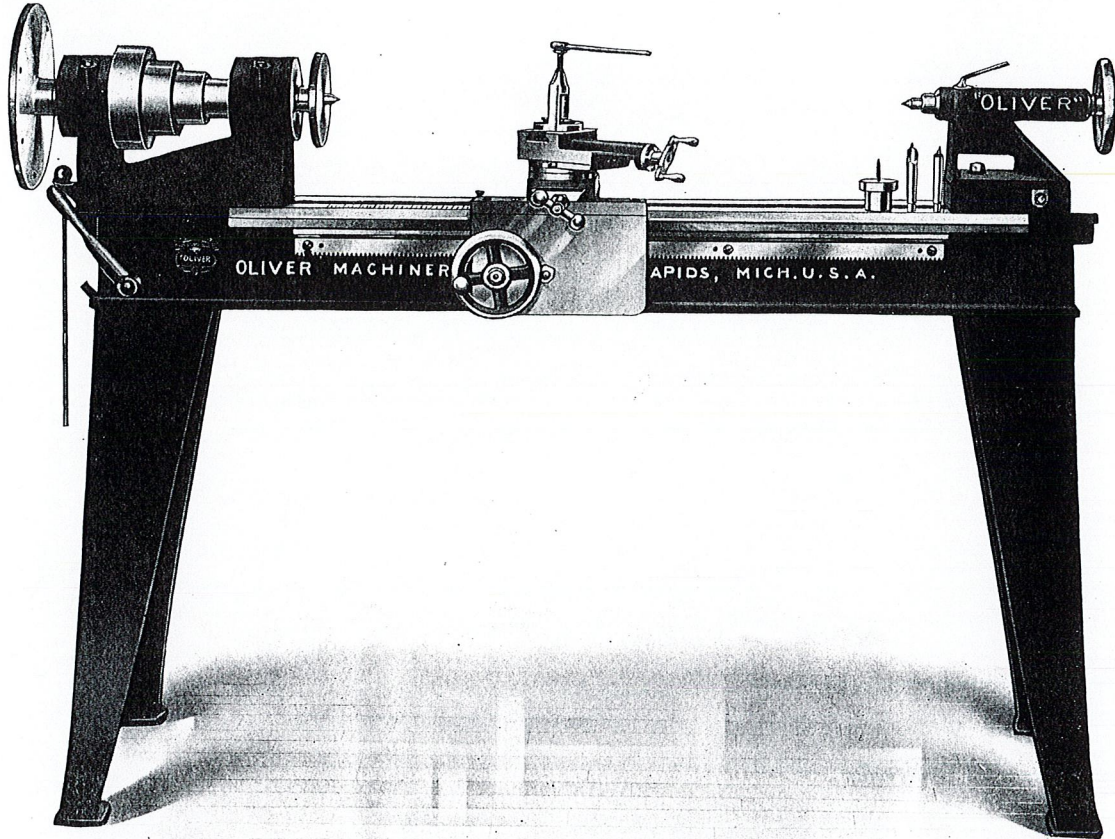




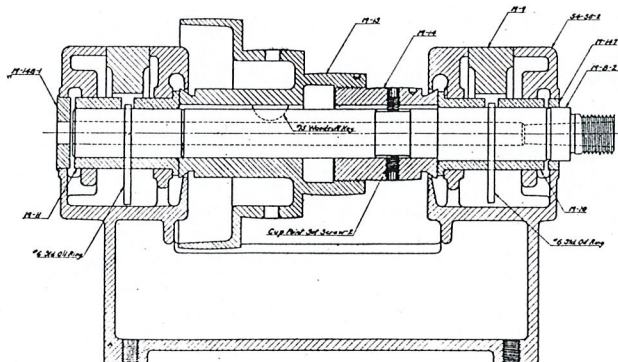
"Every User
Is a Booster"

"Oliver" No. 19 Speed Lathe

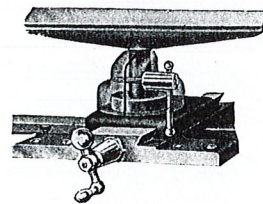
Belt Driven



Front View of Lathe with Hand Feeding Carriage and Compound Swivel Rest.
This Lathe is also furnished with Plain Bed any length desired.



Cross Section of Headstock.



Showing new hand tool rest socket in use on the carriage, when hand turning is desired on lathes fitted with carriage.

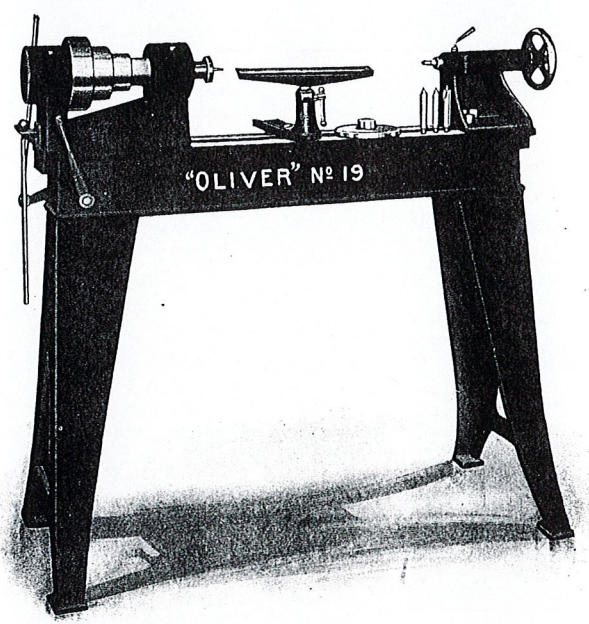
Manufactured by

Oliver Machinery Co.
Grand Rapids, Michigan, U. S. A.

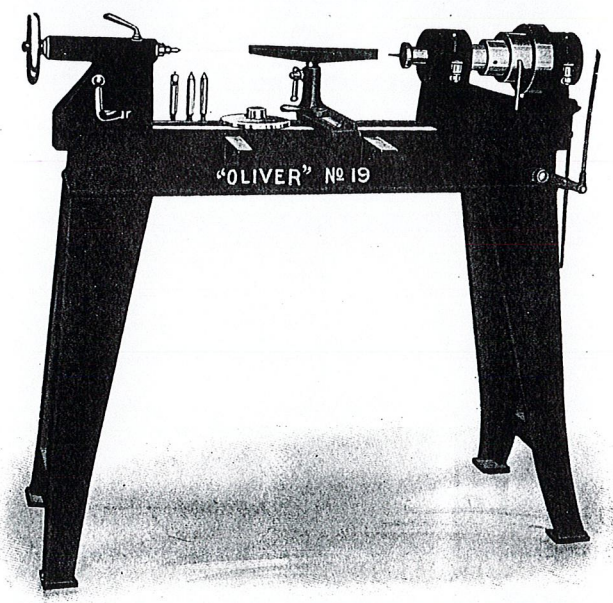
BRANCH SALES OFFICES:

New York, St. Louis, Minneapolis, Los Angeles, San Francisco,
Chicago, Denver, Salt Lake City, Seattle, Manchester, Eng.

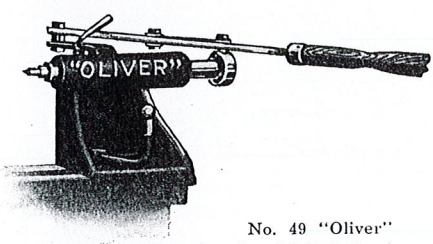
OLIVER MACHINERY COMPANY  GRAND RAPIDS, MICHIGAN, U.S.A.
 NO. 19 "OLIVER" SPEED LATHES — BELT DRIVEN



Front View of Plain Bed Lathe.

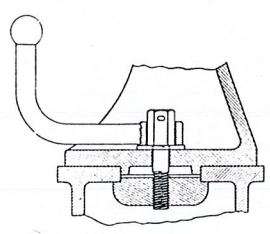


Rear View of Plain Bed Lathe.

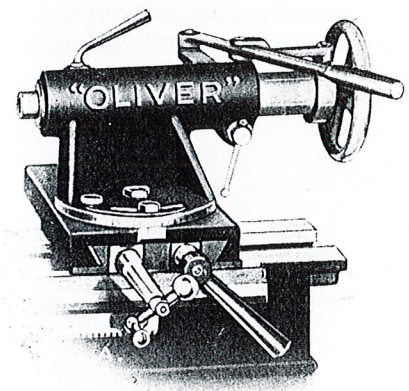


No. 49 "Oliver" Special Tail Stock.

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

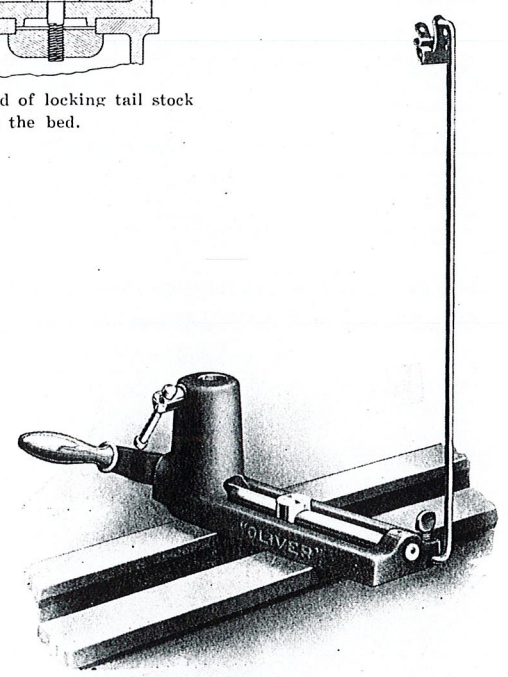


Showing method of locking tail stock to the bed.



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.



Rear Side View of Our New "Faultless" Tool Rest Holder.

Introduction

The demand for a Speed Lathe that is well designed, correctly built, substantial, powerful and easily operated, has been met by the No. 19 machine here illustrated. We make no claims for "cheapness" in the ordinary acceptance of the word, but we do herald the fact that this is the most economical belt driven lathe ever offered.

Head Stock

Head Stock is $12\frac{1}{4}$ inches long, 6 inches 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.

Spindle

1st. Double end type for rear end turning, but rear end face plate not regularly included.

2nd. It has special bronze bushed ring oiling bearings (3 inches long) that are adjustable to wear. Never heat, no matter how hard the end thrust and needs oil about once a month. Spindle is $15\frac{1}{16}$ inches long, $1\frac{3}{8}$ inch diameter, has a $\frac{5}{8}$ -inch hole its entire length; bored for No. 2 Morse Taper.

3rd. The cone has four steps 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. $1\frac{1}{2}$ -inch belt used.

4th. Oil does not leak or fly out, owing to elaborate arrangement made to prevent it.

5th. Every piece, every part, not only of the head stock, but of the whole lathe, is interchangeable with any other similar lathe. This feature is of inestimable value and relieves the one in charge of great responsibility when new parts are required.

Bearings

These are supplied with split bronze bushings grooved inside for oil passage, and fitted with brass ring oiling device. A constant film of oil covers the journals with no danger of scattering it. Wear of spindle is compensated for by adjustable caps. Can be furnished with Ball Bearings at slight additional charge if desired.

Spindle Cone

This is of metal finished to a running balance, has four steps and is fastened to the spindle with a large set screw. The cone pulley may be held rigid, while face plates are screwed on or off.

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. This small step is secured in place by screw and brass plug against the threads.

The Bed

This is a cored casting $6\frac{1}{4}$ inches deep, $6\frac{5}{8}$ inches wide, and regularly either 48 or 60 inches long. The top is planed flat so the operator's tools may rest on it securely. The inside edges are machined and act as ways for the alignment of the head and tail stock. When furnished with a tool carriage the ways for same 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 inches from floor, or with short bench legs as may be desired.

Tail Stock

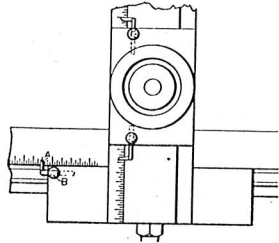
This is of the open side design 7 inches long, 6 inches wide. It is secured to the bed by a positive lever clamp. Spindle is machine ground steel $1\frac{1}{4}$ inch diameter, 8 inches long, bored for No. 2 Morse Taper and is held in position by a lever clamp. Tail center is removed by backing of screw. On lathes with carriage, the tail stock is furnished with a setover device for taper work. Spindle has traverse of 4 inches and on lathes with carriage 1-inch setover.

Tool Carriage

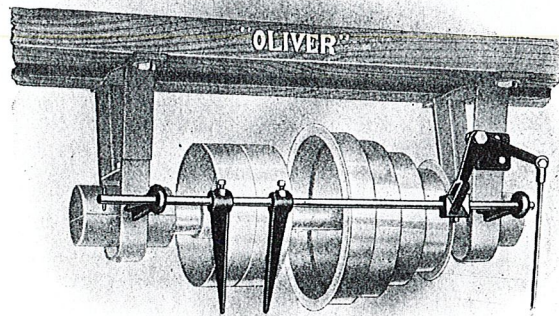
Hand feed tool carriage with cross feed and compound swivel rest may be furnished with this lathe. The apron has a bearing of 10 inches on the bed and a travel of $36\frac{3}{4}$ inches on a bed 60 inches long. It is freely operated in either direction by means of a cut steel rack and pinion actuated by a hand wheel. Traverse of cross feed $6\frac{1}{2}$ inches.

Compound Swivel Tool Rest

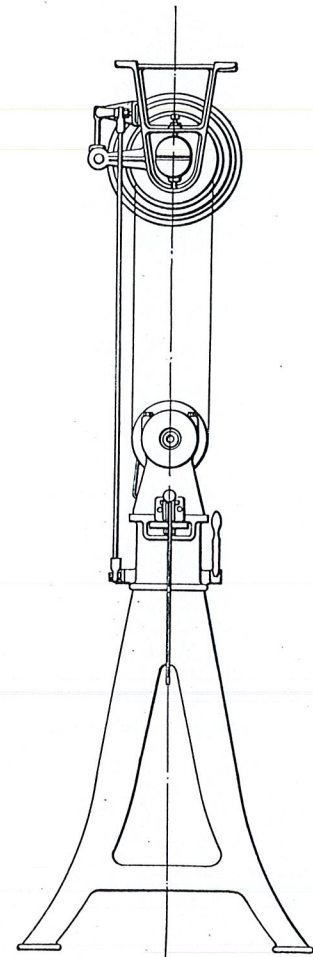
The compound rest carries the slotted tool post and has a traverse of $3\frac{1}{2}$ inches. Its socket base is graduated and swivels on the cross slide. This mechanism enables the operator to remove the compound rest and substitute a socket which receives the hand tool rest so that hand turning may be done without having to remove the carriage. Tool post slots 2 inches long, $1\frac{1}{32}$ -inch wide.



Showing graduations on the tool carriage and bed as aids in exact turning.



Countershaft, Showing New Belt Shifting Device.



End View, Showing the Unique Belt Shifter.

Carriage Graduations

On lathes having tool carriage, the top of the bed and the guide of the cross slide are graduated by sixteenths and the end of the carriage as well as the ends of the cross slide, are provided with little pointers that may be adjusted to any work. This enables the operator to turn work to a definite length or depth without having to "fit and try" as formerly.

Countershaft

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 1/4 inches. T. and L. Pulleys 8 x 2 1/2 inches. 700 R. P. M.

Equipment

Consists of one spur center 3/4-inch, one cup center 3/4-inch, one screw chuck 2 1/4 inches, one face plate 6 inches, one each 6-inch and 12-inch hand tool rest, one complete new style rest holder, one blue print holder, one center rod and one complete countershaft with special belt shifter controlled from front side of head stock.

Capacity

Will swing 12 inches diameter over the bed or 9 1/2 inches over the carriage and will turn 24 inches long between centers on 48-inch bed or 36 inches long on 60-inch bed.

CODE, WEIGHT, ETC.

Code	Machine Description	Weight in Pounds		Cubic Feet
		Crated	Boxed	
Ectype	No. 19-A—LATHE with bed 48 inches long, on floor legs	510	550	20
Eden	No. 19-B—LATHE as above, except it has bed 60 inches long	570	650	21
Educe	No. 19-C—LATHE with 60-inch bed fitted with hand feeding carriage and compound swivel rest and long floor legs.....	650	700	22

EXTRAS

Educo	No. 50—Swivel Set Over Tail Stock, with lever feed to spindle; this includes making head stock swivel when purchased with our lathes. Price extra.
Eduf	No. 49—Quick Action Lever Feed Tail Stock.
Eduga	Extra lengths of plain bed, per foot, on any of above lathes.
Eduho	Extra lengths of bed with rack for carriage, per foot, as requested.
Edulb	Rear end face plate, 8" diameter, aluminum combined hand wheel and face plate.