

This photograph shows many of the attachments which may be furnished for the Rivett #608 and 609 Back Geared Precision Lathes.

1. Collets up to 5/8"
2. Relieving Attachment
3. Slotting Attachment on Base of Cutting Off and Forming Slide
4. Shoe for Bed Attachments.
5. Follower Rest
6. Drill Chuck
7. Drill Chuck
8. T Rest
9. Quill for Slide Rest Milling Attachment
10. Index Plates for Slide Rest Milling Attachment
11. Base for Slide Rest Milling Attachment.
12. Lever Chuck Closer.
13. Turret Attachment
14. Arbor Chucks.
15. Vise for Slide Rest
16. Triangle Rest.
17. Slide Rest Tools
18. Tailstock Center Adjustable off Center
19. Large Center
20. Square Tool Holder
21. Inside Thread Tool Holder
22. Knurl Holder for Slide Rest with 1 Knurl
23. 2" Drill Plate
24. 4" Drill Plate
25. 3" Drill Plate
26. 5" Drill Plate
27. Plain V Center
28. Female center
29. 1" Drill Plate or Blank Center
30. 6" 4 jaw Independent Chuck
31. 4" 3 jaw Geared Scroll Chuck
32. 2" Step Chuck
33. 3" Step Chuck
34. 4" Step Chuck
35. 5" Step Chuck (Not Standard)
36. Step Chuck Closing Ring (Included in Std. Equipment)
37. External Grinding Attachment
38. Internal Grinding Attachment
39. Cutting Off and Forming Slide
40. Spiral Attachment
41. Traverse Miller
42. Traverse Miller Grinder

Change Gear Table for
Rivett #608 Back Geared Precision Lathe.

This table shows the arrangement of gears for most commonly used threads from 10 to 100 per inch.

The formula for this table is:

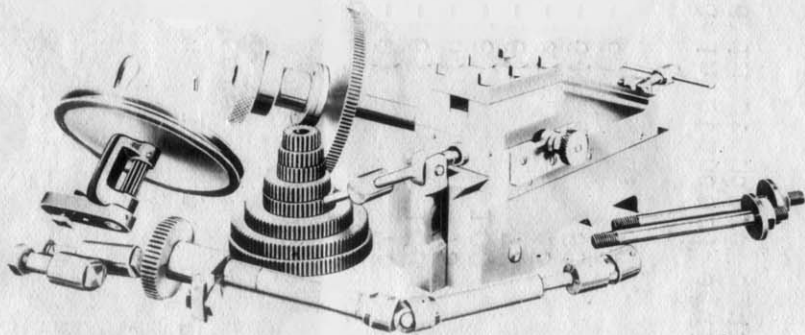
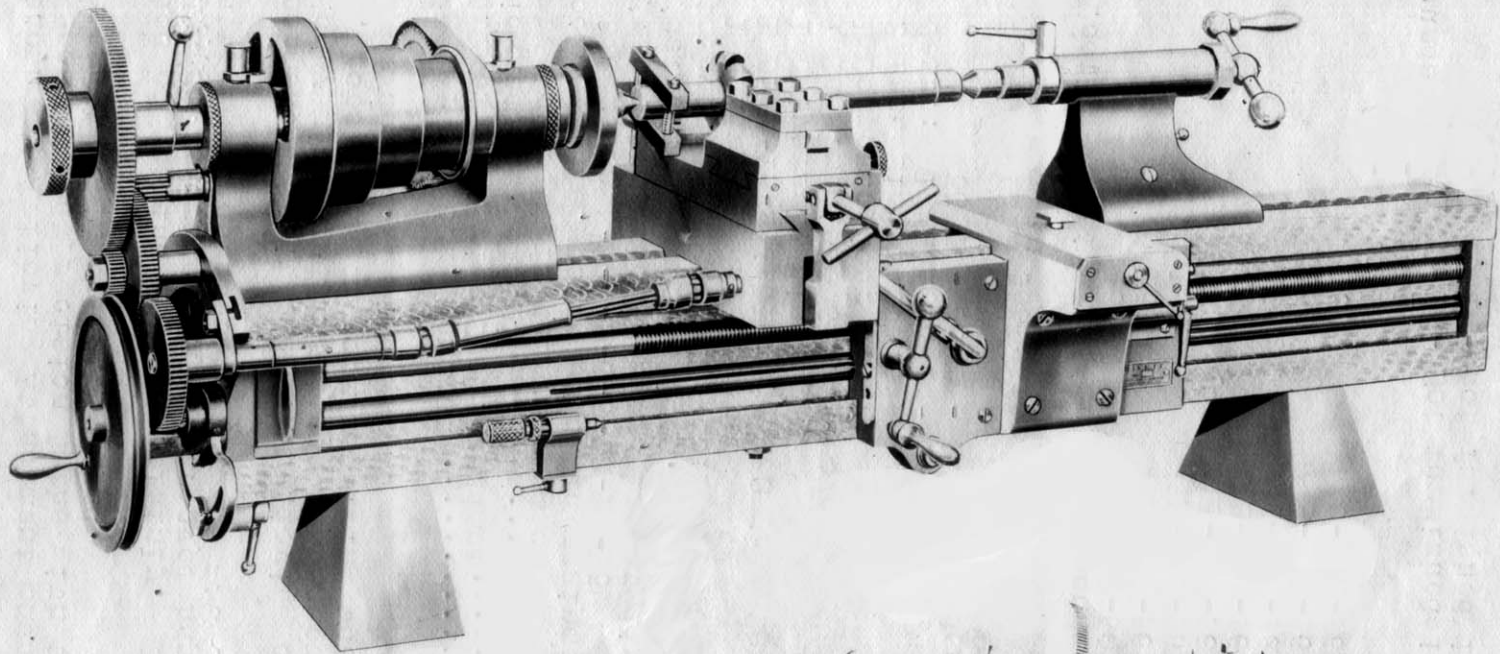
$$P_c \times 2S = NXLXC$$

Where

- P_c - number of threads per inch to be cut
- 2S - twice the number of teeth on stud gear
- N - number of teeth on screw gear
- L - number of threads per inch on lead screw-8
- C - ratio of compound gear - 1 or 2 or 4

From this formula the gearing for other pitches may be formed.

Metric threads may be cut on this lathe with English lead screw by inserting an additional compound gear (translating gears) having the ratio $\frac{127}{50}$



Here is shown the Relieving Attachment mounted on the Rivett No. 608 Back Geared Precision Lathe with the component parts of the attachment in the foreground.

The method of gearing is shown plainly. The attachment may be run by hand or driven by the grooved hand wheel from the spiral attachment countershaft.

The attachment is suitable for relieving or backing off cutters of various and intricate shapes but not for relieving taps, hobs or other work requiring the tool to follow a thread or spiral.

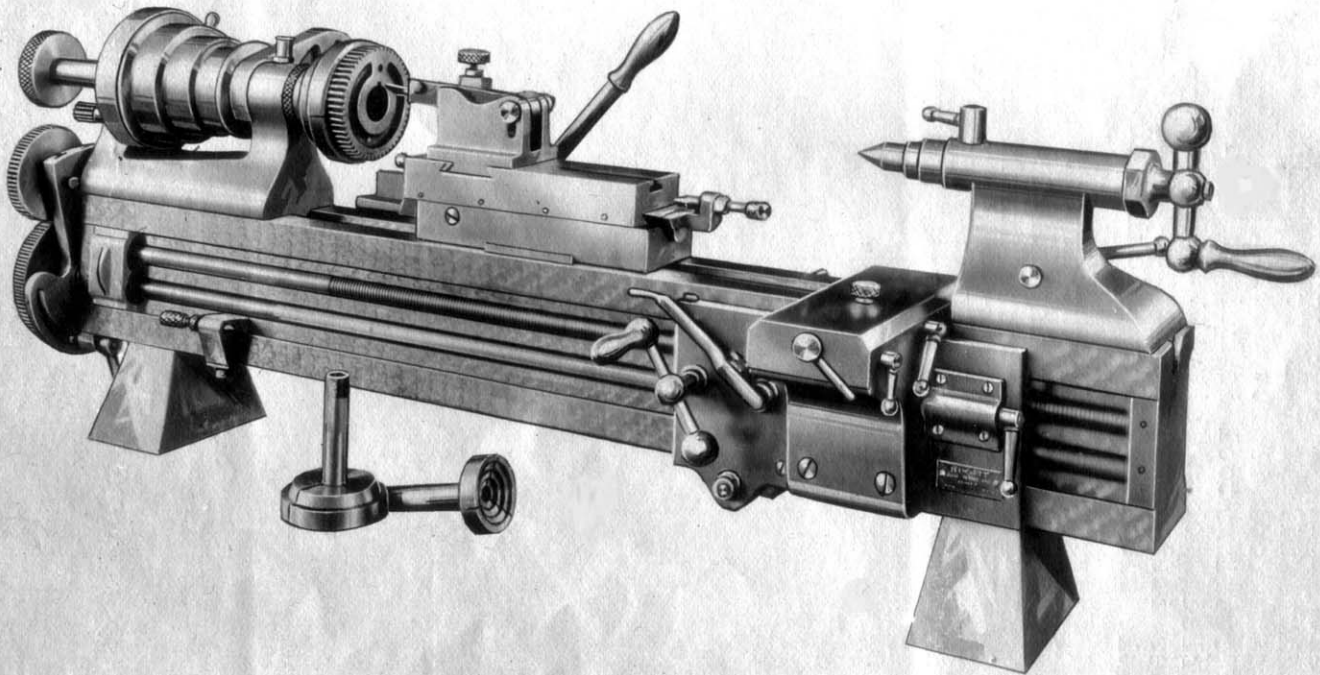
Diameter of work, maximum3"
 Width of Relieving Tool, maximum.....1/16"
 Thickness of Relieving Tool.....7/16"
 Number of reliefs per revolution of head stock spindle,
 using standard equipment change gears 2-3-4-5-6-8-10-12-15
 Adjustment of tool holder, longitudinally.....1 1/4"
 Adjustment of cross slide.....1 1/4"

Attachment includes the following parts:

- 1 Handwheel and Bracket
- 1 Draw-in-spindle and 150 Tooth Gear
- 1 Universal Joint
- 1 Intermediate Gear Sleeve
- 1 Compound Gear Sleeve
- 2 Base Binder Studs
- Gears: 1 each 96 T 24 T - 32 T - 100 T 75 T
 50 T - 45 T 2 - 30 T Gears.

Table of Change Gears for Relieving Attachment.

No. of Teeth	Spindle Gear	Compound	Cam Gear
2	150	D-(60-60)	75
3	150	E-(48-96)	100
4	150	B-(48-96)	75
6	150	B-(24-96)	100
8	150	B-(24-96)	75
10	150	C-(32-96)	45
12	150	B-(24-96)	50
16	150	C-(32-96)	30
Compounds	(B - 4 to 1		
	(C - 3 to 1		
	(D - 1 to 1 - Not furnished in standard equipment		
	(E - 2 to 1 - Not furnished in standard equipment		



We show here the slotting attachment mounted on base of forming slide set up for cutting a keyway in a gear. The cutting tool is moved back and forth by the hand lever and the cutting tool is raised to deepen the cut by the little knurled knob. This attachment will cut keyways, polygonal holes including square and hexagonal collets and will do many little slotting jobs quickly and accurately.

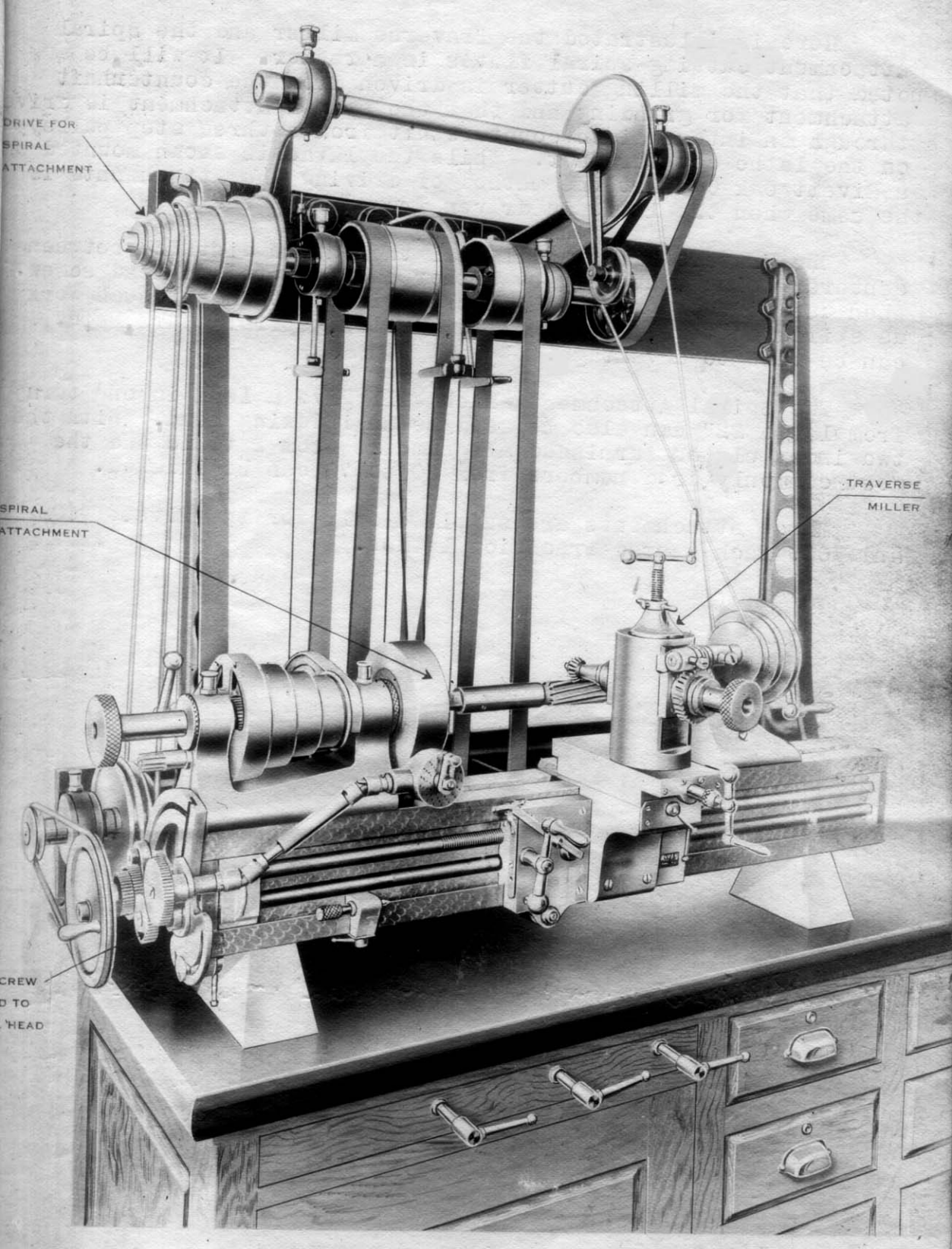
The slotting attachment is shown mounted on the base of the cutting off and forming slide and is sold complete in this way. The slotting head itself may be furnished separately to be used on the regular cutting off and forming slide when the customer has that attachment or is ordering it.

DRIVE FOR
SPIRAL
ATTACHMENT

SPIRAL
ATTACHMENT

TRAVERSE
MILLER

SCREW
ADJUSTED TO
HEAD

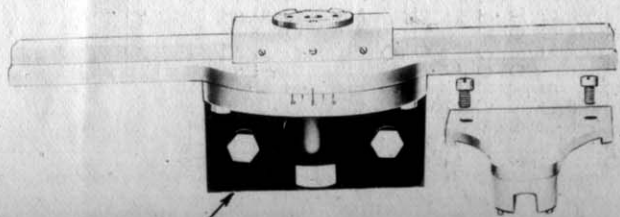
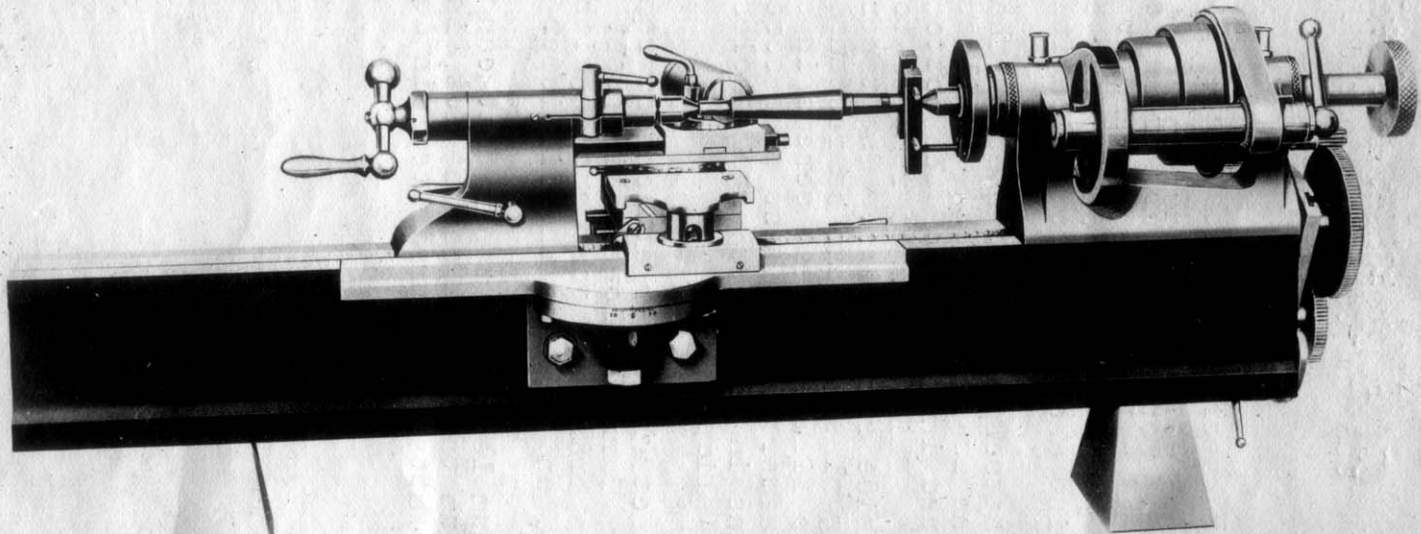


Here is illustrated the Traverse Miller and the Spiral Attachment cutting spiral flutes in a reamer. It will be noted that the milling cutter is driven from the countershaft attachment for grinding and that the spiral attachment is driven through an intermediate countershaft from a three step pulley on the lathe countershaft. While the lathe is shown mounted on a Rivett Oak Cabinet the method of driving the attachments is the same when the lathe is driven from a line shaft.

The Travers Miller will mill the entire distance between centers, being traversed by either the feed rod or lead screw. When used in conjunction with the Spiral Attachment such work as spiral cutters, spiral mills, drills, spiral gears, etc... can be made to advantage.

The Spiral Attachment which will give a lead in one turn from 1 1/2 to 22" can also be used as an indexing head. With the two index plates furnished all numbers from 2 to 18 and the most commonly used numbers from 20 to 70 can be indexed.

These attachments are supplied only for the Rivett #608 and #609 Back Geared Precision Lathes.



Taper Attachment for Rivett Nos.
608 and 609 Back Geared Precision Lathes.

For turning tapers not exceeding 4" long, especially of steep angles, the compound slide of the slide rest can be used. For long tapers of angles not exceeding 10 included angle a taper attachment can be supplied for Rivett Lathes 608 and 609, these being the only lathes having a carriage power longitudinal travel.

The taper attachment is mounted on the rear of the bed of the lathe as illustrated. A fillister head screw will be found in the top of the bottom slide of the slide rest. This should be removed to free the nut on the lower side rest screws. The taper attachment connecting plate can then be fastened to the slide rest by two fillister head screws in either of two positions after the headless plug screws are removed. The two pins in the plate engage holes in the taper attachment slide.

To disconnect the taper attachment remove the connecting plate. Turn the lower slide rest screw until the hole in its brass nut corresponds with the hole in the slide rest, and replace the fillister head screw.

Maximum length of taper that can be cut	18"
Maximum taper that can be cut, included angle	10°
Taper attachment graduated, in degrees	