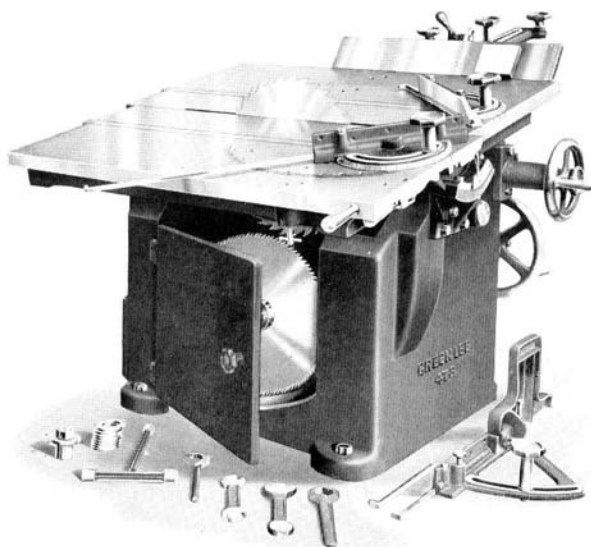




No. 478 Double Arbor Universal Saw Bench

THIS Universal Saw Bench provides a rip and a cross-cut saw so that either can be used in combination with the angling table which is provided with a full compliment of slides and gauges. Its application is almost unlimited for variety sawing of an accurate character in all classes of shops.

The Frame is a heavy one piece casting with the necessary rigidity for precision work. A partition divides it into two sections so that the main working parts are protected from dust. The left hand section has a cast flange at the rear to receive an exhaust pipe or to serve as a clean-out.

The Table is 46 inches deep and 53 inches wide over the solid extension which is provided to support the ripping gauge at extreme positions. It will adjust 45 degrees to the left and 5 to the right by a hand wheel operating a worm gear protected from dust and with take-up for wear. The horizontal position is determined by a stop. The segments in which the table swings have gibbed and fitted surfaces, instead of the usual babbitted fit.



The Arbor Yoke

The **Rolling Table** is 19½ inches wide, is guided by accurately fitted ways and carried on rollers mounted in an adjustable frame. A rack and pinion side adjustment moves the table 5 inches to give access to the saws and to allow the use of a full wood section around a dado head.

The **Gauges** furnished include a universal ripping gauge which tilts to 45 degrees and can be used on either side of the table, a universal cut-off and mitre gauge, and two slide cut-off gauges graduated for angles and having extension stops. The adjustments are accurate and convenient and fully cover all requirements.

The **Capacity** is for two 18-inch saws or for a 20-inch saw used alone. It will cut 5-inch material with an 18-inch saw, rip 24 inches wide and cross cut 36-inch widths. Saw blades 14 inches in diameter are suitable for material up to 3 inches thick.

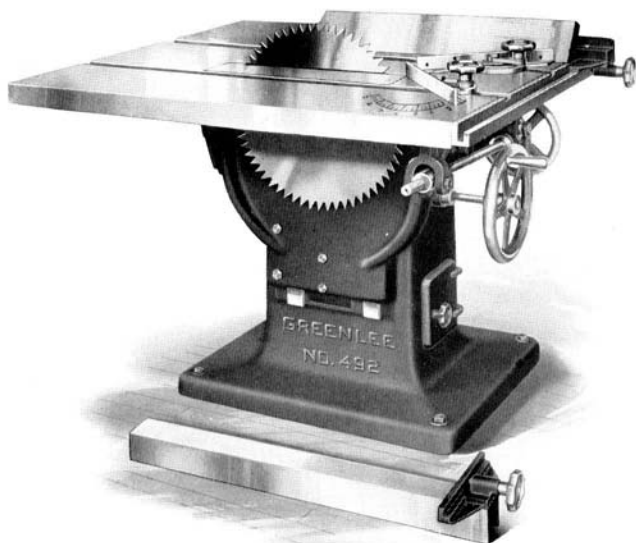
One Belt drives either arbor when revolved to the cutting position. It passes over weighted tightner pulleys in such a manner that proper tension is maintained at all times.

The **Countershaft** has 10x6½-inch tight and self-oiling loose pulleys to run about 750 R. P. M. for 16-inch saws or 650 for 18-inch saws. It can be on or under the floor and has a belt shifter terminating in a foot treadle at the operator's position.

Motor Drive is usually arranged by mounting a motor in an edgewise position on an attached cast iron bracket and belting to the machine pulleys. The motor may, however, be set on the floor or attached to the ceiling below. The usual size is from 5 to 7½ H. P. and of any speed up to 1800 R. P. M.

The **Equipment** includes all gauges shown, one each 16-inch rip and cut-off saws, a dado head sleeve with 2-inch set of graduated collars, stops, filling strips, a clearance block, two splitters and a set of wrenches.

No.	Wt. in Lbs.	Code
478 with separate countershaft	2700	PARADER
478-X without countershaft	2400	PARADISE
478-M with attached motor bracket	2500	PARADIGM
Safety Saw Guard supported from machine frame or floor, extra		
Wire Mesh Guard for Motor drive belt, extra.		



No. 492-W

No. 492 Variety Saw With or Without Mortising and Boring Attachment

OUR No. 492 Machine is one of several types of single arbor variety saw benches built by us for general purpose sawing. It is of heavier construction than usual and has greater range than our other machines which are furnished in different arrangements of drive. Its equipment is most complete and convenient.

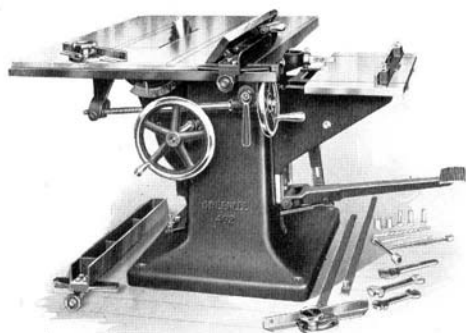
The **Mortising and Boring Attachment** is suitable for handling such light work as occurs in the average small shop. Its table is 28x14 inches and has 5-inch vertical adjustment.

The **Saw Table** is 45½ inches long and 36 inches wide on a machine with the attachment. The No. 492-W has a 46-inch wide table. It raises on gibbed ways planed on the frame and is arranged to tilt to 45 degrees to the left and 5 to the right. A graduated quadrant and pointer indicate the angle.



The Saw Arbor is regularly reduced to 1¼ inches for the saw. It receives 1-inch wide cutter heads, but a removable arbor extension for 2-inch heads can be furnished extra. Thrust collars are provided when arranged for mortising and boring.

The Range is for 20-inch or smaller saws and for ripping up to 20 inches wide and 6 inches thick. The No. 492-W will rip 27



No. 492 with Mortising and Boring Attachment

inches wide since the omission of the mortising and boring attachment permits a wider table. Mortising can be performed with chisels up to ⅝-inch square and to a depth of 3 inches, while boring can be done with bits as large as 2-inch and to a depth of 6 inches.

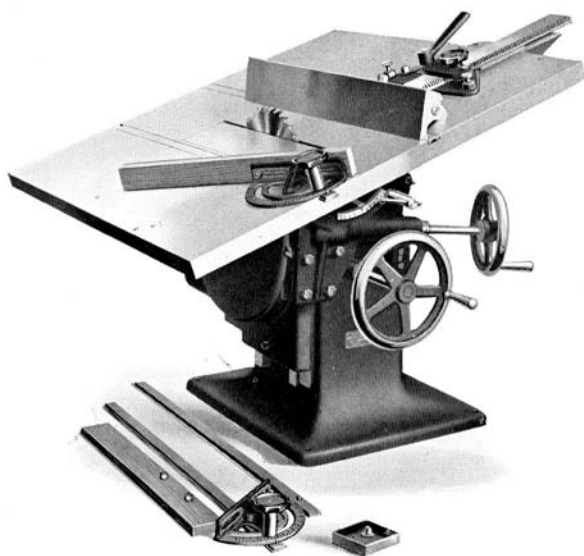
The Drive may be by a separate countershaft at the rear or beneath the floor. It has 10x5½-

inch tight and self oiling loose pulleys to run about 850 revolutions. When motor driven, the motor replaces the countershaft and belts to the 5-inch diameter arbor pulley. A 5 H. P. motor of any speed up to 1800 R. P. M. is recommended for average work. For heavy requirements a 7½ H. P. motor is more suitable.

The Equipment of a No. 492 machine includes the gauges shown, filling strips for the table grooves, the countershaft with tight and loose pulleys, one 16-inch cut-off saw, one ¾x4-inch hollow chisel with bit, one ½x6-inch machine bit, stops and wrenches. A saw guard is not a part of the regular equipment, but can be furnished at extra cost when specified.

No.		Wt. in Lbs.	Code
492	With Attachment and Counter	1925	PASSPORT
492-X	With Attachment but no Counter	1625	PASSPAROLE
492-W	Without Att. but with Counter	1750	PASSWORD
492-WX	Without Att. or Counter	1450	PASTEBBOARD

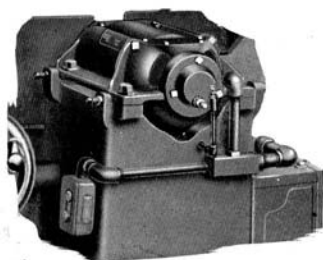
Top Safety Saw Guard, extra



No. 493 Ball Bearing Variety Saw

With Built-in Motor or for Belt Drive

THIS Ball Bearing Variety Saw is built with a motor on the arbor, eliminating all belts, or with an arbor pulley for belt drive from a separate countershaft or motor on the floor. The yoke carrying the motor is interchangeable with that of the belt driven arbor, so that a machine can readily be motorized at any time.



The Motor on the Arbor

The Saw Arbor runs in ball bearings and has a 5x5¼-inch pulley when belt driven. An adjustable arbor yoke on both machines permits accurate alignment, as well as the later application of a motor to a belt driven machine.

The Built-in Motor is furnished for 220 or 440 volt alternating current and its speed is 3600 R. P. M. It has an enclosed starter mounted on the machine frame and is wired entirely in conduit.



Rear View of Belt Drive Machine
Showing Adjustable Arbor Yoke

The Table is 48x40 inches and is of strongly ribbed construction. It has a removable saw plate, T-slots for the cut-off gauges and is graduated for setting the ripping gauge. It is adjustable from 32½ to 37½ inches above the floor by a hand wheel operating a geared screw. Tilting adjustment of 45 degrees to the left is provided by another hand wheel operating a worm and segment gear with positive locking for all positions. A graduated arc and pointer indicate the angle.

The Bevel Ripping Gauge has quick rack and pinion adjustment for accurate

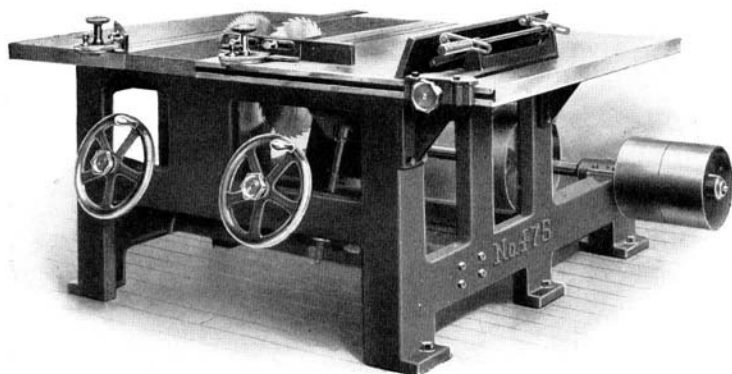
setting, also endwise movement, and can be used on either side of the saw. Its guide bracket provides rigid center support for the gauge and permits setting it at an angle with the line of the saw. The slide cut-off gauges adjust to 80 degrees in either direction and are supplied with hardwood extensions.

A Mortising and Boring Attachment can be added and is suitable for a moderate amount of light work.

The Range is for cutting 4-inch thick stock with a 16-inch saw, although it has capacity for a 20-inch blade. The maximum ripping width is 24 inches to the right of the saw and 16 to the left.

The Equipment includes the gauges shown, two filling strips, a clearance block for the ripping gauge, a 14 or 16-inch cut-off saw and a set of wrenches. A plain ripping gauge can be supplied extra or substituted for the bevel gauge, and a saw guard can be included if specified. The countershaft for belt drive has 10x5½-inch tight and loose pulleys and an 18x5¼-inch drive pulley.

No.	Style	Code
493-M	With Built-in Motor	PATRIOT
493	With Arbor Pulley and Countershaft	PATROON
493-X	With Arbor Pulley but no Countershaft	PATTEN
	Mortising and Boring Attachment, extra	PATTY
	Top Safety Saw Guard, extra	



No. 475 Cabinetmakers' Double Saw Bench

THE above machine is designed to meet the requirements of cabinetmakers and general woodworkers for ripping, cross-cutting, mitering, beveling, squaring, plowing, dadoing and similar operations. It is of very rigid construction and is complete in all the details necessary for accurately handling a wide variety of work.

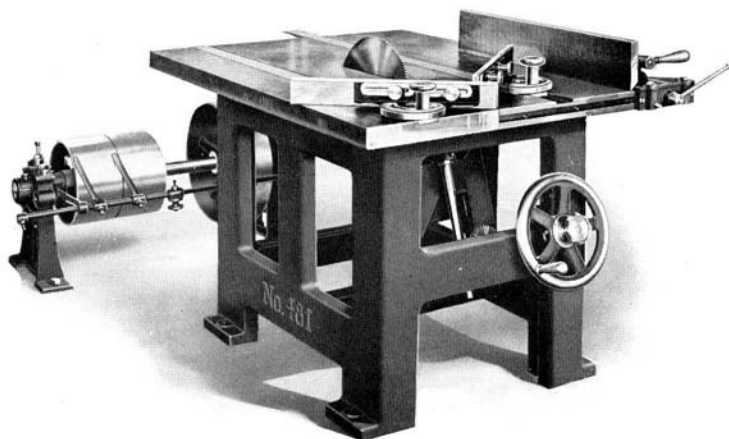
The Saw Arbors are mounted in large adjustable bearings on carriages gibbed to inclined ways rigidly supported by the frame. They have quick screw adjustment through spiral gears from the hand wheels at the front of the machine.

The Table is 50x63 inches on the standard machine and 50x75 inches on the No. 475-B. It is accurately fitted to the frame and has a hardwood section around the saws to allow them to work with the smallest possible openings.

The Range of the standard machine is for 18-inch saws as a maximum, which gives a projection of 5 inches. It will rip 30-inch widths. The No. 475-B will handle saws as large as 24-inch with a projection of 7½ inches, and the ripping width is 42 inches.

The Drive is from the attached countershaft which has 12x6-inch tight and loose pulleys. When motor driven, the countershaft and extended brackets are omitted, and a separate floor shaft with motor coupling furnished. A 7½ H. P. motor is usual for the No. 475 and a 10 H. P. for the No. 475-B.

No.	Saw Range	Table Size	Wt. in Lbs.	Code
475	18"	50" x 63"	2300	PARABCLA
475-B	24"	50" x 75"	2500	PARACHUTE



No. 481 Single Arbor Cabinet Saw Bench

WHEN a double arbor bench or tilting table machine is not demanded, this saw is a most suitable type for cabinet and general woodworking shops. It is designed for accurately handling such operations as square or bevel ripping, cross cutting, mitering, dadoing, etc., and will operate heads for facing or hand matching.

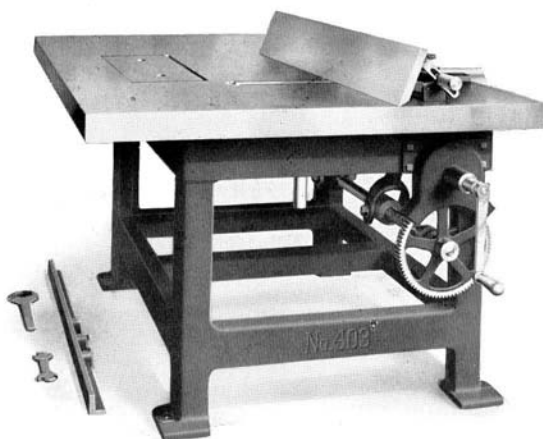
The Saw Arbor Yoke is gibbed to inclined ways strongly braced within the frame. It has long bearings on the ways and is adjusted by means of a spiral gear device operated by the hand wheel.

The Table is regularly made 47x50 inches. It has no cross grooves to interfere with the work, and the cut-off slides can remain in their grooves when the gauges are detached. A hardwood section is fitted around the saw.

The Range is for saws from 14 to 18-inch diameter, for cutting stock up to 5-inch thickness and 32 inches between the saw and gauge. The gauges can be quickly adjusted, and the cut-off gauges have extension faces to support work close to the cutting line.

The Countershaft is separate from the machine and has the shifter rod extended to a pedal at the front. The countershaft is omitted when motor driven. A 5 H. P. motor is suitable.

No.	Wt. in Lbs.	Code
481 with Countershaft	1775	PARAMAN
481 without Countershaft	1500	PARATON



No. 403

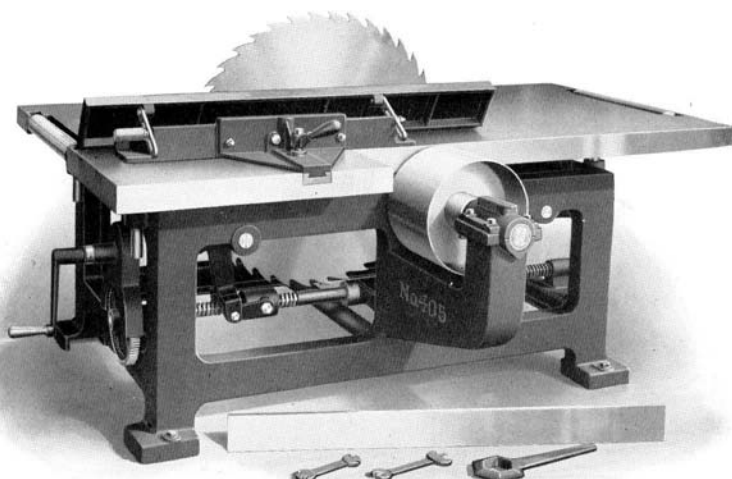
Plain Rip Saw Benches—24 and 30-inch

THESE All-iron Rip Saw Benches will appeal in character and price to every user who is interested in better and more efficient equipment. The frames are of heavy ribbed sections with planed joints securely bolted to provide a strong and rigid foundation. The saw arbors run in long self-oiling bearings and the No. 404 has a third bearing outside the pulley.

The Iron Table is 44x66 inches for the No. 403 and 44x72 inches for the No. 404. Both have 6-inch vertical adjustment by geared screw parallel raising device and they rip 27 inches between the saw and the gauge. Saw projections of over 8 and 11 inches can be had with 24 and 30-inch blades.

Regular Equipment includes a bevel ripping gauge, 2-inch wide set of arbor collars, wrenches, and a 24-inch saw blade for the No. 403 or a 30-inch for the No. 404.

No.	Wt. in Lbs.	Code
403 without countershaft	1450	PANDERER
403 with countershaft	1775	PANELING
404 without countershaft	1650	PANACEA
404 with countershaft	2050	PANDEMON
Planed groove in table with adjustable slide cut-off gauge, extra Top Safety Saw Guard, extra		



No. 405 36-inch Heavy Rip Saw Bench

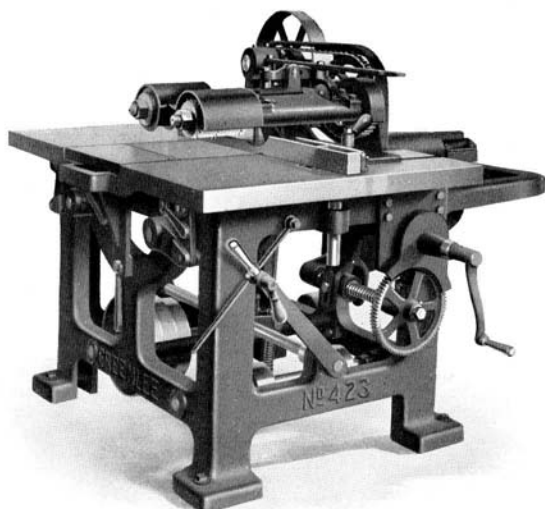
OUR Heavy Thirty-six Inch Saw Bench is designed with capacity for ripping heavy timbers as well as for cutting lighter stock and planking. It is rigidly constructed and is proportioned to best meet all conditions of hand feed sawing.

The Saw Arbor runs in three self-oiling bearings to properly distribute the belt and cutting strains. It has a 4-inch set of filling collars to permit the use of cutter heads and is regularly reduced to 1½ inches for the saw.

The Iron Table is 52x82 inches and has 8-inch vertical adjustment by a geared screw parallel raising device. It will rip 24-inch widths between the saw and the gauge and cut 14-inch thick timbers with a 36-inch blade. A 28-inch saw projects about 2 inches with the table at its highest point.

The Equipment includes a bevel ripping gauge, a plain square gauge, a 36-inch or a smaller saw blade, 4-inch set of arbor collars and set of wrenches.

No.	Wt. in Lbs.	Code
405 without countershaft	2750	PARIS
405 with countershaft	3250	PARISIAN
Top Safety Saw Guard, extra		



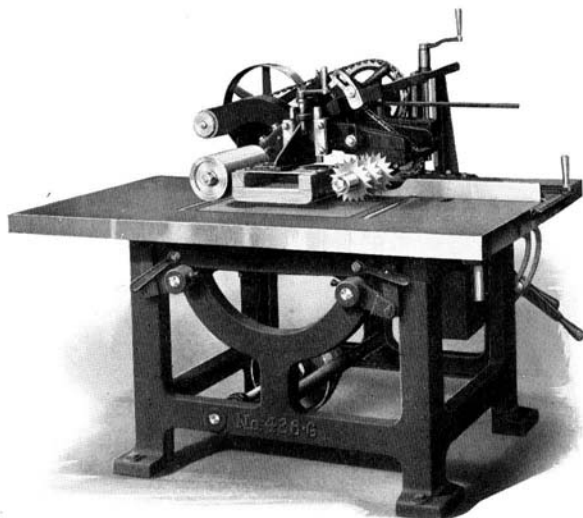
No. 423 Small Saw Gang Ripper

GANG Ripping of crating, box cleats, mouldings, furring strips and other light or medium material handled in quantity, is performed most economically with this improved machine. Very small diameter and thin gauge saw blades are used so that the least power is required and lumber waste is reduced to the minimum.

The Range is for 8, 10 or 12-inch saws used in gang up to 6-inch wide. 10-inch saws are regular and have 3-inch maximum projection. The table adjusts 4-inches vertically and the gauge will set back 4 inches from the fixed arbor collar. The arbor has a 6-inch set of graduated spacing collars and its pulley is 6-inch diameter by 10-inch face. A 3600 R. P. M. motor supported by an attached bracket may couple directly to the saw arbor.

The Feed Spindles are on close centers for handling extra short pieces and the control levers may be at the front or side of machine as specified. Three feeding speeds are provided and the feed mechanism is completely guarded.

No.	Wt. in Lbs.	Code
423 without countershaft	1800	PABULET
423 with countershaft	2200	PABULUM
Attached Motor Bracket and Coupling, extra		



No. 426-G Self Feed Gang Rip Saw

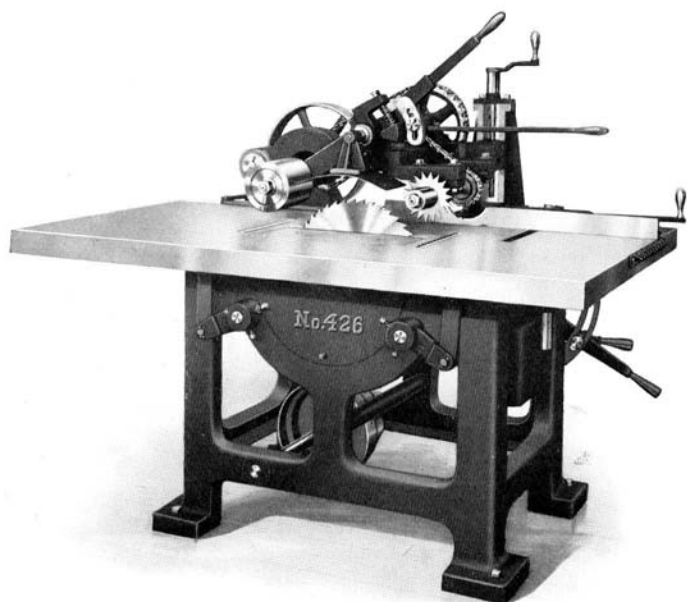
THIS Self Feed Saw is a general purpose machine for gang work or for use as a single rip saw. It is regularly built with geared screw table raising device but can be furnished with the lever adjustment as shown above if so specified.

The Feed Mechanism is carried entirely from the machine frame which eliminates a separate adjustment when the table is raised or lowered. Extra heavy chain drive is used and guards are provided for chains, sprockets and feed spurs. A pressure block hold-down attachment is furnished to permit the ripping of very short stock. It also eliminates all danger from kick-backs. Three speeds of feed are provided.

The Table is 40x63 inches and has 4-inch vertical adjustment. It has friction rolls and a quick acting gauge with index.

The Range is for ripping boards or plank with an 8-inch wide gang of saws usually 14 to 18-inch diameter, and to work 15-inch widths to the inner or 23-inch to the outer saw position. A 20-inch saw can be used alone and has a 6-inch projection.

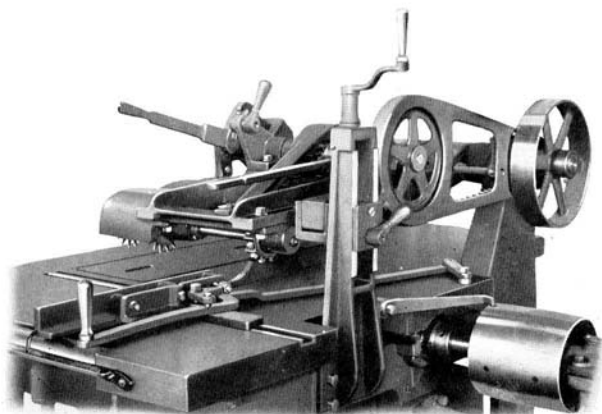
No.	Wt. in Lbs.	Code
426-G without countershaft	2050	PAGEHOOD
426-G with countershaft	2450	PAGERY



No. 426 Self Feed Rip Saw

OUR No. 426 Rip Saw is intended for miscellaneous ripping on stock up to 2 or 3 inches in thickness, although it will handle 6-inch material with a 20-inch blade. It is rigidly constructed and has a fast and powerful feed with special features which make for convenience and durability. The arbor can be extended beyond the standard length, but when saws in wider than 4-inch gang are required, our No. 426-G machine is recommended.

The **Feed Mechanism** is carried from the machine frame and can be swung back to permit hand ripping. The spindle bearings are adjustable to take up slack in the chains and a convenient lever controls a clutch for instantly starting or stopping the feed. Three-step cone pulleys give feeding speeds ranging from 68 to 165 feet per minute with the arbor running 2100 R. P. M. All parts are fully guarded as shown on the following page and this is typical of all our self-feeders.



Feed Works with Guards in Position

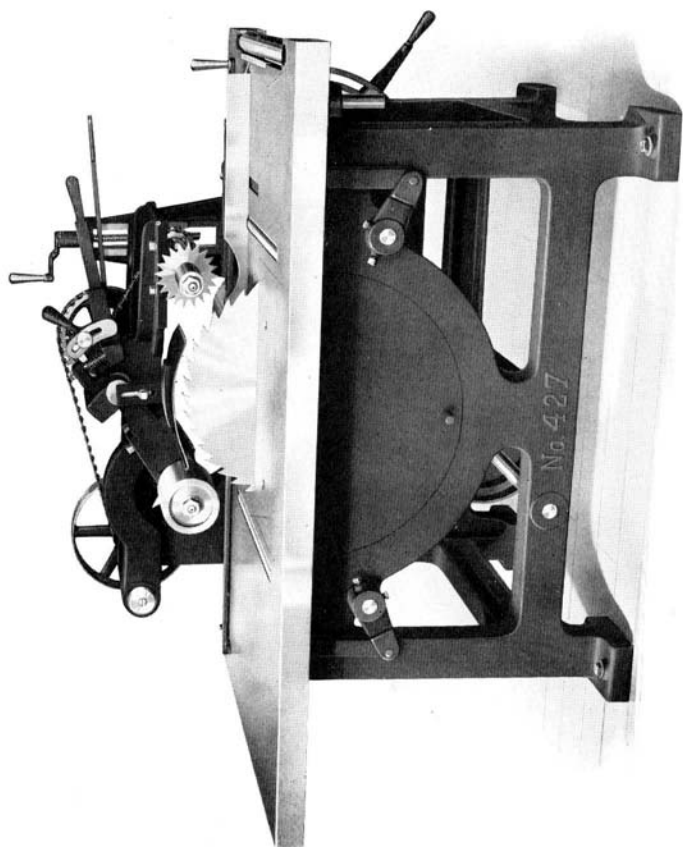
The Iron Table is 40x63 inches overall and has a removable plate at the saw opening for using heads or a gang of saws. Friction rolls are inserted in front and rear of this opening and a quick adjusting lever gauge with an index is furnished. Vertical adjustment of 4 inches is had by our lever raising device which locks rigidly in any position.

The Range is for a 20-inch saw, ripping stock up to 6 inches thick and working 15 inches between the gauge and the saw at the fixed arbor collar or 18 inches when outside the regular 3-inch set of filling collars.

The Equipment includes spacing collars, feed spur, outfeed roll, wrenches, and guards over the feed spur, sprockets and driving chains. An adjustable pressure block hold-down attachment for extremely short stock can be added at extra cost.

When Belt Driven, we furnish a separate countershaft having 24x7½-inch driving and 12x8½-inch tight and loose pulleys. When motor driven, no countershaft is necessary and we recommend belting direct to the 8-inch diameter arbor pulley. A 10 or 15 H. P. motor is usual for average requirements.

No.	Wt. in Lbs.	Code
426 without countershaft	2125	PAGINAL
426 with countershaft	2500	PAGODA
Adjustable Pressure Block Hold-down Attachment, extra		



No. 427 Self Feed Rip Saw



No. 427 Self Feed Rip Saw

THE general design of this machine closely follows that of the No. 426, but it has capacity for a 24-inch saw and is intended for heavier requirements. Every useful detail is embodied in the design and its rigid construction and fast and powerful feed adapts it to all classes of work within its range.

The Feed Mechanism is carried from the machine frame so that no adjustment is necessary when the table is raised or lowered for different thicknesses of stock. It can also be swung back to permit hand ripping. The spindle bearings are adjustable to take up slack in the steel chains and a convenient lever controls a clutch for instantly starting or stopping the feed. Three-step cone pulleys give feeding speeds ranging from 65 to 160 feet per minute with the saw arbor running 1750 R. P. M. All parts are fully guarded as shown by the cut of the No. 426.

The Iron Table is 44x69 inches overall and has a removable plate at the saw opening for using heads or a gang of saws. Friction rolls are inserted in front and rear of this opening and a quick adjusting lever gauge with an index is furnished. Vertical adjustment of 4 inches is had by our lever raising device which locks rigidly in any position.

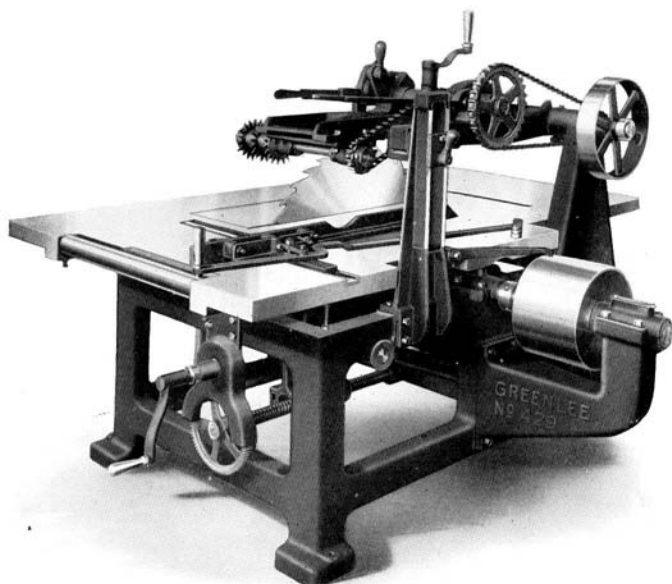
The Range is for a 24-inch saw, ripping stock up to 7 or 8 inches thick and working 16 inches between the saw at the fixed arbor collar or 20 inches when outside the regular 4-inch set of filling collars. A 6-inch long arbor can be furnished extra.

The Equipment includes one feed spur, smooth outfeed roll having spring pressure, 4-inch set of arbor spacing collars and feed spindle collars to correspond, wrenches and guards. Corrugated or sectional rolls with a spreader disc will be furnished in place of smooth outfeed roll if specified. Saw blades are extra.

When Belt Driven, a separate countershaft is furnished having 26x8½-inch driving and 12x8½-inch tight and loose pulleys. When motor driven, we recommend belting direct to the 8-inch diameter arbor pulley. When the speed is suitable, we can furnish an attached motor bracket and flexible coupling for direct connection. A 15 or 20 H. P. motor is usual for average requirements.

No.	Wt. in Lbs.	Code
427 without countershaft	2950	PAINTING
427 with countershaft	3350	PAINTPTOT

Adjustable Pressure Block Hold-down Attachment, extra
Attached Motor Bracket and Flexible Coupling, extra



No. 429 Heavy Self Feed Rip Saw

THIS type is recommended for Railway Car Shops as a general purpose Rip Saw. It has the required capacity for heavy timbers and is also well suited to the lighter miscellaneous ripping work handled. Less labor is required, faster ripping is done and the accidents usual with hand feed machines are avoided.

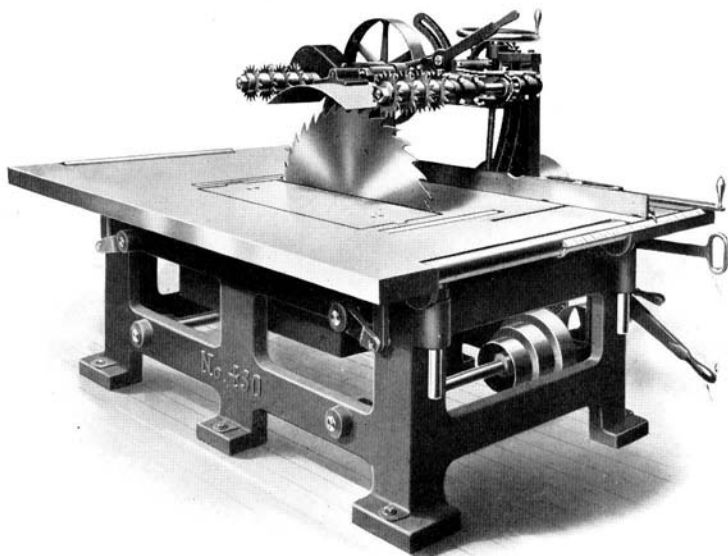
The Feed Works is carried from the main frame and can be thrown back to permit hand ripping. A lever instantly starts or stops the feed and all parts are fully guarded.

The Table is 48x81 inches and adjusts 8 inches vertically. A 32-inch saw is ordinarily used and has 12-inch cutting range. A 36-inch saw projects 14 inches. The gauge adjusts for 24-inch widths. The arbor is 1 $\frac{5}{8}$ -inch and has a 12x8 $\frac{1}{2}$ -inch pulley. Belted motor drive is usual but motor can be coupled direct.

No.	
429	without countershaft
429	with countershaft

Wt. in Lbs.
3500
3950

Code
PALLID
PALLIATE



No. 430 Extra Heavy Self Feed Rip Saw

OUR largest standard Self Feed Rip Saw here shown is a type unequalled for heavy timber ripping. It operates 36-inch saws cutting 14-inch timbers under the usual power feed and its details are proportioned suitably for this severe service. Geared screw table adjustment is now regularly furnished instead of the lever device shown, and metal covers guard the feed works.

The Feed Spindles are driven by heavy sprocket chains whose tension is maintained by adjustable bearings. Three feeding speeds are provided and a convenient lever instantly stops the feed in an emergency.

The Table is 53x84 inches overall and has 8-inch vertical adjustment. The quick acting gauge adjusts for 24-inch widths. The arbor is 1 $\frac{5}{8$ -inch diameter and has a 14x10 $\frac{1}{2}$ -inch pulley.

No.	
430 without countershaft	
430 with countershaft	

Wt. in Lbs.

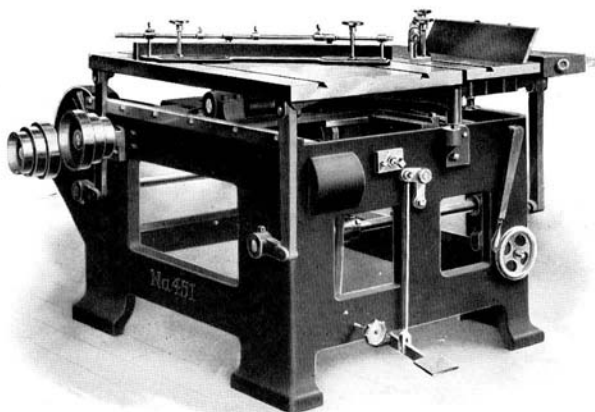
4700

5200

Code

PAMPER

PAMPHLET



No. 451 Automatic Saw and Dado Machine

THIS machine applies the principle of our Automatic Cut-off Saws to the general operations of splitting, beveling, cross-cutting, mitering, plowing and dadoing for frame, cabinet or similar work. It has ample range and power for the heaviest of such work, and is fast, accurate and exceptionally convenient.

The Saw Carriage is reciprocated in gibbed ways by means of an acme thread lead screw operated through mitre frictions and is controlled by foot lever and automatic stops.

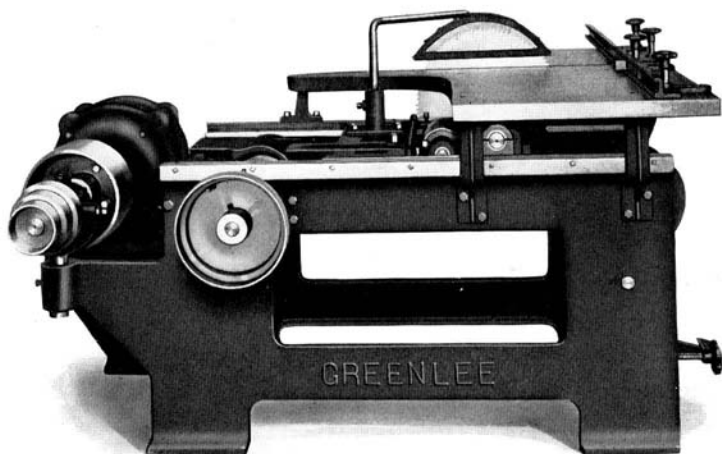
The Table consists of two sections, is regularly 46-inches square and has 2½-inch vertical adjustment for dado work. The right hand section has outward adjustment by lever to provide a wide opening for access to the arbor. It is equipped with our improved straight and bevel ripping gauge, and two universal adjustable cut-off gauges having stop rods and drop finger stops.

The Range is for a 16-inch saw projecting over 4 inches and making a stroke up to 22 inches. Cutter heads of 9, 10, or 12-inch diameter and widths up to 2 inches are the sizes commonly used.

The Equipment includes the gauges shown, full set of stops, collars, wrenches and either tight and loose pulleys, or a flexible motor coupling on the countershaft.

No.	Floor Space	Wt. in Lbs.	Code
451	5' x 6'	1925	PINNACE

Wire Mesh Top Safety Saw Guard, extra



No. 452 Automatic Cut-off Machine

THE design of this 16-inch Cut-off Machine closely follows that of the No. 453 shown on the following page, but it does not have as great a capacity and is intended for lighter work. It is especially suited to the requirements of sash and door factories, furniture plants, box factories, etc., or for the cutting of any miscellaneous stock within its range.

The General Design embodies a stationary timber table, a reciprocating saw carriage operated by power, convenient foot lever feed control, and variable cutting speeds. An acme thread lead screw operated by mitre frictions provides a uniform feed and a quick return. Adjustable stops regulate the length of stroke.

The Table extends on both sides of the saw, has a guard below, and is fitted with convenient gauges for holding the stock.

The Range is for a 16-inch blade cutting 1x20 to 4x15-inch stock. It is most suitable for 1 to 2-inch material regularly, and for occasional requirements on 3 or 4-inch stock.

The Equipment includes the gauges, set of stroke regulating stops, wrenches and the attached countershaft fitted with tight and loose pulleys, or a flexible motor coupling. At extra cost, a motor bracket cast integrally with the frame can be supplied.

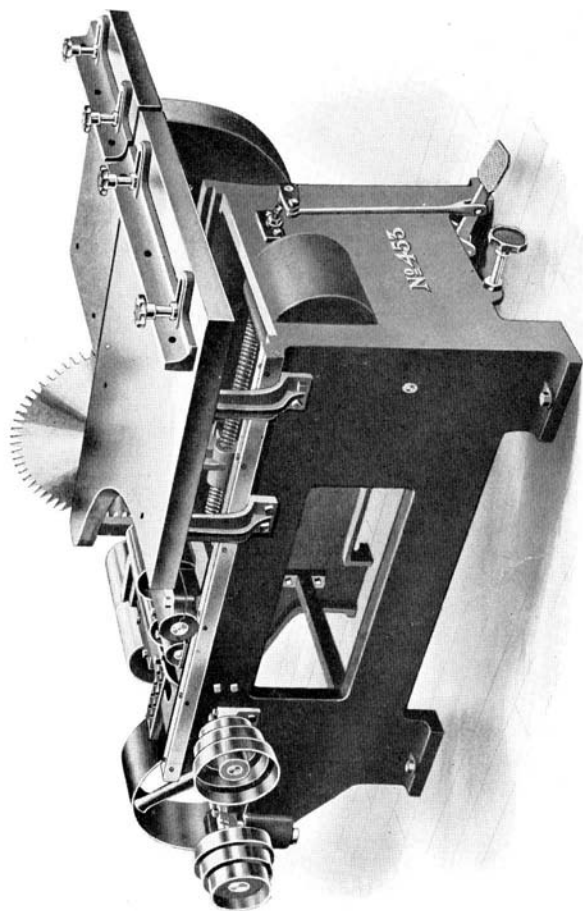
No.
452

Floor Space
4' x 5' 8"

Wt. in Lbs.
1350

Code
PINAFORE

Traveling Safety Saw Guard, extra



No. 453 Automatic Cut-off Machine



No. 453 Automatic Cut-off Machine

THIS Automatic Saw is designed for the accurate cutting of light or medium heavy stock, heavy planking, or small dimension pieces. It is used extensively in planing mills, wagon and implement shops, furniture factories and also for the lighter work in car shops and shipyards.

The General Design embodies a stationary timber table, a reciprocating saw carriage operated by power, convenient foot lever feed control, and variable cutting speeds.

The Saw Carriage moves in long gibbed ways on the machine frame. The saw arbor is mounted in double self-oiling boxes and is belted from the attached rear countershaft in such a manner as to insure uniform tension and power at all points in the stroke.

The Table extends on both sides of the saw and has a heavy saw guard underneath. Regular or special gauges can be located at the front or rear. On narrow stock, the saw can be set to make a short stroke from the gauge in either position.

The Automatic Feed consists of mitre frictions and an acme thread screw engaging a floating bronze nut on the saw carriage. It is driven from the countershaft by cone pulleys for the forward feeds and by separate pulleys for the return stroke. This arrangement provides a very rapid return which is cushioned by an air cylinder and the feed is under the control of the foot lever. Adjustable stops regulate the length of the stroke.

The Range is for a 24-inch saw blade projecting $7\frac{3}{4}$ inches above the table, although it is intended chiefly for cutting hardwood stock up to 4 inches thick. A 25-inch stroke will cut stock from 1x24 to $7\frac{1}{2}$ x16-inch sizes.

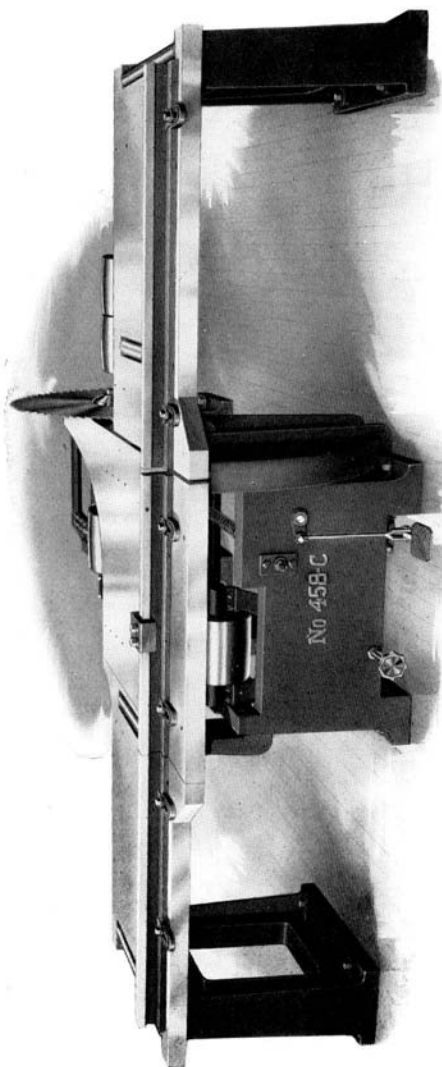
The Countershaft is attached at the rear of the machine and has 10x8 $\frac{1}{2}$ -inch tight and loose pulleys to run about 600 R. P. M. for a 24-inch saw.

When Motor Driven, a flexible coupling is furnished in place of the tight and loose pulleys for direct connection to a 10 H. P. motor for usual requirements, or to a $7\frac{1}{2}$ H. P. if used with 16 or 18-inch saws. Motor speed, 1200 R. P. M. or less. At extra charge, a motor base can be cast integrally with the frame.

The Equipment regularly includes the gauges, set of stroke regulating stops, wrenches and the attached countershaft.

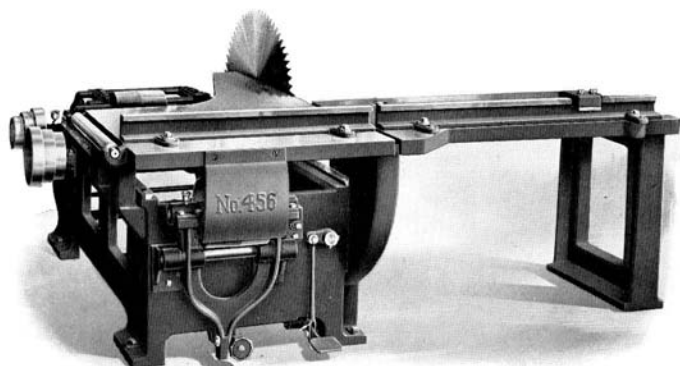
No.	Floor Space	Wt. in Lbs.	Code
453	4 8" x 6' 9"	2000	PILLORY

Traveling Safety Saw Guard, extra



No. 458-C Automatic Cut-off Machine with 10½-ft. Table

Also Built with 4 and 7½-ft. Table



No. 456 with 7½-ft. Table

No. 456 and No. 458 Automatic Cut-off Machines

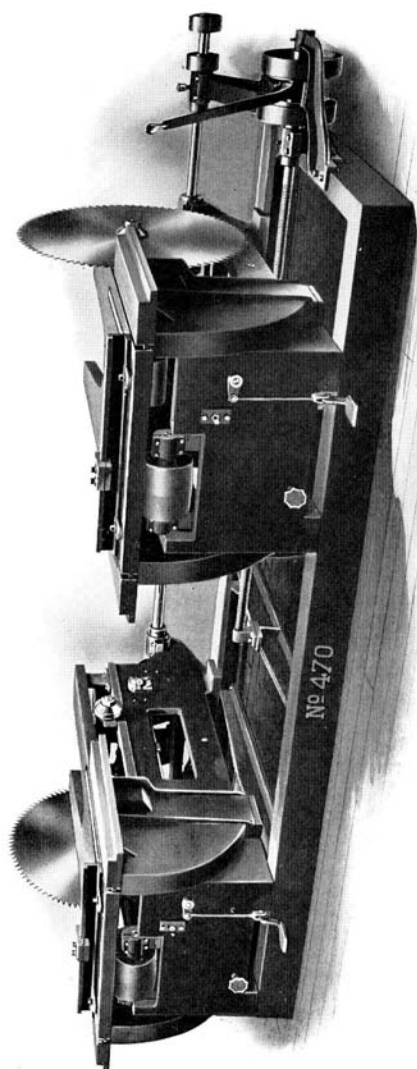
THE design of these heavy Cut-off Machines closely follows that of our No. 453, but their greater size and saw capacity adapts them to such medium and heavy cutting as occurs in Railway Car Shops, Shipyards, etc. The No. 456 has a maximum stroke of 32 inches, capacity for a 36-inch blade and will cut material up to 12x16-inch. The No. 458 has a maximum stroke of 34 inches and will cut material up to 14x14-inch with a 40-inch blade, 16x15-inch with a 44-inch blade and 16x16-inch with a 46-inch blade. Either machine can be motor driven by direct connecting to the attached countershaft with a flexible coupling.

The Automatic Feed is operated through mitre frictions and an acme thread lead screw. The operator has absolute control of the saw movement as it can be started, stopped or varied in speed by the foot lever. Cone pulleys provide three rates of feed and the rapid return stroke is cushioned by an air cylinder. The length of stroke is regulated by adjustable stops.

No.	Table Length	Floor Space	Wt. in Lbs.	Code
456	7' 6"	7' 6" x 7'	3000	PIKEPOLE
456-A	4'	5' x 7'	2600	PIKEMAN
456-C	10' 6"	10' 6" x 7'	3450	PIKESTAFF
458	7' 6"	7' 6" x 8'	3350	PIERSHAFT
458-A	4'	5' 10" x 8'	2850	PIERGLASS
458-C	10' 6"	10' 6" x 8'	3850	PIERTABLE

Adjustable Wire Mesh Top Safety Saw Guard, extra

Complete descriptive circular will be sent upon request



No. 470 Double Cut-off Machine



No. 469 and No. 470 Double Cut-off Machines

OUR Double Automatic Cut-off Machines are especially suited for car shop or other work where timber or planking is cut in quantity. This type of machine has two saw frames, one stationary and the other adjustable, and both are mounted on a heavy bed plate. The advantage lies in cutting both ends at once with absolute accuracy and at one handling. Heavy timbers can be cut singly, and flooring, roofing and siding cut in piles.

The **Timber Tables** are so arranged that the saws may be used on the inner ends of the saw arbors for cutting short pieces, or at the outside ends for cutting long stock. Supporting tables arranged for wooden false plates are fitted beyond the line of the saw travel on both sides of each frame. The gauges may be placed either at the front or rear.

The **Adjustment** of the movable frame is by a power driven reversible screw in the base, and under control of a hand lever at the end of the bed. This gives rapid and accurate adjustment for cutting any length of stock.

The **Saw Carriage** of each frame is mounted in gibbed ways and fed by a power mechanism under perfect control of a foot lever. The mechanism consists of mitre frictions and a large acme thread screw providing ample power for the heaviest cuts. The three feeding speeds are suitable for light, medium and heavy work. An air cylinder cushions the rapid return stroke.

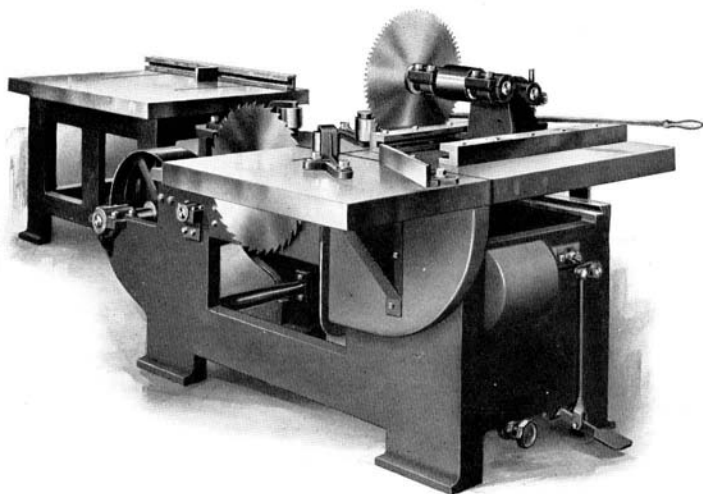
The **Range** is for cutting from 14-inch to 12 foot lengths. The No. 469 machine takes 36-inch saws, cutting over 12 inches thick and making a 32-inch stroke. The No. 470 machine will cut 16 inches thick with 44-inch saws, but 40-inch saws are usual and cut 14-inch timbers. The maximum stroke is 33 inches. For lighter requirements we can furnish a machine of similar design but with capacity for 24-inch saws.

The **Drive** is from the attached countershaft which is fitted with tight and loose pulleys or a flexible coupling for direct motor connection.

The **Equipment** includes a full set of gauges, stroke and layout stops, two saw blades and necessary wrenches. Safety saw guards are furnished only when specified.

No.	Saw Capacity	Wt. in Lbs.	Code
469	36"	7800	PICKEREL
470	44" (40" are usual)	8500	PICKAXE

Adjustable Wire Mesh Top Safety Saw Guards, extra



No. 474 Automatic Car Brace Cutter

OUR Automatic Car Brace Cutter has effected great saving in both time and lumber in cutting braces for box cars. The essential feature consists in the mounting of one saw in a carriage reciprocated by automatic power feed under control of a foot lever, and of another saw in a top sliding frame fed by a hand lever. A lay-out table is furnished for location at a suitable distance from the main machine and is fitted with a movable gauge having an adjustable stop. The forming of a brace is done by cutting the long line of the angle by the automatic saw and trimming off the toe by the auxiliary saw above.

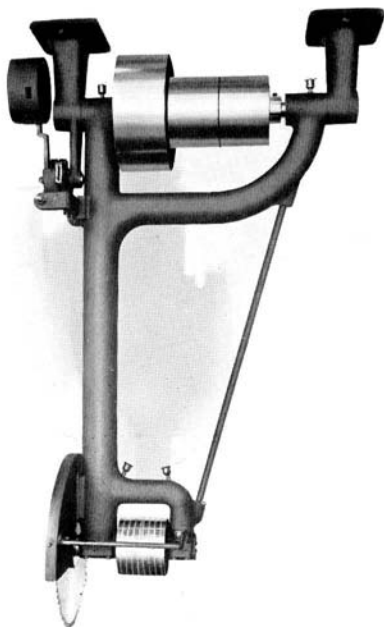
The Range of the machine is for a 24-inch saw cutting 6 inches thick on the power feed carriage and an 18-inch saw cutting 6 inches thick on the lever feed carriage.

When Motor Driven, the overhead countershaft is usually omitted and one motor coupled to the countershaft on the machine and another mounted on the machine to drive the top saw.

The Equipment includes one 24-inch and one 18-inch saw, complete set of gauges, rolls, guides, stops and wrenches.

No.	Floor Space	Wt. in Lbs.	Code
474	About 6½' x 11' for maximum	3200	PICKTOOTH

Complete descriptive circular will be sent upon request



No. 445 Heavy Belt Driven Swing Saw

THE design of this Heavy Swing Cut-off Saw adapts it to any class of shop for cutting heavy timbers or hard wood planking. Car shops, saw mills and implement factories have a large amount of work that can be handled to advantage with this machine.

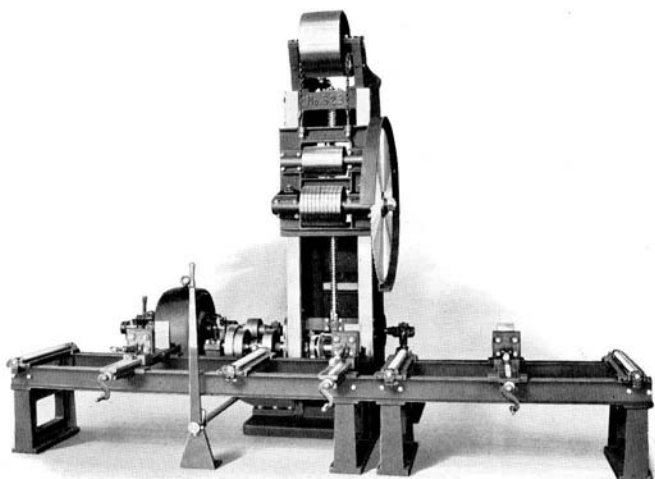
The Construction is very rigid and all parts are carefully fitted for accurate cutting. The frame is a cored casting of ample weight and strength for the most severe requirements. It has a saw guard, a handle for operating and is fitted with an improved counterbalance to return it to the original position. The saw arbor is $1\frac{15}{16}$ inches in diameter and is located 6 feet $2\frac{1}{2}$ inches from the center line of the drive shaft. The arbor pulley is 8 or 10-inch diameter to suit the saw size, the drive pulley $20 \times 8\frac{1}{2}$, and the tight and loose pulleys $12 \times 8\frac{1}{2}$ -inch. Saw blades from 24 to 40-inch diameter can be operated.

No.
445

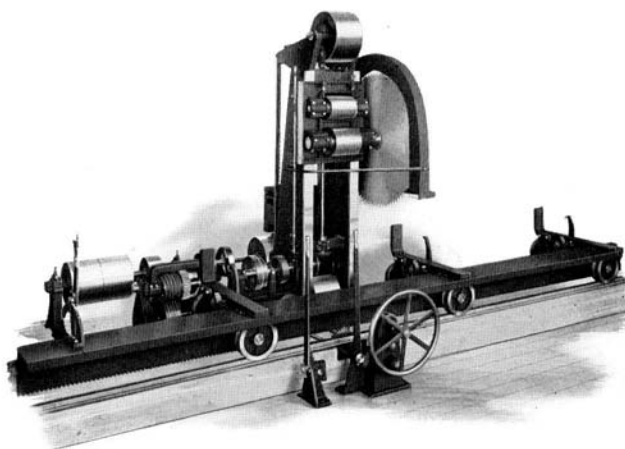
Capacity
40"

Wt. in Lbs.
1500

Code
PHOSGENE



No. 523

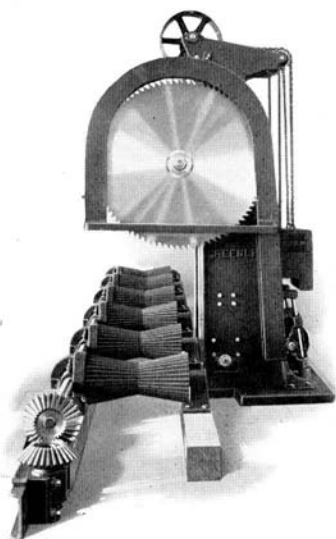


No. 523-P



No. 523 Vertical Automatic Saws or Gainers

THIS heavy pattern Vertical Automatic Saw is designed for cross cutting or gaining the largest square timbers or ordinary logs. As shown with a fixed table, it is suitable for use in railway car shops or timber mills, but with a traveling carriage or a set of live log rolls it is adapted for saw mills or timber framing plants and is most efficient for such work.



No. 523-W and Power Feed Log Roll

The Saw Carriage is gibbed to the face of the frame and travels smoothly under power feed. It has four speeds for the cutting stroke and two for the reverse. While automatic, it is under perfect control and can be started, stopped or reversed at any point in its stroke.

Tables or Carriages can be furnished in various forms for this machine. The No. 523 regularly has a 12-foot stationary steel table, but this type can be furnished in any length. The No. 523-P is arranged for a power feed traveling carriage as shown on the opposite page, or for such types as are used on our Borers, Mortisers, etc. The No. 523-W is intended for use with live or idle timber rolls and we are prepared to

furnish these to suit requirements. They can be built in any practical length and roll spacing.

The Range is for saws up to 48 inches in diameter, making a 45-inch stroke and cutting 18-inch timbers or logs. A 40-inch saw will handle 14-inch timbers. For gaining, it will operate the largest size of head and take cuts up to 6 inches wide.

No.	Style	Code
523	With 12-ft. Stationary Table	NULLIFIER
523-P	Arranged for Power Feed Table	NULLIZE
523-W	Suitable for Live or Idle Timber Rolls	NULLED