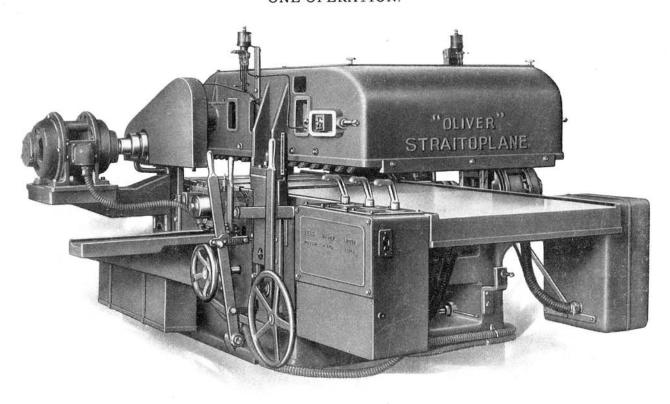


"Oliver" STRAITOPLANE

No. 170

Fully Patented - All Rights Reserved

"STRAITOPLANE" IS A NEW NAME TO DESIGNATE THIS MODERN WOODWORKING MACHINE WHICH MAY BE DESCRIBED AS AN "OUT-OF-WIND DOUBLE STRAIGHT SIDE PLANER" FOR FACE JOINING LUMBER AND PLANING TO THICKNESS ALL IN ONE OPERATION.



"Oliver" No. 170 Straitoplane—shows front view from the left side where all control levers and push buttons are located.

The 'Oliver" Straitoplane takes the warp out of all kinds and sizes of boards planing simultaneously both sides straight and parallel in one operation—producing straight, flat, even thickness of stock—great saving of time—maximum production—less waste—rapidity combined with low cost of operations to follow.

Manufactured by

Oliver Machinery Co.

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

BRANCH SALES OFFICES:

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

Speeds up Delivery!

Compact - Dependable 1

Powerful - Efficient!

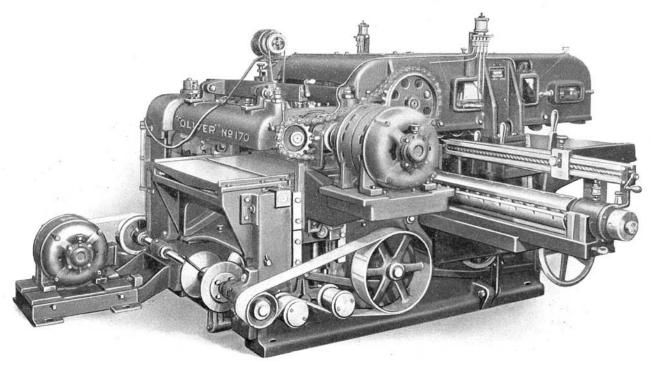


Illustration shows method of sharpening upper and lower knives—individual motor with grinding wheel unit in place ready to sharpen upper knives—the lower head is pulled out resting on self-contained bracket ready to sharpen.

Purpose

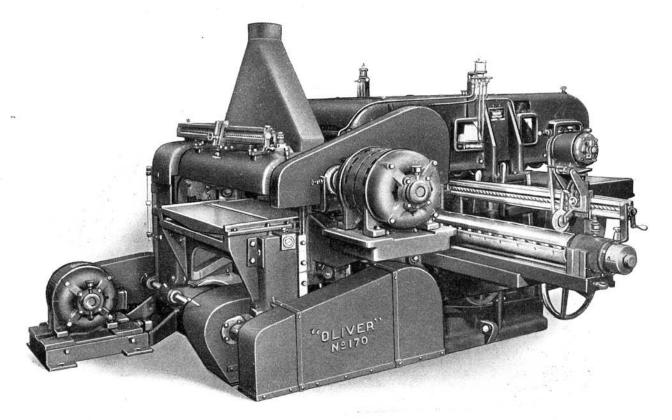
The purpose of this machine is to do on one machine and in one operation what heretofore has been done on two separate machines and in two separate operations; thereby creating far greater efficiency in the Planing Departments of woodworking industries than has previously been accomplished. In the past, in woodworking production plants of all descriptions, whenever lumber was cut to lengths first and then planed, also whenever the straightness of the lumber was just as desirable as smoothness, the custom has been to run the boards, after they have been cut to lengths and ripped, first over a hand planer and jointer (commonly called a buzz planer) with some kind of a power feeding attachment, so as to get one side of the boards perfectly straight (out-of-wind); then to take the work to a surfacer and plane the other side of the board to produce straight stock of uniform thickness and dimension desired. These two separate operations are now performed by the "OLIVER" No. 170 STRAITO-PLANE in one operation, because all boards with warp or wind in them can be fed to the machine and the first or lower cutter head will face joint the under surface of the board or take it out-ofwind; then as the board progresses, the sectional rolls hold the board firmly against the outfeed table and feed it to the top cutter head, which

dresses the stock down to the thickness desired and planes the top side smooth, straight and parallel with the lower side. It is hardly possible to think of a better way to prepare lumber for the operations to follow, in fact, this very machine has completely met the demands of every manufacturer who desires straightness of stock. The "Oliver" STRAITOPLANE has received a hearty welcome from manufacturers of furniture, automobile bodies, radios, talking machines, pianos, organs, refrigerators, cash registers, cabinet woodwork, veneered panels, garment hangers, meat blocks, drawing boards, chairs, dimension lumber, and doors. All woodworking plants know the importance of the first operation on a piece of stock because it determines the workmanship of the ultimate product. The finished stock must have the surfaces perfectly square, parallel, straight and free from blemishes regardless of the original condition of the raw material. This "Oliver" STRAITOPLANE will start off your lumber right and show a quick way to increased profits.

Capacity

This machine will plane warped or straight stock simultaneously both sides from 11/2 inches up to 36 inches wide and from 1/2 inch up to 6

PATENTED OLIVER' STRAITOPLANE - FULLY NO. 170



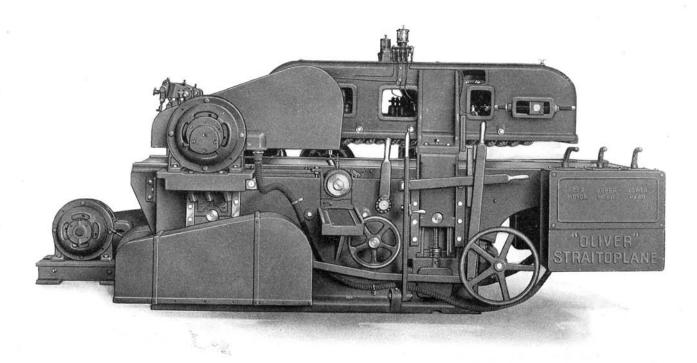
This half-tone shows the sharpener for the upper head knives hinged back with the dust chute in place.

The grinding unit has been transferred to the lower head knives and is in the correct position for sharpening.

inches thick with assurance that warp or wind up to 1/2 inch can be planed out and the material reduced to the desired uniform thickness in one operation—once through the machine. A cut of $\frac{1}{2}$ inch with the top head and $\frac{1}{2}$ inch with the bottom head, simultaneously, making a total of 1 inch reduction can be taken if desired. Four rates of feed, 20, 30, 40, and 60 feet per minute are regularly furnished, but other speeds can be easily arranged to suit purchaser's requirements on special order. Pieces as short as 10 inches, when feeding continuously, and as short as 16 inches, when feeding one at a time, can be planed both sides. The operator simply feeds the board a short distance until the automatic tension fingers grip the stock and is then free to start another board making an endless and continuous feeding of stock through the STRAITOPLANE. Four rates of speed being possible, it is obvious production can be speeded up to suit stock and requirements. The motors are of ample capacity and can be depended on to give efficient service, making it possible to take a cut three-quarters of an inch in depth once through if necessary. The Sectional Infeed Roll and the sectional Chip Breaker, acting with the "sensitive-yet-positive" multiple contact Conveyor Feed, enables many narrow strips to be surfaced simultaneously, greatly increasing the production of this machine.

Infeed Table

Is a one-piece semi-steel casting of arched ribbed construction. The actual feeding surface is 361/4 inches wide by 72 inches long. The end next to the lower head is fitted with a steel plate. This table is supported by an inclined bed wedge of one-piece semi-steel casting and rides on dovetailed gibbed ways with vertical adjustment by means of a ratchet lever on the left side of the machine, convenient to the operator. The object of raising or lowering this table is to get proper thickness of cut on the under surface of the stock being fed; thus the thickness of the bottom head cut can be varied by merely operating the ratchet lever which operates the table without making any other adjustments on the machine; this simplifies the set up of the machine for any thickness of cut desired. The infeed table unit, as a whole weighs approximately 2,300 pounds, but the construction of the raising and lowering mechanism is such as to require very little exertion. High pressure lubricant fittings keep the hoisting parts well greased.



This illustration shows the operating side of the "Oliver" No. 170 Straitoplane—all levers are located within easy reach of the operator—all gearing enclosed—wiring in conduit.

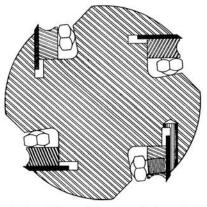
Outfeed Table

The bed of the outfeed table is a one-piece well ribbed semi-steel casting with three finished plates bolted on the top of the bed to form an actual feeding surface of 361/4 inches wide, by 41 inches long, with two rollers running between the tables. In finished pockets at the sides of the outfeed table frame, bronze bearing boxes support the two lower feed rolls with adjustment for alignment. The outfeed table frame is supported by an inclined bed wedge of one-piece semi-steel casting in finished ways and is easily adjusted vertically to the cutting edge of the knives by means of a hand wheel conveniently located on the left, or operating side of the machine. This table should line up with the cutting edge of the lower cylinder and requires adjustment only after the knives have been sharpened. This outfeed table unit weighs approximately 1,400 pounds.

Drive

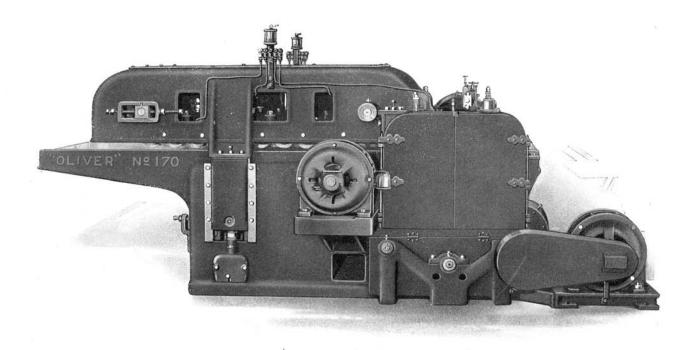
Each machine is so arranged as to be driven by direct coupled motors. A 15 H. P., 3,600 R.P.M. motor is coupled to the bottom head; 15 H. P., 3,600 R.P.M. motor is coupled to the top head and a 5 H. P., two speed, 600 and 1,200 R.P.M. motor is connected to the feed works with a V-type belt drive. All three motors are controlled by drum control in a cast iron box supported most con-

venient to the operator. A pointer directly below each drum control handle indicates the "run," "stop," and "plugging" positions for each head motor, and the feed control is likewise indicated for "1" and "2" feed. A single push button stop and start station operates the magnetic contactor for all motors, giving instantaneous stopping of all motors when desired. The size of these motors may be increased or decreased to suit the requirements of the purchaser, but the above sizes are recommended for all general work such as furniture or body manufacturing and similar production woodworking plants.



Cross sectional view of top and bottom cylinders which have 6-inch cutting diameter and are fitted with four knives with hard steel chipbreaker for each knife.

STRAITOPLANE - FULLY PATENTED OLIVER'' NO. 170



"Oliver" No. 170 Straitoplane-right side showing exhaust connection for lower head.

Feed Rolls

The outfeed table carries two smooth cast iron ground rollers extending the full width of the machine. Each end is supported by two large bronze bushings which allow the rolls to rotate freely. The upper outfeed housing bolts to the conveyor and is raised or lowered by four powerful screws operating in rectangular pillars supported by adjustable gibbed ways. The top infeed roll ahead of the top cutter head is sectional, having 2-inch sections with 16 springs in each section to give individual vertical yield for each section in addition to the adjustable vertical yield of the entire sectional roll unit. The top outfeed roll immediately follows the pressure bar and is one-piece, machined, cast iron smooth roll extending the entire width of the machine and rotating in large bronze bearings.

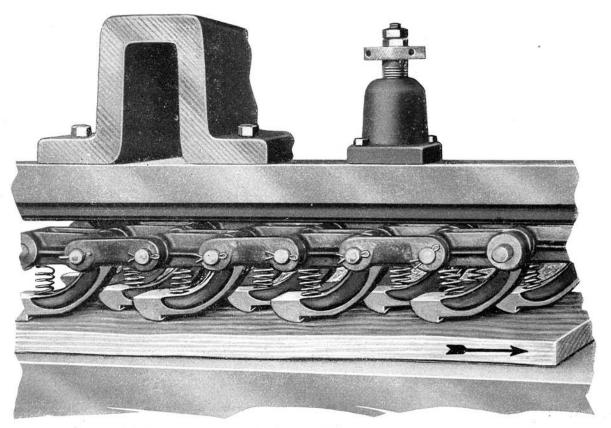
Cutter Heads

Both upper and lower cutter heads are 6 inches in cutting diameter, fitted with four "Oliver" Super-Tungsten thin knives which are positively the best obtainable. The cutter heads are made of forged steel of very high carbon and of large diameter assuring rigidity and perfect alignment at any speed. Provision is made for easy setting of the knives, also for grinding with the top cutter in place. The bottom cutter head is clamped in the frame with tapered wedges which hold the

cylinder and bearings securely in place. These wedges are released by removing a nut so that the cutter unit can be drawn out towards the left side of the machine, ready for setting or grinding the knives while resting on the sliding bracket which is securely fastened to the frame.

Controls

Complete control of the mechanism is located at the front end left side of the machine, so the operator can stop and start the heads or feed and also adjust vertically both tables as well as the entire top section. A large hand lever with a slotted safety lock lowers the top feed section when moved toward the frame. Moving the lever away from the frame raises the top feed section. A large hand wheel near the floor gives micrometer adjustment to this same mechanism. The infeed table is adjusted by means of a hand crank with a ratchet device. Moving the crank to the left raises the table, to the right lowers it. Directly beneath the hand crank is a hand wheel that controls the vertical movements of the outfeed table. Turning this wheel to the left lowers the table; a right hand movement raises it. The motors have individual drum controllers connected to a master magnetic contactor with overload and undervoltage safety device. A master push button that stops all motors is attached to the front of the control box near the operator. All wiring is enclosed in flexible conduit.

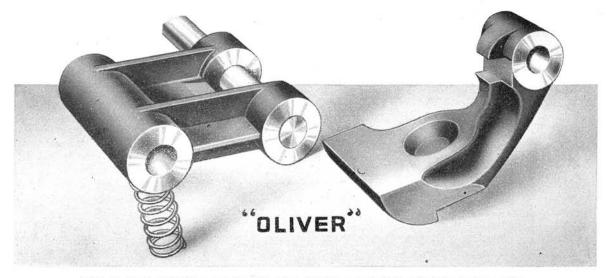


This clearly illustrates the "sensitive-yet-positive" multiple contact feed on the "Oliver" No. 170 Straitoplane.

Bearings

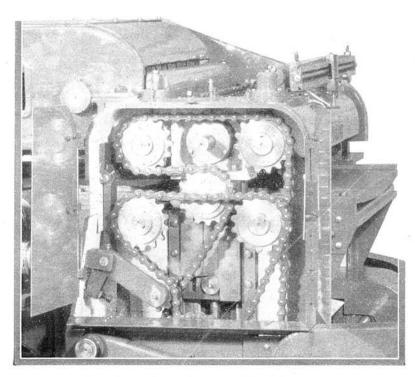
Ball bearings for cutter heads are precision type. Two double row ball bearings are located at each end of each cutter head, so that each head is actually operating on four rows of ball bear-

ings. Other bearings throughout the machine are of the bronze bushed type carefully machined and adjusted to give correct running fit. All cutter head bearings are lubricated by thin oil gravity type automatic lubrication. All other bearings have pressure gun grease lubrication.



Close up of the chain links, cam-dog and spring multiple contact feed enclosed in the top section.





Illustrating the feed works on the "Oliver" Straitoplane.

Top Section

The name "top section" applies to two semisteel castings securely bolted together. It is supported by four rectangular pillars fitted to the main frame in gibbed ways and arranged to move vertically in unison by power, supplemented by a hand wheel micrometer setting for the finished thickness desired. This top section supports on a track the "Sensitive-yet-Positive" Multiple Contact Conveyor, the top feed rolls and the top cylinder unit together with the chip breaker and pressure bar. The vertical movement in either direction is indicated by a scale and pointer conveniently visible to the operator. Positive stops prevent the power hoist from lowering top section closer than 1/2 inch to the bed unless arranged otherwise to meet special requirements.

Conveyor

This conveyor is of the wide chain mat type having cushion spring cam-dogs suspended from each link in such a manner as to assure a very "Sensitive-yet-Positive" Multiple Contact Feed. The shape and arrangement of the cam-dogs are such as to have exactly the same effect as if the boards were being fed over a hand planer and jointer by means of human hands. All essential parts of the conveyor are made of malleable iron and steel. Positive takeup is provided by means of the idler sprocket bearing held by a sleeve

which in turn is supported in a slot arrangement whereby an adjusting screw tightens or loosens the tension on the conveyor chain. The cam-dogs of the conveyor system will feed the strips of stock with a very light pressure, not more than human hands would exert when feeding, therefore there is no tendency to bend or spring the board from its natural shape, so that the two planed faces present perfectly straight smooth surfaces.

Feed Works

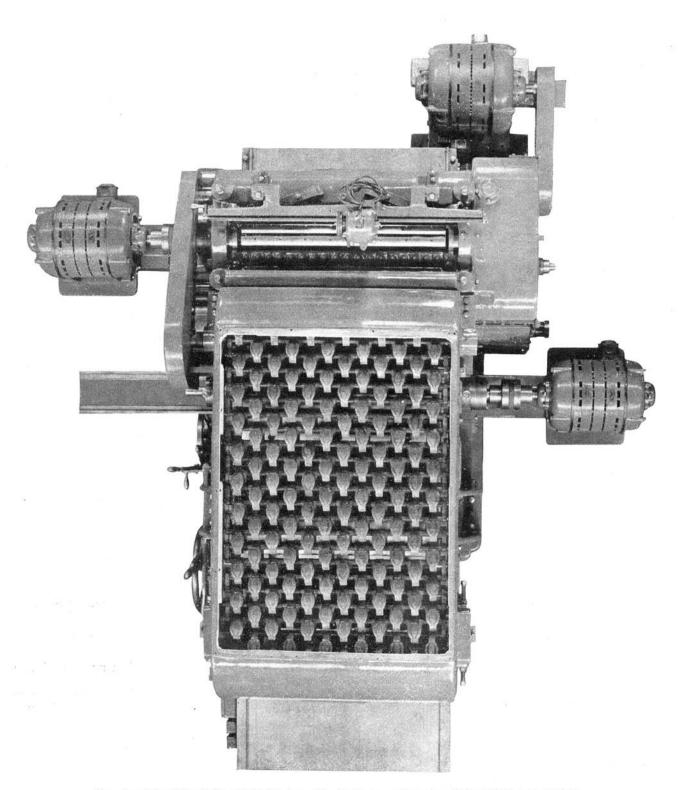
The feed driving mechanism is enclosed by two sheet metal hinged doors attached to the frame and is located at the right rear side of the machine.

The illustration shows the method of connecting up the heavy roller chain which drives the upper and lower rolls through a system of two idler toggle sprockets that are connected by vertical arms to the upper part of the feed works so as to automatically compensate for the difference in chain lengths required in different thickness set-up when planing.

There is a four V-type grooved pulley attached to the motor which drives another four V-type grooved pulley through which a shaft, extending the width of the frame is keyed.

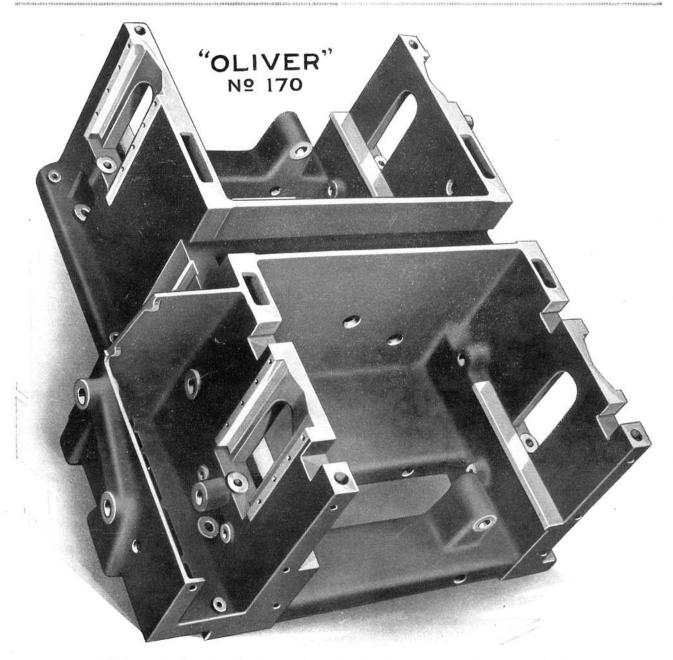
At the opposite end of this shaft is keyed a small diameter driving pulley driving a flat leather belt, which in turn drives a larger pulley

· · O L I V E R · · NO. STRAITOPLANE - FULLY PATENTED



Top view of the "Oliver" No. 170 Straitoplane—this affords an excellent view of the "sensitive-yet-positive" multiple contact feed mechanism. The knife sharpening unit can be seen directly over the upper cylinder ready to sharpen these knives. Note the placing of all motors independent of the frame allows any other type of drive to be easiy attached. Top cover is removed.

PATENTED



This illustration shows the main frame one piece casting for "Oliver" No. 170 Straitoplane—completely reinforced throughout—all bracket bearings cast integral—extreme rigidity,

in the center of which a shaft is keyed. This shaft extends the width of the machine and has a sprocket attached near the opposite end-the bearing for this shaft can be seen at the extreme lower left hand corner of the illustration on page 7. A chain engaging in this small diameter sprocket turns a larger diameter sprocket. In the center and near the bottom of the illustration the top of the chain can just be seen.

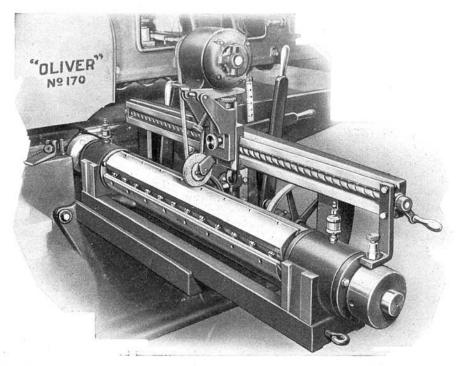
Two small diameter sprockets are attached to the shaft that is turned by the large sprockets. One of these sprockets drives the two lower

rollers, the other drives the two upper.

At the left of the illustration is shown the adjustable idler pulley acting as a compensator for slack in the chain.

In the lower center is shown the screw for raising or lowering the upper feed mechanism.

At the top on the right can be seen the hinged cutter grinding bar. The flat driving belt mentioned above has two ball bearing idler pulleys attached to an adjustable T shaped bracket. One end of this bracket is attached to a connecting link that extends nearly to the front of the ma-



This half-tone shows the easy method of sharpening the lower cutter head knives. Note the accuracy and simplicity of the grinding wheel motor and unit.

chine. A large hand lever with a cross bar with teeth cut in it securely holds the hand lever which in turn tightens or loosens the tension on the flat leather belt which is called the secondary drive. This arrangement allows the operator to throw on or off the feed mechanism while the machine is running. All shafts and sprockets are made of 40-50 point carbon steel, or cast steel. All moving parts are equipped with high pressure gun lubrication fittings.

Main Frame

Is an exceptionally rigid semi-steel casting with heavy ribs, cored sides, partitions and exhaust chute for the lower head all cast in one piece weighing approximately 4,000 pounds. This frame completely supports all the other parts of the machine on finished surfaces. The base is planed to give a machined foundation support of 91/2 inches wide, 72 inches long on each side of the base. The mechanism for raising or lowering the feed works slides in gibbed ways and is cast integral with the frame.

Sharpening Knives

All "Oliver" STRAITOPLANES are equipped with knife grinding motor and wheel unit which securely clamps in adjustable gibbed ways on a grinding bar. This bar is hinged on steel pins directly over the upper knives which allow it to be swung back so the dust chute can be attached.

There is a coarse thread screw in the center of this bar which is turned by means of a hand crank. This shaft moves the grinding head back and forth across the knives. A steel tapered plunger in a stop bracket bolted near the end of the cylinder holds the knives in the correct position for sharpening.

To sharpen the lower knives remove the wedges that hold the knife cylinder bearings in the frame and pull out the entire lower unit on a sliding way bracket attached to the left side of the frame. On the sides of the two cylinder bearings are four tapped holes which line up with holes drilled in the grinding bar; after fastening this in place with four cap screws attach the knife sharpener on the gibbed ways and adjust for a light cut, then start the grinding motor, next turn the small hand crank which feeds the grinding unit back and forth across the knives. After grinding the knives on the lower cylinder disengage the grinding bracket and be sure to push the cylinder back until it hits the stop and engages the motor coupling. The motor bracket is hinged at one end by a steel pin, the other end can be adjusted by means of a knurled hand screw which passes through the head boss; in the grinding bracket a knurled locking nut securely holds the adjusting screw in the desired position in the center of the grinding bracket which is slotted so that it allows the entire grinding unit to be moved up and down to compensate for the different settings of the knives.

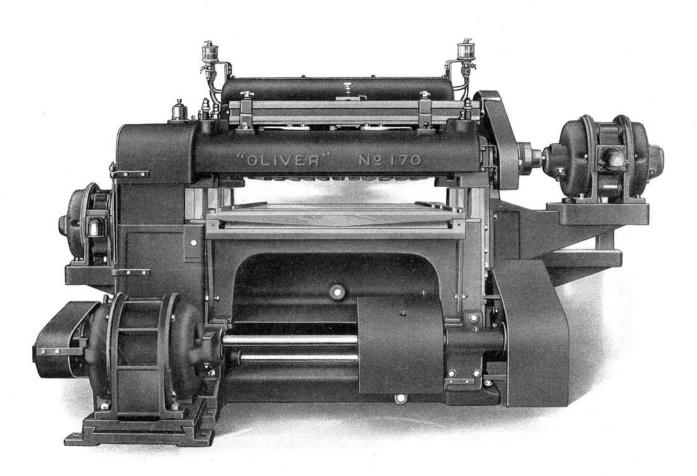
· · OLIVER · · NO. 170 STRAITOPLANE - FULLY PATENTED

Floor Space

Actual size of the base on the floor measures 721/2 inches by 531/2 inches. Maximum floor space required, including the motors and the space necessary to pull out the lower head when grinding the knives, measures 12 feet long by 10 feet wide.

Guaranty

We guarantee the "Oliver" STRAITOPLANE to be commercially perfect both as to material and workmanship, also to perform up to full capacity as represented by our literature, when properly operated. We further guarantee to replace free of charge to purchaser any part of any machine that may develop inherent defects during one year after shipment.

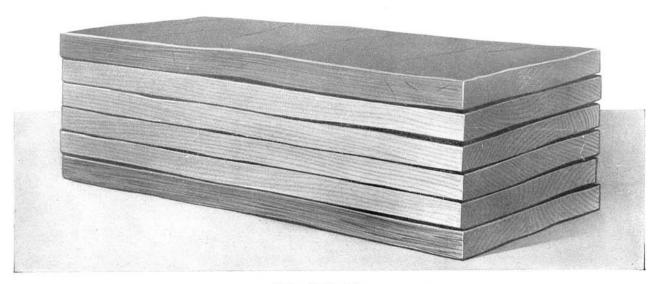


"Oliver" No. 170 Straitoplane-direct rear view showing three motor drive.

CODE, WEIGHT, ETC.

Code	Description of Machine	Crated	Pounds Boxed	Cubic Feet
Dicad	No. 170-D—"Oliver" STRAITOPLANE, to plane warped or straight lumber in various widths both sides simultaneously, 1½ inches up to 36 inches wide, ½ inch up to 6 inches thick with coupled motor drive arrangement including three polyphase induction motors, (15, 15 and 5 H. P.) and necessary electrical equipment.		21,500	600
Dicam	Set of four super-tungsten knives.			
Dican	Direct current motors and electrical apparatus instead of A. C.			

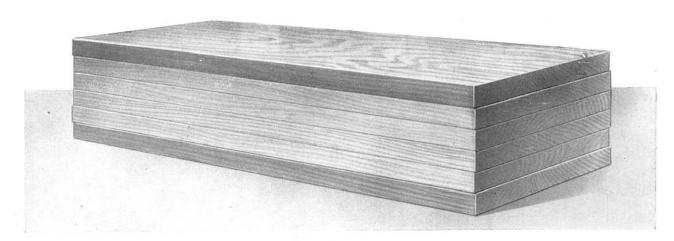
· · OLIVER · · STRAITOPLANE - FULLY NO.



Before Straitoplaning.

The above is a pile of four quarter stock of average type such as usually comes from the cut-off and ripping operations. Note that these boards are warped, on the wind both longitudinally and crosswise. The only former way of getting perfect straight boards out of a pile like this was to face joint first then plane to thickness, but now, the "Oliver" STRAITOPLANE will

perform these two operations at one and the same time, producing perfect straight boards of uniform thickness, because the front part of the STRAITOPLANE will face joint and the rear part will plane to uniform thickness once through the machine, resulting in a big saving of lumber and labor in the planing department.



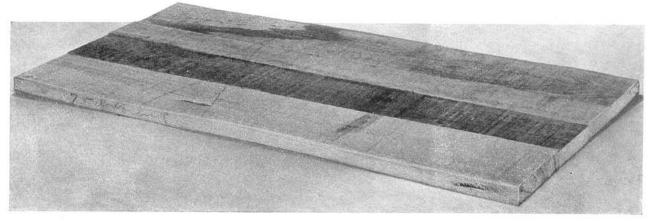
After Straitoplaning.

This photo shows the same pile of boards after being planed in the "Oliver" STRAITOPLANE once through. Note the perfectly smooth, flat,

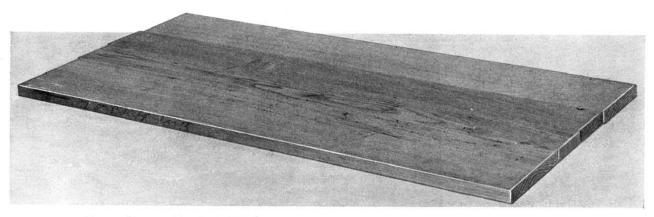
parallel surfaces top and bottom. All thickness dimensions are uniform and accurate.

· · OLIVER · · NO. STRAITOPLANE — FULLY PATENTED

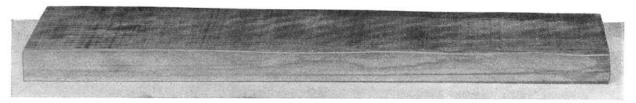
Reproductions of specimens actually finished on the No. 170 "Oliver" Straitoplane



Four sections of glued-up panel before planing on "Oliver" Straitoplane. This stock is rough and of various thicknesses throughout. Photo below shows results.



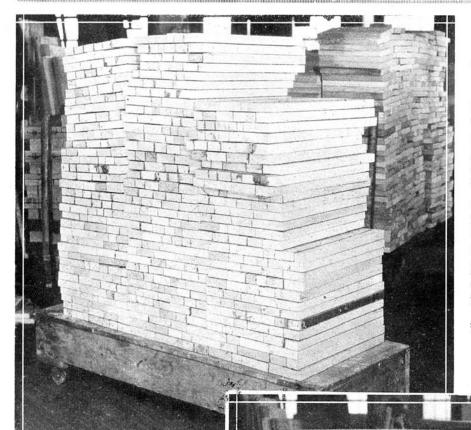
After passing once through the "Oliver" Straitoplane this four section glued-up panel is straight and of uniform thickness although, as indicated by the cut at top of this page, it consisted of four rough sections glued together from a sawed joint.



A rough sawed board of uneven thickness and warped. Similar stock when fed to the "Oliver" Straito-plane is face jointed on one side and planed down to a uniform thickness all in one operation, producing results as shown below.

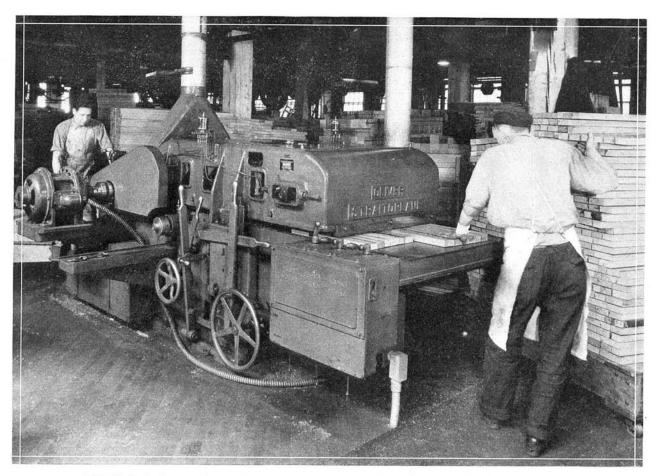


This is the same board as shown above, but after passing once through the "Oliver" Straitoplane it has become a perfectly straight board planed smooth and parallel on both sides. This results in less waste—less operations—less scrap—less overhead—more production—more profits.



This halftone shows glued-up panels brought to the "Oliver" Straitoplane directly from the gluing operation. This stock is warped, uneven, "out of wind" and of various thicknesses as the pieces are glued together without any planing. The Straitoplane will, with one pass, make all these panels straight and of uniform thickness.

This pictures shows the same pile of lumber after being run once through the "Oliver" STRAITO-PLANE. Note the straight parallel surfaces, how evenly the stock piles, every piece smooth and straight.



"Oliver" Straitoplane working on glued-up stock at the plant of the Stow & Davis Furniture Company at Grand Rapils, Michigan.

The following is a partial list of users of the "Oliver" Straitoplane. Note the various types of business in which this wonderful machine is creating large savings in lumber and labor:

FURNITURE FACTORIES:

Standard Furniture Co.	Herkimer, N. Y.
W. H. Gunlocke Chair Co.	Wayland, N. Y.
Thomasville Chair Co. (2)	Thomasville, N. C.
Lewisburg Chair & Furn. Co.	Lewisburg, Pa.
Williams Furniture Corp.	Sumter, S. C.
Tomlinson of High Point	High Point, N. C.
Auburn (State) Prison	Auburn, N. Y.
Heywood-Wakefield Co.	Gardner, Mass.
Stanley Furniture Co.	
Albert Furniture Co.	Shelbyville, Ind.
S. Karpen & Bros	Huntington Park, Cal.
Master Craftsmen, Inc.	Oneida, N. Y.
Hickory Chair Co.	
Empire Furniture Co.	Johnson City, Tenn.
Stow & Davis Furniture Co.	Grand Rapids, Mich.
Carrollton Furniture Mfg. Co.	Carrollton, Ky.
Abernathy Furniture Co.	Leavenworth, Kans.
Doernbecher Mfg. Co.	Portland, Ore.
Doernbecher Mfg. Co. Sun Glow Industries, Inc.	Mansfield, Ohio
Widdicomb Furniture Co.	Grand Rapids, Mich.

AUTO BODY BUILDERS:

Checker Cab Mfg. Corp.	Kalamazoo, Mich.
The Mengel Co.	Louisville, Ky.
Pekin Wood Products Co.	West Helena, Ark,

CABINET MANUFACTURERS:

Wabash Cabinet Co.	Wabash, Ind.
Hammond Clock Co	Chicago, Ill.
Regal Cabinet Shops (Inc.)	Evansville, Ind.
Mills Novelty Co.	Chicago, Ill.
National Cash Register Co	Dayton, Ohio
R. C. A. Victor Co., Inc. (3)	Camd n, N. J.

DIMENSIONAL LUMBER AND CORES-BLOCKS:

Kenwood Corp. Elkins	(Dailly), W	. Va.
Gamble Brothers, Inc.	Louisville	Ky.
Cincinnati Butchers Supply Co.	Cincinnati,	Ohio

PIANOS-ORGANS:

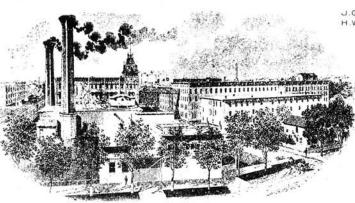
Estey Organ	Co				Brattlebo	ro,	Vt.
The Rudolph	Wurlitzer	Mfg.	Co	No.	Tonawanda,	N.	Y.
Gulbransen (Co				Chicag	0.	111.

TOYS AND NOVELTIES-DRAWING BOARDS:

Belmar	Mfg. Co	Canton,	Pa.
Keuffel	& Esser Co.	Joboken N	I.

DOORS-TRIM-PANELS-PLYWOOD:

Hornell Woodworking Corp.	Hornell, N. Y.
Goshen Veneer Works	Goshen, Ind.
W. D. Crooks & Sons	Williamsport, Pa.
John A. Kling	Brockton, N. Y.



Established 1865 addieomb arniture Co.,

GRAND RAPIDS, MICH.

September 24. 1925.

The Oliver Machinery Co., Grand Rapids, Michigan.

Gentlemen:

Replying to yours of the 23rd, we have had one of the No. 170 "Straitoplane" machines in operation in our shop for over a year, obtaining splendid results from it.

In our case, this machine replaced one Buzz Planer with power feed attachment and two Single Surfacers, thus eliminating four men. You will readily understand from this that the saving in our case is considerable.

We have been able to run both long and short stock successfully and the quality of the work which the machine has turned out has been splendid.

In conclusion, permit us to say that we are well satisfied with our purchase of this machine.

Very truly yours,

THE WIDDICOMB FURNITURE

MAG: EE

Gulbransen Company

GULBRANSEN Registering Piano

KEDZIE, SAWYER, SPAULDING AND CHICAGO AVES.,

TELEPHONES: NEVADA 0606-0607-0608

CHICAGO



November 9th, 1925.

Oliver Machinery Company, Grand Rapids, Michigan.

Gentlemen:-

It is a pleasure for us to be able to emphatically go on record as to our satisfaction with the new Straitoplane you have installed in our plant.

Greater production and reduced costs have resulted from our use of this equipment. We have had the machine in operation long enough to know just what it will do for us.

Two men, on the Straitoplane, are now turning out sixty feet a minute, whereas formerly four men turned out thirty feet a minute on each of two machines. Your Straitoplane is therefore twice as efficient as our two old machines.

We have found the quality of work done by your machine, excellent. It satisfactorily planes both sides of the board and during the same operation eliminates the curve in the wood due to warping.

Yours very truly,

GULBRANSEN COMPANY

155 Tullosandun

AGG . GC .

ABERNATHY FURNITURE COMPANY MANUFACTURERS LEAVENWORTH, KANSAS

October 15, 1926.

G. W. Crosley, c/o Oliver Machinery Co., Grand Rapids, Mich.

Dear Mr. Crosley:

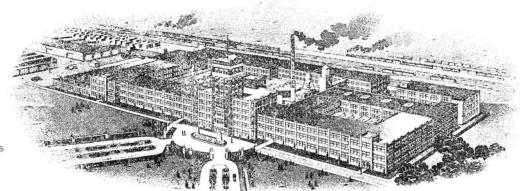
Replying to your inquiry about the Straight-oplane which we installed in our new factory last June.

The machine is giving us very good results; is doing the work formerly done by two machines. This results in the saving of the wages of one operator and one helper.

Yours truly, Abernathy Furniture Co.

BGC/JK

B. G. Cuelue



PRIGHT PIANOS REPRODUCING PLAYERS PLAYER PIANOS INTERPRETIVE PLAYERS

THE RUDOLPH WURLITZER MFG. COMPANY NORTH TONAWANDA, N.Y.

March 21,1927.

Oliver Machinery Co. Grand Rapids, Mich.

Gentlemen:-

We have your letter of March 17th, asking us about our experience with the Straitoplane. We are glad to advise that the machine has been in operation about six menths and the results have been very satisfactory.

We find that it takes the wind out of both long and short stock equally as well as we used to do it by hand. In addition to this, we also get a rough planing operation which has helped us considerably.

Since we have installed the Straitoplane we have removed four large hand jointers, one of which was equipped with a finger feeding attachment. Floor space has been saved and a reduction made in the total time for material from the cut-off saw to the finishing department.

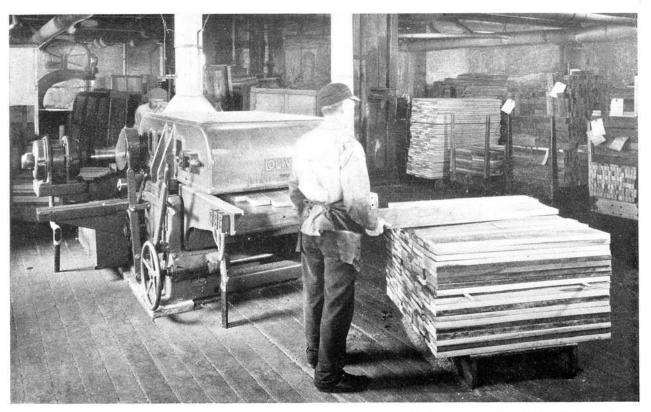
Yours truly,

THE RUDOLPH WURLITZER MFG. CO.

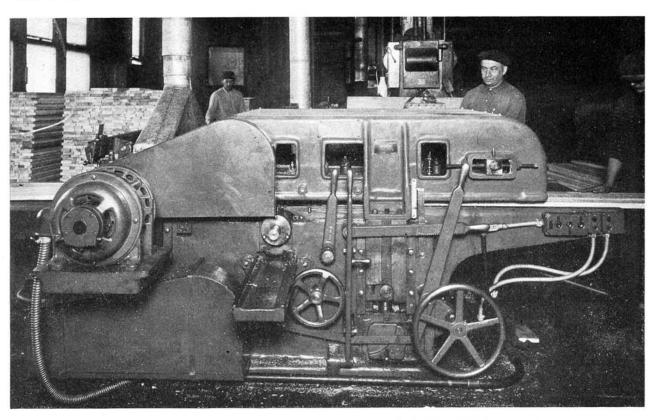
ice-President.

WHW:HH

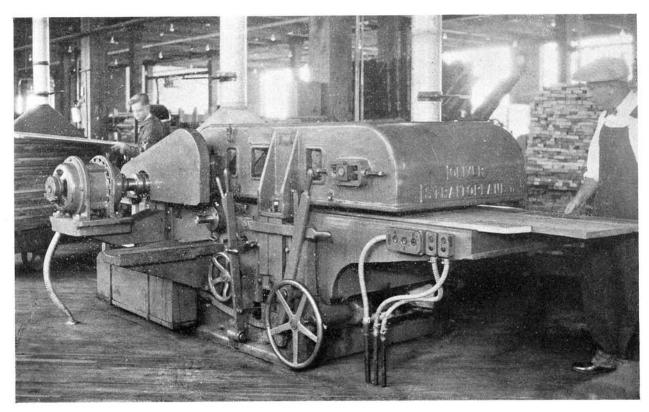
NO CONTRACTS, ORDERS OR AGREEMENTS VALID UNLESS SIGNED BY A MEMBER OF THE FIRM



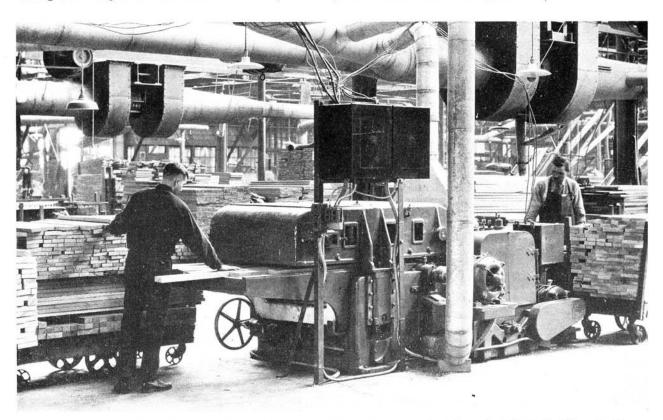
"STRAITOPLANE" DEPARTMENT, WIDDICOMB FURNITURE CO., GRAND RAPIDS, MICH. Straitoplaning kiln dried gum of miscellaneous widths, 42" long and from 4/4 to 5/4 thick. Finished thickness 15/16". Machine was running at the rate of 60 feet per minute and the operator fed the work side by side as fast as he could.



"STRAITOPLANE" DEPARTMENT, GULBRANSEN CO., CHICAGO, ILL.
Straitoplaning long, short, narrow, wide, also glued up stock for piano work. Machine installed August, 1925, and Mr. A. G. Gulbransen states "the straitoplane is twice as efficient as our two replaced machines" combined.



"STRAITOPLANE" DEPARTMENT, ABERNATHY FURNITURE CO., LEAVENWORTH, KANS. Straitoplaning groups of boards before being edge jointed. Machine installed January, 1926, and in addition to saving of floor space and the labor of two men, it actually saves lumber and does elegant work.



"STRAITOPLANE" DEPT. THE RUDOLPH WURLITZER MFG. CO., NO. TONAWANDA, N. Y. Straitoplaning random width stock after being cut-off to length and ripped to convenient width. Machine installed September, 1926, and took the place of "four large hand jointers, one of which was equipped with a finger feeding attachment."

PORTLAND OREGON May 24, 1928.

Oliver Machinery Co., Grand Rapids, Mich.

Gentlemen:

This is in response to your recent letters requesting an expression from us as to the value of your "Straitoplane" which has been in use in our Plant about three years.

This machine is highly efficient in performing the work for which we purchased it; namely, the straightening out and planing of tops which are either out or of uneven thickness. In our shop it takes the place of three machines; buzz planer, single planer, and double planer, and consequently eliminates two men as well.

We are using it entirely for the planing of our glued-up tor cores and putting an average of 2250 of these through it daily.

This equipment continues to operate perfectly and has proven a very good investment for us.

Enclosed is a view of the "Straitoplane' in operation in our Veneer Department.

Yours very truly,

ESB:S

DOERNBECHER MANUFACTURING COMPANY

THE BELMAR MANUFACTURING CO.

CLOTHING HANGERS CANTON PENNA.

March 14, 1929.

Oliver Machinery Co., Grand Rapids, Mich.

Attention Mr. Kurkjian.

Gentlemen:

We wish to advise that your Mr. Berhey has successfully completed the installation of the Oliver Straitoplane in our factory.

After the machine has been in service for a time long enough to enable us to fully realize its merits we will write you again.

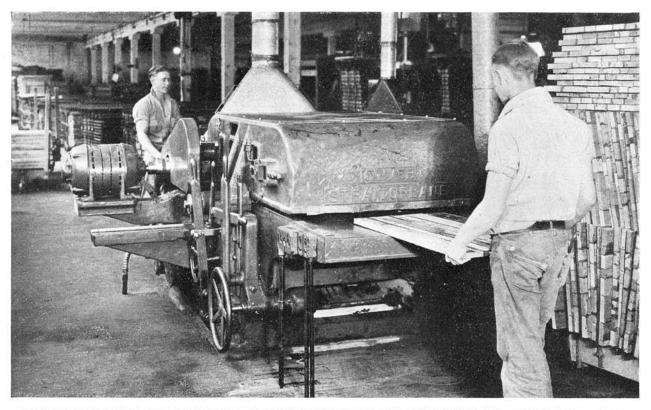
We are very much impressed with the Dliver Straitoplane and are only regretting that we did not purchase it three years ago.

Yours very truly,

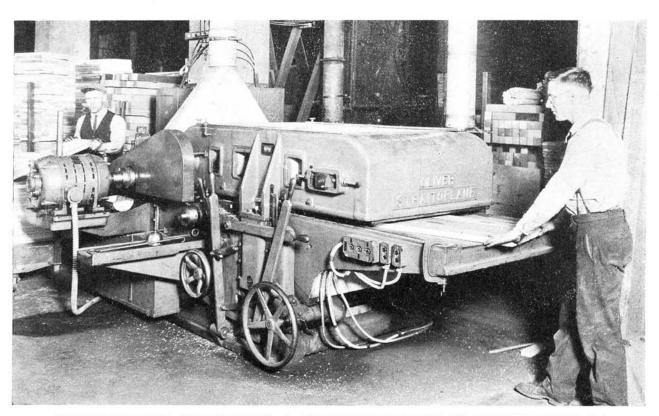
THE BEZINDR MFG. CO.

L. M. Marble, President.

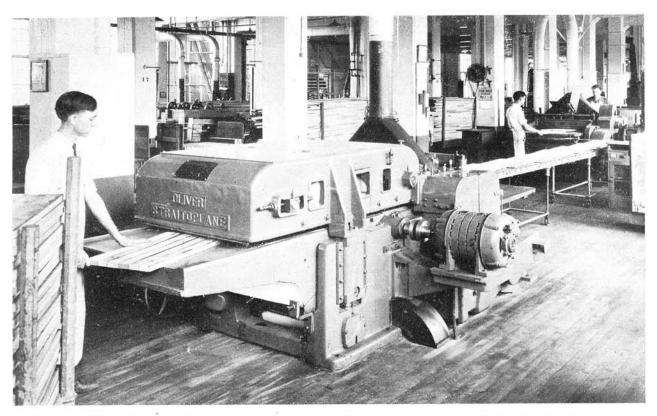
LMM: C.



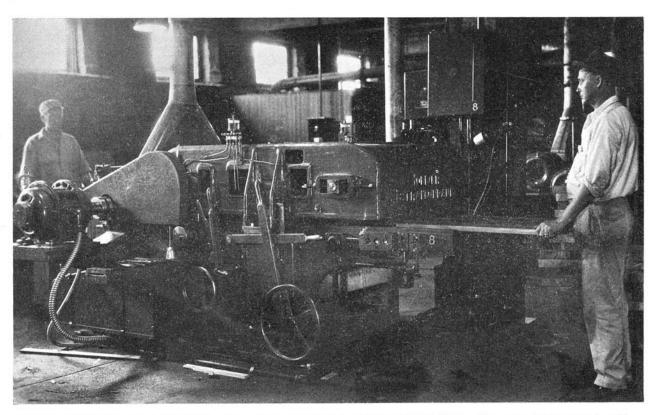
"STRAITOPLANE" DEPARTMENT, DOERNBECHER MANUFACTURING CO., PORTLAND, ORE. Straitoplaning core stock glued up in the rough from saw joints. Machine installed November, 1925, and replaced one Facing Planer, one Single Surfacer, and one Double Planer and the Management says it "has proven a very good investment for us."



"STRAITOPLANE" DEPARTMENT, A FORMER FURNITURE CO., PHILADELPHIA, PA. Straitoplaning glued up cores for table tops, also squares, flats, thick and thin work for furniture manufacture. Machine installed March, 1926, and is saving money far above most sanguine expectations.



"STRAITOPLANE" DEPT. NATIONAL CASH REGISTER CO., DAYTON, OHIO Straitoplaning rough glued-up panels which proceed over a conveyor to the operator who selects the face and feeds to the finishing planer — thus three men do continuous planing from rough to finished panels. Machine installed January, 1926.



"STRAITOPLANE" DEPARTMENT, CARROLLTON FURNITURE MFG. CO., CARROLLTON, KY. Straitoplaning glued-up cores or panels. Machine installed April, 1927, and the purchase of the Straitoplane is "One of the most economical and practical investments" ever made by this Company.



OWNERS AND OPERATORS OF GRAND RAPIDS DESK CO. GRAND RAPIDS, MICHIGAN

BANK AND OFFICE FURNITURE

GRAND RAPIDS, MICHIGAN

April 23. 1929.

Oliver Machinery Co., Grand Rapids, Mich.

Gentlemen:

Since September 1927, when we installed our Straight-O-Plane, we have had the opportunity to run the machine on all classes of work for which it was purchased, and are pleased to advise that it has met our requirements in every respect.

At the time the machine was installed, you will recall that we were not at all convinced that the machine would joint and surface without considerable waste of material. In actual practise we find it possible to get 13/16's net out of four quarter stock and in some instances where the lumber coming from the dry kiln was full four quarters we found it possible to get 7/8's clear. This would indicate that the machine is capable of handling lumber, as well as it can be done through the average jointer and planer and with only one handling. This is only one item which goes through the machine.

We use it for cleaning up glued-up core stock in various size panels and the majority of our lumber coming from the dry kiln is put through the machine before cutting and ripping.

Without going into any further detials, you can readily gather that we are very well pleased with our Straight-O-Plane and can heartily recommend it's use to any manufacturer who might have need of a machine of this kind.

Yours very truly,

STOW-DAVIS FURNITURE COMPANY B. E. Richardson Engineer.

B.E.Richardson/D



Carrollton, Ky. 8/21/29

To

Oliver Machinery Company,
Indianapolis, Indiana.

Attention Mr. F. A. D'Archangel.

Gentlemen:

Your letter August 17th.

We are entirely satisfied with our Oliver Straight-oplane. This machine has met our every expectation. It has occasioned us no trouble in the two years we have had it, and during all that time has run smoothly and efficiently.

We know that this machine has improved the quality of our work and has increased the quantity of our production.

We shall be glad at any time to answer in detail any queries submitted to us relative to any of the characteristics of this machine, our experience with its operation and the character of work it does.

Yours truly,

HBS.K

CARROLLTON FURNITURE MFG. CO., INC



RCA Victor Company, Inc.

CAMDEN, N.J., U.S.A.

May 28, 1930

Oliver Machinery Co., 50 Church Street, Hudson Terminal, N.Y.

Attention: Mr. Arthur Blake

Dear Sir:

3

Your letter of May 19 received, referring to recommendation of the Straitoplanes now in use in our company, we wish to say that they have operated satisfactorily giving us good service and would say that absolutely the best recommendation is the fact that last year we ordered two more from your company.

Hoping this gives you the information necessary, we beg to remain

Very truly yours, R C A Victor Company, Inc.

PRODUCTION ENGINEER

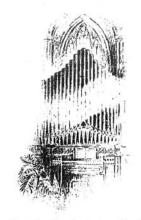
JACOB P. ESTEY

PRESIDENT

JOSEPH G. ESTEY

VICE PRESIDENT & TREASURER

HOME OFFICE BRATTLEBORO, VERMONT



NEW YORK
PHILADELPHIA
BOSTON
LOS ANGELES
LONDON
SAN FRANCISCO
CHICAGO

ESTEY ORGAN COMPANY, INC.

Established 1846

BRATTLEBORO, VERMONT

October 20, 1930.

Oliver Machinery Co.,

Grand Rapids, Mich.

Gentlemen:

We have been operating one of your Straitoplanes since 1927. This machine, during the past three years, has not been idle for more than a day at a time on account of repairs. Parts for such minor repairs as became necessary were sent to us promptly when needed. The service has been most satisfactory.

The expense of operating this machine has been very light, even less than other machines doing less work.

We have been able, with this machine, to do better and more work with less men than ever before.

While the Straitoplane is recommended for comparatively short stock, we find no trouble in taking the wind out of stock 16' long and doing it better on the Straitoplane than any other type machine we have ever operated.

We have found the Straitoplane a big factor in keeping our costs down and at the same time improving the quality of work done.

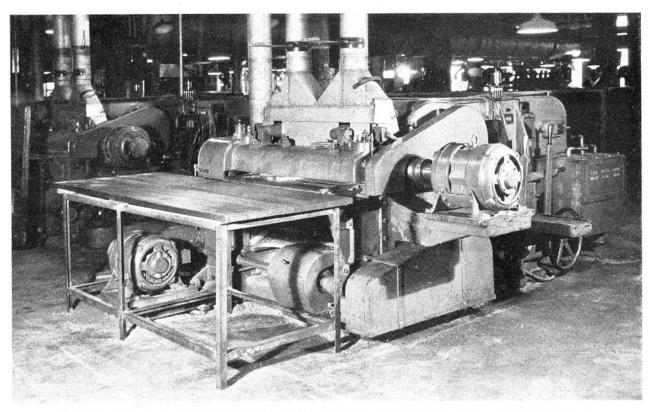
Very truly yours,

Estey Organ Company

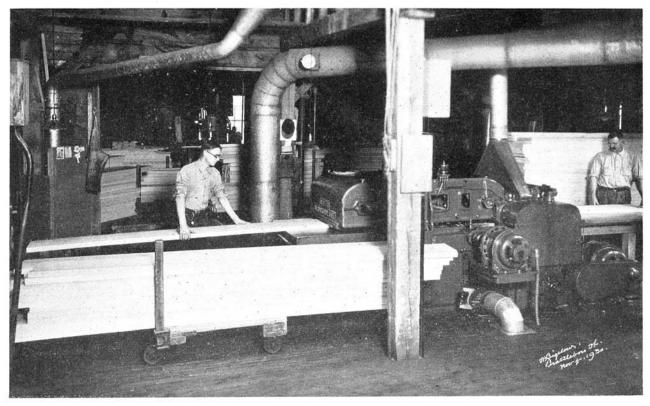
D. E. Dube,

Purchasing Dep't.

DED-FF M



"STRAITOPLANE" DEPARTMENT, RCA VICTOR COMPANY, INC., CAMDEN, N. J. The Straitoplanes — all of them — "Have operated satisfactorily, giving us good service. The best recommendation we can give, is the fact that last year we ordered two more from your Company."



"STRAITOPLANE" DEPARTMENT, ESTEY ORGAN COMPANY, INC., BRATTLEBORO, VT. Straitoplaning stock 16 feet long—"Taking it out of wind better on the Straitoplane than on any other type machine we have ever operated for the same purpose. The Straitoplane has been a big factor in keeping our costs down and at the same time improving the quality of work done."



Manufacturing Corporation

Kalamazoo

Feb. 26, 1940

Oliver Machinery Company, Grand Rapids, Mich.

Gentlemen:

In April 1930 we purchased from you our "Oliver" Straitoplane for facing and thicknessing stock up to 36" wide.

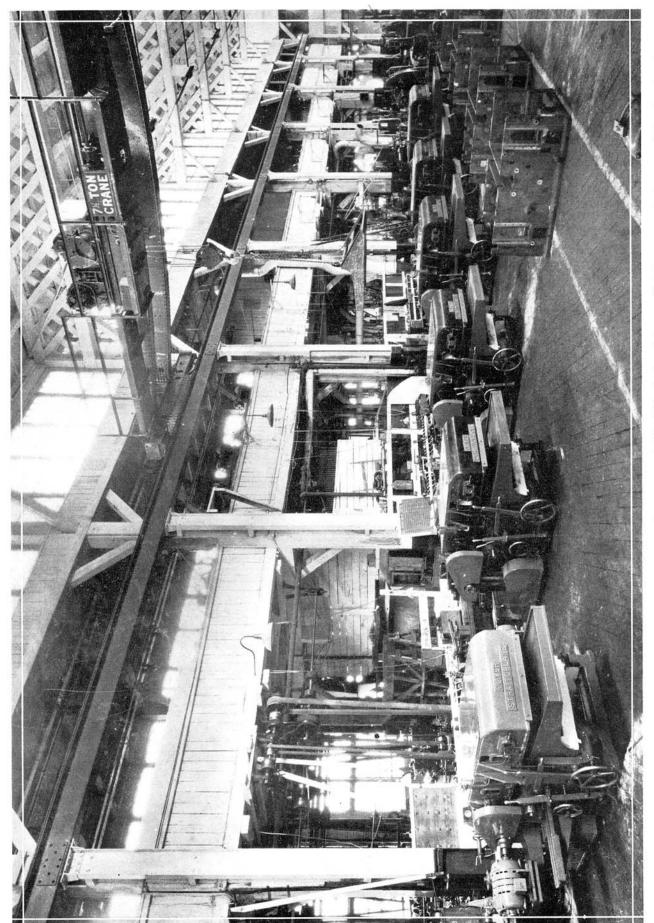
This Machine has performed well and in the ten years we have had it we have not had to order any repairs which speaks well for the ruggedness of this machine.

We are satisfied that it has proven a very good investment for us and will be glad to recommend it to others at any time.

Yours very truly,

CHECKER CAB MFG. CORP.

By WE allew



A photograph of the "Oliver" Machinery Co.'s Plant at Grand Rapids, Michigan, showing a battery of "Oliver" Straitoplanes being assembled by master mechanics—some of them have been in our employ for the past thirty years that "Oliver" has been making quality woodworking machinery.