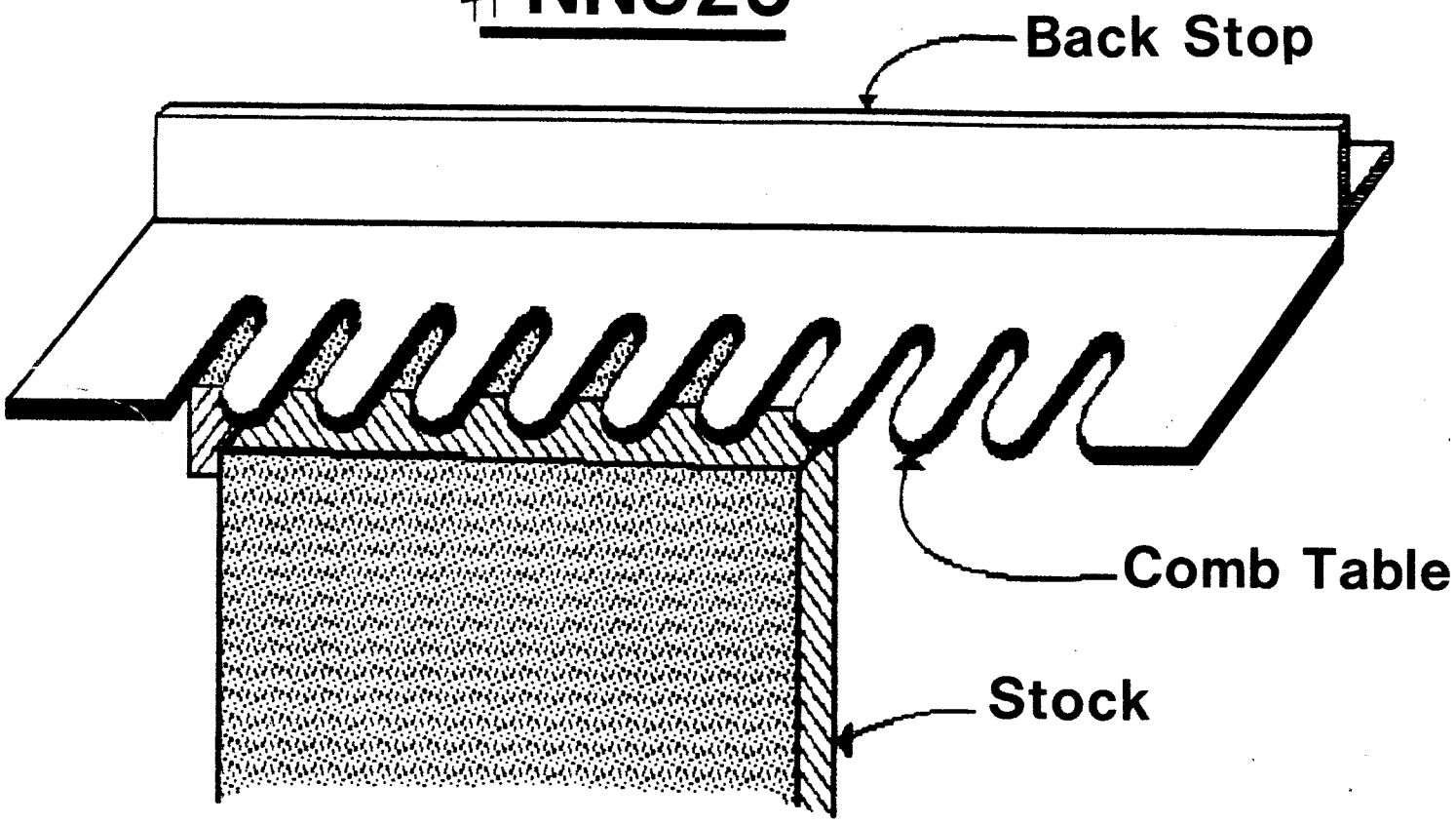
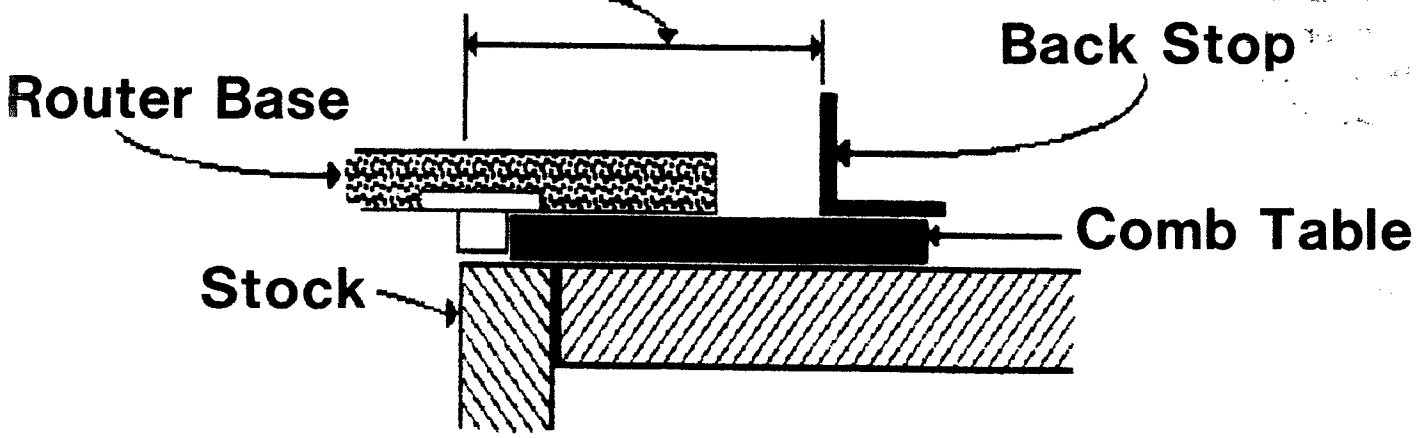
#NN825



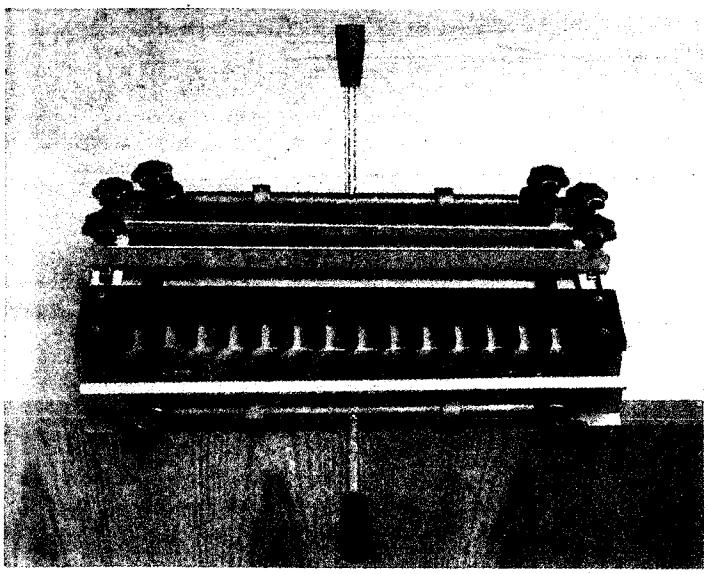
This is two times the thickness of the stock plus 1/2 of the diameter of your router base minus 1/2 of the diameter of the router bit. See example below.



EXAMPLE: If your using 3/4″ stock and your router base is 6″ with a 1/2″ diameter router bit. The distance from the front of the stock to the back stop guide in this example would be 4 1/4″.

3/4″ × 2 = 1 - 1/2″ (Stock) 6″ ÷ 2 = 3″ (Router base) 1/2″ ÷ Two = 1/4″ (Router Bit)

1 - 1/2″ + 3″ − 1/4″ = 4 - 1/4″



DOVETAIL JOINT FIXTURE
ECCENTRIC FIXING EQUIPMEN

Technical Data "T"
with Eccentric Fixing Bars

Machine Dimension:
430mm x 280mm x 170mm
N.W.: 9.5Kgs
G.W.: 10.4Kgs

Specification:

A. Capacity:
Wood: Thickness 5/16"(8mm) to 1-1/4"(32mm), Wide 12"(300mm)

B. Eccentric Fixing Equipment:
Allowance: 5/16" (8mm)

C. Unique Stop Pins:
Allowance: 1"(25mm)

This fixture enable you to cut matching dovetails with the precision and accuracy found in fine furniture. And, as with furniture manufacturers, you can get this accuracy and precision quickly and **without** the "little" sanding, chiseling or adjusting that looks so easy but really isn't. This fixture holds both workpieces at the same time --- providing the necessary predetermined offset --- so the **both** male and female dovetail cuts are made at the same time. A perfect dovetail corner on a drawer is the mark of fine furniture. This fixture makes it possible for you to have those perfect dovetail joints.

COMB SIZE: 1/2", 7/16", 9/16" & 12 MM.

THE COMPARISON BETWEEN ECCENTRIC FIXING DESIGN AND TRADITIONAL SCREW FIXING DOVETAIL JOINT FIXTURE

ECCENTRIC FIXING DESIGN	TRADITIONAL SCREW FIXING DESIGN
A. Eccentric fixing 1. Fix in one second 2. give effort-saving inserting and be easy to steady handle the wood for new worker.	A. Screw fixing 1. Take minutes to fix 2. Be difficult to steady handle the wood even for skill worker.
B. Bracket Frame Allowance: 1-11/16"(43mm) to decide Routing depth precisely as your Router requires	B. None Be difficult to decide Routing depth when operation and make mistake as picture 8 & 9.
C. Unique Stop Pins Efficient and precise preparing the wood for jointing work.	C. None
D. All knob screw except Unique Stop Pins - easilyhandle by hand without screw driver.	D. All screw using screw driver.

OPERATING INSTRUCTIONS

IMPORTANT:

Before attempting to use your Dovetail Cutting Fixture, it should be fastened securely to a firm work surface or for a portable set up, secure the fixture to a piece of 3/4" board, long and wide enough that it can be clamped to a firm surface. Your Dovetail Cutting Fixture includes a 1/2" comb.

TYPES OF DOVETAIL JOINTS:

Various types of dovetail joints can be cut with your Dovetail Fixture. They include flush, flush-offset and rabbeted (See figures 1, 7, & 8).

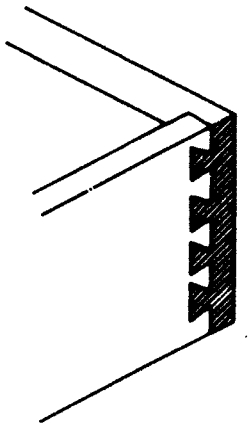


figure 1
Flush Dovetail

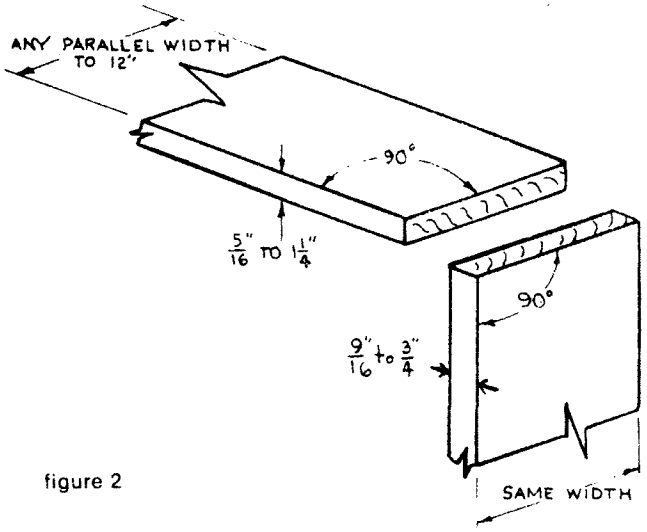


figure 2

FLUSH DOVETAIL:

Cutting a Flush Dovetail joint requires a 1/2" dovetail bit, a 1/2" comb, (supplied with dovetail fixture) and a 7/16" diameter router guide collar (fig. 6). Start by adjusting the stops (13) on the right side and left side of both the front and top. The stops should be adjusted so they are offset by the size of the comb being used, in this case 1/2", and 90° to the front edge of the frame (1), (fig. 3). Many times this adjustment can be made by adjusting only the stops on the top surface of the fixture. However, at times it may be necessary to adjust all four stops. To adjust the stops on the front of the fixture it will be necessary to remove the front clamp assembly by removing the two clamp adjusting knobs and then removing the clamping assembly.

After this adjustment is completed reassemble the clamp assembly and insert the workpieces. The workpieces for the front, back, and sides must be accurately sized. (See figure 2).

NOTE: It is recommended that test dovetail joints be made before using actual workpieces.

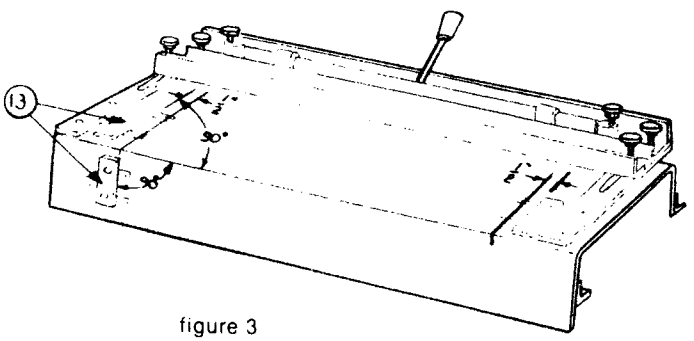


figure 3

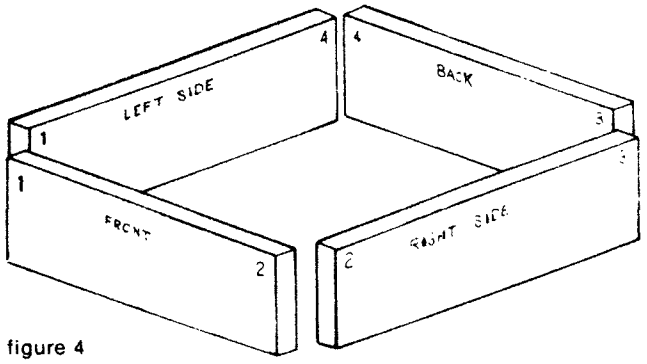


figure 4

After sizing the workpieces lay them out. With a pencil, label each one (drawer front, left side, right side, back). Then label the inside and outside face of each, and number the ends, (See figure 4).

Cut two test pieces the same size as the left side and front pieces and label them. Use these pieces to test and adjust the fixture to make the left corner as "1" in fig. 4.

Install the left side test piece, inside surface out (fig. 5), vertically in the fixture with the numbered end extended at least 1/2" above the top of the fixture and the bottom edge firmly against the left side stop. Clamp by pressing down on the front eccentric bar handle. Insert the front test piece horizontally, with the inside surface up, the numbered end against the side piece, and the bottom edge against the left side stop. Clamp in place by pressing down on the top eccentric bar handle. Loosen the front clamp holding the side piece and bring it flush with the front piece and reclamp.

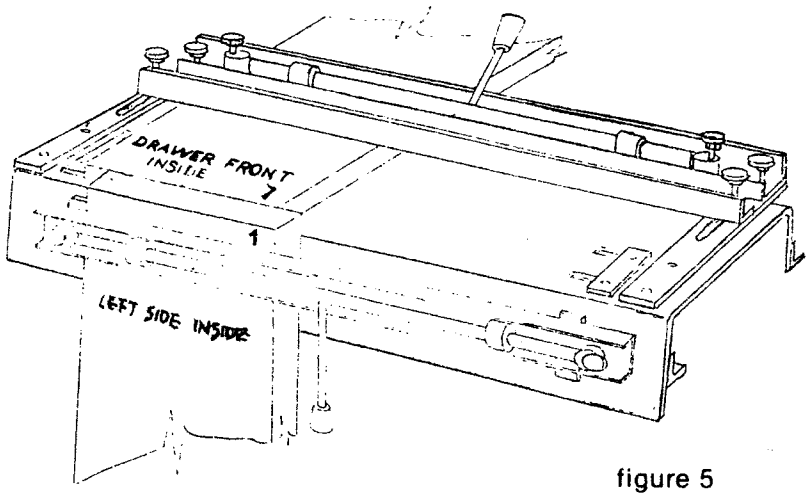


figure 5

If not already affixed to the fixture, attach the 1/2" comb, (furnished), with the fingers of the comb pointing toward the front of the fixture. Adjust the comb to a distance equal to the thickness of the router guide bushing from the edge of the side piece. (See fig. 6). The comb can be adjusted front to back by loosening the two comb adjustment knobs (4). Retightened after properly adjusting the comb.

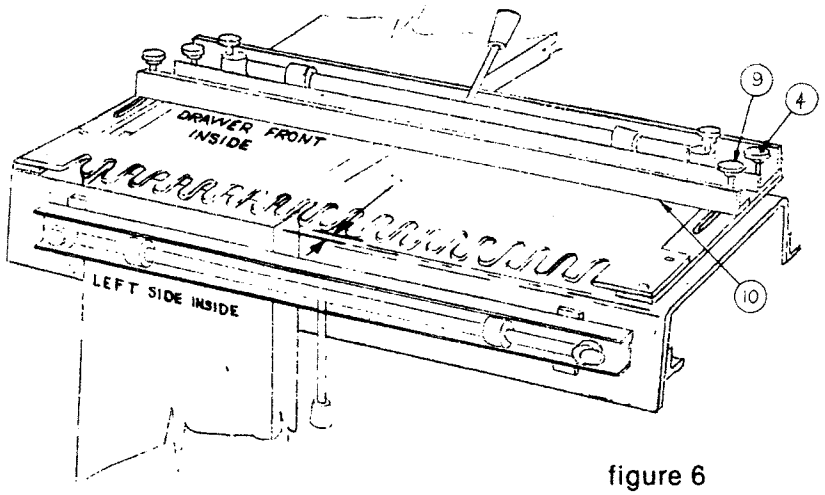
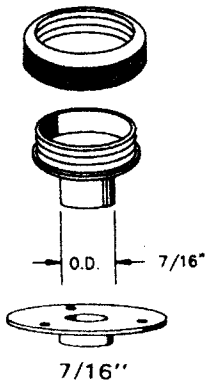


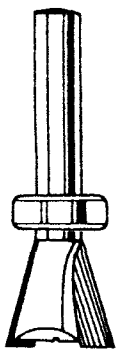
figure 6



Types of guide collars

IF YOU DON'T USE ROUTER GUIDE. THEN THE FOLLOW DOVETAIL BITS WITH BALL BEARING GUIDE. IT ALSO WILL SUIT FOR YOUR COMB.

NO.	A DEGREE SIDE	D CUTTING D. M/M	L CUTTING L. M/M	SHANK 1/4"	BEARING OD/INCH	SUIT FOR COMB SIZE
TB19149	14°	14.90M/M	12.00M/M	6.35M/M	1/2"	1/2"
TB19149	14°	14.90M/M	12.00M/M	6.35M/M	1/2"	9/16"
TB19116	14°	11.60M/M	12.00M/M	6.35M/M	3/8"	7/16"
TB19125	14°	12.50M/M	12.00M/M	6.35M/M	3/8"	12M/M



NOTE:

AA. 1/2" & 9/16" COMB TABLE CAN USE SAME DOVETAIL BITS.

BB. IF THE BALL BEARING GUIDE CAN NOT TOUCH COMB TABLE COMPLETE. YOU CAN ADD A PAD(SUCH LIKE PLYWOOD) ABOUT 3M/M THICKNESS BETWEEN ABOVE WORKING WOOD AND COMB TABLE. THEN LET THE COMB TABLE BE RISEN TO SUIT FOR BALL BEARING GUIDE.

Install the 1/2" dovetail bit and the 7/16" guide collar on your router. Set the bit to extend 23/32" below the base plate of the router.

Adjust the back guide stop by loosening the two socket depth adjustment knobs (9) on the top side of the fixture and sliding the angle stop (10) either toward the front or toward the back of the fixture to a distance equal to twice the thickness of the stock plus one-half the diameter of the router base plate minus one half the diameter of the bottom of the dovetail bit. Make certain that the back guide stop is parallel to the stock

Place the router on the template and rout a groove across the edge of the left side test piece, moving from right to left and touching the tip of each comb finger as you move across. This will help prevent chipping when routing the tails in the next operation. Without lifting the router, rout the test joint. Let the 7/16" guide busing follow the template across the work pieces cutting from left to right.

Remove both test pieces from the fixture and assemble the joint to test for fit. If the joint fits properly, providing space for glue, no further adjustments are necessary. If the joint is too loose increase the distance from the router plate to the bottom of the bit approximately 1/64". If the joint is tight, decrease the distance approximately 1/64"

If the tails protrude from the sockets, adjust the angle stop (10) slightly toward the rear of the fixture. This will allow the router to cut deeper into the front piece. If the pins recess into the sockets, adjust the angle stop slightly toward the front of the fixture.

After making the necessary adjustments, saw off the dovetail joints of the test pieces making sure they are cut square. Clamp test pieces back in the fixture and rout another test joint. Repeat this process until the proper dovetail joint is produced by the fixture.

When you have the fixture properly adjusted, you can dovetail the actual drawer parts. First do the front and the left side piece on the left side of the fixture. Then follow the same procedure, but use the right side of the fixture to join the other end of the front piece to the right side piece.

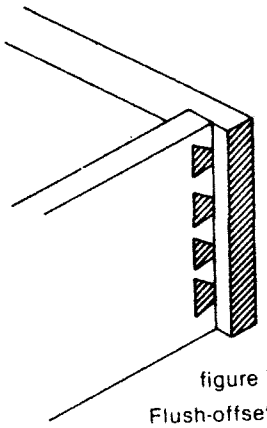


figure 7
Flush-offset Joint

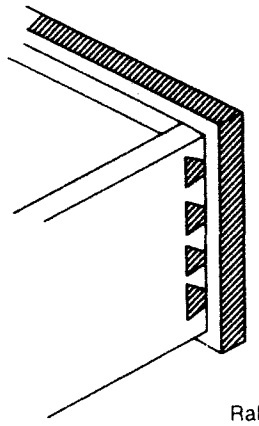
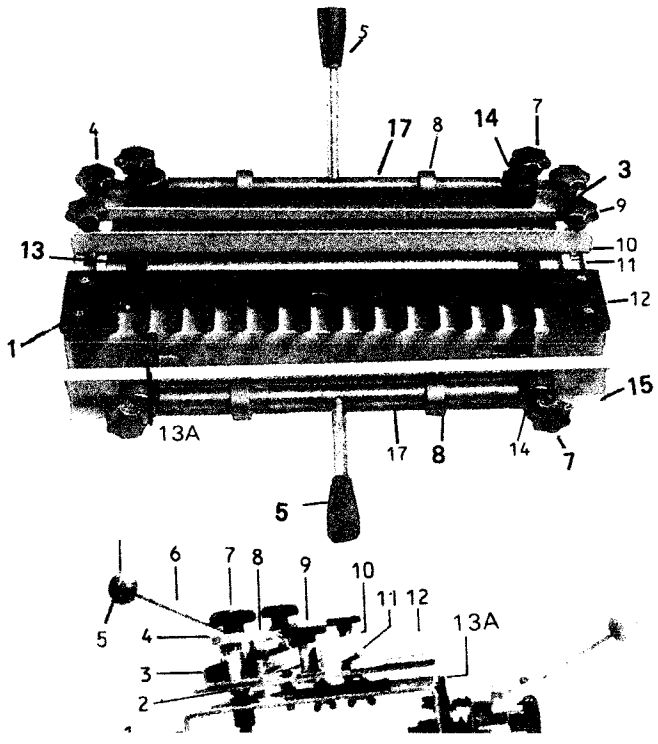


figure 8
Rabbeted Joint

FLUSH-OFFSET:

When cutting the front piece for the Flush-Offset Joint (fig. 7) add 3/4" to the piece length. The thickness should be a minimum of 7/8" to allow for a 3/8" wide by 1/2" deep rabbet on both ends (should be cut prior to the dovetail operation). Proceed the same as for a flush joint except for the setting of the back guide stop this should move 3/8" further back to allow for the 3/8" offset.



RABBETED:

When cutting the front piece for the rabbeted joint add 3/4" to the length and 3/4" to the width. The thickness should be a minimum of 7/8" to allow for a 3/8" wide by 1/2" deep rabbet all around (should be cut on the inside-front piece prior to the dovetail operation). Proceed the same as for the flush-offset joint with the addition of resetting the right and left stops for the front piece. They should be set so that offset is 1/8" instead of 1/2" shown for the flush joint. Clamp your workpieces in the fixture and make your dovetail cuts as before.

TABLE OF WDV-I PARTS

Mark	Item	Q'ty
1	Bracket Bench	1
2	Spring Washer	4
3	(Upper) Fluting Bracket-Top Clamp	1
4	Fixing Screw (A)	2
5	Eccentric Rod Knob	2
6	Eccentric Bar	2
7	Spacing Screw	4
8	Eccentric Wheel	4
9	Fixing Screw (B)	2
10	Bracket Frame	1
11	Connecting Rod	2
12	Comb Table	1
13	Stop Pins (Long)	2
14	Rod Fixer	4
15	(Front) Fluting Bracket-Top Clamp	1
16	Spring	4

Place the router on the template and rout a groove across the edge of the left side test piece, moving from right to left and touching the tip of each comb finger as you move across. This will help prevent chipping when routing the tails in the next operation. Without lifting the router, rout the test joint. Let the 7/16" guide busing follow the template across the work pieces cutting from left to right.

Remove both test pieces from the fixture and assemble the joint to test for fit. If the joint fits properly, providing space for joints of the test pieces making sure they are cut square. Clamp test pieces back in the fixture and rout another test joint. Repeat this process until the proper dovetail joint is produced by the fixture.

When you have the fixture properly adjusted, you can dovetail the actual drawer parts. First do the front and the left side piece on the left side of the fixture. Then follow the same procedure, but use the right side of the fixture to join the other end of the front piece to the right side piece.

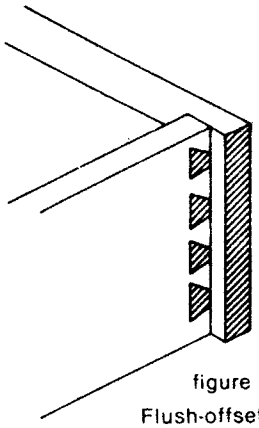


figure 7
Flush-offset Joint

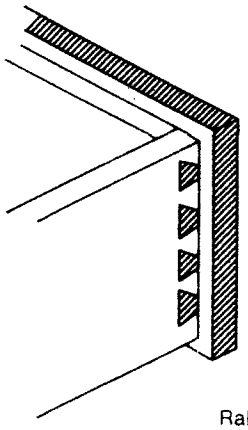


figure 8
Rabbeted Joint

FLUSH-OFFSET:

When cutting the front piece for the Flush-Offset Joint (fig. 7) add 3/4" to the piece length. The thickness should be a minimum of 7/8" to allow for a 3/8" wide by 1/2" deep rabbet on both ends (should be cut prior to the dovetail operation). Proceed the same as for a flush joint except for the setting of the back guide stop this should move 3/8" further back to allow for the 3/8" offset.

RABBETED:

When cutting the front piece for the rabbeted joint add 3/4" to the length and 3/4" to the width. The thickness should be a minimum of 7/8" to allow for a 3/8" wide by 1/2" deep rabbet all around (should be cut on the inside-front piece prior to the dovetail operation). Proceed the same as for the flush-offset joint with the addition of resetting the right and left stops for the front piece. They should be set so that offset is 1/8" instead of 1/2" shown for the flush joint. Clamp your workpieces in the fixture and make your dovetail cuts as before.

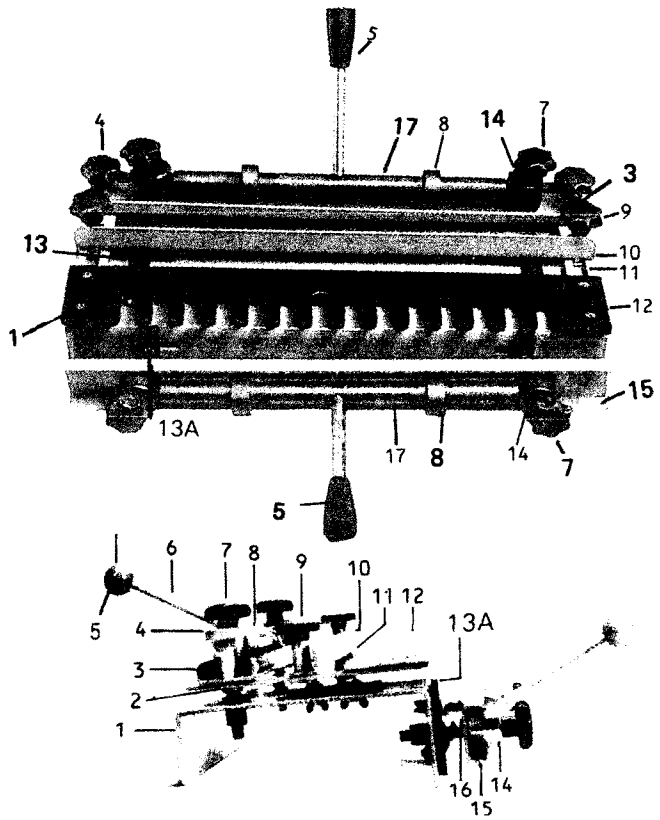
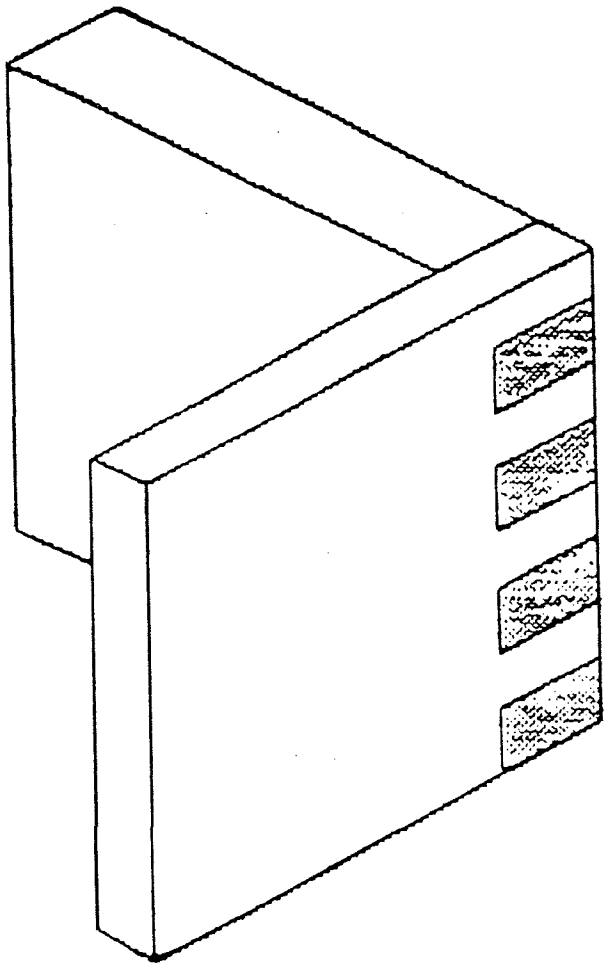


TABLE OF WDV-I PARTS

Mark	Item	Q'ty
1	Bracket Bench	1
2	Spring Washer	4
3	(Upper) Fluting Bracket-Top Clamp	1
4	Fixing Screw (A)	2
5	Eccentric Rod Knob	2
6	Eccentric Bar	2
7	Spacing Screw	4
8	Eccentric Wheel	4
9	Fixing Screw (B)	2
10	Bracket Frame	1
11	Connecting Rod	2
12	Comb Table	1
13	Stop Pins (Long)	2
14	Rod Fixer	4
15	(Front) Fluting Bracket-Top Clamp	1
16	Spring	4
17	Rotary Rod	2
13A	Stop Pins (Short)	2



BOX FINGER JOINT:

When cutting the box finger joint both pieces of stock must be put into the dovetail machine vertically as in Figure 6. One piece of stock is lined up flush to the left of one of the comb table fingers and the other piece of stock is lined up flush to the right of one of the comb table fingers (see part number 12). Always set router bit depth to cut the exact thickness of the stock being used, this will give you a perfect box finger joint every time. To avoid router bit from hitting template, raise up comb table to the appropriate height with shim stock.