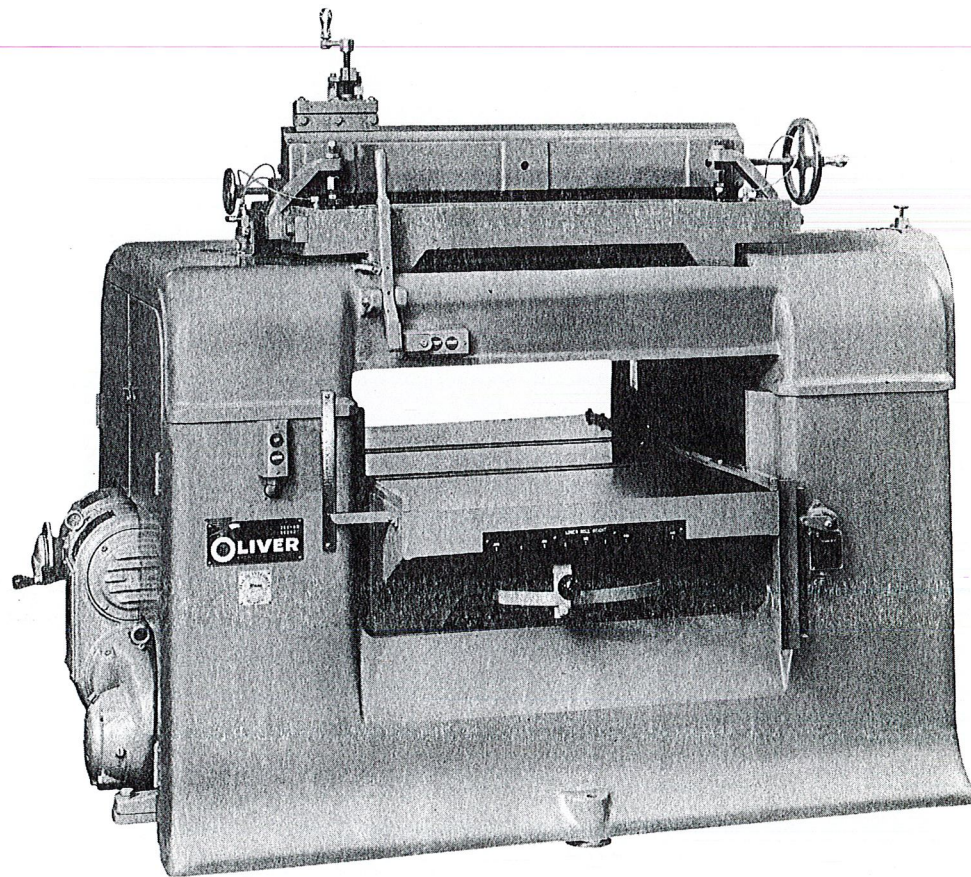


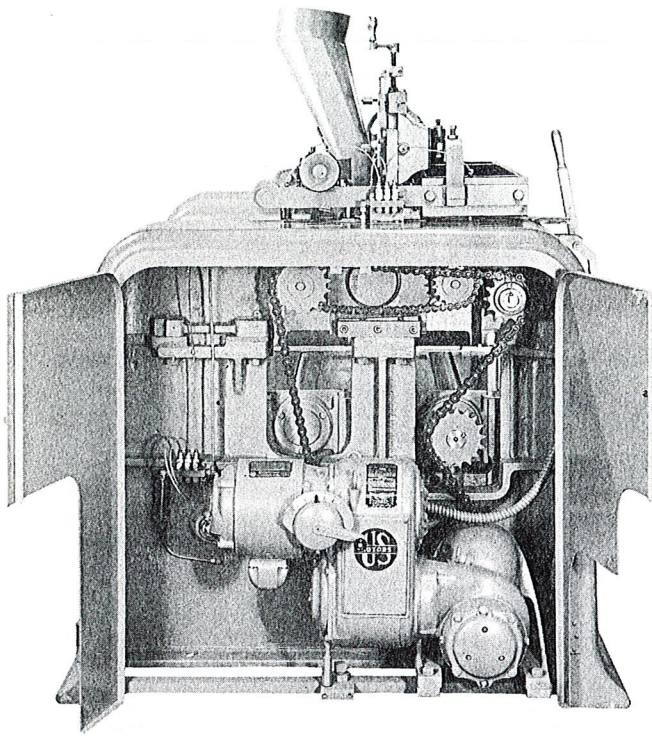
No. 261 SINGLE SURFACE PLANER
30" x 12" CAPACITY



Front view of Planer shows standard machine except for Quick Micrometer adjustment feature for lower rolls. Shown beneath the front table and available if desired at extra cost.

OLIVER

OLIVER MACHINERY COMPANY, GRAND RAPIDS, MICHIGAN



Left side view with doors open showing the variable speed drive for the feed rolls. This machine is equipped with special lubricating system.

CAPACITY

Will surface material to 30" wide and up to 12" thick. Feed speeds are infinitely variable from 20 to 60 feet per minute.

POINTS OF SUPERIORITY

The No. 261 has many unique features, among which the following are outstanding:

- 1 — Base is one piece casting with three-point floor bearing — assuring permanent and accurate alignment of all parts.
- 2 — One-piece construction of upper housing — eliminates bolted girders, secures permanent perfect alignment.
- 3 — Combination variable speed and compound gear reduction feed drive unit providing simple, effective and convenient control.
- 4 — Feed rolls driven by serpentine chain design.
- 5 — Ball bearings for all revolving parts — that means ball bearing feed works, ball bearing cylinder, ball bearing thrust under table screws.
- 6 — Front mounted start/stop controls for cutterhead and feed drive motors. Feed speeds readily changed by control on left side of machine.
- 7 — Easy accessibility to all adjustment of all rolls and chipbreaker with locks to all adjusting screws.
- 8 — Improved chipbreaker — impossible to clog or get stuck — with lubricated pivot shaft.
- 9 — Hand brake for quick stopping the cylinder to save time.

BASE

The base, which is a heavy one-piece casting with three-point floor bearing, assures permanent and accurate alignment of all parts. Access doors at each end enclose all moving parts of the table hoist and feed drive parts.

UPPER HOUSING

The upper housing, which carries the feed rolls, the cylinder and the driving motor is, like the base, a heavy

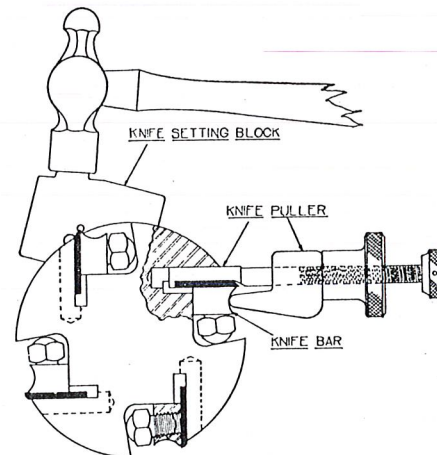
one-piece casting. Seats for the cylinder bearings, the motor housing, the chipbreaker pivots and the knife grinder bar supports, are all machined at one setting of this casting so that exact and permanent relation of all parts is guaranteed.

TABLE

Vertical adjustment of the table is 12". Table length is 47½", width 30¼". The cast iron table or bed, of unusually heavy design, is fitted with a cast iron platen beneath the cylinder and is adjusted on two 1½" diameter screws. The nuts are adjustable to provide for alignment of the table. Table adjusting screws are driven by spiral gears running in grease. Table is raised or lowered by pushbutton control at front of machine. The heavy gibbed ways upon which the table moves are located outside the rolls and are 18" long. A separate hoist motor is provided.

CYLINDER

The cylinder, machined from heat treated alloy steel, with precision ball bearings of oversize capacity, carries four tungsten steel knives which are securely held by the use of wedge type continuous steel chipbreakers. Cutting circle is 5½" diameter. Size at bearings, 3⅜" and 1⅞". The chipbreakers and screws that clamp the knives, as well as forming lips, are of the finest nickel-chromium steel. Cylinder is balanced to operate at any required speed within the limits set by good modern practice; but is normally operated on 60 cycle, at 3600 r.p.m.



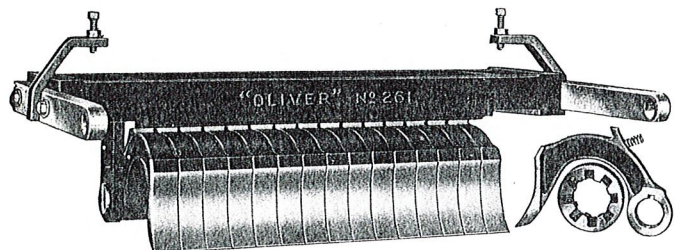
Cross Section of Cylinder showing Details of the Four-Knife Cutter Head and the Method of Using the Knife Puller and the Knife Setting Block, both of which are regularly furnished.

Hand brake directly in front of operator will shut off the current and stop the cylinder quickly to save time when jointing or grinding knives.

SECTIONAL CHIPBREAKER

The design of the chipbreaker guarantees ample pressure on the stock and at the same time obviates entirely any wedging effect. The chipbreaker sections, each 2" in width, are of a special alloy cast steel, accurately machined and pivoted upon a heavy steel bar with lubrication for each section. The chipbreaker frame pivots at a point well to the rear of the cylinder. The individual sections have spring loaded yield of ⅝" to accord with the yield of the feed roll sections. When the independent yield has been absorbed the chipbreaker raises, as a unit, swinging on the trunions at the rear, with a motion which is practically concentric with the cylinder. A

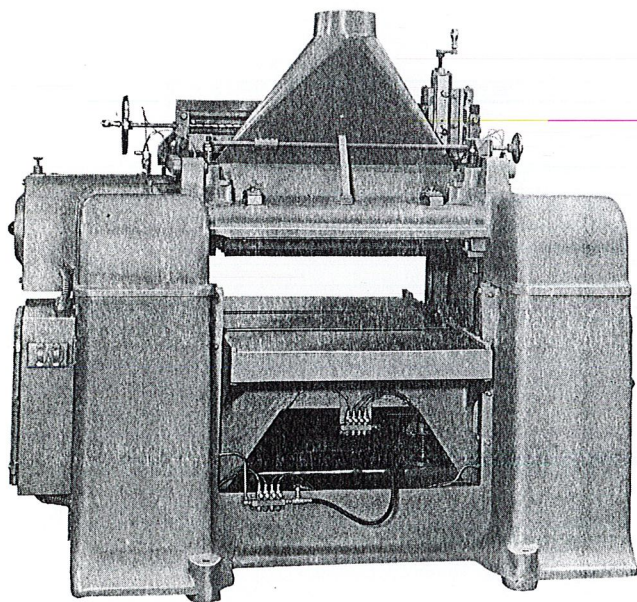
positive stop insures against the chipbreaker coming in contact with the knives. The entire chipbreaker may be swung up for easy access to the infeed roll. A convenient tool shelf is a built-in part of this chipbreaker mechanism. The springs are so located as to prevent chips or dirt from wedging in and destroying the complete travel of the chipbreaker toe.



Sectional Chipbreaker showing an Entirely New Design, assuring Greater Flexibility of Toes and Freedom from Clogging.

SECTIONAL FEED ROLL

The upper infeed roll embodies a steel spider with eight arms. The cast steel sections are $5\frac{5}{8}$ " diameter by 2" face and the independent yield is $\frac{5}{16}$ ". The roll, as a unit, is spring loaded. The feed roll shafts are mounted in ball bearings and driven by roller chains that are easily maintained. The provision for adjustment of all the feed rolls is simple, positive and convenient.



Rear view showing knife grinder and dust hood mounted. Note heavy one-piece base and top yoke castings. Quick adjustment of pressure bar and one shot lubrication system shown are available at extra cost.

FEED ROLLS

Are large diameter, $5\frac{5}{8}$ " — all ball bearing. The lower roll sprockets, connected by chain, are completely enclosed to exclude dirt and retain lubrication. The upper rolls are also chain driven, completely covered and so protected that no danger from chips is encountered, and from the safety viewpoint there is perfect protection to the operator. The adjustment of the lower rolls has received special attention. Screws with very large bearing surfaces are employed and both the adjusting screws and locking screws are made easily accessible. This is a feature that will be appreciated by the operator, who usually has a very hard time adjusting the lower rolls of a surfacer. The adjustment of both infeed and outfeed upper rolls is simple, positive

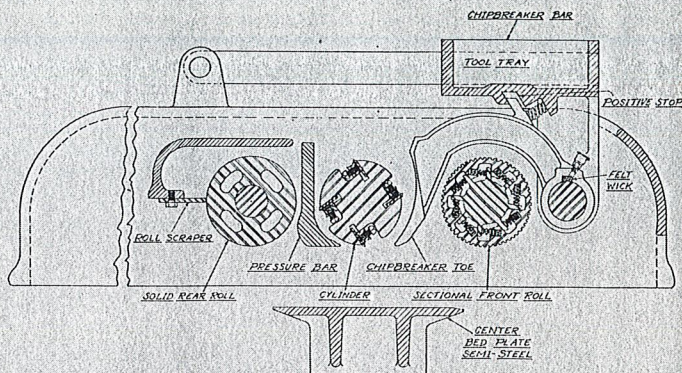


Diagram Cross Section showing the Relative Location of Sectional Roll, Sectional Chipbreaker, Cutter Head, Pressure Bar, Rear of Outfeed Roll, and the Semi-Steel Rigid Deep Section Center Bed Plate with Chilled Ground Top. "Oliver" Leads in Design, assuring Ease of Operation, Convenience in Maintenance and Durability.

and very accessible. Spring tension is employed on the outfeed roll, while a positive pressure provided by the chipbreaker mechanism provides just the proper pressure for the infeed sectional roll.

FEED DRIVE

The feed rolls are driven by a separate motor drive providing infinitely variable speeds from 20 to 60 feet per minute. Speeds are quickly changed when machine is operating by means of handle and dial mounted directly on the variable speed motor unit.

BACK PRESSURE BAR

Of deep section where strain is applied. It is held in place by two screws controlled by handwheels which have a series of holes and locking pin for regulating the pressure on the lumber, with micrometer accuracy, as it leaves the cut. By lowering the table, the pressure bar may be removed for inspection without disturbing any of the other parts of the machine.

CONTROLS

Very effective control of the entire machine, including the motor control push button, the feed motor control, the hand lever for mechanical cylinder brake and the power hoist control for the table are located at front of machine.

LUBRICATION

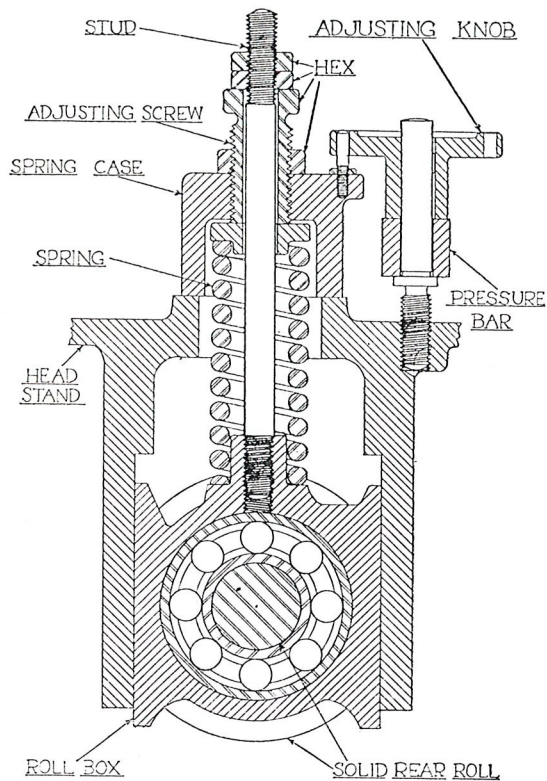
This machine is 100% ball bearing and is provided with a pressure grease system that requires attention at infrequent intervals. The feed works drive mechanism runs in a bath of heavy transmission oil.

KNIFE GRINDING AND JOINTING ATTACHMENT

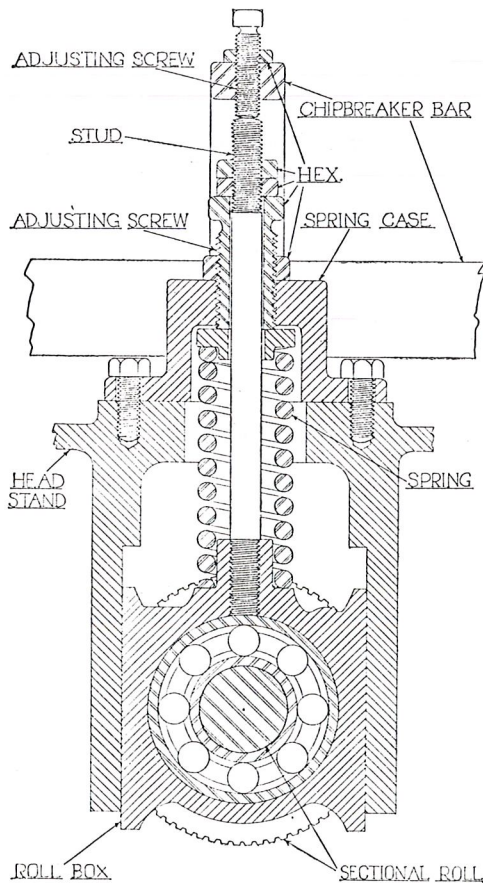
The electric motor knife grinder and the jointing apparatus are both used on a heavy rigid bar which is permanently mounted upon the upper housing and fitted with handwheel operated screw of one inch pitch for traversing the grinder and jointer. In positioning the knives for grinding, the cylinder is locked in position by a built-in taper pin which fits into a taper reamed hole in the motor fan.

MOTORS

For the cylinder a 10 h.p. motor is standard, and a 15 h.p. motor for exceptional heavy duty may be employed for general work. Larger motors can be furnished for



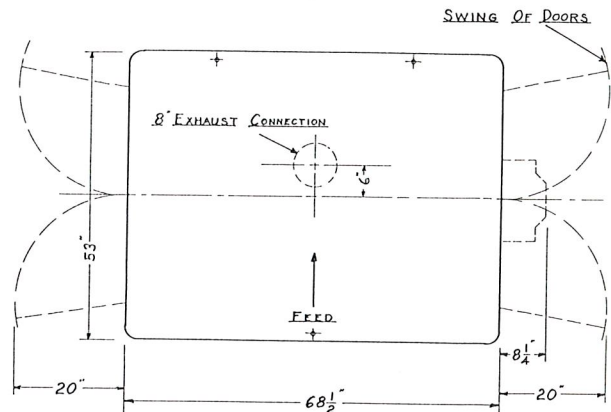
Section Through Bearing Box of Rear Top Outfeed Roll, showing the Pressure Bar Adjusting Knob.



Section Through Left Bearing Box of Sectional Top Infeed Roll, showing the Ball Bearing, the Spring Pressure for the Roll and the Method of Carrying the Sectional Chipbreaker Bar in Relation to the Sectional Roll.

cutter head if required. The feed motor is a 2 h.p. mechanically variable speed unit. Knife grinding motor is $\frac{1}{3}$ h.p.

SOLID LINE - FLOOR CONTACT AREA
DIMENSIONS ARE APPROXIMATE



SPECIFICATIONS

MOTORS

Head motor 10 H.P.
Feed motor 2 H.P.
Table hoist motor $\frac{3}{4}$ H.P.
Knife grinder $\frac{1}{3}$ H.P.

CAPACITY

30" wide, 12" thick

EQUIPMENT

Hand brake to stop cylinder and shut off electrical power.
Motor driven knife grinding attachment.
Magnetic controls for all motors.
Necessary wrenches.
Exhaust hood with 8" opening.
Knife setting block and puller unit.

CYLINDER

4-knife with high speed knives.

CHIPBREAKER

Sectional type.
15 sections each 2" wide.
Yield of $\frac{5}{16}$ ".

FEED ROLLS

Two lower rolls and outfeed upper roll $5\frac{5}{8}$ " diameter.
Upper infeed roll is sectional - 15 2" wide sections
Yield of $\frac{5}{16}$ " for sectional roll.

TABLE

$47\frac{1}{2}$ " long, $30\frac{1}{4}$ " wide.
Vertical adjustment 12".
Screw adjustment for raising and lowering.

SHIPPING WEIGHT

6700 pounds.

OPTIONAL ACCESSORIES AVAILABLE

15 H.P. head motor.
20 H.P. head motor.
3 H.P. feed motor.
Single micrometer adjustment for lower rolls.
Single adjustment for pressure bar.
One shot lubricating system.