

TABLE HINGE (for table with shaped edge)

29231-256

29231 - Plain Steel
29256 - Brass Plated Steel

FEATURES:

- made of .070" thick steel with plain or brass plated finish
- has fixed pin
- supplied with 5/8" x #7 F.H.screws (nickel plated steel)
- sold in pairs
- most commonly used for a rule joint drop leaf
- requires machining - may use either router or shaper
- hinge is always concealed

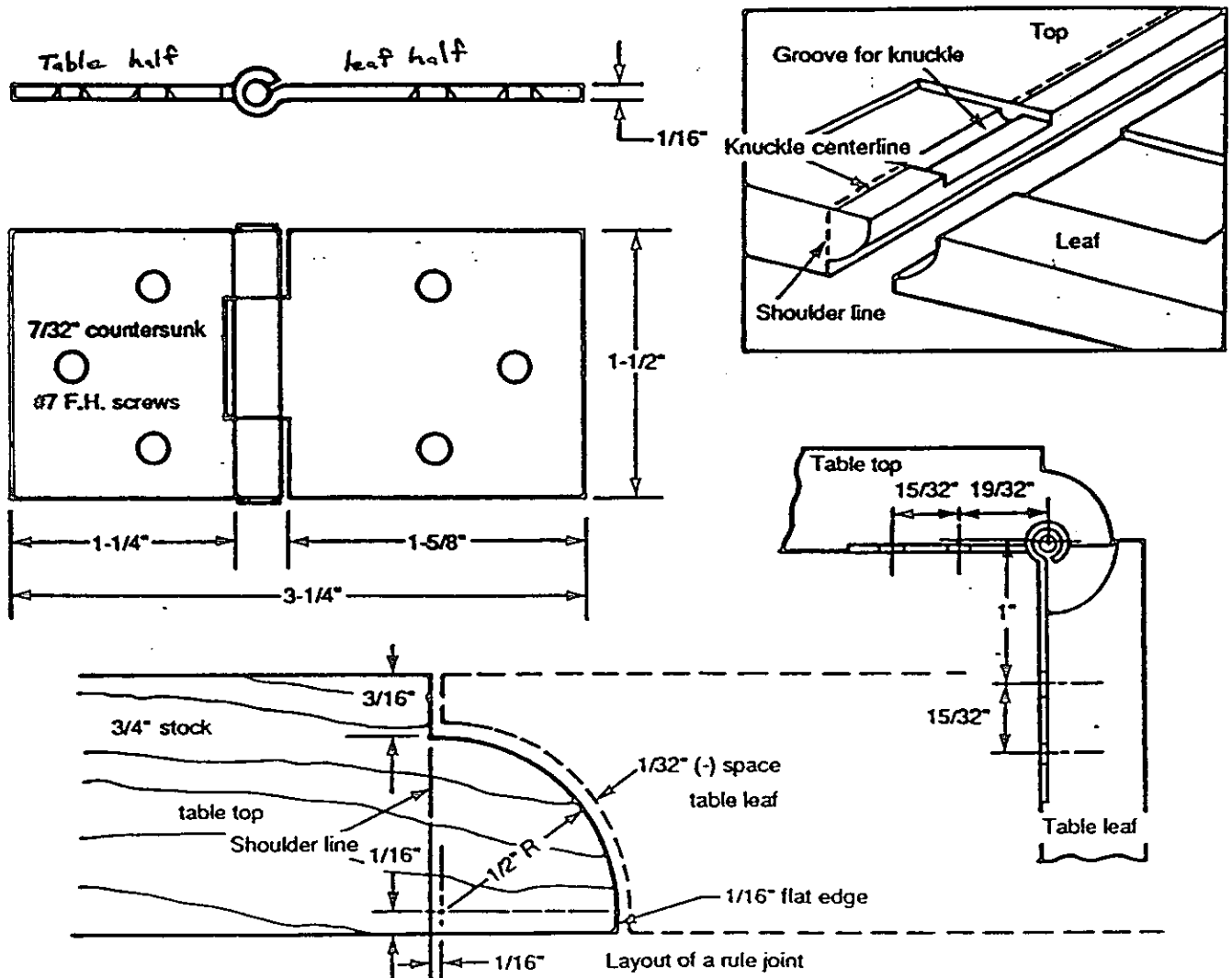
APPLICATION:

A special hinge used for a rule joint drop leaf situation.

SPECIFICATIONS:

INSTALLATION:

1. Make convex and concave cuts on adjoining top and drop leaf edges.
2. Radius cuts should start approximately 5/32" below top surfaces.
3. Make cove cut last and adjust radius so there is 1/32" clearance between top and leaf.
4. Cut shallow groove on underside of top with groove centered on radius. The barrel of hinge will fit into this groove.
5. Fasten short leaf to top and fasten the hinge long leaf to the drop leaf with #5 flat head screws.



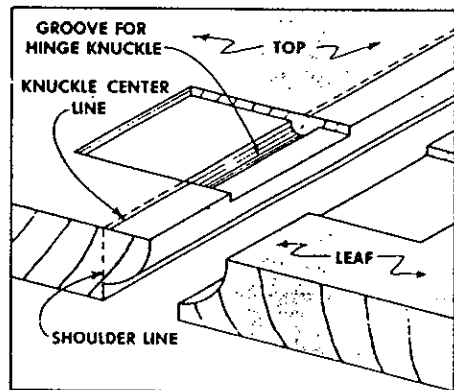
Drop-Leaf Hinges

THE PROBLEM IS ALIGNMENT

Cutting a rule joint for a drop leaf table presents some problems . . . especially if the hinge is mortised in. If the joint is not cut properly, the mortise will show when the leaf is in the down position. So, the joint must be cut, and the hinge mounted, in such a way to cover this mortise.

For the Pembroke table in this issue we used a router with a $\frac{1}{2}$ " quarter-round bit to cut the table side of the rule joint. The thing to keep in mind when making this cut is that the depth of cut should be determined from the *bottom* side of the table. You must leave a $\frac{1}{16}$ " flat edge along the bottom edge of the table top. This is enough for the pilot to guide the bit. And, it's also the thickness of the hinge, which in turn is the depth of the mortise.

The depth of the shoulder along the top edge is not important, and it will vary according to the overall thickness of the wood you're using.



MOUNTING THE HINGE

When the rule joint is cut, push the table top and the leaf together and mark the outline of the hinge. A drop leaf hinge is designed with a long flap and a short flap. The long flap goes on the leaf side.

The basic outline of the hinge can be chiseled out to the thickness of the hinge. Then a small groove must be carved out for the knuckle. Allow yourself a little latitude here so final placement of the hinge can be done without interference. (It's best to test things out on a piece of scrap.)

Once the mortise is cut, use a try square to mark the shoulder line on the end, continuing it onto the bottom of the table top. (This is shown as the dotted line in Fig. 1).

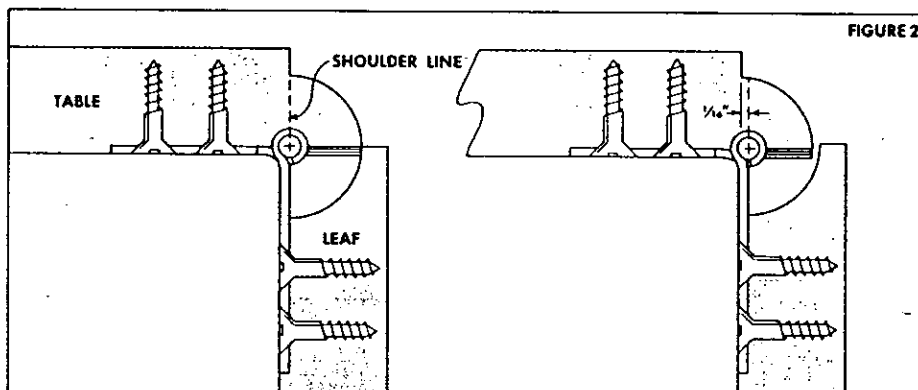
The drawing on the left in Figure 2 shows the knuckle of the hinge centered on the shoulder line. This placement won't work. The leaf will bind as it's raised. In-

stead, you have to move the knuckle toward the leaf side to prevent binding.

In doing this you solve one problem and create another. As shown in the drawing on the right in Figure 2, the knuckle of the hinge has been moved about $\frac{1}{16}$ " to the leaf side. What this does, in effect, is raise the position of the leaf just a tiny bit so the shoulder covers the mortise. That's good. However, if the knuckle is moved too far to the leaf side, there will be a big gap between the top and the leaf. That's bad.

All you can really do is experiment a little to find the happy medium between too far and not far enough. But that's part of the fun of woodworking.

Sources: *The Woodworkers' Store Catalog* lists Table Hinge (D4180). *Craftsman Wood Service Catalog* lists Table Leaf Hinges (H2415, H2416, H2417). The *Woodcraft Supply Catalog* has solid brass Table Hinges (16R41-PH).



Continued from page 7.
joint on each leaf (Detail K).

Now the top and two leaves can be pushed together and the ellipse template used to mark the outline of the ellipse. Cut along this outline, smooth the edges (we did this with a disk sander on the table saw), and finally cut the V-grooves in the edge as shown in Fig. 4.

At this point we finished the top with a hand plane and scraper until it was table-top flat. Then the drop leaf hinges could be installed. We used *Stanley Table Hinges* No. 46-3300. These hinges are designed for rule (drop leaf) joints. Back in *Woodsmith* Number Eleven we discussed the technique for surface mounting these hinges. For this table we mortised them in. The technique is similar, but alignment of the hinge is more critical when it's mortised in.

As shown in the article above, the hinge is placed a little to the "leaf side" of the

shoulder line. The farther the knuckle is moved toward the leaf, the more the leaf will overlap the curved part of the joint, thus concealing the mortise. This placement is tricky and experiment on some scrap will show you the best position.

OTHER LITTLE STUFF

The table is now about 90% complete. But there's a lot of other little stuff to be done. The table top must be secured to the base. To do this we cut small blocks as shown in Fig. 7 to hold the top in place. These blocks fit in the grooves previously cut in the aprons. The pilot hole should be cut oversize so the top is free to move (expand/contract) with changes in atmosphere.

Finally, we built the drawer. We removed the curved 'false' front (which was just screwed in place). We cut the sides and back for the drawer out of $\frac{1}{2}$ " birch, and joined the drawer with dovetails.

It seems only right to use dovetails on a table of this calibre. But we have diagrammed an optional approach which is much easier. Just cut a rabbet in the drawer front and join the sides with a series of four or five dowel pins. This method provides a somewhat decorative appearance and is plenty strong enough.

The final step of course is applying the finish. If you think building the table took a long time, the finishing will take almost twice as long. The finishing technique we used is described on page 9.

This technique involves applying several coats of sealer to the entire table, followed by two coats of varnish. However, we applied the varnish only to the top, not the base. The base doesn't really need the protection of the varnish, the sealer is enough. Then the whole table was rubbed out with pumice stone and oil to give it a rich satin sheen.