operation it is necessary to see that the two pieces of board are clamped up tight against the veneer of the latter will be torn at the edge by the jointer knives. The work of gluing the edges of this thin stock is accomplished by placing the veneers on a wide board or bench and holding them in place by strips, which are bradded through the veneers into the table, and after the edges have been glued cover the joint with a piece of tough paper glued fast to the wood, and held down flat by another strip, which should be left in place until the moisture from the glue has passed out of the veneers. This strip of paper should be placed on the face side of the stock, so that it will not interfere with the subsequent gluing, and will also protect the joint until the panel is ready to clean up.

Usually it is not considered necessary to glue up the core or middle ply for panel work, but it suffices that the pieces are of an even thickness and joined on the edges so that they will fit up closely together. Some glue men do not take the trouble to glue both of the contact faces, but it is safer to do this, and by so doing the glue can be spread thinner on each piece, with the assurance of having all the surfaces covered.

Perhaps nothing has more to do with a successful job of this kind than to be entirely ready to despatch the work before beginning to spread the glue. In such wide surfaces, if the glue chills before the pressure is applied it

will be impossible to squeeze out the surplus, and so the result is an inferior job, which will require a great deal more time to dry sufficiently to be taken out.

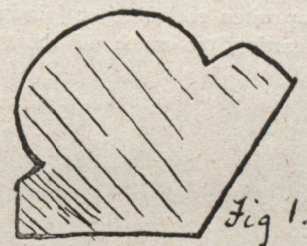
If the job has been done where there are no clamps or presses large enough to take in the work, two cauls should be provided which are slightly wider and longer than the desired panel, between which the veneers may be clamped. As it is unusual to find wide boards perfectly flat, care must be taken that the crowning side of the cauls are placed next the panels and a number of pairs of cross pieces should be provided by which to clamp the whole together. These last pieces should be slightly crowning at the middle also in order that the pressure may come upon the middle of the panel first, and so force out the surplus glue. One of the precautionary measures that should not be overlooked is the fastening of the veneers and cores together with small brads very close to the ends, so that they will not move in handling or slide at the beginning of the clamping process. If the room and the cauls are warm and there is plenty of fast help it will be economy to put in two panels at once; more than this can hardly be handled successfully with handscrews, and then they must be left in the clamps long enough to thoroughly set before opening up. It should be remembered, also, that the thinner the plies of the panel the longer it should be left in the clamp on account of there being more moisture in proportion to the amount of wood to take it up.

Wide, solid panels may be made with a matched joint if there is a liability of the joint taking moisture. The wood should be selected with reference to the lay of the grain so that if there is a tendency to warp it will not warp in a reverse curve. Two pieces should be joined so that if they warp at all it will be in the same direction, and may be corrected by proper application of heat and moisture.

In all glue work, whether solid or veneered, be sure that everything that can be done beforehand is ready, for in the ordinary mill without a separate glue-room, the element of time is more important even than the quality of the glue.

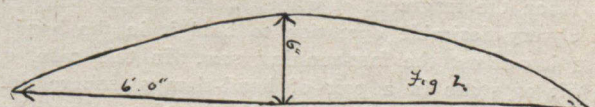
#### RUNNING MOULDING ON STICKER.

A subscriber writes to ask the most modern method of running this moulding on sticker. Fig. 1 is exact size of a rough end sketch of it. It is to be run in segment form



to mitre into moulding of same design in straight lengths. The segment is six feet long, with a six-inch rise.

Suggestions are invited from readers of the "Canadian



Woodworker" as to the best methods of running this moulding. To do so is not impossible, because the writer did it not long ago on a four-sided machine.