

MAKING VENEERED DOORS.

The subject of veneered doors has often been touched upon in these columns, and yet it will not suffer, it repeated, inasmuch as the various factories have particular ways of their own of producing this rapidly-growing popularity in the door line. Instead of trying to lay down any fixed rule, saying thus and so shall they be made, let us consider some of the essential points which may be adapted to suit each condition as the manufacturer finds it.

I.—EQUIPMENT.—Aside from the usual door-making machinery, this consists of larger facilities for preparing and applying glue, veneer press, resaw for veneers and panels (unless they are purchased from a dealer in veneers), a warm room where the glue may be applied and material gotten ready for the press. Unless the factory is already supplied with a large kettle for preparing glue, it will be found of advantage to make a large copper kettle that will fit the holes in the heater, but large enough to hold three or four ordinary-sized kettles of liquid glue. This can be done by making it higher and wider about the flange, as shown in Fig. 1. In this way sufficient glue may be made ready for a good-sized batch of doors without fear of running out.

Of course, these remarks do not apply to the factory having modern glue-spreaders, hand or power-feed, which are very essential in strictly veneer establishments. Our remarks apply only to the shop where veneered doors are one

There are various other purposes to which this room may be put, but to make a veneered door properly, without waste material or loss of time, a warming room is very essential. First, the parts of wood to be glued must be thoroughly warm, also the temperature of the room where the work is to be done must be such as not to chill the glue and hinder its spreading and making good joints.

II.—MATERIALS.—Dry coring is the first thing that is required to make good doors. It is usual to cut up the material and put it in the dry (or warm) room referred to above, or in a dry-kiln, properly stacked, and leave it there as long as possible to drive out every particle of dampness. All waste material of suitable size and too poor to be used for any other purpose may be used for coring. It is preferable to have the strips wide enough so that when glued up they may be split through the center to make two stiles or rails—see Fig. 6—thereby saving much labor in gluing, which item cuts quite a figure in veneered door work. The stock sawyer can lay aside such material from time to time and have it stored as mentioned, so that there is a supply of dry stuff to draw on when a batch of doors is wanted.

The glue for coring need not be of high grade, and where quick preparation is desired, a ground or pulverized bone glue will answer the purpose admirably. The men soon become accustomed to handling the glue and it needs no soaking, as the flake or noodle glue does. For veneering a medium grade of hide-stock

tended to make, and the number and both the sawing and finished size of veneers and panels.

After the sawyer has the material cut, and it is thoroughly dry, the one who does the gluing assembles the cores, puts them on the heating coil and prepares his core glue, the pieces are spread on the horses and given a coating of glue, assembled in batches, and put in the press, the surplus glue being squeezed out by this process, which includes putting the edge strips on each stile requiring one.

After they have been allowed to set sufficiently, they are taken to the jointer and the straightest side trued up. If they are built-up for making two pieces, they are re-sawed and again jointed and thickened to desired size on the pony planer.

They are now ready for veneering. They are again put in the warm room, over the coils; when warm, they are put on the horses as before, and spread with glue on both sides; a bottom board is first laid and then the veneers and cones stacked in regular order. The veneers must previously be carefully looked over, poor ones culled out, and any pin holes, porous spots or checks covered by gluing a piece of paper over, to prevent two stiles from being stuck together by glue oozing through such spots. They are again pressed out, and when dry, trued and sized to width. They are now ready to be laid out, same as any blind-tenon door.

The framing must be done in a first-class manner, with true joints and tight tenons. In

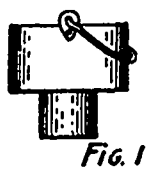


Fig. 1

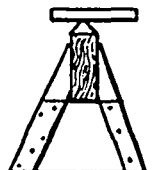


Fig. 2

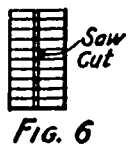


Fig. 6

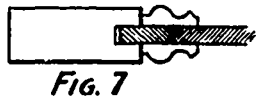


Fig. 7

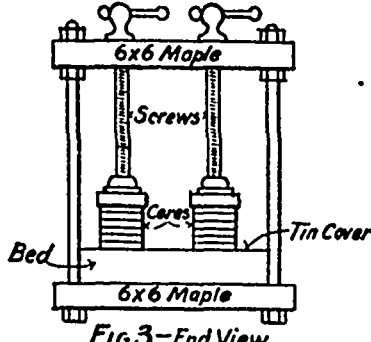


Fig. 3—End View



Fig. 4

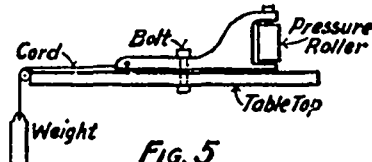


Fig. 5

APPLIANCES FOR MAKING VENEERED DOORS.

of the many by-products, so to speak, which accompany the usual line of mill work.

For spreading the glue by hand, procure a 4-inch flat wall brush and prepare it by pouring alcohol gum-shellac into the roots of the bristles, and driving blind staples into the butt end, as close together as possible, thus preventing the bristles from coming out. Have a pair of "horses" about 3 feet high, strongly made, and having an angular piece on the top, to prevent waste of the glue, and squeezing it off the work at the bearing point—see Fig. 2.

Make the veneer press wide enough between the upright to permit of veneering a table top or wide panel if needed, and have two rows of screws, so that two stacks of cores may be pressed at one time. A strong press can be made with 6x6-inch maple crosspieces and 7/8-inch round iron rods, with jambnuts to hold the upper piece in place, having regular veneer press screws at least 1 3/8 inches diameter. The bed-piece should be lagged up and trued, so that it will be straight and out of wind. To prevent the work from sticking to the bed, it should be covered on the top with zinc or tin—see Fig. 3.

For resawing veneers and panels, where there is no band resaw, a gage (Fig. 4.) and pressure roller (Fig. 5.) used on the band saw table, and 1 1/2-inch saw in proper trim, with right management, should turn three or four veneers out of each stock, which may be applied direct to the coring without dressing, as described later on.

To do a good job of gluing to advantage it is necessary to have a warm room, so that a large batch of material may be worked at one time.

glue is to be preferred; one that is free from acid, clear in color, and not too quick-setting. It will pay to follow up the glue question more closely than we usually have done to obtain good results with economy. The glue for veneering does not want to be too thick. Practice in the work makes the workman proficient in its preparation. It should flow freely from the brush without being "tacky," as the painter would say.

The veneers and panels should be cut up and resawed before they are kiln-dried. The ends should be glue-sized, and they should be stacked straight and even in the kiln. Those who have tried resawing kiln-dried hardwoods, are aware of what a sorry job it makes; and how the veneers buckle, spring out of shape, pinch the saw or make it run crooked. When the saw has not too much set, the veneers may be glued onto the cores without planing, provided the sawing is a good, smooth job. Care must be taken in dressing veneers or panels not to chip them out, as that is ruinous in this work.

III.—CONSTRUCTION.—The man who is doing this work needs to be familiar with the work and its methods to do it well and economically. Filling the doors is the first work towards the desired end. A list of the size, style, thickness of doors and kinds of wood should be on each working bill, and follow the material in its progress out of chaos into stiles, rails, panels, and finally the finished product. This bill should include the edge strips, the width, length and thickness of each bundle of cores, the finished size of the parts they are in-

fact, all machine work on veneered doors must be carefully done to have true work and tight joints.

Instead of putting the panels in when the doors are put in the clamps, the frame work is glued together with open panels, the stiles and rails being grooved, and after the doors are polished and put on the finishing bench, a panel strip is put in all around the edge of each panel, to which the panel mold is glued and nailed. The molding is put in one side first, panels laid in, and molded the other side, as shown in Fig. 7. This arrangement prevents the molding from pulling away from the stiles, should the panels shrink, and allows enough play for the panels to keep straight with natural working of the wood in the changes of the atmosphere. There is advantage, too, in gluing up the frame work without the panels. This cannot be done in the case of solid molded doors.

The finish of a veneered door should be first-class; the panels, molds and frame work well sandpapered, and flat surfaces scraped smooth, as every defect seems magnified when the filler and varnish are applied.

Special care should be taken not to scrape, scratch or mar the face of the doors in shipping. Many a good door has been injured by careless packing or handling in shipping, after the cabinetmaker has finished his job. They should be crated, if shipped on a railroad or by boat, or they will not be worth much on arrival at their destination.—H. T. Gates, in the Wood-Worker.