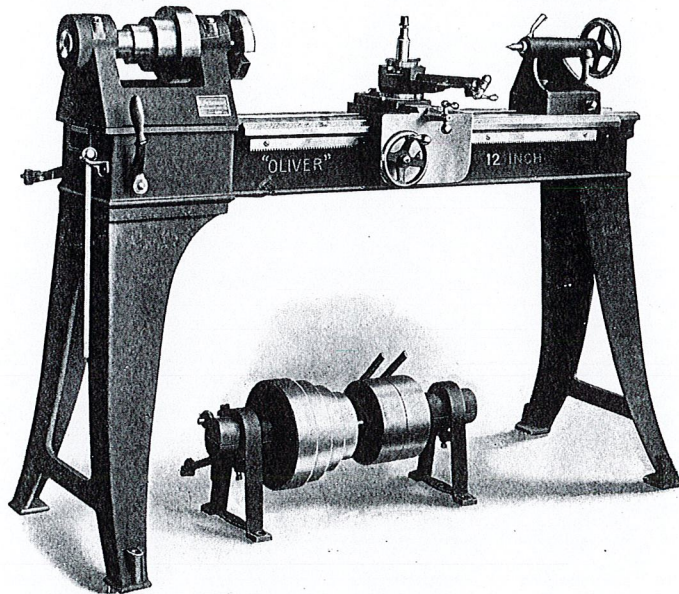


# "Oliver" 12-Inch Speed Lathe



"Most Modern Speed Lathe Made"

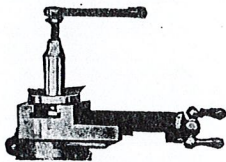
Motor or Belt Driven.

Four Step Cone Pulley.

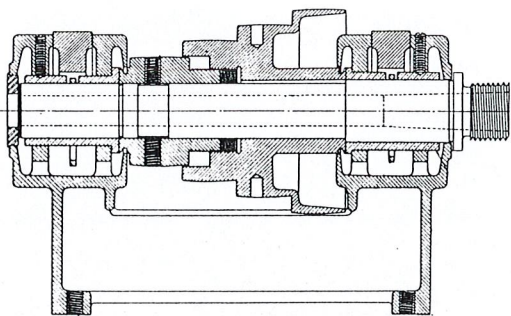
White Bronze Removable Ring-Oiling Bearings.

Hand Feeding Carriage With Compound Swivel Rest.

Set-Over Tail Stock.



Compound Swivel Cross Slide  
and Tool Post



Detail of head-stock construction found  
only on Oliver Lathes.

## Oliver Machinery Co.

Grand Rapids, Mich., U. S. A.

BRANCH OFFICES:

New York  
Seattle

Chicago  
Salt Lake City

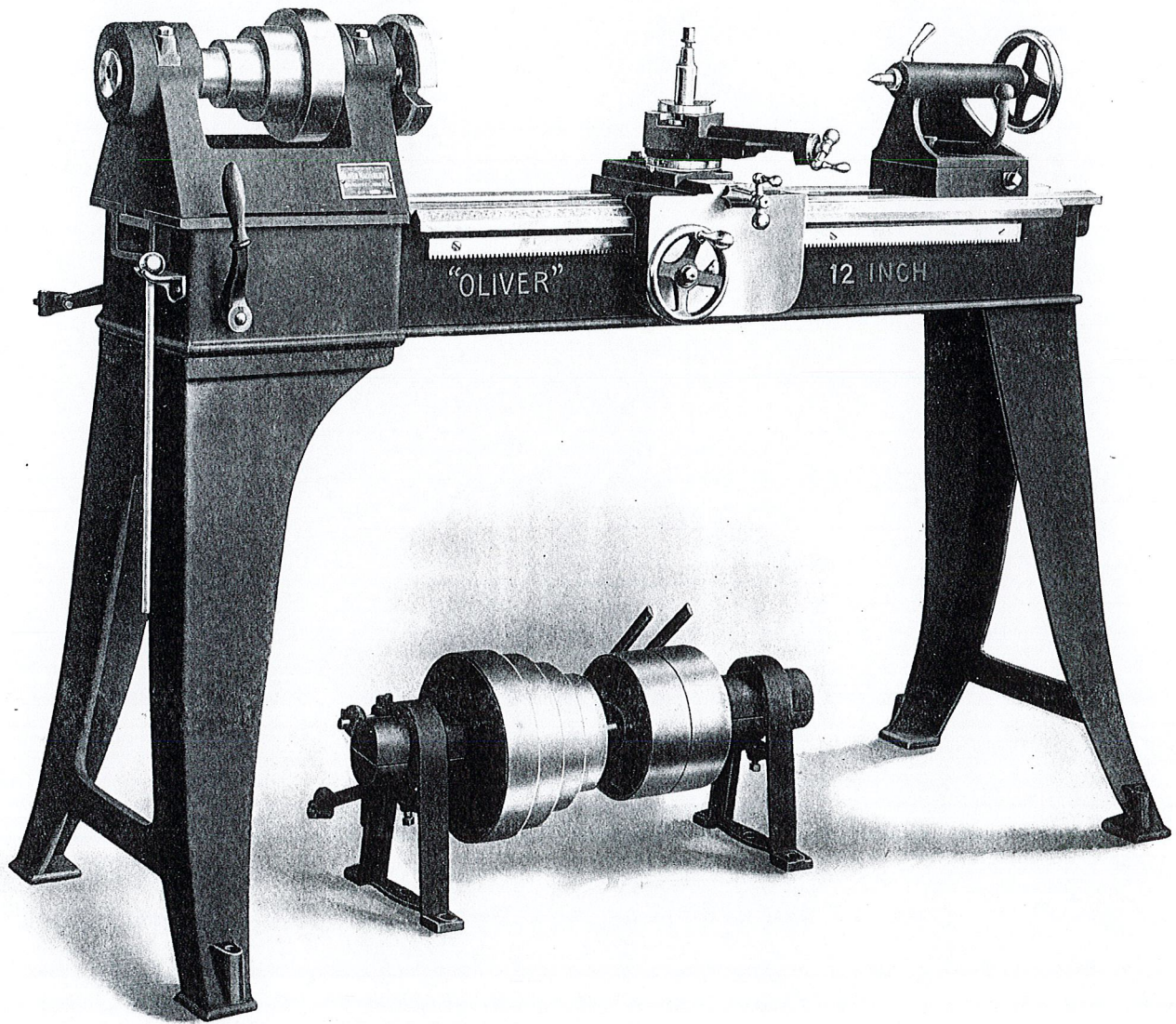
St. Louis  
Denver

Los Angeles  
Denver

San Francisco  
Phoenix

## 12-Inch "Oliver" Speed Lathe

Belt or Motor Driven

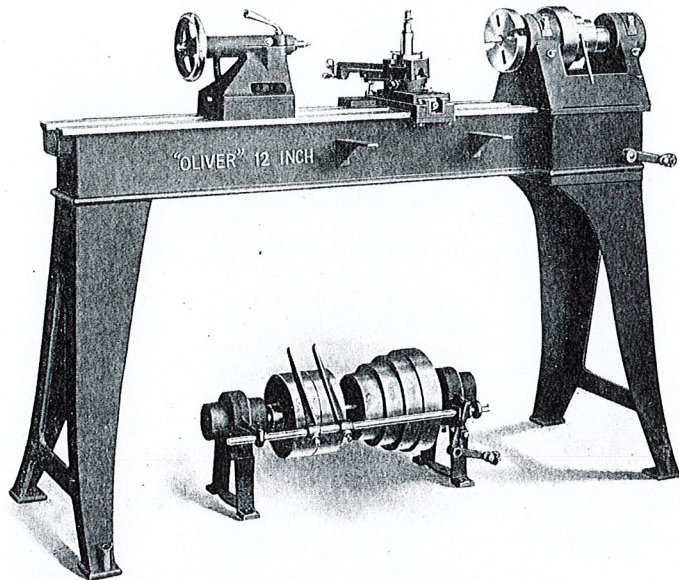


**Introduction** This Speed Lathe is well designed, correctly built, substantial, powerful and easily operated. We make no claims for "cheapness" in the ordinary meaning of the word, but we do herald the fact that this is the most economical speed lathe ever offered. All parts are jig machined whether they be large or small and all parts are fitted to templates, thus interchangeability of parts and accuracy are assured. The materials are the best obtainable and the workmanship unexcelled.

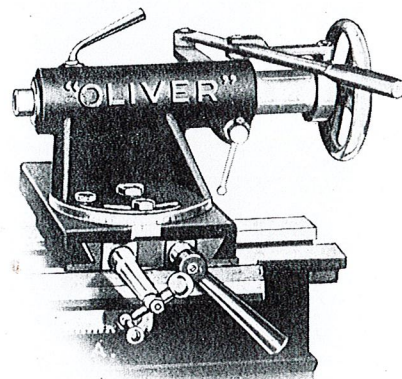
**Capacity** Will swing 12" diameter over the bed or 9½" over the carriage and will turn 36" long between centers on bed 60" long.

**Head Stock** Head Stock 12¼" long 10½" wide. Long experience and careful, painstaking attention to details enables us to say a number of things about it we would like you to remember.

**Bearings** These are fitted with adjustable split bronze bushings grooved inside for oil passage, and ring-oiling from ample oil wells having both level and drain plugs.

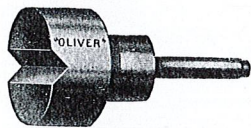


Another view of "Oliver" 12-Inch Speed Lathe

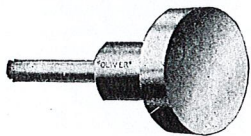


No. 50 Swivel Set Over Tail Stock

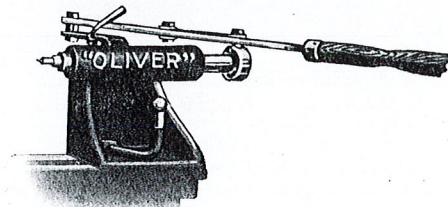
The swivel device swings the Tail Stock about a central pin for 30 degrees each way and is clamped in position by two hexagonal nuts. The off-set is controlled by lever and screw in a finished dove-tail way. A strong lever with eccentric clamp secures the Tail Stock to bed. The Spindle may be actuated either instantly by the lever feed or steadily by the hand wheel and screw feed.



**CROTCH CENTER**—for holding firmly any piece that must be bored or recessed, which could not be otherwise treated in the lathe.



**DRILL PAD**—for use as a back rest for piece being bored by a revolving tool in the head spindle.



No. 49 "Oliver" Special Tail Stock

The quick feed lever part may be securely clamped at any position making lathe available for regular turning.

**End Thrust** This is cared for by the ends of the cone pulley pressing against the bronze bushings. Adjustment is made by expanding the cone. The smallest step being threaded into the balance of the cone.

**Spindle** 1st. It has Parsons white bronze ring-oiling bearings (3" long) that are adjustable to wear. Never heat, no matter how hard the end thrust, and needs oil about once a month. Spindle is 15" long, 1½" diameter in front bearing, 1⅜" diameter in rear bearing, has regularly a ⅝" hole its entire length (larger holes to order), bored for No. 2 Morse Taper.

2nd. The cone has four steps 6½", 4 15/16", 4 1/16", 3⅜" diameter, 1¾" face, giving 700, 1195, 1920, 2800 R. P. M.; cannot give trouble or get loose on spindle, the smallest step is securely attached to the spindle and the adjustment for end thrust is made between that and the next larger step in a most practical, simple manner. 1½" belt used.

3rd. Oil does not leak or fly out, owing to elaborate arrangement made to prevent it.

# Oliver Machinery Co. Grand Rapids, Mich.

**The Bed** This is a cored casting  $6\frac{1}{4}$ " deep,  $6\frac{3}{4}$ " wide, and regularly 60" long. The top is planed flat; the inside edges are machined and act as ways for the alignment of the head and tail stock. It is regularly furnished with a hand-feeding carriage and compound swivel rest, but when so ordered, these may be omitted and plain bed furnished. The ways for the carriage are cast to the side of the bed. Two iron brackets are fastened on the back to support a tool rack.

**Legs** Lathe is furnished with long floor legs making top of bed 36" from floor.

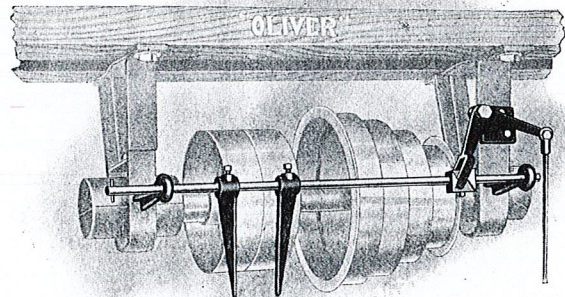
**Tail Stock** This is of the open side design 7" long, 6" wide. It is secured to the bed by a positive clamp. Spindle is machine ground steel  $1\frac{1}{4}$ " diameter, 8" long, bored for No. 2 Morse Taper and is held in position by a lever clamp actuating a segment nut. Tail center is removed by backing of screw. The tailstock is furnished with a set-over device (1" set over) for taper work. Spindle has traverse of 4".

**Tool Carriage** Hand feed tool carriage with cross feed and compound swivel rest is furnished with this lathe regularly; but when so ordered the carriage may be omitted with a suitable reduction in price and plain bed machine furnished. The apron has a bearing of 10" on the bed and a travel of 37" on a bed 60" long. It is freely operated in either direction by means of a cut steel rack and pinion actuated by a hand wheel. Traverse of cross feed 6".

**Compound Swivel Rest** The compound rest carries the slotted tool post and has a traverse of  $3\frac{1}{2}$ ". Its socket base is graduated and swivels on the cross slide. Tool post slot  $1\frac{15}{16}$ " long,  $\frac{19}{32}$ " wide.

**Countershaft Belt Drive** The four-step cone pulley, and the tight and loose pulleys, are supported by the shaft in ring oiling hangers. The loose pulley has a well lubricated bronze sleeve running loose both on the shaft and inside of the pulley, providing double wearing surface and lessening friction. Length 27". T. and L. Pulleys 8" x  $2\frac{1}{4}$ ". 700 R. P. M.

**Motor Drive** A very simple motor drive is obtainable with this lathe. A special double adjustable motor bracket with foot lever control is mounted below the headstock on the floor and attached to the leg. On this bracket is placed a 1 H. P. constant speed motor for any current desired and about 1700 R. P. M. On the motor shaft (extended and supported at the outer end) is placed a four steel cone pulley from which an endless leather belt runs through the enlarged headstock up to the headstock cone. 65" long, 24" wide for a 5 foot bed machine.



Countershaft, Showing Unique Belt Shifting Device

**Floor Space**

### CODE, WEIGHT, ETC.

Code	Machine Description	Weight in Pounds		Cubic Feet
		Crated	Boxed	
Sabat	12-Inch Speed Lathe, belt driven, with 5 foot bed fitted with hand-feeding carriage and compound swivel rest, having one pair conical centers, one 6-inch slotted face plate, one center rod, countershaft with hangers and pulleys and necessary wrenches	700	800	37
Samot	12-Inch Speed Lathe, as above, except arranged for motor drive, but not including motor	750	850	37
Sanab	PLAIN BED only, carriage with compound swivel rest omitted when not desired, deduct.			

### EXTRAS

- Sexat No. 50—SPECIAL SWIVEL SET OVER TAILSTOCK, furnished in place of regular tailstock.
- Sexeb No. 49—QUICK ACTION LEVER FEED TAILSTOCK, furnished in place of regular tailstock.
- Sexok EXTRA LENGTH OF BED, with rack for carriage, per foot.
- Sibac DRAW-IN ATTACHMENT complete with one collet (maximum size  $\frac{1}{2}$ -inch).
- Sidaf EXTRA COLLET CHUCKS for draw-in attachment, any size, each.
- Sifag No. 267 CROTCH CENTER for use on above Lathe.
- Sigak No. 268 DRILL PAD for use on above Lathe.
- Sikam CONICAL CENTER (Morse Taper No. 2) each.
- Silap FACE PLATE, slotted, 6-inch diameter.