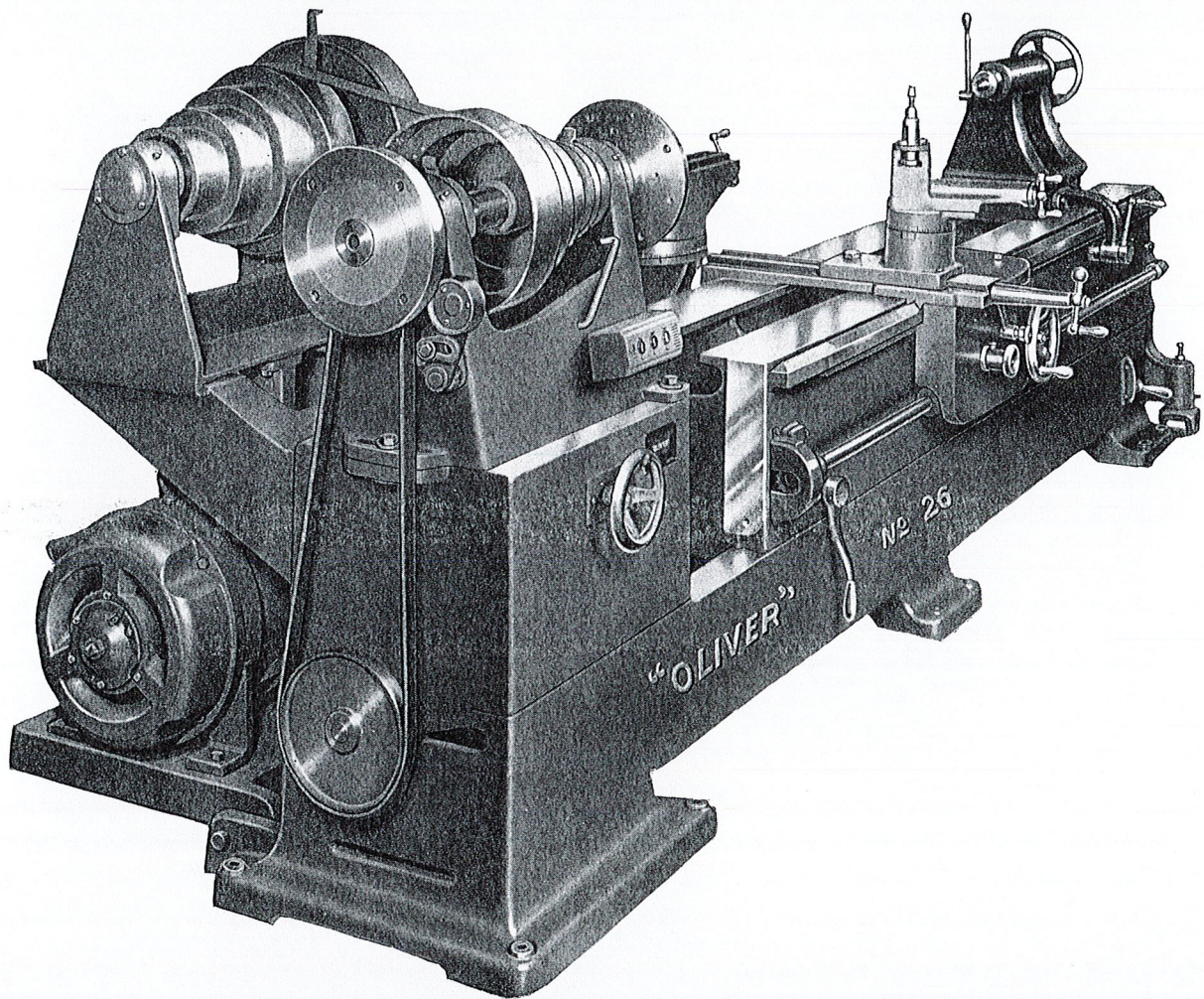


OLIVER

No. 26

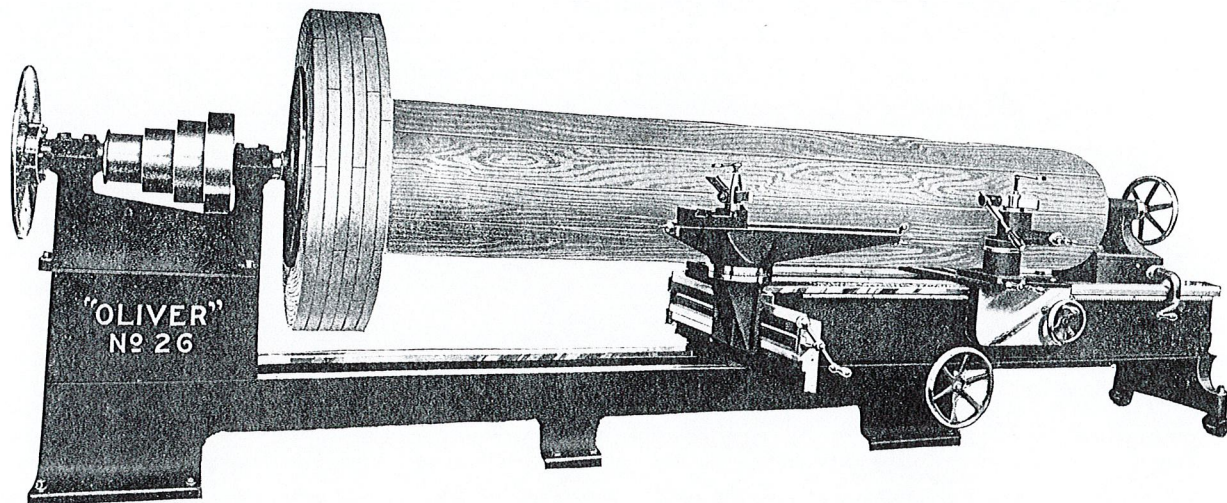
Heavy Pattern Makers' Gap Lathe

Machine Can Be Adapted for Metal Spinning



OLIVER MACHINERY COMPANY, GRAND RAPIDS 2, MICHIGAN, U.S.A.

Swings 60" in the gap . . . efficient on general work



View showing Lathe turning 30-inch over the bed and 60-inch diameter over the gap.

Capacity

Maximum length between centers, 16'; closed 8' 6"; maximum length in gap, 7' 8". Turns 60-inch diameter in the gap; 30 inches over the bed, 27 inches over rest holder, 26 inches over carriage.

Size of work illustrated above, column, 12 feet long, 26-diameter; large base, 48-inch diameter, 12 inches thick. Maximum length of machine extended, 20 feet, 6 inches. Maximum length of machine with gap closed, 12 ft. 6 inches.

The desirability of a large wood turning lathe that will swing large diameters and still not be too heavy for general work is responsible for the introduction of this large gap lathe. We have now been building it for a number of years and a long list of pleased users encourage us to continue its production.

We have built enough of them to incorporate all the little refinements and improvements that from time to time suggest themselves, and this machine now represents a vast amount of concentrated thought and effort. No attempt has been made to see how cheaply it could be made; it isn't that sort of a tool.

Advantages

The machine has many advantages, viz.: With the gap closed it is very compact and occupies less space than when opened to its maxi-

imum capacity. The auxiliary cross slide as well as the long cross slide that carries the double ended tool post holder, one mounted upon the other, makes a very flexible and convenient combination. The long compound swivel slide properly graduated and indexed makes it extremely easy for the workman to follow his blueprints. A very large advantage lies in the fact that everything works smoothly, its general convenience lends itself to quick action, all the conveniences for hand turning are also provided.

Bed

The bed is constructed in two sections, the upper section is fitted to the lower in a dovetailed slide and is moved to and from headstock by means of rack and pinion, thus closing or opening the gap. The upper section carries the tailstock, the hand-feeding carriage for long cylindrical work and a special cross slide with hand-feeding carriage located at the inside end of the bed for use in the gap. The auxiliary slide which carries the tool post is very long and the tool post may be operated from either end of this slide. The base section of the bed supports the headstock and its column, is very heavy and rigid and easily absorbs vibration caused from rotating large diameters that are out of balance. The top of bed is wide and flat, the carriage ways being located on the side. The top sec-

tion of the bed is very heavily ribbed, and at the outer end is provided with an adjustable leg for support when the bed is set out to full capacity as illustrated.

Headstock

This is mounted on a rigid column secured to the lower section of the bed and fitted with a large crucible steel hollow spindle. This spindle is accurately machined and carefully ground and operates in taper roller bearings of large capacity, self-oiling and adjustable to wear. The out-board end of the spindle is provided with a large, heavy steel collar 12 inches in diameter and 3 inches thick. The spindle projects through the center of this collar a sufficient distance to center the steel face plates, being centered upon the nose of the spindle and is secured to this collar by means of four bolts.

The inside end of the spindle is threaded to fit a 12-inch cast iron face plate of heavy dimensions. The three large steel face plates that are provided in the equipment of the lathe will fit either end of the spindle. End thrust is adjusted by means of thrust collars threaded to the spindle for adjusting the taper roller bearing.

Cone Pulley

This is a very substantial pulley design of four steps, machined inside and out, and accurately balanced.

OLIVER

NO. 26 HEAVY PATTERN MAKERS GAP LATHE

Tailstock

This is of the open side design with the usual set-over device, very convenient, especially if the operator is turning by hand. The spindle is large and carries a standard No. 4 Morse taper, which permits the use of standard sockets, cutters, drills, etc. A crank and pinion are employed to move the tailstock along the bed.

Main Carriage

This is supported on the adjustable section of the bed and is regularly furnished with a hand-feed by means of cut gear and rack. The cross slide is of a very long traverse and supports the compound swivel rest with its individual traverse of required length. This rest is accurately graduated and swivels to any angle.

Hand Rest Socket

A socket carrying a rest for hand-turning is provided and may be substituted instead of compound swivel and tool post on the main carriage when desired.

Supplemental Carriage

This is attached to the inside end of the adjustable bed and is used in connection with work swung in the gap. It possesses all the functions of a hand-feeding carriage. The tool post holder is made double for giving it a longer range and the compound swivel slide is so arranged that a hand crank may operate it from either end. The cross slide has a movement laterally that is sufficient for the full diameter of the work the gap will receive. When this carriage and its cross slide is not in use, it may be swung back on its hinges parallel with the back of the main bed, out of the way. This cross slide is very compact and may be used on inside turning as well as outside or for facing work.

Motor Drive

Countershaft for motor drive is mounted on the rear of the headstock. A sliding frame mounted on a bracket compensates for belt tension which is controlled from front of machine. Taper roller bearings are employed. The motor is mounted on a hinged bracket below the countershaft, thus requiring minimum floor space. Screw adjustment provides for tightening vertical belt.

Variations

If it is deemed desirable to set the outboard bearing end of the spindle over a pit in the floor, very large diameters could be turned. The machine regularly takes 90 inches in diameter. The maximum length between centers with gap open is 16 feet. A power feed may be added to drive the main carriage. All of these variations are extras and are not contained in the machine as regularly furnished. The prices of these extras will be made upon application.

Equipment

One spur center each, 1¼-inch and 2-inch diameter.

One cup center, ¾-inch diameter.

Two conical centers.

Four face plates for spindle, 12, 24, 30 and 38 inches.

One rest holder fitted to the tool carriage.

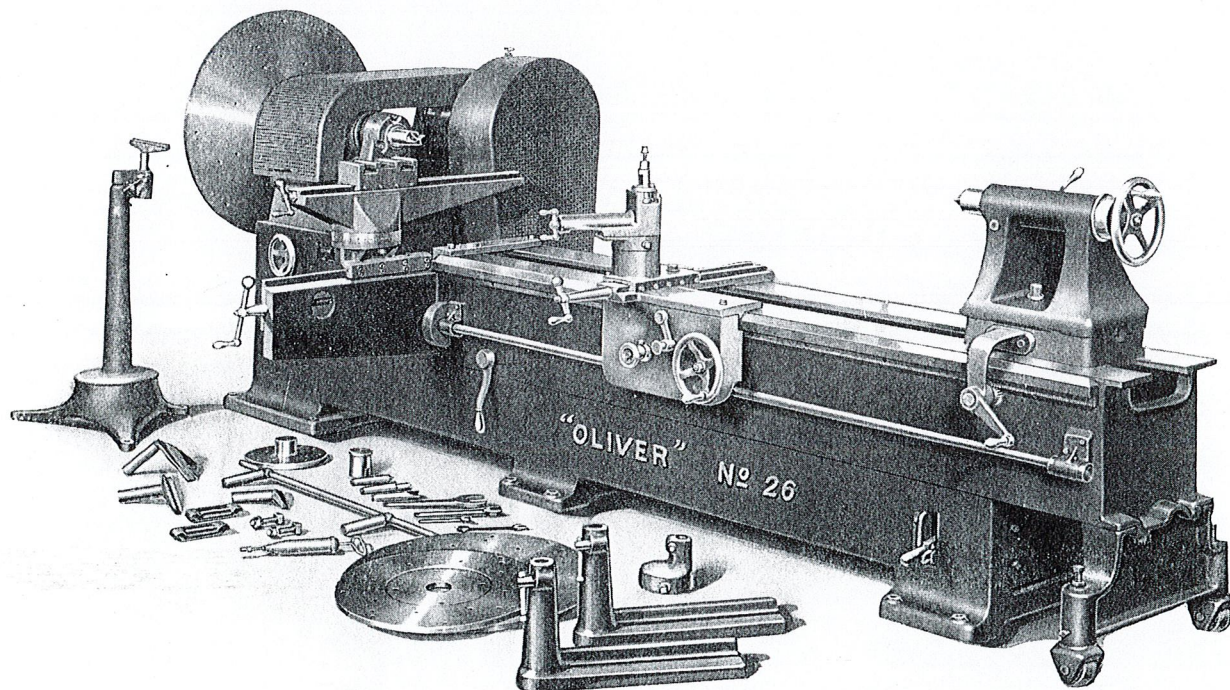
One double shank rest, 48 inches long.

Two rest holders bored 1½-inch diameter.

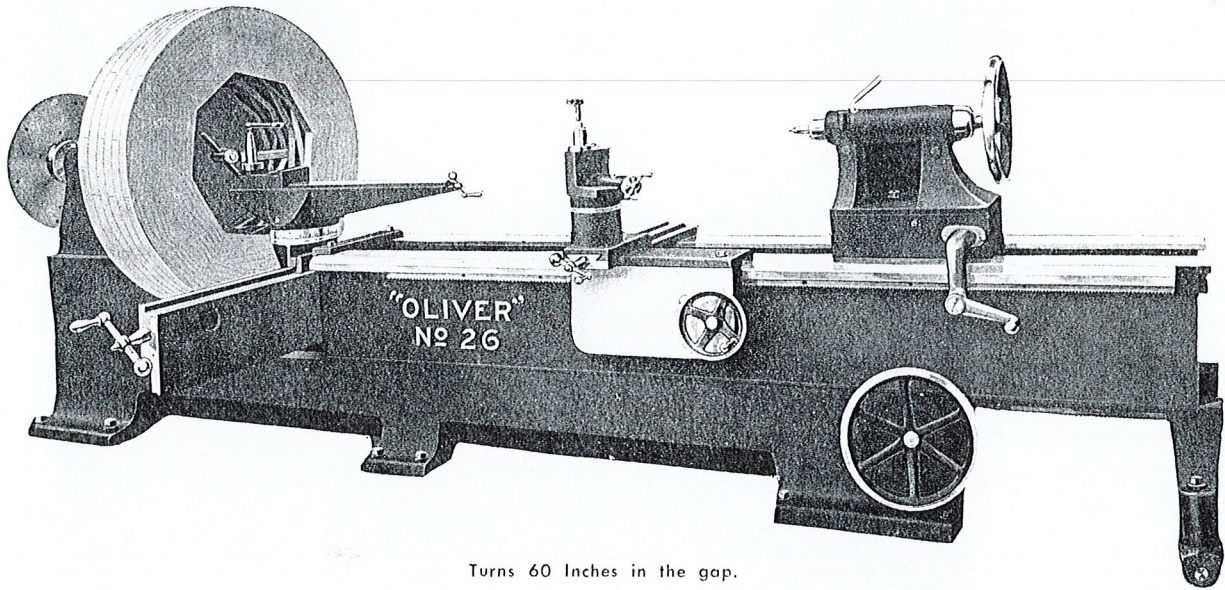
One floor stand with off-set rest holder.

One right angle rest, 6 inches long.

Three tool rests, 6, 12 and 18 inches long.



Showing complete regular equipment. Note belts are fully guarded.



Turns 60 Inches in the gap.

GENERAL DIMENSIONS

Headstock

Length, 28 inches.
 Spindle bearings, diameter, 2 3/4 inches, rear 2 7/8 inches.
 Spindle, 35 inches long; hole through spindle, 1 inch.
 Spindle bored to receive a No. 4 Morse Taper.
 Speeds of spindle dependent on motor employed. Using 600/1200 r.p.m. motor the following range will be available with 2-step pulleys driving countershaft. (16 speeds): 64 r.p.m. low to 1570 r.p.m. high.
 Cone on spindle — four steps — 7 inches, 9 1/2 inches, 12 inches and 14 1/2 inches diameter.
 Width of belt, 3 1/2 inches.

Tailstock

Length, 18 inches.
 Spindle, 16 inches long, 3-inch diameter.
 Traverse of spindle, 8 inches.
 Spindle bearing, 14 inches long.

Horsepower

For woodwork, 5 h.p. For Metal Spinning, 7 1/2 h.p.

Bed

Length with gap closed, 13 feet; with gap open, 20 ft. 6 inches.
 Width, 18 3/4 inches; depth, 15 inches.
 Height to top of the extension bed, 30 inches.
 Maximum width of gap, 92 inches.

Main Carriage

Traverse of cross feed, 14 inches.
 Traverse of cross feed on compound rest, 9 inches.
 Travel of carriage, 8 ft. 9 inches.
 Bearing on ways, 22 inches.
 Tool post slot, 1 3/4 x 3/4 inches.

Auxiliary Carriage

Traverse of cross feed, 35 inches.
 Traverse of cross feed on compound rest, 31 inches.

CODE, WEIGHT, ETC.

CODE	MACHINE DESCRIPTION	Domestic Weight	Foreign Weight	Measurement in Cubic Feet
Draga	No. 26-AC—Arranged for motor drive.....	8000	8800	380
Dragi	Power Feed for carriage and upper bed.....



BRANCH SALES OFFICES

NEW YORK
 ATLANTA
 PITTSBURGH
 COLUMBUS, O.

CLEVELAND
 DETROIT
 CHICAGO
 NEW ALBANY, IND.

ST. LOUIS
 MINNEAPOLIS
 DENVER
 SALT LAKE CITY

SEATTLE
 PORTLAND
 SAN FRANCISCO
 LOS ANGELES