

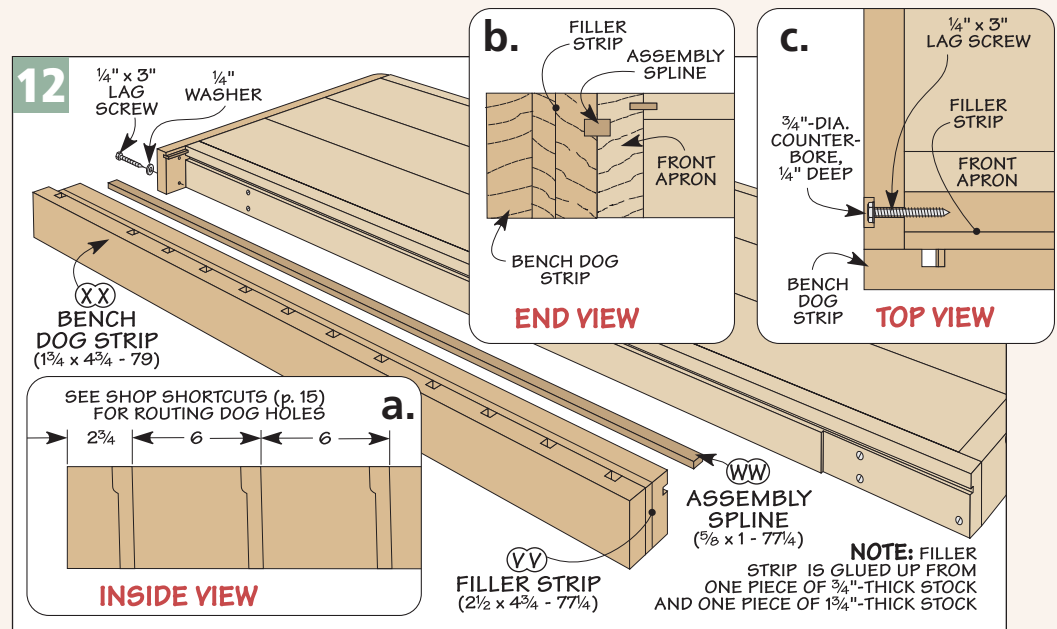
wood top to expand and contract, the end aprons are attached with bolts and cross dowels (Figure 10a).

Supporting the Top. At this point, you can turn your attention to providing the structure that supports the top and allows you to attach it to the base of the workbench.

In Figure 11, you can see how a notched support beam accepts a pair of cross supports. Because the top is a solid wood panel, the mating notches will allow the supports (and top) to move without any problem (Figure 11b). Plus, the notches help position the supports right over the upper rails of the end frames of the base (Figure 11a).

To install the supports, slip them in place as you glue the support beam to the back apron and top. Then, secure the supports at the front by screwing through the front apron. Finally, attach the mounting cleats that prevent the top from shifting front to back and side to side as you work, as in Figure 11a.

Bench Dog Assembly. At this point, you're ready to build up the



front edge of the bench with a heavy-duty bench dog assembly.

To start with, I glued up a thick filler strip and planed it down until it was flush with the end of the left apron, like you see in Figure 12c. After cutting a groove to match the one in the top, the strip is simply glued in place with a wide solid wood spline (Figure 12b).

All that's left to complete the assembly is to add the bench dog strip (Figure 12). First, you'll need to add the holes for the bench dogs to the strip. I did this with a hand-held router and a shop-made jig (For more on this, see page 15). Once the holes for the bench dogs are routed, you can glue the strip in place and start getting ready to add the vises.

Materials & Hardware

BASE FRAME

A	Legs (4)	3 x 3 - 31 3/4
B	Upper End Rail (2)	1 3/4 x 3 1/2 - 24 3/4
C	Lower End Rail (2)	1 3/4 x 5 1/4 - 24 3/4
D	Stile (5)	1 x 3 - 23 7/8
E	End Panels (4)	3/4 x 10 - 23 7/8
F	Lower Stretchers (2)	1 3/4 x 5 1/4 - 73 1/2
G	Upper Rear Stretcher (1)	1 3/4 x 3 1/2 - 73 1/2
H	Back Panels (4)	3/4 x 16 3/16 - 23 7/8
I	Support Cleats (4)	1 1/2 x 3 1/2 - 24 3/4
J	Bottom (1)	23 3/4 x 72 1/2 - 3/4 Ply.
K	Upper Front Stretcher (1)	1 3/4 x 2 3/4 - 73 1/2

DRAWER CABINETS

L	Cabinet Sides (4)	24 x 23 3/4 - 3/4 Ply.
M	Trim Stiles (4)	3/4 x 1 - 23 3/4
N	Web Frame Ends (16)	1 1/16 x 1 1/2 - 23 3/4
O	Web Frame Frts./Backs (16)	3/4 x 1 1/2 - 22 1/4
P	Trim Rails (8)	3/4 x 1 - 22
Q	Drawer Guides (4)	3/4 x 1 7/8 - 22 3/4

DRAWERS, DOORS, & SHELVES

R	Small Drawer Front (2)	3/4 x 3 1/2 - 21 7/8
S	Small Drawer Backs (2)	1/2 x 3 1/2 - 21 7/8
T	Small Drawer Sides (4)	1/2 x 3 1/2 - 23 1/4
U	Drawer Bottoms (8)	21 3/8 x 23 - 1/4 Ply.
V	Medium Drawer Fronts (2)	3/4 x 4 3/8 - 21 7/8
W	Medium Drawer Backs (2)	1/2 x 4 3/8 - 21 7/8
X	Medium Drawer Sides (4)	1/2 x 4 3/8 - 23 1/4
Y	Large Drawer Fronts (2)	3/4 x 5 1/4 - 21 7/8
Z	Large Drawer Backs (2)	1/2 x 5 1/4 - 21 7/8

AA	Large Drawer Sides (4)	1/2 x 5 1/4 - 23 1/4
BB	X-Large Drawer Fronts (2)	3/4 x 6 1/8 - 21 7/8
CC	X-Large Drawer Backs (2)	1/2 x 6 1/8 - 21 7/8
DD	X-Large Drawer Sides (4)	1/2 x 6 1/8 - 23 1/4
EE	Guide Strips (16)	3/16 x 3/4 - 23 3/4
FF	Drawer Stops (16)	3/4 x 3/4 - 2
GG	Small Shelf (1)	12 3/4 x 22 - 3/4 Ply.
HH	Large Shelf (1)	22 1/2 x 22 - 3/4 Ply.
II	Shelf Edging (2)	3/4 x 3/4 - 22
JJ	Door Stiles (4)	3/4 x 2 1/2 - 23 3/8
KK	Door Rails (4)	3/4 x 2 1/2 - 6 3/8
LL	Door Panels (2)	1/4 x 6 1/4 - 19 1/8

BENCHTOP

MM	Benchtop (1)	1 x 27 - 92 1/2
NN	Spline	1 x 450 (Rgh.) - 1/4 Hdbd.
OO	Back Apron (1)	1 3/4 x 4 3/4 - 92 1/2
PP	Front Apron (1)	1 3/4 x 4 3/4 - 94 1/4
QQ	Left End Apron (1)	1 3/4 x 4 3/4 - 32 3/4
RR	Right End Apron (1)	1 3/4 x 4 3/4 - 28 1/2
SS	Support Beam (1)	1 3/4 x 3 3/4 - 92 1/2
TT	Cross Supports (2)	1 3/4 x 3 3/4 - 26 7/8
UU	Mounting Cleat (2)	1 x 5 - 21 1/4
VV	Filler Strip (1)	2 1/2 x 4 3/4 - 77 1/4
WW	Assembly Spline (1)	5/8 x 1 - 77 1/4
XX	Bench Dog Strip (1)	1 3/4 x 4 3/4 - 79

TAIL & FACE VISES

YY	Tail Vise Top (1)	1 1/4 x 2 1/2 - 20
ZZ	Tail Vise Bottom (1)	3/4 x 2 1/2 - 20
AAA	Front Filler (1)	2 3/4 x 2 1/2 - 2

BBB	Back Filler (1)	2 3/4 x 2 1/2 - 3
CCC	Tail Vise Strip (1)	1 3/4 x 4 3/4 - 20
DDD	Pinch Block (1)	1 3/4 x 4 3/4 - 3
EEE	Collar Support Block (1)	1 3/4 x 2 5/8 - 16
FFF	Face Vise Block (1)	3 1/2 x 7 3/8 - 16

- (64) #8 x 2" Rh Woodscrews
- (12) #8 x 1 1/2" Fh Woodscrews
- (12) #8 x 2" Fh Woodscrews
- (16) #8 x 1 1/4" Fh Woodscrews
- (8) #10 x 1 1/4" Fh Woodscrews
- (6) #12 x 1 1/4" Fh Woodscrews
- (4) #12 x 2 1/2" Fh Woodscrews
- (3) #14 x 1 1/2" Fh Woodscrews
- (6) #14 x 3" Fh Woodscrews
- (7) 1/4" x 3" Lag Screws
- (3) 1/4" x 4" Lag Screws
- (6) 1/4" x 3" Hex Bolts
- (16) 1/4" Washers
- (6) 1/4" Cross Dowels
- (8) Shelf Support Pins
- (2 Pr.) 2" Antique Hinges w/Screws
- (18) 1 1/8"-Dia. Knobs w/Screws
- (2 Pr.) Magnetic Catches w/Screws
- (1) Face Vise Hardware and Handle
- (1) Tail Vise Hardware and Handle
- (1 Pr.) Bench Dogs