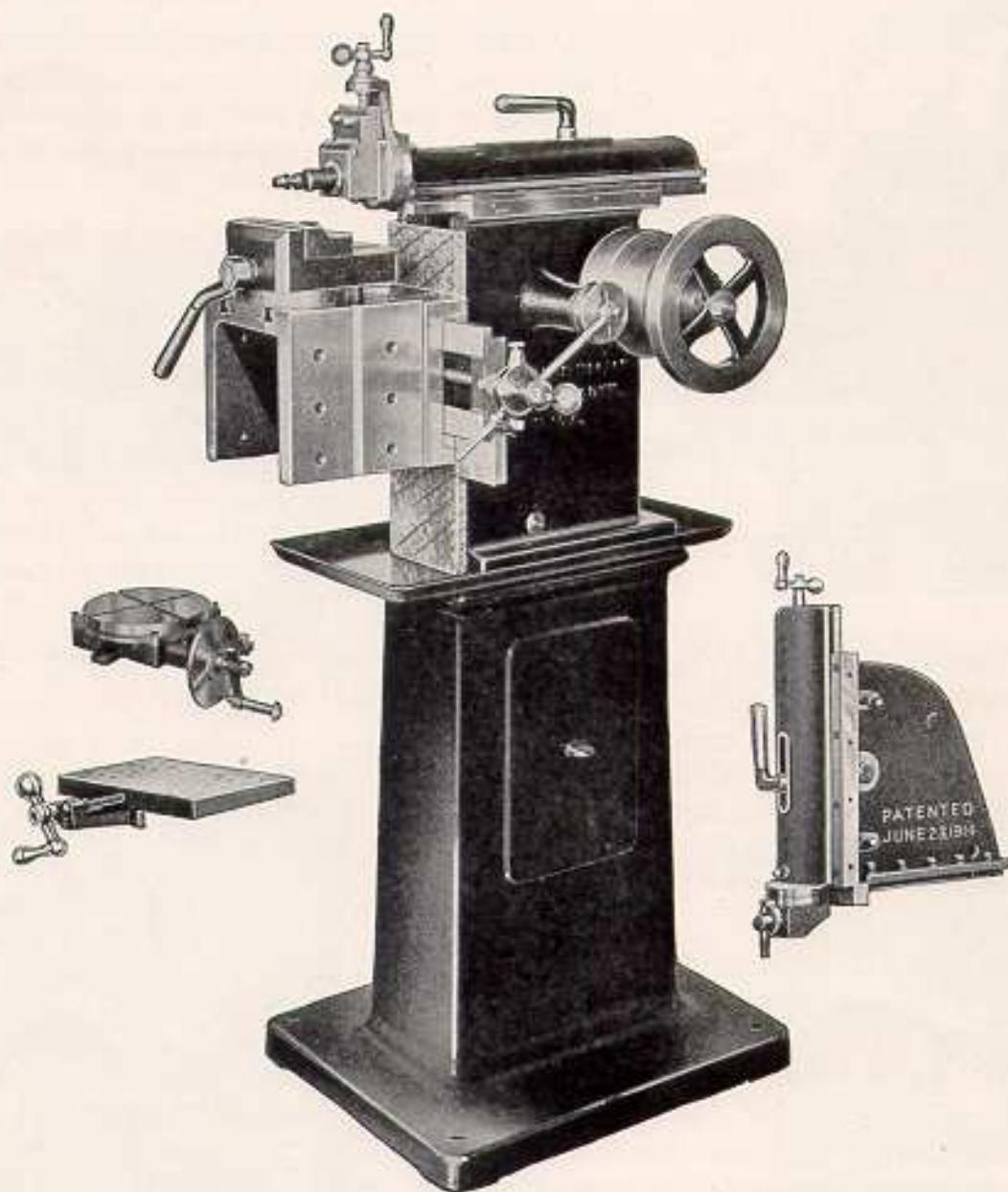


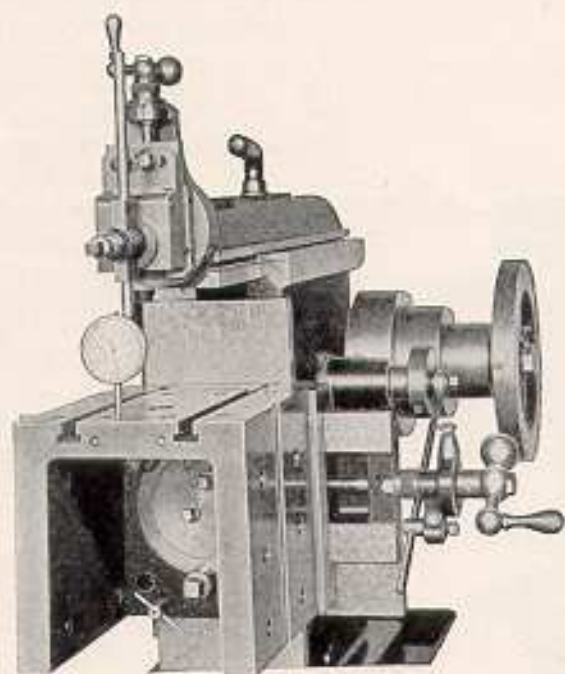
THE  
**RHODES**  
7" HORIZONTAL SHAPER AND  
3½" VERTICAL SLOTTER



THE RHODES MANUFACTURING CO.  
HARTFORD, CONN., U. S. A.  
SHAPERS & SLOTTERS

**T**HE RHODES COMBINED HORIZONTAL SHAPER AND VERTICAL SLOTTER with its patented interchangeable feature affords a wide range of accurate machining. It can be quickly and conveniently changed from a horizontal shaper with a 7" stroke to a vertical slotter having a stroke of 3½". It is strong and durable and will do more conveniently and with equal accuracy the work ordinarily done on larger and more expensive machines. On account of its compactness and comparatively light weight all adjustments are quickly made by control levers easily manipulated and within easy reach of the operator.

**ACCURACY** the most essential element in any shaper has been very carefully built into all Rhodes shapers. In their manufacture, templates, gauges and jigs are used wherever required and all moving parts are carefully hand scraped and fitted. Carefully designed gibs are arranged with adjusting screws for taking up all wear, and such parts as the table, tool head, vise, etc., are carefully tested by indicator and proving block after a thorough inspection and trial.



**THE COLUMN** is of unusual width and length, giving a long and wide bearing surface to the ram. The main gear is attached close to the side of the column so that in taking extra heavy cuts there can be no strain from tension of the belt.

**THE RAM** is provided with a quick return and its bearing is provided with felt oilers which keep it perfectly lubricated. The position of the ram in relation to the work and the length of the stroke can be changed instantly. A gib extending the whole length of the column provides adjustment for taking up wear.

**THE HORIZONTAL TOOL HEAD** is graduated and swivels to any angle through an arc of 90 degrees. The down feed screw has a graduated collar reading to thousandths of an inch. The tool post screws are made of alloy steel carefully heat treated.

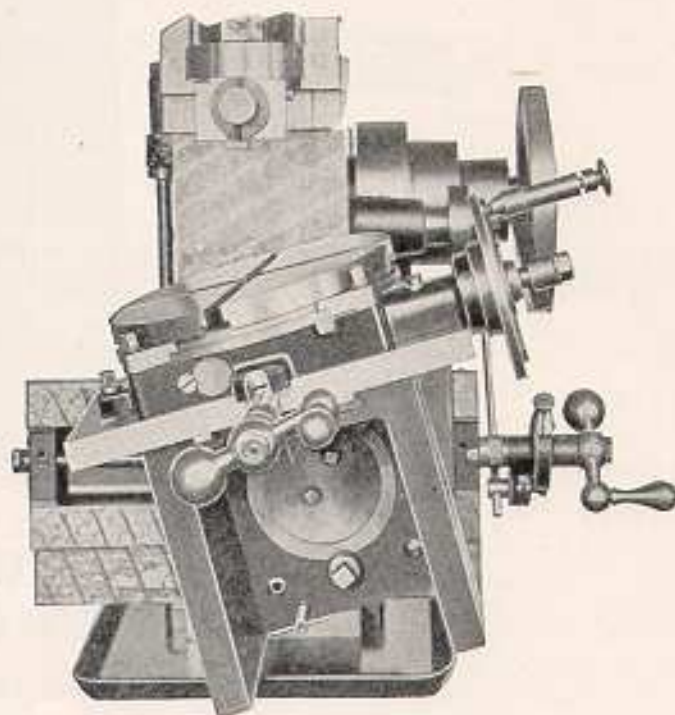
**THE TABLE** is of standard box form with "T" slots on top and "V" slots on the side; both the side and the top of the table are drilled to allow the clamping of work in any position.

**A TILTING TABLE** when specified can be furnished revolving to an angle of 90 degrees in either direction. It is graduated in degrees and can be securely fastened in any position. Its normal position is accurately located by a hardened and ground plug.

**THE CROSS RAIL** is strongly gibbed to the column by the use of a square gib on one side and an angular one on the other, which assures perfect alignment. The gibs can be adjusted to take up wear.

**THE DRIVER CONE** has three large diameter steps, arranged in regular progression, by which it is possible to obtain the necessary cutting speeds on all metal from soft brass to hard steel.

The cone is mounted on a sleeve bearing, which insures proper meshing of the driving pinion, and adds longer life to the running parts.



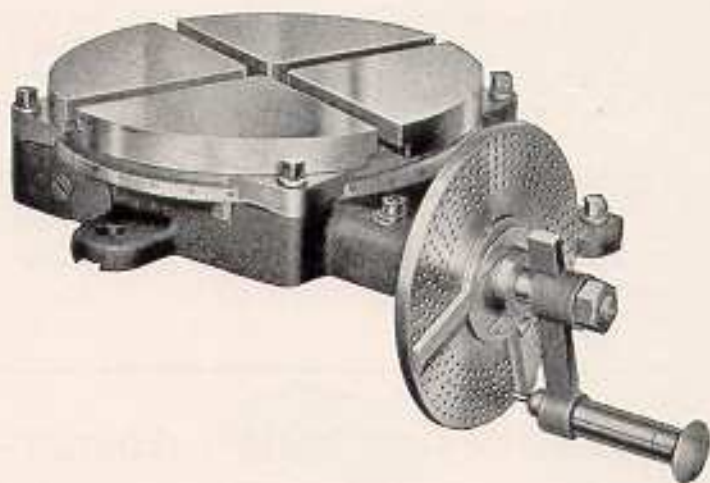
**T**HE VISE is of very strong construction and is graduated to 90 degrees either side of 0. The jaws are made of tool steel and hardened and ground. The vise is equipped with a swivel jaw, which allows for the holding of a variety of work.

**THE CROSS FEED** is equipped with a lifting and turning pawl, which is used for engaging or disengaging the feed, which is automatic in either direction.

It adjusts itself entirely automatically, for any position of the cross rail, and does not require the loosening or tightening of set screws to adjust.

The cross feed screw is equipped with graduated collar reading to thousandths of an inch.

**THE VERTICAL GUIDE** is constructed very similar to the top of the column, and pivots on a substantial stud, so that it may be set at any angle from 0 degree to 10 degrees, with the vertical. This enables the operator to cut an irregular



shaped piece or die and

relieve same without changing its setting. A permanent stop is provided to set the ram in vertical position.

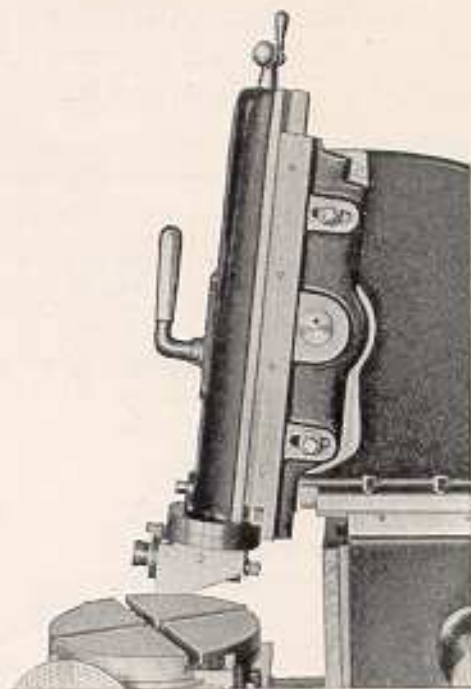
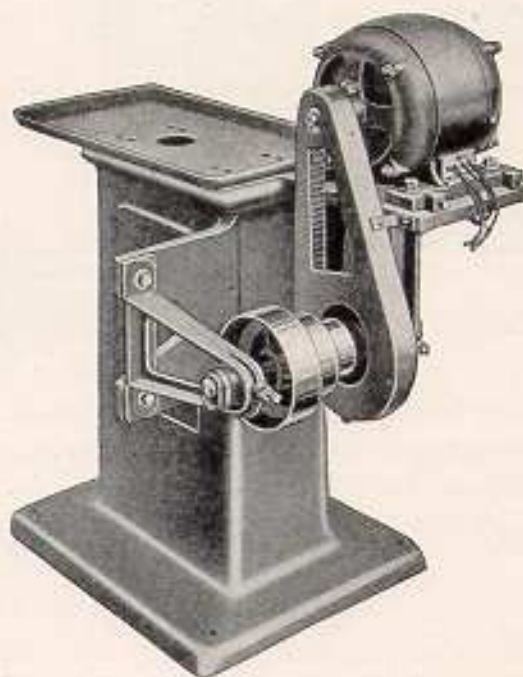
**THE VERTICAL TOOL HEAD** swivels to any angle, and is provided with a clapper to carry the tool and relieve it on the up stroke. The tool post collar is made of hardened steel and has a projection to take the thrust of the tool. This collar, however, may be turned so that an extra long tool will pass by it.

**THE IN-AND-OUT TABLE** is fitted to the knee by the use of two "T" gibs. This table

is equipped with a feed screw with graduated collar reading to thousandths of an inch.

**THE ROTARY TABLE** may be secured with or without an index head and circular dividing attachment. The use of this table in the shaping of tools and dies greatly facilitates this work. It is graduated in degrees on its circumference and any kind of lathe or drill chuck can be located from the center hole to run perfectly true with the table. It is provided with three index plates by means of which any division of the circle may be obtained. An adjustment is provided on the outside of the table for taking up wear in the worm and worm wheel.

**THE COMPLETE MOTOR EQUIPMENT** is an integral part of the base and consists of a  $\frac{1}{2}$  H.P. General Electric constant speed motor with silent chain drive, properly guarded, to a three-speed countershaft. The motor driven base is a separate unit and is interchangeable with the regular floor base. It is complete, including chain, belt and starting rheostat.



COMPLETE EQUIPMENT includes the countershaft swivel vise, in-and-out table, plain rotary table and all necessary wrenches. Attachments may be secured as follows: Tilting table, rotary table, having a dividing head and indexing attachment.

### SPECIFICATIONS

SHAPER		SLOTTER	
Length of stroke.....	7"	Length of stroke.....	3½"
Automatic cross traverse.....	9"	Automatic cross traverse.....	9"
Vertical travel of table.....	7"	Vertical travel of table.....	7"
Max. distance ram to top of vise.....	5½"	Max. distance ram to top of table.....	8½"
Max. distance ram to top of table.....	8½"	Max. distance ram to top of in-and-out table.....	7½"
Vertical movement to head.....	2½"	Max. distance ram to top of rotary table.....	6"
Top of table.....	6½" x 7"	Adjustment of vertical ram guide.....	10 degrees
Side of table.....	6¼" x 7½"	Vertical adjustment to ram.....	3½"
Width of ram bearings in column.....	3½"	Top of table.....	6½" x 7"
Length of ram bearings in column.....	11¼"	Side of table.....	6¼" x 7½"
Takes tool.....	¾" x ¾"	Top of in-and-out table.....	11" x 7¾"
Size of vise jaws.....	1½" x 5"	Horizontal adjustment to in-and-out table.....	2½"
Vise opens.....	3¼"	Top of rotary table.....	8½"
Ratio of gearing.....	6 to 1	Width of ram bearing in ram guide.....	3½"
Countershaft pulleys — tight and loose.....	8" x 2"	Length of ram bearing in ram guide.....	14½"
R. P. M. of countershaft.....	200	Takes tool.....	½" x ¾"
Grades on cone.....	6°, 4½°, 3°	Ratio of gearing.....	6 to 1
Width of steps on cone.....	1½"	Countershaft pulleys — tight and loose.....	8" x 2"
Width of belt.....	1¾"	R. P. M. of countershaft.....	200
Floor space.....	22" x 24"	Grades on cone.....	6°, 4½°, 3°
Strokes of ram per minute.....	30-95	Width of steps on cone.....	1½"
		Width of belt.....	1¾"
		Floor space.....	22" x 24"
		Strokes of ram per minute.....	30-95

#### MODEL NO. 1 AND 3 COMBINED HORIZONTAL SHAPER AND VERTICAL SLOTTER — Floor type

Net weight combination machine.....	650 pounds
Weight, boxed for export.....	790 pounds
Weight, crated.....	725 pounds
Cubic feet, boxed for export.....	21 cu. ft.

#### CODE WORD

Machine complete.....	HISSCOMB
Machine complete, equipped with ½ H.P. Motor.....	MOTOCOMB

#### MODEL NO. 1 AND 3 COMBINED HORIZONTAL SHAPER AND VERTICAL SLOTTER — Bench type

Net weight of combination machine.....	550 pounds
Weight complete, boxed for export.....	690 pounds
Weight complete, crated.....	625 pounds
Cubic feet, boxed for export.....	18 cu. ft.

#### CODE WORD

Machine complete.....	MISSCOMB
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