# INSTRUCTIONS AND PARTS LIST FOR
# Atlas 6-inch JOINTER-PLANER
## CATALOG No. 6001

THE motor pulley, cutter guard, wrench, instructions and parts lists furnished with the jointer-planer are packed in the carton in the machine crate. Be sure to remove all parts from this carton before carton is destroyed.

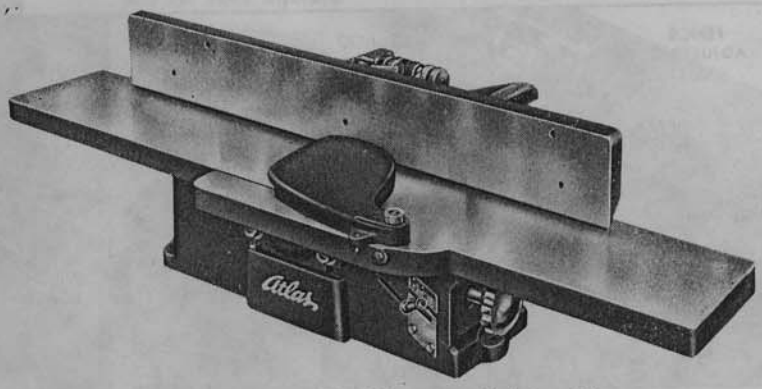


Fig. 1 ATLAS No. 6001 6" Jointer-Planer

## MOUNTING CUTTER GUARD

To mount the Guard — turn the knurled knob on top of guard about one-half revolution clockwise, then insert into hole in top of table. To change the spring tension, remove guard and adjust knob. Spring should have just enough tension so that guard covers cutter head completely.

It's not necessary to tighten adjusting screw in the side of the table — it's set to hold guard assembly in place and permit quick removal.

## INSTALLATION

**MOUNTING JOINTER** The Atlas No. 9020 Metal Stand, see Figure 2, is ideal for mounting the jointer, the dust chute furnished keeps motor clean of dirt and chips. Complete mounting instructions are furnished.

If a wood bench is used, make sure bench rests solidly on the floor before mounting jointer — use shims if necessary — uneven mounting could eventually throw the tables out of alignment.

Position the Jointer on the wood bench so that the arbor pulley and belt are beyond the bench top. Mark and cut hole in bench top beneath the blades to simplify chip removal. A dust chute will keep motor clean of dust and chips.

Fig. 2 ATLAS Jointer mounted on No. 9020 Machine Stand

Mount motor below, on a shelf. Motor must rotate counter-clockwise viewed from the shaft side — wire according to wiring diagram on motor.

Atlas No. 6110 Belt Guard provides a safety cover for the drive mechanism — see Figure 3.

Fig. 3 No. 6110 Belt Guard

**MOTOR REQUIREMENTS** The Atlas jointer-planer requires a 1/2 or 3/4 HP motor, preferably capacitor or repulsion-induction type.

The 3" motor pulley furnished must be used with a 3450 RPM motor. If a 1725 motor is used, a 6 1/2" diameter motor pulley is required. (No. S7-124, 3/4" hole) or (J6-50, 5/8" hole).

***CAUTION: Use the correct pulleys to obtain maximum performance and smooth operation—other sizes will not give satisfactory results.***

***Be sure to use the 3" dia. motor pulley with a 3450 RPM motor — and a 6 1/2" dia. motor pulley with a 1725 RPM motor.***

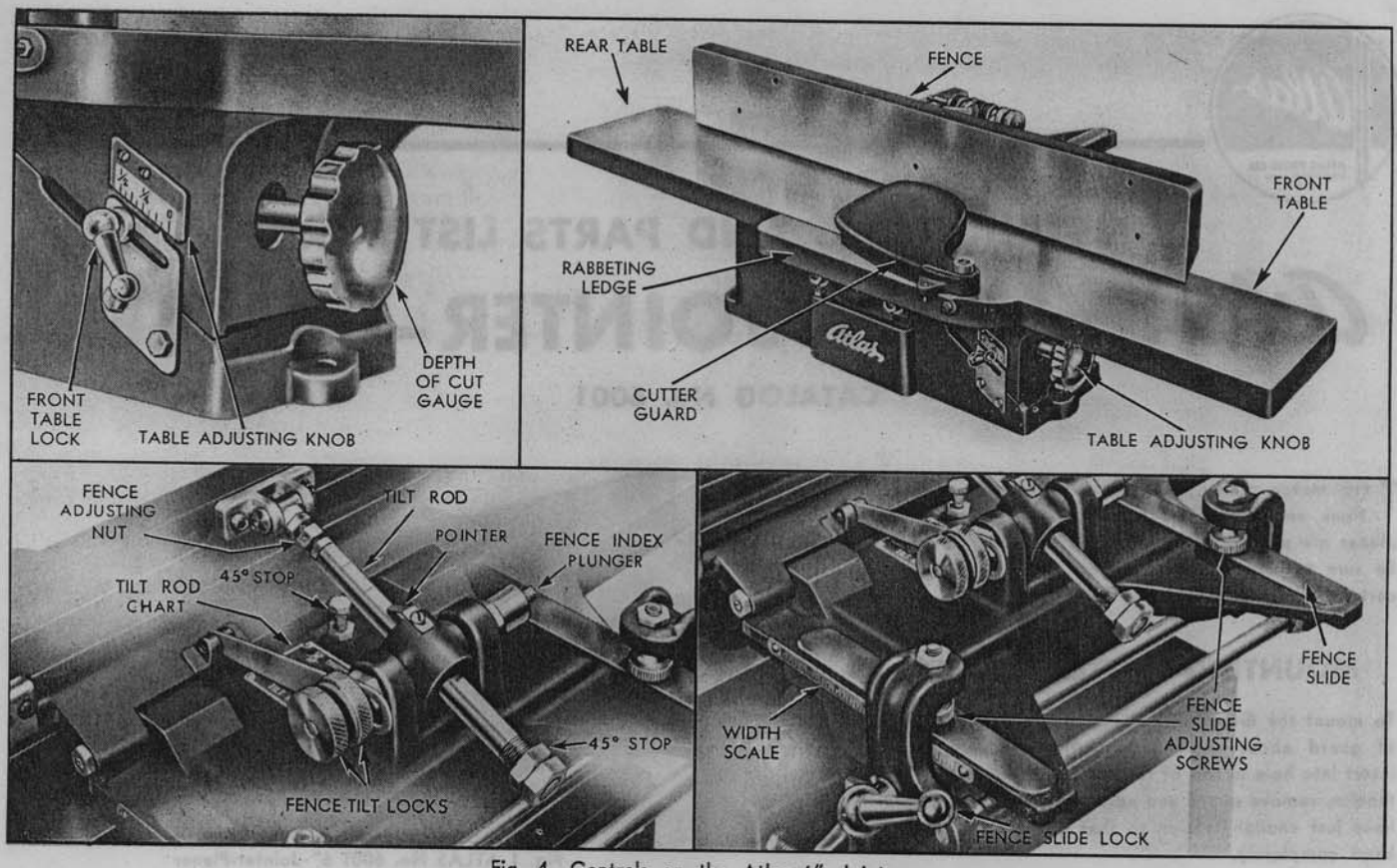



Fig. 4 Controls on the Atlas 6" Jointer

## CONTROLS

**See Figure 4**

1. The knob beneath the front table controls table for depth of cut adjustment.
2. The front table lock knob - left side of jointer - locks front table in position. Be sure to release lock before adjusting table.
3. The stop screw, located just below the table adjusting knob, stops front table at zero degrees. Can be adjusted by loosening nut and turning screw.
4. To position fence on table, first release fence slide lock, then grasp fence above cutterhead moving fence forward or backward. Key in slide helps to guide fence.
5. Fence index plunger - indexes fence at zero position only. Always tighten the two fence lock knobs after fence is indexed in the zero position. (It doesn't make any difference which knob is tightened first).
6. Fence tilt lock knobs - the outer knob locks fence at desired angle - the inner knob prevents fence from raising above tables. Fence tilts 0° to 45° left and right - is locked at any angle by tightening both locks. Markings on gauge show 15° and 30° positions. The positive lock on the 45° right position is the stop on end of gauge - the positive lock for 45° left position is the stop nut on the slide. Degree positions are indicated on the tilt rod chart.

To tilt fence, tighten fence slide lock, loosen tilt lock knobs, and pull out index plunger, turning it one-quarter turn to keep it from indexing. Adjust fence to angle desired and lock in position.

Use a combination square, or protractor, to set fence when extremely accurate setting is desired.

***CAUTION: Stop the motor before making any fence adjustments.***

## ADJUSTMENTS

### 1. ADJUSTING TABLE DEPTH GAUGE

Place a straight edge on the rear table so that one end projects over the cutter blades. Adjust front until it just touches the straight edge. Depth gauge should be at the zero reading when table is in this position. To adjust, loosen the two screws that hold gauge.

### 2. ADJUSTING FENCE WIDTH SCALE

Loosen the fence slide lock handle. Set fence perpendicular to table. Move fence forward until it's in line with the left edges of the blades. Width scale, above lock handle, should be at the zero reading. To adjust, merely loosen the two set screws.

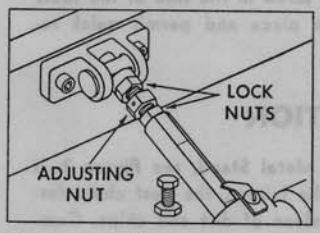



Fig. 5 To adjust fence perpendicular to table, loosen tilt gauge lock nuts and turn adjusting nut.

### 3. ADJUSTING FENCE PERPENDICULAR TO TABLE

Index fence at zero and tighten outer fence tilt lock only. Loosen the two lock nuts on tilt gauge - see Figure 5. Now, with a square, set fence perpendicular to table by turning the adjusting nut that's between the two nuts just loosened - see Figure 5. Tighten nuts after fence has been correctly adjusted. Tilt gauge pointer should be at zero reading - adjust pointer by merely loosening set screw. If the 45° positions are not correct, they can be re-set by adjusting the stop screw in the slide and the nuts on end of tilt gauge.

### 4. ADJUSTING FENCE SLIDE LOCK

If fence slide lock needs adjusting, loosen the two fence slide adjusting screw nuts located on top of the clamp brackets - see Figure 4. Place lock handle in the released position. Adjust screws so there's an equal amount of pressure when the fence is locked - check with cardboard or a .015" shim, placing it between screw and fence slide with fence lock released. Then tighten adjusting screw nuts.

### 5. ADJUSTING FENCE LONGITUDINAL PLAY

If play develops in the tilt gauge sleeve - see Figure 6, it can be eliminated as follows. Remove the two fence tilt lock knobs and loosen the large lock nut. Then, with a screw driver tighten the adjusting screw until play is eliminated. Tighten nut and replace lock knobs.

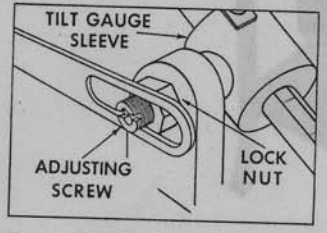



Fig. 6 To eliminate play in the tilt gauge sleeve, remove lock knobs, loosen lock nut, and tighten adjusting screw.

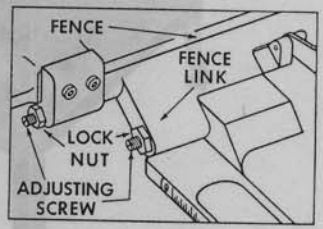



Fig. 7 If play develops in the fence or fence link, it can be eliminated by tightening the adjusting screw.

If play develops in the fence or fence link it can be eliminated by loosening lock nut and turning adjusting screw - see Figure 7. Be sure to tighten lock nut after adjustment is made.

**6. ADJUSTING CUTTER BLADES** The blades and cutterhead have been accurately machined and set at the factory and need no further attention other than honing or sharpening. If, after blades have been removed from the cutterhead for sharpening, a gouge or step appears on the planed surface, one or more of the blades are not the correct height or not level with the rear table. To adjust, see Mounting Blades in Cutterhead, parts a thru d, page 3.

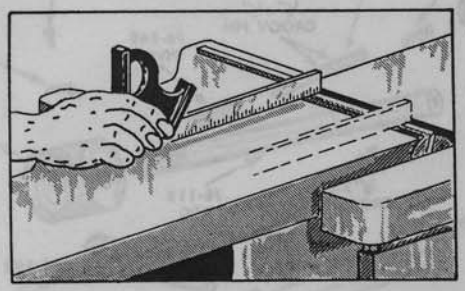


Fig. 8 Jointer blades should be checked regularly for alignment to maintain absolute accuracy.

## SHARPENING THE CUTTER BLADES

Keep the blades sharp. When the surface of the planed wood begins to have a slight fuzzy look, when you feel the stock chattering, or when it seems difficult to feed the stock across the blades — it's time to sharpen the blades. Generally, honing the blades with a flat oilstone or slip stone of medium grade is all that's required to sharpen them.

**HONING BLADES** Before honing the blades, check their alignment (see Mounting Blades in Cutterhead, parts a thru d). Lock front table about 1/8" below cutting edge of blades. Partly cover the stone with paper — so it won't scratch the table — and lay it on the front table. Turn cutterhead and adjust table so that the stone is resting flat on the bevel of a blade. Hold the head in this position so it cannot turn and rub the stone with an even pressure lengthwise of the blade until the blade is sharp. Treat each blade with the same number of strokes.

**GRINDING BLADES** When honing is ineffective, grind the blades. They can be ground one of two ways. The first, and recommended method, is to remove the complete cutterhead. The Atlas jointer is designed so that it can be removed quickly and easily. The second method is to remove the blades for grinding. CAUTION: If you're not familiar with grinding the blades, have them done by someone who specializes in such work.

### REMOVING CUTTERHEAD —

1. Remove the fence and cutter guard.
2. Wrap heavy paper around cutter head to prevent damaging blades — see Figure 10.
3. Remove the two screws in the right bearing hanger (pulley side). Loosen screws in the left bearing hanger.
4. Slide complete cutter head through right side of jointer—see Figure 10. Remove pulley and bearing hanger before sharpening the blades.

When remounting the cutterhead do not tighten the bearing hanger screws — cutterhead must first be adjusted so that it's level and blades are the same height as the rear table — to adjust:


Fig. 9 Two bearing hanger screws and a adjusting screw are used to accurately position cutterhead and blades in relation to rear table.

5. Place a steel rule on the rear table so that one end projects over the cutter blades, see Figure 8.
6. Beneath the hangers, on each side of jointer, are cutterhead adjusting screws, — see Figure 9. Adjust screws until blades just touch the straight edge at both ends, then tighten the lock nuts and the hanger screws.

### MOUNTING BLADES IN CUTTERHEAD —

If the blades are removed from the cutterhead for grinding they must be carefully reset. Each blade must be the same height and level with the rear table along its entire length.

1. Lock blades in place so they seat firmly in the bottom of the cutterhead slot and project 1/16" beyond left edge of cutterhead — accurate rabbeting is impossible if blades do not project the same distance.

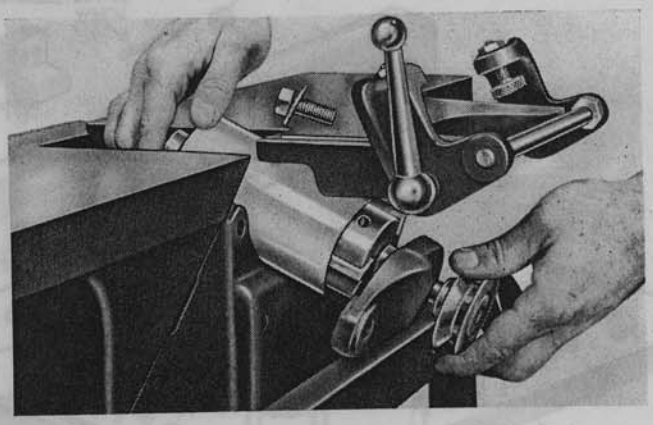


Fig. 10. Entire cutterhead can be removed so that blades can be sharpened in the cutterhead.

2. If blades are ground accurately and identically they should be in proper alignment with the rear table. Check with a 12" steel rule, placing it on the rear table with one end projecting over the blades.
3. Revolve cutter by hand, placing steel rule along each side, see Fig. 8. If the blades are not properly aligned, DO NOT adjust them separately — the cutterhead can be adjusted. To adjust:
4. Loosen, but do not remove, the four bearing hanger screws — See Figure 9, then follow instructions under REMOVING CUTTERHEAD, parts 5 and 6.

If one, or two, of the blades are still out of alignment they must be adjusted separately. To adjust:

a) Place a steel rule on the rear table with one end projecting over the cutter blades, see Figure 8.

b) Revolve cutter by hand, placing steel rule along each side. Adjust blades to touch steel rule — BUT NOT MOVE IT. To adjust blades, loosen the set screws that hold them. If a blade is high, tap it lightly with a piece of hard wood. If a blade is low, raise by inserting a small screw driver under bottom edge. Place paper or metal shims beneath blades so they seat firmly. Adjust blades so they project 1/16" beyond left edge of cutter head — side opposite pulley. Accurate rabbeting cannot be made if blades do not project the same amount.

c) Repeat above operations, placing steel rule along each side of table, adjusting blades if necessary.

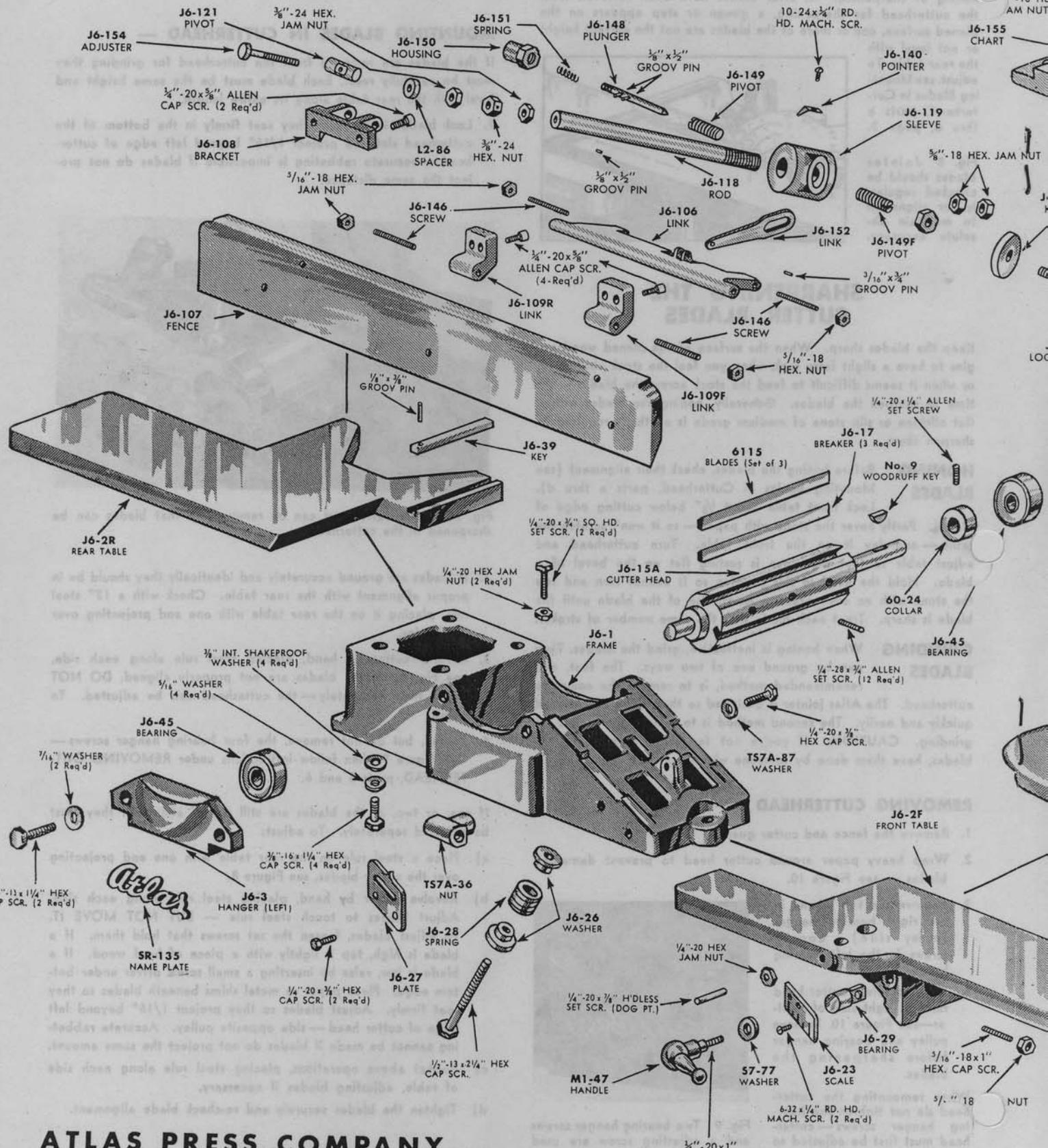
d) Tighten the blades securely and re-check blade alignment.

***CAUTION: Make certain the chip breakers seat firmly against the bottom of the cutter head channels after making blade adjustment.***

# REPAIR PARTS LIST

# Atlas 6-inch JOINTER-PLANER

## CATALOG No. 6001





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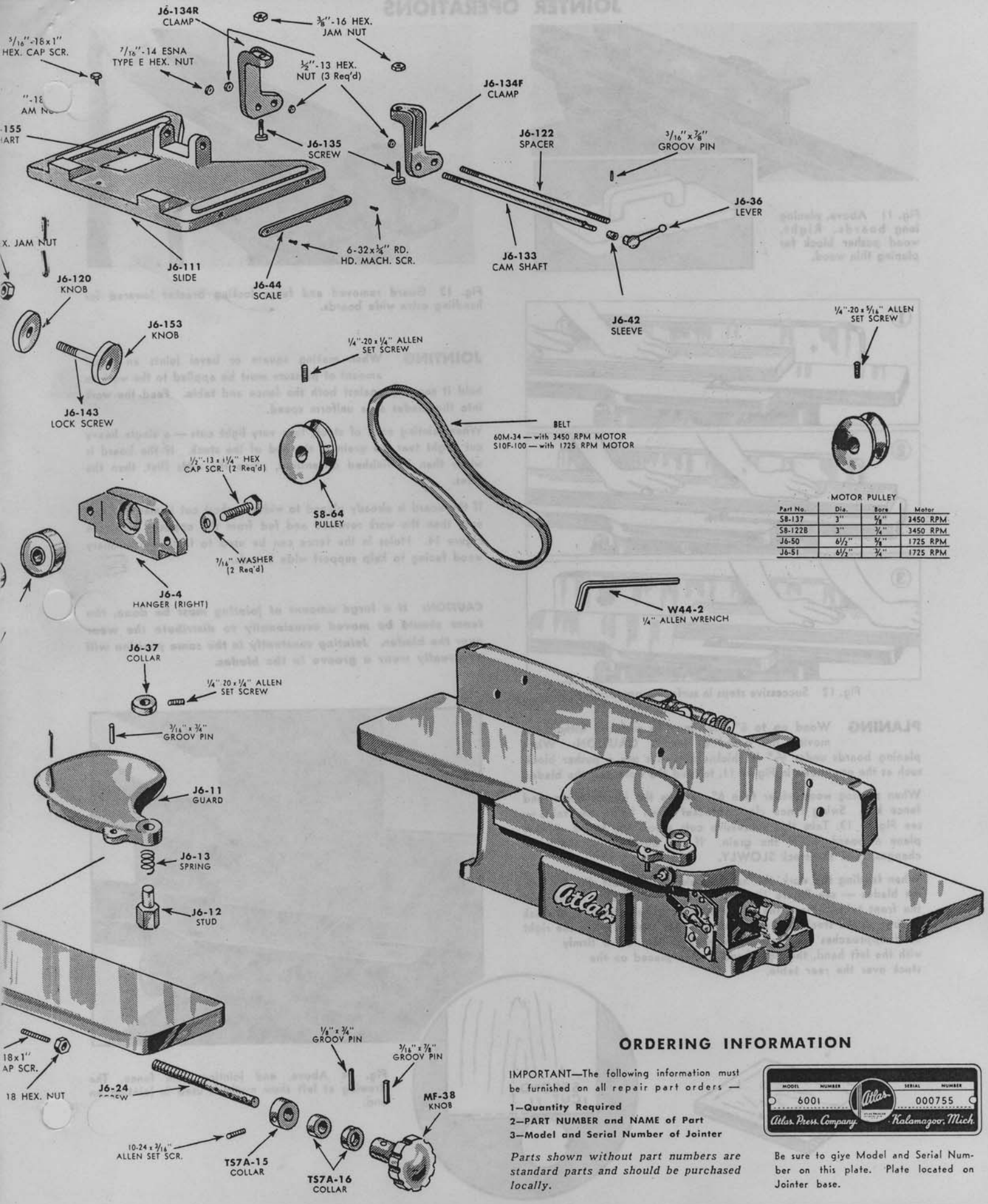



MOTOR PULLEY

| Part No. | Dia. | Bore | Motor |
|---|---|---|---|
| S8-137 | 3" | 5/8" | 3450 RPM |
| S8-122B | 3" | 3/4" | 3450 RPM |
| J6-50 | 6 1/2" | 5/8" | 1725 RPM |
| J6-51 | 6 1/2" | 3/4" | 1725 RPM |

## ORDERING INFORMATION

IMPORTANT—The following information must be furnished on all repair part orders —

**1—Quantity Required**
**2—PART NUMBER and NAME of Part**
**3—Model and Serial Number of Jointer**

*Parts shown without part numbers are standard parts and should be purchased locally.*




Be sure to giye Model and Serial Number on this plate. Plate located on Jointer base.

# JOINTER OPERATIONS

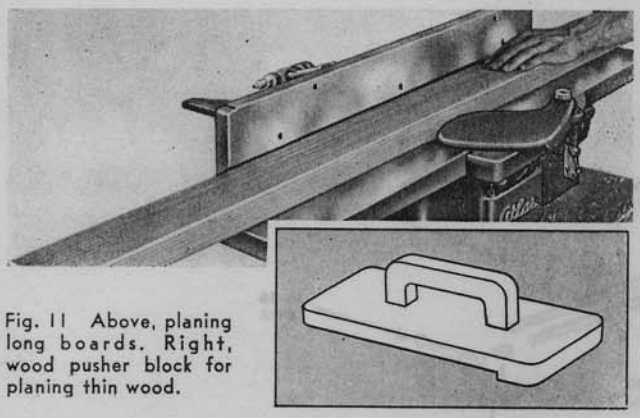


Fig. 11 Above, planing long boards. Right, wood pusher block for planing thin wood.

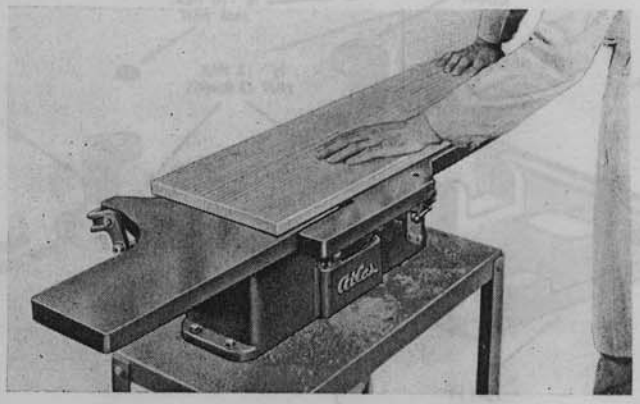


Fig. 13 Guard removed and fence locking bracket lowered for handling extra wide boards.

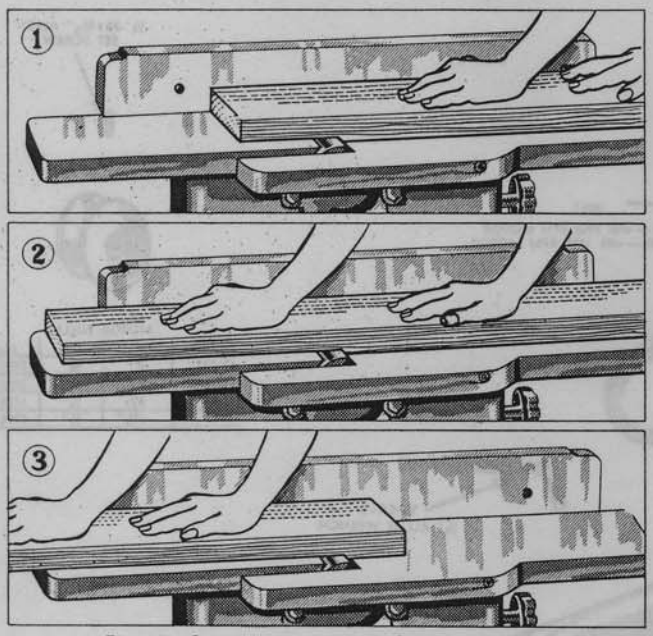



Fig. 12 Successive steps in surfacing operation.

**PLANING** Wood up to 6" wide may be surfaced without removing the guard or fence. CAUTION: When planing boards under ½" in thickness, always use a pusher block, such as the one shown in Figure 11, to feed the work past the blades.

When planing wood wider than 6", remove the guard, fence, and fence key. Swing fence clamp bracket down below the table — see Figure 13, Take thin successive cuts across the board. Always plane a board WITH the grain. If the direction of the grain changes, feed the stock SLOWLY.

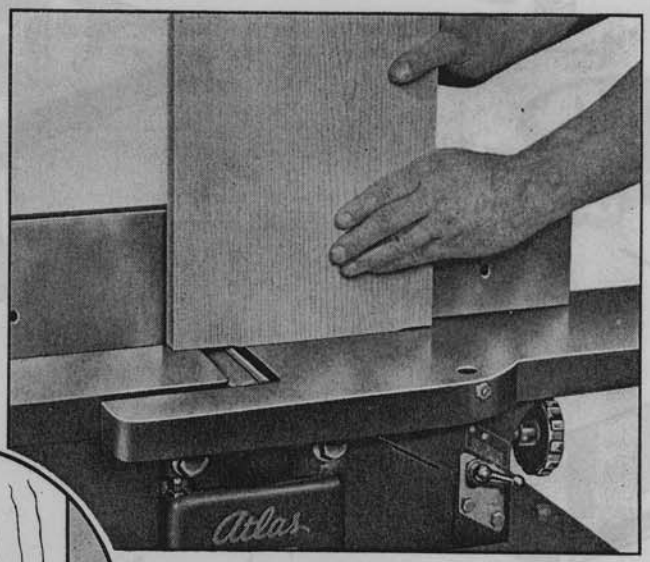
When feeding the work, the hand should NEVER pass directly over the blades — see Figure 12. Hold the work with both hands over the front table. Place the left hand on the front portion of stock as soon as the stock rests solidly on the rear table. When the right hand approaches the blades, the work is held down firmly with the left hand, the right hand is then placed on the stock over the rear table.

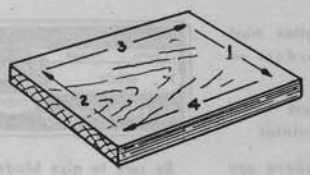
**JOINTING** When making square or bevel joints an equal amount of pressure must be applied to the work to hold it securely against both the fence and table. Feed the work into the blades at a uniform speed.

When jointing ends of stock, take very light cuts — a single heavy cut might tear the grain at the end of the stock. If the board is wider than its finished dimensions, plane the ends first, then the sides.

If the board is already planed to width, a short cut is made at one end, then the work reversed and fed from the opposite side, see Figure 14. Holes in the fence can be used to fasten an auxiliary wood facing to help support wide boards.

***CAUTION: If a large amount of jointing must be done, the fence should be moved occasionally to distribute the wear over the blades. Jointing constantly in the same position will eventually wear a groove in the blades.***



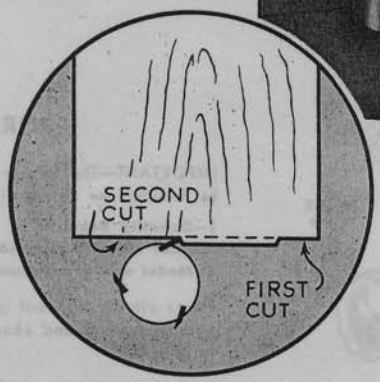




Fig. 14 Above, end jointing with fence. The drawing at left show methods used in jointing an end.

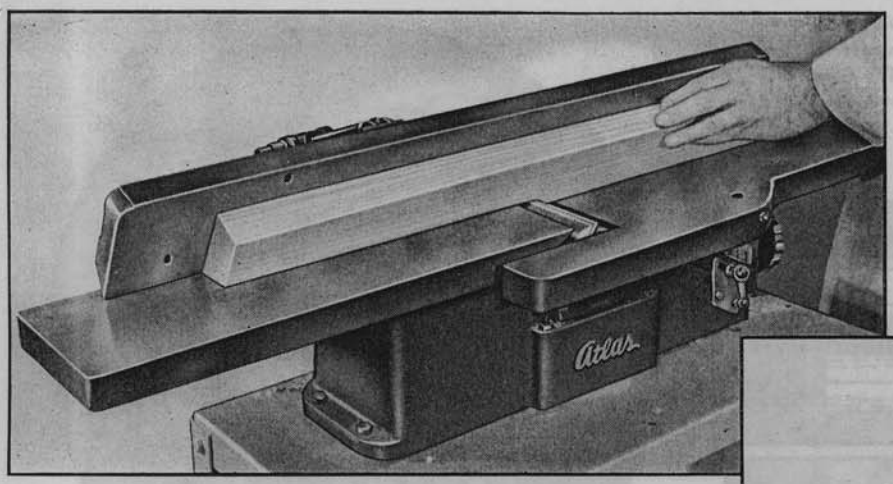
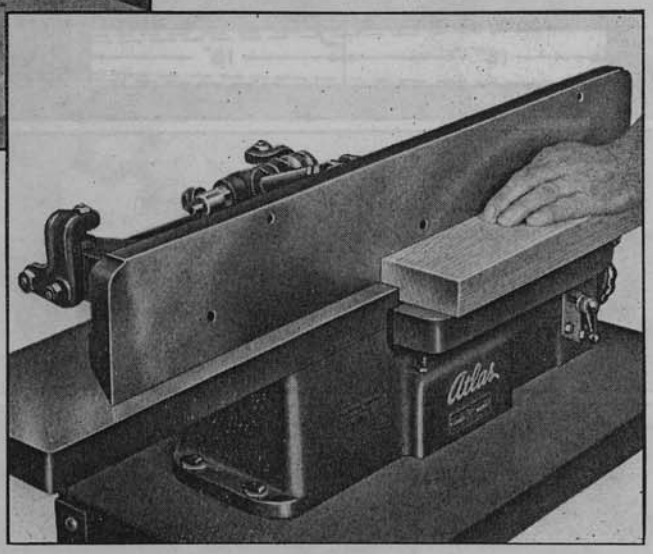



Fig. 15 Left, beveling can be done with the fence tilted in or out as desired.

Fig. 16 Below, cutting a rabbet.




**BEVELING AND CHAMFERING** Tilt the fence and lock it in the desired position, see Figure 15. Take medium cuts until bevel is near full shape — take light finishing cuts.

**RABBETING** Remove the guard, and slide the fence toward the left edge of the table until it's the same distance from left end of CUTTER BLADES as the width of the rabbet — see Figure 16.

Lower the front table to depth of rabbet — the full depth of rabbet, if not beyond the capacity of the machine, can be made in one cut — if cut is wide and deep a better finish is obtained by first taking a roughing cut, then a light finishing cut. Feed the work slowly if cut is wide or deep.

**TAPER CUTTING** Tapers on stock that are shorter in length than the front table can be made in one cut — however a light finish cut is necessary to extend taper full length of stock. Lower the front table about 1/32" less than the full depth of taper desired. Take taper cut by placing stock against fence and position so that front edge will fall on rear table. Raise the table and take light finish cut full length of stock.

When long tapers are to be cut the stock is divided into a number of equal parts, each part slightly less than the length of the front table. The depth of cut must also be divided into a corresponding number of equal parts. If a 36" board was to be tapered 3/8", the board would be divided into two equal parts and the front table set to 3/16" depth of cut. Two cuts are necessary — cut the rear of the stock first by placing the board over the blades at the center mark, see Figure 18. The second cut is started at the far end and proceeds the full length of the board to complete the taper — see Figure 18.

Short tapers are cut by pulling the work over the blades — see Figure 19. Lower the front table the desired depth. Position the stock so that the start of the taper is over the blades — a stop block is used to gauge the length of taper and prevents the work

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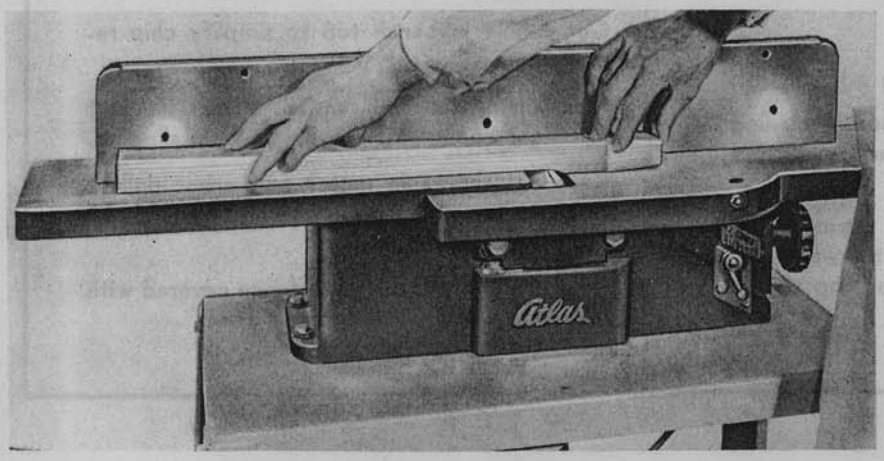


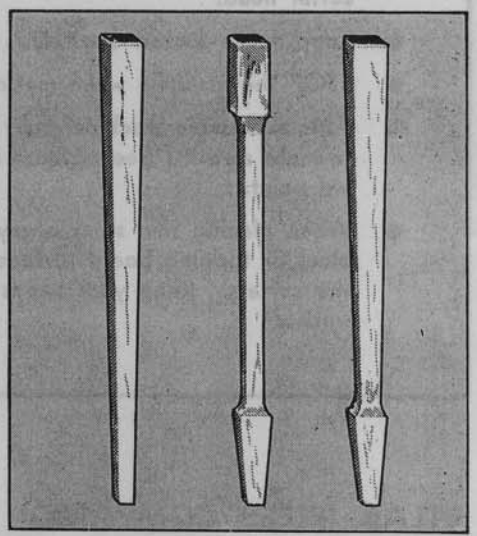

Fig 17 Above, tapering a furniture leg.

Right, examples of tapered furniture legs.

from pulling when starting the cut. The end of the board is lowered onto the front table and a supporting block placed under the free end to hold the stock in position throughout cut. The block may also be bradded in place. The board is then pulled over the blades to cut the taper.

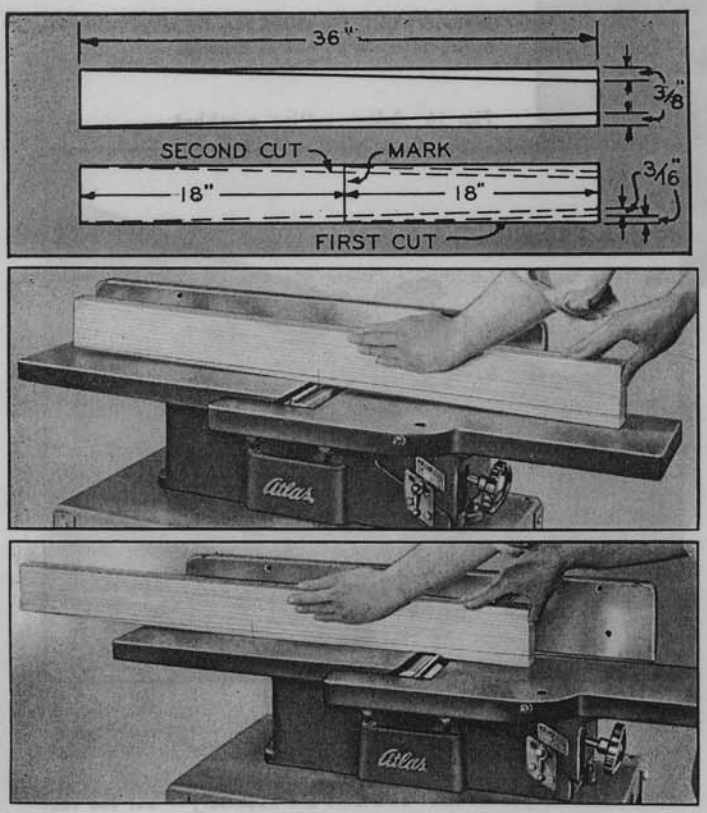


Fig. 18 Steps in cutting a long taper.


Fig. 19 Cutting a short taper.

## LUBRICATION

**USE S. A. E. #20 MACHINE OIL**

1. SPINDLE BEARINGS — The ball bearings in the jointer are permanently sealed against dust and dirt and need no further attention.
2. TABLE AND FRAME WAYS — Oil at regular intervals.
3. TABLE ADJUSTING SCREW — Oil at regular intervals.
4. FENCE SLIDE LOCK SHAFT BEARINGS — Oil at regular intervals.
5. FENCE LINK BEARINGS — Oil occasionally.

## SUGGESTIONS FOR OPERATION AND MAINTENANCE

- Keep guard on machine whenever possible.
- Keep blades sharp — check alignment regularly.
- Be sure the blades are fastened securely in the cutter head.
- Keep fence locked securely.
- STOP the machine when making adjustments.
- Always examine stock carefully before planing to make sure it's free of loose knots, nails and old paint.
- When planing thin stock always use a pusher block or topping board to feed the work past the cutters. Keep your hands on top of the work.
- When a very smooth finish is required, take cuts of 1/32" or less, and feed the stock slowly.
- Mount machine properly — follow the instructions on Page 1.
- Cut a hole in bench top to simplify chip removal.
- Maintain proper belt tension — keep the belt just tight enough to prevent it from slipping.
- Keep set screws in motor and arbor pulleys tight to prevent scoring of motor shaft and arbor.
- Keep the jointer tables and fence covered with oil or wax when jointer is not in use.

**ATLAS PRESS COMPANY** **KALAMAZOO, MICH., U.S.A.**