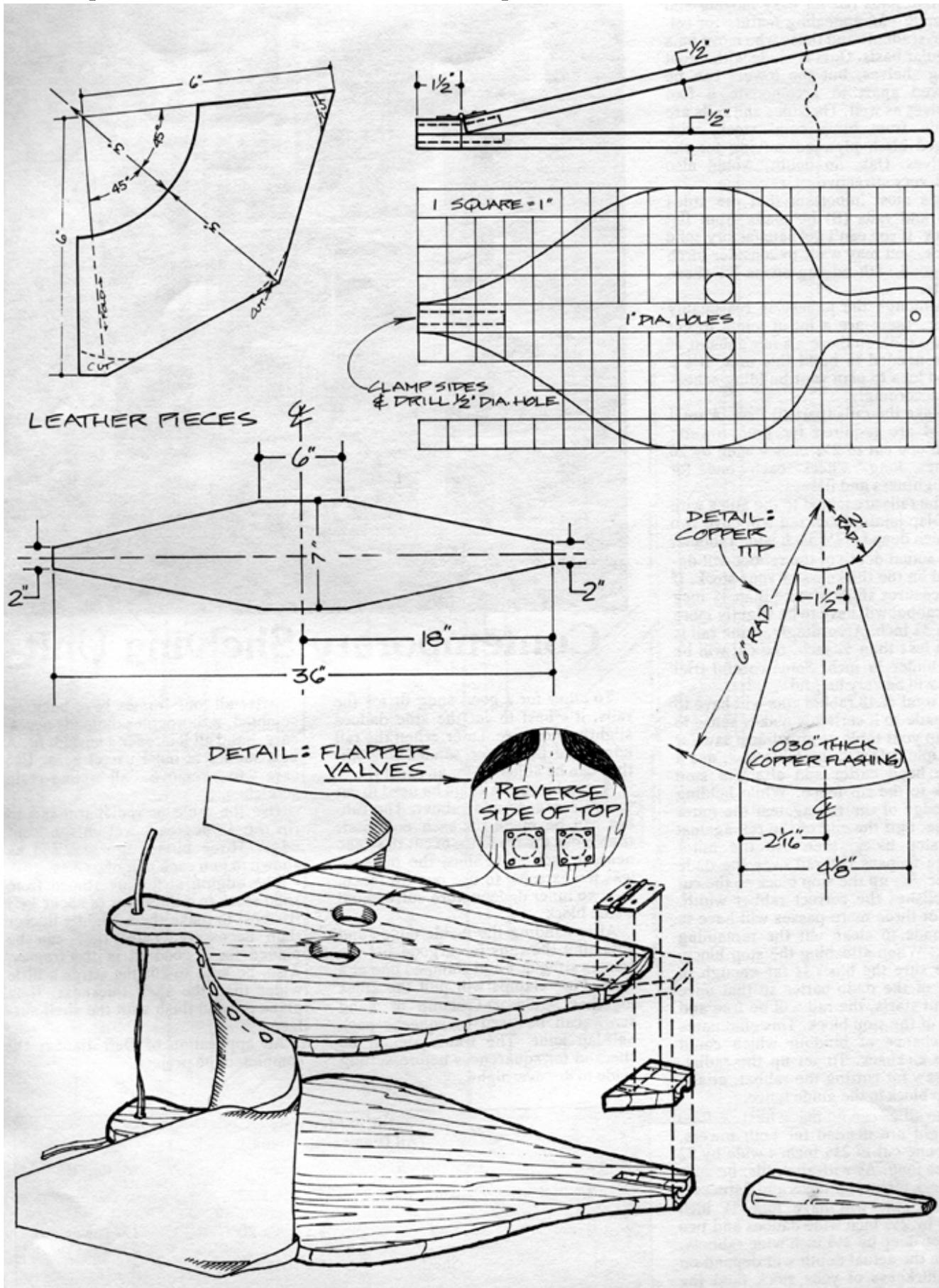


Project 13989EZ: Fireplace Bellows

In addition to woodworking, this old style bellows requires a little metalwork and leatherwork. None of it is very difficult though, and the whole project can be completed in just a few evenings in the workshop. The one shown is made of pine, but any good cabinet wood is suitable.

Fireplace Bellows Complete Schematic



Fireplace Bellows Step-by-Step Instructions

1. Obtain 1/2" inch stock by purchasing, **OR** by edge-joining, then hand-planing to the correct width, two pieces of 1" (3/4" actual) thick x 6" (5-1/2" actual) wide x 37" long stock with their grains running in the same direction. **NOTE:** The extra length is good to have in case some edges splinter as you plane.
2. Cut the board into two pieces, each one 9" wide x 18" long.
3. Transfer the profile for the grid pattern.
4. Cut the profile to shape on the band saw.
5. Clamp both halves together.
6. Drill a 1/2" diameter by 3" long hole in the center of the nozzle end.
7. Cut off 1-1/2" of the tip of one board.
8. Glue and clamp this piece you just cut to the other board as shown.
9. Drill two 1" diameter valve holes in one of the boards.
10. Obtain .030" thick piece of copper or brass sheeting to make the metal tip.
11. Lay out a pattern as shown.
12. Cut out the pattern with metal shears.
13. Roll the sheet into a cone.
14. Lap the edges 1/8".
15. Solder the seam and allow the solder to set.
16. Shape the large end of the cone into a square.
17. Shape the end of the bellows carefully with a carving knife to fit the square.
18. Fit the end of the bellows into the square end of the metal tip so the metal laps the wood 1/2".
19. Use epoxy to secure the metal tip to the bellows end.
20. Sand all the wood parts.
21. Finish both sides of the wood parts with stain, varnish, or paint. **NOTE: Finishing both sides the same way minimizes warping.**
22. Allow the stain to dry thoroughly.
23. Cut a leather "web" from a 36" length of soft hide to the dimensions shown.
24. Use the scrap material left from shaping the web to cut two 2" x 2" leather squares that will be the flap valves for the air intake holes.
25. Stretch each square tightly on the inner face of the bellows, one over each hole.
26. Tack the square in place with one carpet tack at each corner.
27. Start at the center and attach the web between the handles of the bellows.
28. Fold the leather over 1/2" all along the edge so that a double thickness takes the ornamental brass upholsterer's tacks.
29. Place the tacks at 1-1/4" intervals. **NOTE: No tacks are necessary where the leather crosses near the handles, but the leather should be stretched tightly across this unfastened area.**

30. Refer to the pattern and cut a piece of leather to wrap around the tip of the bellows, wide enough to cover the end of the cone and to extend up the bellows 1-1/2 inches past the hinge.
31. Glue this leather piece to the metal cone and ornament with upholsterer's tacks.

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