Dovetails made easy.   No math or measuring!

Router Bits Required

 # 70134
1/2 inch diameter by 1 inch cut length and 1/2 inch ball bearing

#70135
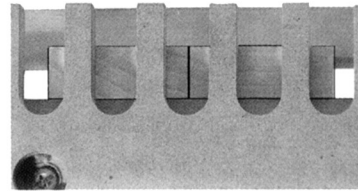1/2 inch diameter by 3/4 inch cut length and 1/2 inch ball bearing

#70133
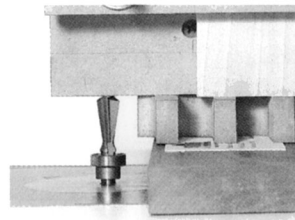8º Dovetail bit, 1/2 inch diameter with 5/8 inch ball bearing, or 5/8 inch router guide

**MILESCRAFT**
Always the Better Idea. ®

© Milescraft, Inc.
www.milescraft.com

1. Use **Center Finder** at bottom of page to mark center of tail board, then visually center align with one of the slots as shown.

2. Put **Tail Jig (S-jig3)** on top of pin board and a business card. Adjust dovetail bit height to just touch the backer board. This will cut a joint with end grain slightly proud (business card thickness) of the boards.
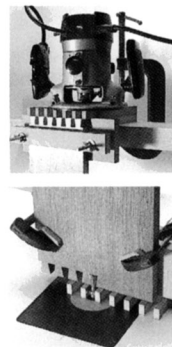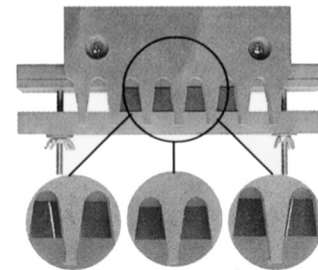
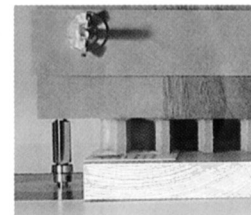**3.** Rout pin slots with dovetail bit producing tail board.
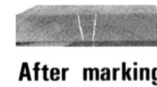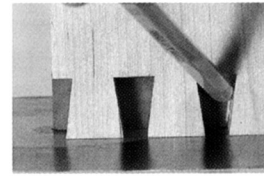
4. Place pin board on table, align tail board and draw two lines showing the location of one pin.
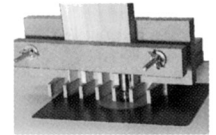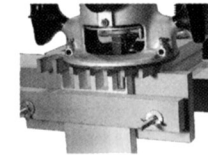
After marking

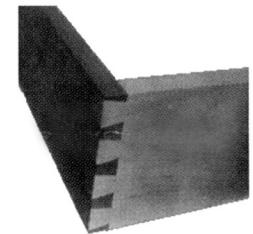Incorrect   Correct   Incorrect

5. Align pin board marks with **Pin Jig (S-jig4)** and clamp in place.

6. Place **Pin Jig (S-jig4)** on top of tail board and a business card. Adjust pattern bit height to just touch the backer board. This will cut a joint with end grain slightly proud of the boards.
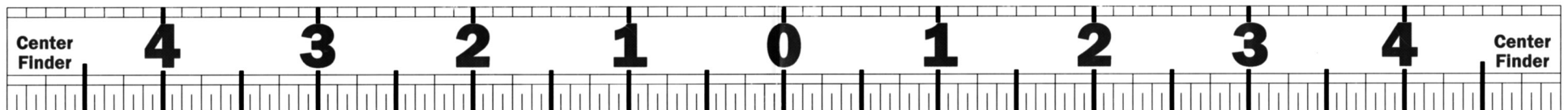
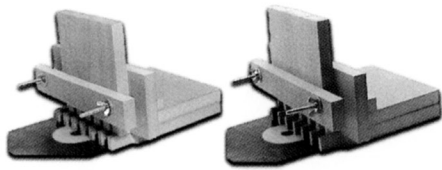**7.** Rout tail slots with pattern bit producing pin board.

8. Glue joint together and sand end grain smooth.

Center Finder Instructions

To find the center of the tail board, align the board so the same measurement appears both to the left and to the right of the "0" mark on the center finder.
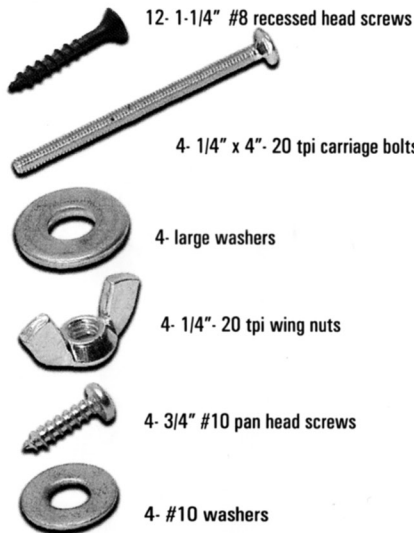
Center Finder   4   3   2   1   0   1   2   3   4   Center Finder
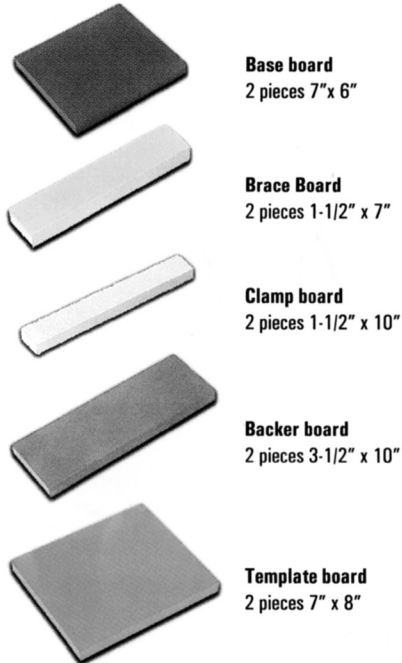
Simply follow the **5 STEPS** shown to make both the **Tail jig** (S-jig3 left) and the **Pin jig** (S-jig 4 right). Both are pictured above in router table use position.

Hardware required

12- 1-1/4" #8 recessed head screws

4- 1/4" x 4"- 20 tpi carriage bolts

4- large washers

4- 1/4"- 20 tpi wing nuts

4- 3/4" #10 pan head screws

4- #10 washers

3/4" thick MDF* boards required

Base board
2 pieces 7"x 6"

Brace Board
2 pieces 1-1/2" x 7"

Clamp board
2 pieces 1-1/2" x 10"

Backer board
2 pieces 3-1/2" x 10"
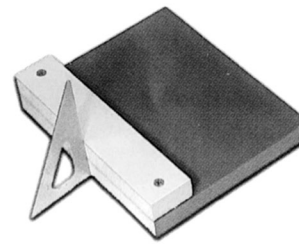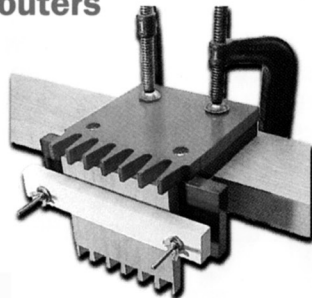
Template board
2 pieces 7" x 8"

***TIP:** Purchase 3/4" thick MDF (Medium Density Fiberboard) shelving from your local home building supply store

S-jig3 and S-jig4 can be used with both hand held and table mounted routers

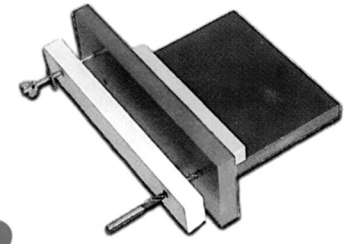**Tail Jig**
S-jig3 in Table mounted router position
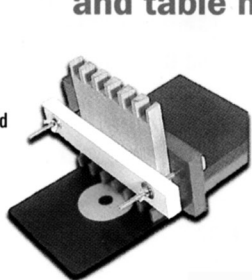
Pin Jig
S-jig4 in Hand held router position

1. Glue and screw (with two 1-1/4" screws) **base board** and **brace board** making sure that the boards are square. Pass over joiner or cut edge with table saw as shown above.
NOTE: two complete assemblies required.
***HINT:*** Pre-drill holes.

2. Screw **backer board** to **base** and **brace** assembly with two 1-1/4" screws into **brace**.
***CAUTION:*** Make sure screws will not be cut by router bit during use.

3. Clamp **backer board** assembly and **clamp board** together 1" up from the bottom edge of **backer board**. Drill 5/16" holes 1-1/4" from each edge of **clamp board**. Insert carriage bolts from back, add large washers and wing nuts.
NOTE: Two complete assemblies required.

Tail Jig

Pin Jig

4. Screw Template Master™ to **template** blanks with two 3/4" #10 screws and two #10 washers **2 inches from back edge**. Rout template blanks with pattern bit to make working **templates**.
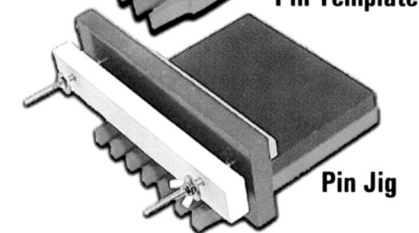
Tail Template
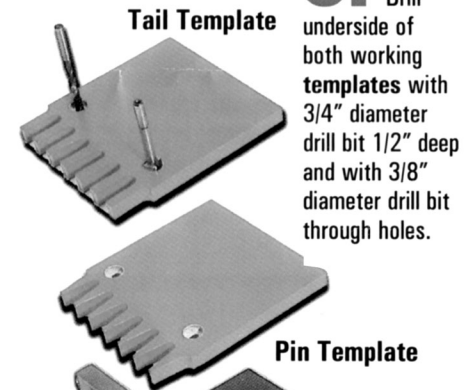
Pin Template

5. Drill underside of both working **templates** with 3/4" diameter drill bit 1/2" deep and with 3/8" diameter drill bit through holes.
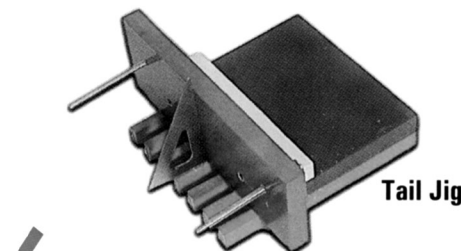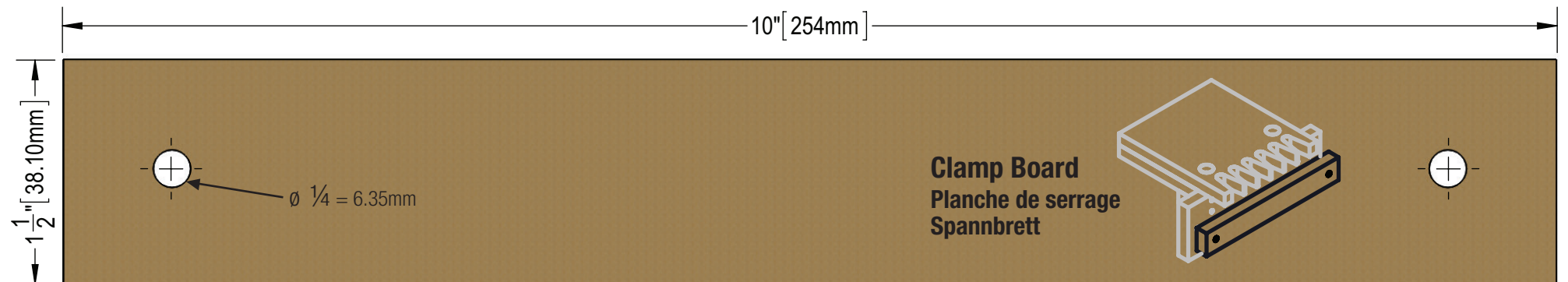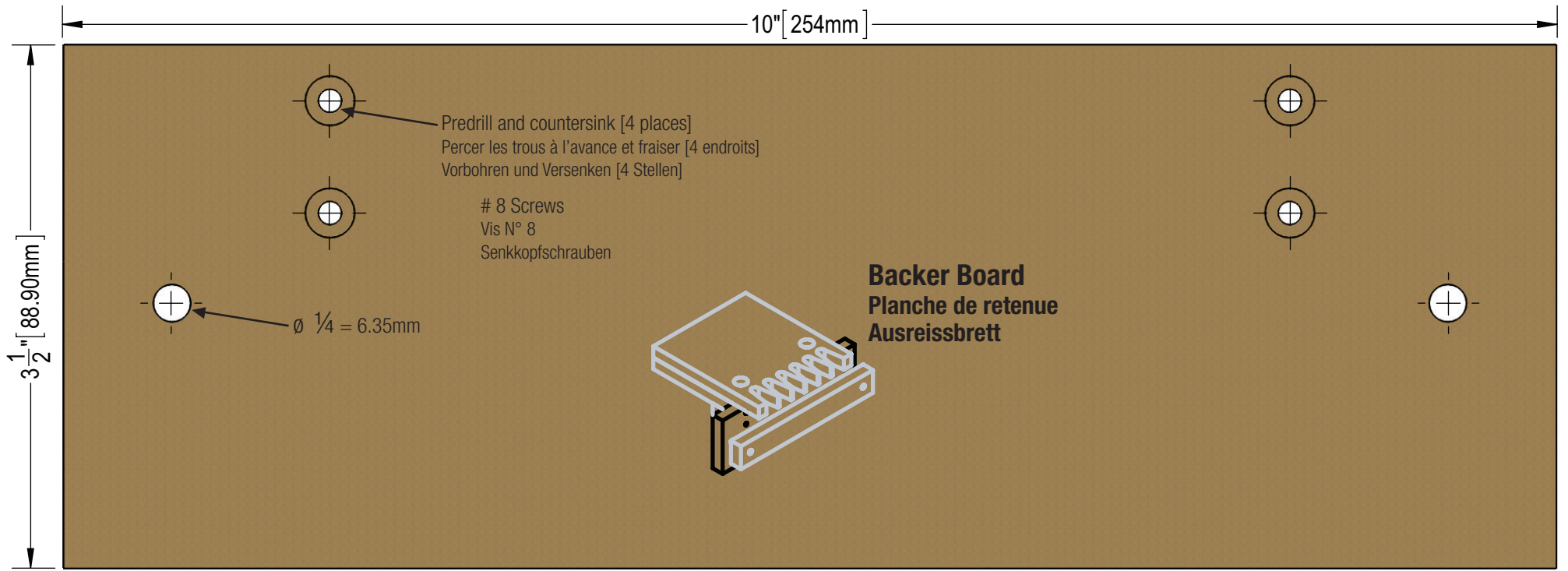
Tail Jig

Pin Jig

6. Attach working templates to backer board assemblies with two 3/4" #10 screws and two #10 washers. Use paper spacers between base and working template to square the backer to the template. Refer to User's Manual on how to make test cut and how to adjust working jigs. After adjusting, use the remaining four 1 1/4" screws to lock the working templates in place.
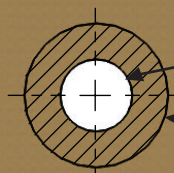
10" [254mm]

3 ½" [88.90mm]

Predrill and countersink [4 places]
Percer les trous à l'avance et fraiser [4 endroits]
Vorbohren und Versenken [4 Stellen]

8 Screws
Vis N° 8
Senkkopfschrauben

Backer Board
Planche de retenue
Ausreissbrett

ø ¼ = 6.35mm

10" [254mm]

1 ½" [38.10mm]

ø ¼ = 6.35mm

Clamp Board
Planche de serrage
Spannbrett

7" 177.80mm

8" 203.20mm

Template Board
Planche de modèle
Schablonenbrett

Ø ¾ = 9.53mm
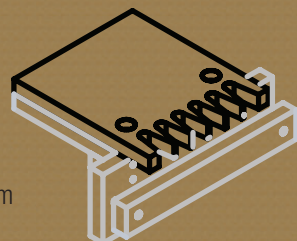
¾ = 19.05mm [Counterbore]
[Chambrage]
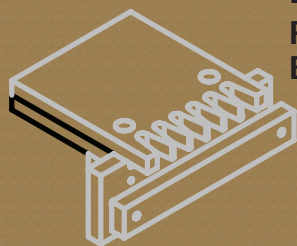[Senkung]

½ = 12.70mm [Deep]
[Profondeur]
[tief]
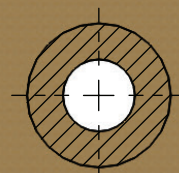
Note: Use Dovetail Master to make Pins and Tail

Remarque : utiliser l'outil à queue d'aronde pour produire des tenons et des queues

Anmerkung: Zur Herstellung der Zinken und Schwalbenschwänze verwenden Sie den Dovetail Master

7" [177.80mm]

6" [152.40mm]

Base Board (View from Bottom)
Planche de base (Vue depuis le dessous)
Basisbrett (von unten gesehen)

7" [177.80mm]

1 ½" [38.10mm]

Brace Board (View from Bottom)
Planche d'entretoise (Vue depuis le dessous)
Aufdopplung (von unten gesehen)

Predrill and countersink for #8 screw
Percer les trous à l'avance et fraiser pour la vis N° 8
Vorbohren und Versenken für die Senkkopfschraube