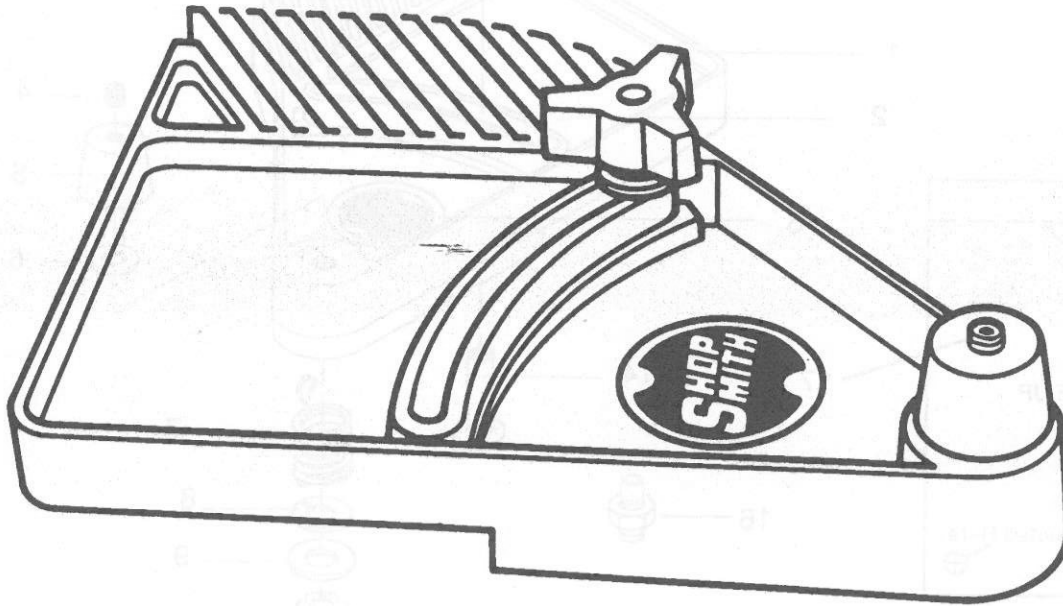




# Jointer Feather Guard Retrofit Kit

## 555480



### WARNING

Read this owner's manual and follow the safety information. Then read and follow the safety information in the jointer owner's manual.

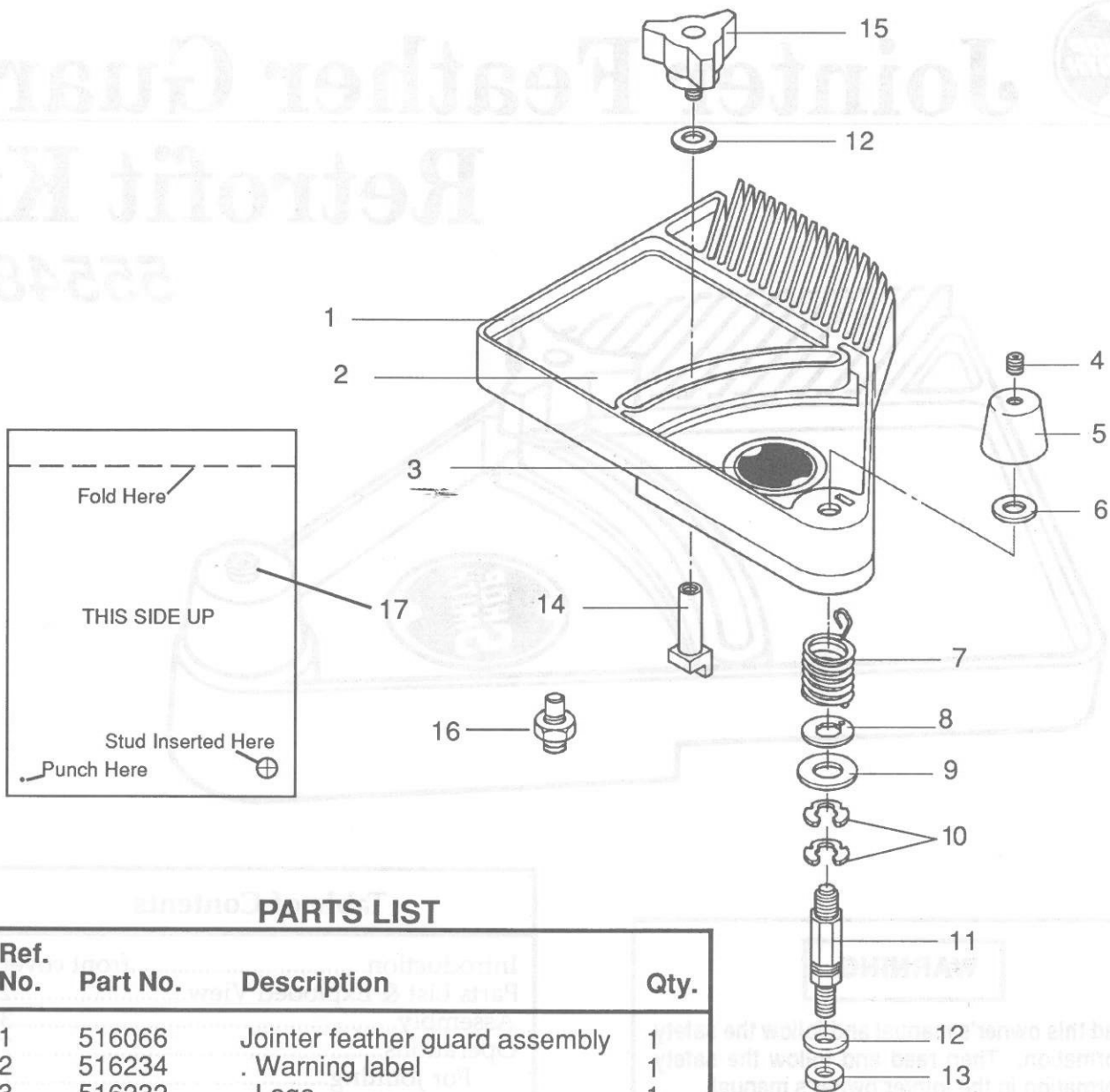
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## Introduction

The Jointer Feather Guard brings to your jointer the safety advantages of both a feather board and a guard. It guards just like the older style guard, and the Feather Guard also presses the workpiece against the fence, preventing the workpiece from kicking back into the operator. This Retrofit Kit upgrades your jointer's older style guard to the new Feather Guard.

After you have followed the assembly instructions in this manual, read and follow the operation instructions. The operation instructions in this manual tell how to adjust the Feather Guard to be used in jointing or rabbeting. For other, more comprehensive instructions on operations, see your jointer owner's manual.



### PARTS LIST

Ref. No.	Part No.	Description	Qty.
1	516066	Jointer feather guard assembly	1
2	516234	. Warning label	1
3	516232	. Logo	1
4	513989-01	Adjuster screw, 1/4"-20 x 1/4"	1
5	516401	Knob	1
6	515847	Thrust washer	1
7	514196	Spring	1
8	502909	Torque washer	1
9	514273	Washer, 1/2"	1
10	514049	Retaining ring	2
11	514272	Threaded Stud	1
12	120393	Washer, 11/32"	3
13	513857	Hex nut, 5/16"-18	1
14	516221	Stop pin	1
15	516222	Stop knob	1
16	516226*	Stop stud asm., 1/4"-28 black	1
	516402*	Stop stud asm., 1/4"-20 silver	1
17	516239	Drilling Template	1

\* For which one you will use, see Note on bottom of page 3.

# Assembly

## Tools Needed:

- 3/8" or 1/2" drive ratchet wrench
- 1/2" socket
- 7/16" socket
- 1/8" Allen wrench
- Hammer
- Metal center punch
- 3/8" or 1/2" variable speed drill
- 7/32" twist drill bit
- 1/4"-28 drill tap
- (Optional) Shopsmith Installation Kit, Part. No. 555482
- Precision square

Please follow these instructions:

## REMOVE THE OLD JOINTER GUARD

1. Make sure the jointer's power source (Mark V, Power Station or other) is turned off and unplugged.
2. Remove the fence from the jointer, and as you remove the fence, hold the guard to prevent its spring from whipping the guard around uncontrolled. See Fig. 1.
3. Guide the guard as it completely unwinds, which will be about two revolutions.
4. Grasp the jointer's power coupler and rotate the cutter head so no blade is exposed in the opening. See Fig. 2.
5. Cut a 2-1/2" x 4-1/2" piece of cardboard.
6. Again grasp the jointer's power coupler while you insert the cardboard into the cutter opening, as shown in Fig. 3. Use a thin stick to help you tuck the cardboard into the opening.

### WARNING

Be careful not to cut yourself on the jointer blades.

7. Remove the guard's knob, as seen in Fig. 4. Then remove the guard and the flat washer.
8. Set all three pieces aside until later.

## DRILL A HOLE IN THE JOINTER TABLE

### NOTE

If your jointer *already* contains a drilled and tapped hole as described in Step 13, skip now to Step 17 and use the *silver* stop stud (16).

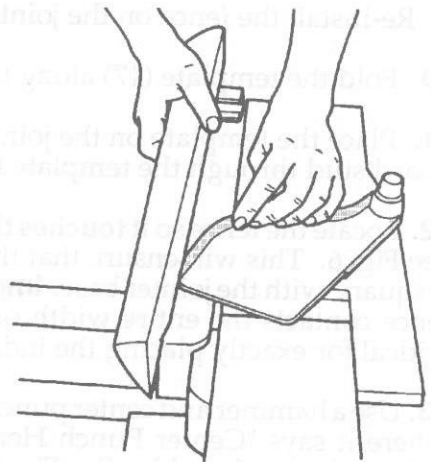


Fig. 1

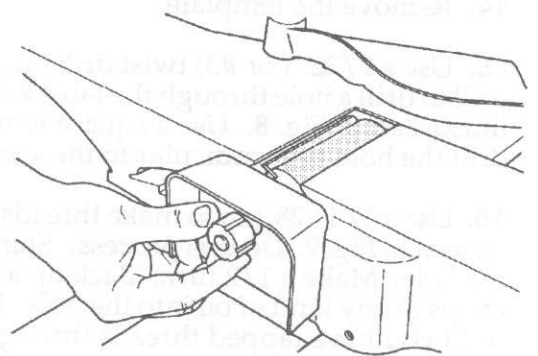


Fig. 2

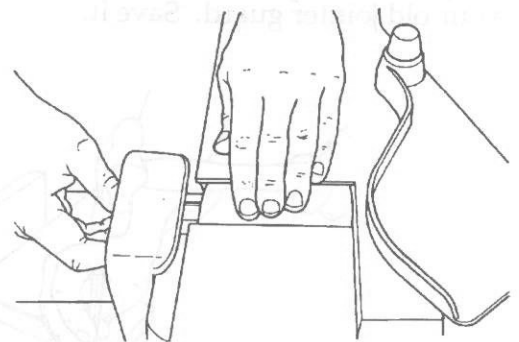


Fig. 3

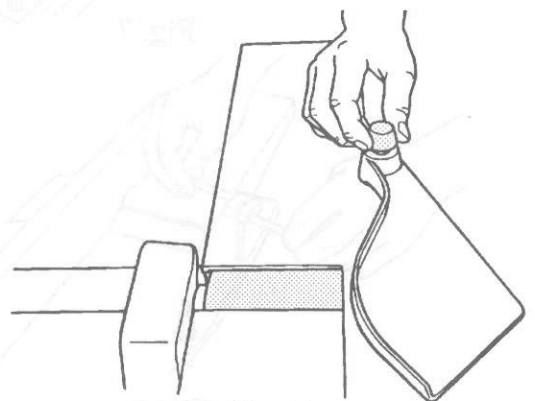


Fig. 4

9. Re-install the fence on the jointer, as shown in Fig. 5.

10. Fold the template (17) along the serrated line.

11. Place the template on the jointer table and insert the guard stud through the template hole. See Fig. 6.

12. Locate the fence so it **touches the fold** in the template. See Fig. 6. This will ensure that the folded template flap is square with the jointer base. **Important:** Make sure the fence contacts the entire width of the template. This is critical for exactly placing the indentation in Step 13.

13. Use a hammer and center punch to punch the template where it says "Center Punch Here." This will leave an indentation in the table. See Fig. 7.

14. Remove the template.

15. Use a  $7/32"$  ( or #3) twist drill bit and variable speed drill to drill a hole through the table at the punch mark, as illustrated in Fig. 8. Use a square to make sure that you drill the hole perpendicular to the surface of the table.

16. Use a  $1/4"$ -28 tap to make threads in the drilled hole, as seen in Fig. 9. **Do this process:** Start the tap straight in the hole. Make a  $1/2$  turn. Back up a  $1/4$  turn. Add two drops of any kind of oil into the hole. Repeat this process until you have tapped threads through the entire hole.

17. Use a ratchet wrench with a  $1/2"$  socket to remove the old guard stud post, as shown in Fig. 10, and re-assemble your old jointer guard. Save it.

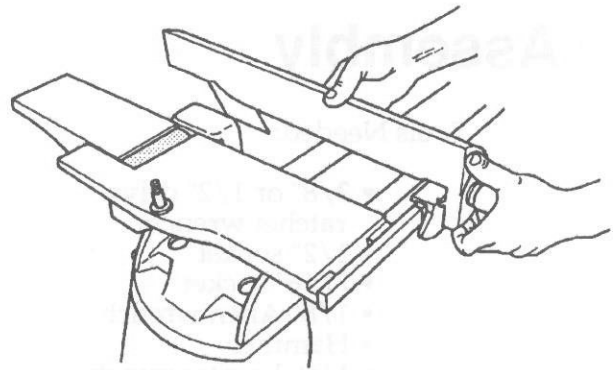


Fig. 5

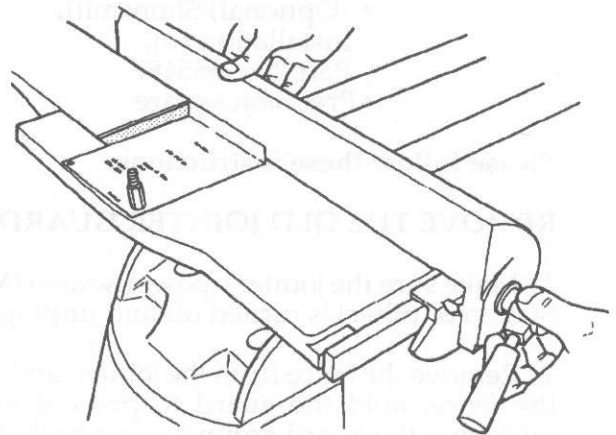


Fig. 6

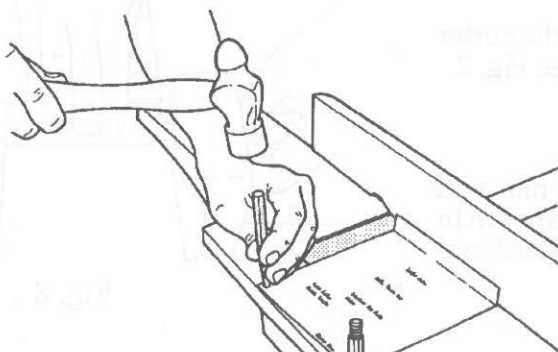


Fig. 7

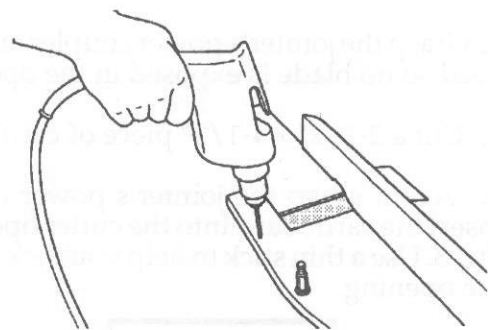


Fig. 8

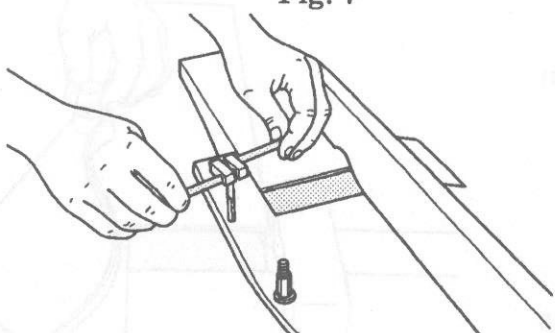


Fig. 9

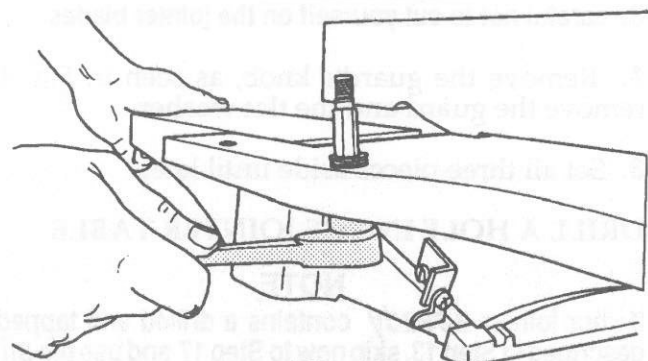


Fig. 10

## INSTALL THE NEW FEATHER GUARD

18. Thread the stop stud (16) (use the **black** one if you drilled your own hole according to Steps 10-16, and **silver** if your jointer already had a hole), into the jointer table, as shown in Fig. 11.

19. Use a 7/16" socket wrench to securely tighten the stop stud's hex nut.

20. Remove the fence from the jointer.

21. Insert the feather guard's stud (11) into the table's hex hole. See Fig. 12.

22. Attach a washer (12) and hex nut (13) to the stud, as shown in Fig. 13. Use a 1/2" socket wrench to securely tighten the hex nut (13).

23. Starting with the feather guard parallel with the jointer, as demonstrated in Fig. 14, rotate the feather guard counter-clockwise 1-1/2 turns. Hold the guard by hand (or use a clamp as a stop).

24. Install the stop pin (14) in the feather guard by inserting its shaft through the slot in the guard, as in Fig. 15. The long, flat side of the stop pin (14) must face the outside of the feather guard "fingers".

25. Attach the stop pin to the feather guard (14) with a washer (12) and knob (15), as shown in Fig. 16.

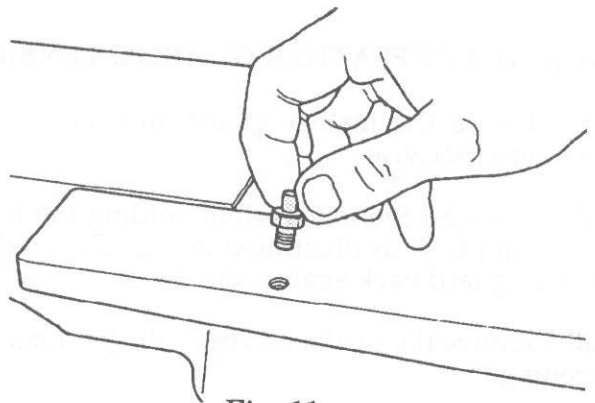


Fig. 11

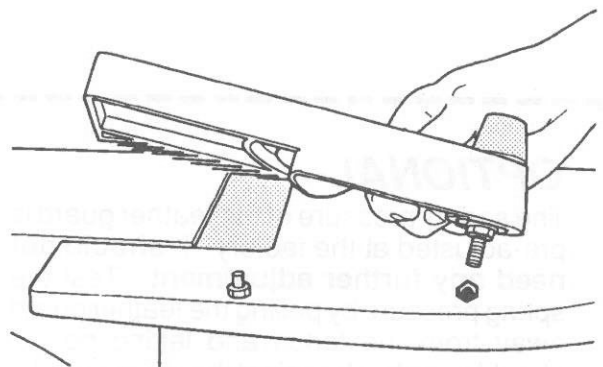


Fig. 12

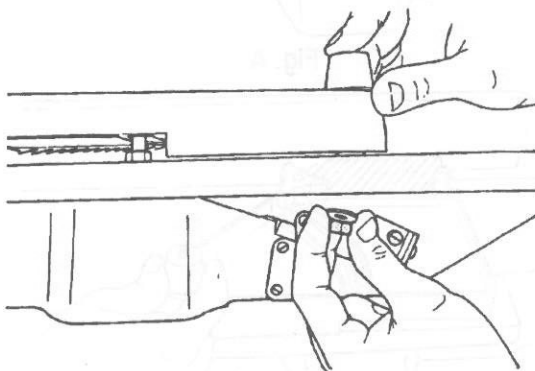


Fig. 13

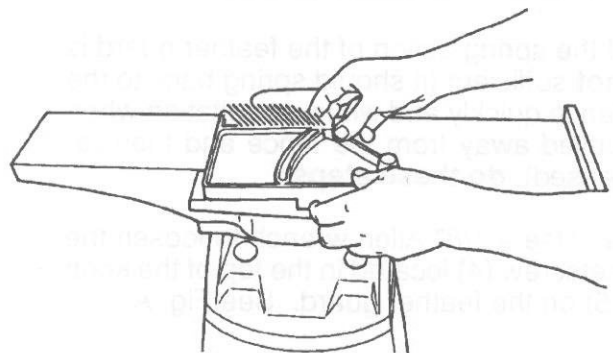


Fig. 14

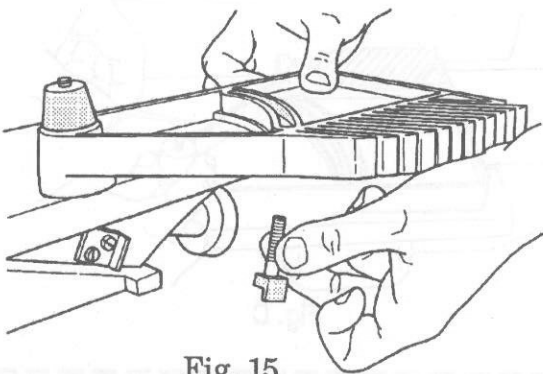


Fig. 15

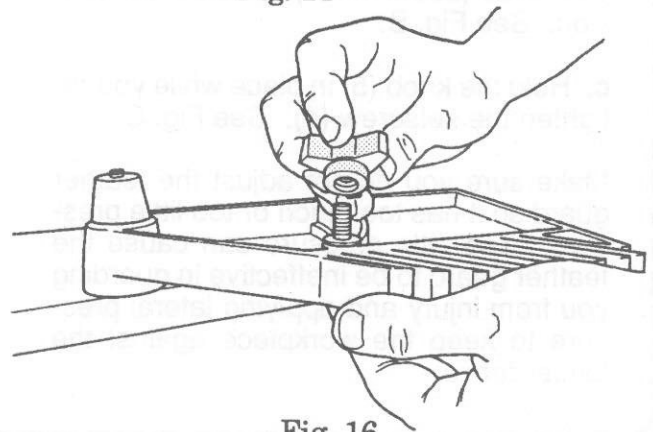


Fig. 16

## ADJUST THE FEATHER GUARD'S TENSION

26. Rotate the feather guard another 1/2 turn counter-clockwise.
27. Re-install the fence while holding the feather guard in place, as illustrated in Fig. 17. Guide the feather guard back against the fence.
28. Remove the cardboard from the jointer's blade opening.

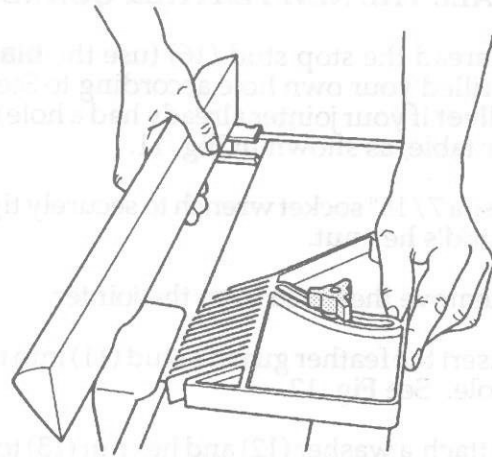


Fig. 17

### OPTIONAL--

The spring pressure of the feather guard is pre-adjusted at the factory. **It should not need any further adjustment.** Test the spring pressure by pulling the feather guard away from the fence and letting go. It should snap back against the fence quickly. If there is any hesitation of movement, it should be re-adjusted (see below).

If the spring action of the feather guard is **not** sufficient (it should spring back to the fence quickly and without hesitation when pulled away from the fence and then released), **do these steps:**

- a. Use a 1/8" Allen wrench to loosen the setscrew (4) located in the top of the knob (5) on the feather guard. See Fig. A.
- b. Turn the knob (5) slightly counter-clockwise (about 1/16") to adjust the tension. See Fig. B.
- c. Hold the knob (5) in place while you retighten the setscrew (4). See Fig. C.

Make sure you do not adjust the feather guard so it has too much or too little pressure. Too little pressure can cause the feather guard to be ineffective in guarding you from injury and applying lateral pressure to keep the workpiece against the jointer fence.

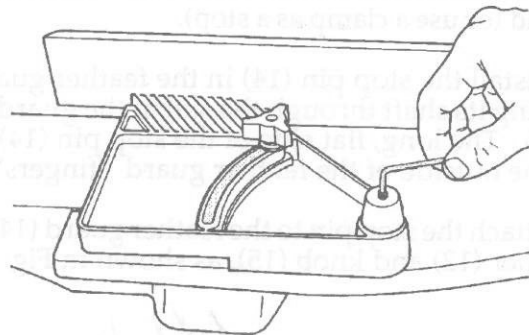


Fig. A

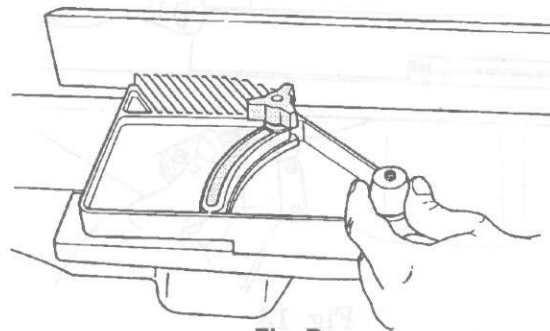


Fig. B

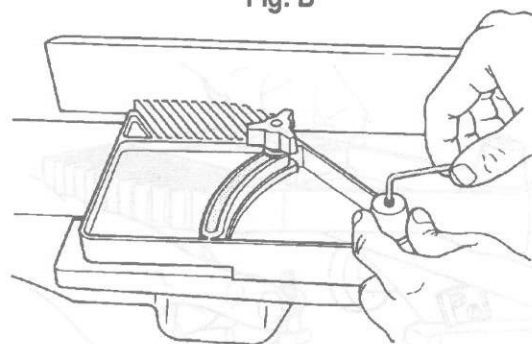


Fig. C

# Operations

The sideways pressure exerted by the feather guard fingers against the workpiece helps keep the workpiece against the fence. Also, the fingers are oriented so the workpiece is prevented from kicking back horizontally. This allows the operator to concentrate on pushing the stock through—enabling safer, more convenient and more accurate jointer operations.

All jointers which have the feather guard will operate exactly the same as with the old style guard, except for the instructions below on how to adjust the feather guard to work with each workpiece. Read and perform the following instructions for jointing or rabbeting, then see your jointer owner's manual for all other operations procedures and safety information.

## WARNING

Before performing any step below, make sure the jointer's power source (Mark V, Power Station or other source) is turned off and unplugged.

## For Jointing— How to Adjust the Feather Guard to the Workpiece

1. Loosen the stop knob (15).
2. Place the workpiece against the fence and between the fence and the feather guard. See Fig. 18.
3. Press the feather guard against the workpiece until you have reached mild pressure. You can tell this when the fingers slightly flex.
4. Move the stop pin (15) away from the workpiece so it touches the stop stud (16).
5. Tighten the stop knob (15), as in Fig. 19.
6. Follow the jointing operations procedures found in the jointer owner's manual. Fig. 20 shows the Jointer Feather Guard operating while a board is being jointed.

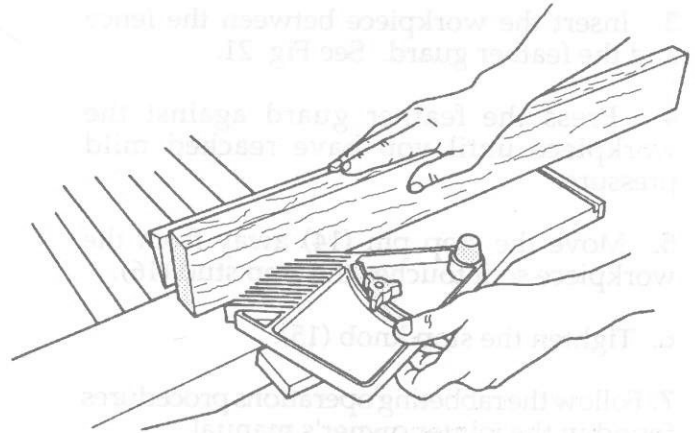


Fig. 18

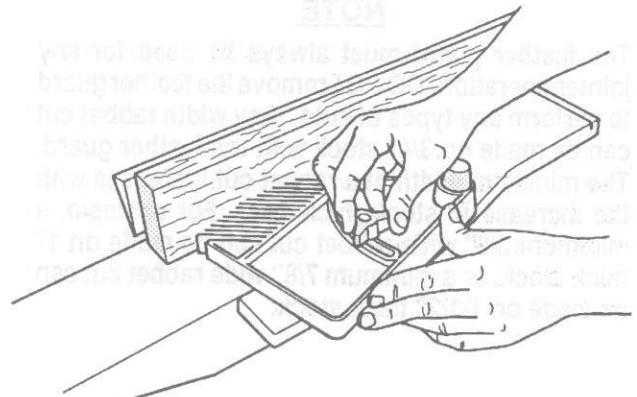


Fig. 19

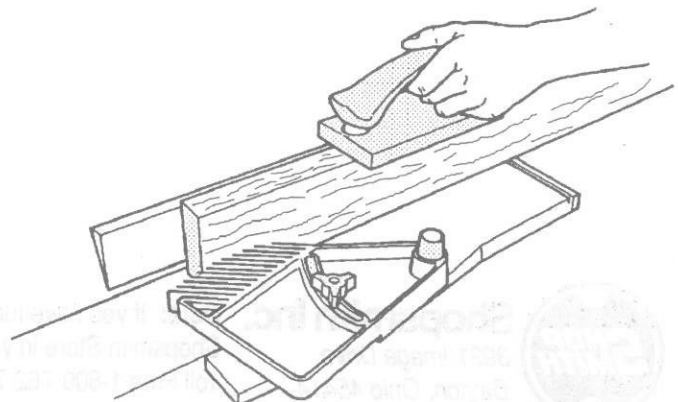


Fig. 20

## ***For Rabbeting—*** **How to Adjust the Feather Guard to the Workpiece**

1. Loosen the feather guard's stop knob (15).
2. Adjust the fence so it is all the way over to the rabbet edge (consult your jointer owner's manual), and lock it.
3. Insert the workpiece between the fence and the feather guard. See Fig. 21.
4. Press the feather guard against the workpiece until you have reached mild pressure.
5. Move the stop pin (14) away from the workpiece so it touches the stop stud (16).
6. Tighten the stop knob (15).
7. Follow the rabbeting operations procedures found in the jointer owner's manual.

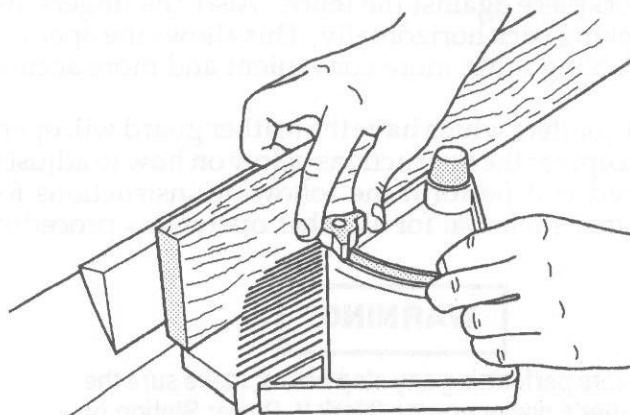


Fig. 21

### **NOTE**

The feather guard must always be used for any jointer operation. **DO NOT** remove the feather guard to perform any types of cuts. Any width rabbet cut can be made on 3/4" stock with the feather guard. The minimum width of a rabbet cut increases with the increase in stock thickness. For example, a minimum 3/8" wide rabbet cut can be made on 1" thick stock, or a minimum 7/8" wide rabbet cut can be made on 1-1/2" thick stock.



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PL-5286 10/90  
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