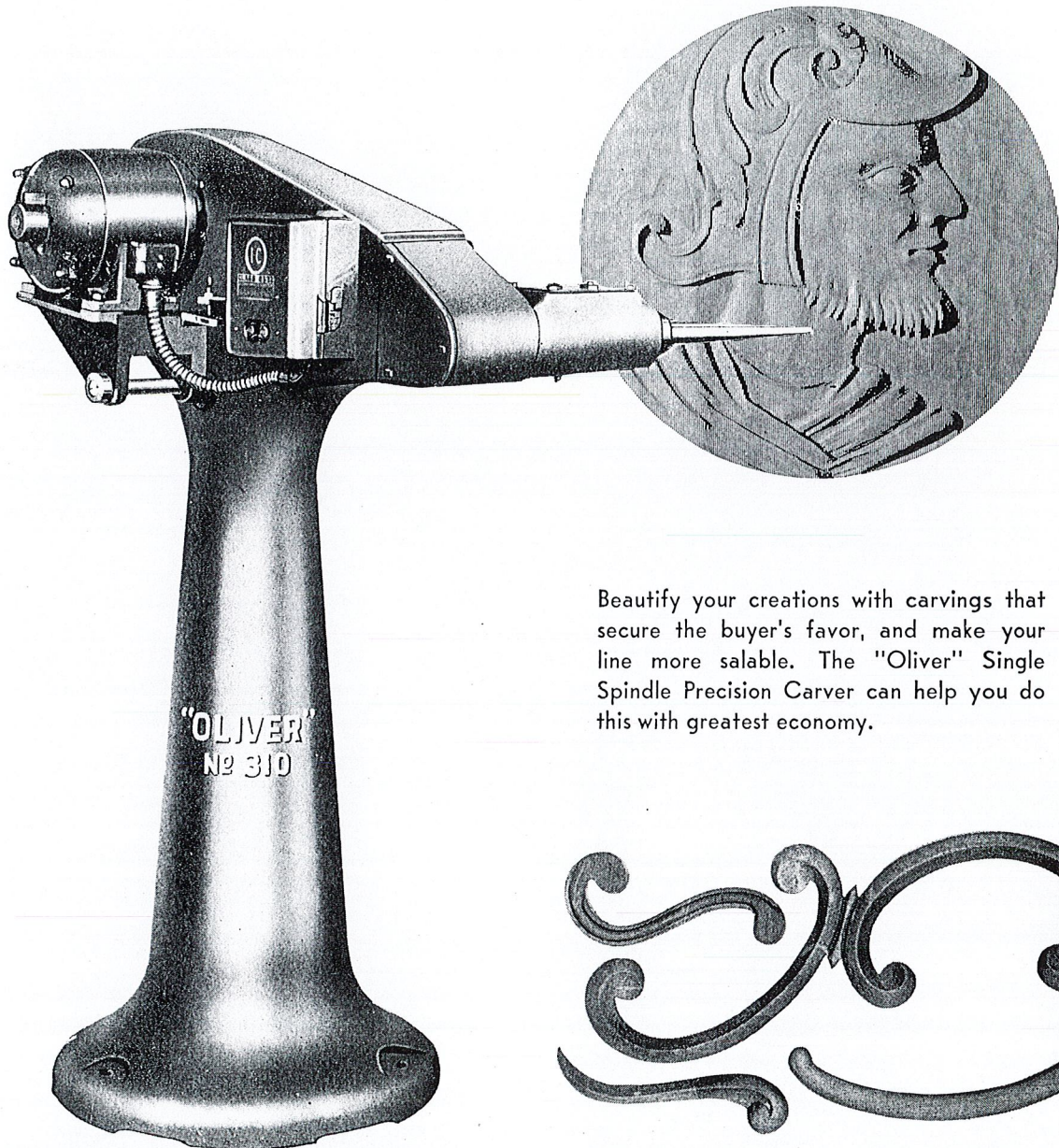




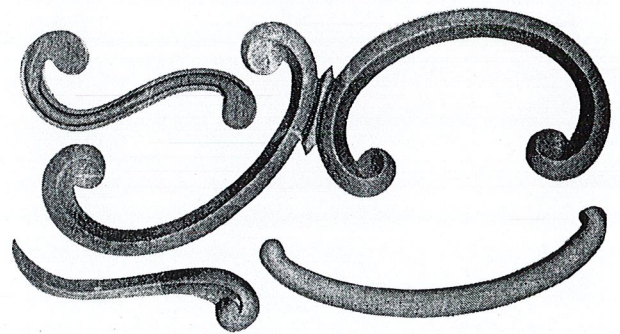
*"Every User  
is a Booster"*

# "Oliver" No. 310 Single Spindle Carver

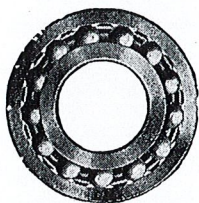
A Modern Precision Carver



Beautify your creations with carvings that secure the buyer's favor, and make your line more salable. The "Oliver" Single Spindle Precision Carver can help you do this with greatest economy.



Front View of Motor Driven Carver. Note extra clear space between cutter and column.



Ball Bearings of the highest grade are used for the bearings of this machine. Less Friction — More Power.

Manufactured by

## Oliver Machinery Co.

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

BRANCH SALES OFFICES:

New York, Atlanta, Pittsburgh, Cleveland, Detroit, Indianapolis, Chicago, St. Louis, Minneapolis, Denver, Salt Lake City, Seattle, Portland, San Francisco, Los Angeles.

## Design

An entirely new and novel design has been employed in creating the new "Oliver" Single Spindle Precision Carver. The furniture industry in particular, and that part of the woodworking industry which uses carvings in general, has long been seeking a Precision Single Spindle Carver which would have an extra high speed smooth running spindle with maximum clearance between the cutter and the column of the machine, extra convenience of lubrication, compactness of motor drive, and unit system of construction with all operating parts standardized to assure interchangeability and easy future care. All of these desirable features have been achieved with marked success in this new "Oliver" creation, which is highly recommended to all users of spindle carvings.

## Column

The column or base of the machine is one piece circular casting, having three point bearing at floor line. Height over all, 60 inches. Diameter at floor line, 24 inches. It is very substantial, with graceful symmetrical design, assuring steady and substantial support to all the other parts of the machine. The front upper end of the column is machined to receive the spindle unit in a uniform, standardized, interchangeable manner.

## Spindle Unit

This consists of one piece casting which forms the hous-

ing of the ball bearings in which the high speed spindle is carried. The spindle head is of the unit construction type, which can be as a whole removed from the balance of the machine very readily for any repairs or renewals that may be necessitated by years of use. Spindle height from floor, 47 inches; length over all, 28 inches; distance cutter to column, 30 inches; size of large thread,  $\frac{9}{16}$ -20; size of medium thread,  $\frac{3}{8}$ -24; size of small thread, 10-24.

## Spindle

The spindle is made of the highest grade nickel steel, finished and ground perfectly true, out of material which is chosen for its rigidity and resistance of bending effect. This spindle runs at the extra high speed of 10,500 R.P.M., in automatically lubricated precision bearing. No better high speed spindle construction can be had than that employed in this new machine.

## Bearings

The spindle bearings are of special selected extra precision ball bearings of the combined annular and end thrust type, assuring a smooth steady running spindle. The bearings are sealed at each end with labyrinth design end collars, which make it impossible for dust or dirt to get into the bearings. The ball bearings are first mounted on the spindle, and then the spindle with the bearings is inserted in the spindle unit housing, giving a very simple, yet extremely effective construction.

## Lubrication

The spindle lubrication is entirely automatic, being of the oil well filtered mist type. Lubricant is poured into the oil tank through the oiler, and then by means of capillary action it is filtered to the top of the spindle where by contact with the spindle it is vaporized and thrown into both ball bearings, assuring constant, dependable, and clean lubrication, which is necessary for high speed spindles.

## Motor Drive

The machine is furnished with a belted  $1\frac{1}{2}$  H.P. 3600, 60 cycle motor drive which is mounted upon a hinged adjustable bracket which acts as an automatic tightener for the belt, and is provided with an adjustable stop to prevent undue load. An aluminum accurately balanced web pulley and a flexible endless double sided fabric belt deliver power to the pulley on the left of the spindle. This driving mechanism is carried inside of the upper end of the column and has a substantial and neat cast cover, which assures maximum safety at all times. The belt can be easily renewed without dismantling the spindle.

## Switch

The operating switch regularly furnished is mounted on the column within easy reach of the operator, and is of the push button type, having overload relay and hand reset, wired in flexible conduit to the motor, ready for use.

“OLIVER” NO. 310 SINGLE SPINDLE PRECISION CARVER

**Cutter Capacity**

There is practically no limit to the variety and size of the cutters that can be used on this Carver, from the smallest practical cutters to as large as 3 inches diameter if desired. The distance between the

point of the spindle to the center of the column is 34 inches, assuring greater clearance than is usually furnished on a machine of this type.

**Equipment**

Machine furnished complete

with motor, operating switch, spindle with two extension points with threaded ends, one pin wrench for spindle, one pin wrench for points complete except without cutters, which are extra according to requirements.



Rear Side View of No. 310-B Belted Motor Driven Carver.

CODE, WEIGHT, ETC.

CODE	MACHINE DESCRIPTION	WEIGHT IN POUNDS		CUBIC FEET
		CRATED	BOXED	
Ferva	No. 310-B—Single Spindle Precision Carver, Belted Motor Driven.....	800	950	46

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

SPINDLE CARVING CUTTERS FOR ANY SPINDLE CARVER

In ordering cutters be sure to give number of tool wanted, size of cutters, (always diameter first) then length, then size of hole and number of

threads per inch, or send old cutter. Make sketch of all cutters except 3 and 4, giving desired shape as shown on this circular; notice the right and

left hand No. 2 cutter. In ordering Nos. 1, 2, 9 or 10 state whether right or left hand is desired. Unless otherwise specified, right hand cutters will be sent.

