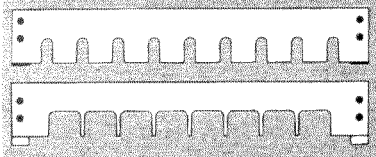
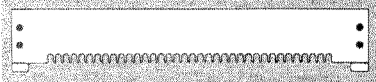
Instruction manual

ACCESSORY TEMPLETS:



For ½"Hand Dovetails

MODELS 5118 16" (PINS) Templet
5119 16" (TAILS) Templet
7118 24" (PINS) Templet
7119 24" (TAILS) Templet

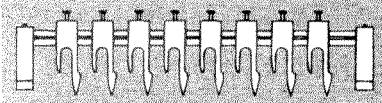


For ¼" Half-Blind Dovetails

MODELS 5120 16" Templet
7120 24" Templet

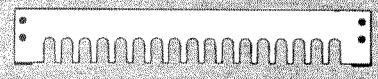
For ½" Tapered Sliding Dovetails

MODELS 5121 16" Templet
7121 24" Templet



For ½" and ¾" Adjustable Through Dovetails

MODELS 5122 16" Templet
7122 24" Templet



For ½" Box Joints

MODELS 5123 16" Templet
7123 24" Templet

To learn more about Porter-Cable visit our website at:

http://www.porter-cable.com

PORTER-CABLE
PROFESSIONAL POWER TOOLS

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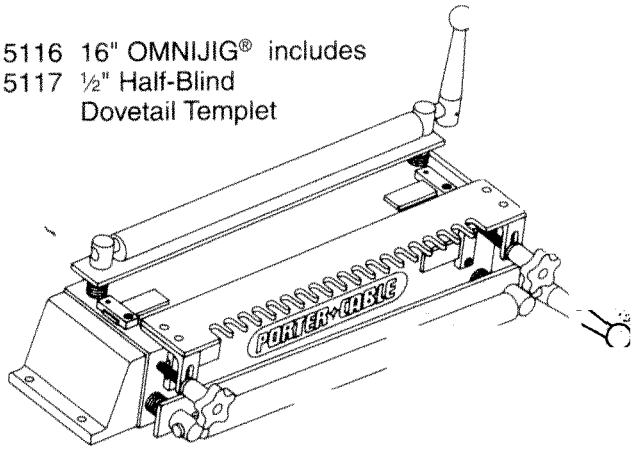
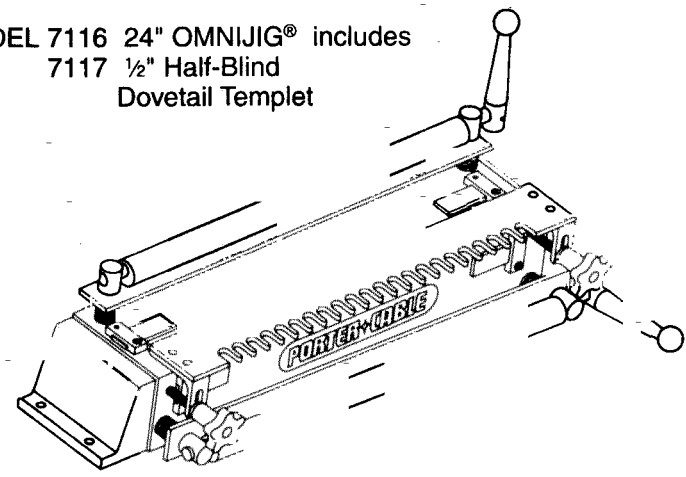
FRANÇAISE : PAGE 57

OMNIJIG® Dovetail Machines

MODEL 5116 16" OMNIJIG® includes
5117 ½" Half-Blind
Dovetail Templet



MODEL 7116 24" OMNIJIG® includes
7117 ½" Half-Blind
Dovetail Templet



IMPORTANT

Please make certain that the person who is to use this equipment carefully reads and understands these instructions before starting operations.

The Model and Serial No. plate is located on the main housing of the tool. Record these numbers in the spaces below and retain for future reference.

Model No. _____

Type _____

Serial No. _____

Part No. 888381-794

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following:

READ AND FOLLOW ALL INSTRUCTIONS.

There are certain applications for which this tool was designed. Porter-Cable strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written Porter-Cable and we have advised you.

Technical Service Manager
Porter-Cable Corporation
4825 Highway 45 North, P. O. Box 2468
Jackson, TN 38302-2468

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.

2. **AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep area well lit. Avoid chemical or corrosive environment. Do not use tool in presence of flammable liquids or gases.

3. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.

4. **KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.

5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place – out of reach of children.

6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.

7. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool. Don't use tool for purpose not intended – for example – do not use a circular saw for cutting tree limbs or logs.

8. **DRESS PROPERLY.** Do not wear loose clothing or jewelry. Loose clothing, draw strings and jewelry can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

9. **USE SAFETY GLASSES.** Wear safety glasses or goggles while operating power tools. Also face or dust mask if operation creates dust. All persons in the area where power tools are being operated should also wear safety glasses and face or dust mask.

10. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges. Have damaged or worn power cord and strain reliever replaced immediately. DO NOT ATTEMPT TO REPAIR POWER CORD.

11. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.

12. **DON'T OVERREACH.** Keep proper footing and balance at all times.

13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Have all worn, broken or lost parts replaced immediately. Keep handles dry, clean and free from oil and grease.

14. **DISCONNECT TOOLS** when not in use, before servicing, and when changing accessories such as blades, bits, cutters, etc.

15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

16. **AVOID UNINTENTIONAL STARTING.** Do not carry a plugged-in tool with finger on switch. Be sure switch is off when plugging in. Keep hands, body and clothing clear of blades, bits, cutters, etc. when plugging in the tool.

17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords marked "Suitable for use with outdoor appliances – store indoors when not in use."

18. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired or while under the influence of medication, alcohol or drugs.

19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.

20. **WEAR EAR PROTECTION** to safeguard against possible hearing loss.

SAVE THESE INSTRUCTIONS

ADDITIONAL SAFETY RULES

1. **SECURE WORK.** Be sure OMNIJIG® and work is anchored securely to prevent movement.
2. **BE SURE CORD SET IS FREE** and will no hang up during routing operations.
3. **KEEP HANDS CLEAR** of cutter when motor is running to prevent personal injury.
4. **MAINTAIN FIRM GRIP** on router when starting motor to resist starting torque.
5. **STAY ALERT** and keep cutter free, clear of all foreign objects while motor is running.
6. **BE SURE MOTOR HAS COMPLETELY STOPPED** before removing router from OMNIJIG® and setting machine down between operations.
7. **NEVER REMOVE ROUTER MOTOR** from router base while templet guide and dovetail bit are installed. Dovetail bit may not fit through hole in templet guide.
8. **TIGHTEN TEMPLET GUIDE LOCKNUT SECURELY.**
9. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS** in the instruction manual supplied with your router.
10. **SOME WOOD CONTAINS PRESERVATIVES WHICH CAN BE TOXIC.** Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier.

REPLACEMENT PARTS

When servicing use only identical replacement parts.

FOREWORD

Porter-Cable OMNIJIG® together with a Porter-Cable router, templet guides and router bits, can be used to produce corner joints for drawers and boxes and sliding joints for shelves as illustrated below.

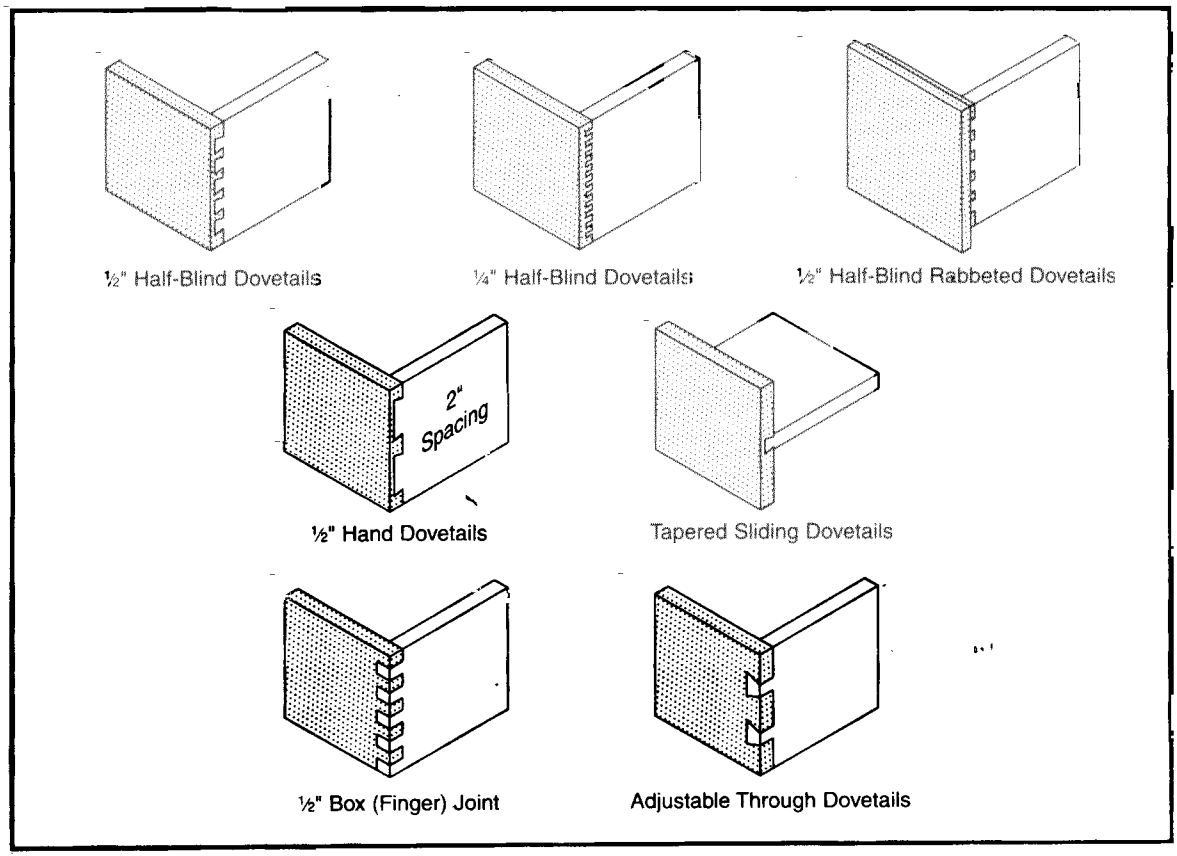


Fig. 1

The 5116 (16") OMNIJIG® can be used with stock up to 16" wide and 5/16" to 1" thick. The 7116 (24") OMNIJIG® can be used with stock up to 24" wide and 5/16" to 1" thick.

PREPARING OMNIJIG®

The OMNIJIG® should be securely mounted to a sturdy bench or stand to prevent movement during routing operation Two clearance holes for ⅜" dia. bolts are provided at each end of the base for this purpose.

Fig. 2 illustrates the various parts of the OMNIJIG®.

The OMNIJIG® is completely assembled at the factory.

1. Base
2. Front Clamp
3. Top Clamp
4. Templet
5. Templet Brackets
6. Top Left Stop Bar
7. Front Left Stop Bar
8. Top Right Stop Bar
9. Front Right Stop Bar
10. Stop Bar Locking Screws (4)
11. Clamp Nuts (4)
12. Templet Securing Knobs (2)
13. Clamping Levers & Knobs
14. Spacers
15. Nuts

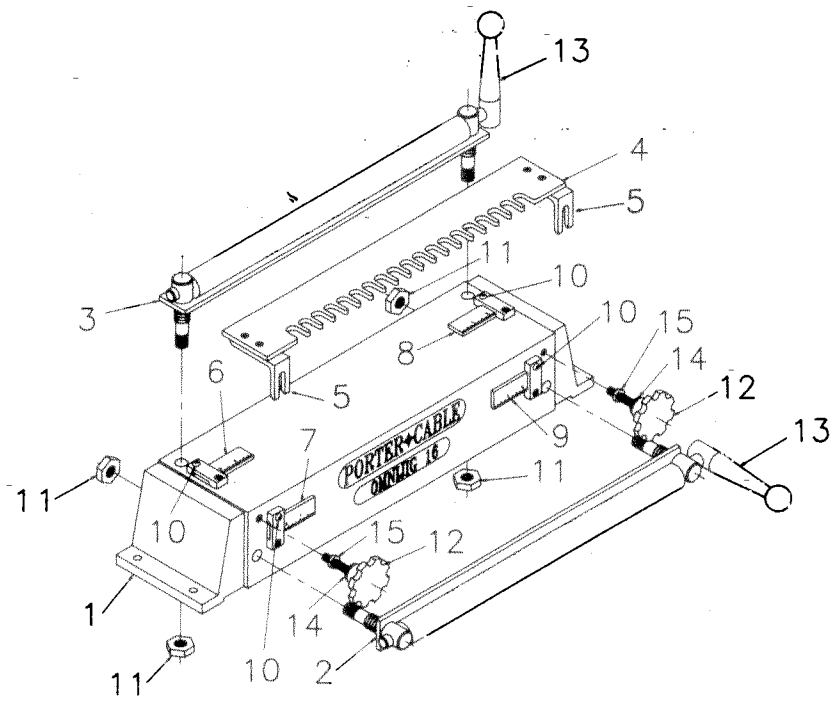


Fig. 2

ADJUSTING CLAMPS

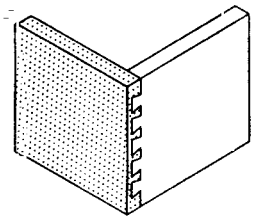
Place boards to be dovetailed under clamps. Adjust clamps by turning clamp nuts, located under base, by hand to loosen or tighten clamping action. **NOTE:** Pushing in on clamps allows clamp nuts to turn easily. Adjust clamp nuts at both ends of clamp evenly to maintain uniform clamping pressure.

ADJUSTING TEMPLET LOCATION

Front to back positioning of the templets is accomplished by varying the number of spacers (Ref. #14, Fig. 2) between the templet brackets and the rod nuts (Ref. #15, Fig. 2). The rod nuts can be turned to provide fine adjustment of templet position.

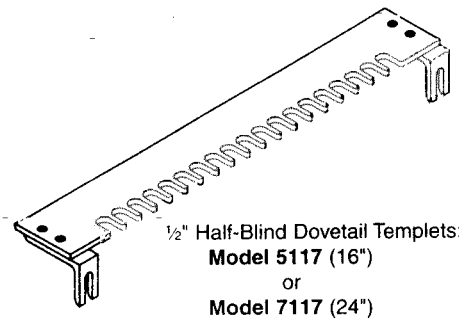
½" HALF-BLIND DOVETAILS

Half-blind dovetails are mainly used for attaching drawer fronts to sides.



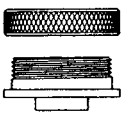
½" Half-Blind Dovetails

ACCESSORIES REQUIRED:



½" Half-Blind Dovetail Templets:
Model 5117 (16")
or
Model 7117 (24")

½" Dovetail Bit:
43640 High Speed Steel
or
43705 Carbide Tipped



42046 ⅝" Templet Guide
42237 Lock Nut

Fig. 3

PREPARING OMNIJIG®

1. Adjust top clamp to secure thickness of material to be used for the drawer front.
2. Adjust front clamp to secure thickness of material to be used for drawer sides.
3. Loosen all stop bars and slide out of the way. Note these will be relocated and tightened later.

PREPARING ROUTER

1. **CAUTION:** DISCONNECT ROUTER FROM POWER SOURCE.
2. Insert templet guide, (A) Fig. 4, in hole (B), in router sub-base (C).
3. Install templet guide locknut (D) on templet guide and firmly tighten to lock templet guide in sub-base.
4. Insert dovetail bit, (A) Fig. 5, through templet guide into router collet.
5. Adjust router so dovetail bit projection (B) from bottom of router sub-base (C), is 19/32".

The router is now ready to cut ½" dovetail joints.

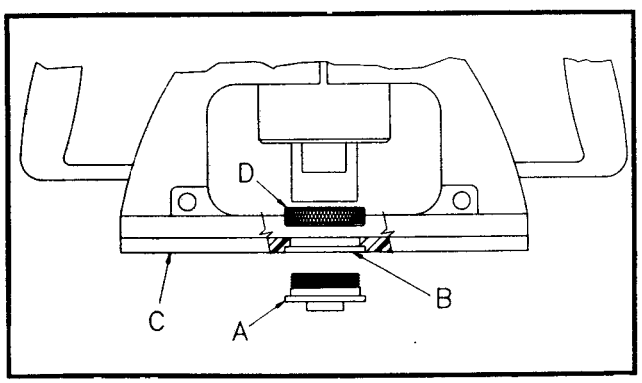


Fig. 4

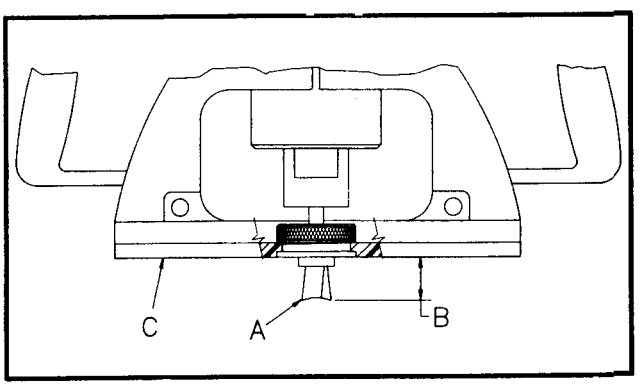


Fig. 5

IDENTIFYING DRAWER PARTS

It is recommended that scrap lumber be used when making your first dovetail cut so all adjustments and fits can be checked to ensure a satisfactory joint. Once the OMNIJIG® and router have been set up to rout a satisfactory dovetail joint, any number of joints can be made.

1. Arrange the drawer front and side pieces as shown in Fig. 6.

   NOTE: Ends of front and side pieces must be cut square with the length of the pieces to produce good dovetail joints.

2. Mark the "outside", "inside" and "ends" of each piece as shown.

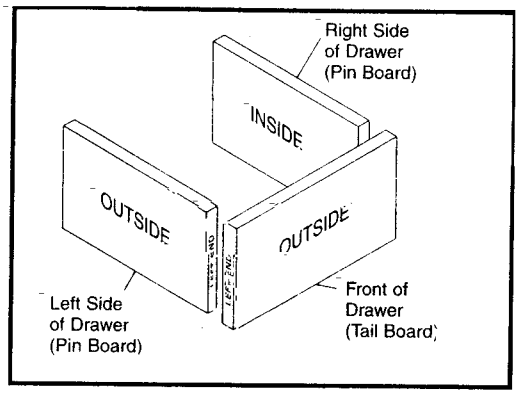


Fig. 6

CLAMPING DRAWER PARTS

1. Temporarily clamp the left side of drawer (pin board) "inside out" under front clamp extending approximately ¼" above top surface of jig.

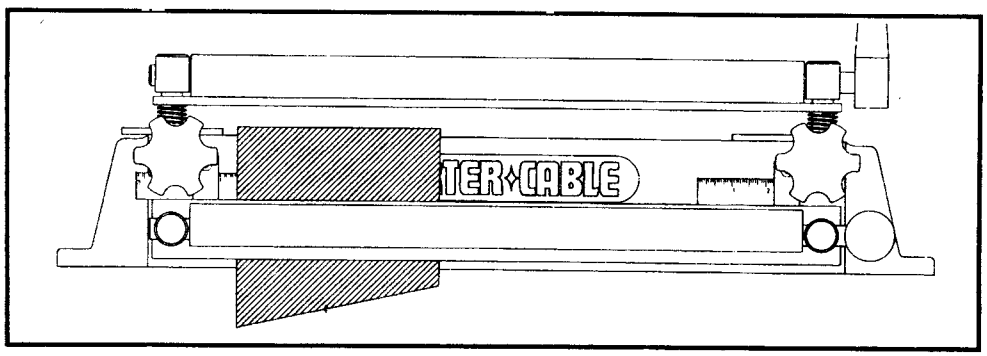


Fig. 7

2. Place drawer front (tail board) "inside up" under top clamp and butt against left side of drawer.

3. Place ½" Half-Blind Dovetail templet on top of drawer front and position so that there is about 19/32" (see Fig. 8), from the back edge of the templet slots to the edge of the drawer front at both ends of the templet and tighten knobs to secure templet in place.

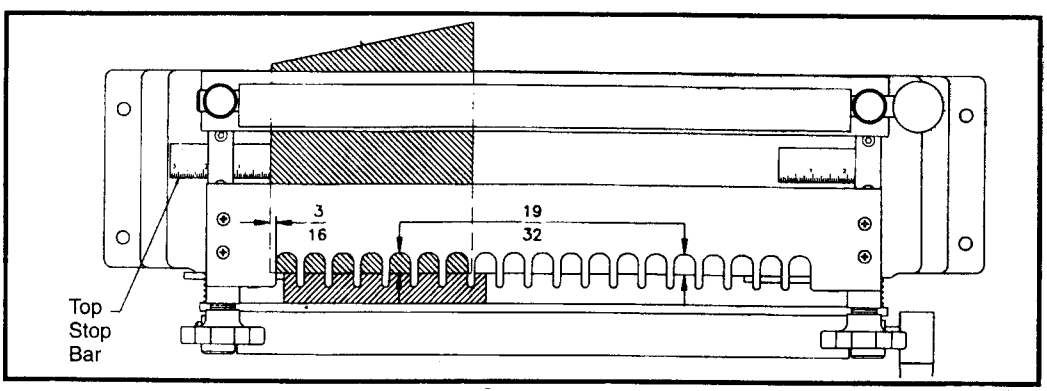


Fig. 8

4. Position drawer front so that the left edge is 3/16" (see Fig. 8), past the left edge of the first templet slot and clamp board in place.

5. Slide top stop bar (see Fig. 8), to the right to contact drawer front and lock in place.

6. Loosen front clamp and raise left side of drawer so that it touches bottom of templet 7/16" (see Fig. 9), from left edge of top board and clamp in place.

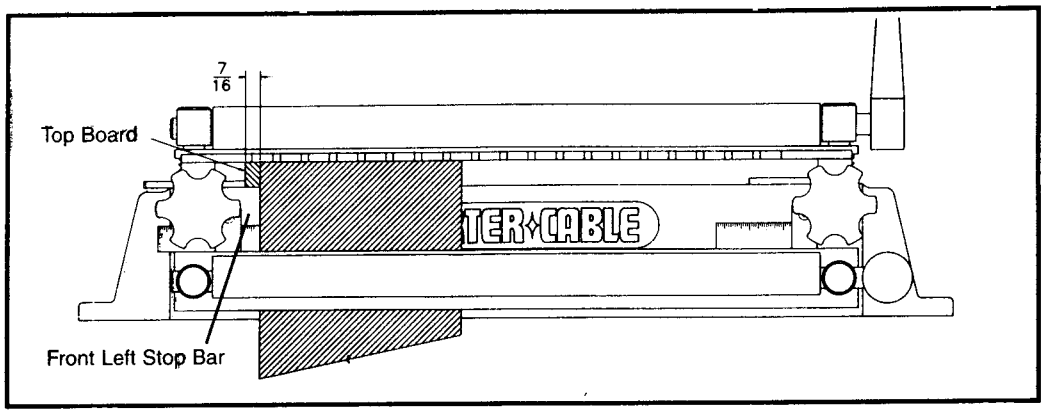


Fig. 9

7. Slide front left stop bar to the right to contact side of drawer and lock in place.

ROUTING DOVETAILS

1. Be sure router motor is "off" and plug into power source.

2. Set router squarely on finger templet to the right of drawer pieces.

3. Make sure bit is clear of work and will not strike machine base.

4. Start the motor and make the first cut along the entire outside edge of the finger templet from right to left, in the direction of the arrow (A) Fig. 10. This will prevent chipping of the edge of the drawer piece when the router is moved in and out of the templet.

5. Now, carefully move the router from left to right around the templet outline, in and out of the slots as shown by arrow (B) Fig. 10.

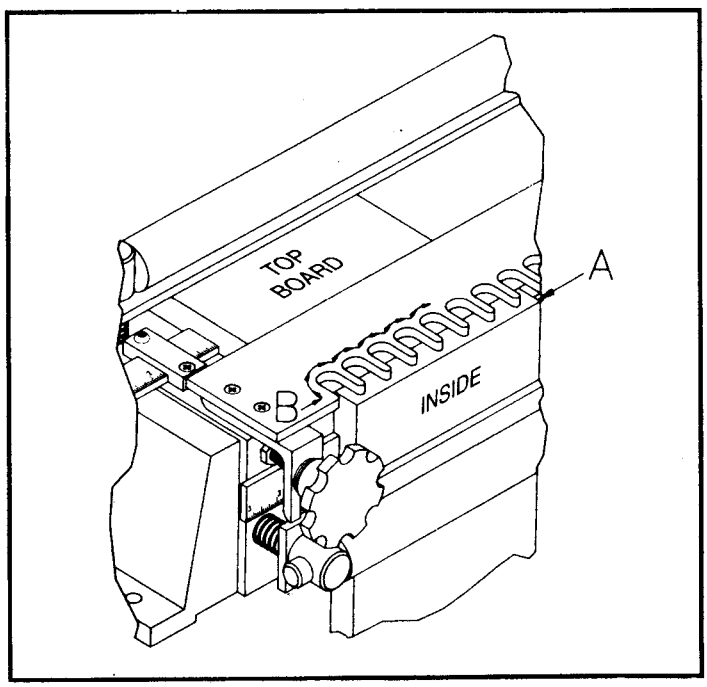


Fig. 10

6. Next, examine the drawer pieces to make sure they have been cleanly routed. See Fig. 1

7. Remove drawer pieces and fit together, matching dovetail (A) with slot (B), Fig. 11.

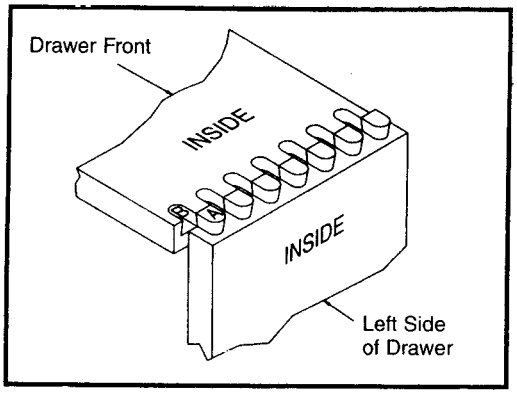


Fig. 11

CAUTION: DISCONNECT ROUTER FROM POWER SOURCE BEFORE MAKING ADJUSTMENTS TO ROUTER.

If **joint is loose**, slightly **increase depth** of cut. If **joint is tight**, slightly **decrease depth** of cut. The bit is raised or lowered by adjusting the router motor in the router base with the motor "off".

8. After obtaining a snug dovetail, assemble parts and check the relation of the end of the drawer front to the side of the left side of the drawer. If the drawer **front overhangs** side of drawer, **decrease** 19/32" dimension in step 3 under CLAMPING DRAWER PARTS. If **side of drawer overhangs** front, **increase** 19/32" dimension.

9. Fig. 12 shows both the left and right corner of a drawer fitted together after they were both routed from the left end of the templet. Note the location of partial pins on drawer sides.

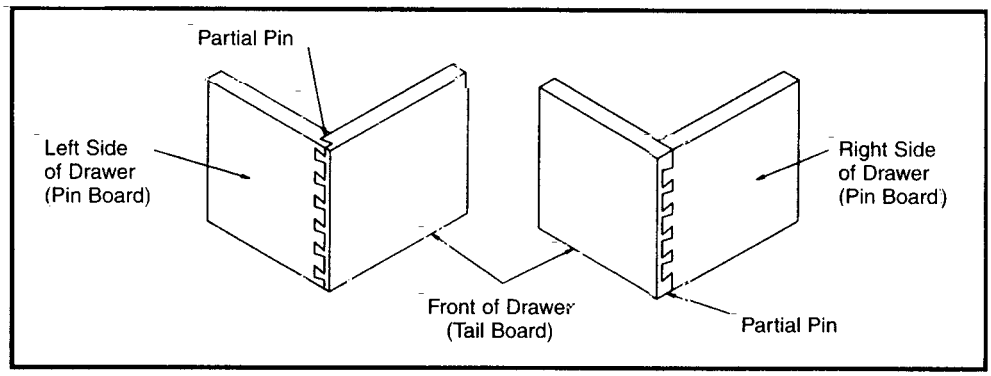


Fig. 12

10. If for appearance reasons the partial pins are desired to be in the same location of both sides of the drawer as shown in Fig. 13, then rout the right end of the drawer front and right side of the drawer on the right end of the templet. Adjust the right stop bars the same as those on the left (mirror image).

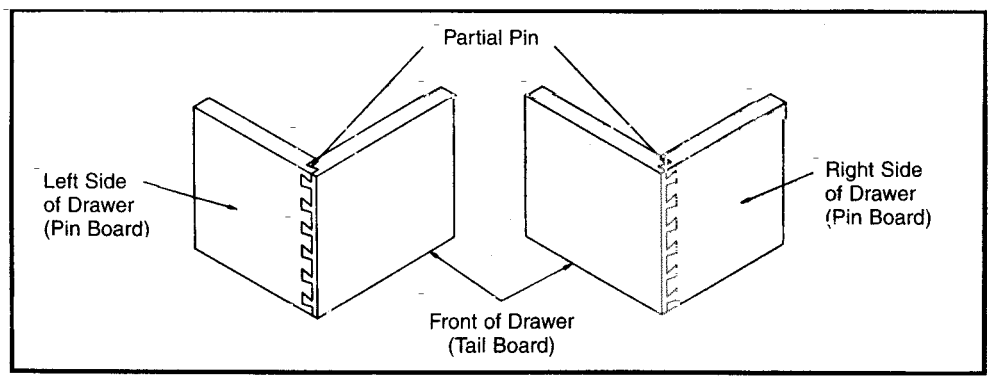
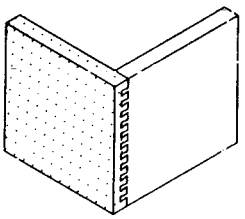


Fig. 13

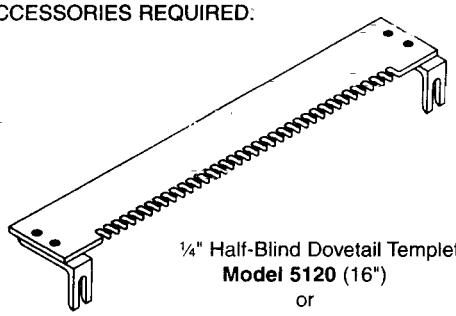
¼" HALF-BLIND DOVETAILS

¼" Half-Blind Dovetails are identical to ½" Half-Blind Dovetails except they are obviously smaller.



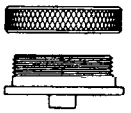
¼" Half-Blind Dovetails

ACCESSORIES REQUIRED:



¼" Half-Blind Dovetail Templets:
Model 5120 (16")
or
Model 7120 (24")

¼" Dovetail Bit:
43639 High Speed Steel



42054 5/16" Templet Guide
42237 Lock Nut

Fig. 14

PREPARE OMNIJIG® THE SAME AS FOR ½" HALF-BLIND DOVETAILS

Prepare router the same as for ½" half-blind dovetails except install 42054 templet guide, 43639 bit and adjust depth of cut (B) Fig. 5, to 5/8".

CLAMPING DRAWER PARTS AND ROUTING DOVETAILS

Follow the same instruction as specified for ½" half-blind dovetails except locate templet and fences as shown in Fig. 15.

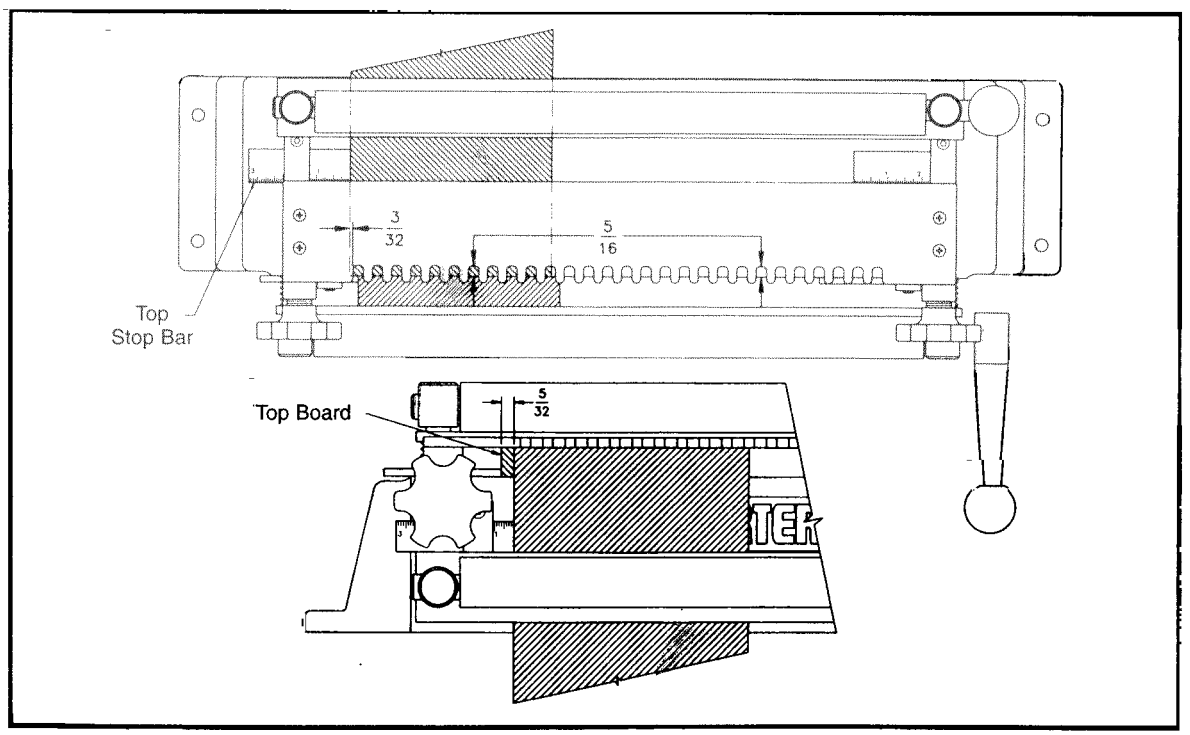


Fig. 15

½" AND ¼" HALF-BLIND RABBETED DOVETAILS

A rabbetted dovetail is when the front of drawer overlaps the sides of a drawer. Both ½" and ¼" rabbeted dovetails may be produced.

ACCESSORIES REQUIRED

The same accessories are required as those for ½" or ¼" half-blind dovetails, depending on the size desired.

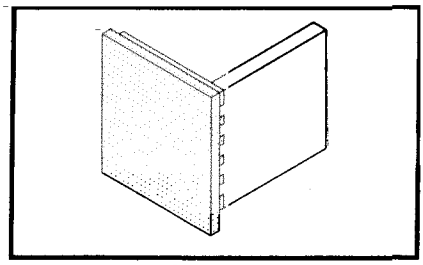


Fig. 16

PREPARING OMNIJIG® AND ROUTER

The OMNIJIG® and Router are prepared the same as that for ½" and ¼" half-blind dovetails depending on size to be cut.

PREPARING DRAWER FRONT

The drawer front should be ¾" longer and ¾" wider than the drawer size required and have a ⅜" × 7/16" deep rabbet cut completely around the inside of the drawer front.

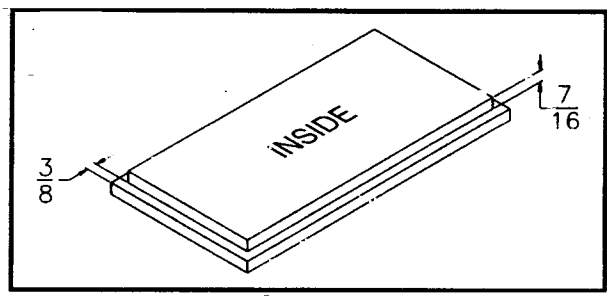


Fig. 17

CLAMPING DRAWER PARTS AND ROUTING DOVETAILS

Parts are clamped and routed much in the same manner as those for flush dovetails, except the location of the drawer front on the OMNIJIG® must be adjusted to allow for the rabbet, and front and sides of drawer must be routed separately.

CLAMPING DRAWER PARTS

1. Position drawer front "inside up" on top of jig maintaining dimensions to templet shown in Fig. 18.

A gauge block with a ⅜" rabbet may be used to position drawer front as shown in Fig. 18A.

2. Locate drawer sides same as for flush dovetails.

ROUTING DOVETAILS

Dovetails are routed in the same manner as for flush dovetails except they are done individually.

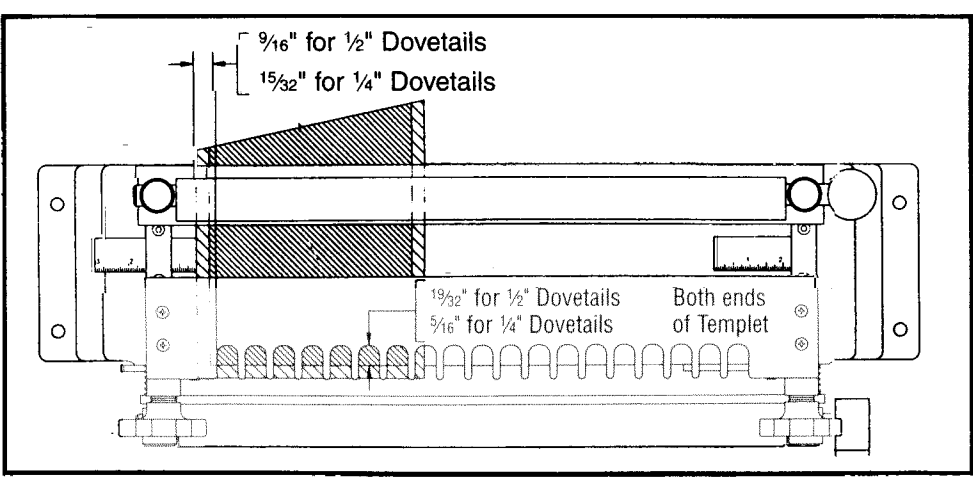


Fig. 18

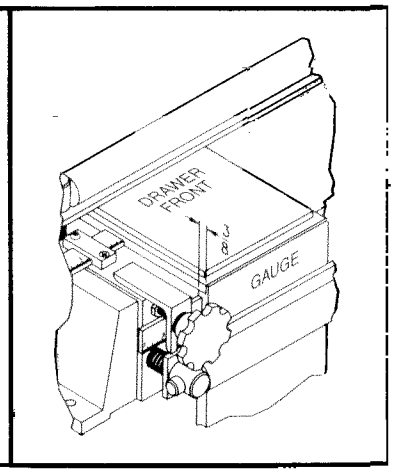
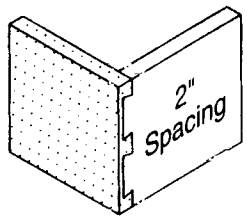


Fig. 18A

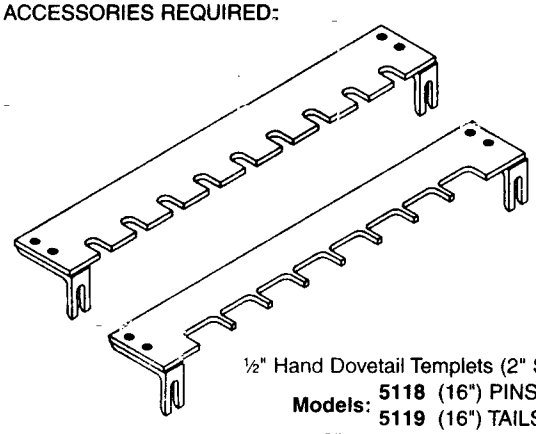
½" HAND DOVETAILS (2" SPACING)

Spaced dovetails are used to produce widely spaced half-blind dovetails and exposed joinery in contemporary woodwork as used in most dovetailing work prior to the use of multi-spindle dovetailing machines.

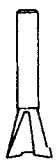


½" Hand Dovetails

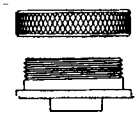
ACCESSORIES REQUIRED:



½" Hand Dovetail Templets (2" Spacing)
Models: **5118** (16") PINS and **5119** (16") TAILS
or
Models: **7118** (24") PINS and **7119** (24") TAILS



½" Dovetail Bit:
43640 High Speed Steel
or
43705 Carbide Tipped



42046 ⅝" Templet Guide
42237 Lock Nut

Fig. 19

PREPARING OMNIJIG® AND ROUTER

The OMNIJIG® and Router are prepared the same as that for " half-blind dovetails except separate templets are used to cut the pins and tails.

WIDTH OF MATERIAL

While 2" dovetails may be produced on any width of material from 2¼" up to machine capacity (16" or 24"), there are certain widths that are more ideal than others. These widths may be determined by the following formula:

2 x Number of Pins + ⅛ = Ideal Width, Tolerance – ⅛", + ⅜"

For other widths, in order to have the dovetails centered, partial pins will be left on the pin board and must be cut off before assembly, (see Fig. 21B).

ROUTING TAIL BOARDS

1. Temporarily clamp pin board under front clamp extending approximately ¼" above top surface of jig.
2. Place tail board "inside up" under top clamp and butt against pin board.
3. Place Tail Templet on top of tail board and position so that the distance from back edge of the templet slots equals the thickness of the pin board plus ⅛" (see Fig. 20). This distance must be the same at both ends of the templet. Tighten knobs to secure templet in place.
4. Center tail board with respect to the fingers so that dimensions, (A) Fig. 20, are equal and clamp board in place.
5. Slide top stop bar to the right to contact tail board and lock in place.
6. Loosen front clamp and remove pin board.
7. Rout tail board same as that for ½" half-blind dovetails. **NOTE:** When routing material that is other than "ideal widths", do not cut the last partial dovetail. See Fig. 20.

CAUTION: Hold router firmly as you'll be cutting some material without the templet guide contacting a templet edge.

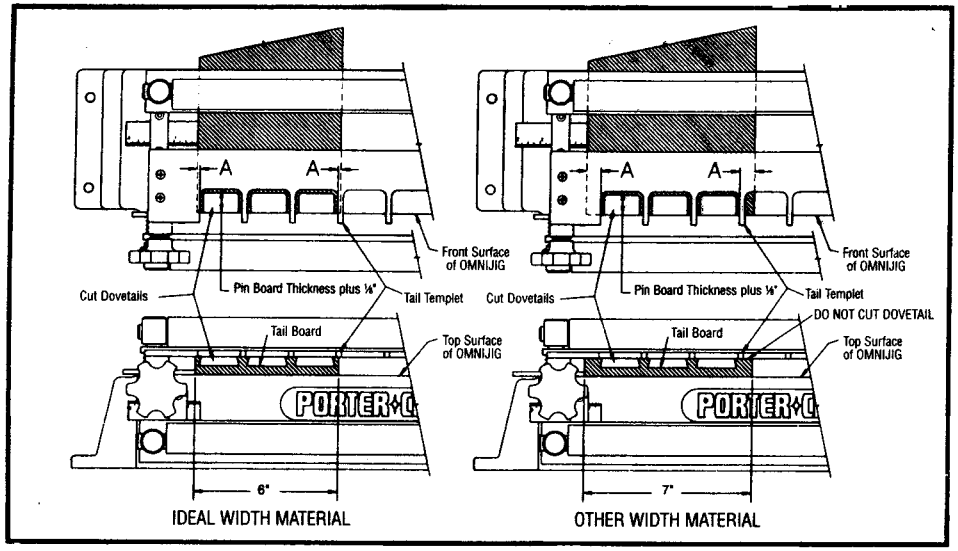


Fig. 20

8. To rout opposite end of tail board, loosen clamp and rotate tail board keeping "inside up", and locate again stop bar.
9. Position edge of tail board as previously done, clamp securely and rout.

ROUTING PIN BOARDS

1. Remove tail templet from OMNIJIG®.
2. Place a scrap piece of material that is the same thickness and approximately 1" wider than the tail board under top clamp and locate front edge as though it was the tail board. This will serve as a back up board when cutting the pins and reduce tear-out when routing.
3. Place Pin Templet on top of scrap piece, position so that front edge will overlap the pin board evenly for the full length and secure in position.
4. Insert pin board under front clamp "inside out", butt against bottom of pin templet and center so that dimensions (B), Fig. 21A or 21B, are equal. Clamp securely in place.
5. Slide front left stop bar to the right to contact pin board and lock in place.
6. Rout pins.

NOTE: When routing material that is other than "ideal widths", partial pins will remain on left and right ends of the pin board. See Fig. 21B. These may be removed by moving the pin board to the right so pins may be routed off, or they may be cut off with a hand saw or jig saw.

7. To rout opposite end of pin board, loosen clamp, rotate pin board, (keeping inside out) and locate against front left stop bar, bottom of pin templet and route as above.

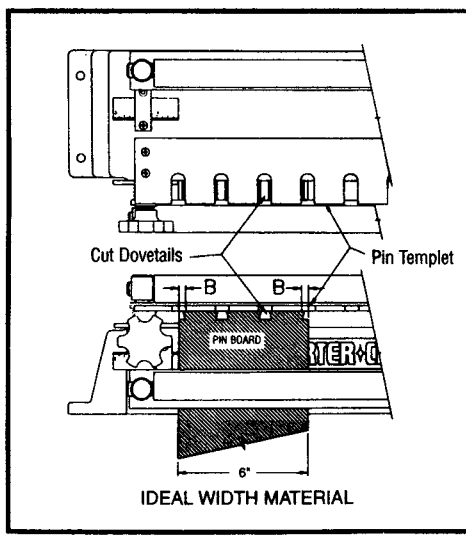


Fig. 21A

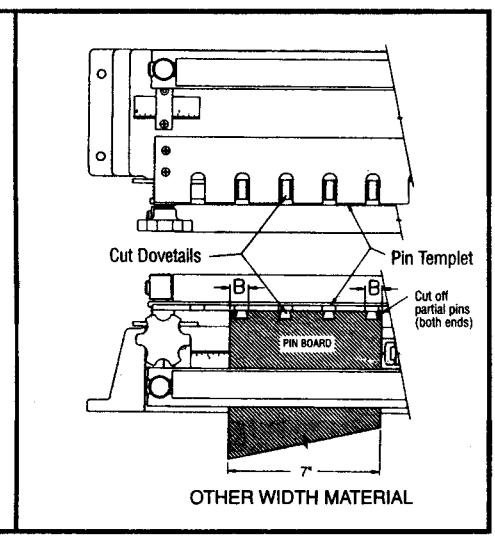


Fig. 21B

NOTES:

ADJUSTABLE THROUGH DOVETAILS

The through dovetail duplicates the hand cut version found on some antique furniture and boxes.

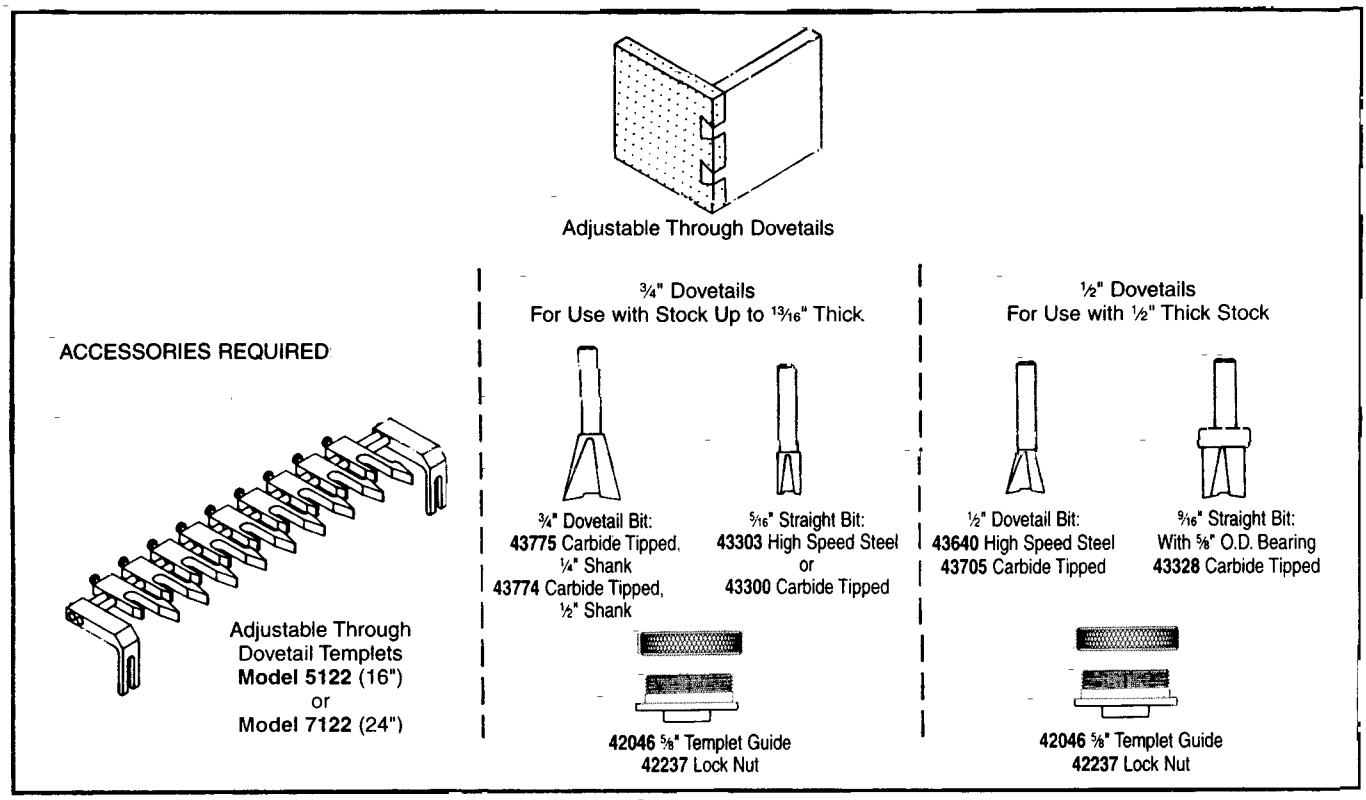


Fig. 22

PREPARING OMNIJIG® FOR TAIL BOARD

1. Adjust top clamp bar to secure material that is at least ¼" thicker than boards to be dovetailed. **This is required so that cutters do not contact jig base** as all boards to be dovetailed are located behind the front clamp.

2. Position thick and thin spacers on templet bracket rods as shown in Fig. 23, and adjust bracket and rod nuts 1/16" to ⅛" out from front face of jig.

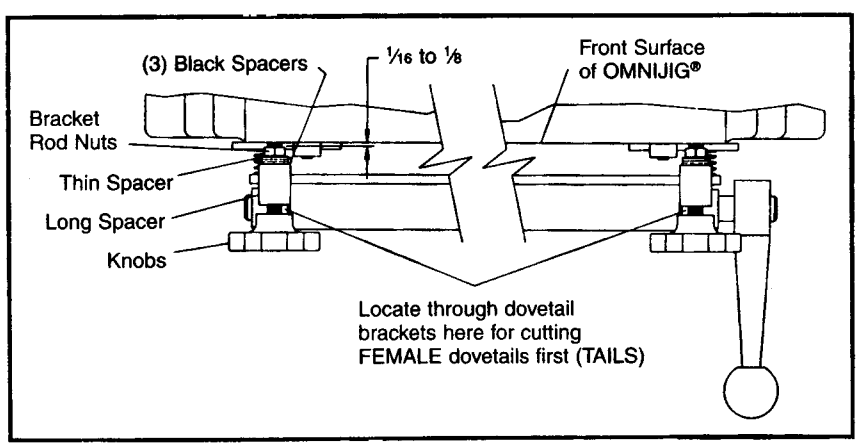


Fig. 23

3. Loosen front left stop bar and locate as shown in Fig. 24, for cutting female dovetails first (tails).

4. Adjust front clamp bar to secure material for tail board that is to be dovetailed.

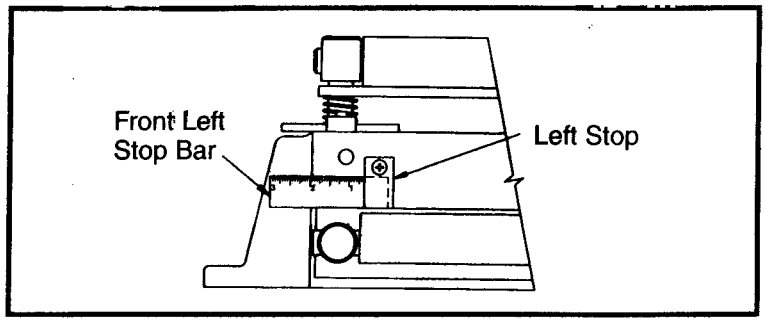


Fig. 24

CUTTING TAIL BOARD (Female Dovetail)

1. Place a scrap piece of wood that is at least ¼" thicker and at least as wide as the boards to be dovetailed on top of the jig under the top clamp.

2. Place Through Dovetail Templet on top of scrap piece of wood (step 1) locating brackets in space shown in Fig. 23, and tighten knobs.

NOTE: Templet should seat on scrap piece of wood. If scrap is not very wide, slide it to the left and right underneath the templet to make sure the templet is the same height along its entire length.

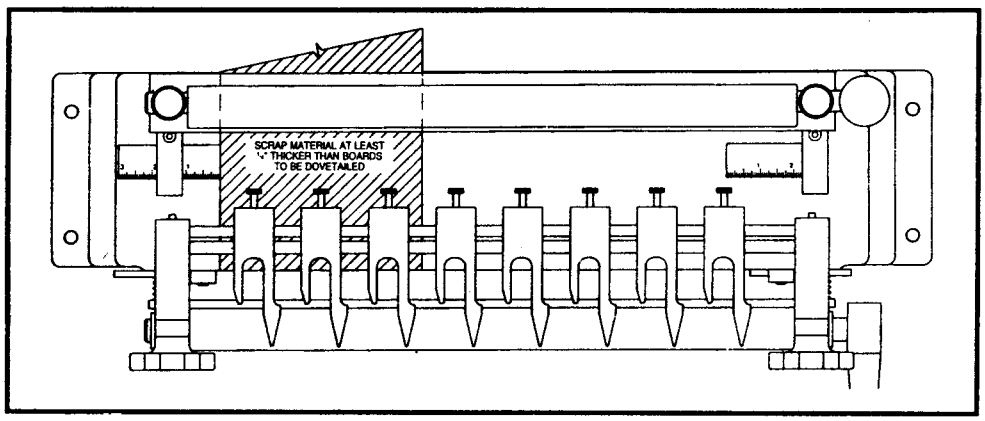


Fig. 25

3. Place tail board (with outside facing jig) under front clamp, against left stop, and up against underside of templet. Clamp in place.

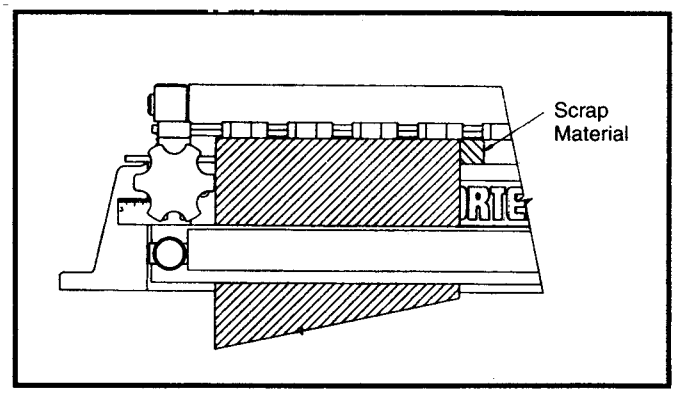


Fig. 26

4. Loosen locking screws on templet forks and slide into desired location. Tighten locking screws securely. If "T" shaped plastic caps on locking screws protrude above templet, they may be pried off and repositioned to eliminate interference with router base.

NOTE: For your first dovetailing sample we suggest you use ¾" thick material, 7½" wide, 12" long. Although the template forks may be located at any spacing, 3/16" and 2" are used for this example. Locate first templet fork 3/16" from edge of board and locate other forks 2" center to center.

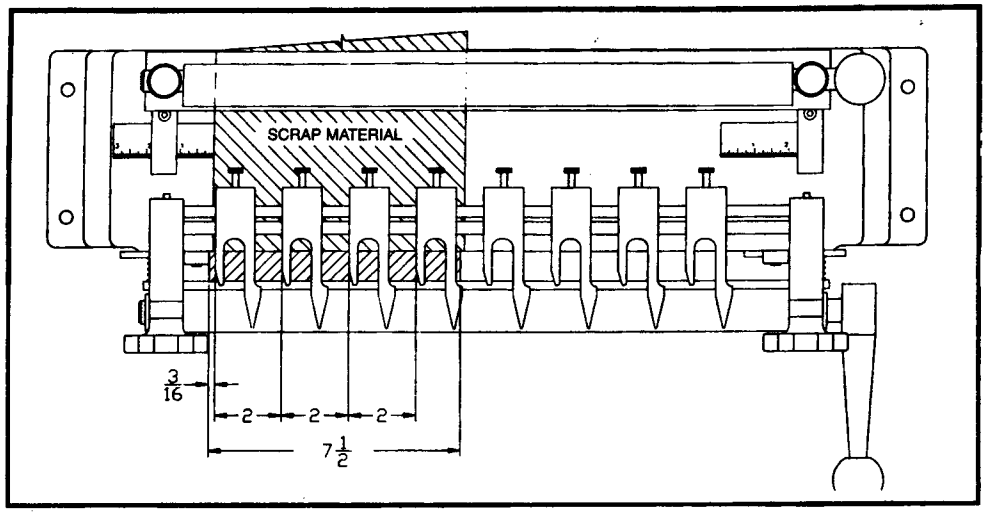


Fig. 27

CAUTION: If forks are located 3" or more apart, be very careful when routing as there may not be enough support for the router base, depending on the size of the router base.

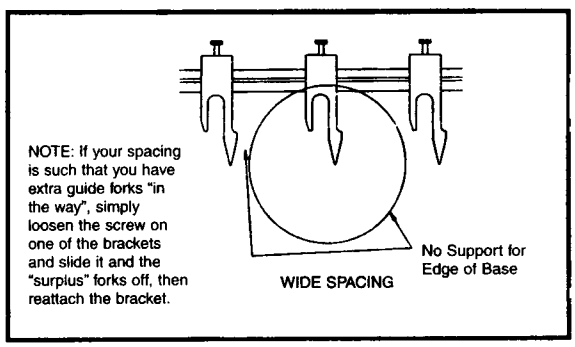


Fig. 28

5. Assemble templet guide to router base and insert either the ½" or ¾" dovetail bit through guide and into router chuck, tighten securely.
6. Adjust depth of cut such that the dovetail cutter extends ½" plus the thickness of the pin board from the router base.

NOTE: 1/32" may be added to depth of cut for sanding flush later.

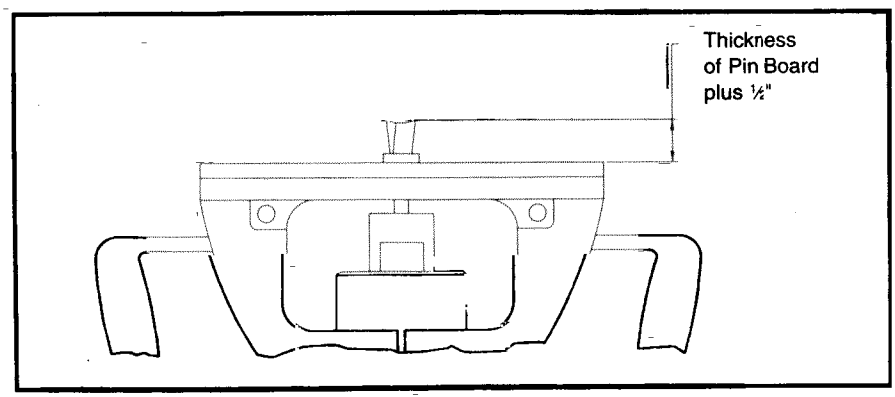


Fig. 29

7. Slide scrap piece of wood (step 1 above) against tail board, to prevent tear-out when routing and clamp in place
8. Carefully rout tails by using the guide slots in each fork.

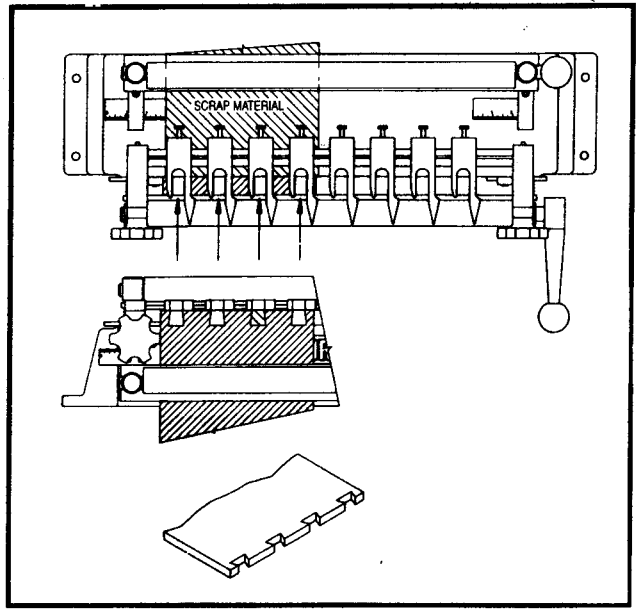


Fig. 30

9. Remove the board from jig.
10. When making a box, rotate tail board as shown and rout tails on other end repeating preceding directions. Two tail boards required per box.

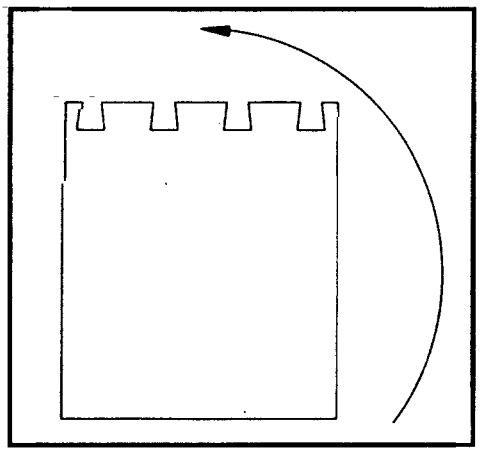


Fig. 31

PREPARING OMNIJIG® FOR PIN BOARD

1. Reposition dovetail templet by locating brackets between the thin spacer and first black spacer.
2. Loosen left stop and slide stop bar to right so it extends ½" and lock in place.

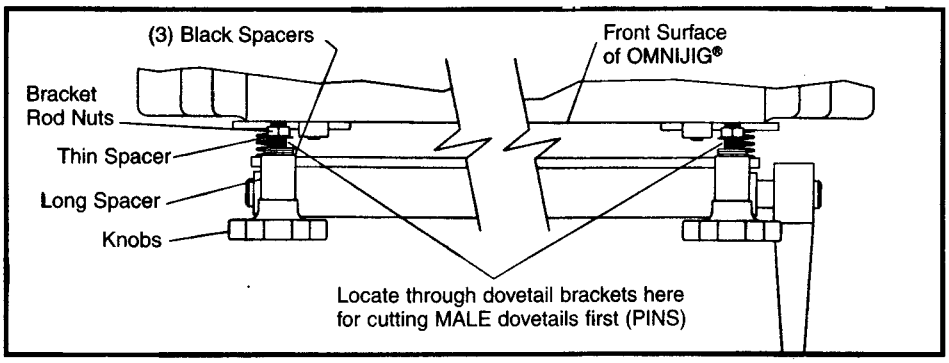


Fig. 32

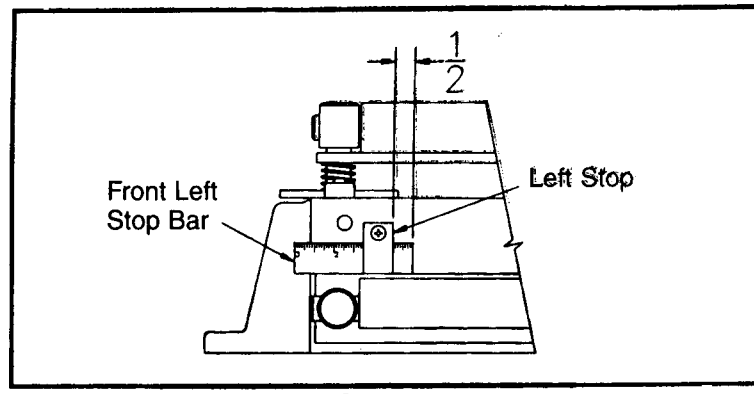


Fig. 33

3. Adjust front clamp bar to secure material for pin board if pin board is different thickness than tail board.

CUTTING PIN BOARD (Male Dovetail)

1. Place Through Dovetail Templet on top of same piece of scrap material used for tail board, making sure it is the same height along its entire length and tighten knobs.

2. Place pin board (with outside facing clamp bar) under front clamp bar, against left stop bar and up against underside of templet. Clamp in place.

NOTE: Do not change location of templet forks from that used for tail board.

3. Remove ¾" dovetail bit from router and insert 5/16" dia. straight bit, or (if making ½" through dovetails) remove ½" dovetail bit and template guide from router; install 9/16" dia. straight bit with ball bearing guide.

4. Adjust depth of cut so that it equals ½" plus the thickness of the tail board.

5. Slide scrap piece of wood (step 1 above) against pin board to prevent tear-out when routing and clamp in place. (Place uncut end of scrap piece against pin board).

6. Carefully rout pins by using space between forks.

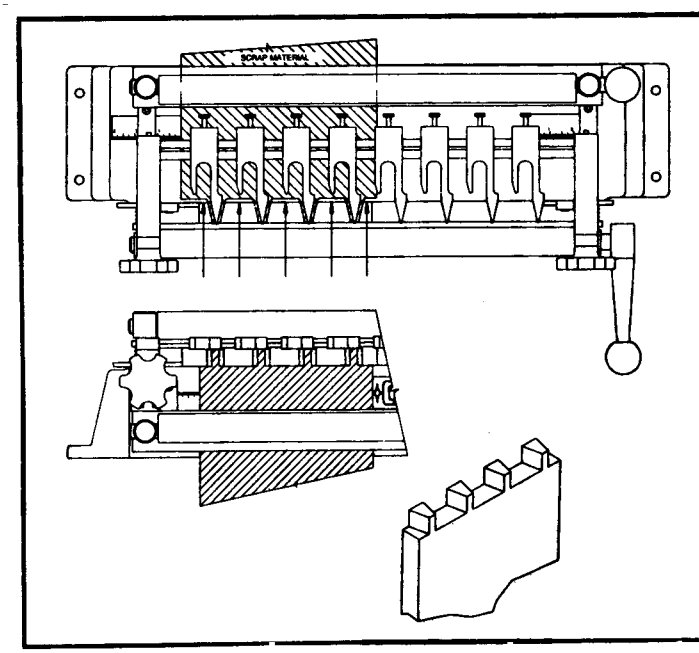


Fig. 34

7. Remove pin board from jig.

8 When making a box, rotate pin board as shown and rout pins on other end by repeating preceding directions

Two pin boards required per box.

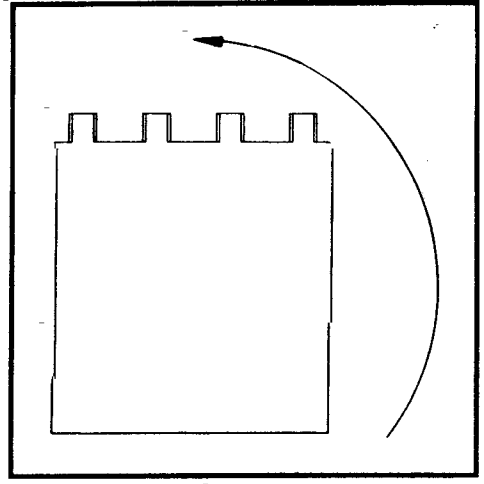


Fig. 35

INSPECTING FIT OF PIN AND TAIL BOARDS

1. If fit is too tight, turn bracket rod nuts clockwise (towards templet) to make pins smaller.
2. If fit is loose, turn bracket rod nuts counterclockwise (towards clamp) to make pins larger.
3. Cut new pin boards until desired fit is obtained.

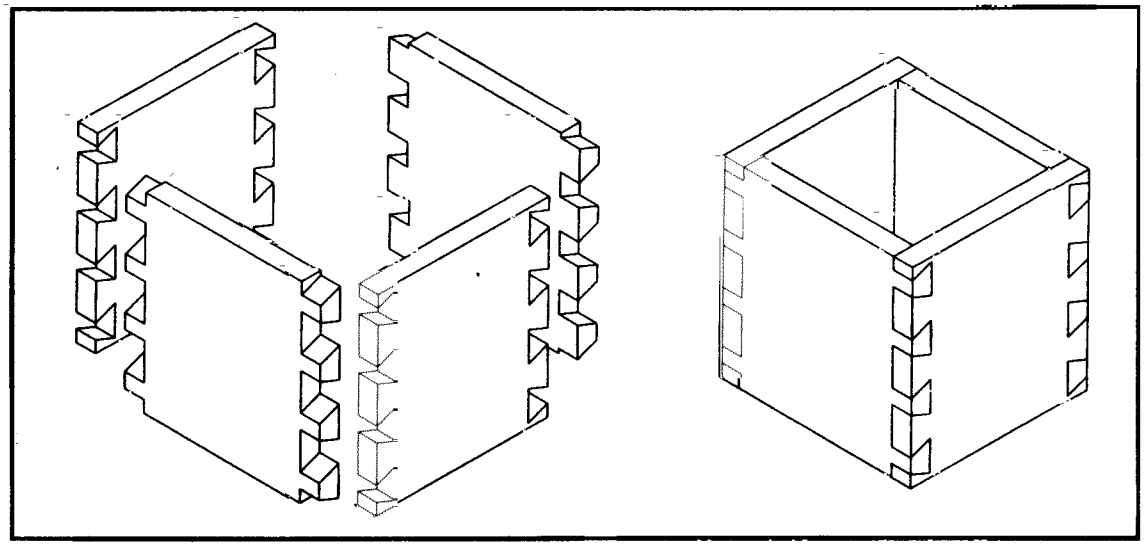
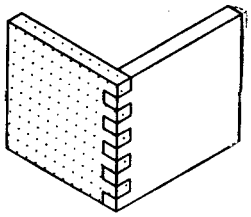


Fig. 36

NOTES:

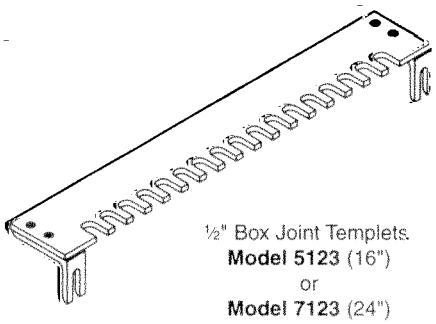
½" BOX (FINGER) JOINTS

As the name implies, box joints are used at the corners of boxes to be glued together eliminating the use of nails or screws.



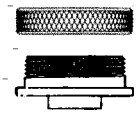
½" Box (Finger) Joint

ACCESSORIES REQUIRED:



½" Box Joint Templets
Model 5123 (16")
or
Model 7123 (24")

½" Straight Bit:
43321 High Speed Stee
or
43318 Carbide Tipped



42046 ⅝" Templet Guide
42237 Lock Nut

Fig. 37

PREPARING OMNIJIG®

1. Adjust top clamp to secure material that is at least ¼" thicker than boards to be joined. **This is required so that router bit does not contact jig base** as all boards to be joined are located behind the front clamp.

2. Adjust front clamp to secure material that is to be joined. **NOTE:** Any material up to 13/16" thick can be joined together with box joints.

3. Loosen left stop bar and slide to left. **NOTE:** This will be relocated later.

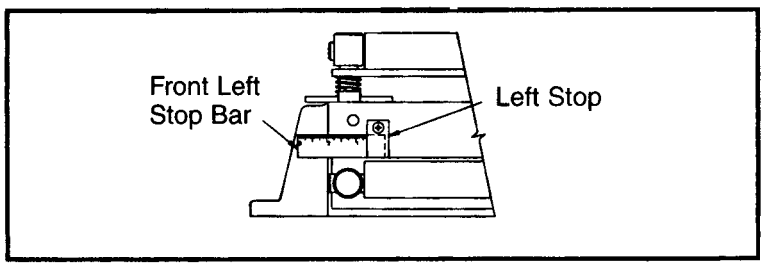


Fig. 38

CUTTING BOX JOINTS

1. Place a piece of scrap material that is at least ¼" thicker and at least as wide as the boards to be joined on top of jig under clamp.

2. Place Box Templet on top of scrap and position so that there is about ⅜" (Fig. 39) from back of templet slot to front face of jig at both ends of templet and tighten knobs to secure templet in place.

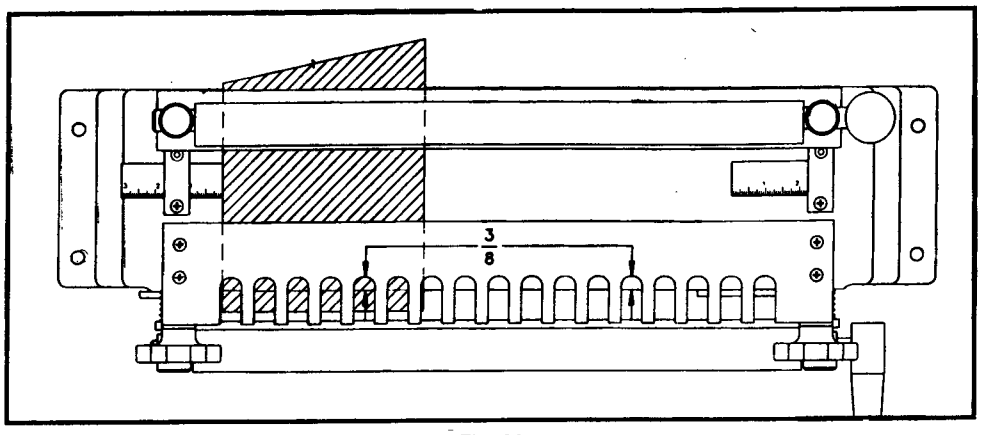


Fig. 39

3. Mark center of board to be routed and slide under front clamp, up against underside of templet, locating centerline mark 1/16" (Fig. 40) to the right of a templet finger. Clamp securely.

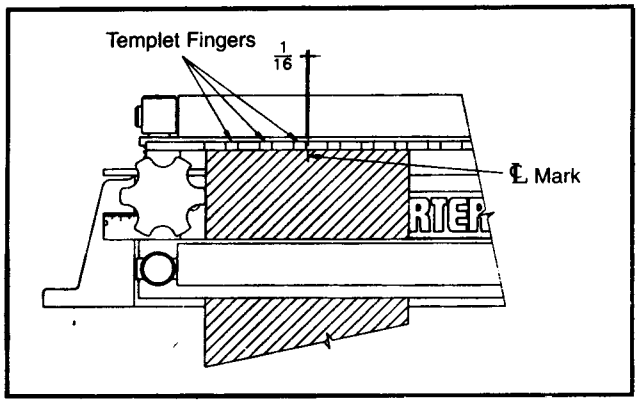


Fig. 40

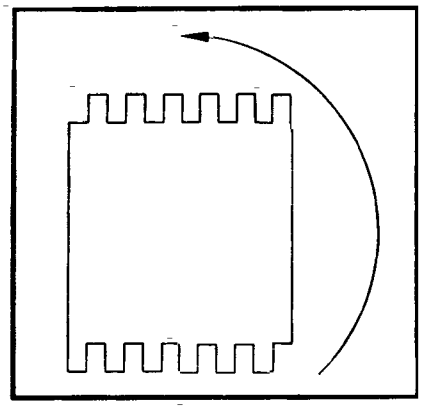


Fig. 41

4. Slide left stop bar to the right to contact board and lock in place.

5. Slide scrap material (step 1 above) against back of board to be routed, to prevent tear-out when routing, and clamp in place.

6. Assemble templet guide to router base and ½" straight bit in router chuck.

7. Adjust depth of cut to equal ¼" plus thickness of material to be box joined.

8. Before turning on router, place it on templet and check depth of cut to ensure it will clear jig when entering backup scrap material.

9. Carefully rout box joints and when completed, loosen front clamp, rotate material as shown in Fig. 41.

10. Locate material against left stop, up against templet, clamp in place, and rout other end.

11. Repeat steps 3, 9 and 10 for all sides of box.

Assemble Box

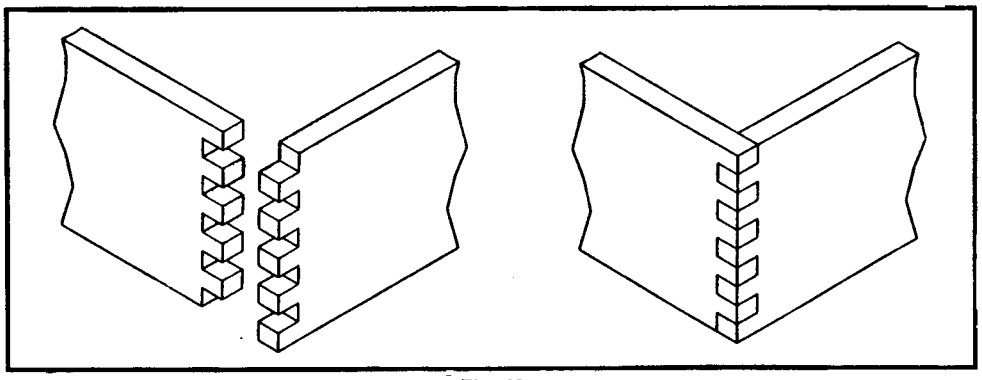


Fig. 42

TAPERED SLIDING DOVETAIL

The tapered sliding dovetail is a method of joining shelf boards to sides such as in bookcases, stereo cabinets and other types of furniture. The advantage of the taper is that the "male" dovetail slides freely in the "female" dovetail and tightens up when seated. The tightness of the joint can be controlled by the depth of the cut.

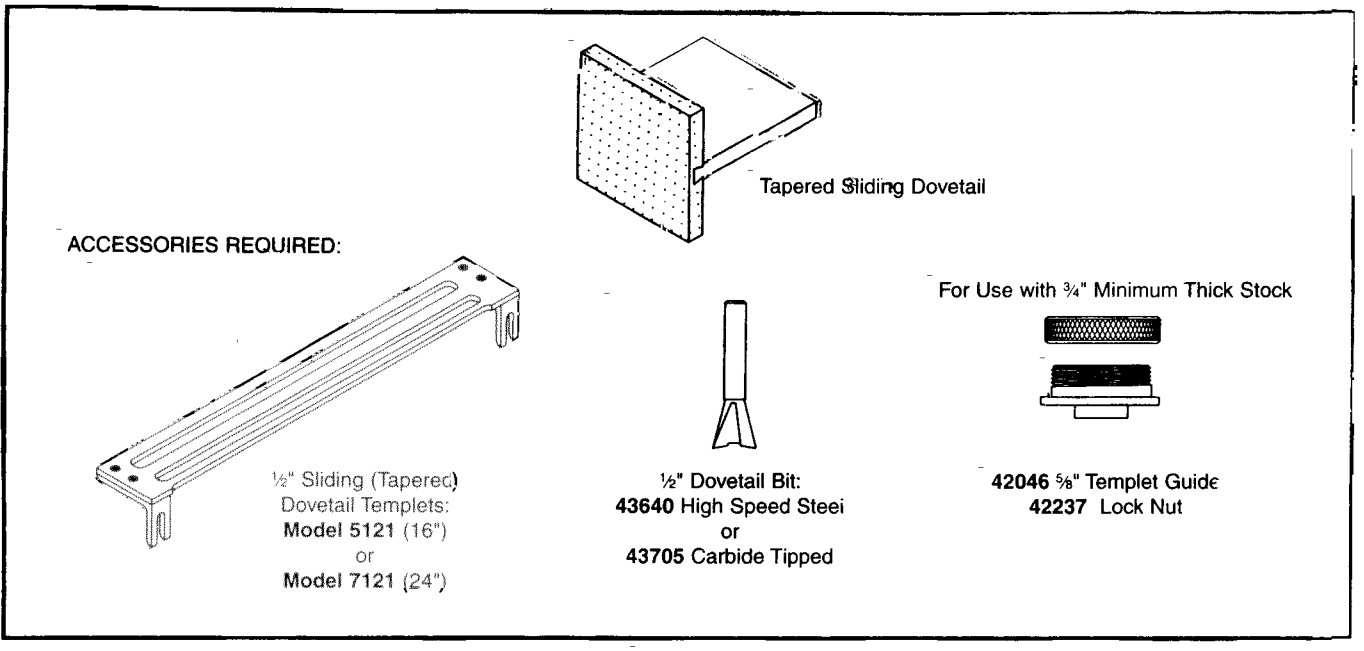


Fig. 43

PREPARING ROUTER

Prepare router same as for ½" half-blind dovetails except adjust depth of cut 23/32

TAPERED SLIDING TEMPLET

This templet has 2 slots and requires more caution to use safely than other templets.

DANGER: NEVER INSERT OR REMOVE THE CUTTER FROM TEMPLET SLOTS UNTIL THE CUTTER IS AT AN ABSOLUTE DEAD STOP. To do otherwise may damage the templet, dovetail bit, or cause bodily injury.

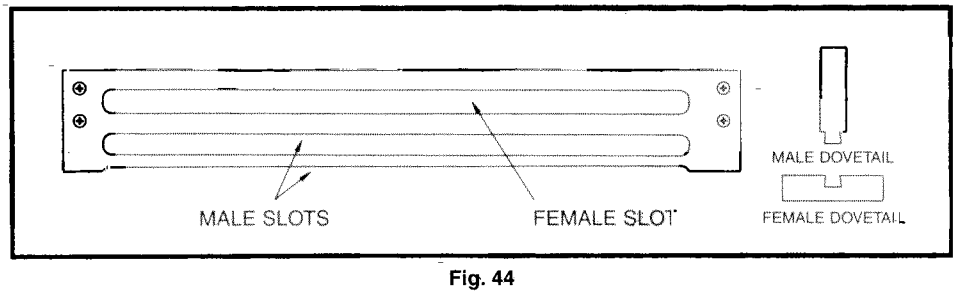


Fig. 44

PREPARING OMNIJIG® FOR MALE DOVETAIL

1. Place a board the same thickness as the "female board" under top clamp, flush with front edge of jig and clamp securely.

2. Place Sliding Dovetail Templet on "female board" keeping three black spacers in front of each bracket and one thin spacer behind each bracket, to secure templet in place.

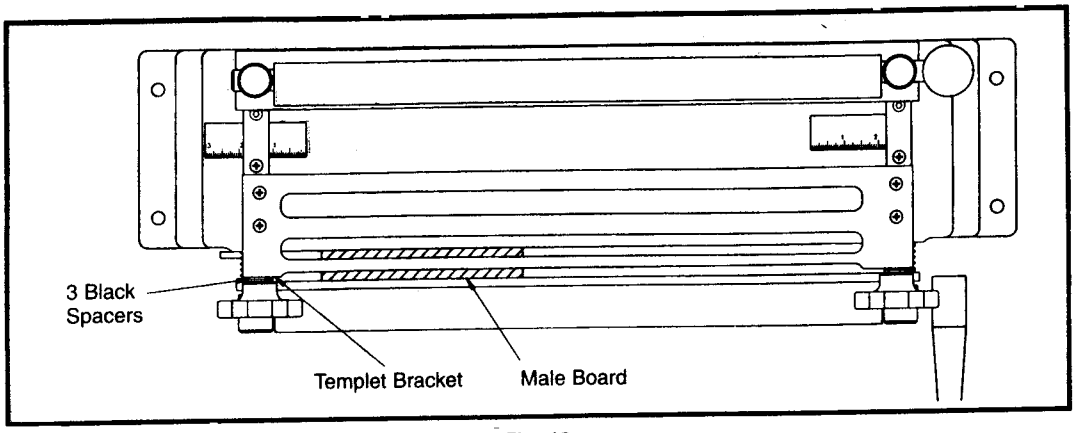


Fig. 45

3. Loosen left front stop bar.
   Place "male board" under front clamp, slide up to templet and as far left as it will go. Clamp securely in place.
5. Slide left front stop bar to male board and lock in place.
6. Adjust Sliding Dovetail Templet, using rod nuts, so that board is centered between the two "male slots" in templet.

CUTTING MALE DOVETAIL

WARNING: Be sure router is "off" and cutter is "dead stopped" before performing step 1.

1. Seat router on templet with bit to the **right** of the male board and with the templet guide engaged in the male slot.
2. Be sure router bit is clear of work, start router and make first cut by moving router to the **left.** When cut is complete, turn router "off" and wait for cutter to completely stop before removing router from templet.

CAUTION: Do not apply undue pressure against metal slot as it could distort slightly and affect accuracy of joint.

3. Rout other side of male dovetail by guiding router against opposite templet slot, moving **left to right**.

PREPARING OMNIJIG® FOR FEMALE DOVETAIL

1. Before removing male board from OMNIJIG®, set top left stop bar (Fig. 46) so that edge of female board will line up with edge of male board.
2. Remove male board, loosen female board and slide forward keeping left edge against stop bar and secure in place.
3. Slide a scrap piece of material (Fig. 47) up under front clamp and to the right of the female board to act as a front right stop bar.

NOTE: If the length of the female board is such that more than 2 feet overhangs the OMNIJIG® on either side, it is recommended that outboard supports be used to steady the board.

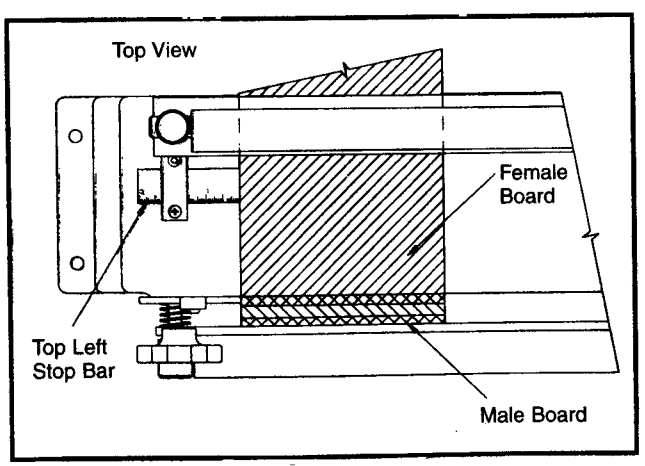


Fig. 46

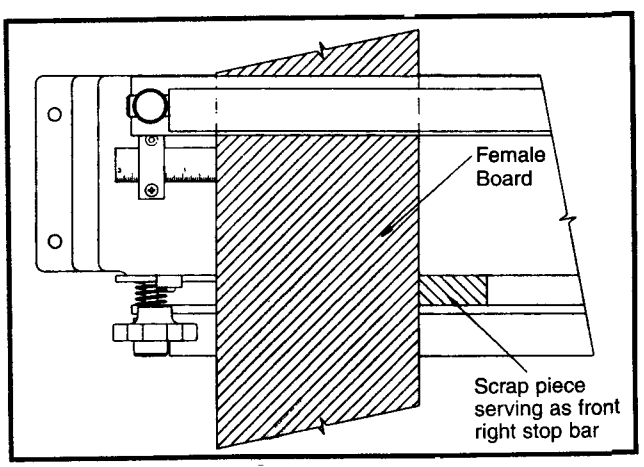


Fig. 47

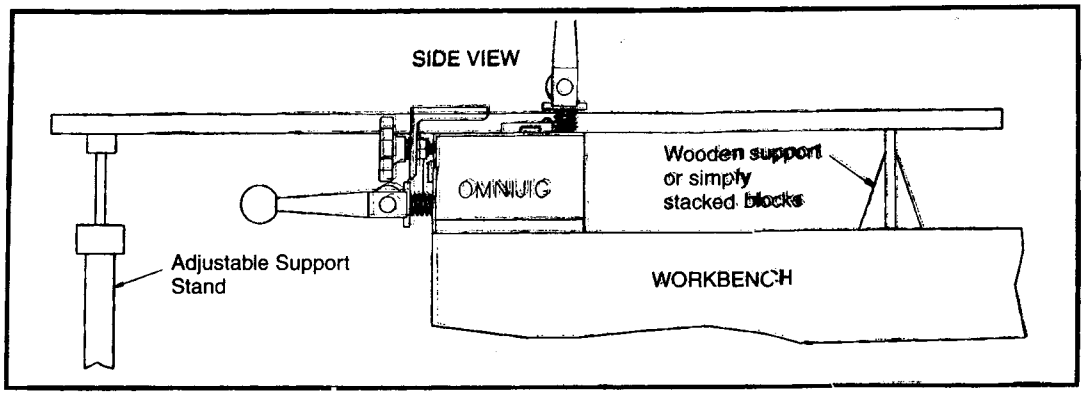


Fig. 48

4. If router base is larger than 5¾" diameter, loosen templet knobs and reposition templet with all spacers behind templet bracket. With templet seated on female board, tighten knobs to secure templet in place.

5. Reposition female board so that center of dovetail will be in center of female slot in templet, (Fig. 49) and secure in place.

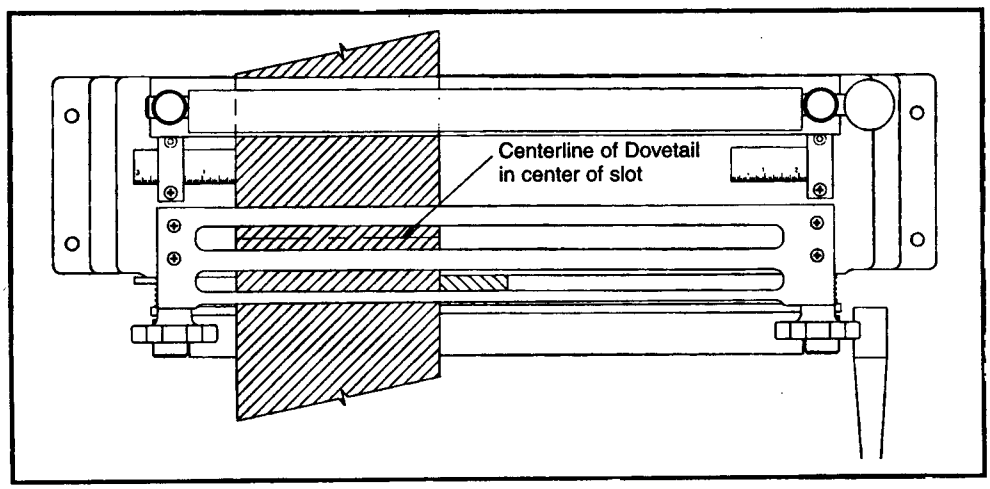


Fig. 49

CUTTING FEMALE DOVETAIL

WARNING: Be sure router is "off" and cutter is "dead stopped" before performing step 1.

1. Seat router on templet to the **left** of the female board with templet guide engaged in the female slot to the left as far as it will go.

2. Be sure router bit is clear of work, start router and make cut by running templet guide against each side of slot (moving in clockwise direction). When cut is complete, turn router "off" and wait for cutter to completely stop before removing router from templet.

CAUTION: Do not apply undue pressure against metal slot as it could distort slightly and affect accuracy of joint.

INSPECT FIT

If male board tightens up before being fully seated, router bit depth of cut is too deep. Decrease $^{23}/_{32}$" under PREPARING ROUTER.

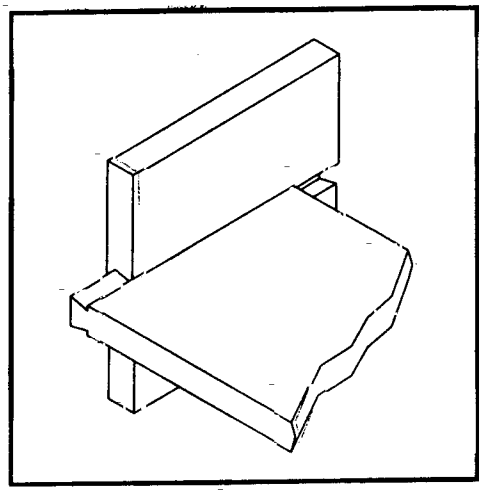


Fig. 50

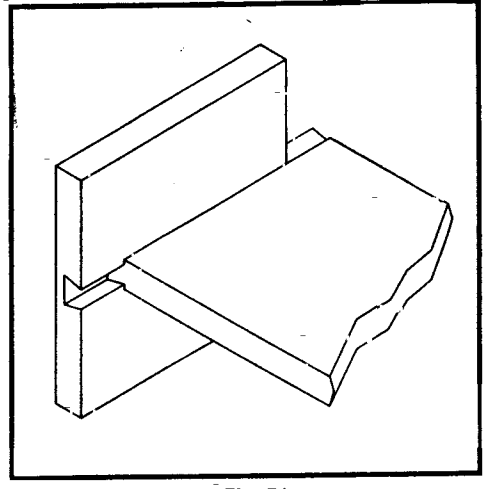


Fig. 51

If male board is too loose, increase $^{23}/_{32}$" dimension.

NOTE: Once the correct depth of cut is determined to produce the desired fit, we suggest a gauge be made for setting up future projects.

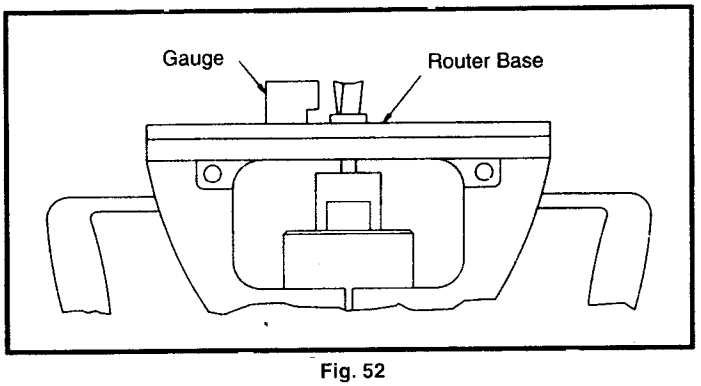


Fig. 52

IF MALE DOVETAIL IS OFF CENTER

Adjust templet, using rod nuts, so that male board is centered between the two male slots.

NOTES:

MAINTENANCE

KEEP TOOL CLEAN

All plastic parts should be cleaned with soft cloth. NEVER use solvents when cleaning plastics parts. They could possibly dissolve or otherwise damage the material.

Periodically coat steel parts of clamp assemblies with wax to protect from rust.

Should you have any questions about your tool, feel free to write us at any time. In any communications, please give all information shown on the nameplate of your tool (model number, type, serial number, etc.).

ACCESSORIES

The testing of this tool has been accomplished with the following accessories. For safest operation, it is recommended that only these accessories be used with this product.

WARNING: Since accessories other than those listed have not been tested with this product, use of such accessories could be hazardous.

For ½" Half-Blind Dovetails:

5117	Templet (16")
7117	Templet (24")
43640	½" HSS Dovetail Bit
43705	½" Carbide Dovetail Bit
42046	⅝" Templet Guide
42237	Lock Nut

For ¼" Half-Blind Dovetails:

5120	Templet (16")
7120	Templet (24")
43639	¼" HSS Dovetail Bit
42054	5/16" Templet Guide
42237	Lock Nut

For ½" Hand Dovetails:

5118	"Pins" Templet (16")
5119	"Tails" Templet (16")
7118	"Pins" Templet (24")
7119	"Tails" Templet (24")
43640	½" HSS Dovetail Bit
43705	½" Carbide Dovetail Bit
42046	⅝" Templet Guide
42237	Lock Nut

For Adjustable Through Dovetails:

5122	Templet (16")
7122	Templet (24")
42046	⅝" Templet Guide
42237	Lock Nut
43774	¾" Carbide Dovetail Bit, ½" Shank
43775	¾" Carbide Dovetail Bit, ¼" Shank
43303	5/16" HSS Straight Bit
43300	5/16" Carbide Straight Bit
43640	½" HSS Dovetail Bit
43705	½" Carbide Dovetail Bit
43328	9/16" Carbide Straight Bit w/Bearing

For ½" Box Joints:

5123	Templet (16")
7123	Templet (24")
43321	½" HSS Straight Bit
43318	½" Carbide Straight Bit
42046	⅝" Templet Guide
42237	Lock Nut

For Tapered Sliding Dovetails:

5121	Templet (16")
7121	Templet (24")
43640	½" HSS Dovetail Bit
43705	½" Carbide Dovetail Bit
42046	⅝" Templet Guide
42237	Lock Nut

NOTES

PORTER-CABLE LIMITED ONE YEAR WARRANTY

Porter-Cable warrants its Professional Power Tools for a period of one year from the date of original purchase. We will repair or replace at our option, any part or parts of the product and accessories covered under this warranty which, after examination, proves to be defective in workmanship or material during the warranty period. For repair or replacement return the complete tool or accessory, transportation prepaid, to your nearest Porter-Cable Service Center or Authorized Service Station as listed under "TOOLS-ELECTRIC" in the Yellow Pages of your telephone directory. Proof of purchase may be required. This warranty does not apply to repair or replacement required due to misuse, abuse, normal wear and tear or repairs attempted or made by other than our Service Centers or Authorized Service Stations.

ANY IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE.

To obtain information on warranty performance please write to: PORTER-CABLE CORPORATION, 4825 Highway 45 North, P.O. Box 2468, Jackson, Tennessee 38302-2468; Attention: Product Service. THE FOREGOING OBLIGATION IS PORTER-CABLE'S SOLE LIABILITY UNDER THIS OR ANY IMPLIED WARRANTY AND UNDER NO CIRCUMSTANCES SHALL PORTER-CABLE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.