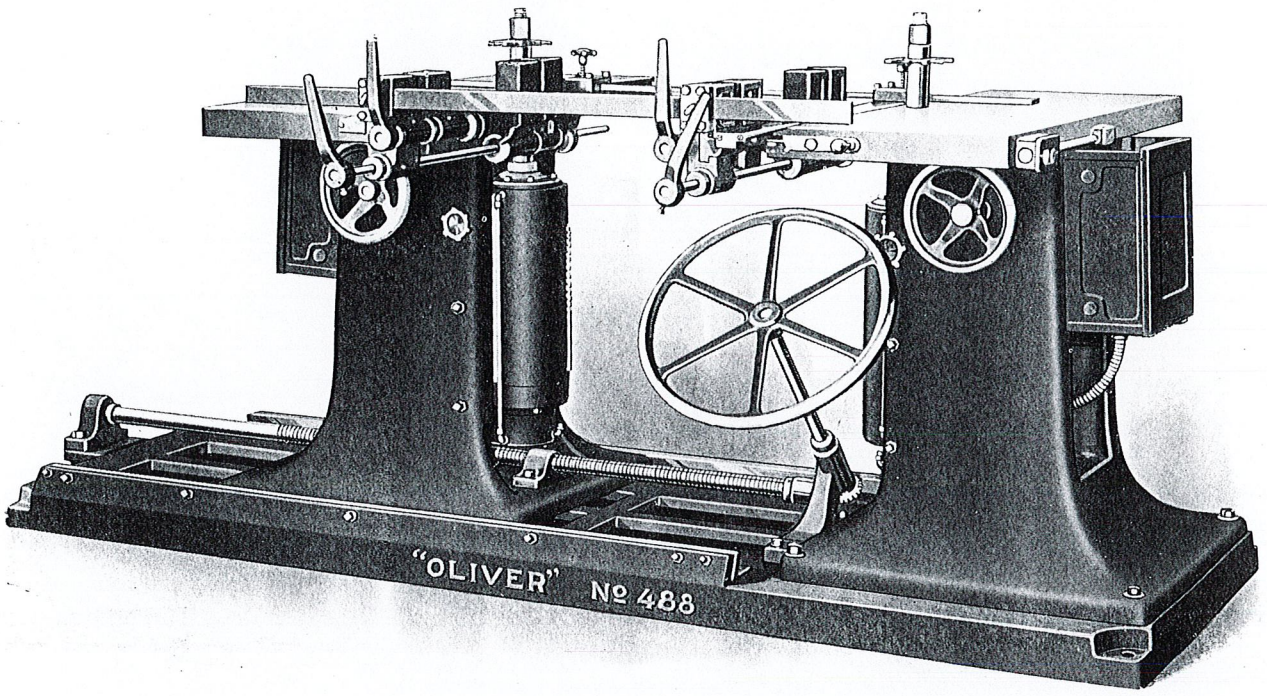
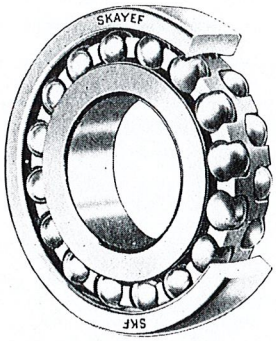
"Every User Is a Booster"

"Oliver" No. 488

Adjustable Centers — Double Spindle
or
Drawer Fitting Shaper



No. 488 ADJUSTABLE CENTERS DOUBLE SPINDLE SHAPER
Self-Contained Motor-on-Spindle Drive



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

Oliver Machinery Co.

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

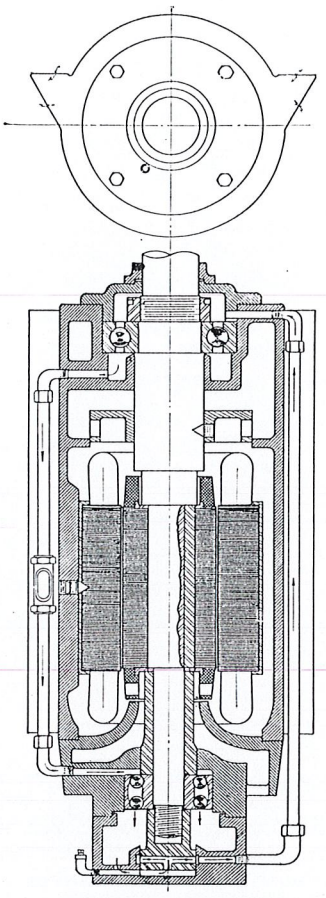
BRANCH OFFICES:

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

NO. 488 ADJUSTABLE CENTERS DOUBLE SPINDLE SHAPER

Adaptation

The "Oliver" No. 488 Adjustable Centers Double Spindle or Drawer Fitting Shaper is designed and adapted for an almost unlimited variety of work. Having adjustable centers and a traveling carriage, it will do parallel shaping or sizing such as drawer fitting on a strictly production basis, performing several operations with the one movement of carriage. By removing the carriage and bringing the two spindles to closer proximity, machine becomes an adjustable center double spindle shaper and as such will do perfect rabbetting, grooving, fluting, routing and shaping of every description. Its adaptability to such a large variety of work of this nature makes the machine indispensable to the modern woodworking shop. The rolling carriage is furnished of any type suiting customer's particular line of manufacture, permitting efficient operation and rapid production. We shall be very glad to furnish complete details on the adaptability of machine to the manufacturer of any particular class of products. Let us know the kind of parallel shaping and the production you require and we will gladly submit an estimate as to the saving possible through the use of this machine.



Etching shows sectional view of upper and lower Ball Bearings on "Oliver" Electric Shapers. Note the large diameter Spindle, the Automatic Forced Feed Lubrication, and arrangement for take-up of end play.

Design

The machine consists of two high speed single spindle ball bearing shapers mounted on a base, having one of the shapers slidably mounted for adjustment as to distance between spindle centers. Inside edges of tables are fitted with patented ball bearing ways on which is mounted a telescoping sliding carriage with suitable clamping jig to hold work while it is rolled past the cutting spindles.

Columns and Base

Cast iron, of cored construction, strongly ribbed and with wide flanges on columns for substantial base support and base planed true for proper floor bearing. Stationary column is fastened to base by four bolts. Adjustable column slides in a dovetailed way having gib for take-up of wear and perfect alignment of spindles. It is controlled by a large handwheel at front operating through machine cut bevel gears.

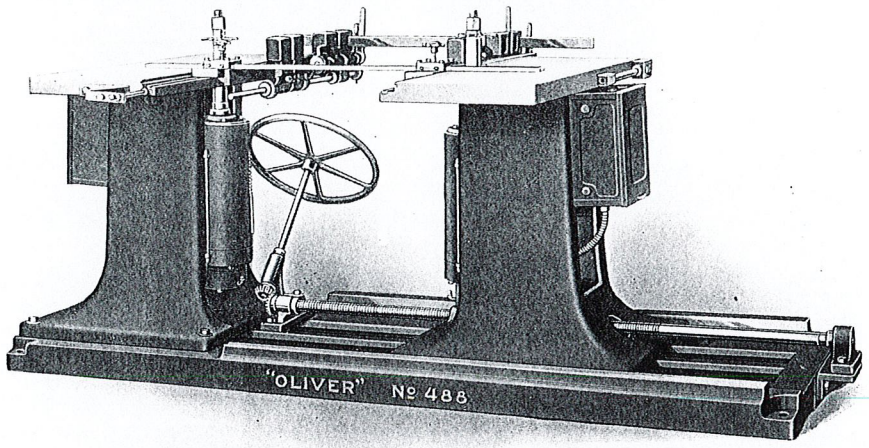
Tables

Each table is 36 x 36 inches, having stationary section and carriage rolling section. Ground for absolutely true surface, strongly ribbed to prevent warping, with double ribs at edges for reinforcement. Furnished with spindle rings in table permitting the use of various sizes of cutterheads, etc.

Carriage

Of telescopic type for adjustment to distance between spindles. Rolls on ball bearings of special patented design. Inside edges of tables hold the ball bearing ways. Carriage is furnished of type suiting customer's particular class of work. Cuts illustrate machine with carriage arranged for drawer fitting, having four double-jaw clamps for holding inverted drawer at the four corners while it is pushed between the cutterheads which plow the sides and cut the top and bottom edges of the drawer exactly true with the front. This greatly decreases the hand work required in fitting drawers for case work.

NO. 488 ADJUSTABLE CENTERS DOUBLE SPINDLE SHAPER



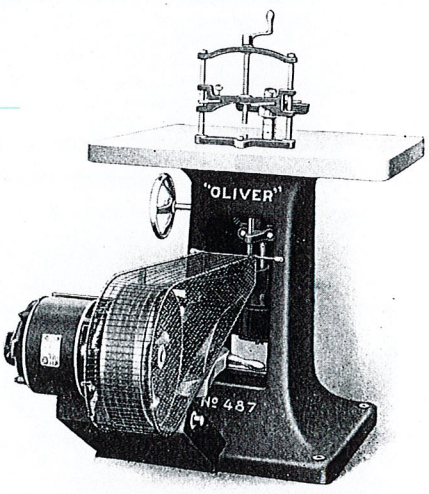
No. 488 ADJUSTABLE CENTERS DOUBLE SPINDLE SHAPER
Rear View

Spindle Yokes — Raised and lowered through machine cut bevel gears by means of hand wheel at the side of each column convenient to operator, there being sufficient vertical adjustment to raise the spindle above the table or lower it beneath the table. Very rigidly constructed and screw for raising and lowering is directly in the rear of spindle, affording a direct support. Yoke raises and lowers in dovetailed gibbed ways, having adjustment for takeup of wear, and with positive clamp for locking in gib.

Spindles — Made of high carbon crucible steel, ground perfectly true on dead centers and guaranteed to run true. Regularly furnished to "run out".

Spindle Bearings — Oversize capacity and carefully selected type. Upper ball bearing is heavy duty double thrust type; lower ball bearing is double row self-aligning type.

Oiling System — Of the Automatic Forced Feed type, assuring ample lubrication of the ball bearings at all times. A centrifugal vacuum pump at lower end of spindle forces clear, thin, cooling oil to the top of the upper ball bearing, through pipes located outside of housing accessible for draining, and with sight oil gauge. From this point the oil flows thru the interstice between the balls, down to the top of the lower ball bearing and then thru the interstice between the balls down to the settling basin at the lower end of spindle, ready to be pumped up again. Our design of ball bearings and automatic lubrication is conceded the most efficient and up-to-date combination ever devised. It positively insures longer life of machine due to properly lubricated cool spindle bearings, accuracy, absence of vibration and better satisfaction throughout.

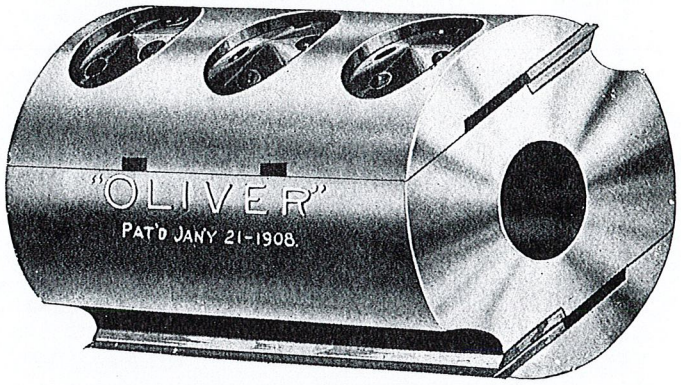


Self Contained Belted Motor Drive.
Cut illustrates our No. 487 Shaper but shows one type of drive which can be furnished with our No. 488 Machine.

NO. 488 ADJUSTABLE CENTERS DOUBLE SPINDLE SHAPER

Circular Safety Cutter Heads

Circular Safety Cutterheads, any length or cutting diameter, two, three, four or six-knife type, can be furnished on order. We can also furnish beveled shaper steel bars 24 inches long ¼-inch thick, and any width, ready for making into knives, or any particular size or shape cutters desired. A special Quick Adjusting Guard and hold-down can be furnished on order if machine is to be used as an individual single or double spindle shaper.



Equipment

Regularly furnished with suitable carriage for any specific requirements, one set of knife collars for each spindle, sufficient filling collars, pins, and wrenches.

Motor Drive

Two practical types of motor drive can be furnished for this machine, as follows:

SELF-CONTAINED MOTOR ON SPINDLE DRIVE having for each spindle a 5 H. P., 7200 R. P. M., 2 or 3 phase, 120 cycle, 220 or 440 volt alternating current motor built in as a unit with the spindle and ball bearings in an enclosed housing, with self-contained power control for each unit. A Frequency Changer is required to transform the standard 60 cycle to 120 cycle necessary to obtain the speed of 7200 R. P. M. to spindles. One Frequency Changer of proper type is sufficient for one machine or any installation of machines..

COMPACT BELTED MOTOR DRIVE having a standard type of motor for any current specifications mounted on a bracket attached to each column at rear, belting to spindle pulley, including belt, wire mesh belt guard, and ball bearing ratchet idler for taking up belt slack.

SPECIFICATIONS

Diameter, spindles at collars	1⅛″
Diameter, spindles	2½″
Length of spindles at collars	8½″
Size of large collars	3″
Size of small collars	1¾″
Size of each table	36″ x 36″
Regular base	36″ x 8′ 6″
Distance between centers	15″ to 54″
Each detachable spindle	1⅛″ x 12″
Vertical movement spindles	6″
Height, table from floor	40″
Spindle Speed	7200 R. P. M.
Horsepower required	5 H. P.

CODE, WEIGHT, ETC.

Code	Description	Weight in Pounds Crated	Boxed	Cubic Feet
Falib	No. 488 Adjustable Centers Double Spindle Shaper, including two motors on spindles and starters	4000	5000	90
Falic	No. 488 Adjustable Centers Double Spindle Shaper, with compact belted motor drive, including motor mounted on bracket, with endless leather belt, wire mesh belt guard, and ball bearing ratchet belt idler.			