

Project 19989EZ: Bow Saw

Most woodworkers know what a bow saw is, but we wonder how many have actually used one and discovered just how handy a too it can be. Before the age of power tools the bow saw was an extremely important part of every cabinetmaker's too collection, and indeed the overall design of this tool has changed little over the years. For curved cuts, the bow saw offers a control and accuracy that cannot be achieved with the band saw, and by turning the blade so that it is horizontal to the frame the bow saw can be used for resawing.

Our saw is sized to accept a standard 12" box saw blade. The threaded insert and machine bolt blade mount system is strong and secure, the traditional twist-cord tensioning is effective, and the saw works great. We are confident that this bow saw will find its way into our readers' workshops, where it will quickly become a favorite too.

Bow Saw Materials List

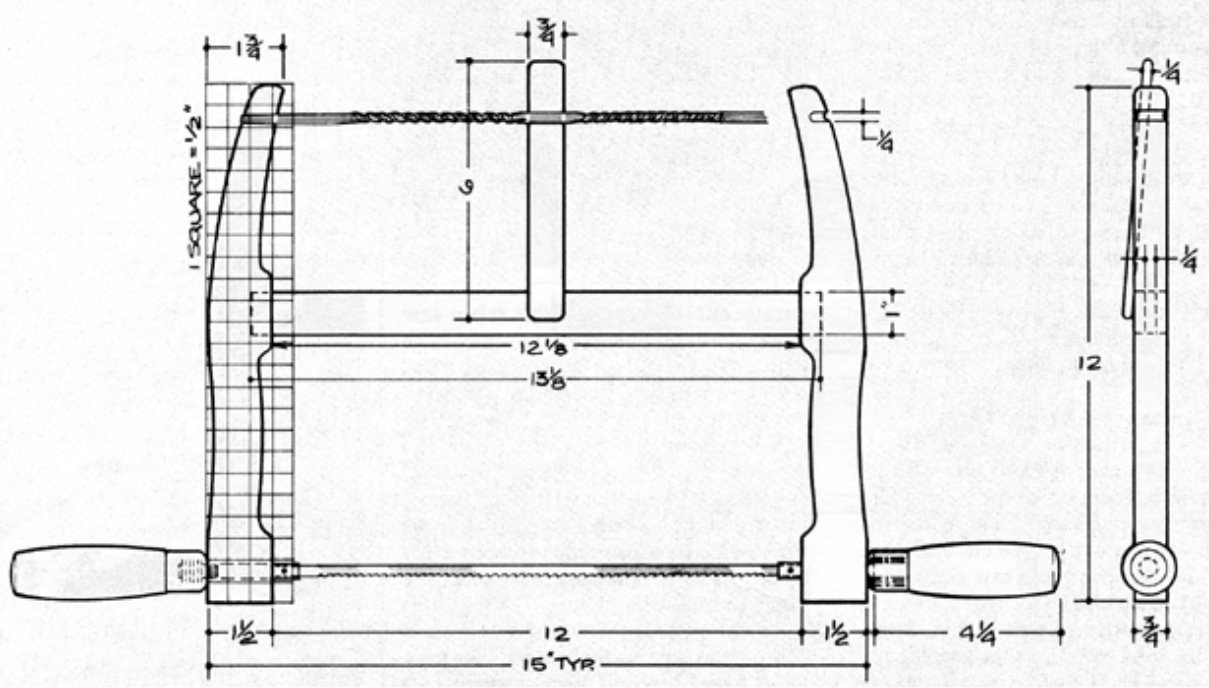
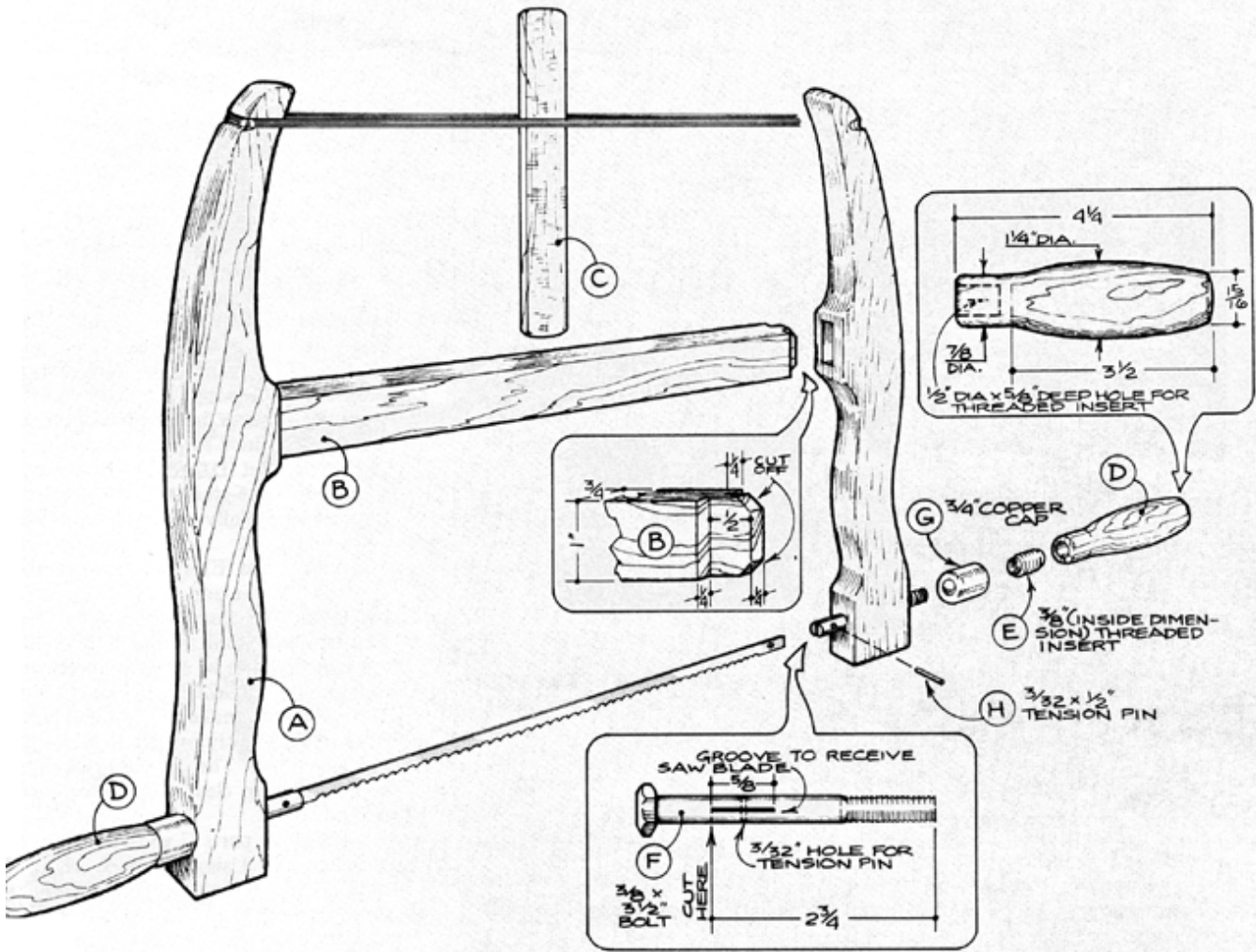
Part	Description	Size	No. Req'd
A	Side	3/4" x 1-3/4"* x 12"	2
B	Stretcher	3/4" x 1" x 13-1/8"***	1
C	Tensioning Stick	1/4" x 3/4" x 6"	1
D	Handle	1-1/4" dia. x 4-1/4"	2
E	Threaded Insert	3/8" inside dia. x 5/8"	2
F	Machine Bolt	3/8" dia. x 3-1/2"****	2
G	Copper Cap	3/4" (actual inside dia. is 7/8")	2
H	Tension Pin	3/32" dia. x 1/2"	2

* Before shaping

** Includes tenons

*** Before sizing

Bow Saw Complete Schematic



Bow Saw Step-by-Step Instructions

1. Select good, clear-grained maple stock for the saw frame, handles (D), and tensioning stick (C).
2. Cut the tensioning stick (C) and stretcher (B) to length and width.
3. Cut the sides (A) to their pre-shaping length and width.
4. Layout the grid pattern for the side profile.
5. Use the bandsaw to cut the side profile.
6. Cut the chamfers in the sides to accept the stretcher.
7. Assemble the stretcher (B) to the sides (A). **NOTE: Do not use glue to assemble.**
8. Turn the handles (D) to the dimensions shown in the handle detail.
9. Drill the 1/2" diameter by 5/8" deep holes in each handle end to accept the threaded inserts.
10. Cut down a common 3/8" diameter long shank stove bolt (F) so that it is 2-3/4" long.
11. Use the hacksaw to cut a 5/8" deep kerf into the shank end of the bolt.
12. Drill a 3/32" diameter hole across the kerf to accept the tension pin (H) that holds the saw blade in place.
13. Cover the threaded insert end of the handle with a 3/4" copper cap (7/8" actual inside diameter).
14. Drill the end of the cap to accept the 3/8" bolt.
15. Epoxy the cap in place.
16. Fine sand the saw frame.
17. Finish with penetrating oil.
18. Rub steel wool on the copper cap to bring out the bright copper luster.
19. Tension the saw blade by wrapping a sturdy cord several times around the frame ends and inserting the tensioning stick as shown in the picture.
20. Turn the tension stick to the desired tension.
21. Let the stick catch against the stretcher to keep that tension.
22. Obtain and add the saw blade.

These plans were originally published in Volume 10, Issue 1 of *The Woodworker's Journal* (Jan./Feb. 1986, pages 52-53).