SAW MILL
AND WOODWORKING
MACHINERY

CATALOG
No. 35

AMERICAN
SAW MILL MACHINERY CO.
HACKETTSTOWN, N.J.

Important Notice

A Right Hand Mill has the saw at the sawyer's right and runs toward him.

A Left Hand Mill has the saw at the sawyer's left and runs toward him.

We always ship a Right Hand Mill unless a Left Hand Mill is specified in the order.

When you order, or Write for Prices, state what Kind and how much power you have. Give diameter and Speed of driving pulley on your engine. State what Kind of timber you will cut, Diameter and Length of largest logs, and how much lumber per day you wish to make.

We Reserve the Right to change the details of designs and construction of any of our mills or other machines at any time when, in our judgment, it will improve them or add to their efficiency.

AMERICAN SAW MILL MACHINERY CO.

Printed in U. S. A.

GENERAL CATALOG No. 35

Saw Mills and Woodworking Machinery

EVERYTHING FOR THE SAW MILL

SAW MILL MACHINERY

Portable and Stationary Circular Saw Mills, all sizes; Edgers, Trimmers, Shingle, Lath and Stave Machines; Short Log and Bolting Saws; Log Hauls, Live Rolls, Log Turners, Drag Saws, Cut-off Saws, Excelsior Machines, Blowers, Conveyors, Shafting, Pulleys, Hangers and Gearing

WOODWORKING MACHINERY

Planers and Matchers, Surfacers, Jointers, Shapers, Tenoners, Band and Circular Resaws, Lathes, Band Saws, Boring Machines, Swing Saws, Saw Benches, Mortisers, Sanders

CONTRACTORS' MACHINERY

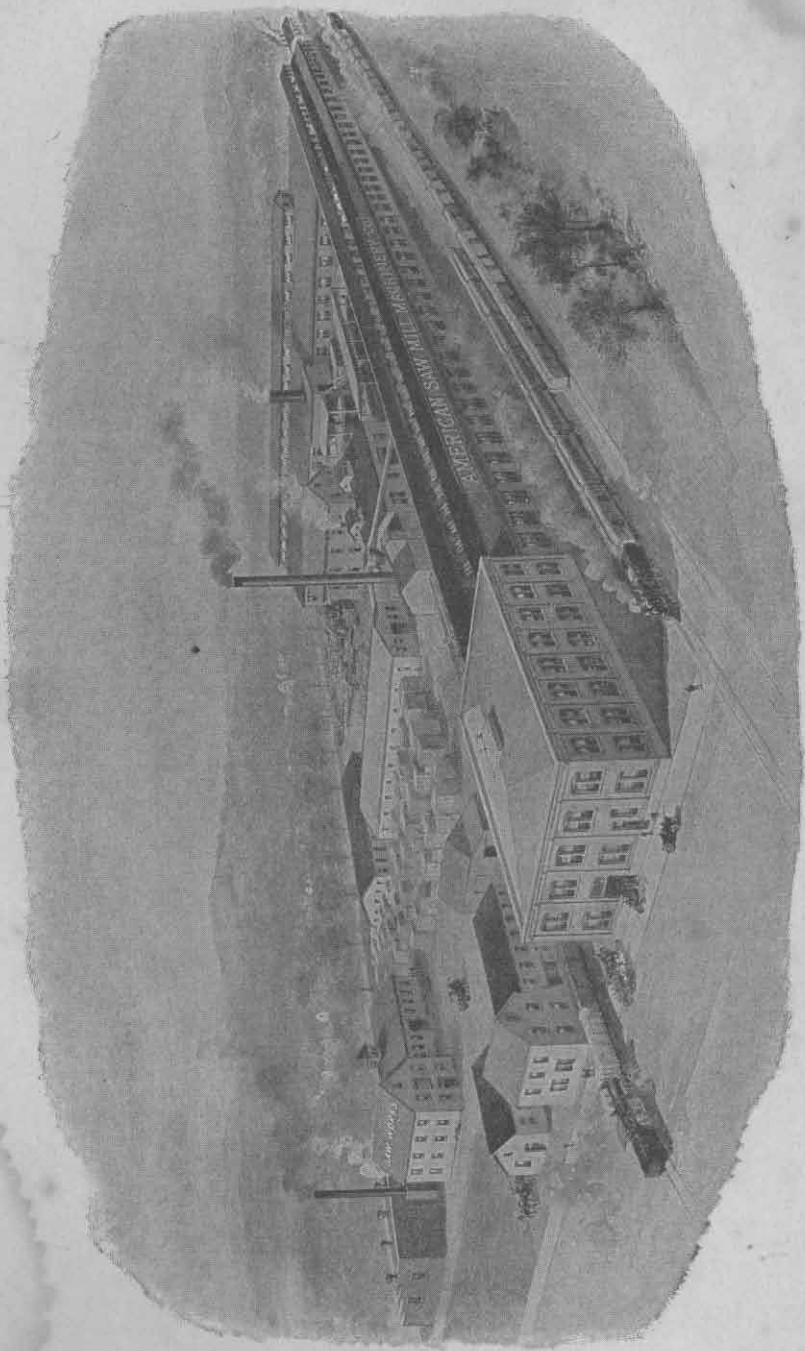
Contractors' Variety Woodworkers, Combined Rip and Cut-Off Saws and Hoists

MANUFACTURED BY THE

American Saw Mill Machinery Co.

HACKETTSTOWN, NEW JERSEY

New York Office: 50 Church St. Philadelphia Office: 134 North 3rd St.



WORKS OF THE AMERICAN SAW MILL MACHINERY CO.

Our Plant and Location

WE CALL the attention of our friends and patrons to the exceptional and unsurpassed advantages which our location affords and to the splendid manufacturing facilities which we possess.

THE CUT opposite shows our works at Hackettstown, N. J., 57 miles from New York City, on the main line of the "Lackawanna" R. R., right in the heart of the coal and iron region of the United States, thus placing our raw materials at our doors at lowest possible cost.

OUR PROPERTY comprises over eight acres, located within a few hundred feet of the freight station, with our own side track passing the doors of the main buildings, affording every facility for conveniently receiving our materials and shipping our product to all parts of the world. The low freight rates which we receive to all parts of the country, together with our nearness to the great seaports of New York, Boston, Philadelphia and Baltimore, put us in close touch with the markets of this country and the world.

OUR BUILDINGS, which are of modern factory design, are equipped in every department with the highest grade, latest improved electrically driven machinery and special appliances for rapidly and accurately manufacturing our product.

POWER is supplied from our own electric generating plant, centrally located near the main buildings of the plant.

THE EXPORT TRADE has been a special feature of our business for years, and is steadily increasing. Our long experience and intimate knowledge of this business enables us to supply machinery particularly designed and constructed to meet the demands of different countries and so pack our goods as to **reduce the cost of shipping** and comply with the customs requirements of every foreign government.

Then our nearness to the seaports enables us to deliver our machinery alongside vessel **quickly** at **very low cost** and in **perfect condition.**

OUR CUSTOMERS will readily understand that they receive the benefit of all these advantages in **Better Made Machinery at Reduced Cost** and **Prompt** and **Accurate Execution of Their Orders.**

DISTRIBUTORS

We have distributors in practically all large cities in the United States, thus further insuring prompt deliveries at lowest freight rates. Write for name of nearest distributor.

A Few Practical and Helpful Hints to Operators of Portable Saw Mills

Every Experienced Mill Man Knows that the most expensive thing to buy is a **Cheap Saw Mill.** Enough will be lost **in Time, Repairs and Bad Lumber** in a season to pay for a **Good American Mill.**

American Mills are made to **Make Money** as well as Lumber. They are simple, easy to understand and operate, and are strong and durable. Complete plans and instructions for setting up, starting and operating are sent with every mill, so that any intelligent man, whether experienced or not, can easily erect and operate his mill.

SIZE OF SAWS—With the Variable Feed Mill, any size saw can be used, according to the size of logs—regardless of the amount of power used. With a large saw, a large pulley must be used on the mandrel to reduce the speed to correspond with the size of the saw and the power. The diameter of the saw should be about one-and-two-thirds times the diameter of the largest log to be cut. A small engine can be made to run a large saw successfully by using a saw with few teeth and slow speed. **American Mill** saws are beveled one gauge from eye to rim, unless particularly ordered otherwise. This adds greatly to their strength and durability.

SPEED OF SAWS—Speeding Saws Too High is a very common mistake. Saw manufacturers, in their catalogues, give the greatest speed at which their saws may be operated with safety, based on the highest power the saws are supposed to stand. These speeds cannot properly be used for **Portable Mills** for the reason that often the power used is not sufficient to maintain such high speed and give results—they are given by the saw makers to show what the saw will stand, not what it is supposed to do in practical work. While speed is power— it's easy to consume all the power in speed without doing any work.

PORTABLE SAW MILLS operated with 10 H. P. or less should have saws with the teeth about 6″ apart and the rim speed of the saw should be about 4000′ per minute, a 48″ saw having a speed of 300 to 350 R. P. M. As the power is increased the speed may also be increased and the teeth of the saw closer together. For 15 H. P. rigs the speed of a 48″ saw should be about 400 R. P. M. and teeth of saw 5″ apart. With 20 to 25 H. P., speed 450 to 500 R. P. M. and teeth 4½″ to 5″ apart. With larger power the speed may be increased to 600 R. P. M. or even more, and the saw teeth 3½″ or 4″ apart. For saws larger or smaller than 48″ the speed should be increased or decreased proportionately.

PULLEYS—There are many engines which have standard Pulleys too small for operating a Saw Mill. We advise against using mandrel pulleys smaller than those regularly furnished with our mills. It is always better to increase the size of the engine pulley to secure proper speed than to reduce the size of the pulley on the mill.

Practical and Helpful Hints—continued

PROPER GAUGE OF SAWS—For portable mills, as a general rule, we recommend 8-gauge or 9-gauge saws. For larger power, where saws are run at high speed, or for cutting valuable hard woods, saws of thinner gauge may be used.

Cause of Trouble with Saws—If a saw is run at a faster or slower speed than that for which it is hammered, it is sure to give trouble. A saw hammered to run at say 500 R. P. M., if run at 350 to 400 R. P. M. in the cut, will be loose in the center and tight around the rim. This will cause it to run "snaking" or crooked in the log and **heat rapidly** in the center and consume a great deal of power.

On the other hand, if a saw that is hammered for slow speed—say 300 to 350 R. P. M.—is run at 500 R. P. M., it will "stretch" too much and be tight in center and loose and "wobbly" on the rim. This will cause it to heat on the rim and "flutter" and run crooked in the log and consume the power. These conditions, and giving the saw **too much lead** into the log, are the causes of three-fourths of the trouble experienced with mill saws on portable mills.

A saw will withstand a lot of hard work and abuse if it is properly tensioned for the speed at which it is to run and has the proper number of teeth. Do not pick up a saw at random, regardless of the number of teeth and speed, and expect good results.

Therefore, when buying a saw, **always** state the speed it is to be run when cutting, or give horse power of the engine, size of belt pulley on same, speed the engine runs, size of pulley on saw mandrel, and kind of timber to be cut, so the saw may be **hammered for proper speed** and be fitted with **proper number of teeth for the** speed and power used.

DIRECTIONS FOR RUNNING SAWS—It does not follow that because one saw will work well, another will do so on the same mandrel, or that two saws will hang alike on the same mandrel. It is necessary that the saw mandrel should be perfectly level, so that the saw will hang **exactly plumb**—be sure that it **does** hang properly.

In hanging a new saw, after screwing it up between the collars, examine carefully on the **log side,** and see if the saw is **flat.** If it is found to be **rounding** on the log side, cut a ring out of paper about half an inch wide, the size of the collar on the outside; oil it and stick it on the face of the tight collar around the outer edge. Then cut another ring of paper the same width, making the hole the same size as the hole in the saw; put this small ring between the loose collar and the saw, and screw up the collar. If the two rings are not enough, put in more, until the saw stands straight and true. If the saw hangs **dishing** on the log side, reverse the rings of paper; that is, put the small ring between the saw and the fast collar, and the large ring against the loose collar.

Never attempt to run a saw that is **dishing** on the log side, as it will be sure to draw toward the log and ruin the saw.

Practical and Helpful Hints—continued

If the saw heats in the **center** when the mandrel runs cool in the boxes, cool it off and give it a little more **"lead"** into the log.

If the saw heats on the **rim** and not in the center, cool it off and give it a little more **"lead"** out of the log.

The Track must be perfectly straight and level, so the carriage can run true, and the saw must be in proper line with the carriage.

HOW TO FILE AND KEEP IN ORDER CIRCULAR SAWS—It is not well to file all of the teeth of a saw from the same side, especially if the teeth are spring set, but file one-half of the teeth from each side of the saw, filing the teeth that are bent from you, so as to leave them on a slight bevel—leave the outer corners a little the longest.

Keep your saw round, so that each tooth will do its part of the work.

Saw teeth wear narrow at the extreme points; consequently they must be kept swaged so that they will be widest at the very points of the teeth; otherwise saws will not work successfully.

Teeth should be kept as near a uniform shape and distance apart as possible in order to keep a saw in balance and condition for good work.

Frosted steel is always brittle. No intelligent woodsman will use a good chopping axe on hard frozen timber until after he has taken the frost out of it, and no intelligent sawyer will attempt to set teeth of any saw without taking out the frost.

The greatest wear on the saw is on the under edges of the teeth. File nearly to an edge (but not quite), leaving a short bevel of 1/32 on the under side of the point. **But Never File to a Fine Point or Thin Wire Edge.**

Do nearly all the filing on the under side of the teeth; file square and have them project alike on both sides of the saw.

IN FILING SOLID-TOOTH CIRCULAR SAWS, keep the throats or gullets of the teeth **round,** as the saws are when new. Angles or square corners filed at the roots of the teeth will often cause a saw to crack. **The filing of such angles or square corners will cancel the maker's guarantee on any saw.** For this reason we advise saw filers to use a **round file** or a mill file **with one round edge.**

The back or top of the tooth leads or guides the saw and should be filed square across. The under side of the teeth may be filed a little beveled when they are spring set, so as to leave the outer corner of the cutting edge longest. On cross-cut saws, bevel the front of tooth one way, the next tooth the opposite way. File rip saws square in front.

Do not try the experiment of bending each alternate tooth for the set when using inserted-tooth saws.

Use a light hammer in swaging, about ¾ to 1 lb. weight, holding the swage so that the teeth will spread at the points. Swage

Practical and Helpful Hints—continued

out wide and then dress down to required width. Most cases of saws crumbling are caused by too delicate a swage being used, as the corners of tooth are not strong enough to stand the cutting strain.

Be sure to have a Side File for joining the teeth and keeping the points all the same length on each side of the saw.

INSERTED-TOOTH SAWS—Before beginning to insert the teeth, provide a cup of oil. Take a wrench, place the pins in the holes in the shank, and turn it so that the shank projects sufficiently to receive the tooth, pick up a tooth with the other hand and dip its grooved part in the oil; then place in position and hold it firmly and evenly with the sides of the blade, at the same time press the wrench downward until the shank fits into its place.

Inserted teeth are exact and uniform in width, and make smoother lumber than the solid saw, even when not in the hands of first-class sawyers. If extra nice work is desired, **joint all the teeth with a side file,** being careful to preserve the same relief of the corner. No flat surface should be allowed on the sides of the teeth; they must be relieved from the very point; then the saw will run straight, with the least possible power, and make smooth lumber. Practical use of the inserted teeth has proven that in order to get the most and best use of them, when a set has been inserted and properly adjusted, they should remain until they are worn out, and, as often as may be required, sharpen them by filing on their **under side with an inserted-tooth file.** After being sharpened several times, they should be relieved on the sides, so as to keep their points widest and sharp. Should a shank lose its tension from any cause so that it will not hold the bit firmly, lay it on an anvil and strike it with a hammer on the **inner** edge until expanded sufficiently to hold the bit.

Doyle's Rule to Find the Number of Feet in a Log—Subtract 4″ from the large diameter, multiply by one-half the remainder, multiply by the length of the log in feet, divide by 8; this gives the number of feet in any log, no matter what the length or diameter.

RULES FOR CALCULATING SIZE AND SPEED OF PULLEYS

To Find the Size of Driven Pulley—Multiply the diameter of the the driven by the number of its revolutions, and divide the product by the number of revolutions of the driver. The quotient will be the diameter of the driver.

To Find the Size of Driven Pulley—Multiply the diameter of the driver by the number of its revolutions and divide the product by the number of revolutions of the driven. The quotient will be the diameter of the driven.

To Find the Speed of Driven Pulley—Multiply the diameter of the driver by the number of its revolutions and divide by the diameter of driven. The quotient will be the number of revolutions of the driven.

General Description of Our Saw Mills

HUSKS AND CARRIAGES are made of best selected Southern yellow pine or hard wood, accurately mortised and tenoned, thoroughly braced and bolted together.

Carriages over 16 feet long, are made in sections for convenience in moving.

MANDRELS are made of the best grade of steel, **turned and ground** perfectly true. The lug pins are fitted in an improved manner so that they can be easily removed right at the mill should they become sheared off. **The Nut** is so made that the **threads cannot be stripped or bruised** and the saw can be easily removed without moving the guide. All mandrels are made to take saws with 2-inch holes and two 5/8-inch pin holes on 3-inch circle.

MANDREL BOXES are the well-known chain-oiling or Roller Bearing Type. The chain passes around the mandrel and down into an oil pocket, bringing up a continuous flow of oil which is returned again through suitable channels to the pocket, insuring clean and cool-running bearings. Mandrel Boxes of all Variable Friction and Variable Belt Feed Mills, except Nos. 1 and 2, are connected by heavy yoke. Convenient adjusting screws are provided for regular lead of saw.

SAW GUIDES are of improved design with large throat, can be used either right or left hand; adjustable while the saw is in motion, and can be easily thrown out of the way for removing or changing saws.

Our "Heacock" Variable Belt Feed has attained a well-deserved popularity and is preferred by many sawyers. It responds instantly to pressure on the feed lever, and may be varied from fast to slow or vice versa while the saw is in the cut. It also possesses the advantage of a very rapid gig-back. There are no frictions. Two belts, one for the feed and one for the gig-back, are driven in opposite directions, at different speeds, direct from the saw mandrel.

Our Variable Friction Feed is the simplest feed ever devised for small mills. It responds to the slightest pressure or movement of the feed lever. The sawyer with one hand has absolute control of the carriage at all times and can instantly vary the feed to suit the power or size and kind of timber being cut, easing down for a hard place and quickly increasing the feed again as soon as it is past. There is no pressure or strain on the frictions except when the carriage is in motion. A short movement to opposite side of disc will reverse the motion and "gig-back" at any desired speed. The feed cannot work in and start the carriage until the sawyer presses his hand on the lever.

Our "Hercules" Feed is fully described elsewhere in the catalog and for heavier mills it is the most reliable and efficient saw mill feed made. It is, of course, only recommended where ample power is provided.

WIRE CABLE CARRIAGE DRIVE. All mills are regularly equipped with Wire Cable Carriage Drive of suitable size and type.

HEAD-BLOCKS AND DOGS. Our head-block bases are Steel and of such construction as to insure the greatest strength. They will not choke up with dirt, sawdust or chips nor fill with ice in winter. The knees are carefully fitted so that they will slide freely, yet without lost motion. They open for actual use full width as per specifications. They are heavy and strong, **have graduations full length** and are provided with convenient pointer and **self-aligning, adjustable Set Shaft Bearings.**

The installation of special machinery and other equipment for manufacturing in large quantities, has enabled us to give our customers **the advantage** of the most perfect and effective mill dogs ever invented. Our **"Giant" Dogs** are furnished regularly with all except the No. 1 Mill, on which "Eveready" dogs are regularly furnished.

"IDEAL" SET WORKS with quick receder are now used on our Standard Mills Nos. 1 to 4 inclusive. The set works are strong, rapid, accurate and positive, and the receder, operated by the same lever, is of immense value as a time saver. Only a straight pull is required for either setting or receding.

POWER FOOT RECEDER. We can equip any of our portable mills with this foot receder, which is combined with the "Ideal" set works in such a way that the Sawyer can "set" or "recede" the head-blocks by power or by hand as he prefers. It is a very handy arrangement and adds greatly to the capacity of a mill.

SET SHAFTS are full length of carriage, with the key seat extending full length, the head-block pinions being provided with fixed keys, thus permitting head-blocks to be easily moved to any point on carriage for short or long timbers. Adjustable flange couplings connect the set shaft, **and Self-Aligning, Adjustable Bearings are provided** for taking up lost motion, **insuring accurate lumber.**

TRUCK WHEELS on all our mills are heavy and of large diameter, with hubs of ample length, and are **turned to accurately fit the Guide Track. Axles** run in **Self-Oiling Babbitted Boxes or Roller Bearings** of improved form and have ample provision for taking up lost motion. This insures a light draught, easy running carriage.

TO SUM UP, our mills are built by the latest improved machinery, of the **best** obtainable materials, by the most skillful workmen and under the direction of men who have had years of practical experience in building and operating saw mill machinery. Our sole aim is to produce **the best that can be made** and always meet the requirements of our customers.

POWER FOR DRIVING SAW MILLS. We shall be very glad to recommend the proper horse-power if our customers will tell us the average diameter of the logs they want to cut; whether they are hard or soft wood and how many thousand feet per day of ten hours they would like to cut.

For details of specifications of the different sizes, see following pages.

American Nos. 1 & 2 Saw Mill

With "Heacock" Variable Belt Feed

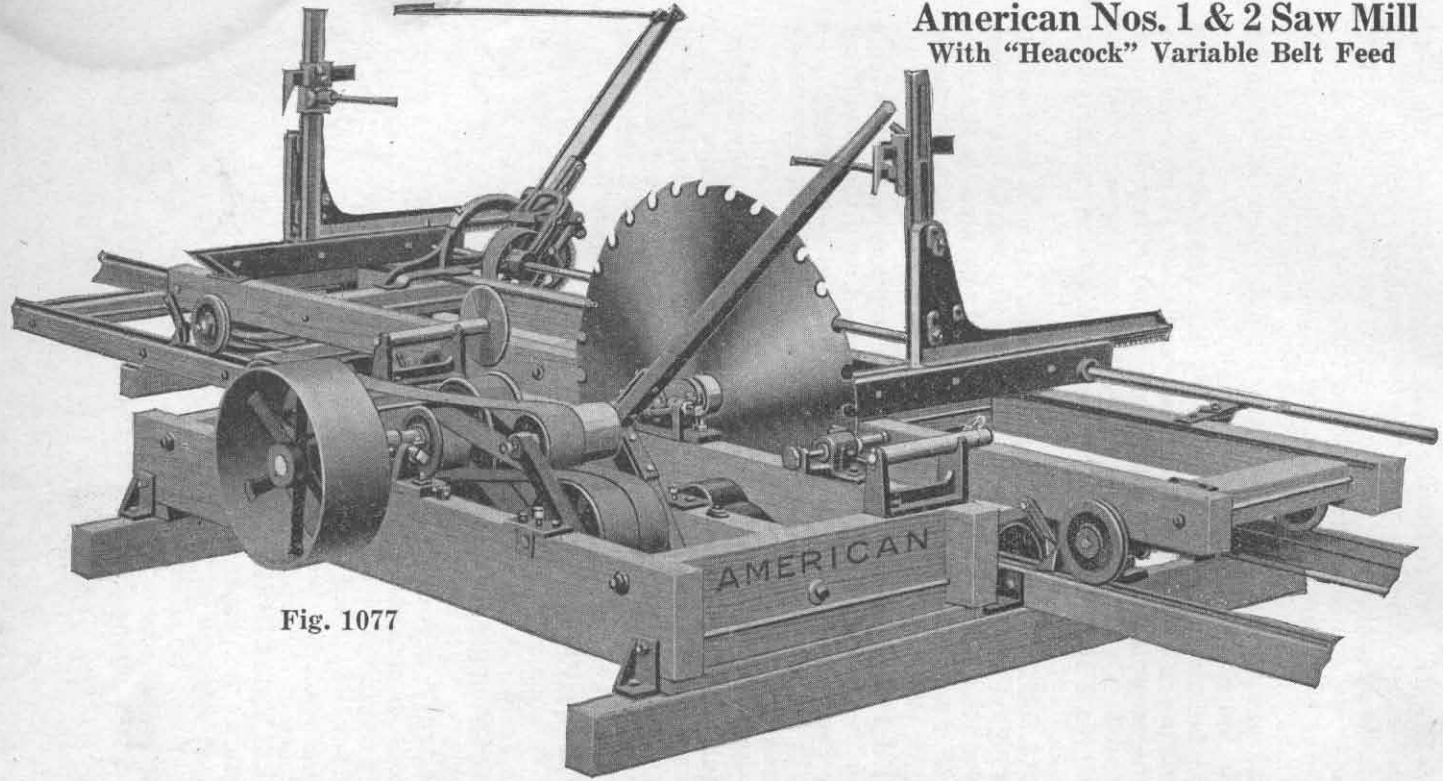


Fig. 1077

All Mills regularly equipped with two head blocks and dogs unless otherwise specified in order.

No. 1 Mill regularly equipped with Ever Ready Dogs as illustrated.

No. 2 Mill regularly equipped with No. 1 Giant Duplex Dogs as featured on page 47.

American No. 1 Variable Belt Feed Saw Mill

Code Word, Woeby

This mill is offered to our customers in response to many requests for a light weight but sturdy saw mill having a rapid gig-back and a variable feed. It is recommended for use with any kind of power from 15 to 30 Brake Horse Power.

The construction of the Heacock Feed differs in slight particulars from the larger feed but is essentially the same in its general construction.

Four-inch feed belts provide ample power. The maximum feed is 4¼" per revolution of saw and the gig-back about 11¼".

A complete mill consists of the following:

Husk frame 7′ x 3′, built of 3½" x 9½" timbers, fitted with variable belt feed. Mandrel 2 3/16"x58", Mandrel Pulley 20"x8" (unless otherwise specified), also saw guide, steel board roll and steel spreader.

Carriage 16′ long, 30" wide, built of 3½"x5½" timbers. Four trucks having 7" wheels and 1¼" axles; 48 ft. of "V" and flat rolled steel track, fitted to way timbers framed up in sections. Two head-blocks, opening 38", fitted with "Ever Ready" dogs. "Ideal" set works with quick receder, and 16 feet of 1 7/16" set shaft. Also, belt tightener, foundation bolts, cant hook, oil can, wrenches and a set of 4" feed belts. **Saw is extra.** Saws up to 52 inches diameter may be used.

Weight of mill with way timbers, 3,400 lbs.

Weight of mill without way timbers, 2,800 lbs.

Mandrel pulley, any size up to 24" diameter or 8" face, furnished without extra charge if ordered with the mill.

Longer carriage, additional head-blocks and longer mandrel can be furnished at extra cost.

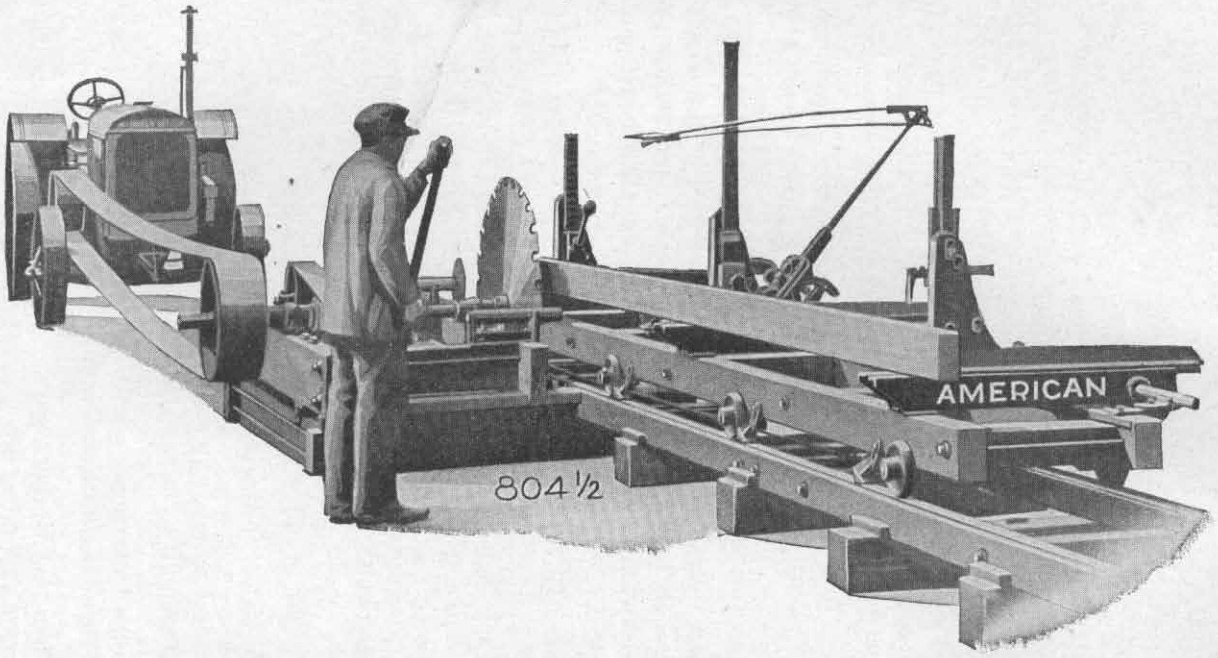
When way timbers are not ordered, track irons with spikes and screws for fastening down are furnished.

Belt tightener is not needed when long thresher belts are used and may be left off and the price deducted.

Variable Belt Feed Saw Mill No. 1

with three headblocks

Driven by Farm Tractor



This is the same mill as that illustrated on page 10, except the additional head block fitted with Simplicity dog and a special heavy combination balance wheel pulley, weighing about 400 lbs. The mill is regularly furnished with two head blocks.

A few words about the American No. 1 Variable Belt Feed Saw Mill—the best Small Saw Mill made for use with Farm Tractors and other similar power.

This mill embodies all the time and labor-saving features of the larger sizes. It is so sturdily built as to be suitable not only for small **engines** and **farm tractors** but also for larger power where a heavy saw mill is not required.

As to quality and workmanship, there is only one American standard—the best—and the name "AMERICAN" on a saw mill is a positive guarantee.

When you are offered something "just as good," go over the specifications, point by point. Are you getting a mill with Mandrel Boxes having **chain oilers** with large reservoirs for oil that require filling only occasionally; **concealed thread** at end of mandrel; a perfect **variable feed** and quick return; a **screw adjusting saw guide; steel head blocks with** adjustable set shaft bearings to take up wear of pinions; **"Ideal Set Works"** (the best of all sawyer's set works) with quick receder that opens head blocks quickly without reversing pawls—just a straight forward pull for setting or receding; cable drive that will give 36 ft. travel to a 16 ft. carriage; **machine grooved truck wheels** and **rolled steel track;** track cleaners that **work both ways** with no leather or fiber brushes to wear out; **way timbers,** framed up in sections convenient for moving; adjustable **belt tightener?**

In order to utilize small power to the best advantage a wide range of feed is required, so as to feed very slowly in heavy cuts to conserve the power, and to speed up in light cuts to increase production. Our feed has a variation from an almost imperceptible movement to **125 feet per minute with** saw running at small-power speed. This is of great advantage in edging boards or sawing small dimension stock, such as two by fours, two by sixes, etc. The gig-back returns the carriage almost three times as fast—over **300 feet per minute.** With larger power, when saw is operated at high speed, the action of the carriage is quickened.

American "Heacock" Variable Belt Feed Saw Mill

Nos. 3 and 4

This cut shows a Right Hand Mill with Three Head-Block Carriage

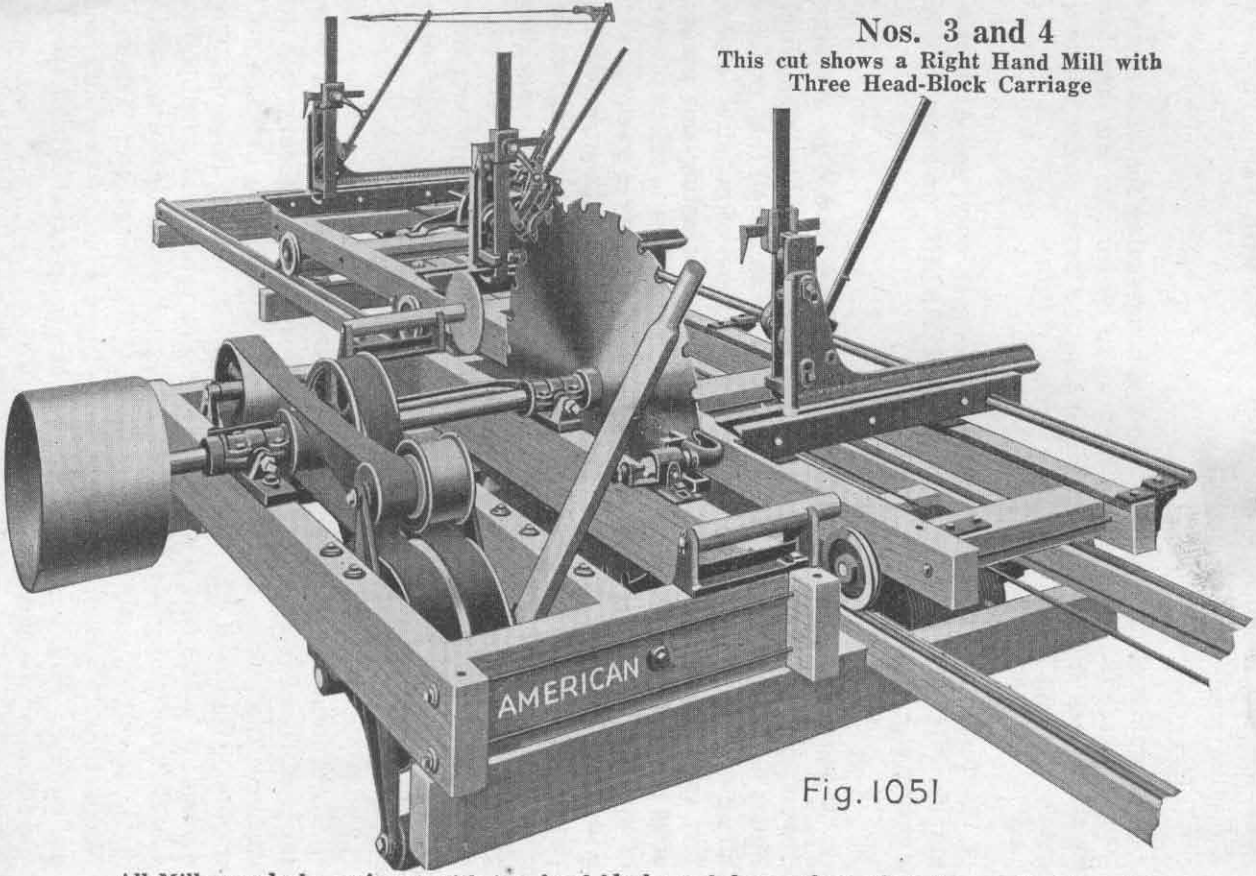


Fig. 1051

All Mills regularly equipped with two head blocks and dogs unless otherwise specified in order.

No. 2 "Heacock" Variable Belt Feed Saw Mill

Code Word, Woeca

Our No. 2 "Heacock" Variable Belt Feed Saw Mill is adapted for any power from 20 to 50 Brake Horse Power. It is capable of cutting from 5,000 to 10,000 feet of board lumber per day depending upon power used.

Maximum feed, 4¾ inches per revolution of saw and gig back approximately 11½ inches. Saws up to 54 inches diameter may be used.

A Complete Mill Consists of the Following:

HUSK FRAME 8′ x 3′ 6″, made of timbers 3½″ x 9½″, fitted with variable belt feed, and a set of 4″ special feed belts; polished steel mandrel 2 7/16″ x 66″, with chain-oiling boxes; mandrel pulley 20″ x 10″, unless otherwise specified; also adjustable screw saw guide, steel board roll and steel spreader wheel.

CARRIAGE 20′ long, 30″ wide, made of timbers 3½″x5½″. Six trucks with 7″ wheels, 1¼″ axles with self-oiling boxes; 56′ of track and ways, framed together in sections; two head-blocks, opening 38″ from saw, with "Giant" duplex dogs; "Ideal" set works with quick receder; 20′ of 1 1/16″ polished steel set shaft; also belt tightener, foundation bolts, cant hook, oil can, wrenches and feed belts. **Saw is extra, according to size and style selected.**

Weight of mill as above, 4,160 lbs. Weight without ways, 3,480 lbs.

No. 3 "Heacock" Variable Belt Feed Saw Mill

Code Word, Woeci

Our No. 3 "Heacock" Variable Belt Feed Saw Mill is adapted for 25 to 60 Brake Horse Power and up. It is capable of cutting from 8,000 to 15,000 feet of board lumber per day, depending upon power used. Maximum feed 5 inches per revolution of Saw and Gig-back 13 inches. Saws up to 60 inches diameter may be used.

A Complete Mill Consists of the Following:

HUSK FRAME is 8½′ x 4′, made of 4½″ x 11½″ timbers, fitted with "Heacock" variable belt feed, and a set of 6″ special feed belts; polished steel mandrel 2 7/16″ diameter, 72″ long, with chain-oiling connected boxes. Mandrel pulley 20″ diameter, 12″ face, unless otherwise specified; also adjustable screw saw guide, board roll and spreader wheel.

CARRIAGE 20′ long, 36″ wide, made of timbers 4½″ x 5½″. Six trucks with 8″ wheels, 1½″ axles, with self-oiling boxes; 56′ of track and ways framed together in sections; two head-blocks, opening 44″ from saw, with "Giant" duplex dogs; "Ideal" set works with quick receder; 20′ of 1 5/16″ polished steel set shaft; also belt tightener, foundation bolts, cant hook, oil can, wrenches and feed belts. **Saw is extra, according to size and style selected.**

Weight of mill as above, 5,500 lbs. Weight without way timbers, 4,870 lbs.

No. 4 "Heacock" Variable Belt Feed Saw Mill

Code Word, Woecs

Our No. 4 Variable Belt Feed Saw Mill is recommended as a heavy portable rig and is not surpassed in quality or performance. It is adapted to any power from 40 to 75 Brake Horse Power and is capable of cutting up to 20,000 feet of board lumber per day, depending upon power used. Maximum Feed 5 inches per revolution of Saw and Gig-back 13 inches. Saws up to 60″ diameter may be used.

A Complete Mill Consists of the Following:

HUSK FRAME, 8½′x4′, made of 4½″x11½″ timbers, fitted with Variable Belt Feed and a set of 6″ special feed belts. Mandrel is 2 15-16″ diameter, 72″ long, with forged steel collar. Mandrel Boxes are long, chain-oiling type and connected by heavy yoke. Mandrel Pulley is 24″ x 12″ unless otherwise specified (furnished up to 30″ without extra charge). Husk is fitted with board rolls, spreader wheel, and adjustable screw saw guide.

CARRIAGE is 20′ long, 40″ wide, made of timbers 5½″ x 5½″. Six Trucks, 10″ diameter, fitted with 1 1/16″ steel axles and self-oiling boxes; 56′ of track and ways framed together in sections; two head-blocks, opening 48″ from saw, fitting with "Giant" duplex dogs; "Ideal" set works with quick receder; 20′ of 1 5/16″ polished steel set shaft; also belt tightener, foundation bolts, cant hook, oil can, wrenches and feed belts. **Saw is extra, according to size and style selected.**

Weight of mill as above, 6,485 lbs. Weight without way timbers, 5,705 lbs.

Longer Carriages, Additional Head-Blocks and Longer Mandrel can be furnished at additional cost.

Mandrel Pulley any size up to 24″ on Nos. 2 and 3, and up to 30″ on No. 4 Mill, furnished without extra charge if ordered with the mill.

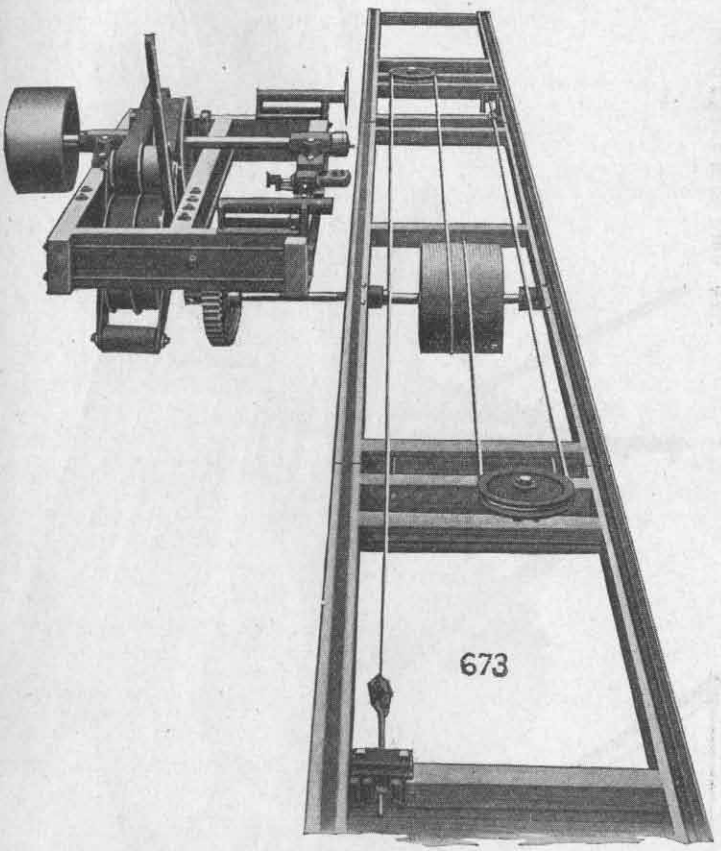
When **Way Timbers** are not ordered, **Track Irons,** with spikes and screws for fastening, are furnished.

Top Saw Rig can be furnished with Nos. 3 and 4 Mills at extra cost.

"Ideal" Set Works with Power Foot Receder furnished with any of the mills at small extra cost.

No. 1 Double-acting Set Works with Spring Receder can be furnished with Nos. 3 and 4 Mills at extra cost.

Roller Bearings can be furnished on mandrel and carriage truck axles at additional cost. Code Word, Roller Bearing Mill, **Woeda.**



Wire Cable Carriage Drive

For Variable Belt Feed Saw Mills

The accompanying cut illustrates the simplicity of the Cable Drive for these Mills. Only one set of gears are used, the drum being carried direct by the main feed shaft.

Feed Belts

Size of Mill	No. 1	No. 2	No. 3	No. 4
Width of Belts	4″	4″	6″	6″
Length of Feed Belts	13′6″	16′10″	19′	19′
Length of Gig-back Belt	6′1½″	7′11″	10′4″	10′4″

American Roller Bearing Saw Mills

Lightest Running Saw Mills Made
Saw More with Less Power

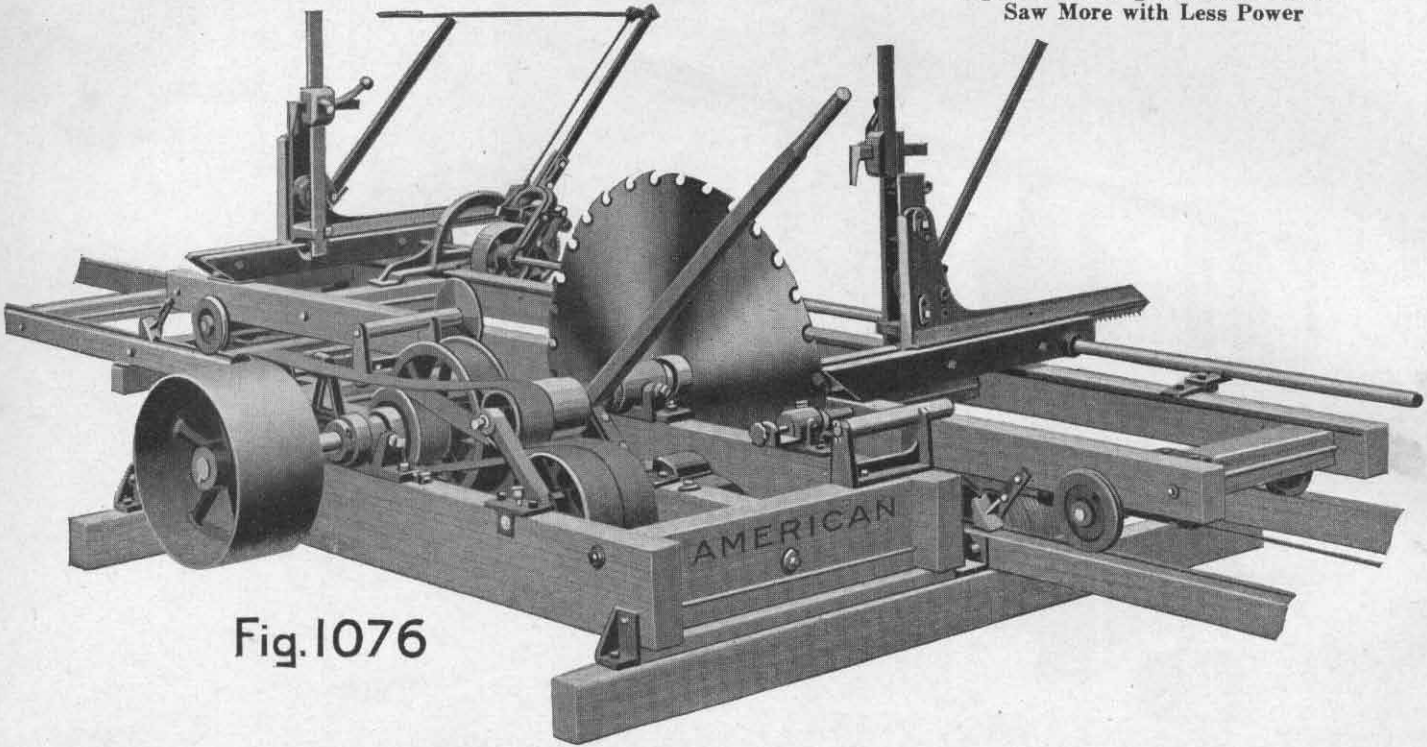


Fig. 1076

Showing Mill with Roller Bearing Mandrel—
Roller Bearing Mills regularly equipped with two head blocks and dogs unless otherwise specified in order

No. 1 Roller Bearing Saw Mill

Code Word, Woecy

Husk frame 7'x3', built of 3½"x9½" timbers, fitted with variable belt feed. Mandrel 2 3/16"x58", with **roller bearings**; mandrel pulley 20"x8", also saw guide, Board Roll and Spreader. Saws up to 52" may be used.

Carriage 16' long, 30" wide, built of 3½"x5½" timbers. **Four trucks having** 7" wheels and 1¼" axles, with roller bearings, 48 ft. of "V" and flat rolled steel track, fitted to way timbers framed up in sections. Two head-blocks, opening 38", fitted with "Ever Ready" Dogs. "Ideal" set works with quick receder, and 16 feet of 1 7/16" set shaft. Also, belt tightener, foundation bolts, cant hook, grease gun, wrenches and set of 4" feed belts. **Saw is extra.** Any size up to 52" may be used.

Weight of mill with way timbers, 3,400 lbs.

No. 2 Roller Bearing Saw Mill

Code Word, Woede

Husk frame 8'x3' 6", made of timbers 3½"x9½", fitted with variable belt feed and a set of 4" special feed belts; polished steel mandrel 2 7/16"x66", with roller bearings; mandrel pulley 20"x10", unless otherwise specified; also adjustable screw saw guide, steel board roll and steel spreader.

Carriage 20' long, 30" wide, made of timbers 3½"x5½". Six trucks with 7" wheels, 1¼" axles with roller bearings; 56' of track and ways, framed together in sections; two head-blocks, opening 38" from saw, with "Giant" duplex dogs; "Ideal" set works with quick receder, 20' of 1 11/16" polished steel set shaft; also belt tightener, foundation bolts, cant hook, grease gun, wrenches and feed belts. **Saw is extra, according to size and style selected, up to 54".**

Weight of mill as above, 4,160 lbs. Weight without ways, 3,480 lbs.

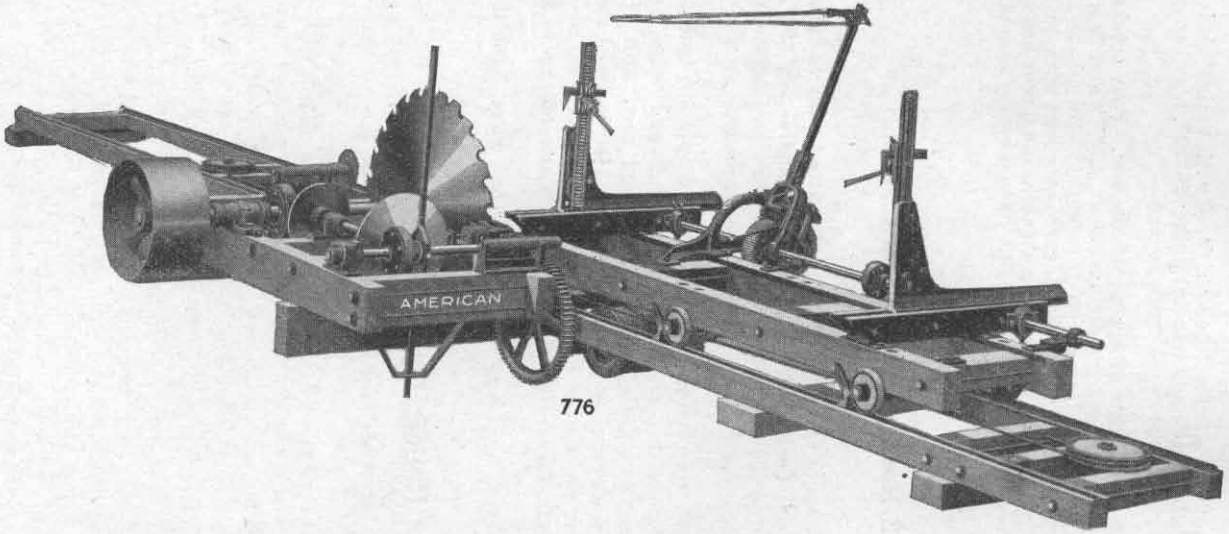
No. 3 Roller Bearing Saw Mill

Code Word, Woedo

Husk frame is 8'4"x4', made of 4½"x11½" timbers, fitted with "Heacock" variable belt feed, and a set of 6" special feed belts; polished steel mandrel 2 7/16" diameter, 72" long, with roller bearings. Mandrel pulley 20" diameter, 12" face, unless otherwise specified; also adjustable screw saw guide, steel board roll and steel spreader. Saws up to 60" may be used.

Carriage 20' long, 36" wide, made of timbers 4½"x5½". Six trucks with 8" wheels, 1½" axles, with roller bearings; 56' of track and ways framed together in sections; two head-blocks, opening 44" from saw, with "Giant" duplex dogs; "Ideal" set works with quick receder; 20' of 1 15/16" polished steel set shaft; also belt tightener, foundation bolts, cant hook, grease gun, wrenches and feed belts. **Saw is extra, according to size and style selected.**

Weight of mill as above, 5,550 lbs. Weight without way timbers, 4,870 lbs.



776

American No. 1 Saw Mill

With Variable Friction Feed

Right Hand Mill—Code Word, Woedu
No. 1 Mill regularly equipped with Ever Ready Dogs shown on page 48.

American No. 1
Variable Friction Feed Saw Mill

Code Word, Woedu

Our No. 1 Mill can be operated with any kind of powers from 10 to 30 Brake Horse Power. It is especially designed for use with gasoline or kerosene engines and farm tractors. Any good two-plow farm tractor will furnish sufficient power for general farm or custom sawing. Capacity from 2,000 to 6,000 feet per day, depending upon the power, character of timber and number of men employed. Two men can saw and handle 3,000 feet of lumber per day, and under favorable conditions, with plenty of power and help, the mill is capable of turning out 5,000 or 6,000 feet per day.

Saws up to 50" in diameter may be used. The carriage has a travel of **32** feet on the track and will handle logs up to 36" in diameter and 20 feet long. The variable friction feed used on this mill differs slightly from that furnished with the larger mills, having a straight friction on the mandrel, movable to any position on the disc. This permits a very slow feed and makes the mill especially desirable for light power.

A Complete No. 1 Mill Consists of the Following:

HUSK FRAME 7'x3' built of 3½"x9½" timbers, fitted with variable friction feed, polished steel mandrel of 2 7/8"x58", mandrel pulley, 20"x8" (unless otherwise specified), also board roll, spreader wheel and saw guide.

CARRIAGE 16' long, 30" wide, built of timbers 3½"x5½" with wire cable drive. Four trucks with 7" wheels and 1¼" steel axles. 48 ft. of "V" and flat rolled steel track, fitted to way timbers framed up in sections. Two head-blocks opening 38" with "Ever Ready" Dogs. "Ideal" set works, with quick receder and 16' of 1 7/8" set shaft; also belt tightener, foundation bolts, cant hook, oil can and wrenches. **Saw is extra, according to size and style selected.**

Roller Bearings can be furnished on Mandrel and carriage truck axles at additional cost. Code Word—Roller Bearing Mill, **Woift.**

Weight of mill as above, 3,050 lbs. (If way timbers are not wanted, deduct 580 lbs.)

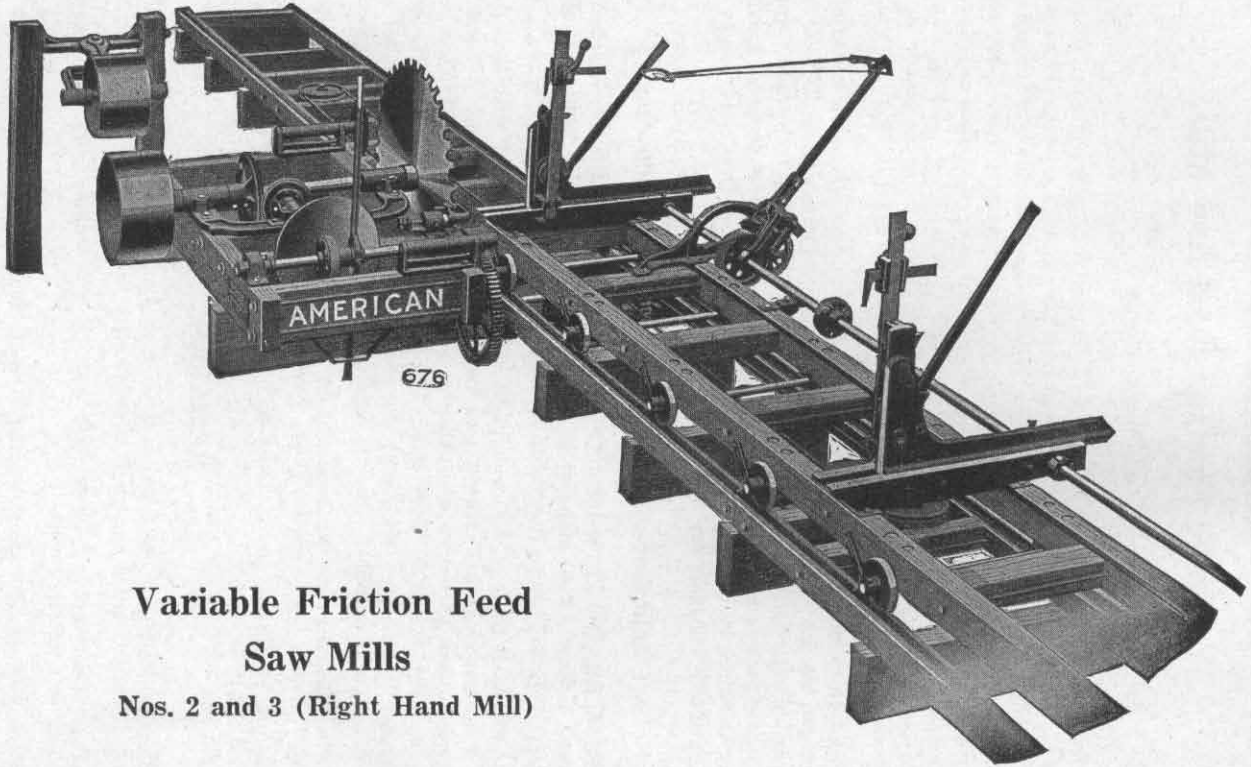
REMARKS

Mandrel Pulley of any size up to 24-inch diameter or 8-inch face will be furnished without extra charge if ordered with the mill.

Longer Carriage, more head-blocks and longer mandrel can be furnished, if desired, at additional cost.

When **way timbers** are not desired, track irons with spikes and screws for fastening down are furnished.

Belt Tightener is not needed when long thresher belt is used.



Variable Friction Feed Saw Mills

Nos. 2 and 3 (Right Hand Mill)

No. 2 Variable Friction Feed Saw Mill

Code Word, Woefa

Our No. 2 Mill is adapted to any power from 20 to 50 Brake Horse Power. It is capable of cutting 5,000 to 10,000 feet of board lumber per day, depending upon power used. Any size saw up to 54 inches can be used and logs as large as 40-inch diameter can be cut.

A Complete No. 2 Mill Consists of the Following:

HUSK FRAME 7′ 6″x3′ 6″ built of timbers 3½″x9½″, fitted with variable friction feed. Polished steel mandrel $2\frac{7}{16}$″ x 66″. Mandrel pulley 20″x10″, unless otherwise specified. Also board roll, spreader wheel and saw guide.

CARRIAGE 20′ long 30″ wide, built of timbers 3½″x5½″. Six trucks with 7″ wheels and 1¼″ steel axles with self-oiling boxes, 56′ of "V" and flat rolled steel track, fitted to way timbers framed up in sections, two head-blocks opening 38″ with "Giant" duplex dogs, "Ideal" set works with quick receder and 20′ of $1\frac{1}{16}$″ polished steel set shaft. Also belt tightener, foundation bolts, cant hook, oil can and wrenches. **Saw is extra, according to size and style selected.**

Roller Bearings can befurnished on mandrel and carriage truck axles at additional cost. Code Word, Roller Bearing Mill, **Woige.**

Weight of mill as above, 3,900 lbs. (Way timbers if not wanted, deduct 680 lbs.)

No. 3 Variable Friction Feed Saw Mill

Code Word, Woefi

Our No. 3 Mill is adapted to any power from 20 to 60 Brake Horse Power. It is capable of cutting 5,000 to 12,000 feet of board lumber per day, depending upon power used. It will carry any size saw up to 60 inches and logs up to 48-inch diameter can be cut.

A Complete No. 3 Mill Consists of the Following:

HUSK FRAME 8′x4′, built of 4½″x11½″ timbers, fitted with variable friction feed. Polished steel mandrel 2 7-16″x72″. Mandrel pulley 20″x12″ unless otherwise ordered, also board roll, spreader wheel and saw guide.

CARRIAGE 20′ long, 36″ wide, built of timbers 4½″x5½″. Six trucks with 8″ wheels and 1½″ steel axles and self-oiling boxes, 56′ of "V" and flat rolled steel track, fitted to way timbers framed up in sections, two head-blocks opening 44″ with "Giant" duplex dogs. "Ideal" set works with quick receder and 20′ of 1 5/8″ polished steel set shaft. Also belt tightener, foundation bolts, cant hook, oil can and wrenches. **Saw is extra, according to size and style selected.**

Roller Bearings can be furnished on mandrel and carriage truck axles at additional cost. Code Word, Roller Bearing Mill, **Woigo.**

Weight of mill as above, 4,950 lbs. (Way timbers if not wanted, deduct 680 lbs.

REMARKS

Longer Carriage, Additional Head-Blocks and **Longer Mandrel,** can be furnished at extra cost.

Mandrel Pulley any size up to 24″ furnished without extra charge if ordered with the mill.

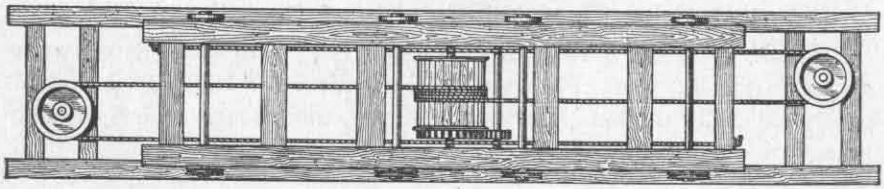
Track Irons are furnished, with spikes and screws for fastening when way timbers are not ordered.

Top Saw Rig can be furnished for No. 3 Mill at extra cost.

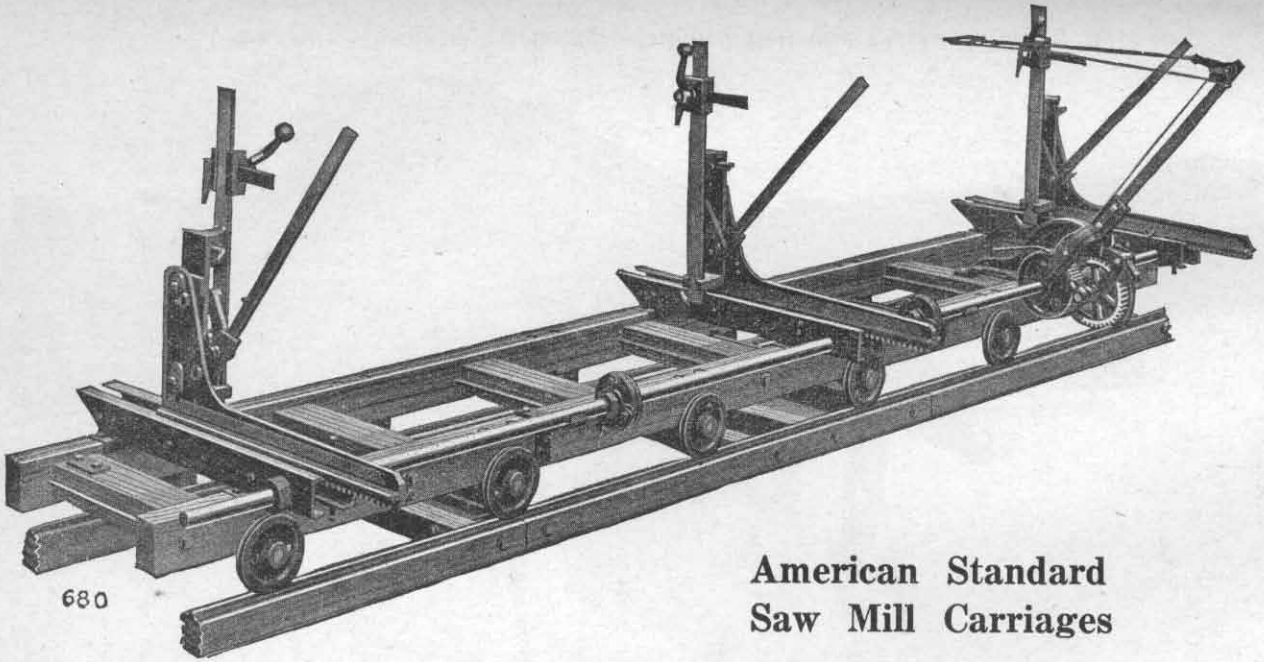
Double-acting Set Works, No. 1, with spring receder, can be furnished for No. 3 Mill at extra cost.

Ideal Set Works with **Power Foot Receder,** furnished for these mills at small additional cost.

Plan of Wire Cable Drive, Style B



Furnished Regularly with all Variable Friction Feed Saw Mills.



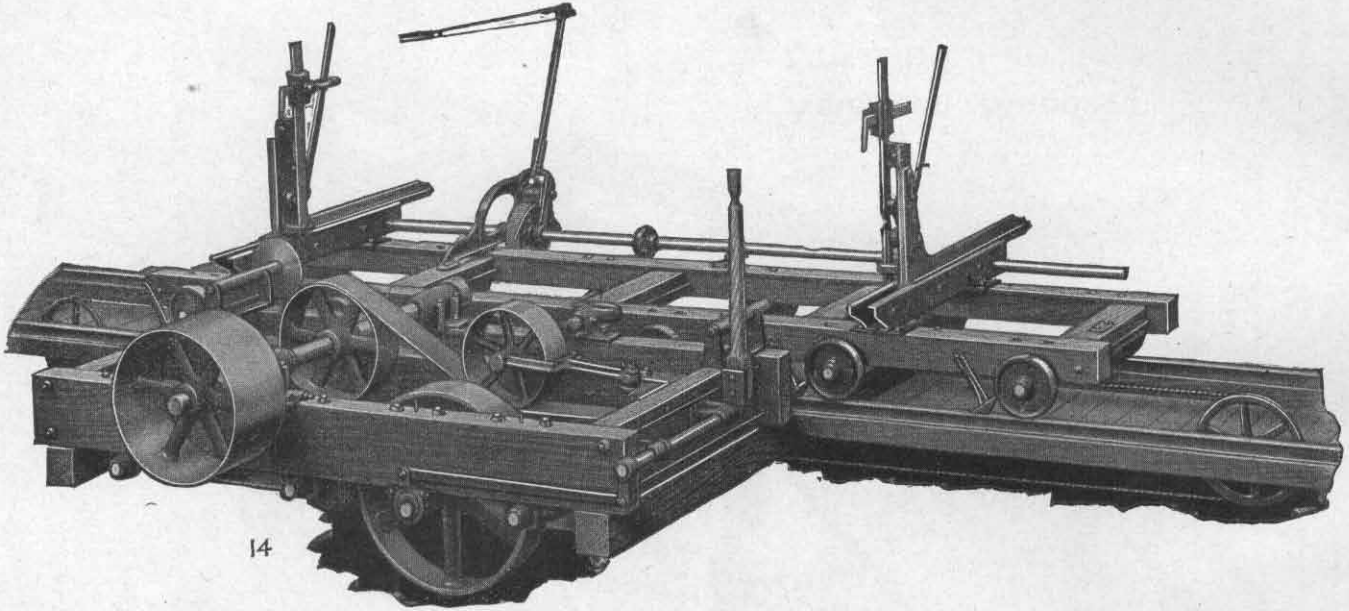
680

American Standard Saw Mill Carriages

We are prepared to furnish, on short notice, our Standard carriages of any length and with any number of head-blocks desired. These carriages are built in one or more sections, according to length required, and are equipped with our "Ideal" ratchet set works and quick receder and proper proportion of steel track with spikes and screws. The heavier sizes may be fitted with double-acting set works and spring or power receder, when desired, at extra cost. Prices quoted according to requirements and equipment.

American "Hercules" Feed Saw Mill No. 4

Code Word, Woefy



The Only Absolutely Reliable Combined Belt and Friction Feed

"Hercules" Feed Saw Mill No. 4

Code Word, Woefy

This mill is designed to meet the requirements of those who prefer a straight line belt and friction feed. Where a strong, fast feed and gig-back are desired, and a wide variation of feed is not necessary, we strongly recommend this Mill as one that will meet every requirement and give excellent service.

THE FEED is a combination of belt and flat face frictions so arranged that the feed and gig-back frictions are continuously driven in opposite directions by an endless belt from the mandrel. A single lever operates the feed and gig-back by shifting the bull wheel from one friction to the other. The bull wheel shaft has a pinion at opposite end which operates the cable drum, thus doing away with intermediate gears. The fraction shafts have babbitted boxes with screw adjustment to take up wear in the frictions. An idler is furnished to keep the feed belt always tight. Maximum feed 4½", gig-back 13".

CARRIAGE is built in two sections and fitted with two head-blocks, "Giant" duplex dogs, "Ideal" set works with quick receder, and rolled steel track.

A Complete No. 4 Mill Consists of the Following:

HUSK FRAME 9' 6" x 4', built of 4½" x 11½" timbers, and fitted with "Hercules" belt feed; Mandrel 2 15-16" x 72"; Mandrel Pulley 24" x 12" unless otherwise ordered; board rolls, spreader wheel, saw guide and feed belt. All frictions and feed pulleys are 6" face. Feed belt is 6" wide, 23½' long.

CARRIAGE 20' long, 40" wide, built of timbers 5½" x 5½". Six trucks with 10" wheels, 1 11-16" axles and babbitted self-oiling boxes; 56 feet of track fitted to way timbers framed in sections; two head-blocks, opening 48" from saw, with "Giant" duplex dogs; 20' of set shaft; "Ideal" set works with quick receder; 14" style "B" wire cable drive complete; also belt tightener, foundation bolts, cant hook, oil can and wrenches. **Saw is extra, according to size and style selected.**

Weight of Mill, as above, 7,400 lbs. (Weight without way timbers, 6,620 lbs.)

For detailed weights, see page 31.

Longer Carriage, Additional Head-Blocks, and **Longer Mandrel** can be furnished at additional cost.

Mandrel Pulley any size up to 30" furnished without extra charge is ordered with the Mill.

Spikes and Screws for fastening track irons are furnished when way timbers are not ordered.

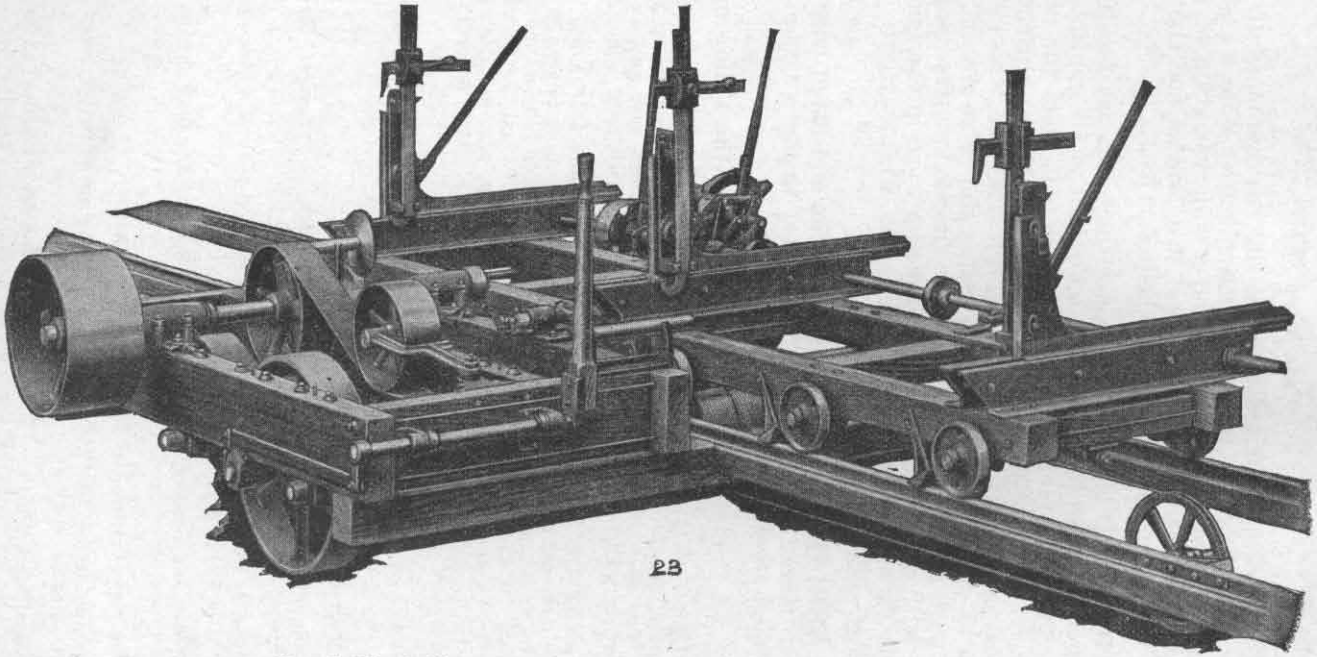
Top Saw Rig can be furnished at extra cost.

Double-acting Set Works No. 1, with spring or power receder can be furnished at extra cost.

"Ideal" Set Works with **Power Foot Receder** furnished at small additional cost.

American "Hercules" Feed Saw Mill No. 6

With Double-Acting Set Works and Power Receder



Head-Block Knees are now made much heavier than shown above

American "Hercules" Feed Saw Mill No. 6

Code Word, Woega

This cut illustrates our No. 6 "Hercules" Feed Saw Mill intended for stationary or semi-portable purposes with ample power.

The Feed is our "Hercules" type (see page 39), which, we believe, is the most powerful combined belt and friction feed used on any mill. Maximum feed 5½". Gig-back, 15½".

The Mandrel is made regularly 10' long, with three chain-oiling bearings with sole plates and adjustable screws. Two of these bearings are attached to the frame, the third to be mounted on foundation provided by purchaser. The standard Mandrel pulley is 24" diameter, but pulley up to 30" diameter will be furnished without extra charge when so ordered.

Top Saw Rig, as shown on page 43, will be furnished at extra cost to make double mill.

The Carriage is made of selected yellow pine timbers, carefully framed, well bolted and braced, with six sets of trucks having self-oiling, babbitted boxes.

Three Head-Blocks are furnished, having exceptionally strong steel bases and fitted regularly with our "Giant" duplex dogs. "Knight" dogs can be furnished, if preferred, at extra cost. No. 1 double-acting set works and friction power receder are furnished with this mill.

The Track is 16-lb. T rail, accurately planed to fit the truck wheels and provided with fish plates for joining.

Cant Hook, Mandrel Wrench, Monkey Wrench and Oil Can, also setting plans, are furnished with each mill.

Feed belt is not included. Feed belt required 23½' long, 6" wide.

A Complete No. 6 Mill Consists of the Following:

HUSK FRAME 9' 6" x 4' 6", built of 4½" x 11½" timbers and fitted with 6" "Hercules" belt feed. Polished steel mandrel 2⅞" diameter, 10' long. Mandrel pulley 24" x 12"; also board roll, spreader wheel and saw guide. Saws up to 60" may be used.

CARRIAGE 20' long, 40" wide, built of 5½" x 5½" timbers. Six trucks with 10" wheels and 1⅞" axles, with self-oiling boxes; 56' of 16-lb. T rail track planed, with fish plates and spikes; three head-blocks, opening 48" from saw, fitted with "Giant" duplex dogs; 20' of set shaft keyseated full length; No. 1 double-acting set works with power friction receder. 18" style "A" wire cable drive is furnished.

Shipping weight, 7,500 lbs. For detailed weights, see page 31.

Longer Carriage, Additional Head-Blocks and Longer Mandrel can be furnished at additional cost; also top saw rig.

Condensed Specifications of Portable Saw Mills

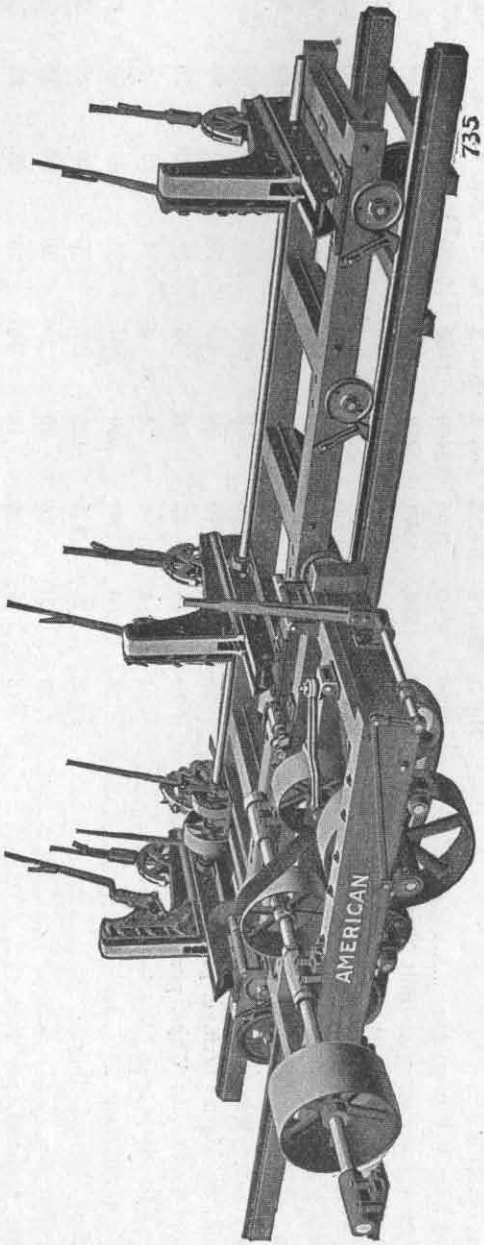
	Variable Friction Feed Saw Mills			Variable Belt Feed Saw Mills				Hercules Feed Saw Mills	
Size of Mill	No. 1	No. 2	No. 3	No. 1	No 2	No. 3	No. 4	No. 4	No. 6
Size of Husk Frame	7'x3'	7½'x3½'	8'x4'	7'x3'	8'x3½'	8½'x4'	8½'x4'	9½'x4'	9½'x4½'
Size of Husk Timbers	3½"x9½"	3½"x9½"	4½"x11½"	3½"x9½"	3½"x9½"	4½"x11½"	4½"x11½"	4½"x11½"	4½"x11½"
Mandrel, Dia. and Length	2 3/16"x58"	2 7/16"x66"	2 7/16"x72"	2 3/16"x58"	2 7/16"x66"	2 7/16"x72"	2 15/16"x72"	2 15/16"x72"	2 15/16"x10'
Mandrel Pulley	20"x8"	20"x10"	20"x12"	20"x8"	20"x10"	20"x12"	24"x12"	24"x12"	24"x12"
Width of Feed Belts	.....	.....	.....	4"	4"	6"	6"	6"	6"
Length of Carriage	16'	20'	20'	16'	20'	20'	20'	20'	20'
Width of Carriage	30"	30"	36"	30"	30"	36"	40"	40"	40"
Size Carriage Timbers	3½"x5½"	3½"x5½"	4½"x5½"	3½"x5½"	3½"x5½"	4½"x5½"	5½"x5½"	5½"x5½"	5½"x5½"
Number of Trucks	4	6	6	4	6	6	6	6	6
Size of Truck Wheels	7"	7"	8"	7"	7"	8"	10"	10"	10"
Diameter Truck Axles	1¼"	1¼"	1½"	1¼"	1¼"	1½"	1 11/16"	1 11/16"	1 11/16"
Length of Set Shaft	16'	20'	20'	16'	20'	20'	20'	20'	20'
Diameter of Set Shaft	1 7/16"	1 11/16"	1 15/16"	1 7/16"	1 11/16"	1 15/16"	1 15/16"	1 15/16"	1 15/16"
Number of Head-Blocks and Dogs	2	2	2	2	2	2	2	2	2
Head-Blocks open from saw	38"	38"	44"	38"	38"	44"	48"	48"	48"
Length of Track and Ways	48'	56'	56'	48'	56'	56'	56'	56'	56'

Weights of Portable Saw Mills and Extra Parts

	Variable Friction Feed Mills			Variable Belt Feed Mills				Hercules Feed Mills	
Size of Mills	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 4	No. 4	No. 6
Standard Saw Mill complete	3050	3900	4950	3400	4160	5550	6485	7400	7500
Husk Frame complete with Belt Tightener	920	1220	1560	1270	1640	1890	2000	2750	2885
Husk Frame complete without Belt Tightener	780	1080	1410	1130	1490	1740	1850	2600	2735
Standard Carriage complete (without Cable Drive)	1700	2560	3400	1700	2560	3400	4350	4350	4300
Wood Work only for Husk Frame	280	350	500	280	320	600	700	700	750
Wood Work only for Standard Carriage	350	460	870	350	460	870	900	900	900
Wood Work for Ways (way timbers)	580	680	680	580	680	680	780	780	.....
Additional Standard Carriage, per foot (with ways)	55	55	70	55	55	70	80	80	80
Additional Track and Ways, per foot	15	15	15	15	15	15	20	20	.....
Track Steel only, Flat and V (1′ of each)	4	4	4	4	4	4	5	5	11
Head-Block and Dog	175	200	280	200	200	280	320	320	375
Head-Block without Dog	125	125	175	125	125	175	230	230	285
Parallel Bar	20	20	26	20	20	26	26	26	26
Extension Mandrel, per foot	13	15	16	13	15	16	23	23	23
Outboard Bearing	25	40	45	25	40	45	65	65	65
Top Saw Attachment	.....	.....	1075	.....	.....	1075	1075	1075	1200
Gross Weight Standard Mill, for Export	3350	4700	5500	3750	5115	6100	7600	8500	8700
Cubic Contents Standard Mill	95	104	170	97	112	175	180	180	200

Shipping Weights of Mill Saws.	36″	40″	42″	44″	46″	48″	50″	52″	54″	56″	60″
	75 lbs.	90 lbs.	100 lbs.	110 lbs.	120 lbs.	130 lbs.	140 lbs.	150 lbs.	170 lbs.	190 lbs.	210 lbs.

"Hercules" Feed Saw Mill No. 6½



No. 6½ Saw Mill

Code Word, Woegh

No. 6½ "Hercules" Feed Saw Mill. This mill is similar in size to our Standard No. 6 Mill, but has heavier head-block equipment and correspondingly stronger feed. Maximum feed 5½". Gig-back, 13½".

The Mandrel is made regularly 10 ft. long with three chain-oiling boxes having sole plates with adjusting screws. Two of these boxes are mounted on husk, the third to be placed on foundation provided by purchaser. The standard mandrel pulley is 24" diameter, but pulley up to 30" diameter will be furnished without extra cost.

Top Saw Rig will be furnished at extra cost to make double mill.

The Carriage is made of yellow pine timbers, well framed, bolted and braced, and has six sets of trucks, with adjustable babbitted boxes.

Three Head-Blocks are furnished, having strongly constructed Z-bar bases. The knees are of improved pattern, having a 4" independent taper movement. The dogs may be our standard Giant or Ajax dogs, or Knight dogs. Head-block racks and pinions have cut teeth.

Double-acting Set Works and Power Friction Receder are furnished with this mill.

The Track is 16-lb. T rail, planed for flat and grooved wheels, and provided with fish plates and spikes.

Cant Hook, Oil Can and Wrenches, also a Setting Plan, accompany each mill. Feed belt is not included. 25′ of 8" belt required.

A Complete No. 6½ Mill Consists of the Following:

HUSK FRAME 9′ 6" x 4′ 6", built of 5½" x 11½" timbers, and fitted with our 8′ "Hercules" belt feed. Mandrel 2 15/16" diameter, 10′ long; mandrel pulley 24" x 12"; also board rolls, spreader wheel and saw guide. Saws up to 60" may be used.

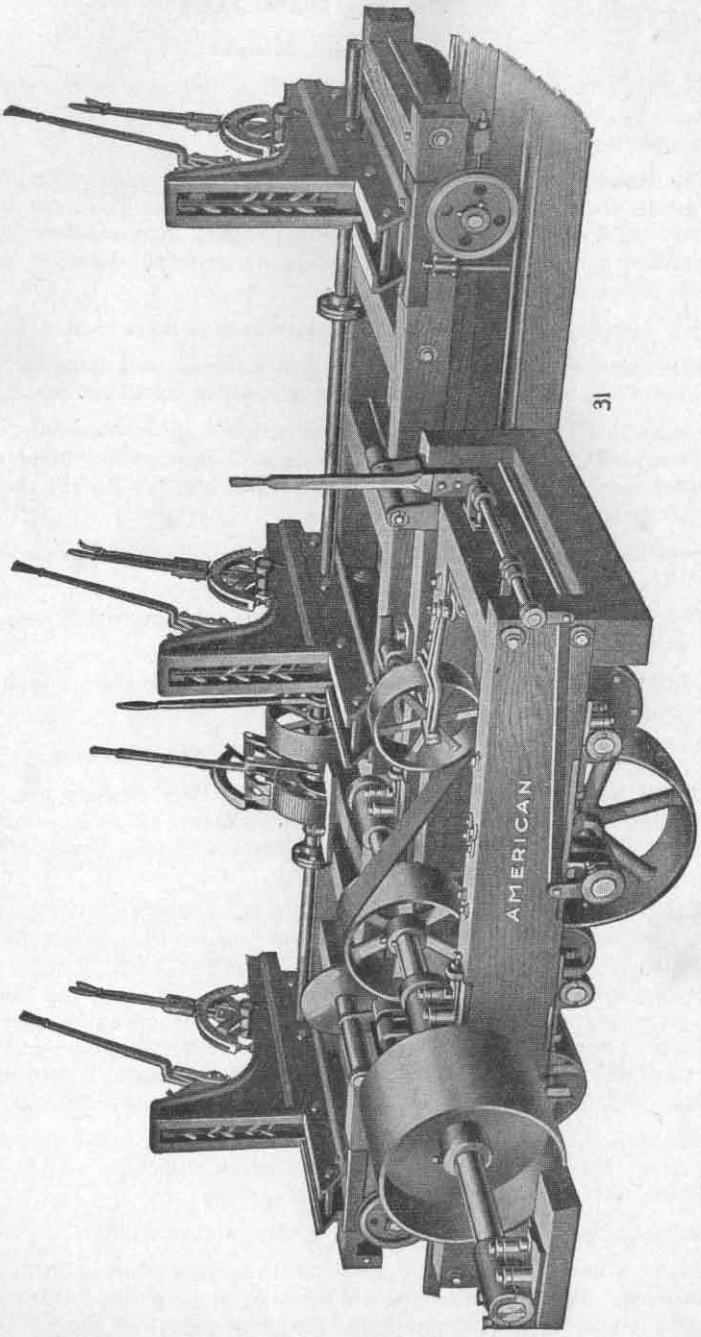
CARRIAGE is 20′ long, 48" wide, made of 5½" x 5½" timbers. Six trucks, having 10" wheels, 1 1/16" axles and waste-oiling boxes; 56′ of track irons, planed for flat and grooved wheels, made of 16-lb. T rail; fish plates and spikes for track; three head-blocks; opening 38" from the saw, with 4" taper movement, and fitted regularly with "Ajax" double-tooth dogs. ("Giant" or "Knight" dogs furnished, if preferred.) Head-blocks are operated by double-acting set works No. 1½ and power friction receder. The set shaft is 20′ long and 2 7/16" diameter. Cable carriage-drive 18" Style "A" is furnished.

Shipping weight, 8,500 lbs.; husk only 3,500 lbs.; carriage only without cable drive, 4,500 lbs.; carriage and cable drive, 5,000 lbs. Additional head-block 650 lbs. Additional carriage 85 lbs. per foot.

Export shipping weight, 9,500 lbs. Cubic contents, 270′.

Note.—Longer carriage and additional head-blocks can be furnished at additional cost. Trailer section with automatic coupling can be furnished; also automatic offset for carriage to be used in connection with band mill.

American Heavy Saw Mill No. 7½



No. 7½ Heavy Saw Mill

Code Word, Woegi. Code Word Carriage Only, Woegn

The HUSK FRAME is 10′ 6″ x 5′, made of 5½″ x 11½″ timbers. It is fitted with our "Hercules" feed. All feed frictions and pulleys are 10″ face. Bull Wheel is 32″ diameter. Maximum feed 6½″. Gig-back, 14″. Mandrel is 3 7/16″ diameter and 10′ long. Mandrel boxes are chain-oiling, with heavy sole plates and adjusting screws. Two of the boxes are attached to husk and the third placed on foundation provided by purchaser. Mandrel pulley is 24″ diameter, 14″ face, with web center and heavy rim. Board rolls, spreader, and our No. 3 double adjustable saw guide are furnished.

CARRIAGE is 20′ long, 59″ wide, built of 5½″ x 7½″ yellow pine timbers, strongly constructed, having six trucks with 12″ wheels, 1 15/16″ axles, and self-oiling adjustable bearings. Track is 20-lb. T rail, 60′ long, planed to fit truck wheels, with fish plates for joining. Three head-blocks are furnished, having heavy steel bases, substantial cast iron knees with cut racks and pinions, opening 46″, with 5″ taper movement, and regularly equipped with "Ajax" dogs. "Knight" Ideal dogs will be furnished if preferred. Our "Hammer" dog can be attached to these blocks. The set works are our No. 2 double-acting. Set shaft is 2 7/16″ diameter and 20′ long with power friction receder. May be equipped with No. 3 set works at additional cost.

Cable Drive used in connection with this carriage is our 24″ style "A", with ⅝″ wire cable.

Saws up to 72″ can be used, and when fitted with top saw rig shown on page 43, a 66″ lower saw and 40″ top saw may be used. Feed belt is not included in price of this mill. Feed Belt required, 25′ of 10″ belt.

Additional Carriage and Head-Blocks furnished at extra cost. Trailer section with automatic coupling made to order any length.

Weight of mill, complete as described, 12,000 lbs.
Export shipping weight, 14,500 lbs.
Cu. contents, 385′.
Weight of carriage and track with cable drive, 8,000 lbs.
Weight of carriage and track without drive, 7,500 lbs.
Weight of additional carriage per foot, 110 lbs.
Weight of additional head-blocks, each, 800 lbs.

No. 8 Heavy Saw Mill Carriage

Code Word, Woehe

This CARRIAGE is built on the same general lines as our No. 7½ and will be furnished with the No. 7½ husk if heavier carriage is desired. It can be equipped with offset for band mill, and with trailer section and automatic coupling when so desired.

SPECIFICATIONS. Standard carriage 20′ long, 60″ wide; timbers 7½″ x 7½″ best grade yellow pine. Six trucks, having 14″ wheels, 2 7/16″ axles and heavy adjustable self-oiling boxes. Track is 60′ long, accurately planed. Three head-blocks, having substantial steel bases and heavy cast iron knees, with 6″ taper movement. Each head-block is fitted with "Ajax" dog, but "Knight Ideal" dog will be furnished if preferred. Head-blocks open 48″ from saw. Set works are our No. 3 double-acting with power friction receder. Set shaft is 3″ diameter. Head-block pinions and racks have cut teeth.

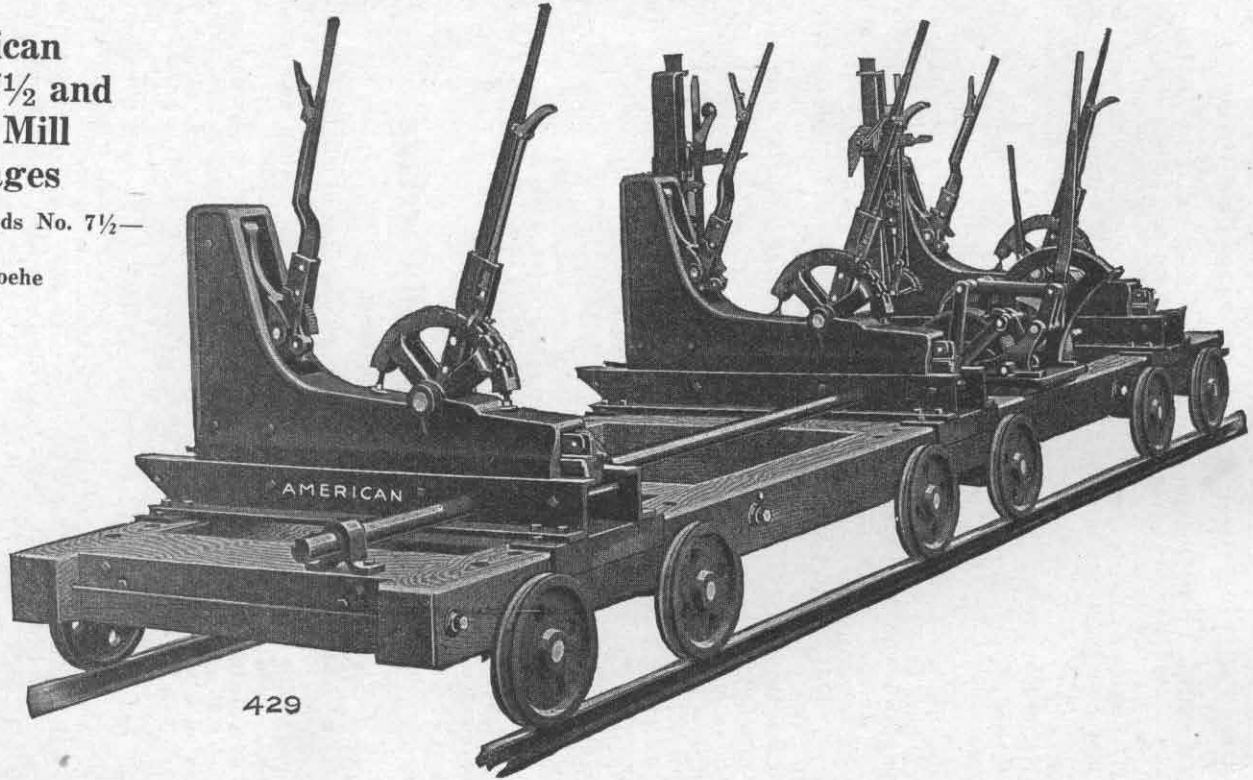
WIRE CABLE DRIVE. When wire cable drive is desired with No. 8 carriage, we furnish our 30″ style "A" described elsewhere, the drum being grooved for ¾″ or ⅝″ rope as preferred.

Weight of carriage without cable drive, 10,200 lbs.
Weight of 30″ cable drive, 1,600 lbs.
Weight of additional carriage per foot, 200 lbs.
Weight of additional head-blocks, each, 1.175 lbs.
Export shipping wt. with cable drive, 13,000 lbs. Cu. contents, 285′.

American Nos. 7½ and 8 Saw Mill Carriages

Code Words No. 7½—Woegn

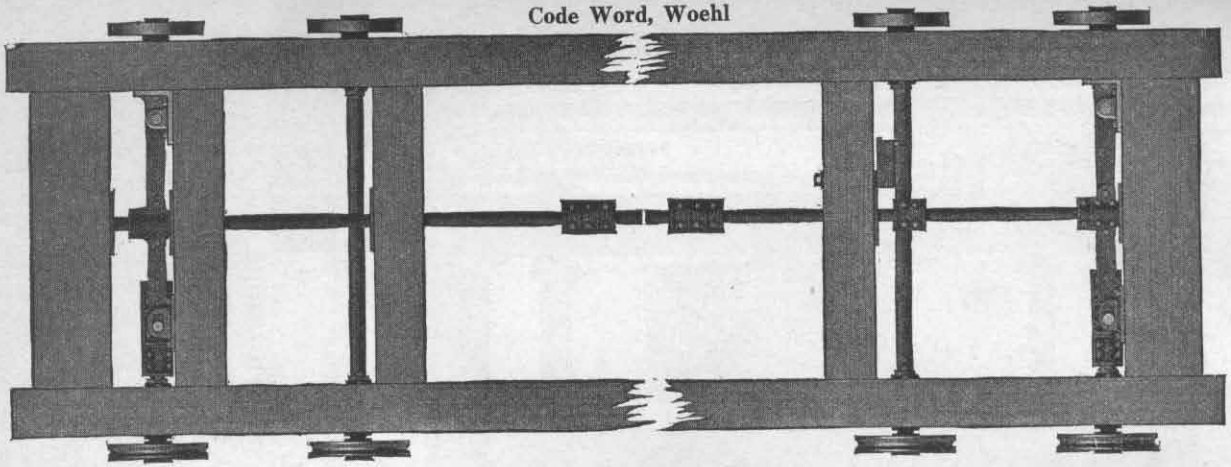
No. 8—Woehe



American Improved Toggle Arm Offset

For Band Mill Carriages

Code Word, Woehl



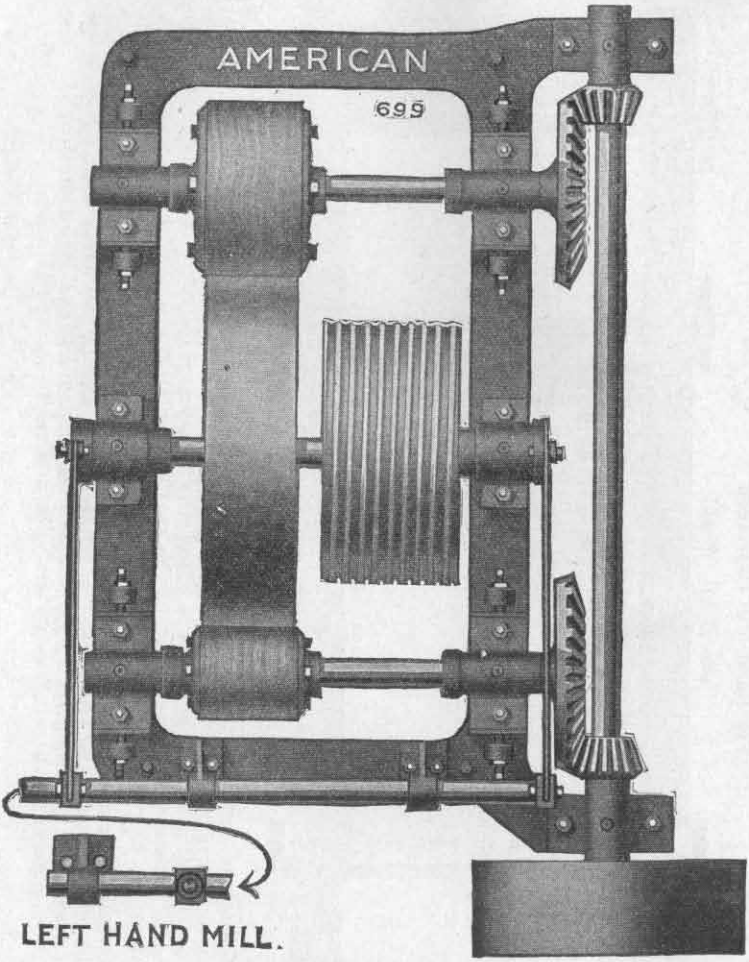
Our offset is an improved type and embodies the essential points of simplicity, accuracy, power and durability. It consists of a series of toggle arms and bearings connected direct to three axles. The other end of arms are connected to carriage sides, the center joint is connected to center bar which is supported by bearings securely bolted to girts. The center bar has stop collars so arranged to impart the pulling strain of the carriage on several cross girts. There is also a trip latch to drop in position so carriage can be reversed without offsetting. The wire rope brackets are attached to center bar.

When the feed is applied to move carriage forward the center bar is moved longitudinally which actuates the toggle arms. These arms slide carriage on axles until the arms are in a straight line, and at the same time all stop collars are engaged to end of boxes, which are bolted to cross girts. This removes all friction and end thrust from axles. The return of the carriage works in the same manner. All attachments are split and easily applied to axles.

	Net Weight	Gross Weight or Exp. Weight	Cubic Feet
3 Axles	736	1,000	8

American Band Mill Feed

Code Word, 8", Woehm; 10", Woeho



LEFT HAND MILL.

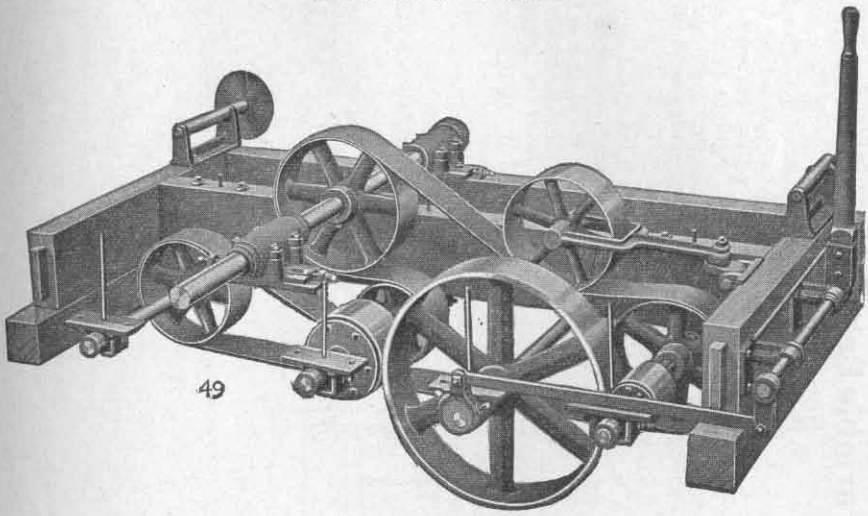
SPECIFICATIONS

Length of frame over all, including pulley, 7' 3".
Width of frame over all, including pulley, 5'.
Diameter of feed friction, 8".
Diameter of gig-back friction, 16".
Diameter of bull wheel, 32".
Diameter of rope drum, 24".
Diameter of sheaves, 18".
Feed gears 18" and 6" diameter, 3" face.
Diameter of belt pulley, 24".

All feed shafts are $2\frac{3}{16}$" diameter. 500 R. P. M. of belt pulley gives about 250' feed per minute, equivalent to average 6" circular mill feed. Gig-back is twice as fast as the maximum feed.

Weight, including sheaves with shafts and boxes, 8"—net, 1900 lbs., gross, 2,450 lbs. 10"—net, 2,100 lbs.; gross, 2,650 lbs. Cubic contents, 8" or 10", 60 cubic feet.

American "Hercules" Saw Mill Feed



This cut shows very clearly the details of our **"Hercules" Saw Mill Feed.** It is very powerful and the only reliable and satisfactory friction feed for large, heavy mills. It is used on all our "Hercules" Feed Mills.

The feed and gig-back frictions are continuously driven in opposite directions by an endless belt direct from the mandrel, the slack of the belt being automatically taken up by an idler. A single lever operates the feed and gig-back by shifting the bull wheel from one friction to the other, the wire cable drum being driven by a pinion on opposite end of bull wheel shaft.

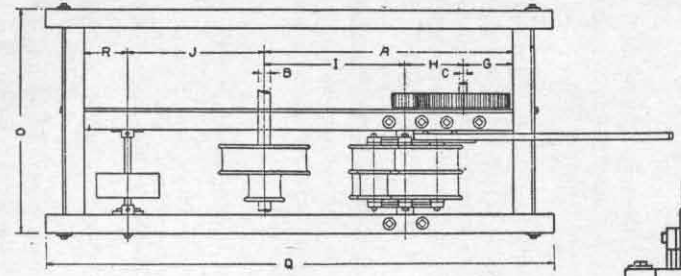
A Complete Feed consists of the frictions and pulleys with shafts and boxes, bull wheel shaft and boxes, feed lever with connections, and the idler. Belt, mandrel and boxes, board-roll, spreader-wheel and wood parts are not included, but can be furnished at extra cost, if desired.

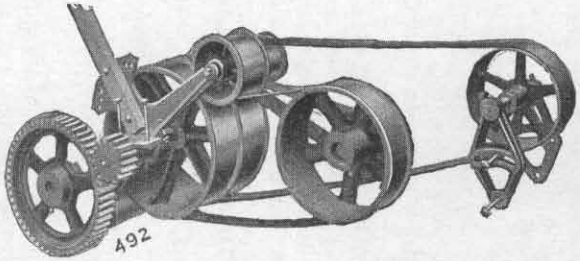
The American "Hercules" Feed can be fitted to any make of mill. It is made in four sizes, as follows:

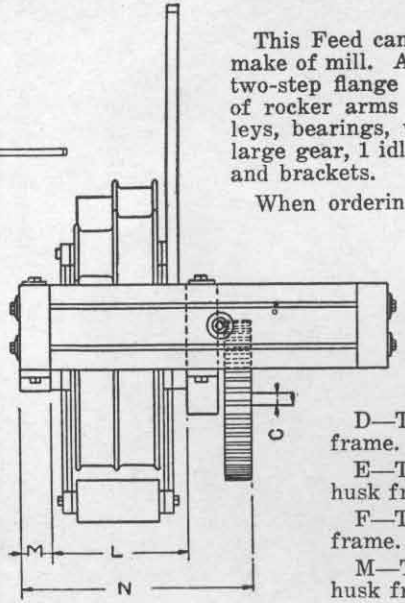
Code Words.....	Woehs	Woeje	Woeju	Woeka
Width of Face of Feed Pulleys....	5″	6″	8″	10″
Weight complete in lbs.....	750	1200	1600	2000

NOTE.—When ordering one of these feeds, always give exact diameter of saw mandrel and size of keyway.

American "Heacock" Variable Belt Feed







This Feed can be attached to almost any make of mill. A complete feed consists of a two-step flange pulley for mandrel; 1 pair of rocker arms complete with shafts, pulleys, bearings, weight, lever and pinion; 1 large gear, 1 idler pulley with shaft, collars and brackets.

When ordering give the following measurements:

A—Distance from inside front end of husk frame to center of mandrel.

B—Diameter of mandrel.

C—Diameter of rack pinion shaft.

D—The outside width of husk frame.

E—The distance from top of husk frame to center of rack shaft.

F—The width of sides of husk frame.

M—The thickness of sides of husk frame.

Is your carriage driven by wire cable?

State make of your saw mill.

Feeds are made in three sizes, as follows:

	Domestic Shipping Weight	Export Weight	Cubic Feet	Code Word
4" Belt No. 1	440 lbs.	600 lbs.	10	**Woeki**
4" Belt No. 2	600 lbs.	800 lbs.	13	**Woeks**
6" Belt No. 3	850 lbs.	1100 lbs.	16½	**Woeky**

American Variable Friction Feed

The American Variable Friction Feed can be attached to almost any make of portable mill. There are no complicated parts to wear out or to give trouble. A complete feed consists of the two sets of frictions, with the necessary shafts, boxes, collars, sawyer's lever and attachments, also the feed pinion and a large feed gear of a size suitable for the mill to which the feed is to be attached. Shafts are furnished of required length, according to order. Feeds are made in three standard sizes, suitable for mills using 10 to 40 H. P.

When ordering, give the following measurements:

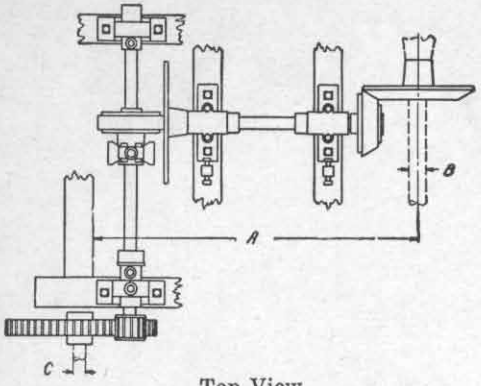
A. Distance from inside front end of husk frame to center of mandrel.

B. Exact diameter of mandrel.

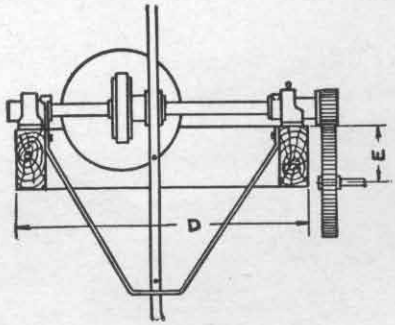
C. Exact diameter of rack pinion shaft.

D. Outside width of husk frame.

E. Distance from top of husk frame to center of rack pinion shaft.



Top View



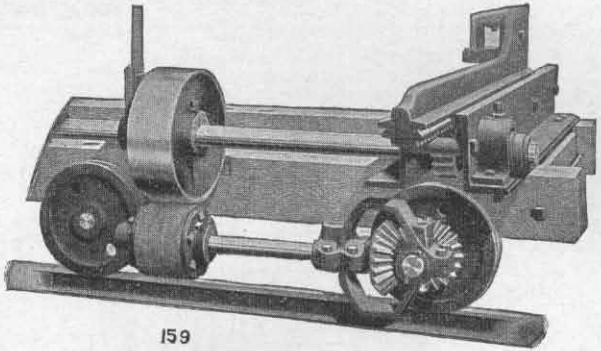
End View

Size		Shipping Weight
No. 1, same as used on No. 1 Mill*	Code Word, **Woela**	300 lbs.
No. 2, same as used on No. 2 Mill	Code Word, **Woelb**	425 lbs.
No. 3, same as used on No. 3 Mill	Code Word, **Woelf**	460 lbs.

*No. 1 feed has flat face friction instead of bevel.

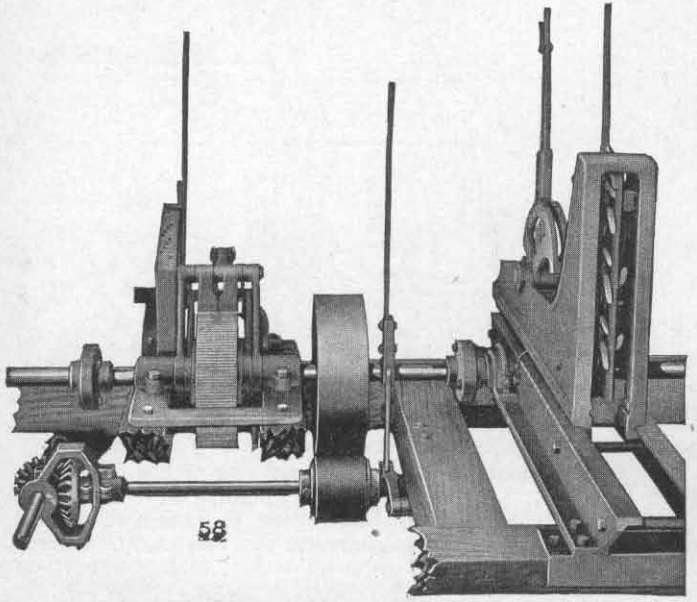
Power Receders for Heavy Carriages

These cuts show the Power Receders used on our Nos. 6, 6½, 7½ and 8 Carriages. They are operated by the setter, who rides on the carriage, simply by the movement of a lever. Power is derived from one or more of the truck axles. They will easily handle the largest logs in either direction and can be used for shoving heavy cants on to live rolls.



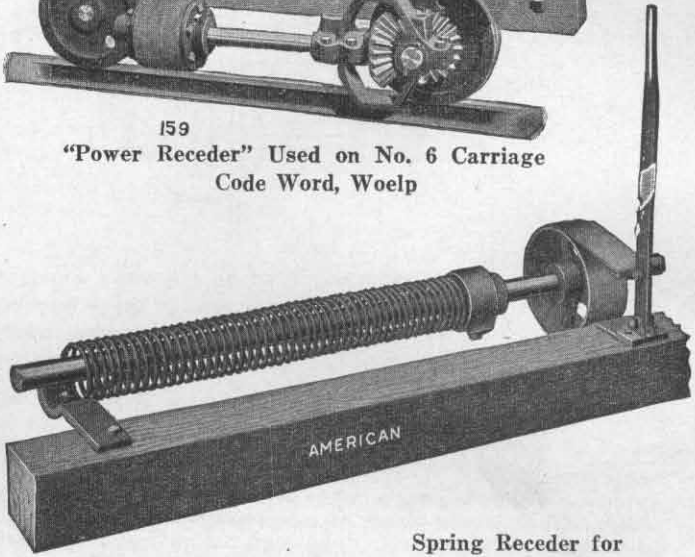
159

"Power Receder" Used on No. 6 Carriage
Code Word, Woelp

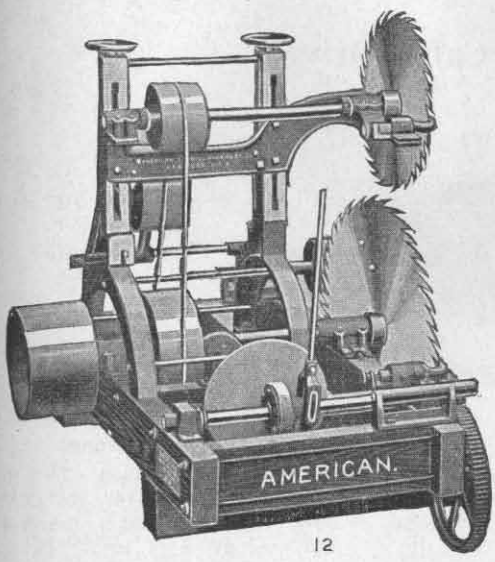


58

Power Receder Used on Nos. 6½, 7½ and 8 Carriages
Code Word, Woels



Spring Receder for use with Double-Acting Set Works. Code Word, with one Spring, Woely. Code Word, with two Springs, Woema.



12

Top Saw Rig

Code word of Top Rig only, Woemi

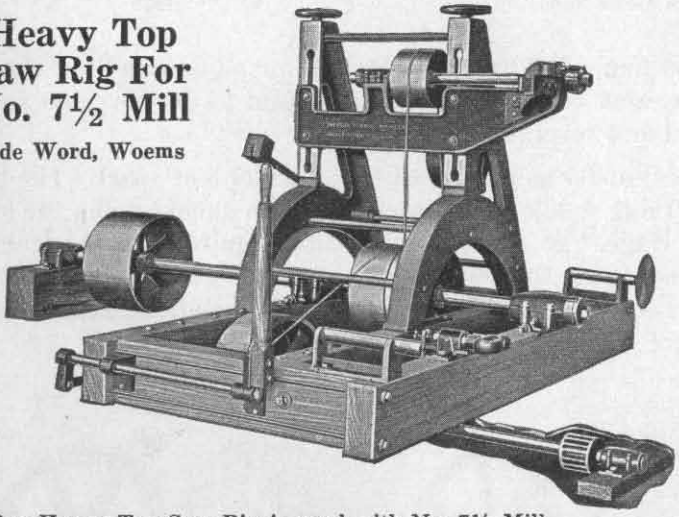
With this Rig a 60″ Lower Saw and 40″ Top Saw can be used. Minimum space between arbors 37″. It can be fitted with reverse drive when desired.

The Top Saw Rig shown is the style used on our Nos. 3, 4, 6 and 6½ Mills to convert them into Double Mills.

The Top Saw Mandrel (1 1/8″) is driven from a pulley on bottom mandrel. It has chain-oiling bearings and 5″ collar, which is fitted for saw with 2″ hole and two ⅝″ pin holes on 3″ circle. The cross rail carries our No. 1 Universal Saw Guide and is raised and lowered by hand wheels and screws and provided with clamping bolts. A belt tightener with adjustable weight is provided. Weight 1075 to 1200 lbs. Export shipping wt. 1350 lbs. Cu. contents, 34′.

Heavy Top Saw Rig For No. 7½ Mill

Code Word, Woems



Our Heavy Top Saw Rig is used with No. 7½ Mill.

The design and distribution of metal insures great rigidity and lack of vibration.

The cross rail is very substantial, with 2 7/16″ steel mandrel running in chain-oiling bearings, placed directly on top of rail so that there is no torsional strain.

Arm and guide are of peculiar form, giving great strength and wide adjustment.

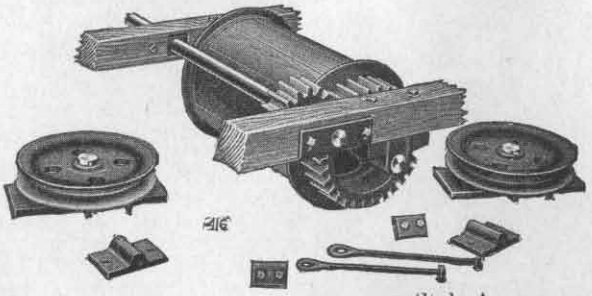
A belt tightener is provided, controlled by level and adjustable weight.

Weight of Top Saw Rig only, 1750 lbs. Export shipping wt. 2050 lbs. Cu. contents 54′.

With this Rig a 66″ Lower Saw and a 40″ Top Saw can be used. Minimum space between arbors 40″. It can be fitted with reverse drive when desired.

Code Word, reverse drive for either **"Woe mi"** or **"Woems"—,Woihi.**

Wire Cable Drive



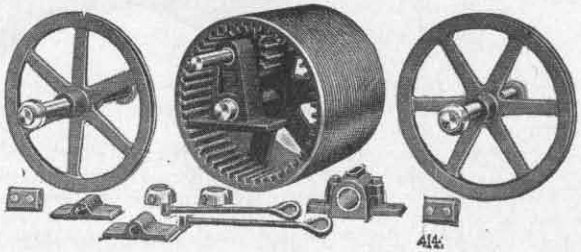
Style "B" with Horizontal Sheaves

Code Word (State size)	Style A — Woemy				Style B — Woene	
Size	12 inch	18 inch	24 inch	30 inch	11 inch	14 inch
Dimensions of Drum	12"x11"	18"x14"	24"x16"	30"x16"	11"x14"	14"x20"
Suitable for Mills Nos.	1 and 2	3 to 6½	7½	8	1 and 2	3 and 4
Diameter of Gear	11"	16"	21"	27"	10"	12"
Diameter of Pinion	4"	5"	7"	7"	4"	6"
Diameter of Sheaves	12"	18"	24"	30"	10"	12"
Wt. comp. without Cable	150	350	500	1600	175	300
Size of Wire Cable recom.	⅜"	½"	⅝"	¾"	⅜"	½"

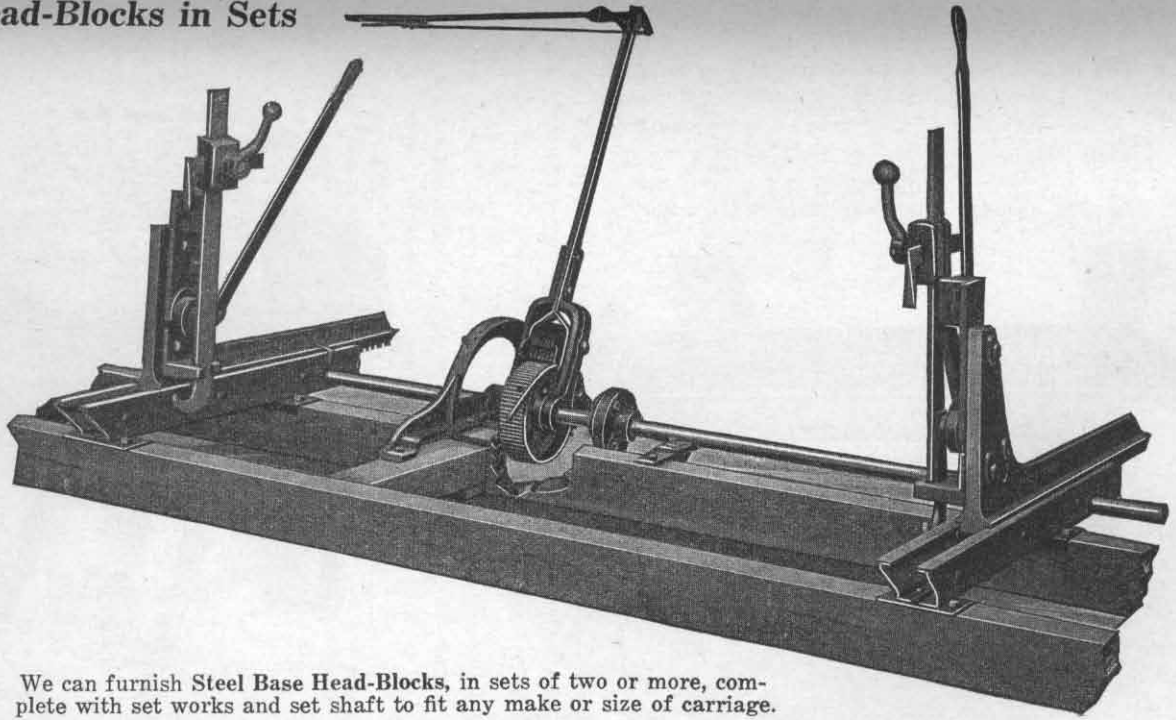
We recommend **Wire Cable Drives** for all saw mills. They impart a powerful but quiet and easy motion to the carriage and can be stopped and reversed quickly.

Sheaves should be placed not less than 20 feet apart. The travel of the carriage equals the distance between sheaves plus the length of the carriage. To find length of rope required—to the length of carriage add twice the distance between sheaves and five times the circumference of the drum (15 times the diameter), also add about five feet for connections.

Style "A" Vertical with Sheaves



Head-Blocks in Sets



We can furnish **Steel Base Head-Blocks,** in sets of two or more, complete with set works and set shaft to fit any make or size of carriage.

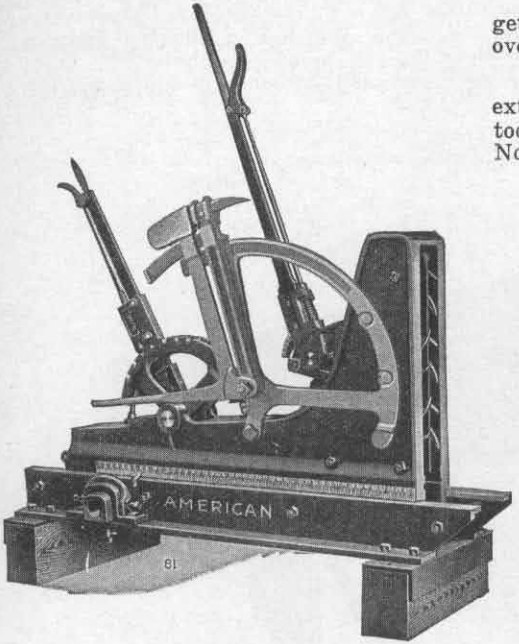
Size	*No. 1	No. 2	No. 3	No. 4
Outside Width of Carriage Blocks will fit	30″	30″	36″	40″
Inside Width of Carriage Blocks will fit	23″	23″	27″	31″
Extreme Opening of Standard Head-Block	38″	38″	44″	48″
Diameter of Set Shaft	$1\frac{7}{16}$″	$1\frac{11}{16}$″	$1\frac{15}{16}$″	$1\frac{15}{16}$″
Length of Set Shaft	16′	20′	20′	20′
Weight complete	600 lbs.	780 lbs.	975 lbs.	1050 lbs.
Weight of Additional Blocks each	175 lbs.	200 lbs.	280 lbs.	320 lbs.
Code Words	**Woeng**	**Woeno**	**Woepa**	**Woepi**

*Dogs on No. 1 set are our "Eveready," as shown on page 48

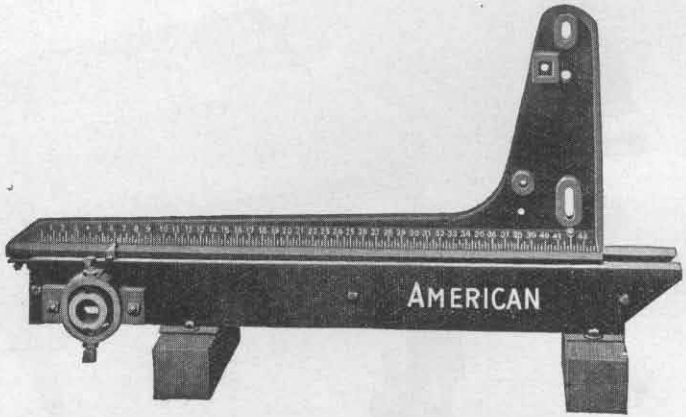
Nos. 7½ and 8 American Head-Blocks

These **Head-Blocks** have the bases made of heavy 6″ Steel Z Bars, bolted together through hollow struts and riveted at each end to 6″ x 3″ steel angles, which overlap the carriage timbers and give a bearing 20″ long thereon.

The Knees are usually cast iron, but may be made of steel when so desired, at extra cost. They are heavily ribbed and cast hollow to receive our "Ajax" double tooth dog. "Knight" dogs may be fitted also when desired. No. 7½ has 5″ and No. 8 has 6″ taper movement.



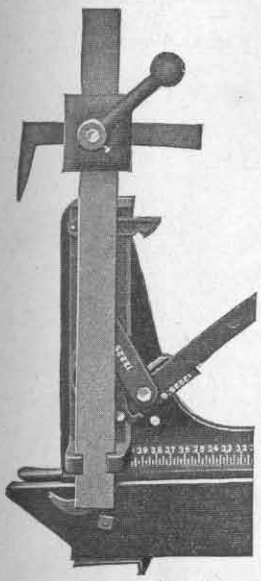
No. 7½ Heavy Head-Block Fitted with Ajax Dog and Hammer Dog



Showing the **Steel Base Head-Blocks** used on all our Nos. 1, 2, 3 and 4 Mills.

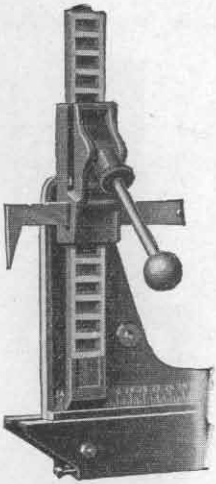
Note the adjustable, self-aligning **Set Shaft Bearings.** They keep lost motion out of the Knees, prevent set shaft from binding, make easy working Knees, and insure **accurately** sawed lumber.

"Giant" Duplex and "Champion" Mill Dogs



Giant Dog

No. 1, wght. 70 lbs. Code Word, **Woepa**
No. 2, wght. 90 lbs. Code Word, **Woept**



Champion Dog

weight 40 lbs. Code Word, **Woepu**

The "Champion" is an all-around good dog, very strong and rapid in action, and, by many sawyers, is preferred to any other.

In our new **"Giant" Saw Mill Dog** we believe we are offering the saw mill man one of the **Strongest, Simplest, Quickest and Most Effective Dogs** that has yet been produced—one that will fully meet every demand made upon it.

The Main Frame is one piece, bolted to the head-block knee.

The Slide Bar is secured to the main frame, has an up and down movement and carries the top dog socket, and is moved by the operating lever.

The Top Dog Socket is adjustable to any desired position on the slide bar and carries the dog bit, which is adjustable in or out.

The socket and bit are readily secured in any position in one motion by a heavy screw with ball lever handle.

The Lower Dog moves independently of the main slide bar, but is controlled by same operating lever. It is automatic and self-adjusting.

The Operating Lever moves the top and bottom dogs together by one motion. When set they are held firmly in position by a ratchet which acts automatically by the movement of the operating lever.

In Operating the top dog socket is lowered until the bit touches the log and is fastened to the slide bar by the screw lever. Then by pressing down the operating lever the top dog is forced into the timber and the lower dog rises automatically by same motion.

Can be used on any make of mill and is easily attached by simply bolting the main frame to the side of the head-block knee. Made in two sizes suitable for any size mill.

"Simplicity" Dog

Code Word, Woerb

Ever Ready Dog

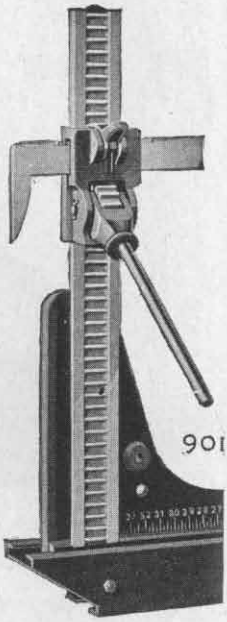
Code Word, Woere

Ever Ready Dog

Weight, 45 lbs.

Code Word, Woere

This Dog is, as the name implies, ever ready for quick work; easy to operate and affording a firm hold in the log. It can be attached to almost any headblock. Travel of socket on bar, 26".



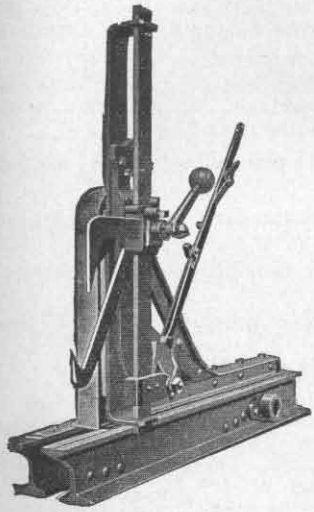
Simplicity Dog—Meets the demand for a quick acting, light drop dog that will "Bite Hard" and "Hold Fast."

If the weight of the dog dropping on the log does not give sufficient hold, the dog socket is used as a hammer to drive bit into the log, and it is used as a hammer to drive the dog out of the log. The dog bit is held by means of a spring and notches in such manner that when in the log it cannot pull out. Weight, 40 lbs.

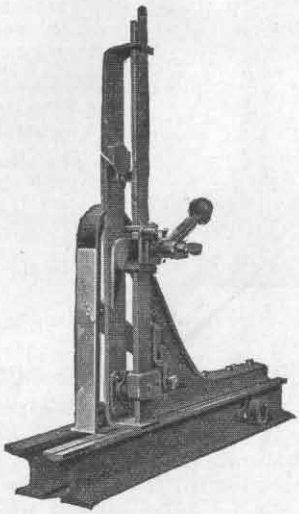
Ever Ready Dog—Pulling out slightly on the lever releases the pinion and allows the socket and bit to move freely up or down. Pushing down forces the bit into the log and lifting releases the dog. The dog bit is notched and held by means of a ratchet and spring. The rack bar and socket are machine finished, lost motion thereby being eliminated. Travel of socket on bar, 26 inches. Weight of dog 45 lbs.

The "Knight" New Ideal Saw Mill Dog

Code Word, Woerk
(Give style and size)



Duplex



Single

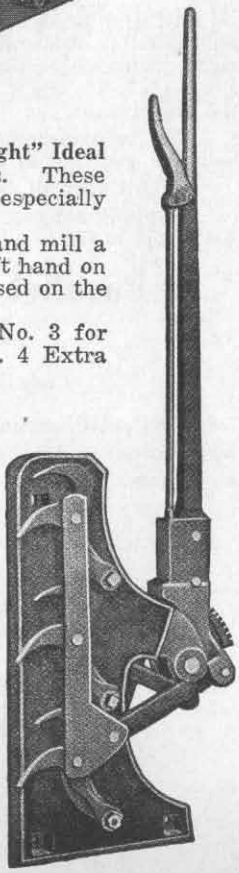
When desired, we can fit our carriages with the **"Knight" Ideal Mill Dogs,** either **Single or Duplex,** as shown in the cuts. These are very strong and easy to adjust. The **"Duplex"** are especially adapted to quarter sawing.

They are made right and left hand. For a right hand mill a right hand dog is used on the front head-block, and a left hand on the rear block. On a left hand mill, a left hand dog is used on the front head-block, and a right hand on the rear.

No. 1 for Pony Mills; No. 2 for Medium Mills; No. 3 for Heavy Mills; No. 3 Special for Steam Feed Mills; No. 4 Extra Heavy, for Steam Feed Mills.

The American "Ajax" Double Tooth Mill Dog

Code Word, Woerl

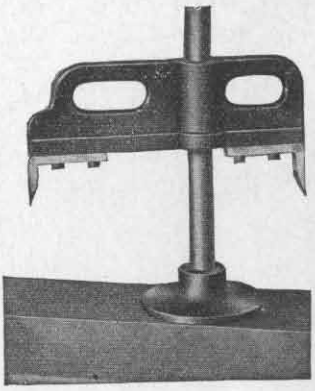


The American "Ajax" Double Tooth Mill Dog is the most desirable dog for heavy mills. It has bits on both sides of the frame. On one side they work down as shown, on the other they move up, hence they will firmly grip a log of any size and hold it securely and will not turn it or push it away from the knees.

The Main Frame is cast steel, the bits are drop forged tool steel and sharpened to a point. All other parts are steel, the pins are large and all wearing surfaces are ample. The action of the levers is direct and very powerful. The bolt holes are in the same position as on other dogs of this type and they can be fitted to almost any heavy head-block.

They are made right and left hand and regularly furnished with our Nos. 6½, 7½ and 8 Carriages.

Weight complete as shown, 90 lbs.



American "Drop Dog"

Code Word, Woero

This cut shows our new **Drop Dog** with which we are now equipping our **Log Beam** carriages.

We can furnish them for use on any make of **Log Beam Carriage.** They cannot be used on a carriage without Log Beam.

The standard is polished steel, $1\frac{7}{16}$" diameter and 28" high.

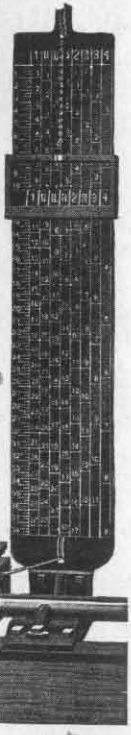
Distance from standard to bit on long end, 10".

Distance from standard to bit on short end 6".

Weight of dog, complete as shown, 47 lbs.

Sawyer's Favorite Scale Board

Code Word, Woery



All graduations are in plain view of sawyer. The first column consists of a standard scale in ¼" graduations. There are eight additional columns, indicating the number of 1", 1¼", 1½", 1¾", 2", 2½", 3" or 4" pieces which can be made from the log or cant.

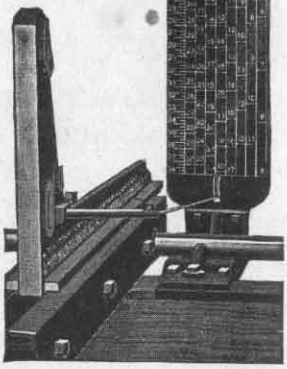
Can be attached to almost any make of saw mill and is a valuable addition to any mill.

Height over all, 50"; width, 8½".

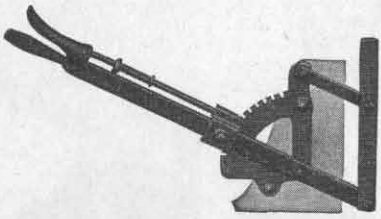
Shipping weight, 65 lbs.; export weight, 90 lbs. Cubic contents, 2½ c. f.

Parallel Bar or False Knee

Code Word, Woesh

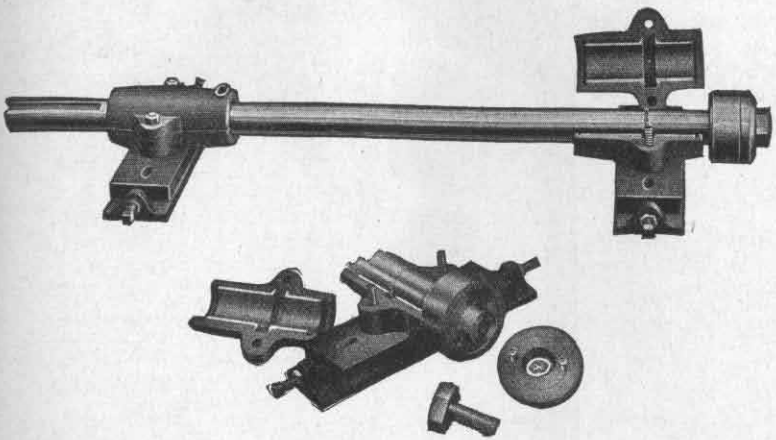


This cut illustrates our **Parallel Bar** or **False Knee** attached to the head-block knee. This is a valuable and convenient attachment to any mill and is used to throw out the small end of log, to steady light or crooked logs, and for sawing tapering timber. It is easy to operate and works perfectly.



Made in two sizes, the smaller for use on our Nos. 1, 2 and 3 Mills; the larger for use on Nos. 4 and 6 Mills.

Saw Mill Mandrels and Boxes



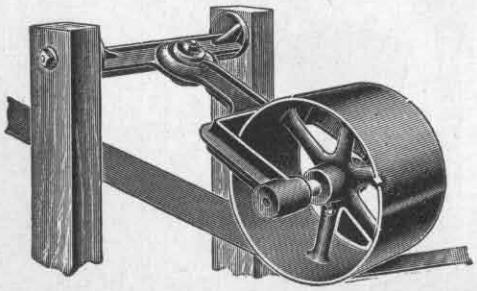
Showing Chain Oiling Box and method of fitting nut and lug pins

Our Standard **Saw Mill Mandrels** are made of the best grade steel, turned and ground perfectly true, with solid steel collars, fitted for saws with 2″ hole, and two ⅝″ pin holes on 3″ circle.

Diameter	2 3/16″	2 5/16″	2 7/16″	2 11/16″	3 7/16″	3 11/16″
Length	4′10″	5′6″	6′	6′	10′	10′
Weight without boxes, lbs.	77	92	108	157	340	440
Weight each box, lbs.	20	46	51	79	100	124
Code Word complete with boxes	Woesp	Woest	Woesy	Woete	Woets	Woetu
Code Word, without boxes	Woevi	Woevs	Woewe	Woewo	Woewu	Woexa

American Belt Tightener

Code Word, Woexi

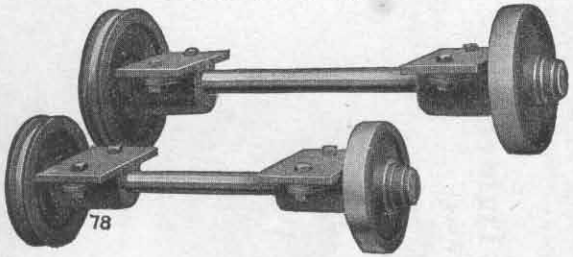


This cut shows our new **Belt Tightener,** fitted to a husk frame in the usual manner. We furnish these belt tighteners with all our mills, except No. 1. They are easily adjusted and the belt can be guided perfectly with them. The posts for supporting the Tightener are not furnished. Belt Tightener for No. 1 mill is carried in a wood frame.

Carriage Trucks

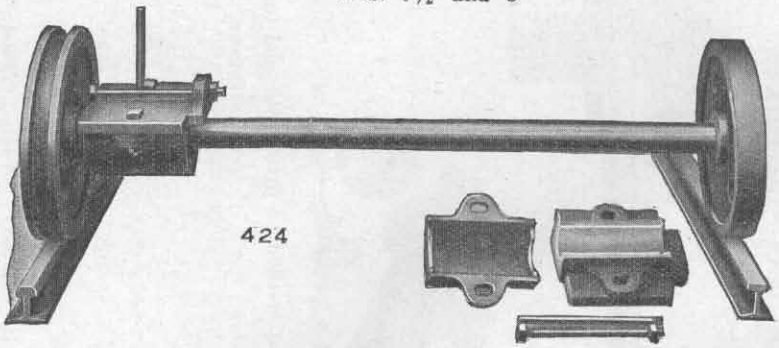
Our **Carriage Trucks** are made in eight regular sizes with polished steel axles. Boxes have large oil and waste pockets. The Nos. 7½ and 8 have screw adjustment.

Nos. 6 and 6½



Nos. 1, 2, 3 and 4

Nos. 7½ and 8



Number or size	1	2	3	4	6	6½	7½	8
Code Word	Woikt	Woiku	Woild	Woilg	Woilk	Woilo	Woilt	Woilu
Size of Axles, inches	1¼	1¼	1½	1 11/16	1 11/16	1 11/16	1 15/16	2 3/16
Size of Wheels, inches	7	7	8	10	10	10	12	14
Weight with Boxes, lbs.	43	43	75	110	120	140	167	270

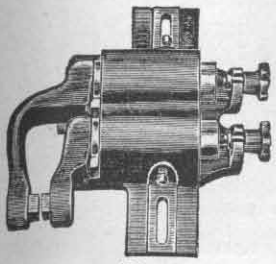
NOTE.—Wheels for Flat Track on No. 1 and 2 Mills have flange on inside.

Rolled Steel Carriage Track

The cuts show the style or shape of the **Rolled Steel Guide Track,** which we furnish with our different size mills. The cuts are about one-fourth actual size, but the measurements are correct. Style A is furnished with Nos. 1, 2 and 3 carriages, style B-2 with No. 4, and Style C with Nos. 6. 6½, 7½ and 8. Style C is planed to fit truck wheels. Weight per yard, lbs.: A, 8 lbs.; B-2, 12 lbs.; C, 16, 20 and 40 lbs.

Code Words: A, **Woeys**; B-2, **Woeye**; C, **Woeyo.**

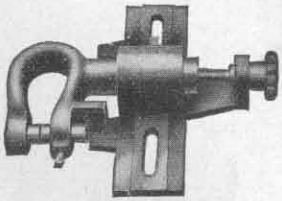
American Universal Saw Guides



No. 3

We show here our **American Universal Saw Guides** which we furnish regularly with all our saw mills.

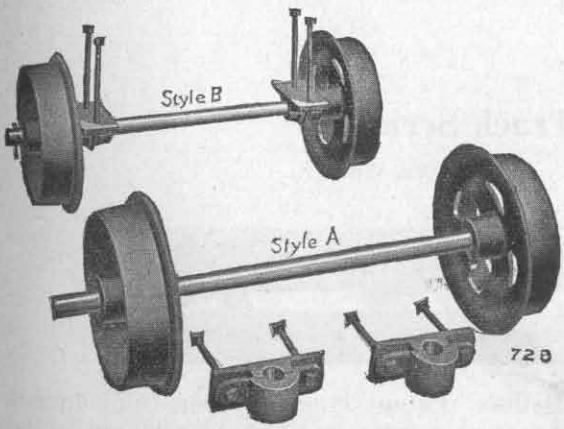
These guides will fit either right or left hand mills equally well and can be used on mills of any make. The yoke is adjusted in or out by simply turning the knurled hand screw, which can be done while the saw is in motion without danger to the sawyer. They have large throats and can be turned out of the way for removing the saw. They give universal satisfaction.



No. 1 and 2

	No. 1	No. 2	No. 3
Net Weight	25 lbs.	40 lbs.	85 lbs.
Furnished with Mills Nos.	1 to 3	4, 6 and 6½	7½
Code Word	Woeza	Woezi	Wofak

Log and Lumber Trucks



Our **Standard Lumber Trucks** are made in five regular sizes with steel axles and are generally used in wood frames without boxes, but suitable boxes or stirrups can be furnished when wanted, at extra cost. All are 26½" gauge and 2½" tread. Wider gauge furnished at extra cost.

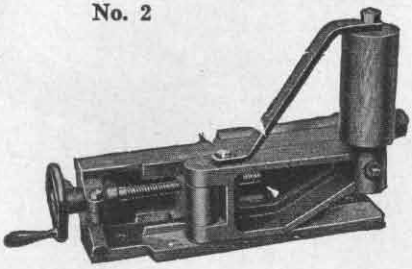
The **Log Trucks** are of similar patterns but heavier and may have clamp boxes and stirrups, or babbitted boxes with oil cellars.

A set consists of four wheels and two axles. Stirrups are furnished with style "B." Style "A" shipped without boxes unless boxes are specified in order. For specifications of Heavy Log Trucks see Price Book.

Size of Wheels	8"	10"	12"	16"	20"
Size of Axles	1 7/8	1 7/8	1 7/8	1 11/16	1 11/16
Weight Lbs.	110	138	158	262	400
Code Word	Wofan	Wofar	Wofat	Wofav	Wofax

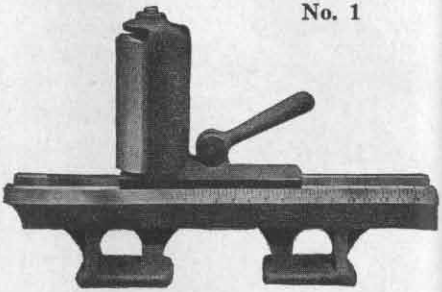
Gauge Rollers

No. 2



Code Word, Wofba

No. 1



Code Word, Wofaz

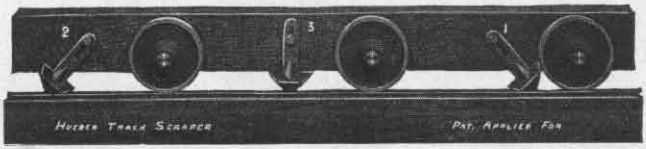
A Gauge Roller is a great help in cutting accurate lumber. We can furnish two styles, Nos. 1 and 2, as shown herewith, for use on any of our mills.

No. 1, for small mills, weight, 90 lbs.

No. 2, for large mills, weight, 150 lbs.

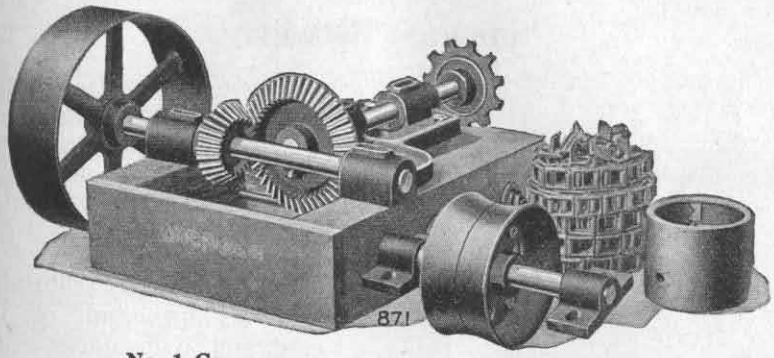
Track Scrapers

Code Word, Wofbi



This cut shows our **"Heuber" Patent Track Scraper,** the simplest and most effective scraper ever devised. When properly fitted to the carriage, it will clean the track and wheels at the same time and automatically reverses with the carriage, scraping the track both ways. It will not catch on the end of the track. It is furnished on all our mills.

Figure 1 shows the position of the scraper when the carriage is feeding. Figure 3 shows the position the scraper takes when the carriage reverses and Figure 2 shows position of scraper when carriage is gigging back.



No. 1 Conveyor

Sawdust Conveyor Fixtures

Our Chain Saw Dust Conveyor Fixtures are for use on saw mills of any make and all sizes, whether Portable or Stationary, and operate as perfectly on mills set up on the ground out of doors as in a regular mill building.

They work right or left hand and can be driven in either direction.

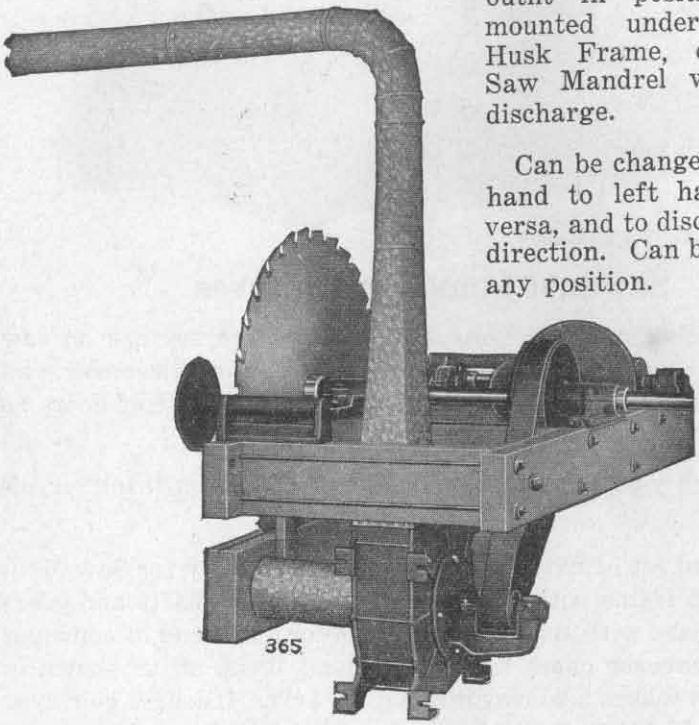
A standard set of fixtures consists of Split Pulley for Saw Mandrel, cast iron frame with Pulley, sprocket wheel, shafts and gears attached, Sheave with shaft and bearings for outer end of conveyor and 50′ of conveyor chain with attachment links, all as shown in the cut. This makes a conveyor about 25′ long. If longer conveyor is wanted, add 2′ of chain for each additional foot of conveyor wanted. Our No. 4 conveyor has take-up boxes for end shaft.

Made in four sizes, Nos. 1, 2, 3 and 4. For small, medium and large mills.

Size	No. 1	No. 2	No. 3	No. 4
Size of Carrier Chain	No. 45	No. 55	No. 57	No. 67
Code Word	Wofby	Wofci	Wofde	Wofdo
Weight, boxed	180	195	290	430
Weight, without Chains	145	145	160	225
Longest Conveyor recommended	40′	60′	80′	150′

No wood parts are furnished for Nos. 2, 3 or 4 conveyors. No. 1 conveyor is furnished with wood base as shown and with cover for gears.

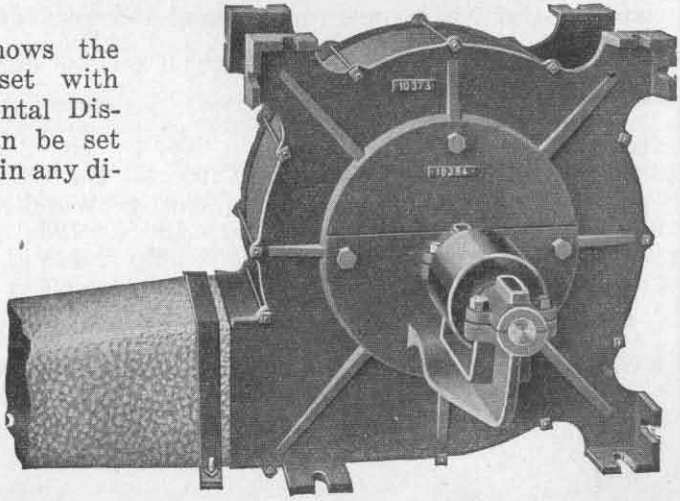
Sawdust Blower



This cut shows complete outfit in position; Blower mounted under Saw Mill Husk Frame, driven from Saw Mandrel with upright discharge.

Can be changed from right hand to left hand, or vice versa, and to discharge in any direction. Can be fastened in any position.

This cut shows the Blower only set with Bottom Horizontal Discharge. It can be set with discharge in any direction desired.



Sawdust Blower

The American Saw Dust Blower is especially designed for removing the saw dust from circular Saw Mills. It may be successfully used on mills using saws from 36″ to 72″ diameter and is so constructed that it can be installed directly under or over the Husk frame or just forward of the Husk, as may be the most convenient for belting from the Mandrel.

Having feet on four corners, it may be secured to the underside of the Husk or to timbers in the saw pit, or set on a platform over the Husk, as preferred.

The discharge may be directly up or down or top-horizontal or bottom-horizontal and by means of elbows in discharge pipe the saw dust can be delivered in any direction and to a distance of 100 feet from the mill when so desired.

The driving pulley may be placed on the saw Mandrel inside of Husk Frame or outside of Husk between Mandrel Pulley and main bearings, as may be more convenient. Blower may also be driven from any other shaft that may be more convenient.

The Blower is so constructed that by removing four bolts the pulley-bearing-bracket may be turned around to any desired position to accommodate the drive belt or direct the discharge in any direction or it may be shifted to the opposite side where the intake ring is located, thus changing the blower from right to left or vice versa. This makes the blower adapted to any situation or condition. No other blower possesses these advantages.

When used with our saw mills we furnish each blower with drive pulley up to 20″ diameter, intake hopper, short piece of 8″ pipe to connect hopper direct to blower and 25′ of 6″ discharge pipe and one elbow. Additional pipe can be furnished when desired at extra cost.

DIMENSIONS AS FOLLOWS:

Diameter of Blower	22″
Diameter of Inlet	8″
Diameter of Outlet	8″
Pulley on Blower	5″ x 4″

Speed should be 1,200 to 1,500 R. P. M., according to distance saw dust is to be delivered.

Weight of Blower only 190 lbs. Code word, **Wofdu.** Weight of outfit complete, packed for shipment, 450 lbs.; cubic measurement, 35 cu. ft. Code word, **Wofeb.**

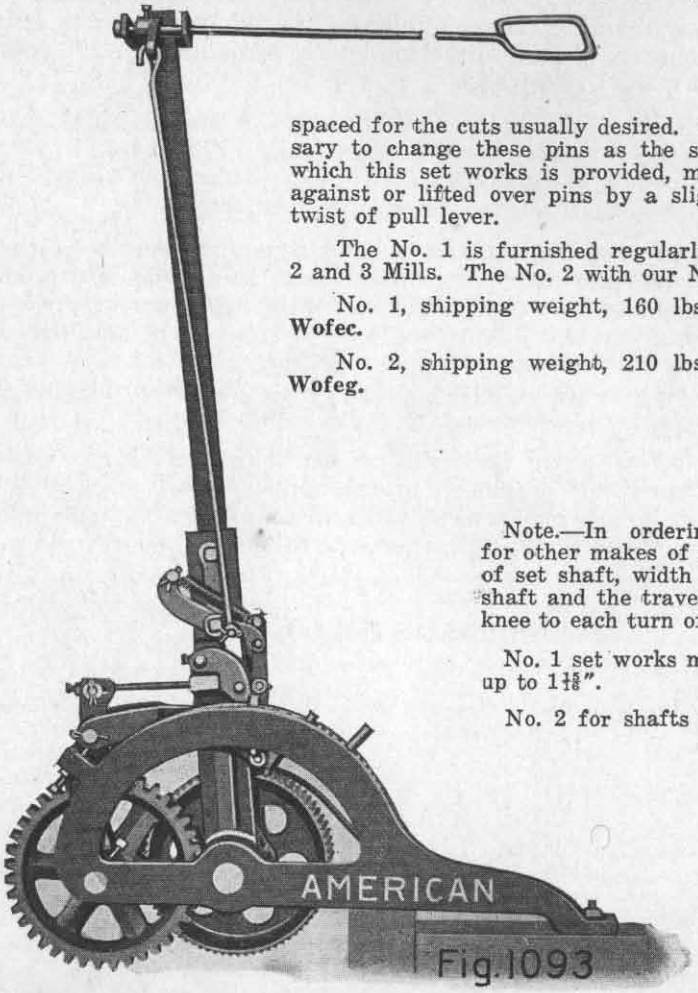
Improved "Ideal" Set Works with Quick Receder

Our New Improved "Ideal" Set Works with Quick Receder is the most desirable improvement put on portable saw mills in recent years.

It is very simple and works very easily in setting or receding. Both setting and receding are done by same lever.

To recede, the pull lever is twisted to the extreme right until it latches; pawls will stay in this position until released. This will allow the headblock knees to recede either by direct pressure against them (as in rolling a log on carriage) or, by a straight pull on the lever as in setting. The headblocks are thrown back about three times as rapidly as they are set forward and three or four pulls of the lever are usually sufficient to recede headblocks.

Three or four stop pins may be placed in the quadrant, as illustrated, spaced for the cuts usually desired. It is not necessary to change these pins as the stop pawl, with which this set works is provided, may be dropped against or lifted over pins by a slight right hand twist of pull lever.



The No. 1 is furnished regularly with Nos. 1, 2 and 3 Mills. The No. 2 with our No. 4 Mill.

No. 1, shipping weight, 160 lbs. Code word, **Wofec.**

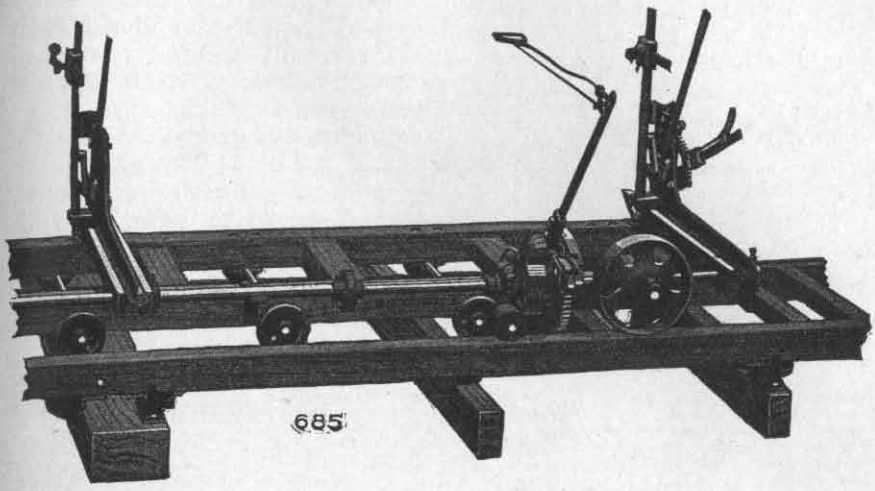
No. 2, shipping weight, 210 lbs. Code word, **Wofeg.**

Note.—In ordering set works for other makes of mills, give size of set shaft, width of key seat in shaft and the travel of head-block knee to each turn of set shaft.

No. 1 set works made for shafts up to $1\frac{15}{16}$".

No. 2 for shafts up to $2\frac{1}{4}$".

"Ideal" Set Works and Power Foot Receder



This is a combination of our well-known **"Ideal" Set Works** and **Quick Receder** with our **"Improved" Power Foot Receder,** which we believe is the greatest help and convenience to the sawyer that has ever been applied to portable saw mills.

With this device the sawyer can **set up** the log either **by hand,** in the usual manner, or **by power** if he prefers. He can also **recede** the blocks **by hand three times as fast** as the setting or he can recede them **more rapidly** and **easier by power** when the carriage is in motion. The power is applied by simply pressing the foot on a treadle which is placed at the sawyer's position.

Neither device interferes with the other, for when the foot receder is used it automatically disengages the hand receder and set works and when the foot power receder is released the hand receder and set works are ready for use again.

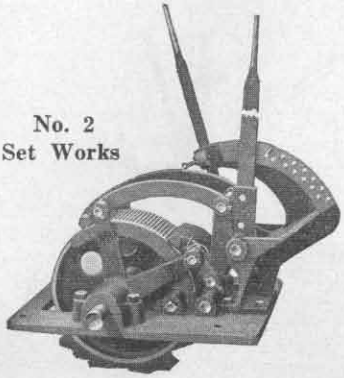
This combination can be applied to any of our saw mills from No. 1 up to No. 4 at small extra cost. It can be fitted to mills of other make.

NOTE.—In ordering these rigs for other makes of mills, give size of set shaft, width of key seat in shaft and the travel of head-block knee to each full turn of set shaft.

No. 1 Set Works and Foot Receder made for shafts up to $1\frac{15}{16}$". Code Word, **Wofel.**

No. 2, for shafts up to $2\frac{1}{4}$". Code Word, **Wofem.**

Double Acting Set Works



No. 2
Set Works

Nos. 1 and 2 have ratchet wheels with cut teeth and cast steel pawls carefully ground to insure accurate setting. **Steel Ratchet Wheels** furnished at extra price. The quadrant is graduated by 8ths or 16ths, and fitted with adjustable stop and an adjusting screw to provide for setting scant or full.

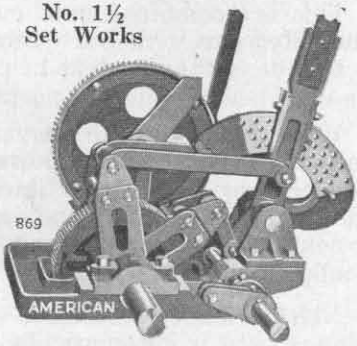
No. 1 Set Works is not illustrated. It is in principle the same as No. 2, but differs somewhat in construction.

Size	No. 1	No. 1½	No. 2	No. 3
Weight complete	200 lbs.	350 lbs.	500 lbs.	536 lbs.
Size of Ratchet Wheel	12"x3"	12"x3"	18"x5"	18"x4"
Largest Set Shaft that can be used	2¼"	2¼"	2¾"	3"
Will set with double throw of lever	2½"	2¼"	2½"	2¼"
Can be used on our Mills Nos.	3 to 6	6½	7½	7½ and 8
Code Word	Wofes	Wofew	Woffi	Woffy

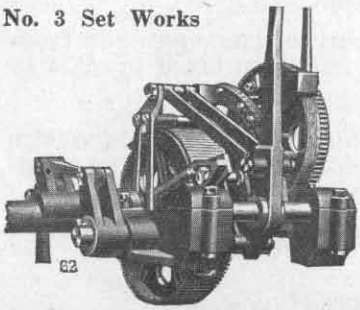
Spring or **Power Receder** must be used with these set works.

No. 1½ Steel Set Works—All small parts are made of steel. Spring or power receder may be used. Indicator dial as shown is not part of the regular set works, but is furnished, when ordered, at extra cost. This set works is used regularly with No. 6½ Saw Mill.

No. 1½
Set Works



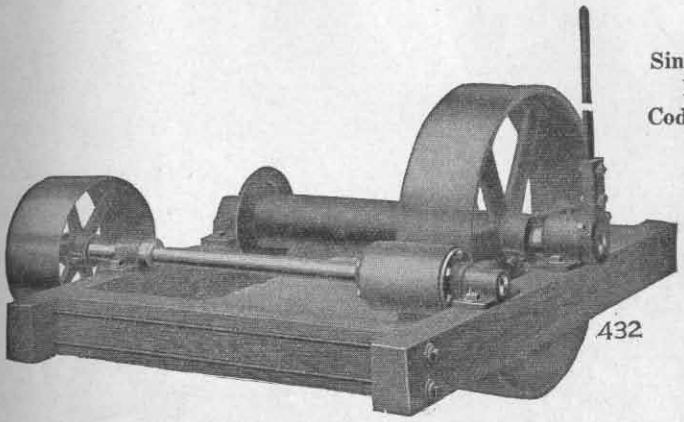
No. 3 Set Works



The No. 3 Set Works is constructed of STEEL. The quadrant is carried by one of the yokes and the location of the stop pins in this quadrant determines the travel of the knee. They may be set so that one throw of the set lever moves the knee 1-32" or a double throw 1-16". The receding lever lifts the pawls first, then applies the power receder so that the pawls cannot be down when the receder or brake is applied.

Car or Log Haul-Up Rigs

The following cuts show a few standard combinations of Log or Car Haul-up Rigs. If the specifications do not cover your requirements we are prepared to estimate on special rigs or combinations.



Single Spur Friction Drive Haul-Up Code Word, Wofga

No. 1. Spur friction, 32"x8"; paper friction, 6"x8"; drum, 6"x24"; drum shaft, $3\frac{3}{16}$"; drive shaft, $1\frac{15}{16}$"; drive pulley, 16"x8". Speed, 250 R. P. M. Code word, **Wofgi.** Weight, 1175 lbs. Gross weight for export, 1475 lbs., 26 cubic feet.

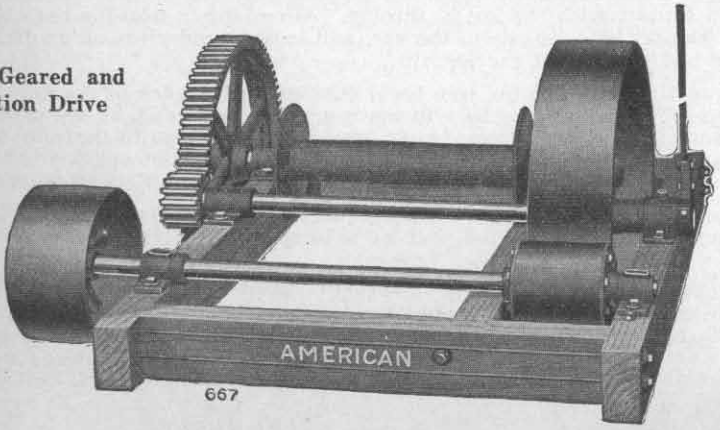
No. 2. Spur friction, 48"10"; paper friction, 10"x10"; drum, 6"x36"; drum shaft, $2\frac{7}{16}$"; drive shaft, $2\frac{3}{16}$"; drive pulley, 20"x10". Speed, 250 R. P. M. Code word, **Wofgy.** Weight, 1500 lbs. Gross weight for export, 1900 lbs., 52 cubic feet.

Spur Geared and Spur Friction Drive Car Haul-Up

Code Word, Wofhe

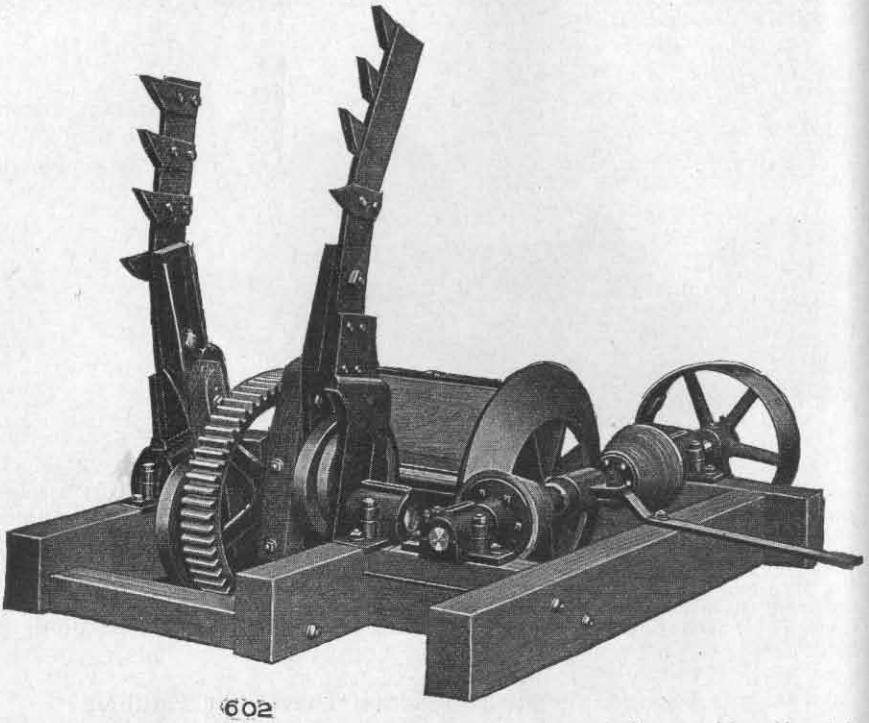
Spur gear, 36.23" diameter; 1¾" pitch; 65 teeth; 5" face. Pinion, 7.24" diameter; 13 teeth. Spur friction, 48"x10". Paper friction, 10"x10". Shafts, $2\frac{7}{16}$" and $2\frac{3}{16}$" diameter. Pulley, 20"x10". Speed, 250 R. P. M. Code word, **Wofhe.** Weight, 1900 lbs. Gross weight for export, 2485 lbs., 66 cubic feet.

Spur Geared and Friction Drive



"Two-Bar" Log Turner

Code Word, Wofho



602

The American "Two-Bar" Log Turner is an almost indispensable adjunct to any portable, semi-portable or ground floor saw mill. By its use the back-breaking labor of turning logs by hand is almost entirely done away with, and the capacity of the mill is so increased that the machine will soon pay for itself.

The machine consists principally of two short tooth bars, operated by cams, gears and frictions, in such a manner that one of the two bars is always in contact with the log in turning. When not in use, the bars lie back on the bumper skid, shown in the cut, and located under the skids of the log deck, out of the way of the log.

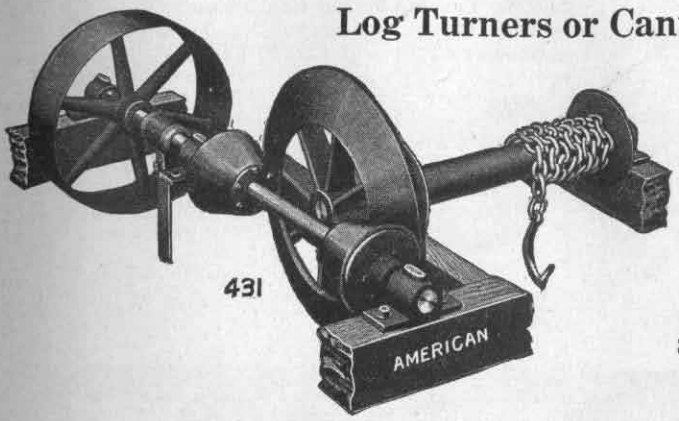
Power is applied to the iron bevel friction through one of the bevel paper frictions. This causes the bars to move up and down, and, at the same time, by means of the auxiliary wooden friction blocks attached to the sides of bars and clamping on to main shaft, causes the bars to rise into position shown in cut, ready to crowd against the log and turn it into any desired position.

Applying the other paper friction causes the bars to drop down on bumper skids out of the way, until the next log is to be turned. Its action is simplicity itself.

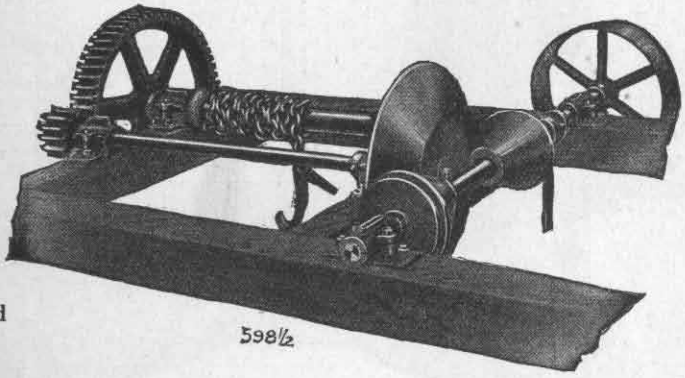
All parts are made heavy and durable to withstand the roughest usage.

The machine is usually belted from an overhanging pulley on the main mandrel, but can be belted from any convenient counter-shaft. It is built in one size only for logs scaling up to 800 feet. Net weight, 1,050 lbs.; for export gross weight, 1,285 lbs.; measurement, 50 cubic feet. Pulley, 12"x6"; speed, 500 R. P. M.

Overhead Reversible Friction Log Turners or Canters



Nos. 1 and 2, Single Geared



No. 3, Double Geared

This type of Log Turner is designed to be mounted directly over and parallel with the carriage. It can be used for drawing logs in from the deck to the carriage, as well as for turning them on the carriage.

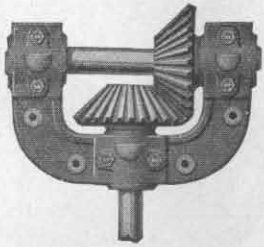
The driving shaft can be driven from any convenient line shaft or direct from the saw mandrel if desired. The chain is raised or lowered by bringing the small paper cone frictions alternately into contact with the large iron bevel friction by the movement of a lever which is in convenient reach of the sawyer.

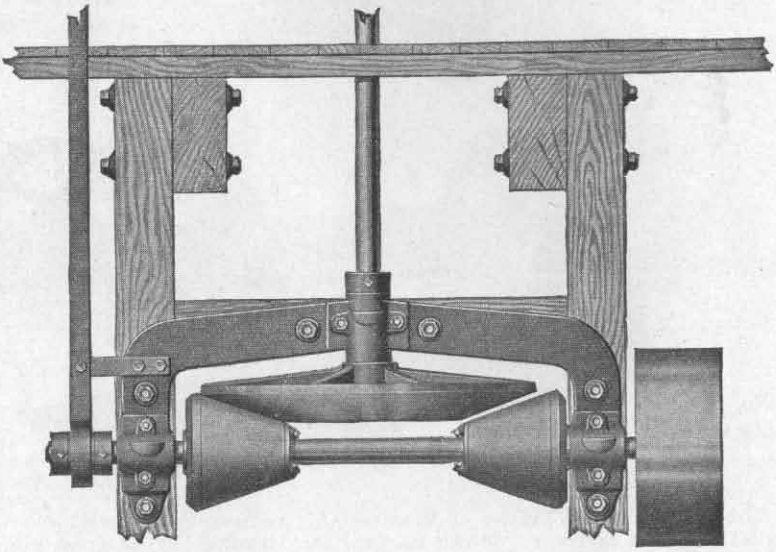
Fifteen feet of ½" cable chain and hook are furnished, unless otherwise specified. Made in three sizes, as follows:

Size	No. 1	No. 2	No. 3
Driving Pulley (speed 200)	24"x6"	24"x8"	24"x8"
Driving Shaft, 8' long	1 15/16"	2 3/16"	2 3/16"
Paper Cone Frictions	8"x5"	10"x6"	10"x6"
Bevel Iron Friction	24"x5"	30"x6"	30"x6"
Drum with 10" Flanges	24"x4"	30"x4"	30"x4"
Spur Gear			36"x3"
Pinion			8"x3"
Weight, net	460 lbs.	630 lbs.	1,000 lbs.
Weight, gross (boxed)	560 lbs.	730 lbs.	1,200 lbs.
Cubic Measurement	21 cu. ft.	32 cu. ft.	40 cu. ft.
Code Word	Wofhu	Wofij	Wofik

Live Roll Driving Rigs

We are prepared to furnish **Reversible Friction Driving Rigs** for Live Rolls, complete as shown in large cut, in two sizes. No. 1 with 24"x5" Iron Bevel Friction, 8"x5" Paper Cone frictions and 12"x6" pulley, weight 500 lbs. No. 2 with 30"x6" Iron Bevel Friction, 10"x6" Paper Cone Frictions and 20"x6" pulley, weight 700 lbs. They may be driven from any convenient shaft in the mill and are operated by a lever placed near the sawyer. When preferred we can furnish them at less price without the yokes, but with four plain boxes for the shafts to work in. These rigs can be erected parallel with or crosswise the line of rolls.

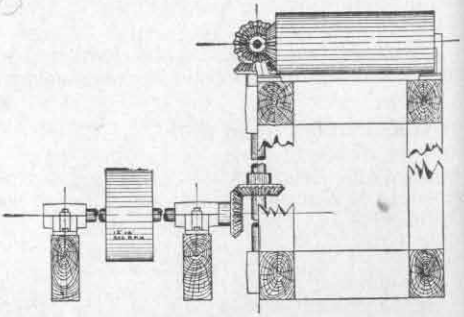




Code Word, as shown, **Wofin.** Code Word, without yoke, **Wofir.** (Give number.)

No. 3. Code Word, Wofit

We also have a simpler **one-way drive,** as shown in the smaller cut; this is cheaper and may be driven direct from the saw mill mandrel, when desired.



DRIVE 1

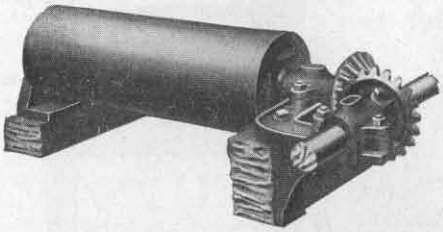
Live Rolls and Transfer Skids

Live Rolls greatly increase the capacity of a mill and are a necessity in every mill of any size for easily and rapidly handling the lumber and slabs as they are delivered from the carriage.

We furnish them in sets of any number complete with bearings, gears, and drive shaft, as ordered, or will furnish the rolls separately, if preferred.

Live Rolls may be equipped with Transfer Skids to deliver lumber to Edger or Slabs to Slasher. Skids can be worked by foot treadle or lever.

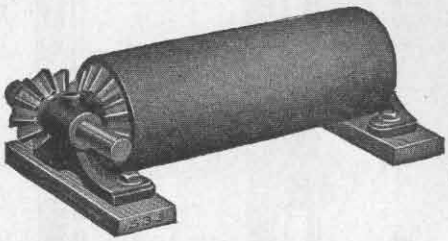
Live Rolls and Dead Rolls



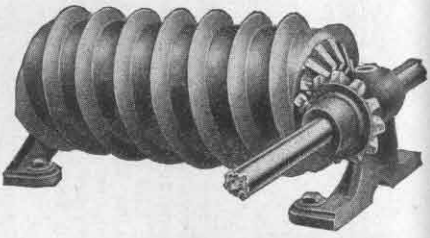
Turned Cast Iron Live Roll
Code Word, Wofix

We can furnish promptly, **Turned Cast Iron** or **Steel Tube Live Rolls,** as shown here, also **Cast Iron Screw** or **Transfer Rolls** either **Right** or **Left** hand in any desired number and in sizes as given below.

The prices are based on furnishing each roll complete with gears, bracket bearings and 4½′ of drive shaft; but **rolls only** can be supplied when desired.



Steel Pipe Live Roll
Code Word, Wofiz



Iron Screw or Transfer Roll
Code Word, Wofje

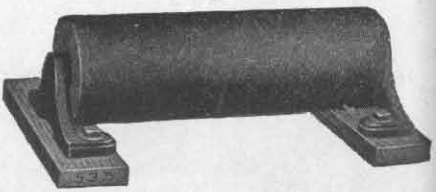
Dimensions and Weights of Rolls with Gears and Bearings

Diameter of Roll	6 Inches			8 Inches			10 Inches		
Length of Roll ....Inches	18	20	24	18	20	24	18	20	24
Weight of Cast Iron Roll, with fixtures ....Lbs.	139	146	160	161	170	188	185	200	225
Weight of Steel Tube Rolls, With fixtures ....Lbs.	65	70	75	85	90	95	95	100	110
Weight of Cast Iron Screw Roll, with fixtures ....Lbs.	160	165	175	185	200	210	225	245	265
Weight of Steel Tube Idle Roll, with fixtures ....Lbs.	40	45	50	47	50	55	60	65	75

DEAD ROLLS

Dead Rolls as shown here furnished, any size or length, with or without shafts and with or without bearings.

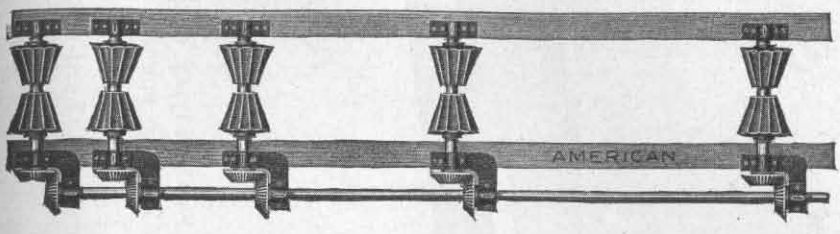
Cast Iron Roll with Bearings



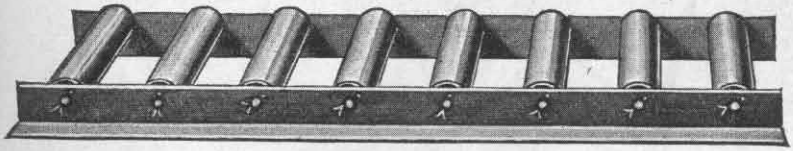
Pipe Roll with Bearings

Concave Live Rolls

Code Word, Wofjo

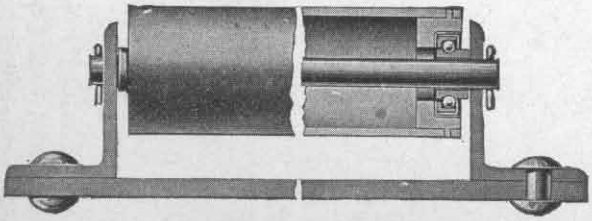


These live rolls may be used in connection with our drag saw or they may be connected with the power feed of our heavy belt driven drag saw or driven by our standard live roll drive rigs, either one-way or reversible arrangement of rolls, number of rolls, etc., to suit requirements of purchaser.



Code Word, Wofju

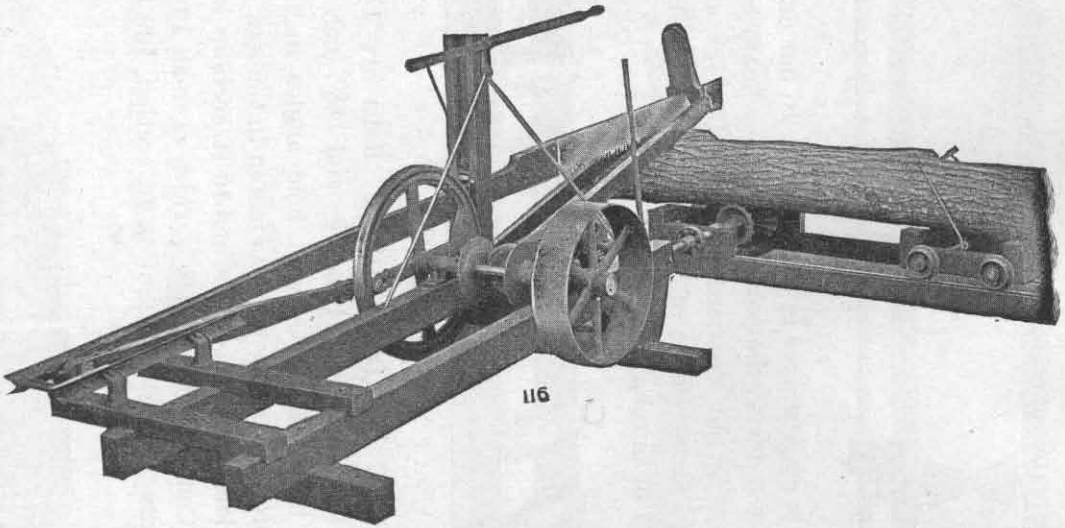
BALL BEARING LUMBER ROLLS. Rolls are 1⅞ inches diameter, 14⅞" long, with Ball Bearings and ½ inch through shafts. Bottom braces for cross girt hold angles in alignment. Angles have countersunk screw holes to fasten to timbers. Standard sections are 5 ft. long with three rolls, and 10 ft. sections with seven rolls. Center to Center of Rolls 17⅛", width over all 19$\frac{5}{16}$ inches. Side members 3x2x$\frac{3}{16}$" angle. Weight 10 ft. section, 120 lbs.; 5 ft. section, 60 lbs.



Ball Bearing Roller

"Champion" Friction-Feed Drag Saw

Code Word, Wofko



This machine, as its name indicates, is the **Champion** among light **Drag Saws**, having decided advantages not found in others. It is strong and durable, simple in construction, easy to operate and a most rapid worker.

The Main Frame is 26″ wide, 8½′ long, and is made of 3½″x5½″ seasoned hard-wood, strongly framed together, securely bolted and braced.

"Champion" Friction-Feed Drag Saw

The Track is 27" wide, 16' long, made of 2¼"x4" timbers, well framed together, without iron.

The Friction Feed is very simple, yet positive and effective. It will start, stop or reverse instantly by very slight motion of the feed lever. This enables the operator to feed the logs ahead or back, and stop at any point without running back or losing time. This feature alone puts the "Champion" ahead of any other drag saw in the market, and it has every practical advantage that can be desired in a machine of its kind.

The Balance Wheel is large and heavy, and counter balanced, imparting a strong, steady motion and is arranged for changing the stroke from 16" to 20" or 24".

The Log Truck is very substantial, having steel axles and two dogs for securely holding logs.

The Saw is raised with one hand, and the friction feed operated with the other, thus changing and setting for a new cut without slowing down or stopping. A strong, reliable saw guide is also provided.

Unless Otherwise Ordered, each machine is furnished complete with 24"x6" driving pulley, log truck, power rolls, tumbling rod, with two universal couplings, 16' of track and one 5' 6" saw.

Tight and loose pulleys can be furnished, if so ordered, at small additional cost.

When operated by sweep horsepower, the driving shaft is fitted with a **Universal Coupling** for tumbling rod, instead of driving pulley.

We can supply this drag saw without power feed and with a **Ratchet Lever,** to operate the feed roll, thus making a most desirable hand-feed machine at very low price.

Capacity: 30 to 40 cords of wood per day, depending on kind of wood, power and speed.

Power Required: 3 to 4 H. P. will operate machine to good advantage.

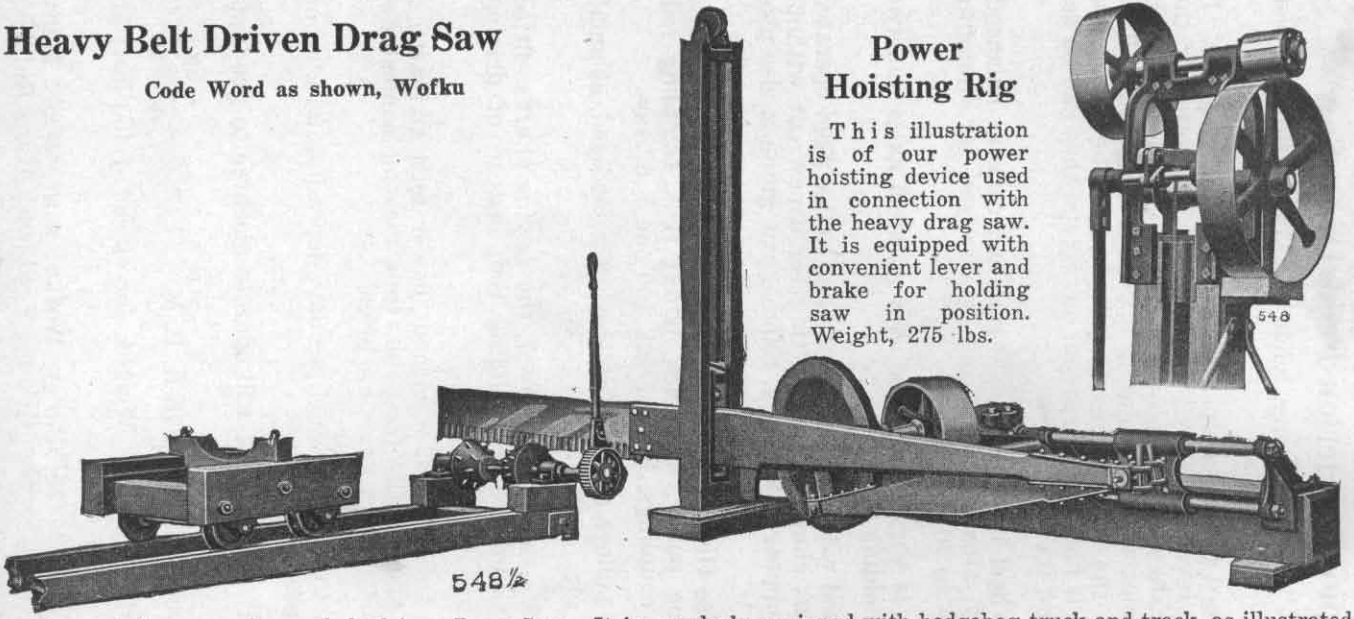
Speed Recommended: 125 to 175 R. P. M.

Shipping Weight: 1,300 lbs. Weight, for export, 1,450 lbs.; 51 cubic feet.

Code Words: With 24"x6" Pulley, **Wofko:** with 24"x6" Tight and Loose Pulley, **Woimu;** without Power Feed, with Hand Ratchet Feed, **Woina.**

Heavy Belt Driven Drag Saw

Code Word as shown, Wofku



Power Hoisting Rig

This illustration is of our power hoisting device used in connection with the heavy drag saw. It is equipped with convenient lever and brake for holding saw in position. Weight, 275 lbs.

The cut shows our heavy belt driven Drag Saw. It is regularly equipped with hedgehog truck and track, as illustrated, but may be equipped with live roll outfit. We also build this machine with power driven hedgehog and with friction drive, equipped with means for stopping and starting the saw. Power hoisting rig can be furnished as illustrated above.

Main frame is yellow pine or hard wood 7½"x7½". Crank wheel is 36" diameter, and stroke 28", 30" or 32" as desired. The pitman and connecting rod are equipped with steel straps and brass boxes. Driving pulley is 24"x8". Speed 125 to 175 strokes per minute. One drag saw 6½'x10" furnished with each machine.

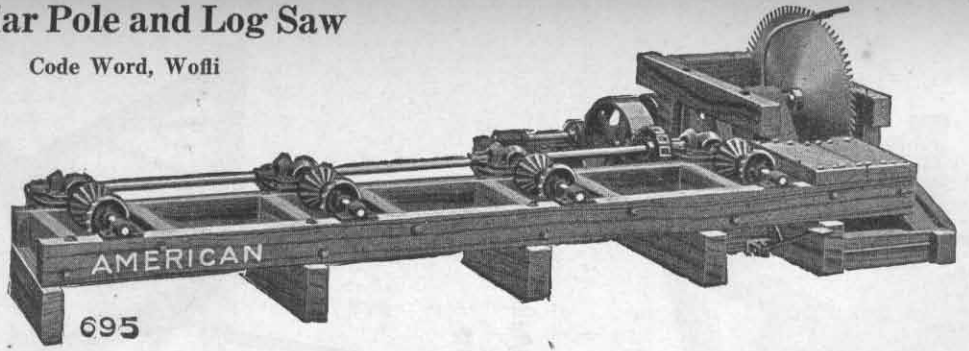
Weight as illustrated, 2660 lbs. Export shipping weight, 3180 lbs. Cubic contents, 75 cubic feet.

Deduct for hedgehog, truck and track, 650 lbs. Power feed for hedgehog adds to weight, 200 lbs.

Friction drive adds to weight, 520 lbs.

Circular Pole and Log Saw

Code Word, Wofli



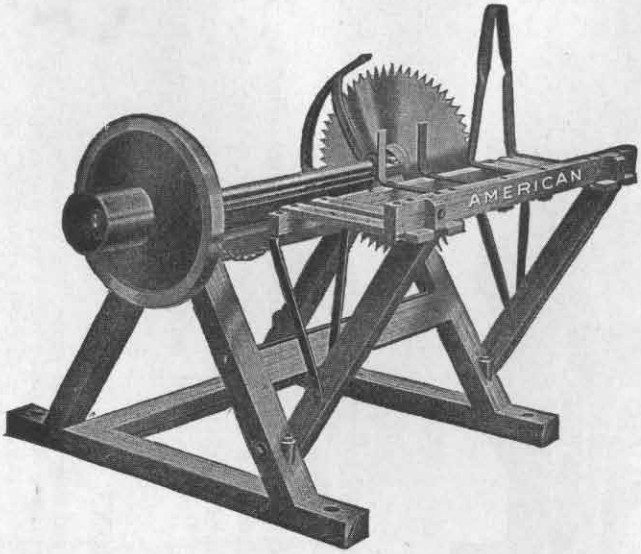
This machine is intended for cutting off poles and logs which are too large and heavy to be handled on the ordinary wood and pole saws.

The log rolls are actuated by a friction drive, driven from the saw mandrel and controlled by a foot pedal convenient to the operator. The saw is moved by means of a hand lever, is carried on a heavy swing frame, and driven by means of an endless belt from the countershaft which is mounted on the frame timbers. Furnished with four live rolls as shown. Additional live or dead rolls may be added according to requirements.

SPECIFICATIONS

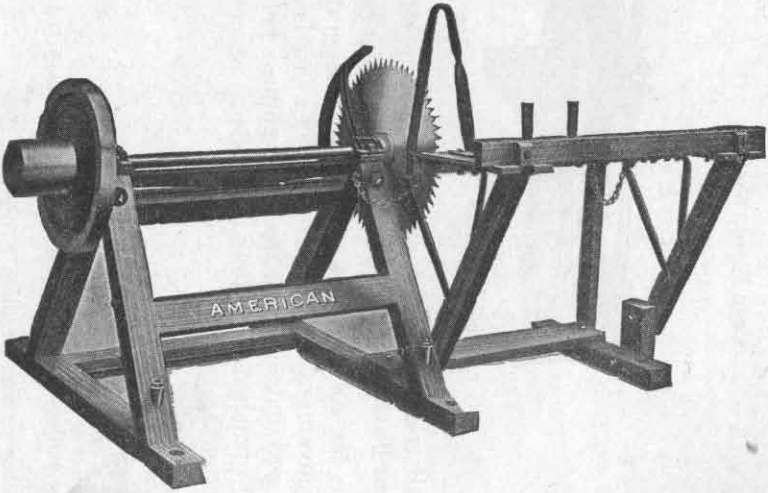
Length over all, 16'. Width, 8'.
Width of live frame, 28", timbers 3½"x7½".
Rolls are set 4' centres.
Receiving pulley on countershaft, 16"x8". Speed 400 R. P. M.
Drive pulley on countershaft, 12"x8".
Mandrel pulley, 6"x8".
Feed rolls in two parts, 9½" diameter at large end.
Distance from saw to first roll, about 24".
Size of saw, 42"—will cut through 15" log.
Belt required, 16' long, 8" wide.
Shipping weight, 3,150 lbs.
Weight each extra live roll with 4' of ways, 200 lbs.
Weight each extra dead roll with 4' of ways, 150 lbs.

"Clipper" Wood and Pole Saws



No. 3 Cord Wood Saw Right Hand

Code Word, Wofly



No. 4 Wood or Pole Saw Right Hand

Code Word, Wofme

"Clipper" Wood and Pole Saws

Our line of **Wood and Pole Sawing** machines is most complete, thoroughly **up-to-date** and strictly **high grade** in every particular. They cover every style of both tilting table and rolling table machines, with balance wheel placed on end of mandrel or on independent shaft under the frame.

The Frames are made of selected, seasoned hardwood, accurately mortised and tenoned, and securely bolted together by steel rods along-side the girts and passing through from one side of the frame to the other. They are strongly braced in every direction and handsomely painted with two coats of brilliant red paint on the wood work and black on the iron parts.

The Mandrels are polished steel, perfectly true and run in heavy babbitted boxes. On the Nos. 3, 4 and 5 these boxes are united by a heavy cast iron yoke, insuring perfect alignment and cool bearings.

The Balance Wheels are accurately balanced, insuring a quiet, steady-running, durable machine. They weigh from 75 to 80 lbs., which is best for general work, but we can supply heavier balance wheels when desired at small extra cost.

Each machine is fitted with a strong, adjustable **Saw Guard** that will admit any size saw from 20″ to 30″.

No. 4 has **Extension Table** for cutting poles or 4′ or 8′ cord wood. By changing the iron guard to the opposite end of the tilting table, this machine can be set up exactly as No. 3.

Unless otherwise ordered the frames are made right hand as shown in the cuts, but when desired we can furnish them left hand to receive the saw **at the opposite end of the mandrel** without extra charge.

Makers of and dealers in gasoline engines want **good wood saws** to sell with their engines, and recognizing the **high grade** of our machines they are buying them in large numbers.

Believing that a **cheaply built** wood saw is dear and a bad investment at any price, we have always built **high-grade machines only**, and, value compared with cost, we are giving **greater value** than is possible in the cheaply built machines.

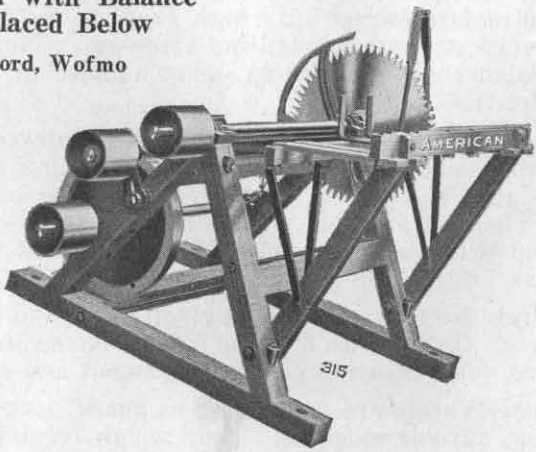
SPECIFICATIONS

Mandrel, 1½″ diameter, 52″ long.
Distance saw to balance wheel, 42″.
Mandrel pulley, 6″x6″. Speed, 1,000 to 1,200 R. P. M., depending on size saw.
Will take saws 20″ to 30″ with 1⅜″ hole.
Shipping weights, No. 3, 300 lbs.; No. 4, 330 lbs.; No. 5, 385 lbs.
These machines are regularly shipped knocked down. Shipped set up if so ordered, without extra charge.
For Ripping Table Attachment, see page 75.

"Clipper" Wood and Pole Saws

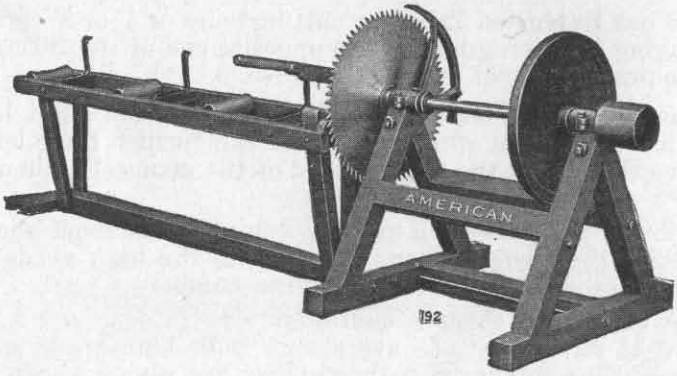
No. 5 Wood or Pole Saw Right Hand with Balance Wheel Placed Below

Code Word, Wofmo



No. 8 Heavy Wood and Pole Saw

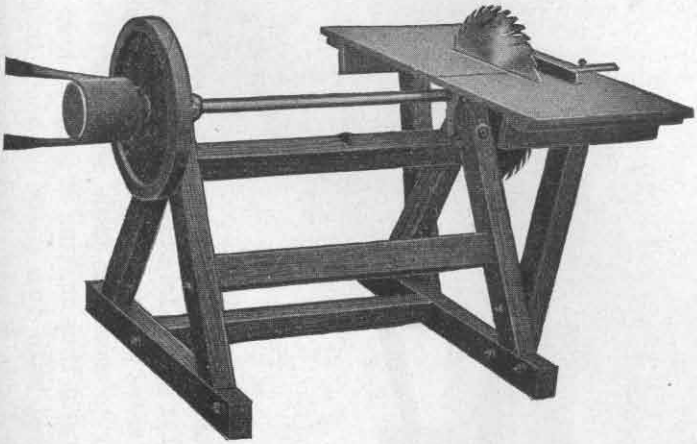
Code Word, Wofmu



This is an extra heavy, very strong machine for handling heavy 4 and 8′ wood and longer and heavier poles than can be handled on our other wood saws. The frame is made of 3½″x3½″ seasoned hard wood. The tilting table is 7′ long, fitted with rolls so as to make it easy to move the wood to the saw. It is provided with a spiked lever for holding the wood firmly. The mandrel is $1\frac{11}{16}$″ diameter, turned down to take saws with 1⅜″ hole. It is 33″ from saw to balance wheel, which is 24″ diameter, and weighs 100 lbs. Mandrel pulley is 6″x6″. The adjustable guard will admit saws up to 30″. Weight, 420 lbs. Special 1,000 to 1,200 R. P. M.

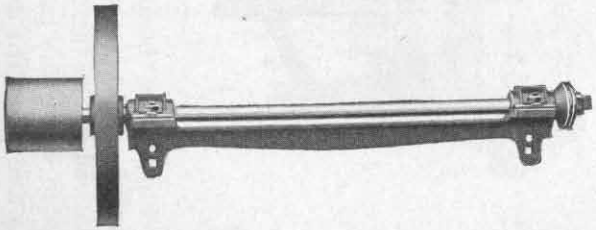
Ripping Table Attachment

Code Word, Wofna



This cut shows a **Ripping Table Attachment** which can be attached to our No. 3, 4, 5 or 8 wood or pole saws in a few moments. It has an adjustable guide and is very handy for ripping boards, sawing pickets, laths, crate slats, or for squaring fence posts, shingle blocks and other work. Furnished at slight extra charge. Not recommended for rip saws over 20″ diameter.

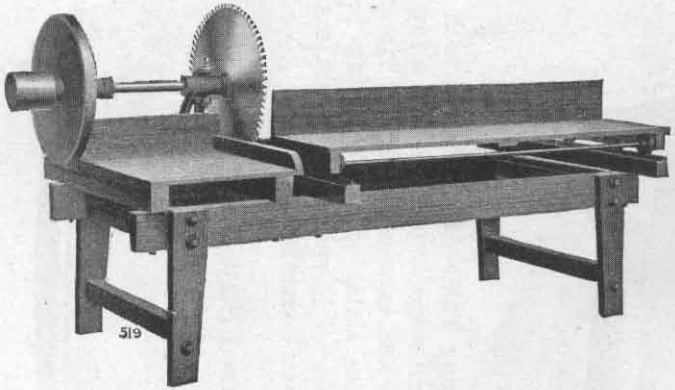
Cord Wood Saw Mandrels



For those desiring to make their own wood work, we can furnish mandrels with balance wheel, pulley and boxes. These are always made right hand and furnished with yoked boxes, as shown above, unless otherwise ordered. If desired, they can be furnished with flat boxes without the yoke. Can also be furnished without balance wheel. Pulley is 6″ diameter by 6″ face. Weight of mandrel, with boxes, pulley and balance wheel, 160 lbs. Boxed for export, 210 lbs. Cubic measurement, 4 cu. ft.

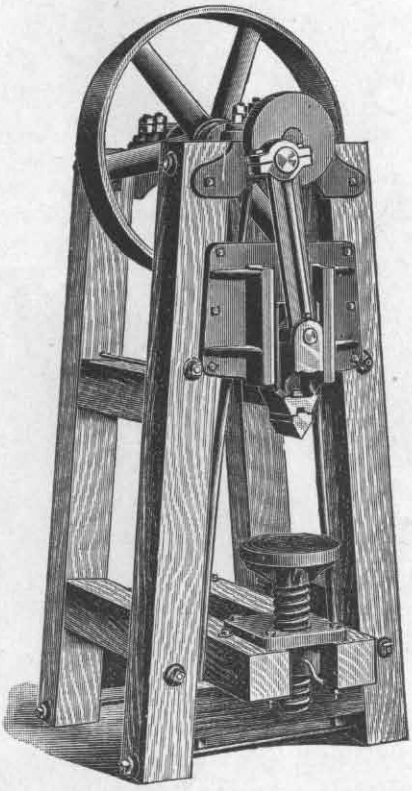
No. 9 Rolling Table Wood and Pole Saw

Code Word, Wofni



This machine will greatly reduce the amount of hard work usually required in sawing wood. The table is mounted on grooved rollers which travel on steel track so that it moves forward and back with very little effort. A roller at the end of the table makes it very easy to move the log along for the successive cuts. As the mandrel is mounted above the table, it is only necessary to move the table about half the diameter of the saw blade for full cut. The cut of the saw is downward, thus making it easy to hold the log in position. The machine is well finished and handsomely painted with two coats of good, bright red. Mandrel 1½"x40"; Pulley 6"x6"; Balance Wheel, 80 lbs.; Rolling Table 4' long. Takes saws from 20" to 30" with 1⅜" hole. Weight 440 lbs. Speed 1,000 to 1,200 R. P. M. These machines regularly shipped set up.

American Wood Splitter or Power Axe



This cut represents our **Improved Power Wood Splitter.** It is designed to withstand the strains to which such a machine is necessarily subjected, and will soon pay for itself in any excelsior factory, wood pulp mill, wood yard or kindling wood factory, where much splitting is done. Hard, knotty maple, oak, pine, or other kinds of wood, can be easily split. A single machine can split 5 to 10 cords, and a double machine can split from 10 to 20 cords per day.

The Wood is held in an upright position by the hands of the operator, the lower end resting on the pedestal, and merely turned around as the splitting is done.

The Main Frame is made of 6″x6″ seasoned oak timbers, securely framed and bolted together. It can be erected on any strong floor or timbers embedded in the ground.

The Pedestal has ample adjustment, giving the machine a range for splitting wood 8″ to 18″ long.

Machines for splitting wood 24″ long can be furnished, on order, at extra cost.

The Crank Shaft is made of steel and runs in babbitted boxes. The driving pulley weighs about 250 lbs. and has heavy rim, so as to give plenty of momentum. It is 32″x6″, and should run 150 R. P. M. One to two H. P. is required to operate successfully. Total height of machine, 7′ 1½″.

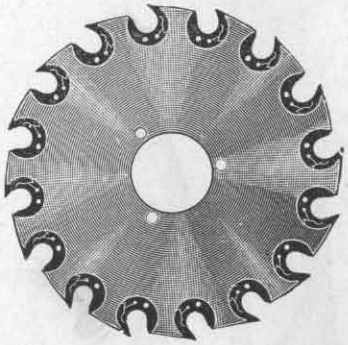
Weight: Single machine, net, 1,300 lbs.; gross, 1,550 lbs. Cubic contents, 42 cubic feet.

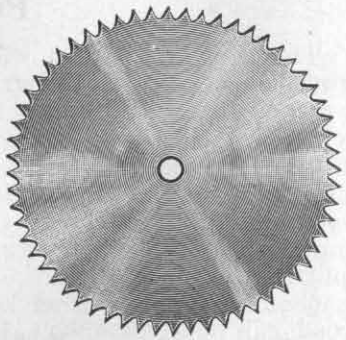
Code Word, **Wofny.**

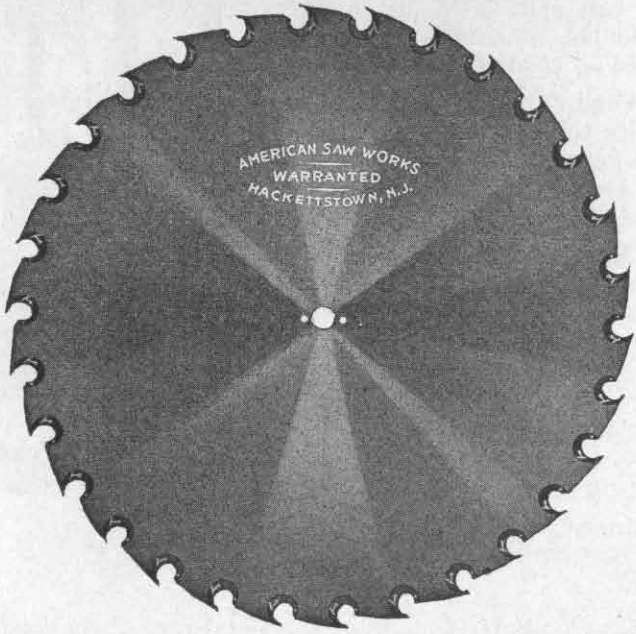
Weight: Double machine, net, 1,850 lbs.; gross, 2,100 lbs. Cubic contents, 65 cubic feet.

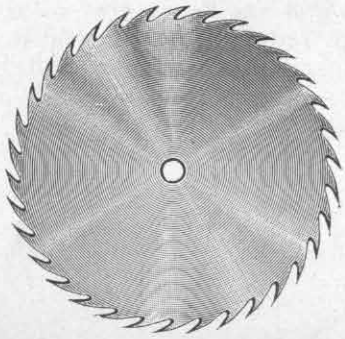
Code Word. **Wofoc.**

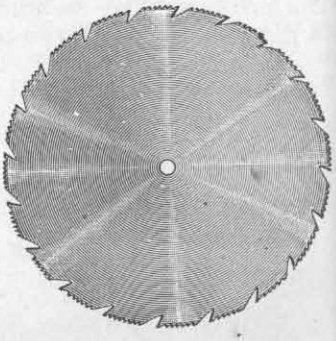
American Saws











American Circular Saws

Manufactured in Our Own Saw Department. Best Quality of Material, Temper and Workmanship. Extra Strong and Tough, and Fully Warranted. Ask for Complete Saw Catalog.

Inserted Tooth Saws

No. 2½—Especially adapted to heavy feeds, hard wood and frozen timber. Recommended for edgers, bolters and bench work.

No. 3—The best for portable saw mills and general sawing, in soft or hard wood. A good all-around saw and always furnished for our portable mills unless otherwise ordered.

No. 4—Recommended for cutting soft Southern or Pacific Coast timber.

Solid Tooth Saws

We are prepared to furnish Solid Tooth Saws for all purposes, either standard or made to order, of all sizes and gauges, and make a specialty of quantity orders for industrial plants and manufacturers.

American solid tooth mill saws are unsurpassed.

Warranty—Each saw is warranted true and free from flaws. Any saw failing to run well will be rehammered free of charge, if **immediately** returned. If found to be defective in metal, temper, or tension within 30 days from delivery, it will be repaired or replaced **free of charge.** Circular saws, 48″ and larger, thinner than 10 gauge, are not warranted.

Inserted-tooth saws, under 42″ diameter, furnished with one extra set of teeth and two extra shanks; those 42″ diameter and over are furnished with one extra set of teeth and three extra shanks.

No extra charge for saws one gauge thicker than list.

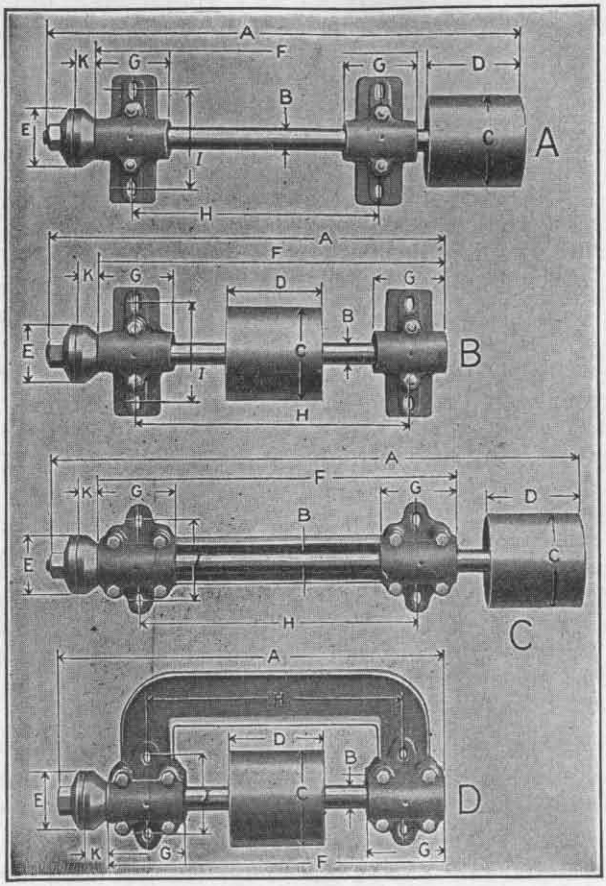
Our inserted-tooth files keep the teeth in hooked shape, same as new. They make the teeth last longer, run with less power, and cut smoother lumber.

When ordering bits or shanks, always send sample or give the number of saw, which is stamped on blade near trade mark.

Saw repairing promptly done, at reasonable prices, in our own Saw Works.

When ordering an American Saw Mill or other machine from your dealer, **insist** upon having **American Saws**—Made especially to suit the machine—they cost no more and are better.

American Saw Mandrels



Special Mandrels made to order. When ordering special mandrels give length over all, and state if right-hand or left-hand mandrel is desired. Illustrations are of left-hand mandrels.

Saw Mandrels

SPECIFICATIONS

Style A. Code Word, Wohcu

No.	A	B	C	D	E	F	G	H	I	J*	K	Wt.
1	19	1⅛	3	4	3½	12	4	8	6	1	1⅛	27¼
2	24	1 3/16	4	4½	3½	16½	4	12¾	6	1⅛	1⅛	32½
3	26	1 5/16	5	5	3¾	18	4¼	13¾	6¼	1¼	1¼	36
4	30	1 7/16	6	6	3¾	21¾	4¾	17	6½	1¼	1¼	46¾
5	36	1 1/16	6	8	4½	25½	5½	20	7¼	1½	1½	71¼
6	36	1 1/16	8	8	4½	26	6	20	7¾	1⅝	1½	89½
7	48	1 1/16	8	10	4½	37	6	31	7¾	1⅝	1½	100
8	36	2 1/16	10	10	5	24	7	17	9	2	2⅛	131
9	48	2 3/16	12	10	5	36	7	29	9	2	2⅛	144

Style B. Code Word, Wohda

No.	A	B	C	D	E	F	G	H	I	J*	K	Wt.
1	16	1⅛	3	4	3½	13	4	9	6	1	1⅛	26½
2	20	1 3/16	4	4½	3½	17	4	13	6	1⅛	1⅛	31¼
3	22	1 5/16	5	5	3¾	18¾	4¼	14½	6¼	1¼	1¼	32¼
4	26	1 7/16	6	6	3¾	22¾	4¾	18	6½	1¼	1¼	44½
5	30	1 1/16	6	8	4½	26	5½	20¾	7¼	1½	1½	66¾
6	36	1 1/16	8	8	4½	32	6	26	7¾	1⅝	1½	89½
7	48	1 1/16	8	10	4½	44	6	38	7¾	1⅝	1½	100
8	36	2 3/16	10	10	5	31¼	7	24¼	9	2	2⅛	131
9	48	2 3/16	12	10	5	43¼	7	36¼	9	2	2⅛	144

Style C. Code Word, Wohdi

No.	A	B	C	D	E	F	G	H	I	J*	K	Wt
1	26	1⅛	3	4	3½	18¼	4	14½	5	1	1⅛	38¼
2	28½	1 3/16	4	4½	3½	20¼	4	16½	5	1⅛	1⅛	44¼
3	30	1 5/16	5	5	3¾	21½	4½	17	5	1¼	1¼	49
4	33½	1 7/16	6	6	3¾	23¼	5	18½	5¼	1¼	1¼	61¼
5	36	1 1/16	6	8	4½	25	5½	19½	5¼	1½	1½	80
6	36	1 1/16	8	8	4½	25	5½	19½	6	1⅝	1½	100

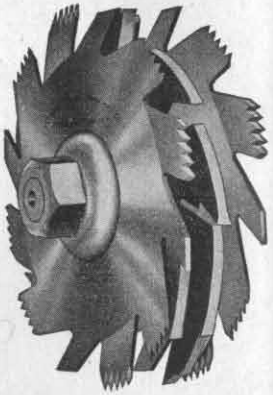
Style D. Code Word, Wohed

No.	A	B	C	D	E	F	G	H	I	J*	K	Wt
0	9⅜	7/8	2	2	2½	7⅜	2	5⅜	4½	¾	½	15
1	19½	1⅛	3	4	3½	16	4	12	5	1	1⅛	33¼
2	21½	1 3/16	4	4½	3½	18	4	14	5	1⅛	1⅛	39½
3	23½	1 5/16	5	5	3¾	20	4½	15½	5	1¼	1¼	46¾
4	25½	1 7/16	6	6	3¾	22	5	17	5	1¼	1¼	57½
5	28¼	1 1/16	6	8	4½	24	5½	18½	5¼	1½	1½	78
6	28¼	1 1/16	8	8	4½	24	5½	18½	6	1⅝	1½	99
8	36	2 3/16	10	10	6	32	7	25	8	2	2⅛	150

*J—Size of Mandrel where saw goes on.

Our saw mandrels are made of best grade of steel with self-oiling, babbitted bearings, with ample oil pockets in lower half of box, which should be kept full. They are fitted in the most careful manner and will run true and cool. We can furnish them in any style shown in the cuts, and of any size given in the tables. All our standard mandrels are made with pulley **to the right** of the collars and with **left-hand** threads, but we can furnish them with **right-hand** threads when so desired. Saw is not included. Double-end mandrels at 1½ price of regular mandrels. For larger pulleys, add the difference in price of iron pulleys. No allowance will be made for smaller pulleys.

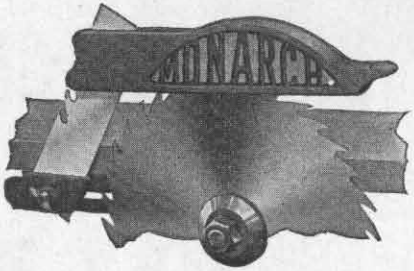
Adjustable Grooving or Dado Head



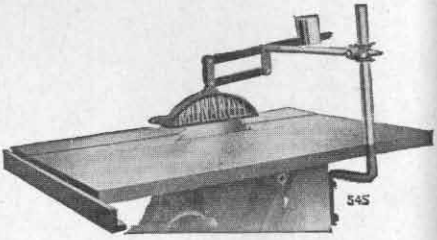
Fits any Saw Mandrel. Made in following sizes: 6", 7", 8", 9", 10", 11", 12", 14", 16", 18", 20", and arranged in sets to cut, No.

1 from ⅛" to ⅜" by 8ths.
2 from ⅛" to ⅝" by 8ths.
3 from ⅛" to ¾" by 16ths.
4 from ⅛" to 1" by 16ths.
5 from ⅛" to 1½" by 16ths.
6 from ⅛" to 2" by 16ths.

Saw Guards



Style A
Code Word, Wofof



Style B
Code Word, Wofog

No. 1, for Saws 6" to 12".
No. 2, for Saws 10" to 16".
No. 3, for Saws 14" to 20".

In ordering, state what style is wanted and whether right or left hand. Cut shows right hand.

Rip and Cut-Off Gauges

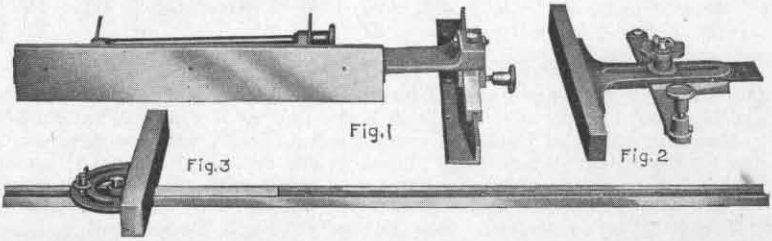
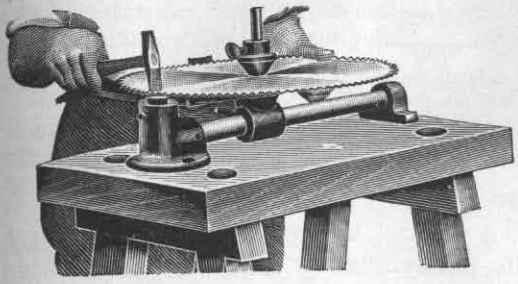


Fig. 1—Rip Gauge with tilting fence
Fig. 2—Rip Gauge with Plain fence
Fig. 3—Mitre Cut-off Gauge

Saw Set, Swages and Lumbering Tools



American "Perfect" Saw-Setting Stake

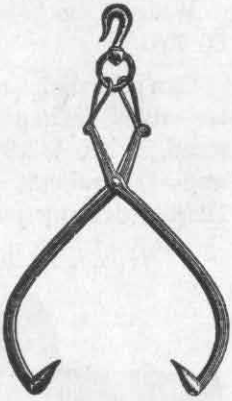
This Setting Stake is intended for setting circular, rip or cut-off saws, from 8" to 36" diameter. The setting is done by striking every other tooth with a hammer, then turning the saw over and repeating the action.

As the anvil has varying bevels, the amount of set can be regulated by the operator.

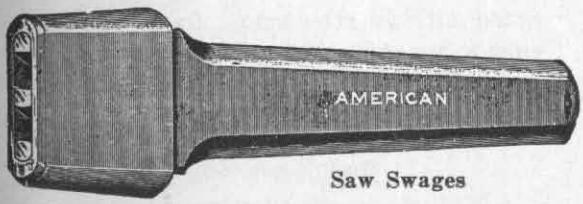
Side File

The Side File or Saw Tooth Jointer is used for the purpose of dressing saw teeth after they have been set or swaged. A saw thus dressed will run twice as long without sharpening, and saw smoother lumber. A piece of any mill file can be used.

Swamp Hook



Skidding Tongs
Open 24" to 36"



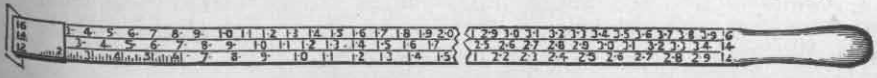
Saw Swages

No. 0—For Saws 5 to 7 gauge.
No. 1—For Saws 8 to 12 gauge.
No. 2—For Saws 12 to 15 gauge.
No. 3—For Saws 15 to 20 gauge.

Flat Mill Saw Files and Oval-back Inserted-Tooth Files

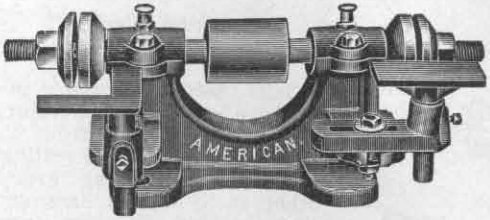
Handy Cant Hooks

No. 0 — Small size, 3½′ handle.
No. 1 — Medium size, 4½′ handle.
No. 2 — Large size, 5½′ handle.



Log and Lumber Rules

Emery Grinding Machines



Double Emery Grinder.
Code Word, Wofol

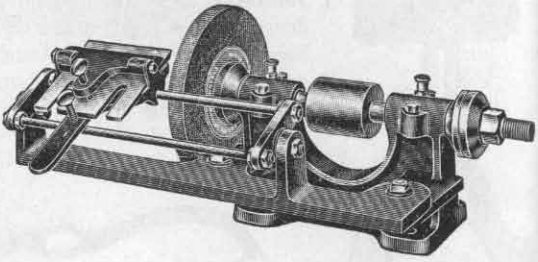
This machine is intended for saw gumming, making moulding cutters, tool grinding and other kinds of emery grinding.

It will carry two wheels at one time up to 12″ diameter by 1½″ face, with 1″ hole.

The spindle is steel, 1⅛″ diameter, 22″ long with pulley 3″x3½″ and runs in babbitted boxes.

Weight, as shown, 60 lbs.

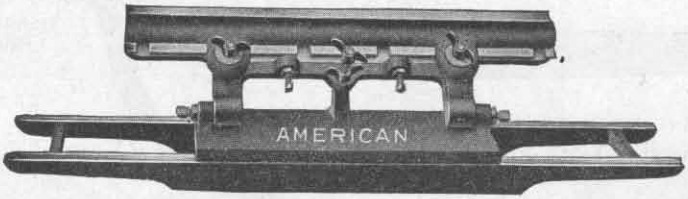
Can furnish counter-shaft when desired, with 6″x3″ T. and L. pulleys, and 12″x3″ driving pulley.



This shows our Double Emery Grinder, fitted with an attachment for grinding excelsior machine knives and spurs. Code word, **Wofom.**

Single Emery Grinder
Code Word, Wofop

Will take wheels 12″x1″, with ¾″ hole
Pulley 2½″x2½″



This attachment is for grinding planer knives, and is to be used in connection with an emery wheel or ordinary grindstone. Code word, **Wofos.**

Single Saw Hand Edger

This machine is very valuable in properly edging and hearting lumber for the market, thus making it grade higher and bring a better price. It is provided with an **Adjustable Ripping Gauge,** and may be used to great advantage in making pickets, slats, shingle-lath, etc.

The Carriage will take a board 16′ long, 24″ wide, and is fitted with four sets of trucks mounted on steel axles, running in solid metal boxes. Substantial iron track is fitted to the ways. Furnished with one 16″ solid saw having 4″ projection above carriage. Larger saws can be used.

Main Table, 2′x4′, fitted with gauge.
Track Ways, 32′ long 22″ wide.
Carriage, 14′ long, 13½″ wide.
Floor space required, 32′x4′ 6″.
Steel Axles, ¾″ diameter. Trucks, 3¾″ diameter.
Mandrel, 1 1/16″ diameter—Hole in Saw, 1¼″.

Driving Pulley, 6″x6″. Speed, 1,500 R. P. M.
Weight, net, 865 lbs. Gross, 1,150 lbs.
Cubic measurements, 52 cubic feet.
Weight, all iron parts and Saw, 485 lbs.
Weight, legs only, 350 lbs.

When desired, we can furnish **Iron Parts and Saw no Legs, or Iron Parts and Saw with Legs.**
Code Word, complete, **Wofpe.** Code Word, iron parts only, **Wofpo.**

Roller Bearing Gang Edger No. X21

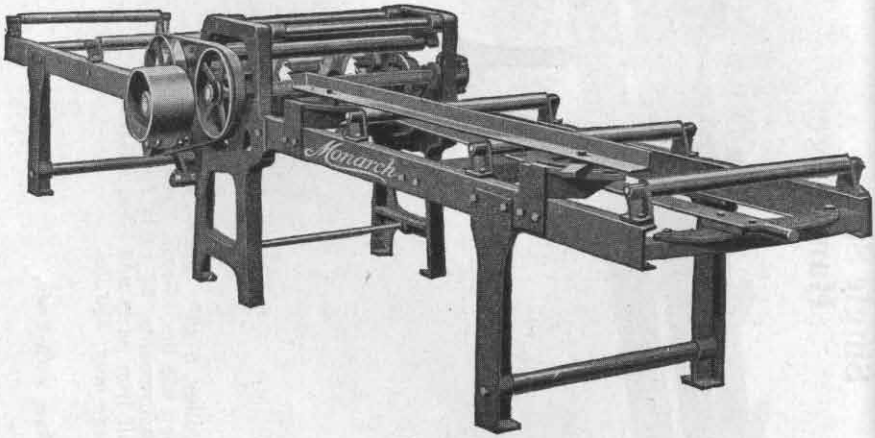


Fig. 998

After much experimenting, the elimination of all unnecessary parts and the incorporation of everything necessary to the perfection of a light weight edger with heavy duty possibilities, we offer this machine as one which cannot fail to meet the approval of the trade.

This machine is made of steel and iron. It is equipped with roller bearings for the mandrel and roller bearings for the driven feed rolls. So light is the draft that it is easily operated by a 5 H. P. motor and the feed belts required are but 1½″ wide and so arranged that slippage is reduced to a minimum.

The feed is arranged for two speeds viz., a fast feed 120′ per minute for light work and a slow feed 60′ per minute for heavy work. With the slow feed, which is fast enough for all ordinary requirements, the machine will handle stock up to 4″ thick. This is something which should not be overlooked in the purchase of a small edger.

The tendency to skew the boards, which is a common fault of small gang edgers has been eliminated and with reasonable care in feeding, the boards will run through perfectly straight. This feature makes this machine particularly adapted to lumber yard use.

The machine is fitted with two saws, one stationary and the other is shifted by a steel lever, means being provided so that all lost motion between lever and saw is eliminated.

A plainly marked indicator at the operator's end of the table may be adjusted to cut full, exact or scant and permits quick setting of movable saw.

The stationary saw may be placed at any location on mandrel, the usual position being 6″ from frame. In this latter position an adjustable steel guide may be set at points 2″, 4″ and 6″ from the stationary saw.

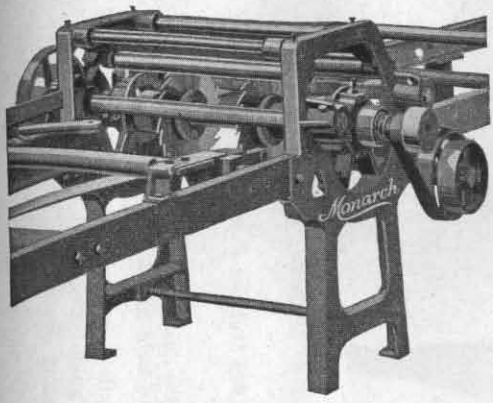


Fig. 999

Customer may change Edger from right to left hand in a few minutes time.

The tables are fitted with steel rolls.

The machine is regularly furnished with drive pulley on mandrel but may be furnished with motor mounted on separate floor stand (See Fig. 997) and direct connected to mandrel by flexible coupling, the latter being a most desirable equipment, eliminating much waste of power.

To remove saws from either end of mandrel, unscrew nut on sleeve at each end of roller bearing mandrel box, loosen two screws in the feet of mandrel yoke, then the yoke and bearings can be removed from main frame and mandrel; or by loosening two set screws in yoke, bearing and yoke may be removed independently. In either case both the yoke and the bearings may be returned to their original position and alignment by simply reversing the above process.

With the stationary saw placed 6″ from either side of frame, the movable saw may be shifted from 2″ to 16″ from stationary saw.

EQUIPMENT:—Two Saws 14″ Diameter, Solid or Inserted Tooth, with 4″ arbor hole and Three $\frac{5}{16}$″ Dia. holes 120 Degrees apart on 4¾″ Dia. Circle. Speed of saws 1800 R. P. M. Feed Belts are included.

Plain Feed Machine

Without Saws—**Wojfo**
With Solid Saws—**Woini**
With Inserted Saws—**Woink**

Two Feed Machine

Without Saws—**Wojet**
With Solid Saws—**Wojex**
With Inserted Saws—**Woind**

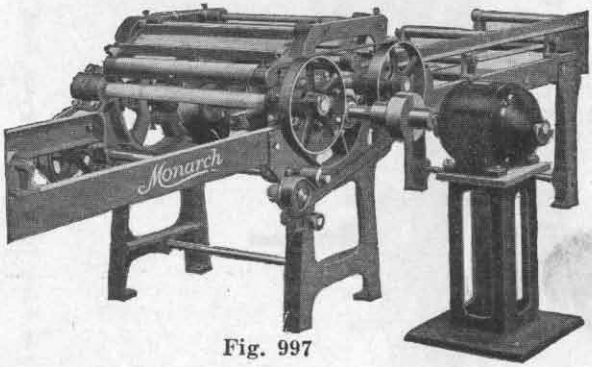
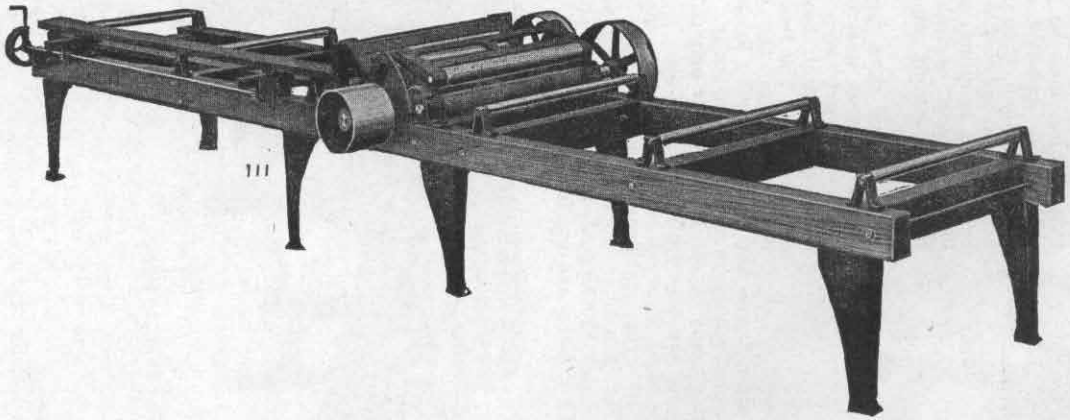


Fig. 997

SPECIFICATIONS

Length over all	16′
Width without motor	4′ 6″
Width of table	31″
Total width through frame	28″
Diameter of Roller Bearing Mandrel	$1\frac{15}{16}$″
Diameter of Roller Bearing Feed Rolls	$1\frac{15}{16}$″
Diameter of Rear Pressure Roll	$2\frac{15}{16}$″
Diameter of Front Pressure Roll	$2\frac{7}{16}$″
Drive Pulley	6″ dia. 8″ Face
Maximum Distance Between Saws	16″
Maximum Height of Stock that can be cut	4″
Weight with Belt Drive	1300 lbs.
Shipping Weight	about 1360 lbs.
Shipping Weight with motor	about 1760 lbs.
Weight for Export (Belt Drive)	1550 lbs.
Weight for Export (Motor Drive)	1950 lbs.
Cubic Contents	47 C. F

"Pony" Gang Edger, 33-Inch



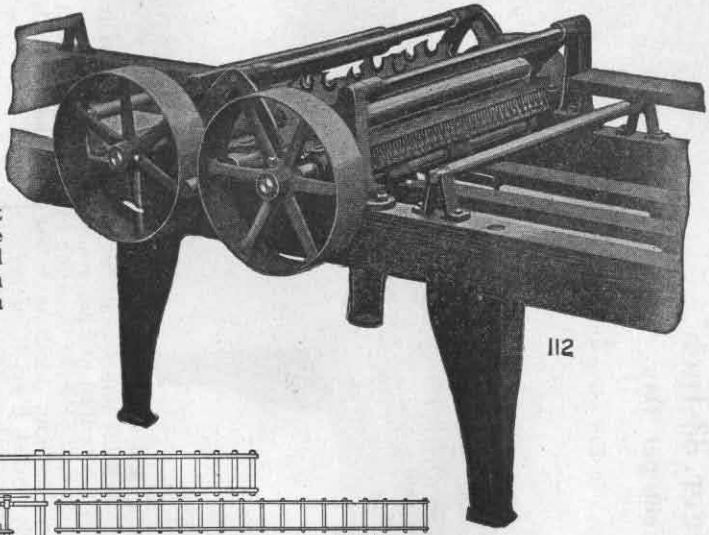
Full Length View from Feeding-out End, Showing Double Pressure Roll Machine

For small plants this edger has no equal. Indispensable for mills cutting 5,000 to 15,000 feet per day. Increased capacity and saving in waste pays for machine in a short time.

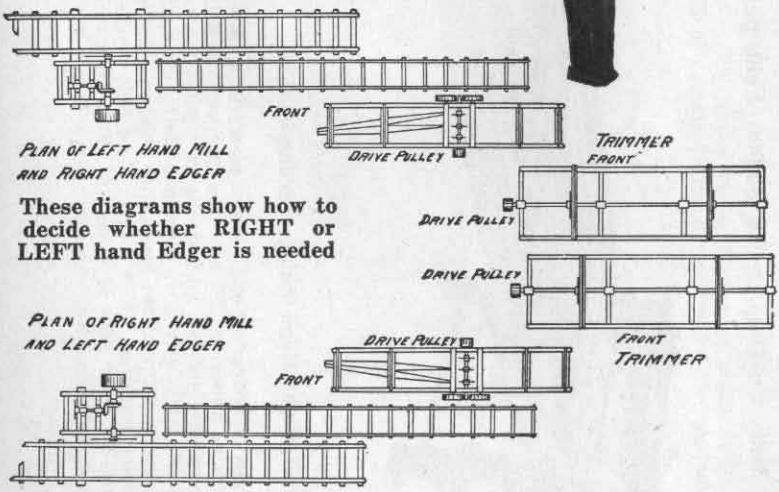
Made with two or three saws, solid or inserted teeth. Single or double pressure rolls. Self-oiling shifter forks. Quick acting ratchet guide. Indicator always in view of operator. Lever saw shift. Ratchet to hold levers in position.

All parts interchangeable for right and left hand edgers. Right hand machine has pulley and guide on right hand side. Left hand machine has pulley and guide on left hand side. Stationary saw always on guide side.

For light work, edging boards, etc., the single pressure roll edger is preferred by many operators. Provision is, however, made for attaching the front pressure roll, which may be added later, if desired.



Showing Right Hand Double Pressure Roll Machine with Inserted Tooth Saws



These diagrams show how to decide whether RIGHT or LEFT hand Edger is needed

SPECIFICATIONS

Floor space, 18' 6"x48". Width inside, 33". Guide adjustment, 4". Mandrel, $1\frac{15}{16}$" diameter. Mandrel pulley, 8"x8".

Saws, 14" diameter. Will work stock up to 4" thick. Speed, 1600 to 2000 R. P. M. Feed belt required, 8" long, 4" wide. Greatest opening between saws: 2-saw, Edger, 24"; 3-saw Edger, 20".

Rear section is detached in shipping. Front section, including working parts and shifting lever and guide, shipped intact, legs only being removed. Entire machine crated and shipped in one package.

2-saw Edger, with single pressure roll, Code Word, **Wofso.**
2-saw Edger, with double pressure roll, Code Word, **Wofsu.**
3-saw Edger, with single pressure roll, Code Word, **Wofta.**
3-saw Edger, with double pressure roll, Code Word, **Wofti.**
Edger, without saws, Code Word, **Wofty.**
Edger, with solid saws, Code Word, **Wofub.**
Edger, with inserted-tooth saws, Code Word, **Wofuc.**
(Two code words necessary to describe edgers)

	Single Roll Edger	Double Roll Edger
Net weight	1,400	1,510
Gross weight packed for export	1,600	1,725
Measurement in cubic feet	45	45

American "Junior" Gang Edger, 33-Inch

For Mills Cutting Up to 30,000 Feet per Day

Made right or left hand, with two or three saws, solid or inserted teeth.
Single or double pressure rolls. Quick acting ratchet guide. Indicator always in full view of the operator.

Full Length View of Right Hand Edger, Feeding-in End

Shifting levers securely held by ratchet at operating end. Easy to work.

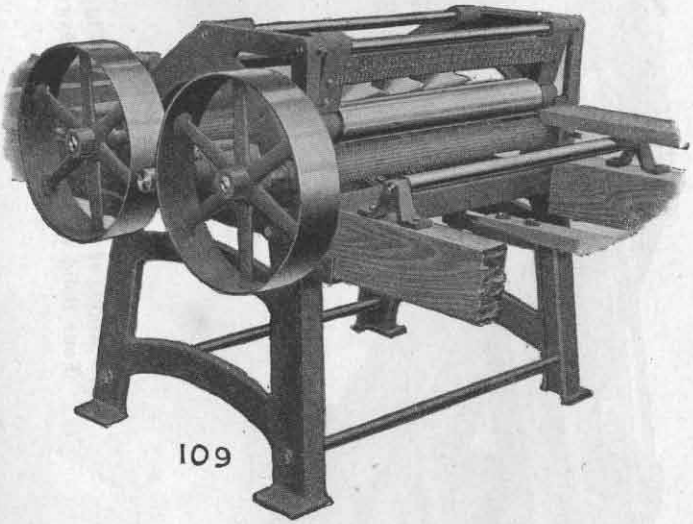
For medium size plants this edger has no superior. It is strong, accurate, reliable and a rapid worker. Will pay for itself in a short time in improved and increased product and saving in waste. Saws filed and set ready for use.

Feed Rolls grooved and fluted and strongly driven. **Pressure Rolls,** unusually heavy, insuring strong, positive feed. **Boxes** of feed rolls adjustable in all directions to regulate lead and produce straight, accurate lumber. **Mandrel easily** drawn out for changing saws. **Floor space required,** 18' 6"x48". Feed belt needed, 9' of 4" leather.

Steel Mandrel, $1\frac{15}{16}$". Mandrel pulley, 10"x8". Size of saws, 16". Will work stock up to 4" thick. Speed of saws, 1,500 to 1,800 R. P. M. Width inside, 22". Greatest distance between saws: 2-saw edger, 23"; 3-saw edger, 19".

	Roll Edger Single	Roll Edger Double
Net weight	1,425	1,700
Gross weight packed for export	2,055	2,280
Measurement—cubic feet	54	54

"Junior" Gang Edger



Showing Right Hand Double Pressure Roll Machine, Feeding-in Side. Indicator Scale Directly Over the Saws

Information.—We build our Gang Edgers either right or left hand, to suit location, but **Right Hand Machines are always shipped unless otherwise specified.** "Junior" Edger can be readly changed from right to left, or vice versa, if so desired by any workman.

Right Hand machines have driving pulley and guide on **right** hand side.

Left Hand machines have driving pulley and guide on **left** hand side. Stationary saw always on guide side.

In ordering Edgers, state whether **single** or **double** pressure rolls are desired. (Single machine has pressure roll on feeding-out end.) Also whether **right** or **left** hand machine is desired, and if **solid** or **inserted-tooth** saws are wanted, and **how many.**

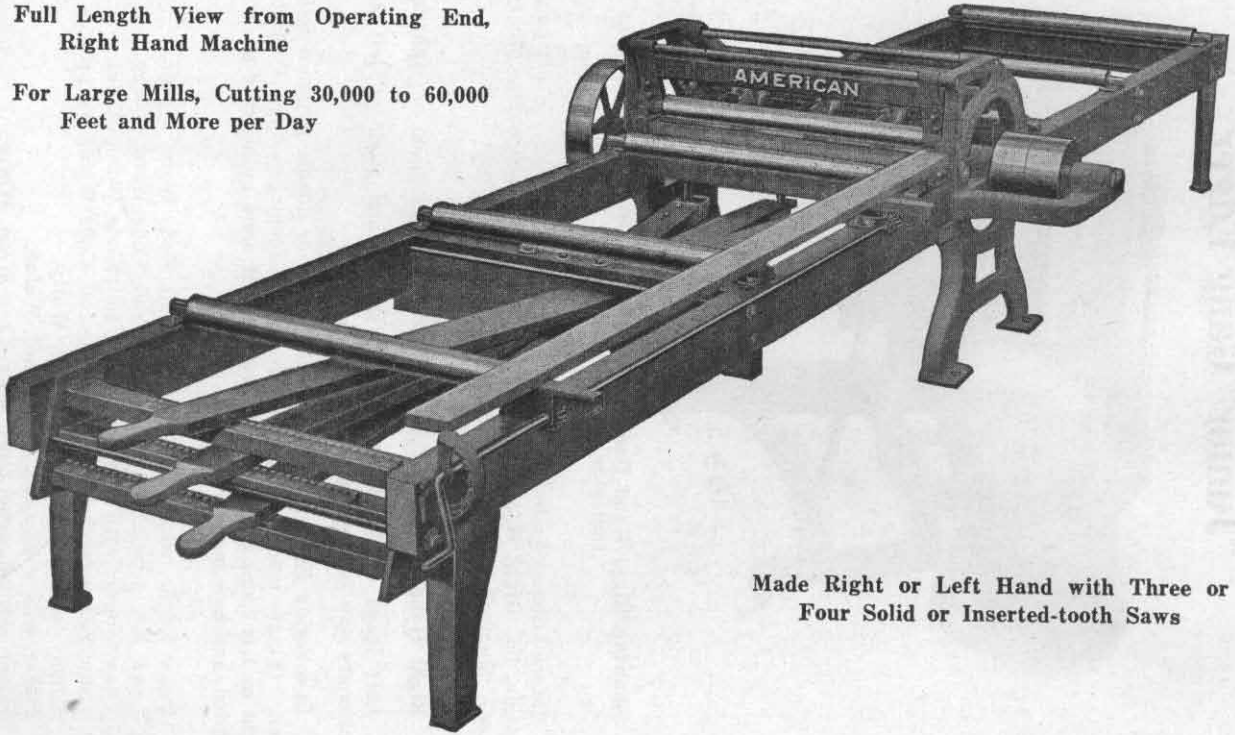
2-saw Edger, with single pressure roll, Code Word, **Wofuf.**
2-saw Edger, with double pressure roll, Code Word, **Wofug.**
3-saw Edger, with single pressure roll, Code Word, **Woful.**
3-saw Edger, with double pressure roll, Code Word, **Wofup.**
Edger, without saws, Code Word, **Wofty.**
Edger, with solid saws, Code Word, **Wofub.**
Edger, with inserted-tooth saws, Code Word, **Wofuc.**

(Two code words necessary to describe edgers.)

"Senior" Gang Edger, 46-Inch

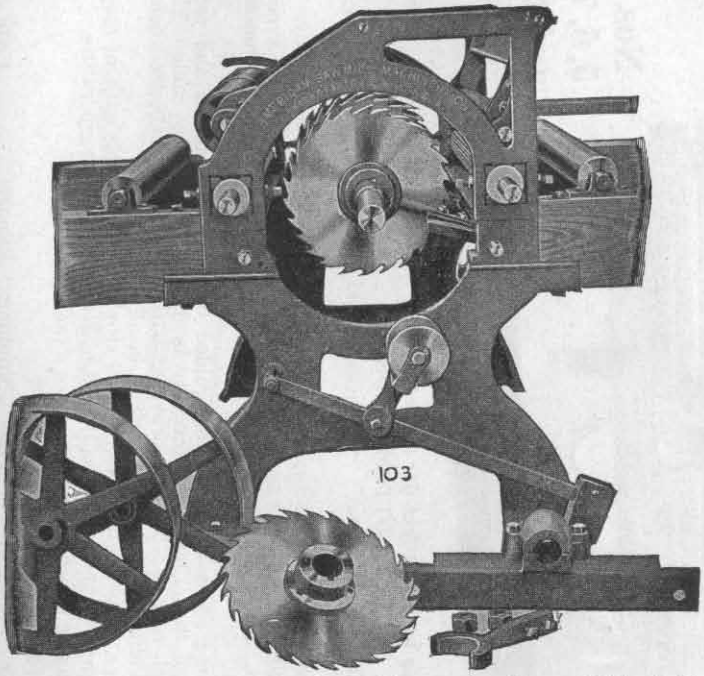
Full Length View from Operating End, Right Hand Machine

For Large Mills, Cutting 30,000 to 60,000 Feet and More per Day



Made Right or Left Hand with Three or Four Solid or Inserted-tooth Saws

"Senior" Gang Edger



View Showing Quick and Easy Method of Removing Saws Without Disturbing Mandrel. Take Off Feed Pulleys and Two Nuts—That's All

Accurate, quick-acting ratchet guide, with 4-inch adjustment.

Indicator scales right under operator's eye, everything convenient. Heavy steel mandrel with three long chain-oiling bearings.

Power feed rolls grooved and fluted, heavy, smooth pressure rolls insuring strong, positive feed.

Feed roll boxes adjustable in all directions to regulate the lead, insuring straight, accurate lumber.

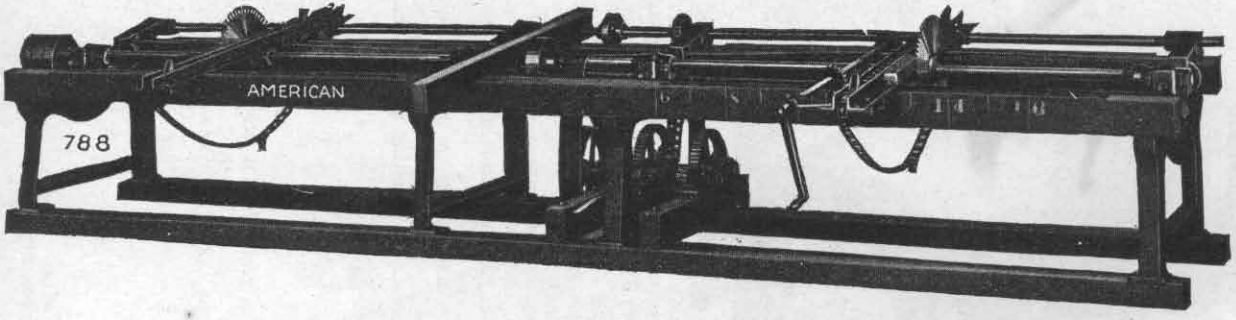
Both pressure rolls swing with the lumber as it feeds in, and are self-adjusting.

Large tubular steel idle rolls on extensions. A machine easy to handle.

SPECIFICATIONS

Mandrel, $2\frac{11}{16}$"; with pulley, 10"x10".
Saws, 16". Speed, 1500 to 1800 R. P. M.
Works stock up to 4" thick.
Width inside of end frames, 46".
Greatest opening between saws: 3-saw machine, 34"; 4-saw machine, 30".
Feed belt needed, 10' 7" of 4".
Shipping weight, 2700 lbs. Gross weight, 3350 lbs. Boxed for export 90 cubic feet.
Floor space, 22'x6' 6".
3-saw Machine, Code Word, **Wofus.**
4-saw Machine, Code Word, **Wogaj.**
Without saws, Code Word, **Wofty.**
With solid saws, Code Word, **Wofub.**
With Inserted-tooth saws, Code Word, **Wofuc.**
(Two Code words necessary)

American Junior Lumber Trimmer



Nos. 5, 6, 7 and 8

A one man machine for mills up to 30,000 feet per day capacity

ALL IRON AND STEEL, EXCEPT BOTTOM SKIDS

The Junior Lumber Trimmer is a handy, convenient machine built with all the exactness and dependability of our larger machines.

The mandrel is $1\frac{15}{16}$" diameter keywayed on opposite sides and extended beyond the frame at both ends for pulley.

Mandrel boxes are mounted on the iron legs. They are of self-oiling type with large oil reservoirs providing a constant supply of oil free from grit and require only occasional filling. By removing two bolts end boxes may be removed for taking off saws.

Transfer blocks are of steel construction 5 ft. long carried on iron tracks and guided by the saw mandrel and feed shaft. One block is shifted by means of rack and pinion and the other simultaneously in either direction by cable. The crank and setting scale are both convenient to operator. Each transfer block is provided with a felt-oiling babbitted bearing 7½ ins. long to support shaft at cutting point, thus providing six mandrel bearings in all.

A two-speed geared feed is provided with convenient lever for changing the feed and stopping or starting without stopping saws. Feed belt required 3" wide, 5' 9" long. Recommend approximately 10 Brake Horse Power for operating.

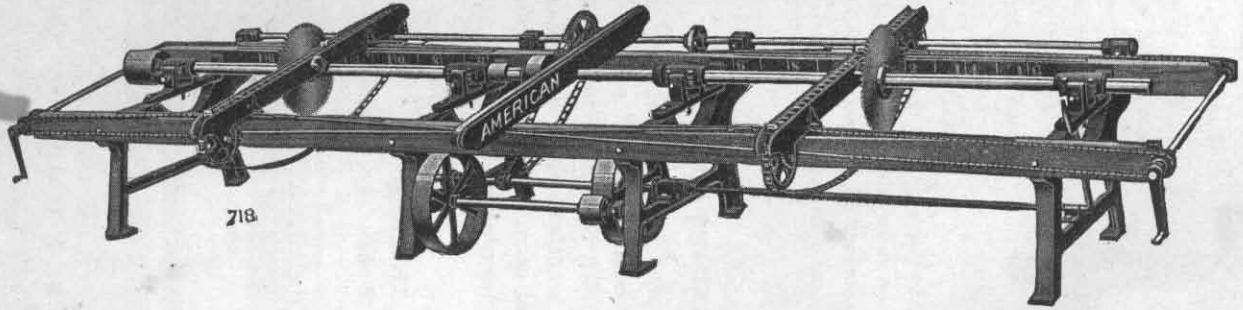
Each machine is equipped with two 18" special trimmer saws which extend 5" above Transfer Block.

The mandrel pulley is 8" by 8" and the speed should be 1,000 to 1,200 R. P. M.

Size	Trims	Floor Space	Shipping Weight	Export Weight Cu. Ft.		Code Word
No. 5	6' to 16'	19'x5'	2,200 lbs.	2,500 lbs.	58	**Wogak**
No. 6	6' to 18'	21'x5'	2,300 lbs.	2,600 lbs.	59	**Wogan**
No. 7	6' to 20'	23'x5'	2,400 lbs.	2,700 lbs.	60	**Wogar**
No. 8	6' to 24'	27'x5'	2,600 lbs.	2,850 lbs.	62	**Wogat**

Two-Saw Lumber Trimmer

For Mills Cutting from 20,000 to 50,000 Feet per Day



With this trimmer, one man can easily handle the entire output of the mill. It has many valuable improvements not found in any other trimmer and the materials and workmanship are the highest grade. Four heavy cast iron leg frames carry the mandrel boxes and the timber on which the steel track rests.

The Mandrel is $2\frac{7}{16}$" steel, keywayed on both sides, perfectly balanced and extended on both ends to receive driving pulley.

There are four **Mandrel Boxes,** chain-oiling and adjustable vertically and laterally so that the mandrel can be kept in perfect alignment. The end boxes are easily removed for taking off saws.

Mandrel Pulley, 8" by 8", can be placed on either end or in center of the mandrel.

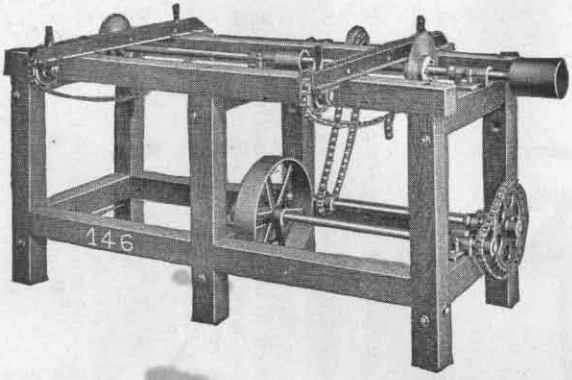
Transfer Blocks are 6' long and slide on steel V track with an easy, rapid motion 1' each to one turn of shifting crank. The sprockets are 12" and carrier chains are heavy and strong. Saw collars are fitted to the mandrel with feather keys and slide with the transfer blocks. The shifting is done by crank as shown in cut. Feed belt required 4" wide, 8' 4" long.

The Friction Feed is powerful, can be stopped or started at will, and can be arranged to operate from either end or in center.

Each machine furnished with two 20" saws and is capable of cutting 5" thick. Speed 1000 to 1200 R. P. M.

Machines are knocked down and crated for shipment. Other lengths built to order.

	Trims	Net Wt.	Floor Space	Shipping	Export	Cu. Ft.	Code Word
No. 1	6 to 16'	21' x 6'	2400	2650	2800	61	Wogav
No. 2	6 to 18'	23' x 6'	2500	2750	2950	64	Wogax
No. 3	8 to 20'	25' x 6'	2600	2850	3100	67	Wogaz
No. 4	8 to 24'	29' x 6'	2850	3110	3400	73	Wogby



"Baby" Lumber Trimmer

Code Word, Wogca

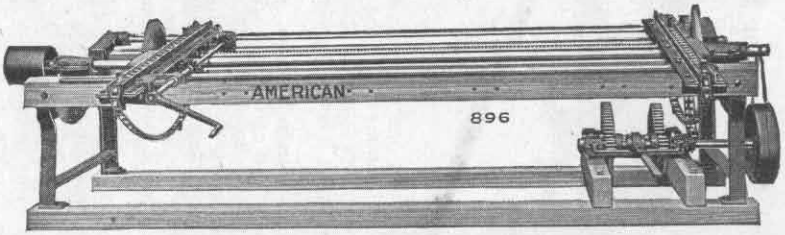
This illustrates a small, light but amply strong Trimmer for trimming or equalizing the ends of staves for tobacco hogsheads, also boards and other light material up to 6′ long. The transfer blocks and saws are adjustable to any desired position, allowing a minimum space of 18″ between the saws and a maximum space of 6′ between the saws. We can make these machines of various lengths up to 10′ and furnish additional transfer blocks and saws as may be required.

SPECIFICATIONS OF STANDARD 6′ MACHINE

Floor space, 8′ 4″x3′ 8″; mandrel pulley, 5″x6″; speed 2,000 R. P. M.; length of mandrel, 8′ 2″; diameter, $1\frac{7}{16}$″; rate of feed, 80′ per minute. Two saws furnished, 12″ diameter with $1\frac{7}{16}$″ hole. Saws have three ½″ pin holes on 3″ circle. 12″ saws extend 2¼″ above transfer blocks. Belt required, 6′ 2″ of 4″ wide. (Not furnished unless ordered extra.) Shipping weight, 760 lbs. Weight, boxed for export, 850 lbs.; cubic measurement, 13 cu. ft.

No. 896 SHORT TRIMMER

Code Word, Wogci

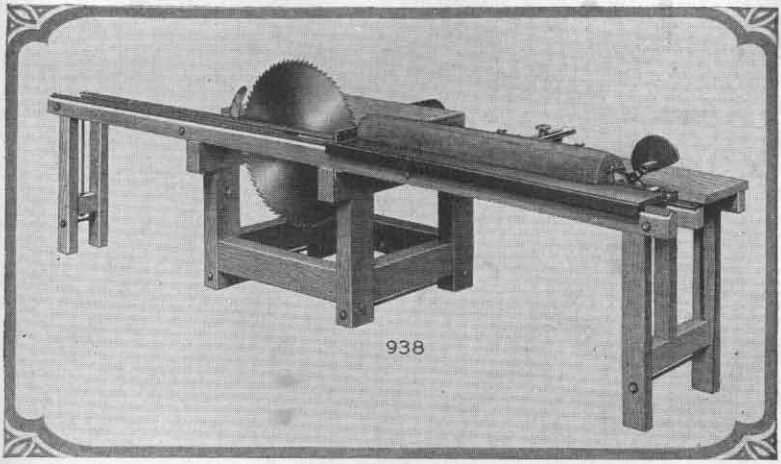


The general construction of this machine is like that of our "Junior" trimmer, except that one saw is movable and the other stationary. The machine is made to trim from 2 ft. to 10 ft., or any length not exceeding 10ft. Extreme length 13 ft.

Weight, 1400 lbs. Export weight, 1650 lbs. Cubic contents, 40 cu. ft.

Hand Table Bolter

Code Word, Wogde



A handy, easily operated hand bolter for small logs, cants or slabs with an effective dogging device.

The carriage or table is made entirely of iron and steel. It travels on a V track and V guides and is, therefore, accurate in its movement.

The dogging device is unique and effective. The dog block slides in a slot in the table. A pawl engages the rack and when the operating handle is pressed downward the dog is forced into the end of the log. When the handle is raised the pawl is disengaged and the dog block may be pulled back. The dog block slides freely in the slot and may be instantly adjusted for any length of log from 12″ to 50″.

The operating handle is provided with a large shield effectively guarding the operator's hand at the end of the stroke.

At the forward end of the carriage a stop is provided against which the end of the log is pressed in dogging.

The gauge can be quickly adjusted to saw material of any width between saw and gauge up to 9″. This gauge is provided with a hinged fence which may be thrown back in taking off a slab.

Logs up to 10″ diameter may be split through the middle with a 30″ saw.

The mandrel is fitted with a pulley 6″ diameter and 6″ face. Larger diameter pulley may be used.

Saws up to 30″ diameter may be used and one 30″ saw is furnished with each machine.

A Splitter is placed behind the saw to prevent finished material from riding the saw.

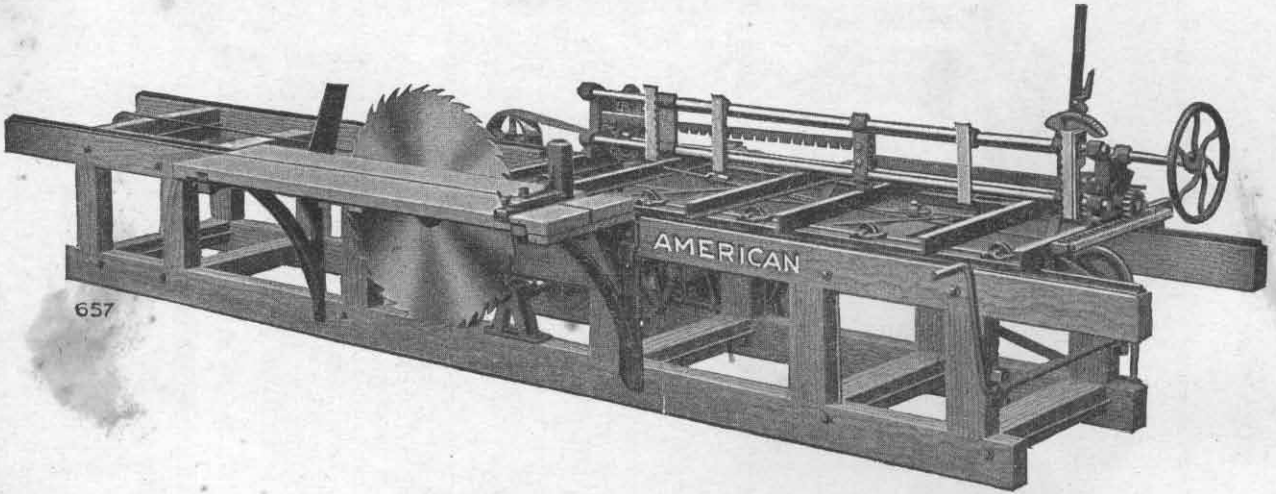
The capacity necessarily depends upon the character of the work and the skill of the operator, but on account of the light carriage, the operator can move quickly and without tiring.

There are many uses to which a machine of this type is adapted; bolting lath material; flattening mine ties; sawing squares for handle or chair stock, or for reducing slabs or small logs to any of the various salable by-products. It will pay for itself quickly on any mill job.

Net weight, 560 lbs. Shipping weight, 625 lbs.

Eight to ten H. P. recommended.

"Empire" Bolting Machine or Short Log Saw



As you no doubt know, we use this machine exclusively in the manufacture of red cedar lumber. We have tried several kinds of mills and after careful test concluded that the (Empire) bolter is more suitable than any other mill, giving us a larger average production and more accurately sawed lumber.

Our average production in ten hours, taking all mills into consideration, is about 3500 feet of 4-4 lumber to the mill. One mill, located at Huntsville, Ala., on January 25, 1921, sawed 8074 feet of 4-4 lumber. On January 27 it sawed 5725 feet of 4-4 and 4237 feet of squares, 3x4 and 4x4.

GEORGE C. BROWN & CO., Memphis, Tenn.

Handy

Rapid

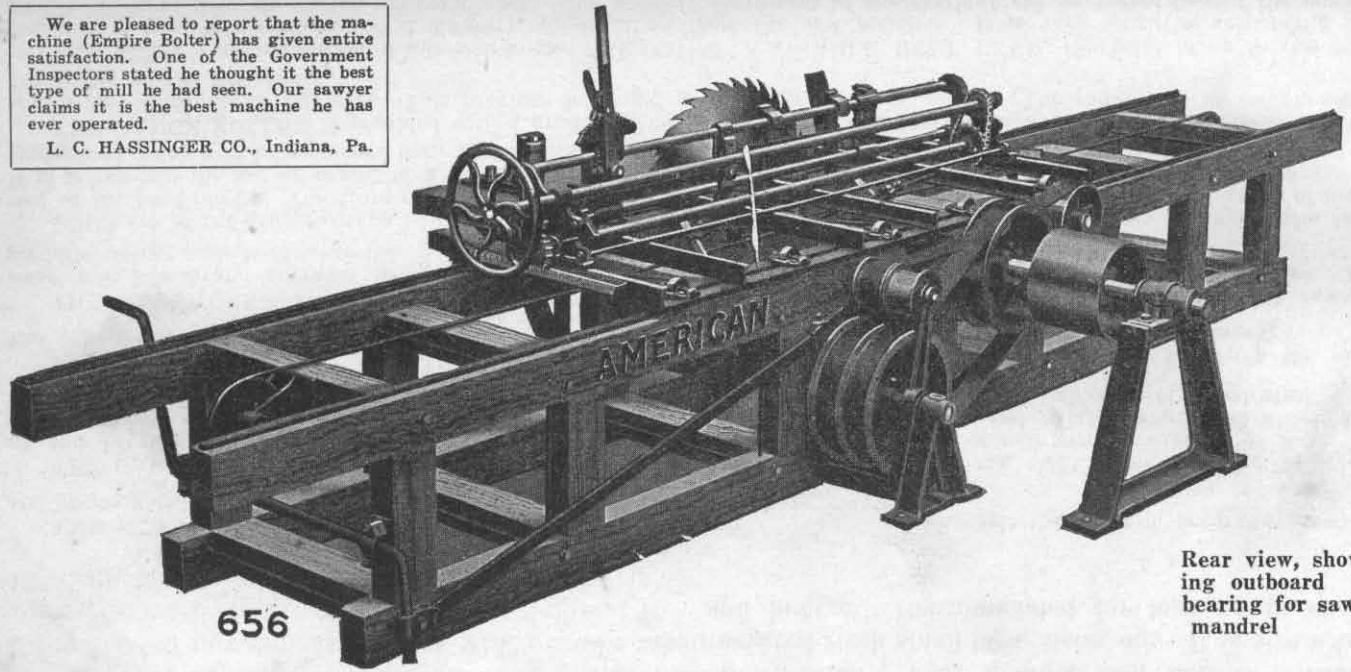
Compact

Self-Contained

"Empire" Bolting Machine

We are pleased to report that the machine (Empire Bolter) has given entire satisfaction. One of the Government Inspectors stated he thought it the best type of mill he had seen. Our sawyer claims it is the best machine he has ever operated.

L. C. HASSINGER CO., Indiana, Pa.



Rear view, showing outboard bearing for saw mandrel

We are pleased to advise that your plant, consisting of Bolter, Trimmer and Edger with saws, has been satisfactory. The Bolter is easily the best we have seen.

W. H. LIGON'S SONS, Pamplin, Va.

"Empire" Bolting Machine

A "Rapid Fire" Cutter

This machine is intended for all kinds of Bolting or Short Log Sawing, working up slabs, veneer cores, sawing out stock for Spokes, Staves, Lath, Handles, Bobbins, Chairs, etc.; making Box Boards, Pickets, Crate Slats or any dimension stock which can be manufactured from small logs, slabs, etc. It is also being successfully used in the manufacture of Railroad Ties and lumber. Recommended for logs up to about 18" diameter.

THE FRAME is constructed of selected timbers, accurately framed and strongly bolted together.

THE CARRIAGE is made four, six, eight or ten feet long, as ordered and is very substantial, being constructed throughout of steel. It runs on grooved and flat wheels with steel axles, the grooved wheels being accurately fitted to the guide track, which is of rolled steel.

HEAD BLOCKS have steel bases and open 24" from the saw. The number of head blocks depends on the length of carriage.

THE SET WORKS are Rack and Pinion type, fitted with ratchet wheel and pawls, and operated by hand wheel at end of carriage. An accurate setting scale is fitted to the forward Head Block.

DOGS are of the end-grip type, mounted on two parallel shafts carried by the head blocks. The front dog is operated by the sawyer and can be instantly adjusted for varying lengths of logs. It is forced into the log by means of a hand lever—no clamping is necessary. The position of the rear dog can be quickly changed, being held by a notched bar. Intermediate Drop Dogs or End Drop Dogs can be furnished.

THE GAUGE ROLLER is provided with a graduated base and can be quickly adjusted and clamped in position for sawing any thickness of material. This provides for rapid setting and accurate sawing. The roller may be swung aside for taking off the first slab.

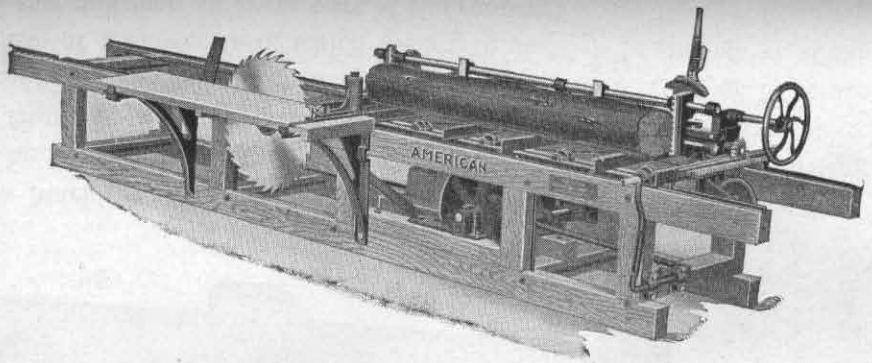
THE FEED is an adaptation of our well-known "HEACOCK" VARIABLE BELT FEED, the belts being driven continuously in opposite directions and at different speeds, direct from the saw mandrel. It is very sensitive, responding instantly to slight pressure on the sawyer's lever. The forward movement of the carriage can be varied to suit the power, and the gig-back is positive and rapid. The operator has control of the feed, set works and dogs without changing his position.

NINETY-FIVE AMERICAN EMPIRE BOLTERS
Made Good in France

Glen H. Holloway, First Lieutenant 28th Company, Twentieth Engineers (Forestry) writes in the Southern Lumberman of Dec. 21, 1918, as follows:

"The American Saw Mill Machinery Company furnished the bolter or tie mill, which is answering its purpose admirably. We only have to face these ties on two sides, so if you get the right sized poles and don't stop to cut any side plank it is possible to cut 30,000 feet in ten hours, once in a while, but the average is nearer 15,000 feet for a ten-hour shift."

SAWS—A 36″ Solid Saw is furnished with each machine, but any size of saw up to 42″, either Solid or Inserted-tooth may be used, and on special order machines will be made to carry saws as large as 48″. A number of these machines are in use with thin solid or segment saws with stiffening collars for cutting cigar box material and other thin boards from cants. Machines are made regularly for R. H. saws with 2″ hole and two ⅝″ pin holes on 3″ circle. A 36″ saw extends 11½″ above the head blocks. Power required 15 H. P. and up, depending upon the work. Speed recommended for 36″ saw, 800 R. P. M.



ILLUSTRATING METHOD OF DOGGING LOG

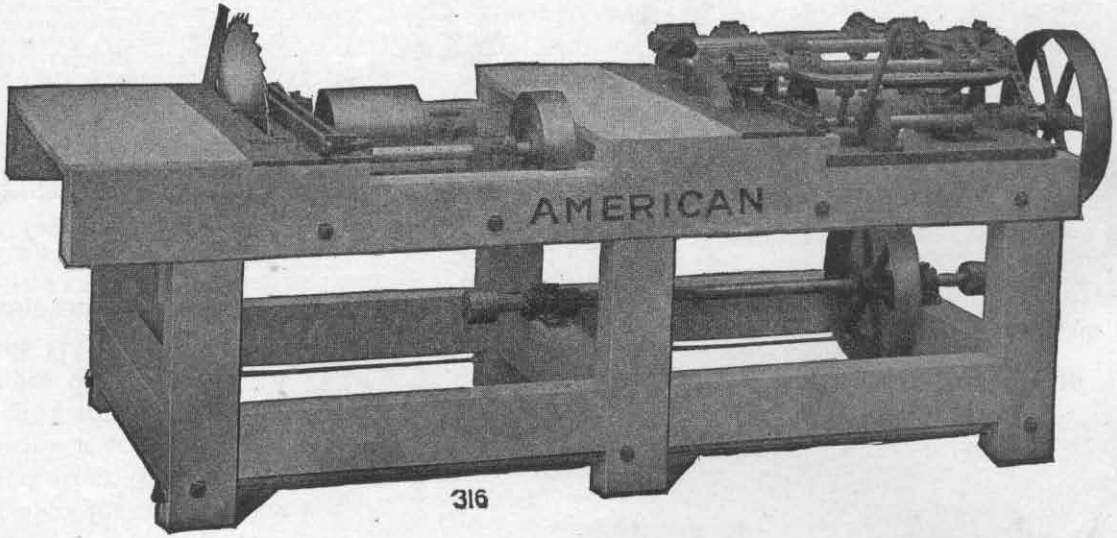
DIMENSIONS

Mandrel 2 3/16″ diameter, 76″ long, with three chain-oiling bearings. Mandrel Pulley, unless otherwise ordered, 12″ diameter, 10″ face. Track, 33½″ wide. Height of Head block bases from floor, 34½″.

Size of Carriage	4-ft.	6-ft.	8-ft.	10-ft.
No. of Head-block Bases	5	6	8	10
No. of Knees	2	2	3	4
No. of Dogs	2	2	2	3
Longest Log Dogs will grip	52″	76″	100″	124″
Shortest Log Dogs will grip	12″	12″	12″	12″
No. of Carriage Wheels	8	10	14	18
Floor Space required	8′x15′	8′x19′	8′x22′	8′x27′
Shipping Weight (Domestic)	2400 lbs.	2700 lbs.	3000 lbs.	3200 lbs.
Weight, boxed for Export	3000 lbs.	3375 lbs.	3750 lbs.	4200 lbs.
Cubic Measurement	119 ft.	140 ft.	163 ft.	212 ft.
Code Word	Wogdo	Wogeb	Wogec	Wogef

NOTE—10 ft. Machine can be furnished with longer track and with two Drop Dogs in addition to the End Dogs for sawing up to 12 ft. in length.

Combined Lath Machine and Bolter



Our Improved Combined Gang Lath Machine and Bolter is the best machine of the kind on the market, possessing **valuable features** not to be found on **any other** make of machine. It is adapted to cutting **laths, slats, or crate stock** of any width, from ½" to 3" of various thicknesses; also small dimension stock from ½"x½" up to 3"x3", by simply changing the collars between the saws. Where 2½" or 3" crate stock is to be cut, we recommend the use of a slower feed, which we are in position to furnish at slight additional cost. It is very popular with saw mill men in every part of the country.

Combined Lath Mill and Bolter

The Frame is made of hard wood, mortised and tenoned, and securely bolted together, making it very substantial and durable.

The Arbors are of the best grade steel and run in self-oiling boxes, which are cast solid with the iron husk frame, to which all the working parts are attached, thereby keeping everything in line and avoiding the heating of the bearings.

The Lath Machine is fitted with two sets of power feed rolls; one set in front and one behind the saws. The top rolls are driven by sprockets and are carried by swinging frames, which have adjustment from ½" to 3", to admit different thicknesses of stock and are raised or lowered at the will of the operator. This also permits the stock to be drawn back if it should become wedged in the saws, and prevents the burning of saws.

The Arbor of the Lath Machine will carry six saws spaced for regular lath, but **only three saws are furnished unless otherwise ordered.**

Arbor will carry three saws for sawing 1" thick, two saws for sawing 2" thick, and one saw for sawing 3" thick.

Changing Saws is very easily and rapidly done by removing the iron throat piece in the table.

Capacity of lath saws, 30,000 to 40,000 per day.

The Bolter is furnished with one saw and one feed roll and an adjustable guide. **Pressure Roll** furnished for bolter when desired at small additional cost.

We build this machine as a lath mill only, without the bolter.

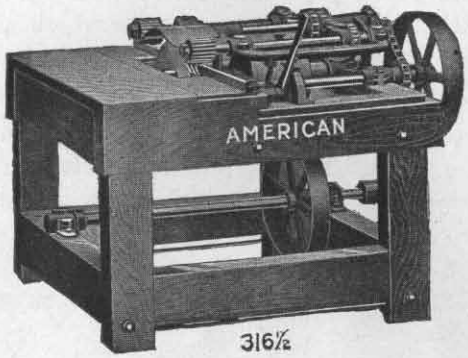
To properly drive these machines it is necessary to provide a countershaft, which may be placed on the floor in rear of the machine, suspended over head or placed under the floor, as preferred. Price of countershaft is extra. Countershaft has 12"x8" tight and loose pulleys and should run 700 R. P. M.

DIMENSIONS:

Frame of **Combined Machine**, 8' long, 37" wide, 27" high.
Lath saws, 12", Bolter saw, 22" with 1¼" hole.
Driving pulley on each mandrel, 8"x8".
Speed of lath saws, 2,700; Bolter saw, 1,400.
Feed belts required, 18' 2"x2".
Weight of **Combined Machine**, net, 1,100 lbs.
Weight packed for export, gross, 1,400 lbs.
Cubic measurement, 40 cubic feet.
Code Word, **Wohej.**

Gang Lath Machine

Code Word, Wogeg

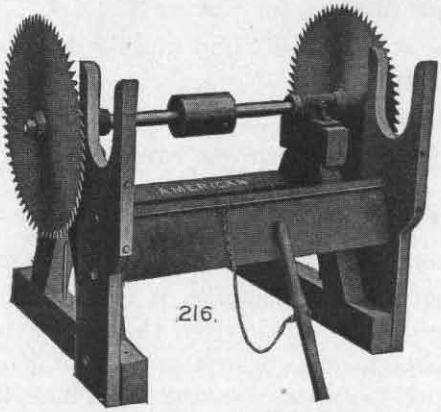


Our Gang Lath Machine is of the same construction as the Combined Machine, except that the Bolter is left off.

Frame 37" long, 37" wide, 27" high. Lath saws 12" with 1¼" hole. Speed, 2,700 R. P. M. Driving pulley on mandrel 8"x8". Weight of machine, net 675 lbs. Weight packed for export, gross, 900 lbs. Cubic measurements, 25 cubic feet.

Feed belts required, 12' 4"x2".

Lath Binder and Trimmer



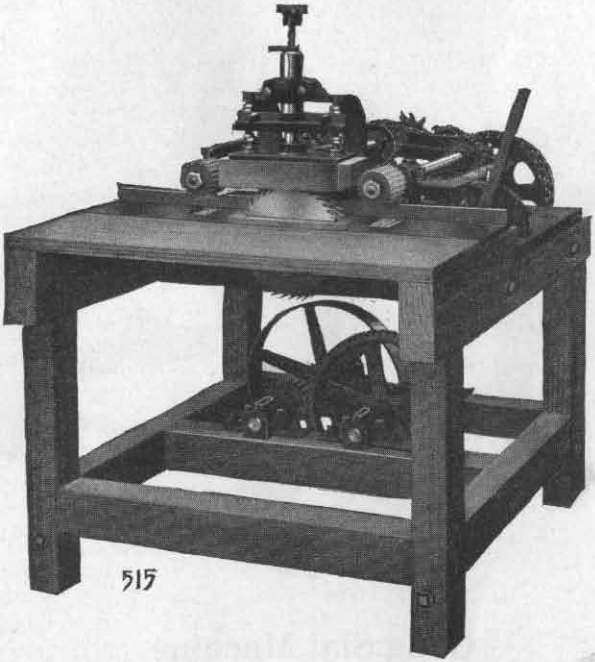
A simple yet very complete and well made machine with which the operator can bundle, bind and trim laths as rapidly and easily as with any on the market. Mandrel $1\frac{5}{16}$"x4½'; Pulley 6"x9".

No. 1 for 50 lath, with 24" saws, speed 1,500 R. P. M. Code word, **Wogem.**

No. 2, for 100 lath, with 30" saws, speed 1,200 R. P. M. Code word, **Wogep.**

Light Gang Ripping Machine

Code Word. Woges



This machine will handle short or long stock and is intended for ripping several pieces at one cut, such as light slats or strips, crate cleats, laths or small squares or dimension pieces from ½" up to 3".

Feed Rolls. There are two upper and two lower power driven feed rolls placed in pairs before and behind the saws. The **top rolls** are carried in swinging frames and automatically adjust themselves to the varying thicknesses of stock. A lever is provided so the operator may raise the rolls at will and an adjustable stop is provided to hold them at any desired position.

The peculiar manner of fitting the rolls keeps the stock always up against the guide, insuring straight, accurate work, even on short stock.

An Adjustable Guide is placed back of the inside saw and a section of the table lifts out for changing saws.

An Adjustable Presser Foot with spring tension is provided over the saws, having a wood block on its lower surface. The saws cut into this block, allowing it to act as a guard; also to keep the stock from flying out.

The Mandrel is 1 1/16" steel with 8"x8" driving pulley and runs in two long self-oiling bearings. It has 2¾" space for saws between the outside and inside collar so that any number of saws may be used that the space will admit. For sawing 1" thick three saws can be used, for sawing 2" thick two saws can be used, for sawing 3" thick one saw can be used.

Four saws are furnished 12" diameter, 12 gauge with 1¼" hole and should run 2,700 R. P. M. One set of spacing collars are furnished of any thickness specified by purchaser. Countershaft is not furnished unless specially ordered.

Weight, 800 lbs. Packed for export, 950 lbs.; 25 cubic feet.

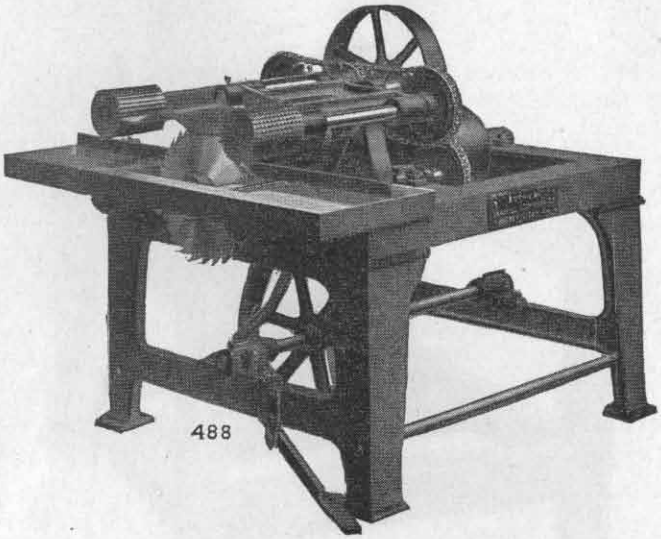
Floor space required, 37"x37".

Horsepower necessary, 8 to 10.

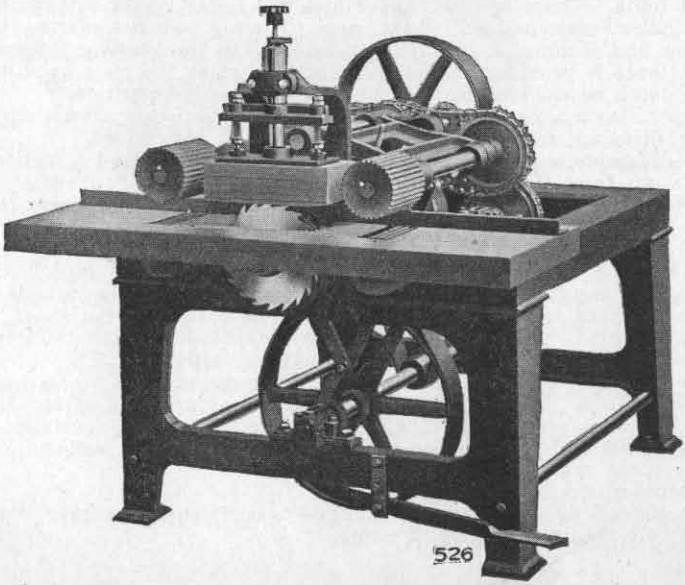
Rate of feed, 40' (this may be changed to suit requirements).

Feed belt required, 6' long, 2" wide.

Gang Slat Machine



Gang Slat Machine With Presser Foot



Gang Slat Machine

This is a heavy, substantial gang ripping machine of improved pattern with powerful feed, and is intended for use where a large output and a variety of work are desired.

It is adapted to sawing crate **slats** or **laths** of any thickness from ¼″ up, and any width from ½″ to 4½″ wide; also for sawing **small squares** or **dimension stock** from ½″x½″ up to 4″x4″, either **short** or **long,** by simply providing collars of desired thickness between the saws. Only one set of collars is furnished with machine at the regular price.

The MAIN FRAME is a solid casting which carries all the working parts, thus insuring strength, permanent alignment and cool bearings.

The MANDREL is steel 1 5/8″, turned and ground perfectly true, and rotates in **three long, babbitted, self-oiling boxes** which are cast solid with the main frame. It has a 10″x10″ pulley placed between two of the bearings, and can be **belted** from any desired direction.

The FEED ROLLS are 5″ diameter, 6″ long, all fluted and driven by sprockets and chains. **The top rolls** are carried in swinging frames, which permit automatic adjustment to the varying thickness of stock being worked. **A Foot Treadle** is provided for quickly and easily raising these rolls to any height up to 4¾″ above the table. The front roll rises before the rear one, a valuable feature when sawing stock of varying thickness. The unique manner of fitting these rolls **keeps the stock against the guide,** and insures straight sawing.

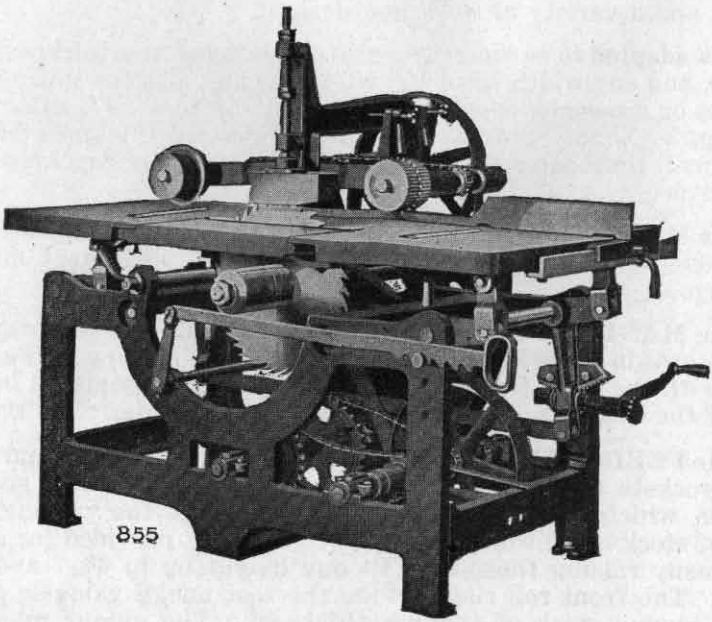
The WORKING TABLE is 16″ wide, 49″ long, accurately planed on the surface and is provided with an adjustable guide.

When ordered for **special work** such as **squares, staves, handle stock, pickets,** or other small dimension pieces, it can be fitted with throat pieces between the saws and **a combined adjustable pressure foot** and **guard** over the saws to adapt it to **cutting short lengths.** An extra charge is made for these changes.

Floor space required, 49″x54″.
Height of table from floor, 30½″.
Saws furnished, four 14″ with 1⅝″ hole.
Speed of saws, 2,100 R. P. M.
Saws project above table 4½″.
Space on mandrel for saws, 5½″.
Greatest space from inside saw to guide, 2½″.
Rate of feed, 44′ per minute.
Feed belt required, 13′ 2″ of 3″.
Horsepower required, 10 to 15.
Weight, skidded, 1,350 lbs.; boxed for export, 1,850 lbs.; 64 cu. ft.
Code word, **Wogew.**
Code word, with presser foot, **Wogfi.**

Power Feed Rip Saw No. 855

Code Word, Wogfy



This is a general purpose power feed or hand feed Rip Saw, designed for plants requiring a medium weight machine of large capacity, capable of performing first-class work.

The table is 32″ by 64″, heavily ribbed and accurately finished and fitted.

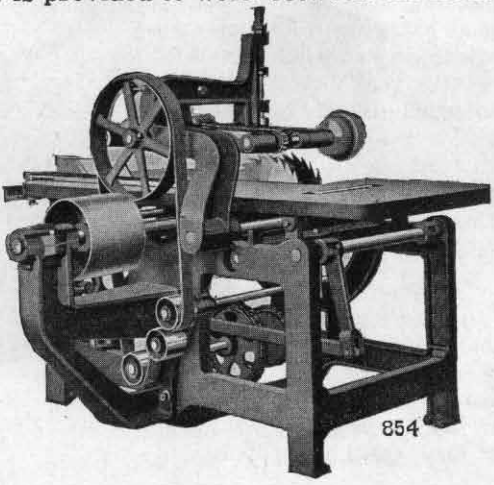
The ripping guide is equipped with a handy locking device, and may be entirely removed by releasing the clamp screw. Provision is made for ripping 18″ between guide and first saw or 26″ between guide and saw when placed at the outer end of the mandrel. The table is provided with a graduated index scale for setting the guide.

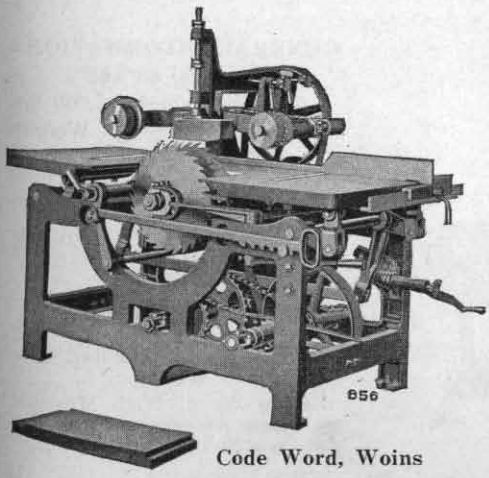
A removable plate on the outside over the saw mandrel provides for easy access to the saw. A wood plate or throat piece may be substituted when gang saws are used for ripping narrow materials, slats, etc.

Power Feed Rip Saw

The mandrel is $1\frac{5}{16}$" diameter and is turned to $1\frac{3}{4}$" where the saw fits on. By removing plate or throat piece, the saw may be quickly taken off. There is a space of 8" between inside and outside collars and a set of fill-up collars is provided for each machine. One or more additional saws may be used for ripping slats, pickets, handle stock, etc.

The feed rolls are 5" diameter, 4" wide, corrugated and made in two sections. A feed spur is provided to work between the front feed roll sections and a divider between the rear roll sections. These may be removed when not needed. Smooth feed rolls will be furnished when preferred. The feed rolls are carried in adjustable frames and are adjusted independently of each other. They are prevented from dropping below a desired point by means of convenient adjusting screws. They may be quickly raised or lowered to suit the thickness of stock. By locking the swing frame which carries the front roll, the entire weight of the feed mechanism is on the front roll, making a very powerful feed for heavy work. The entire feed mechanism may be raised and locked in position out of the way for hand ripping.





Code Word, Woins

There are three feeds—41 ft., 78 ft. and 156 ft. and by a change of one feed pulley, six rates of feed may be obtained.

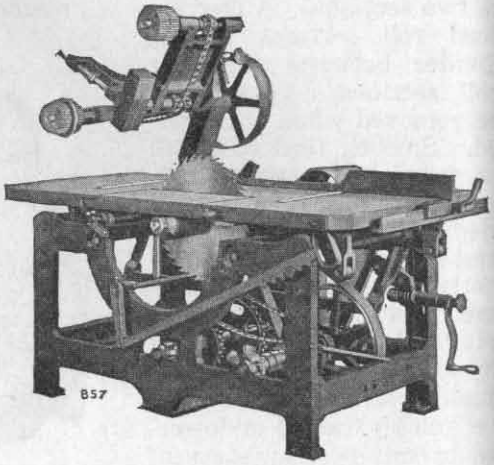
Power Feed Rip Saw

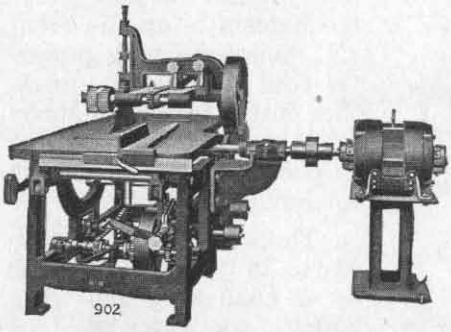
The hold down for short stock is under a spring tension and may be raised to clear the work. It also acts as a saw guard.

The saw furnished is 20" diameter and projects 6⅜" above the table when the table is at lowest point. The table may be raised 4½" by means of a crank convenient to the operator and may be locked in any position. The mandrel pulley is 8" diameter, 8" face, speed about 1,900 R. P. M.

For use as an edger, this machine may be equipped at small extra cost with a movable saw to cut any width from 1¼" to 6". The movement of the adjustable saw is by means of a lever convenient to the operator and there is a clamping device to hold the saw in position. This attachment is easily and quickly installed or removed.

Countershaft: This is not furnished regularly as a part of the machine, but will be supplied at extra cost. The tight and loose pulleys are 12" diam., 8" face; drive pulley 20" diam., 8" face; speed 760 R. P. M.



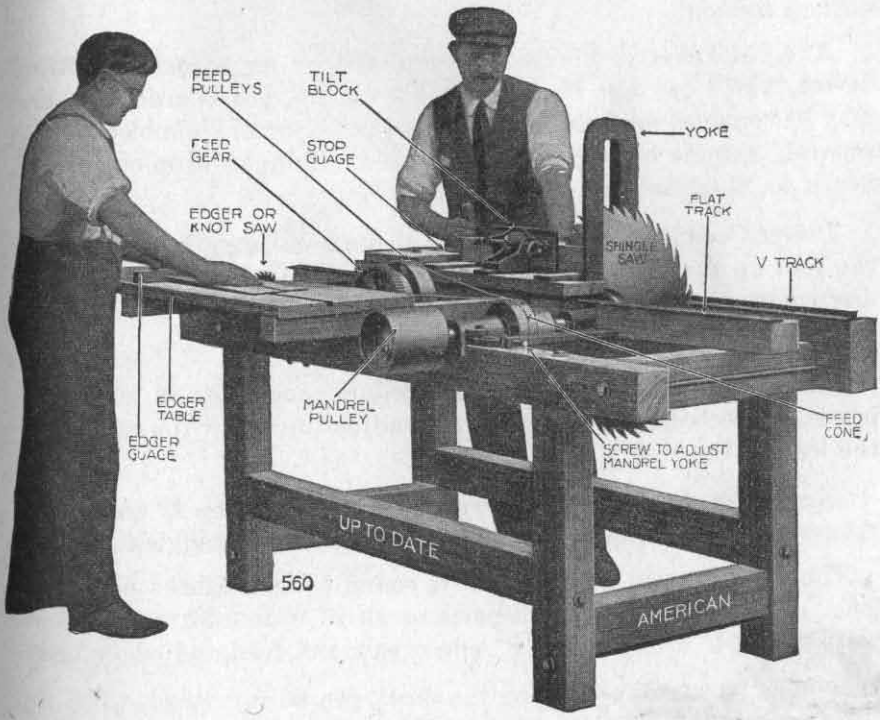


Direct Motor Drive

GENERAL INFORMATION

Floor space, 68"x62".
Shipping Weight, 2,000 lbs.
Export Shipping Weight, 2,200 lbs.
Cubic Contents, 90 C. F.
Movable Saw Attachment weighs 75 lbs.
Countershaft weighs 175 lbs.
Horse Power required, 15-20.
Code Word, Regular Machine, Wogfy
Code Word, With Movable Saw Attachment and Extra Saw, Woins

American "Up-to-Date" Shingle Machine



With Power Feed, Automatic Stop, Edger and Knot Saw

To meet the demand for a reliable yet low priced **"Shingle Machine"**, suitable for small mills, farmers and others having light power, we offer our **"Up-To-Date" Shingle Machine** shown above. It will make shingles, heading, box boards, crate slats, etc., and can be furnished for making wedges.

"Up-to-Date" Shingle Machine

The Carriage is very substantial and provided with a strong iron yoke that will admit saws up to 36″ diameter. The underside is fitted with gibs to the iron track to which they hold the carriage securely. These gibs are slotted to provide adjustment and to take up lost motion.

The thickness of shingle is regulated by an **adjustable tilting device,** which can also be adjusted for cutting box boards, etc., and may be removed entirely for bolting or squaring shingle blocks. No separate shingle block bolter is required. Shingles drop out underneath as they are cut.

Power Feed is provided, which is thrown into gear by pressure of the foot on the treadle, and a trip is provided which automatically disengages the power feed at any desired point. The machine can be used either with hand or power feed.

The Mandrel is steel, with 6″ collars, and runs in self-oiling boxes, connected by heavy yoke with adjusting screw for regulating the lead of the saw.

An Edger and knot saw is provided which has an 8″ saw and a convenient gauge, insuring square, straight-edge shingles.

The machine will handle square, round or split blocks up to 24″ long. A 24″ saw will cut shingles up to 7″ wide. Furnished complete with 24″ shingle saw, 8″ edger saw and feed and edger belts.

30″ or 36″ saw for bolting the stock can be furnished, when desired, at additional cost. 5000 to 8000 shingles per day can easily be cut. Experts have done more.

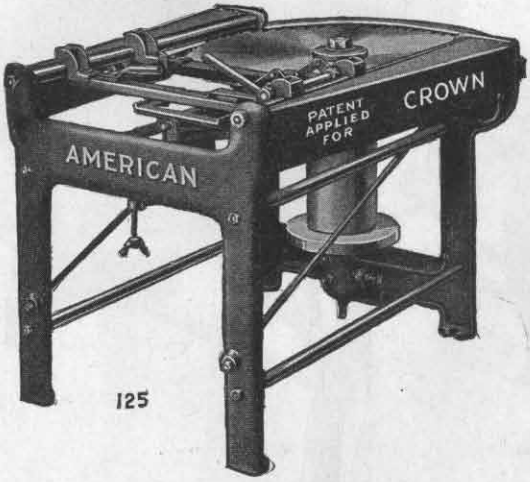
Dimensions

Frame, 7′ long, 2′5″ wide; carriage, 3′ 8″ long, 13″ wide; power feed, 24″; main mandrel, $1\frac{7}{16}$″; driving pulley, 6″x6″; weight with edger, net, 625 lbs.; gross, 750 lbs.; cubic measurement, 17′; power required, 6 to 10 H. P.; speed of 24″ saw about 1200 revolutions.

Complete with edger, Code Word, **Wogga;** without edger, Code Word, **Woggi.**

This machine can be made to cut 36″ long at slight extra charge. It may be fitted with a 75 lb. balance wheel on mandrel, when desired, at extra cost.

"Crown" Shingle Machine



Our **Crown Machine** cuts 16″ to 20″ shingles, and carries a 36″ or 38″ saw. The **Frame** is composed of two heavy castings bolted together by means of six horizontal rods and two diagonal braces, the two upper rods forming the carriage ways.

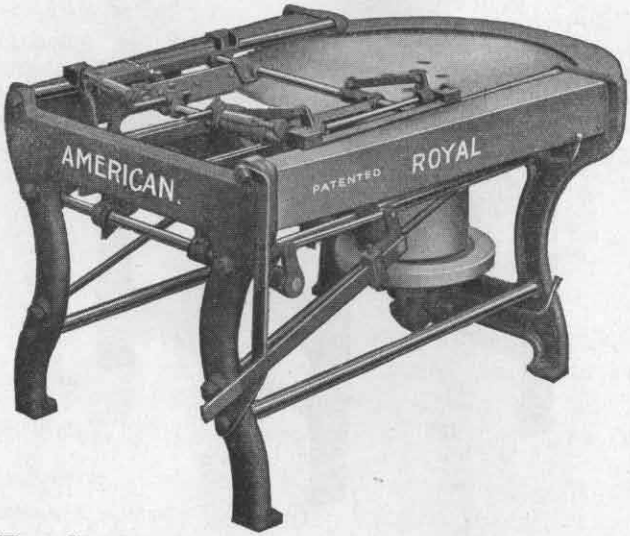
The **Arbor** is $1\frac{15}{16}$″ in diameter, and runs in self-oiling as well as self-adjusting boxes. The **Carriage** is steel and iron, making it very strong. It runs on polished steel guides, and is constantly lubricated by oil pockets cast in same. The dogs firmly hold the shingle blocks and allow the stock to be worked up with the least possible waste.

The **Tilt Works** are adjustable in each direction for different thicknesses of shingles. This machine is furnished with balance wheel pulley, 8″x9″, speed 1400 to 1500 R. P. M.

Each machine is set up and thoroughly tested before shipping, insuring cool-running bearings and proper adjustment of all parts. Capacity, 10,000 to 20,000 shingles per day.

Weight, 600 lbs. Packed for export, gross, 800 lbs. Measurement 56′. Code Word, 36″, **Woggy.** Code Word, 38″, **Woghe.**

"Royal" Shingle and Heading Machine



Our **"Royal" Shingle and Heading Machine** is a very superior machine, being constructed throughout of the best grade of steel and iron, and of strictly first-class workmanship.

The design insures great strength, rigidity and durability. The frame consists of heavy cast iron front and back pieces securely bolted together by six heavy steel rods and two strong diagonal braces.

The **Mandrel** is steel and is fitted with large pulley and heavy balance wheel, which are carefully balanced. It runs in self-oiling self-adjusting boxes. The lower end runs on an anti-friction step in constant oil bath, insuring proper adjustment and cool-running bearings.

The **Tilt Frame** is fitted with our patent leveling and adjusting device, which admits of the most accurate and fine adjustment for different thicknesses of shingles and provides a quick drop of the block for cutting out knots or bad spots.

The **Carriage** is light and strong, with roller bearings and adjustments for cutting any length of shingles, box boards or heading, from 16″ to 24″. Saws from 36″ to 42″ may be used.

Driving Pulley, 12″ diameter by 10″ face. Balance wheel, 18″ diameter by 2″ face. Weight of balance wheel, 85 lbs. Speed, according to size of saw, 1200 to 1500 R. P. M. Capacity, 20,000 to 30,000 per day.

Machine with 36″ Saw.	Weight, 1450 lbs.	Code Word, **Woghu.**
Machine with 38″ Saw.	Weight, 1460 lbs.	Code Word, **Wogid**
Machine with 40″ Saw.	Weight, 1470 lbs.	Code Word, **Wogij.**
Machine with 42″ Saw.	Weight, 1480 lbs.	Code Word, **Wogik.**

Extra saw with collar can be furnished when wanted.

Export packing adds about 400 lbs. Cubic measurement, 85 feet.

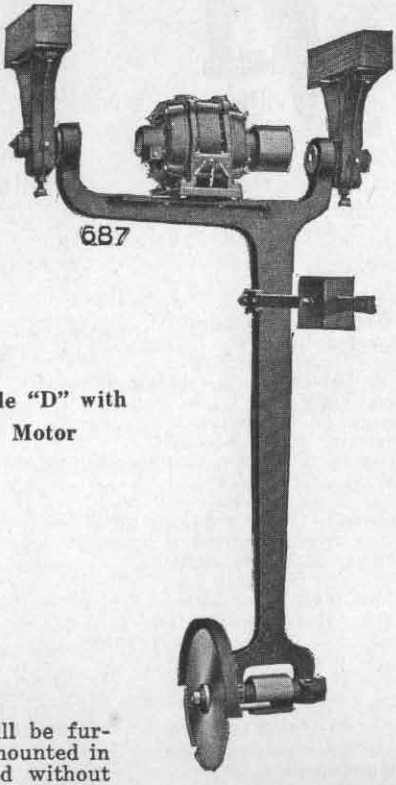
Styles "C", "D" and 'E" Swing Cut-Off Saws

Styles "D" and "E" Right Hand

The Style "D" Swing Saw is made with countershaft, and for motor drive, as illustrated. The style "E" is similar in design to the style "D", but is made heavier to carry larger saws, and is made with countershaft only. The frame is cast in one piece. It swings on independent trunnions which fit the hangers, thus relieving the countershaft and bearings of all weight.

The Mandrel is turned and ground perfectly true and runs in babbitted-cap boxes.

The Hangers have ample vertical and transverse adjustment. They may be secured to timbers directly overhead or to the wall or upright posts, as may be more convenient.



Style "D" with Motor

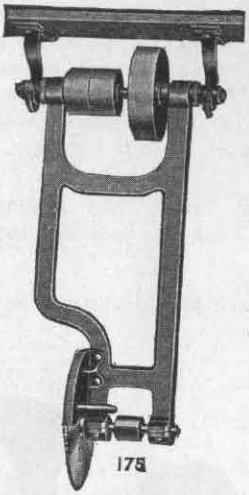
The Belt Shifter lever is placed within convenient reach of the operator.

A Counterweight is provided to cause the saw to swing back clear of the work.

Motor Driven Style "D" Machine will be furnished with 3 or 5 H. P. electric motor, mounted in frame or without the motor. If ordered without motor complete motor dimensions should accompany the order.

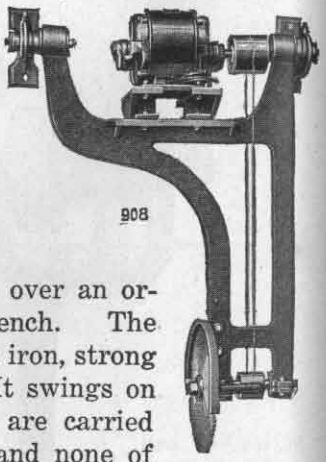
Style "C" Swing Saw

Style "C", Belt Drive



This machine can be used for a large variety of light work. The length of the frame is such that it can be suspended over an ordinary work bench. The frame is solid cast iron, strong and very rigid. It swings on trunnions, which are carried by the hangers, and none of the weight of the frame is borne by the shaft or bearings.

Style "C", Motor Drive



Made also for motor drive similar to style "D".

SPECIFICATIONS

	"C"	"D"	"E"
Style of Frame			
Diameter of Mandrel	$1\frac{3}{16}$"	$1\frac{5}{16}$"	$1\frac{11}{16}$"
Size hole in Saw	1"	1¼"	1½"
Size Mandrel Pulley	3" x 3"	5" x 5"	6" x 8'
Size Driving Pulley on Countershaft	12" x 3"	16" x 5"	16" x 8'
Size Tight and Loose Pulleys	6" x 3"	10" x 5"	12" x 8"
Speed of Countershaft	450 R. P. M.	550 R. P. M.	550 R. P. M.
Diameter of Countershaft	$1\frac{7}{16}$"	$1\frac{11}{16}$"	$2\frac{3}{16}$",
*Length of Frame, Countershaft to Mandrel.	42"	6'	6'
Length of Hangers	8"	12"	12"
Largest Saw Frame will take	16"	24"	36"
Size Saw Guard regularly furnished	16"	18"	24"
Other sizes furnished if specified	.....	24"	30" or 36"
Length of Inside Belt	9' 2"	14' 11"	15'
Shipping Weight	200 lbs.	510 lbs.	1030 lbs.
Gross Weight for Export	250 lbs.	610 lbs.	1180 lbs.
Cubic Measurements	8'	15'	17'
Code Word, Regular Machine	Wogin	Wogir	Wogit
Code Word, for Motor Drive	Wogip	Wogis	

Speeds given are for Style "C", 16"; Style "D", 18"; Style "E", 24".

Saw and belt are not included in price of machine.

All machines right hand as illustrated. Left hand furnished at same price if specified in order.

*On special order Style "D" will be made 4', 4½', 5', 5½' or 6½' without extra charge.

Monarch
Ball Bearing Motorized Swing Saw

Style "G." No. X22

Code Word, Wogix

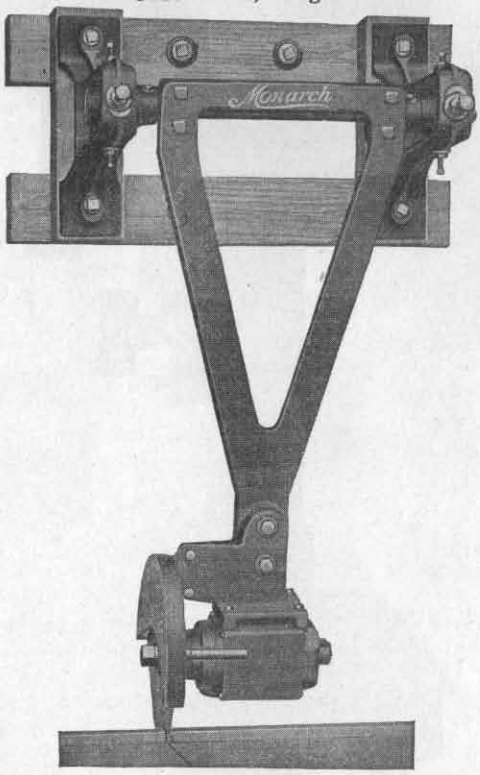


Fig. 992

A handy, light motor head swing saw. The motor head has an adjustment of 2″ to compensate for wear of saw or height of table. The motor is especially designed and can be operated on single or three phase current, 60 cycle, 110 or 220 volt. Direct current, 115 or 230 volt.

SPECIFICATIONS

Length of frame 42″. Hangers, 14″ to 16″ for wall or ceiling suspension. Diameter of saw 14″. Will cut off 3″x12″ or 2″x16″. Motor 1 H. P. Weight 325 lbs. Boxed weight, 425 lbs. Furnished with or without counter weight.

Monarch
Motor Head Swing Saw

Style "F" No. X14

Code Word, Wogiz

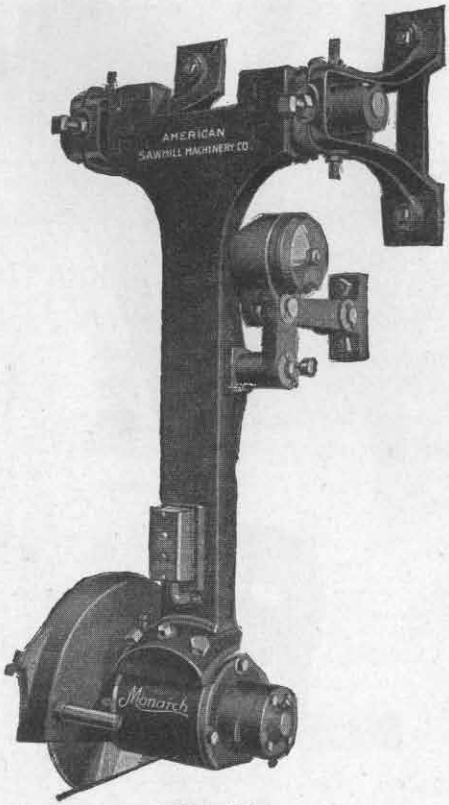


Fig. 943

With Ball Bearings

Here is a machine that embraces the last word in mechanical efficiency. The 3 H. P. motor head is for 3-phase, 60 cycle, 220 volt current, runs in ball bearings and is completely guarded against chips and dust. Provision is also made for perfect lubrication. It is provided with our new automatic safety counter balance, starter with push button control is furnished.

SPECIFICATIONS

Lengths of frames from centre to hanger shaft to center of mandrel, 3½, 4, 5 and 6 ft. From base of hanger to centre of shaft, 12". Saw furnished, 16", with 1" hole. Maximum depth of cut, 4". Speed, 3450 R. P. M. Shipping weight, 500 lbs. and upward, according to length.

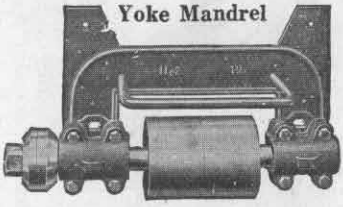
We also make a smaller 42" frame with 1 H. P. motor. Shipping weight, 425 lbs. Ask for bulletin.

Wood Frame Swing Saw

We furnish **Wood Frame Swing Saws,** as shown here, complete with a mandrel, hard wood frame, hinges, boxes, shaft and pulleys. A pair of bevel gears will be furnished instead of tight and loose pulleys at the same price, if preferred.

This style of swing can be fitted to any shaft that is convenient. For those who wish to make their own frames, we will furnish the iron parts only, if desired.

Mandrel and Hinges for Swing Saw



Iron parts consist of yoke mandrel, set of hinges, tight and loose pulleys, drive pulley, shaft and boxes. When yoke mandrel and hinges only are wanted, please so specify.

Mandrels are left hand, as shown, unless ordered right hand. Made in three sizes, as below. No. 3 hinges bored $2\frac{7}{16}$", when so ordered.

	No. 1	No. 2	No. 3
Mandrel, Steel	$1\frac{7}{16}$"x22"	$1\frac{7}{16}$"x25"	$1\frac{7}{16}$"x28"
Mandrel Pulley	6"x6"	6"x8"	8"x8"
Largest Saw that can be used	30"	36"	42"
Hole in Saw	$1\frac{1}{4}$"	$1\frac{1}{2}$"	$1\frac{5}{8}$"
Bore of Hinges	$1\frac{15}{16}$"	$2\frac{3}{16}$"	$2\frac{3}{16}$"
Tight and Loose Pulleys	10"x6"	10"x8"	12"x8"
Driving Pulley	16"x6"	16"x8"	20"x8"
Belt required	14'7" of 6"	14'7" of 8"	15'4" of 8"
Weight of complete Machine	350 lbs.	400 lbs.	480 lbs.
Weight of Iron Parts only	240 lbs.	255 lbs.	320 lbs.
Weight of Hinges only	45 lbs.	50 lbs.	55 lbs.
Weight of Yoke Mandrel only	62 lbs.	75 lbs.	100 lbs.

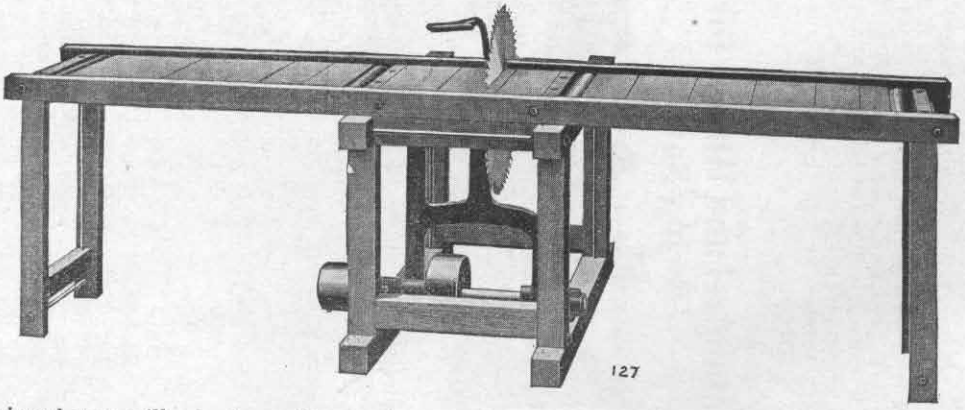
Saw Guard furnished at extra cost, Code Word, 24" or smaller Guard, **Woiph;** 24" to 36" Guard, **Woipo. Saw Blade and Belt are extra.**

Code word complete machine, less saw, **Wogje.** Irons only, less saw, **Wogju.** (Give size wanted.) Yoked mandrel only, **Woinu;** Hinges, per set, **Woiny.**

Cut shows right hand machine. Left hand furnished at same price if specified when ordered.

"Perfection" Cut-Off Saw Table

Code Word, Complete, Wogke



Every well-equipped saw mill, planing mill, or other woodworking establishment must have one or more cut-off saws, either of the swinging or table type. To meet the increasing demand for a low priced, yet good machine of the latter type, we offer our **"Perfection" Table Cut-off Saw.**

This has been carefully designed and is well made throughout of best materials and workmanship. **The Frame** is made of seasoned hard wood strongly bolted together, the table is 20" wide and 10' long, being fitted with four 3" idle rolls and a guide rail at the rear, providing for easy handling of timber and accurate cutting.

The Mandrel is of best grade cold rolled steel, runs in babbitted boxes, and is carried in a strong, solid cast iron swinging frame, which is trunnioned to the countershaft below, thus insuring rigidity and durability. Any size saw can be used from 18" up to 24". Furnished regularly with 20" saw, no belt.

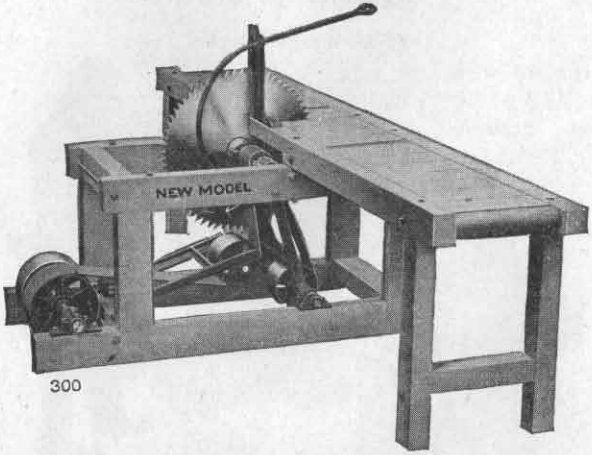
Belt required, 6' 2" of 4".
Timbers in main frame, 3½"x3½".
Timbers in table frame, 2"x4".
Mandrel, 1 1/16", for saws with 1¼" hole.
Mandrel pulley, 4"x4".
Countershaft pulley, 6"x6"; speed, 700 R. P. M.
Floor space required, 4'x10'.
Shipping weight, 430 lbs.
Export weight, 575 lbs.
Cubic contents, 28 cubic feet.

The iron parts only, with saw or without saw, will be furnished when desired.

Capacity with 20" saw 1"x16" and 5"x12" with 24" saw 1"x18" and 6½"x12". Code Words, Machine complete except belt, **Wogke.** Iron parts only, **Woira.**

"New Model" Cut-Off Saw Table

Code Word, Wogko



300

The popularity of our Perfection Cut-off Saw Table, and the large demand for a heavier and more powerful machine of same type, induced us to place on the market our **"New Model" Cut-Off Saw Table,** which has also had a very large sale.

It is adapted to use in saw and planing mills or any wood-working establishment and will handle any lumber from boards up to dimension stock 7″x10″, 8″x9″, 6″x12″, 5″x13″, and will cut off boards or plank up to 16″ wide.

The Frame is made of seasoned yellow pine or other hard wood, accurately framed and strongly bolted together. The table is 20″ wide, 12′ long, fitted with 4″ rolls and a substantial guide rail at rear to insure rapid, easy handling and accurate sawing.

The Mandrel is of best grade cold rolled steel, runs in babbitted boxes in a substantial, solid, cast-iron, swinging frame, which is drawn forward by strong, iron handle.

The Countershaft is placed well back at rear of frame, allowing the use of a long drive belt, which is kept tight by means of an idler pulley in an iron frame. This arrangement prevents the belt from slipping and insures a strong, positive drive to the saw. Any size can be used from 18″ to 32″. Furnished with 30″ saw. Belt is extra. Internal belt required, 13′ of 6″.

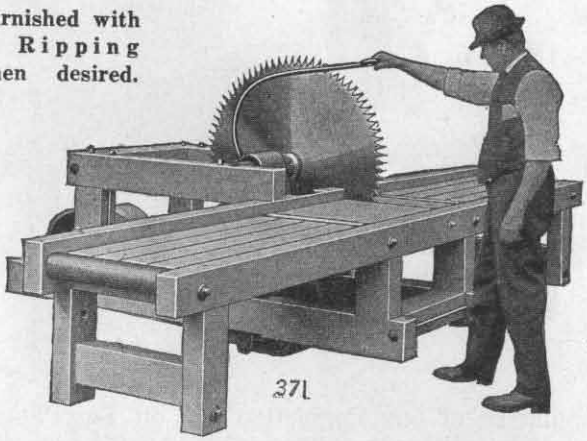
Width of work table, 23″.
Timbers in main frame, 3½″x5½″.
Timbers in table frame, 3½″x3½″.
Mandrel 1 1/16″ fitted for saws with 1¼″ hole.
Mandrel pulley 4″x6″.
Size of saw furnished, 30″.
Pulleys on countershaft, 12″x6″, speed 350 R. P. M.
Floor space required, 12′x6′.
Shipping weight, 985 lbs. Export weight, 1150 lbs. Contents 78 C. F.
Weight, iron parts, no saw, 365 lbs.
Code Words, with countershaft, no belts, **Wogko**; without countershaft, **Woiso**; iron parts only, no saw or countershaft, **Woisu.**

Heavy "New Model" Cut-Off Saw

Capacity 15"x15"

Code Word, Wogku

Can be furnished with detachable Ripping Table when desired.



This machine is intended for handling large dimension timber. It will cut off square timbers up to 15"x15" or 14"x18". The construction is intended to withstand the heavy work and the hard usage to which a machine of this kind must be subjected.

The saw is carried by a heavy iron frame which is drawn forward by the lever as shown. This frame may be locked in a fixed position when ripping table is used. A countershaft is fitted to the rear of the frame and a belt tightener is also provided.

A 42" cut-off saw is furnished with each machine, and rip saws up to 42" diameter may be used. Can be driven by gasoline engine, or electric motor **on the job,** or direct from any shaft.

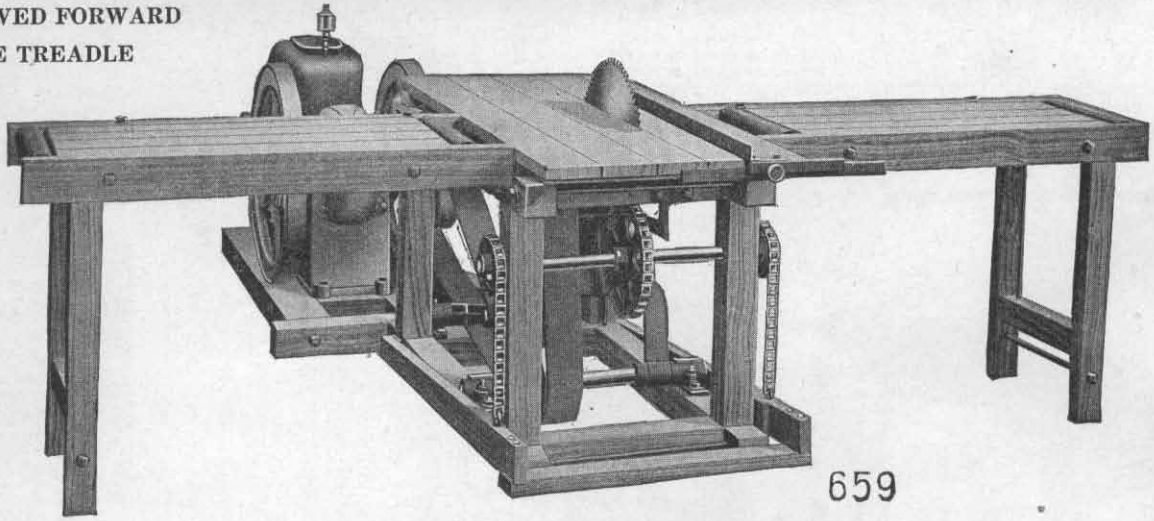
Dimensions and Weights

Floor space (machine with countershaft), 8'x12'.
Width of work table, 24".
Mandrel, $2\frac{3}{16}$"; saw hole 2" with standard pin holes.
Size of arbor pulley, 6" diameter, 8" face.
Speed of arbor pulley (with 42" saw), 900 R. P. M.
Size of countershaft pulley, 12"x8".
Inside belt required, 19' 8"x8".
Speed of countershaft, 450 R. P. M.
Shipping weight, net, 1,540 lbs.
Weight, gross, for export, 2,200 lbs.
Cubic contents, 95 cubic feet.

Code Words, with countershaft, no belts, **Wogku;** without countershaft, no belts, **Woita;** iron parts only, no saw or countershaft, **Woith;** ripping table, **Woiti.**

COMBINED RIP AND CUT-OFF SAW

SAW IS MOVED FORWARD
BY THE TREADLE



Front View Ready for Ripping. Made in two Sizes

This machine meets the needs of Contractors, Builders and Carpenters, for ripping and cutting off heavy timbers for Bridge and Dock work, heavy framing, Concrete forms and a large variety of work of similar character, and is for use **on the job.**

It is furnished **with Gasoline Engine or Electric Motor,** mounted on the frame directly in rear of and belted direct to the saw, or without power, with countershaft mounted on frame for attaching to other available power.

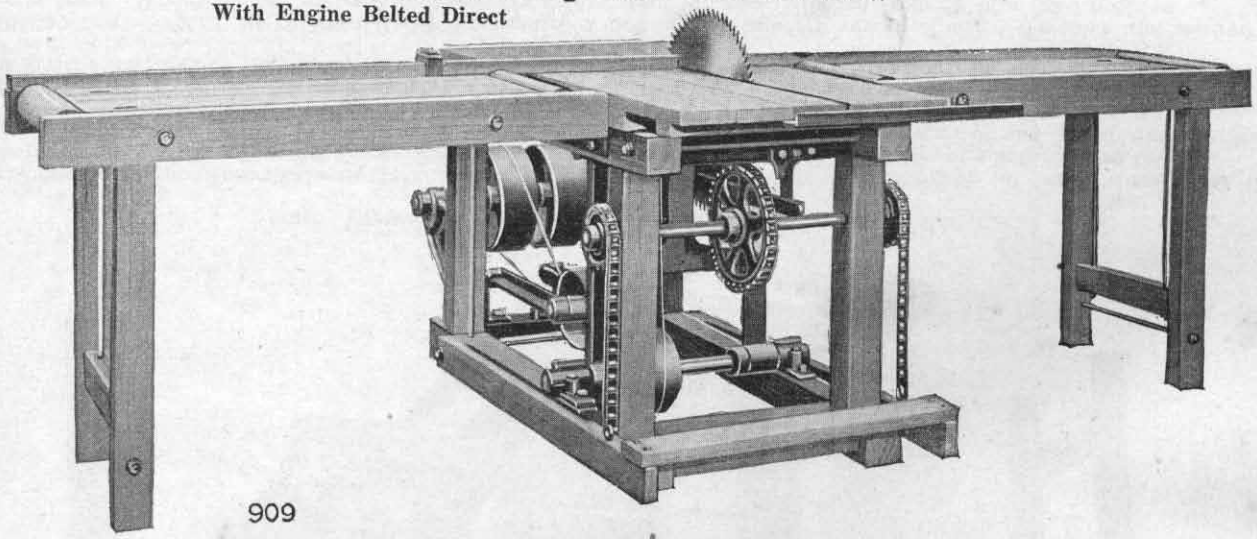
THE EXTENSION TABLES can be detached and the legs collapsed for convenience in moving.

GUIDE RAILS are supplied which may be used at the rear or front sides of these extensions, as may be more convenient for the class of work to be done.

A SUBSTANTIAL STEEL RIPPING GUIDE is supplied, which is adjustable to any position on the table and secured by a clamp screw in front. When ripping, the swinging iron frame carrying the saw is locked securely in a fixed position.

Combined Rip and Cut-Off Saw

With Engine Belted Direct



Front View—Ready for Cutting-Off.

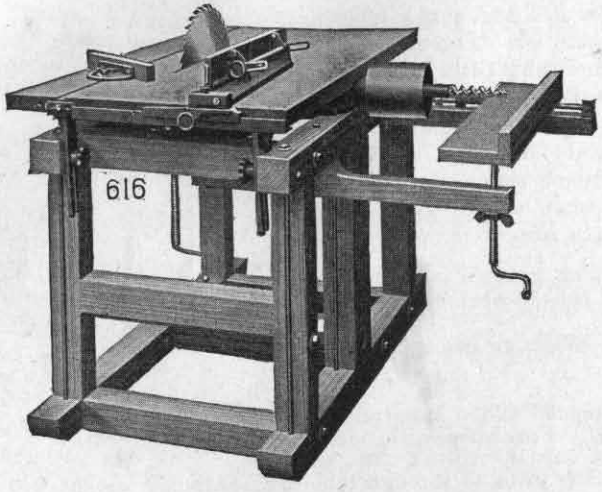
Made in Two Sizes—No. 1 to take 20″ Saws; No. 2 to take 30″ Saws. Made also without Countershaft.

SPECIFICATIONS

Size	No. 1	No. 2
Length over all	10′ 4″	15′ 8″
Approximate Width with Engine	9′ 7″	10′
Width with Countershaft	5′ 1¾″	6′
Ripping Table	27½″x54″	36″x58″
Width of Extension Tables	20″	23″
Height of Table from Floor	34″	34″
Size of Saws furnished (1 each Rip & C. O.)	20″	30″
Will cut off Square Timbers	6″x6″	9″x9″
Will cut off Boards or Planks up to	16″	16″
Will rip any thickness up to	6″	10″
Size hole in Saw	1¼″	1¼″
Size of Arbor Pulley	4″x4″	4″x6″

Size	No. 1	No. 2
Speed with Regular Saws	1,800	1,200
Countershaft Receiving Pulley	12″x4″	12″x6″
Speed of Countershaft	600 r.p.m.	400 r.p.m.
Weight without power	800 lbs.	1,300 lbs.
Weight Packed for Export	1100 lbs.	1500 lbs.
Cubic Contents	60 C. F.	85 C. F.
Code Words:		
Without Power or Countershaft	Wogli	Wogly
Without Power with Countershaft	Woird	Woirf
With 5 H. P. Horizontal Gas Engine	Woiri	
With 8 H. P. 2 Cylinder Gas Engine	Woirx	Woise

"Combination" Saw Bench



To those requiring a rip and cut-off saw only, we offer our **Combination Saw Bench.** Unless otherwise ordered it is equipped with a boring attachment which has 6″ travel in line with spindle and 3½″ vertical adjustment. 6″ twist bits with ½″ shank are used.

The Top is **iron,** strongly ribbed and ground true. It may be raised and lowered by hand screw, and locked in any desired position.

The Mandrel is $1\frac{7}{16}$″ steel, and runs in self-oiling, babbitted bearings, which are securely yoked together. It is arranged to take dado heads up to 2″ wide and saws up to 20″ diameter may be used. One 14″ rip-saw and one 14″ cut-off saw is furnished with each machine. Size of saw-hole, 1¼″. Saw projects through table 4″.

The Cut-off Gauge slides in a groove the entire length of the table, and can be set to cut square or any angle to 45 degrees. **The Ripping Gauge** is provided with a tilting fence for bevel sawing, and has rapid, fine adjustment and locking device for securing it in any desired position. Maximum distance between Saw and Ripping Guide 16″. Will cut off 13″ wide.

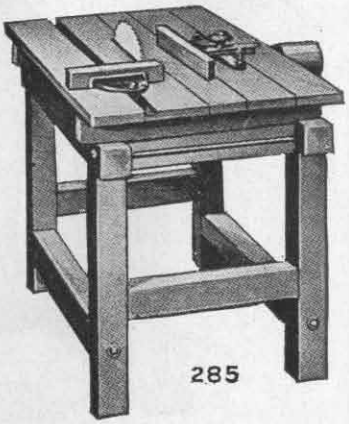
Countershaft furnished at extra cost.

Specifications: Table, 54″x30″. Arbor pulley, 5″x6″. Speed, 1,600 to 2,400 R. P. M., depending on size of saw. Countershaft has 8″x6″ tight and loose pulleys, and 16″x6″ drive pulley. Speed of countershaft from 600 to 900 R. P. M., according to size of saw. Weight with boring attachment, 660 lbs. Weight without boring attachment, 610 lbs. Weight packed for export, 850 lbs. Cubic contents, 52 cubic feet. Countershaft adds to weight, 150 lbs. Code word, with borer **Wogme.** With borer and countershaft, **Wogmo.**

"Utility" Rip and Cut-Off Saw

Code Word, Wogmu

For those desiring a saw table less expensive than our **"Combination"** we offer the American **"Utility."** This machine is slightly smaller and has a wooden top, made with open joints and hinged at one end. A screw for elevating the top, and side clamps for holding it in position when raised, are furnished at slight extra cost.



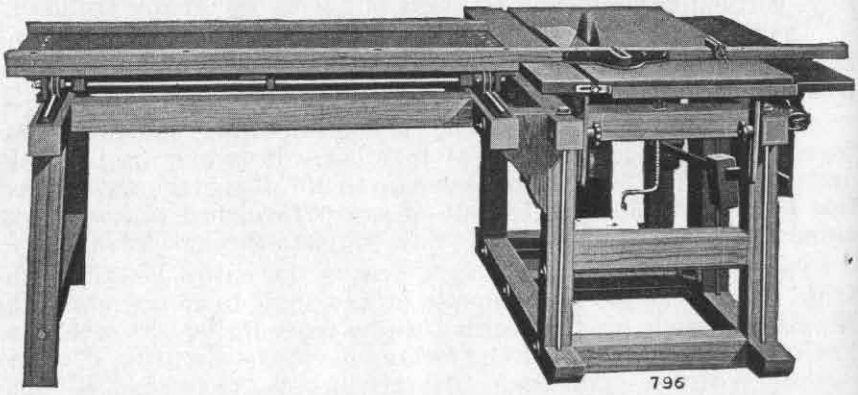
The ripping gauge can be instantly removed for cut-off work.

The cut-off gauge has mitre adjustment.

Size of top, 30"x48". Mandrel, 1 1/8". Pulley, 5"x5". Furnished with one 16" rip saw, and one 16" cut-off saw, with 1¼" hole. Saw projects through table 5". Shipping weight, 340 lbs. Weight for export, 540 lbs. Cubic contents, 21'.

Rolling Cut-Off Table

for Saw Benches



The illustration shows our Variety Woodworker with a rolling cut-off table attached. This table may be used in connection with any of our wood frame saw benches or woodworkers.

The carriage rolls on both axles and track. Friction is thereby greatly reduced and maximum travel of carriage is obtained with a very short track.

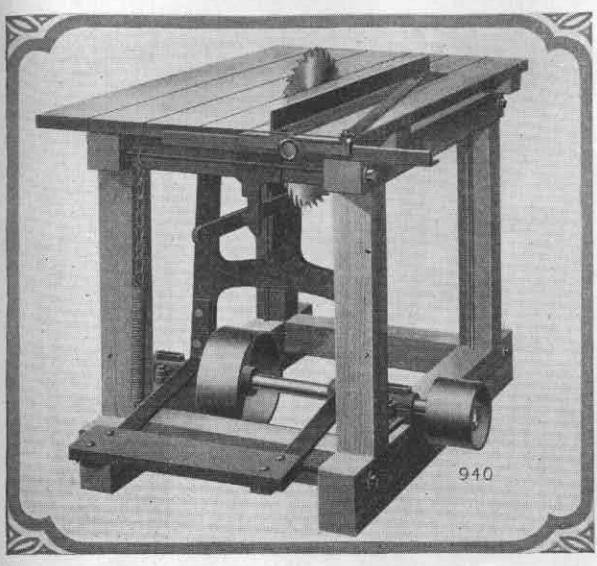
Specifications

Length of table	60"
Table travel	24"
Width of table	24"

Code Word, **Wogna.**

Treadle Rip and Cut-Off Saw

Code Word, Wogny



Without Power, With Ripping Gauge

Intended for use on the job for cutting off and ripping and will handle any material ordinarily used on building operations.

The cut-off fence is arranged with a quadrant for straight or angular work.

The saw is locked in position for ripping.

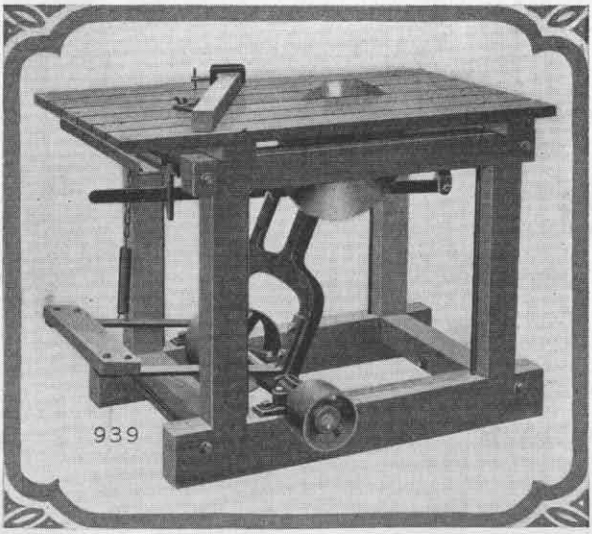
The fence is easily and quickly placed in position or removed.

Will be furnished as illustrated or with engine or electric motor on skids behind the main frame.

Specifications:

Table 30″x48″.
Cuts off 4″ thick, up to 14″ wide.
Rips 4″ thick.
Length with engine 8 ft.
Pulley 6″x 4″.
Speed 950 R. P. M.
Drive (inside) pulley 10″ x 4″.
Mandrel pulley 4″.
Inside belt 6½′x 4″.
Weight 365 lbs.
With 3 H. P. engine 895 lbs.

When furnished without power the inside belt is furnished. With power both belts furnished.



Without Power, With Cut-off-Mitre Fence

Contractors' Treadle Saw

No. X23

Code Word, Wogob

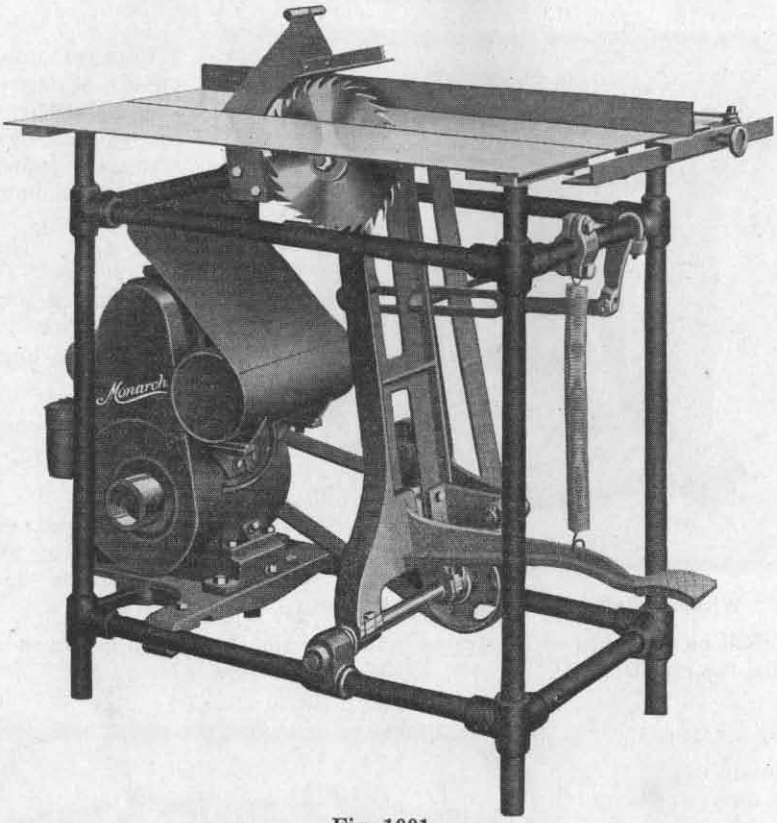


Fig. 1001

May be furnished as follows:

This Machine is a light and a very handy Machine for Cutting-off, Ripping, Dadoing, etc. When cutting off it leaves both hands free to handle stock as the saw is brought up through material by means of foot treadle. A convenient handle for this purpose is also provided at the top of Saw Guard.

Tables are finished steel, one of which may be moved away from Saw and locked in any position, allowing free access to Saw and also the use of Dado of any width that can be assembled in the space allowed on Saw Arbor.

The arrangement of idler and tightener pulley keeps the Belt tension on Mandrel Pulley at a maximum for all positions of the Saw.

The Saw Arbor is fitted with extra heavy Ball Bearings of the best make. The saw is thus held in absolute line and bearing trouble is eliminated.

A ten inch Rip and a ten inch Cut-off Saw is regularly furnished with each machine.

The Swing Frame may be locked with the Saw in any position.

Flanged Feet furnished regularly with each machine.

With 2 H. P. Gas Engine, Speed range 1800 to 2600 R. P. M. Code Word, **Wogob.**

With 1 H. P. Electric Motor, Speed 1800 R. P. M. Code Word, **Woiwa.**

Any standard Voltage or phase, also D. C. Current.

Without power for Belt Drive including Idler and Tightener Pulley, less engine or motor base. Code Word, **Woiwi.**

Contractors Treadle Saw

No. X23

Code Word, Woiwa

Fig. 1029

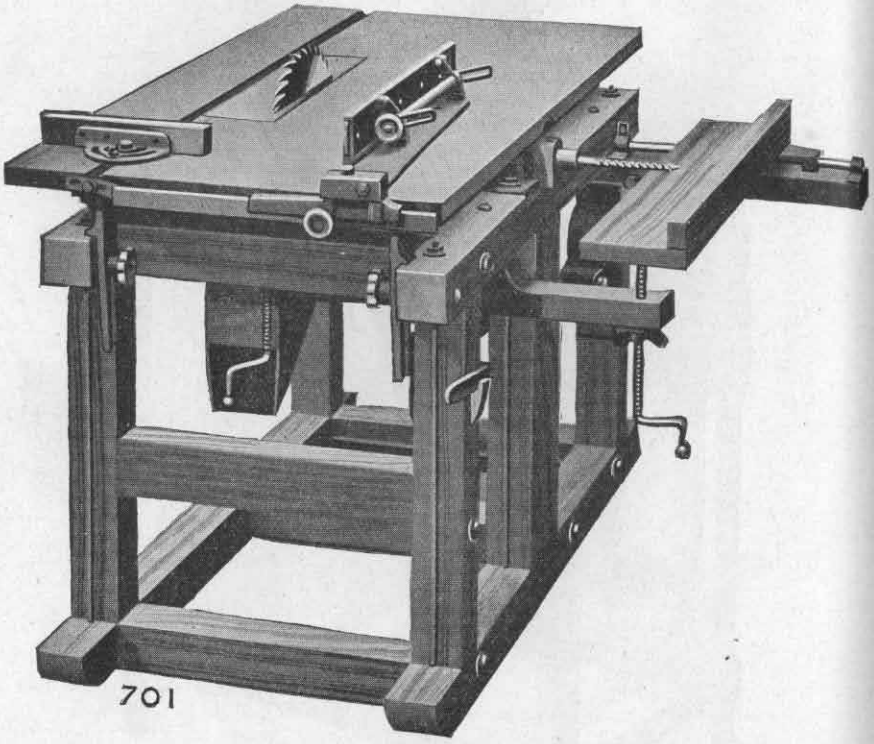
With 1 H. P. Motor

Diameter of Saw	10"
Maximum Depth of Cut	3"
Saw will cut through 2"x14"-2½" x12"-3"x6"	
Widest Board can be crosscut	13"
Ripping fence moves from saw	16"
Length of Saw Arbor Available for Dado	1"
Diameter of Saw Hole	¾"
Diameter of Saw Arbor	1⅛"
Diameter of Pulley on Saw Arbor	2⅜"
Face of Pulley on Saw Arbor	2¼"
Speed of Saw	3000 R. P. M.
Width of Belt	2"
Height of Table	36"
Length of Tables	36"
Width of L. H. Table	12"
Width of R. H. Table	16"
Floor Space	34x38
Net Weight Less Engine or Motor and Bracket	240 lbs.
Net Weight Engine or Motor Bracket	23 lbs.
Net Weight 2 H. P. Engine	92½ lbs.
Net Weight 1 H. P. Motor	100 lbs.
Add for Crating—Domestic	100 lbs.
Cubic Contents	26 Cu. Ft.

Contractors Saw Bench

With Boring Attachment. Without Power.

Code Word, Wogoc



This machine is in every respect the same as our "Combination" Saw Bench, except that the **Arbor Pulley** is underneath the table, to be driven from engine, motor or countershaft placed under the table, or in rear on skids. (See illustrations of motor driven and engine driven machines on following pages). Saw dust chute and belt tightener are furnished with this machine.

The machine is furnished with one each 14″ rip and cut-off saw and will take saws up to 16″ diameter; also dado head up to 2″ wide. 14″ saw projects through table 4″. Maximum distance between saw and ripping guide 16″. Will cut off 13″ wide.

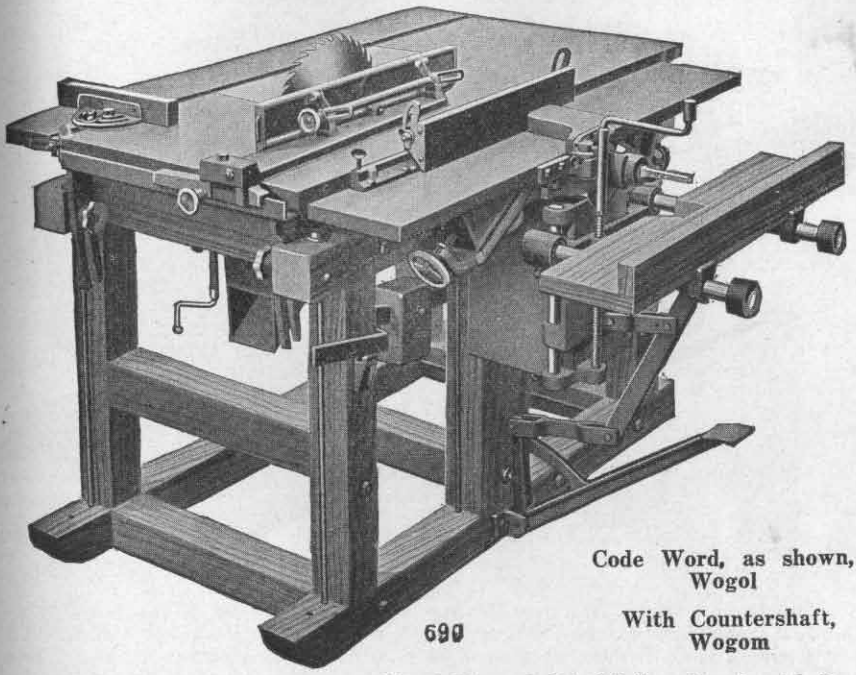
SPECIFICATIONS

Table, 54″x30″. Hole in saw, 1¼″. Arbor pulley, 4″x4″. Speed, 2400 R. P. M. Packed for export in case, 3′ wide, 3′ 8″ high, 5′ 8″ long. Weight without power, 675 lbs.; with 6 H. P. engine, 1500 lbs. net; with 8 H. P. 2-cylinder engine, 1075 lbs.; with electric motor (about) 875 lbs.; with countershaft, 750 lbs. Countershaft has 8″x4″ tight and loose pulleys. Speed, 800 R. P. M.

Code Words, without power or countershaft, **Wogoc**; without power, with countershaft and belt, **Wogog**; with 5 H. P. engine on skids, **Wogof**; with 8 H. P. engine on skids, **Woiws**.

Contractors Portable Variety Woodworker

Without Power



690

Code Word, as shown, Wogol

With Countershaft, Wogom

The machine consists of a combined **Rip and Cut-Off Saw Bench with Boring Attachment Hollow Chisel Mortiser and 8" Jointer.** The attachments furnished with each machine are listed on the following page. It is supplied with gasoline engine, or electric motor mounted on the frame directly under the table or set back of machine on separate skids and belted direct to arbor. We can furnish it without power, and with or without countershaft as desired.

The Frame is made of seasoned hard wood and **The Top** is iron 54" x 30", accurately machined and strongly hinged to the rear of the frame. It is readily raised and lowered by hand screw and firmly held in any position by side clamps. It is independent of the jointer tables and neither interferes with the other.

Adjustable Ripping Gauge is furnished, which has a tilting fence for bevel sawing. It has a rapid, fine adjustment and a locking device for securing it at any point. It opens back 16" from the saw.

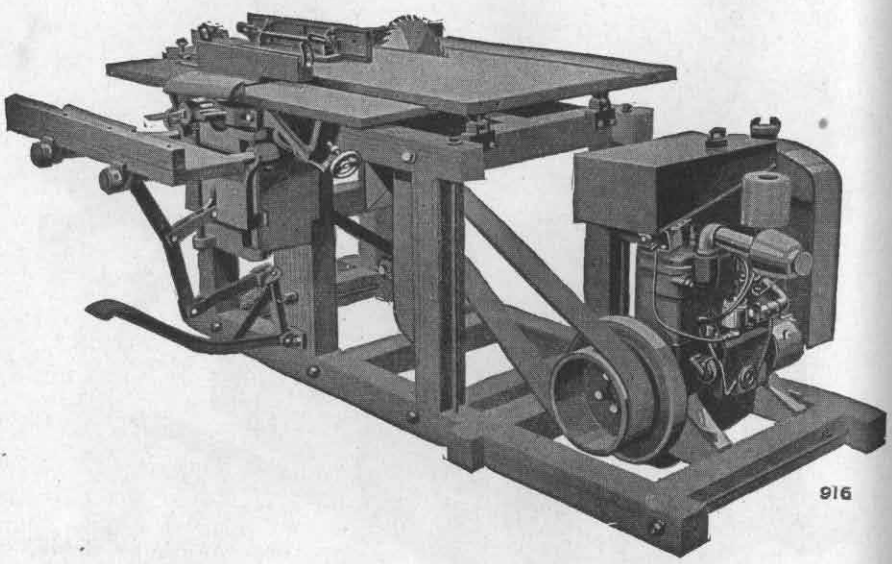
The Cut-Off Gauge slides in an accurately milled groove the entire length of the table, and can be set to cut squares, mitres, or any angle desired. Will cut off 13" wide.

The Jointer is entirely separate from the top of the machine and is always ready for use without making any changes. Except when actually in use, the jointer knives are entirely covered by a guard. The safety jointer head is of steel fitted with four 8" knives and arranged to receive matcher bits or moulding cutters for working a large variety of shapes. The tables are 48" long and adjustable to any desired position. An adjustable fence is provided, which tilts to any desired bevel for chamfering, etc. The jointer head is removable to permit using the sander drum under the jointer tables if desired.

Portable Variety Woodworker

With 8 H. P. Two Cylinder Engine on Skids

Code Word, Woifo



The Hollow Chisel Mortiser-Boring Attachment is one of the most valuable features of this machine. It will work mortising bits from ⅜" to ¾" and cuts a clean, smooth mortise with square corners and accurate to size. The table has a vertical adjustment of 3½", and a travel of 4" in line with the spindle, and is provided with a foot treadle for feeding the work to the bit and a coil spring for the return motion. This attachment is used as a plain borer by simply removing the mortising chisel and substituting a regular power boring bit. When so used the table can be given a stroke of 6" in line with the spindle by changing the pin in the link under the table.

Scroll Saw will be furnished, when desired, at slight additional cost. It is attached to rear of frame by two bolts, supported by leg extending to floor at outer end, and driven by belt from arbor. Carpenters, builders and others find it useful for sawing brackets, etc. (See Bulletin No. 82.)

The Engine is 6 H. P., of the four-cycle, water cooled type; strong, durable simple and reliable. It starts easily, runs smoothly and steadily. The engine is furnished with usual equipment, including magneto.

The Electric Motor used is usually of 3 to 5 H. P. but larger motors can be supplied if wanted. Description of electrical current must be specified.

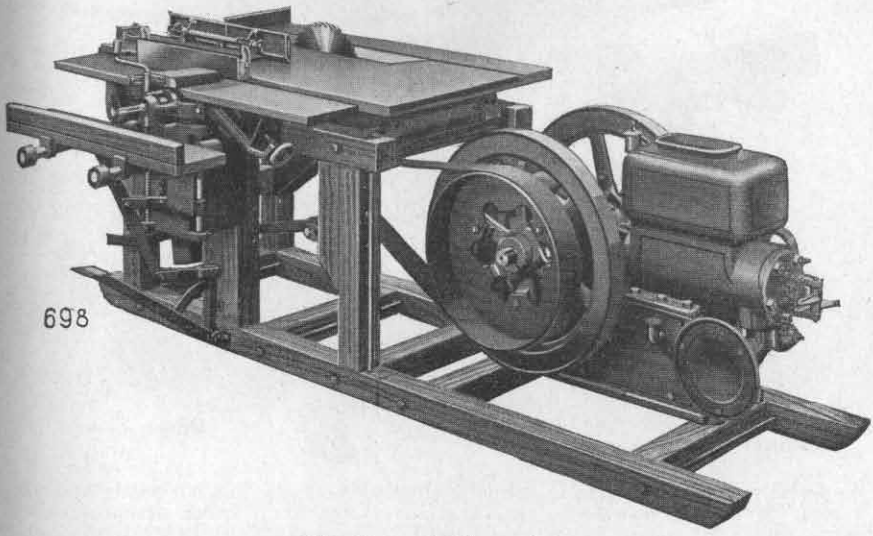
The Arbor is 1⅝" diameter, running in self-oiling, babbitted boxes strongly yoked together. It is driven by a 3½" belt direct from engine or motor. We provide a belt tightener, with adjustable take-up to insure correct tension on the belt at all times. Arbor pulley is 3" diameter. Speed, 2600 to 3000 R. P. M. Size hole in saw, 1".

The Attachments furnished with each machine are 6" emery wheel with arbor, 9" sander disc, two auger bits, two dado or grooving heads, one 14" cut-off saw, one 14" rip saw, two nosing bits, one 8" jointer head with knives, one sander drum and one ⅜" hollow mortising bit; also four scroll saw blades for the scroll saw attachment, when ordered. 14" saw projects through table 4".

Portable Variety Woodworker

With 5 H. P. Horizontal Engine on Skids

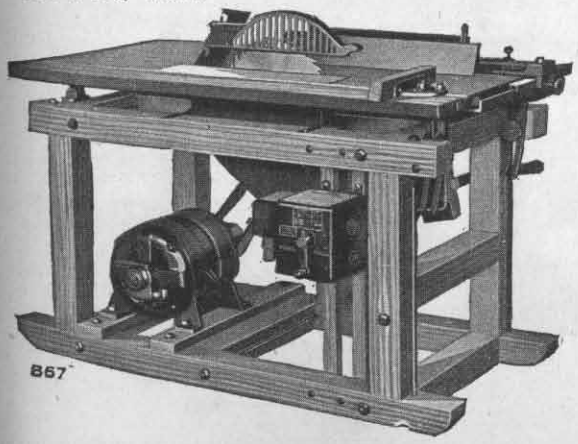
Code Word, Wogop



Weights and Dimensions

	Shipping Weight	Export Shipping Weight	Cubic Contents
Weight, Complete Wooden Frame Machine without Power	1,000-lbs.	1,400-lbs.	68 C.F.
With 5 H. P. Horizontal Engine on separate skids	1,550-lbs.	1,950-lbs.	78 C.F.
With 8 H. P. Two Cylinder Engine	1,600-lbs.	2,000-lbs.	68 C.F.
Scroll Saw adds	150-lbs.	200-lbs.	8 C.F.
Countershaft adds	150-lbs.	150-lbs.	
Motor adds, approximately	200-lbs.	250-lbs.	

Code Word, Woixt



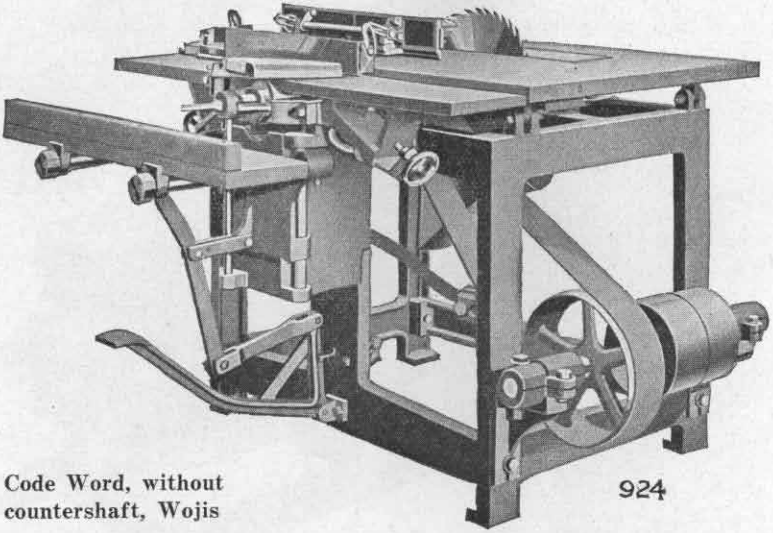
Floor Space, Wooden Frame Machine with 5 H. P. horizontal engine in rear, 54"x102". With two cylinder engine, 54" x81".

Motor driven woodworker. Showing style "A" Saw Guard. 5 H. P. motor is recommended for heavy work or 3 H. P. for light shop work.

Portable Variety Woodworker

With Iron Frame and With Countershaft

Code Word, Wojip



924

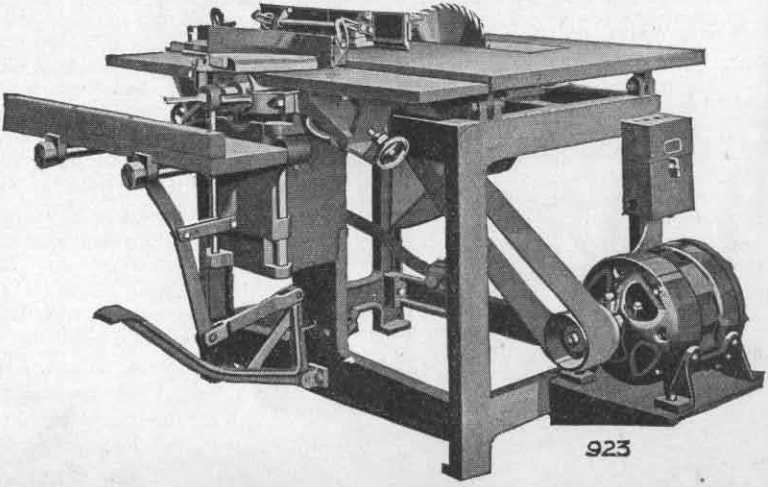
Code Word, without countershaft, Wojis

Especially adapted to use in schools, carpenter shops, lumber yards and factories. The same in general specifications as the wood frame machine except with table 30″x48″. Floor space, with countershaft 54″x63″, with motor 54″x65″. Tight and loose pulleys on countershaft are 8″x4″, speed about 750 R. P. M.

Weight with countershaft, 1550 lbs.; without countershaft, 1400 lbs.; with motor, 1650 lbs.

With Iron Frame and Electric Motor

Code Word, Wojiy

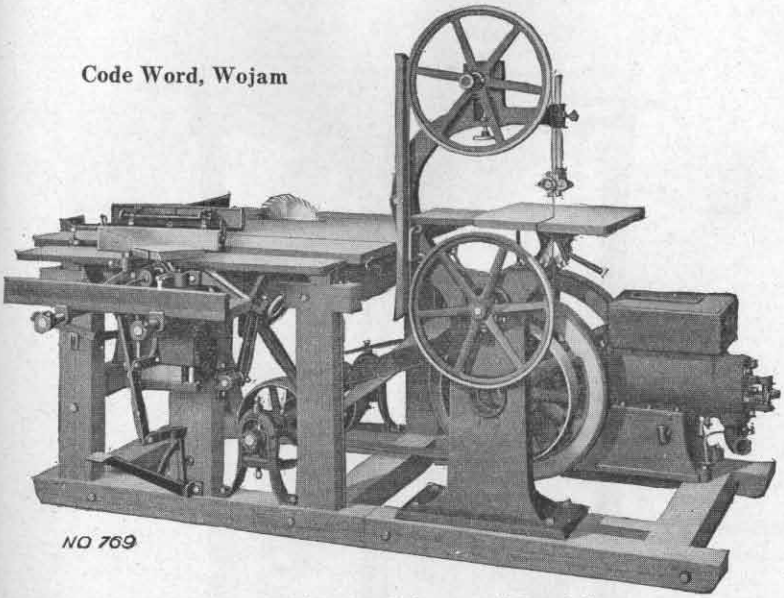


923

Portable Variety Woodworker

With 20-Inch Band Saw

Code Word, Wojam



Operator's Side for Jointer and Band Saws

This machine consists of our standard portable variety wood worker, described on preceding pages having band saw mounted with the engine or motor on skids back of the machine. The top is made 12″ wider to provide for ripping wide boards without interfering with band saw frame. The band saw is our regular 20″ machine fitted with roller guide. Wheel guard furnished at extra cost.

A suitable countershaft is built in, the method of belting being from power to countershaft and from countershaft to saw, jointer and band saw.

The power and band saw being mounted on detachable skids, the machine can be divided into two sections, which is a great convenience in moving.

The Band Saw being a standard machine with floor base can be detached and used separately anywhere.

Weights and Dimensions

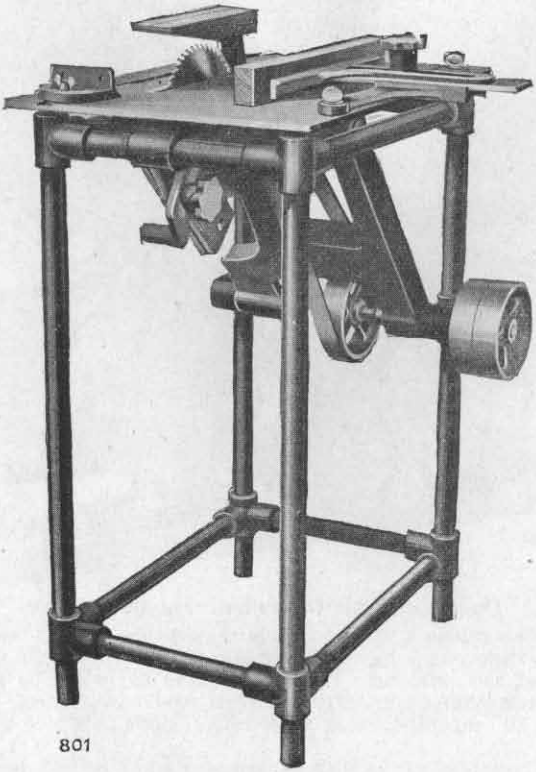
	Shipping Weight	Export Weight	Cubic Contents
Weight with 5 H. P. Horizontal engine and 20″ Band Saw	2140	2760	108
Weight with 8 H. P. Two Cylinder engine and 20″ Band Saw	2215	2815	108
Weight without engine	1690	2250	99
Weight with electric motor	1940	2550	105

Floor Space—76″x106″.
Height of Table—38½″.
Speed of Countershaft—700 R. P. M.
Pulley to receive belt from engine—12″x4″. Belt 9′x3½″.
Pulley to drive arbor—12″x4″. Belt 6′ 5″x3½″.
Pulley to drive band saw—5″x6″. Belt 8′ 8″x3″.
Arbor and Jointer Pulley—3″x3½″.
Arbor and Jointer Speed—2800 R. P. M.
Band Saw T. & L. Pulleys, 7″x3″; Speed, 500 R. P. M.
Internal belts furnished with machine.

Code Words: Without Power with 20″ Band Saw, Wojaf; with 5 H. P. Horizontal Gasoline Engine, Wojam; with 8 H. P. Two Cylinder Gasoline Engine, Wojas; with 5 H. P., 3 Phase, 60 Cycle Motor, Wojay.

Handy Saw Table

Code Word, Wogpe



801

With Countershaft

A light weight yet strong machine, having tubular steel legs cast into corner fittings, forming an inseparable rigid frame to which the steel top is attached. This frame also supports the swinging arm or yoke which carries the saw mandrel.

When fitted for belt drive the countershaft turns in babbitted bearings. When motor driven the motor is mounted on a wood base attached to the swinging arm and belt centres do not change in adjusting the saw.

The illustration shows the motor running clockwise. When a non-reversible anti-clockwise motor is used the position of the motor may be reversed.

The saw may be raised or lowered and is held in any position by means of a positive clamp, a convenient handle being provided for raising and lowering the arm.

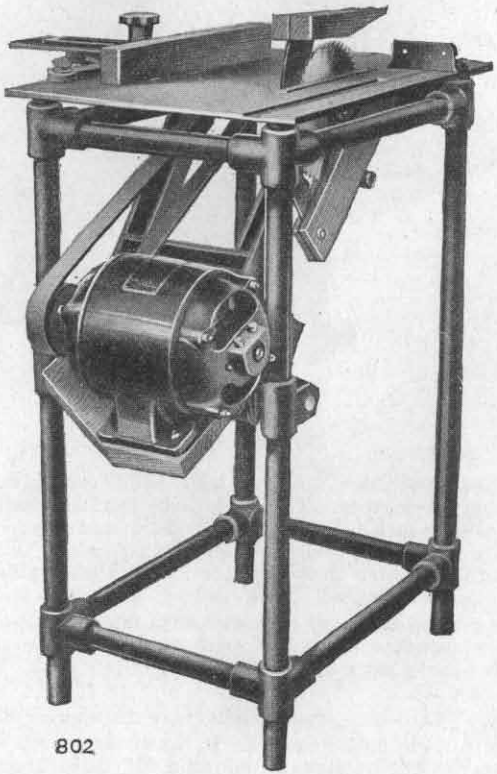
The table is ground true and slotted for cut-off gauge which is supplied with each machine. This gauge can be set at any angle, right or left, for mitre work.

An excellent ripping gauge is provided which opens 9½" from the saw and is held in any position by a quick-acting clamp. It is adjustable for alignment with saw and can be removed quickly for long cut-off work.

Safety guard and splitter are provided, the saw being guarded both above and below the table.

The construction of the machine is such that it may be changed from belt to motor drive simply by removing the pulleys and mounting the motor, no extra parts except the wood motor base being required. A motor driven machine can be changed to belt driven by the addition of the countershaft and pulleys.

Handy Saw Table



802

Motor Driven

This machine can be moved easily by two men and is especially desirable for use on repair or new jobs to be carried from floor to floor or from room to room.

To operate to best advantage a one-half horse power motor is recommended, but one-quarter horse power may be used for light work.

Rip and cut-off gauges, saw splitter with guards, one 8″ saw and internal belt are furnished with each machine. Maximum distance between Saw and Ripping Guide 9½″. Will cut off 4″.

GENERAL SPECIFICATIONS

Table, 20″x26″; height from floor, 36″.

Mandrel, ⅞″ diameter; Mandrel pulley, 2″ diameter; speed about 2250 R. P. M.

Saw, 8″ diameter with ¾″ hole; saw teeth suitable for either ripping or cutting off. Saw projects through table 2¼″ and may be lowered to any position required. Mandrel will carry dado heads up to ¾″ thick. Tight and loose pulleys are 6″ diameter, 1½″ face and should run about 750 R. P. M. Speed of motor recommended 1,700 to 1,800 R. P. M. with 2½″ or 3″ diameter pulley.

Net weight with countershaft, 170 lbs.

Shipping weight, with countershaft, 220 lbs.

Export weight, gross, 250 lbs., Cubic measurement 15 C. F. One-half H. P. motor adds about 60 lbs. to weight.

Code Words, with countershaft and belt, **Wogpe**; for motor drive, without motor, with inside belt and motor base, **Wojbo**; with ½ H. P. motor and belt, **Wojbu**.

Ball Bearing Bench Saw

No. X17

Code Word, Wogru

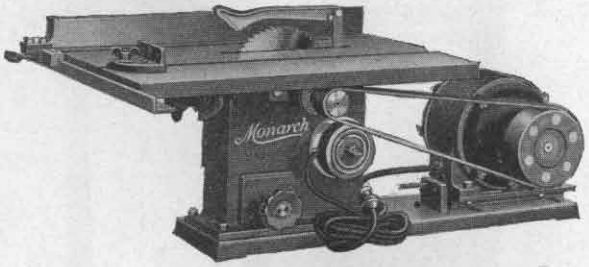


Fig. 1040

Weight 240 lbs.

A woodworker's precision machine with solid, cast table, 18"x24", which tilts to an angle of 45 degrees. The table is held at any angle by means of a quadrant and positive lock. The table is raised and lowered by means of a hand wheel at the side of the pedestal and has a rise and fall of 2¼", the saw projecting through the table that distance at its higher point. The saw furnished is a combination rip and cut-off saw, 8" diameter.

The table is ground true and provided with rip and cut-off gauges. There is adjustment for accurate alignment with the saw. The cut-off gauge may be set at zero for square work at any angle for mitre work. The ripping gauge opens from the saw 9¾".

An aluminum guard and steel splitter are furnished with each machine.

The mandrel runs in ball bearings. It takes saws with ⅝" hole and there is sufficient space between collars to admit a ⅝" dado head. Dado heads up to ⅞" may be used by removing the loose saw collar. Special Chuck Pulley for Boring Bits can be furnished at additional cost.

The machine proper is attached to a sub base which also carries the electric motor. The motor is mounted on rails having considerable adjustment for belt length. It is also provided with screw adjustment for belt tension.

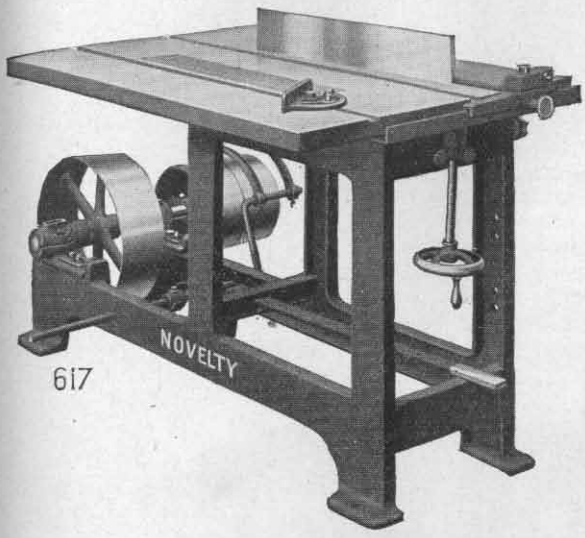
The machine may be furnished without sub base for belt drive and may be driven from any conveniently located motor or underneath countershaft.

The motor regularly furnished is ½ H. P., single phase, 110-220 volt for 60 cycle current. Three-phase, 60 cycle motor will be furnished without extra charge. Direct current motors furnished at extra cost. Starting switch, cord and plug are furnished with motor driven machines.

SPECIFICATIONS

Table	18"x24"
Ripping Guide moves from saw to right	9¾"
To left	7"
Height to top of table	12¼"
Size of Machine Base	6"x11"
Size of Sub Base	7"x29"
Height of Machine on Stand	34"
Motor Pulley	5½"
Motor Speed	1750 R.P.M.
Mandrel Pulley, 1¾", Speed	5500 R.P.M.
Shipping Weight With Motor (Fig. 1040)	240 lbs.
Export Weight	240 lbs.—7 cu. ft.
Shipping Weight Less Sub Base and Motor	140 lbs.
Export Weight Less Sub Base ....and Motor	140 lbs.—6 cu. ft.
Stand Adds to Weight	75 lbs.

"Novelty" Iron-Frame Saw Bench



This machine is adapted to use as a rip or cut-off saw; also for mitre sawing, grooving, dadoing, gaining, tenoning and a variety of other work. Especially useful in packing rooms for cutting box and crate material.

The Countershaft is mounted directly on the frame and has adjustable bearings to provide for using an endless belt. The belt shifter is also attached directly to the frame and can be operated either by hand or foot. For **Motor Drive** a suitable base is furnished instead of countershaft. Ball bearing countershaft can be furnished.

The Top is 30″x40″, cast in one piece, strongly ribbed underneath and planed perfectly true. It is hinged to the frame at the rear and is elevated to any position by the hand screw. A hard wood throat piece is fitted around the saw which may be easily removed for changing saws or for using grooving or dado heads. It has parallel grooves, accurately planed on each side of the saw, to which is fitted an adjustable cut-off gauge, which can be set to any angle desired. **A substantial Ripping Gauge** is also provided, which tilts to any bevel up to 45 degrees and can be set any distance from the saw up to 12½″. Will cut off 7″ wide.

A Convenient Boring Attachment can be supplied with the machine at small additional cost.

The Mandrel is 1⅝″ diameter with long, babbitted bearings or ball bearings and grooved to prevent end motion. It is turned down to 1″ where saw fits and has a ½″ hole in outer end for boring bits. Machine now built with ball bearings if ordered.

Each machine is furnished with one cut-off gauge, one ripping gauge, one throat piece and one 12″ rip saw. A 12″ rip saw projects 3″ through the table when table is at its lowest point. Saws up to 16″ may be used. No belts are furnished except at extra cost.

Standard machines have babbited bearings. Ball bearings are extra.

Mandrel pulley, 3½″ x 5″.
Driving pulley, 16″ x 5″.
Tight and loose pulleys, 10″ x 5″.
Speed of countershaft, 600 R. P. M.
Belt required, 9½′ of 5″ leather.
Floor space required, 36″ x 60″.
Shipping weight, 775 lbs.
Gross weight for export, 900 lbs.
Cubic measurement for export, 26′.

Boring attachment adds to weight 60 lbs.

Code Word, without boring attachment, **Wogse.**

Code Word, with boring attachment, **Wogso.**

Code Word, with base arranged for motor drive less motor, **Wojce.**

Monarch Variety Tilting Table Saw

No. 65

The No. 65 machine is specially designed for fine and accurate cutting of all classes of wood.

The Frame is a heavy one-piece cored casting with an exceptionally wide base providing a solid foundation.

It is direct motor driven, the saw is mounted directly on the motor arbor and is moved vertically by means of wheel and screw.

Furnished with either a 3 or 5 H. P., 3 Phase, 60 Cycles, 220 Volt, high speed (3600 R. P. M.) Semi-enclosed motor, having a temperature rating not exceeding 40°C under full load.

The iron table is strongly ribbed and machined true and tilts 45° from right hand side by means of hand wheel and screw.

A removable throat plate admits using jointing, grooving and rabbetting heads.

Fig. 1106

With Motor on Arbor

Rip and cut-off gauges may be used either side of saw. Cut-off gauge is indexed. Saw 18″ diameter may be used.

REGULAR EQUIPMENT: One each 16″ rip saw, ripping gauge, cut-off with reach rod and stop.

HOLLOW CHISEL MORTISER ATTACHMENT—at extra cost.

A HOLLOW CHISEL Mortiser will be supplied at extra cost only on machines shown in Figs. (1105-1106). The iron table is 11″x 24″, operated by foot treadle, slides in gibbed ways. Will take mortising chisel and bit up to ¾″, will receive boring bits with ½″ shank.

REGULARLY FURNISHED—with one ⅜″ chisel and bit and mortising fence.

BORING ATTACHMENT—at extra cost will be furnished with any of these machines.

Consists of a hard wood table 9″x34″ which slides in and out on metal ways.

REGULARLY FURNISHED—with one ½″ and 1″ bit.

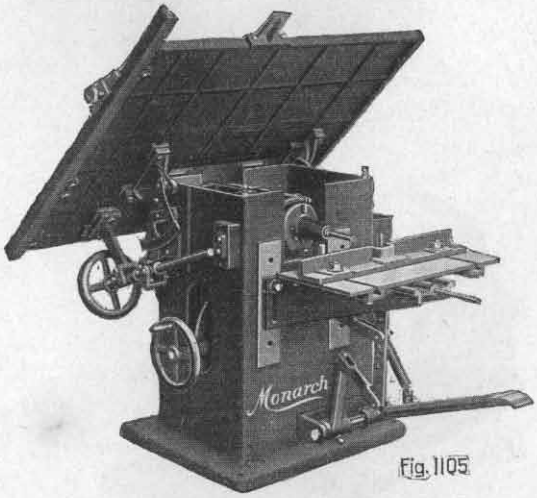


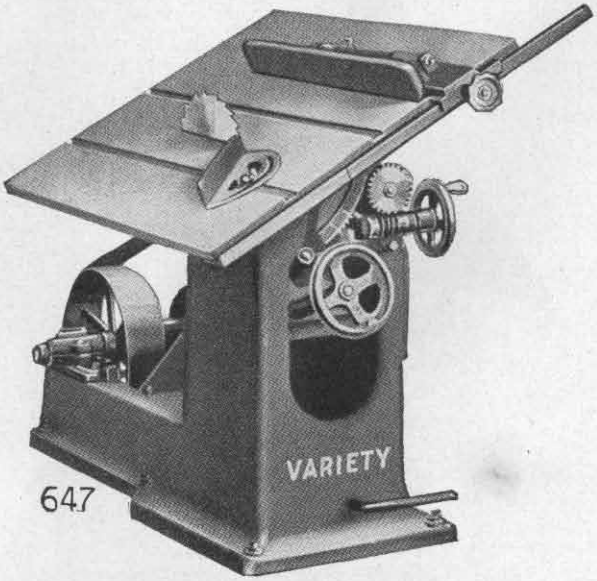
Table Tilted Showing Mortising Attachment

SPECIFICATIONS

Size of saw regularly furnished 16″ rip with 1″ saw hole.
16″ saw projects through table 3¾″.
14″ saw projects through table 2¾″.
Maximum distance between saw and ripping guide 24″.
Will cut-off 16″ wide.
Machine is regularly furnished with a ripping gauge and one cut-off gauge with reach rod and stop.
Floor space, 38″x44″.
Table Top, 38″x44″.
Height of table from floor, 34″.
Motor 3600 RPM, 5 H. P., 2 or 3 phase, 60 cycle, 220, 440, or 550 volts.
Shipping weight, 1200 lbs.
Mortising attachment adds 165 lbs.
Boring attachment adds 100 lbs.
Export packing adds to weight 400 lbs.
Cubic contents, 56 C. F.
Code word, regular machine, **Wogta.**
Code word, boring attachment, **Wogsu.**
Code word, mortising attachment, **Wojha.**

"Variety" Tilting-Table Saw Bench

No. 647



WITH COUNTERSHAFT FOR BELT POWER

This machine is built throughout of iron and steel.

The Table tilts to any angle up to and including 45 degrees by means of quadrant and gear operated by hand wheel. It is fitted with throat piece, which will admit a dado or groover head 8" diameter and 2" wide. It also has slots on each side of the saw for the **Cut-off Gauge,** which can be set to cut square or any desired angle.

An Adjustable Ripping Gauge tilts to any desired bevel. Both gauges may be instantly removed from the table when so desired. Guide rail is graduated.

The Saw is carried by an adjustable yoke mandrel, and is raised or lowered by means of a hand wheel in front of the base.

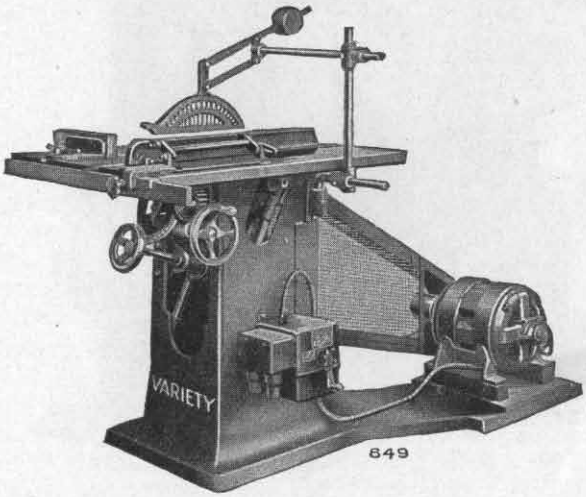
The Mandrel is $1\frac{3}{16}$", and runs in adjustable babbitted or ball bearings. The right-hand end is fitted to take boring bits with ½" round shank. Ball bearings furnished at extra cost.

The Countershaft is mounted on the rear of the frame, and is adjustable so that **endless belt** may be kept tight at all times. Belt shifter is so placed that it may be operated easily by the foot of the operator. The machine can be belted to line shaft from any direction. Babbitted or ball bearings supplied.

For Motor Drive a suitable base as shown by Fig. No. 849 is furnished instead of countershaft. This machine can be furnished either with or without motor.

Boring Attachment with wood table can be furnished when desired at additional price, or it may be ordered at any time later, as the base is prepared to receive it. Not included unless ordered.

Equipment: Each machine is furnished with one 12″ rip saw, one rip and one cut-off gauge, and inside belt. When boring attachment is ordered, one each ½″ and ¾″ bits are furnished.

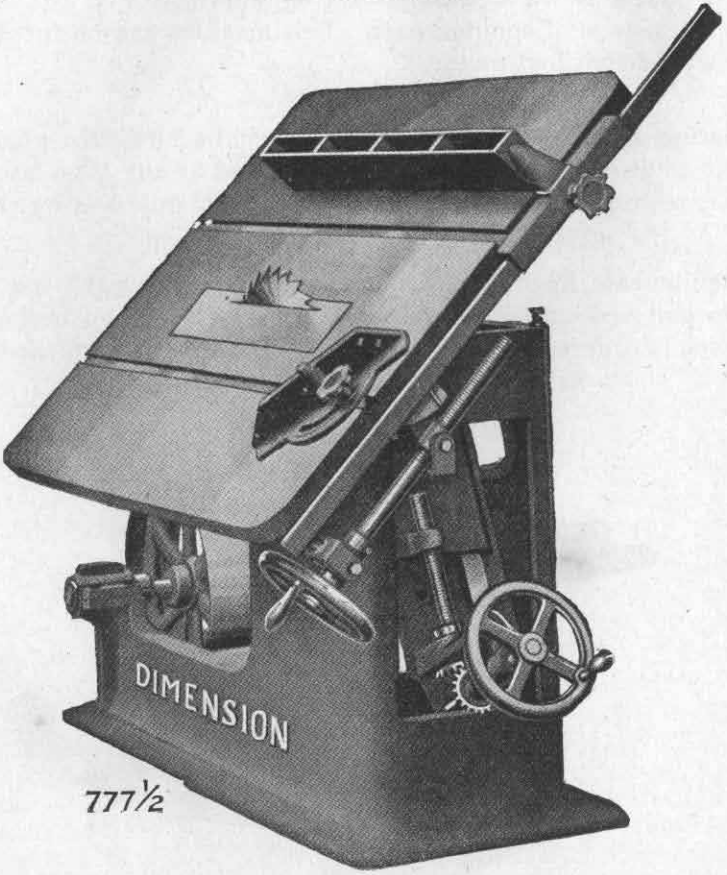


WITH MOTOR ON BASE WITH BELT GUARD

SPECIFICATIONS

Floor Space, 40″x72″
Table, 30″x40″—Height from floor, 34″
Mandrel 1 3/16″—Saw Hole, 1″—Pulley, 3½″x4″
12″ Saw projects through table 3″
Minimum distance between Saw and Ripping Guards 18″
Will cut off 10″ wide.
Largest saw which can be used, 14″
Drive Pulley, 16″x4″
Tight and Loose Pulleys, 10″x5″
Speed, 650 R. P. M.
Ball Bearings Furnished at extra cost
Belt furnished, 9′x3½″
Shipping Weight, 1050 lbs.
Gross Weight for Export, 1200 lbs.
30 C. F.
Boring Attachment adds 100 lbs.
Code Word, Fig. 647, **Wogub**
Code Word, Fig. 849, with motor, **Wogty**
Without Motor, **Wogti**
Code Word, Boring Attachment, **Wogsu**

Dimension Saw



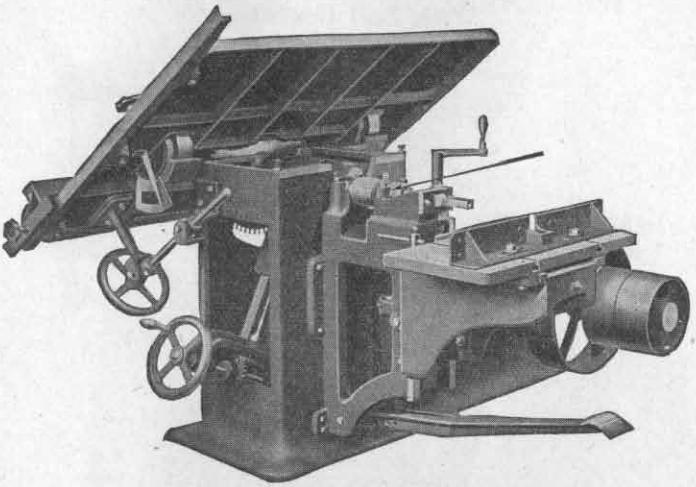
This machine is designed for ripping, cross-cutting and mitering, and with suitable attachments and heads, for boring, mortising, routing, dadoing, grooving, matching and tenoning.

The main frame is of one solid cored-out casting with wide base, and ribbed in a manner affording abundant weight, strength and rigidity. All parts being attached to this frame, a single setting at time of installation places it in a position ready for work.

The saw mandrel is mounted in large adjustable bearings which rise and fall on an inclined frame with gibs provided for wear. The raising and lowering is by means of a screw operated by a hand wheel through a bevel gear.

The countershaft is mounted on main frame and may be belted from any direction. It is provided with adjustment to keep inside belt properly tensioned.

Dimension Saw



The table is planed true and grooved on both sides of the saw to receive mitering and cut-off gauges. It tilts to any angle up to 45 degrees by means of hand wheel and screw, located in convenient position for operator. A brass scale and pointer indicate the angle.

Gauges. The rip gauge is two-sided, planed on both sides, and may be shifted to either side of the saw. It can also be quickly removed leaving table clear for special work. Maximum distance between Saw and Guide 19½. An adjustable mitre gauge is also furnished. Will cut off 8″ wide with 20″ Saw and 9″ wide with 18″ Saws.

The mortiser-boring attachment is a separate and distinct machine. Its operation in no way interferes with the operation of the saw, being driven by separate belt from the countershaft. The system of leverage is such as to easily handle the hardest wood with a ¾″ mortising chisel. For boring only the hollow chisel is removed and boring bit substituted for it.

SPECIFICATIONS

The table is 36″x48″. From floor to table top is 34″. Floor space, 6′x4′ and with mortiser, 6′x5′ 6″. Mortiser table, 12″x24″. Will take saws up to 20″ with 1⅛″ hole, and space between saw collar and nut is 2″. Vertical adjustment of mandrel, 6½″. Tight and loose pulleys are 10″x4½″, speed 650 R. P. M.

Power required, 3 to 5 H. P.
Shipping weight, regular, 1,500 lbs. Code Word, **Woguc.**
Gross weight for export, 1,800 lbs.
Cubic contents, 40 cubic feet.
Shipping weight, with mortiser, 1,700 lbs. Code Word, **Wohek.**
Gross weight for export, 2,000 lbs.
Cubic contents, 70 cubic feet.

18″ rip and cut-off saws are furnished with each machine and one ½″ mortising chisel and bit and one each ½″ and ⅝″ boring bits with mortising attachment. Belts required are: 9′ 6″x4″ for saw and 9′x3″ for mortiser. These are not furnished with machine. An 18″ saw projects 5″ above table.

Ball bearings furnished at extra cost.

Universal Saw Bench

With Ball Bearings

This machine is designed for ripping, cross cutting and dadoing where accurate work is required, as in pattern, cabinet, furniture, sash and door shops, technical schools, etc.

The Bed is cast in one piece with a partition just behind the saws. This forms a bin for the saw dust with an opening for an exhaust pipe. A large door provides easy access to the saws.

The table tilts to 45 degrees and has a scale showing the exact angle. Stationary section of table is graduated for ripping up to 22″ wide. Traveling section of table runs on ball bearing rollers or can be locked in place. A lever moves it out 2¼″ to provide space for dado head.

Ripping Gauge will admit work up to 22″ wide and has a 9″ travel on rack and pinion which allows it to be quickly and accurately adjusted. The fence tilts to 45 degrees and angles to 35 degrees.

Universal Saw Bench—Continued

Mitre Cut-off Gauge can be used on either side of saw as the stationary and traveling tables are both provided with slots. It can be locked to the traveling table and move with it if desired. Graduations are provided 60 degrees in both directions. It is equipped with yoke for working on both sides of saw. An adjustable stop gauge is attached to the cut-off gauge and is provided with a finger which clears the work when trimming. Will cut off 12″ wide.

The Saw Frame carrying the saws is very heavy and mounted on a large shaft which revolves in bearings in the bed. The best possible support is given to the saw frame by placing one of these bearings outside of the saws.

Saw Mandrels are accurately ground and are mounted in ball bearings. Saws up to 14″ in diameter may be used, a 14″ saw projecting above the table 3½″. A universal, adjustable saw guard is furnished.

Hand Wheels for tilting the table and for revolving the saw frame are located in the most convenient positions.

The Countershaft may be placed on the floor or underneath the floor. Loose pulley for countershaft is fitted with Hyatt roller bearings. The belt compensating device is provided with idler pulleys running in ball bearings.

Equipment. One 14″ cut-off saw, one 14″ rip saw, countershaft with belt shifter, ripping gauge, mitre cut-off and stop gauge, wrench, extension for mandrel to carry 2″ dado with 1½″ hole and saw guard. Belt is not furnished

This machine can also be furnished with babbitted bearings instead of ball bearings.

SPECIFICATIONS

Floor space, 48″x44″.
Stationary Table, 22″x44″.
Rolling Table, 16″x44″.
Height of Table, 34″.
Diameter of saw mandrels, 1¾″, saw hole 1″.
Tight and loose pulleys, 10″x4½″, speed 750 R. P. M.
Mandrel pulleys, 4″x5″, speed about 3000 R. P. M.
Horse power required, 3 to 5 H. P.
Domestic shipping weight, 1,750 lbs.
Export shipping weight, 2,000 lbs.
Contents boxed for export, 56 cu. ft.
Deduct for countershaft, if not wanted, 150 lbs.
Code word with ball bearings, **Woguf.**
Code word with babbitted bearings, **Wogul.**

Tilting Arbor Saw Bench
No. X24

Code Word, Wogum

FIG. 1125

STURDY — COMPACT — SELF-CONTAINED — MOTOR BUILT IN

"Monarch" Saw Guard

We can furnish, at extra cost, Saw Guard (Fig. 1034) which covers all portions of the Saw teeth when Saw projects either vertically or at an angle above the table. It allows the stock free access to the Saw and closes over the Saw again immediately after the end of the stock passes the front edge of the Saw. When stock leaves the Saw, same is fully guarded. Can be furnished for most any make of machine.

For Saws
8" to 18" Dia.

FIG. 1034

Advise Dia. of Saw, Projection through table and Throat Room behind Saw.

Tilting Arbor Saw Bench No. X24

Showing Movable Table and Saw Tilted 45° to the Vertical.

The Frame is substantial and pleasing to the eye.

The right hand table is fixed, but the left hand table may be moved from the Saw far enough to use a Dado Saw or it may be slid out entirely allowing free access to Saw.

It may be locked in any position by two hand nuts.

Ripping Gauge may be used either side of Saw.

Cut-off Gauge may be set either side of Saw at any angle up to 60° in either direction by means of graduations.

The Saw is mounted directly on the Motor Arbor and may be tilted to 45° to the vertical by means of hand wheel and screw; the degree of the angle being registered on a scale. The saw may be lowered beneath the Table or raised thru the Table; when in either a vertical or angular position, by means of a hand wheel and screw. By using the graduated cut-off gauge and the scale of the tilting saw, any desired compound angular cut may be made, the stock during this operation being supported by a perfectly level table.

Arbor Extension for 2" Dado Head, 1½" Hole, can be furnished at extra cost.

SPECIFICATIONS:

Diameter of Saw	16"
Saw when vertical projects thru table	3½"
Saw inclined 45°, Height above table	2½"
Ripping Guide Moves from Saw, to right	18"
to left	12½"
Will cut off	14"x2"
Stationary right hand table—Length	38"
Width	18"
Movable left hand table—Length	38"
Width	14"
Height of table	35"
Diameter of Saw Hole	1"
Length of Mandrel available for Dado	1"
Saw Angles to the vertical	45°
Net Weight (Lbs.)	650
Shipping Weight	760
Export Weight (Lbs.)	900
Cubic Contents	34 C. F.

REGULAR EQUIPMENT:

1—16" Combination Saw
1—Ripping Gauge
1—Cut-off Gauge
1—Splitter

Selection of Motors

1—2-H. P., 1, 2, or 3 Phase, 60 Cycle or D. C. Motor and Starting Switch
1—3-H. P., 2 or 3 Phase, 60 Cycle Motor and Starting Switch

Monarch
Ball Bearing Bench Jointers

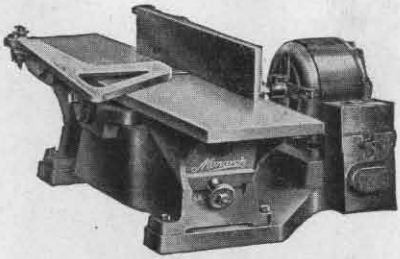


Fig. 963

Six Inch Jointer with Motor

These Jointers, while primarily precision tools, capable of performing with the utmost accuracy the work of the pattern or finishing shop, have built into them the sturdiness to withstand hard service. Simplicity of design and special manufacturing facilities have made it possible to produce dependable machines at moderate prices. The box construction, with a scientific disposition of metal, provide maximum stiffness and strength within a limit of minimum weight.

The Frame is a solid, one-piece casting with long inclined ways for the tables. It is designed to confine chips and dust and to promote cleanliness. This frame has four feet which are accurately machined for mounting on the motor base.

The Tables are solid, one-piece castings with long, machined ways, and they are ribbed inside for strength. Adjustment for height is by conveniently located hand wheel under the end of each table. The working surfaces and front edges of the tables are accurately surface ground after being mounted on the machine and are in perfect alignment. The tables of the eight-inch machine may be fitted with steel lips when so desired. The edge of the outfeeding table is in exact line with the edge of the cutter head for rabbetting. A rabbetting depth of ½" on the eight inch machine and ⅜" on the six inch machine may be obtained. A rabbetting arm is part of the equipment of both six and eight inch machines.

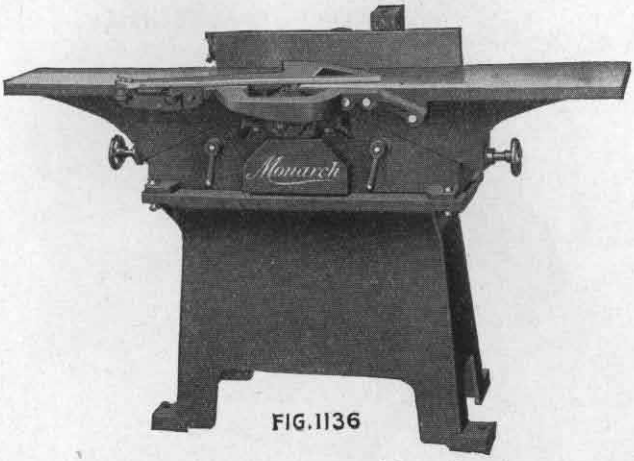
The Cutter Head is our improved, round, safety design, with positive screw adjustment for setting the knives. A noteworthy feature of this head is that the knives cannot shift in clamping. The head is fitted with two high-speed steel knives, but a three-knife head will be furnished when preferred. The head is carried in a separate yoke, which is easily removable. The box construction of this yoke adds greatly to the stiffness of the entire machine. It also confines the chips and dust which drop directly to the floor, with provision for convenient connection to an exhaust system.

The bearings. These machines are fitted with ball bearings of the highest grade, carefully fitted and provided with mechanical seal to retain oil without the use of felt or packing.

The Fence is well proportioned to the size of the machine and is provided with quick-acting, convenient adjustments for clamping. It may be adjusted to any angle and has positive stops for vertical and 45° angle.

The Guard. The guard is made of aluminum and is of the swinging type. It is pivoted near the end of the outfeeding table and has spring tension. It is easily and quickly thrown over out of the way for rabbetting.

Monarch Bench Jointers



Eight Inch Jointer on Floor Stand

These Machines are arranged for belt drive or for direct motor drive. The motor for the 8″ machine is mounted on a bracket and direct connected to cutter head. The motor for the six-inch machine is mounted on a base which also carries the machine.

Shaftless motors can also be furnished if desired, at additional cost.

The Motor regularly furnished is 110-220 volt, 60 cycle, single phase or 220 volt, 60 cycle, 3-phase. Two phase or direct current motors are furnished on special order. Current must be specified.

The 8″ Jointer can be furnished with a solid cast iron floor column (Fig. 1136) and the six-inch Machine with an open type stand when so desired at additional cost.

No.	X15	X13
Size	Six Inch	Eight Inch
Code Word	Wogup	Wogus
Floor space with motor	23½″x38″	37″x60″
Feeding-in table	8″x18″	10″x29¾″
Feeding-out table	6¼″x18″	8¼″x29¼″
Height to working surface	8¼″	10½″
Height to working surface mounted on stand or column	35¾″	34″
Length and height of fence	20″x3½″	20″x3½″
Diameter and length of head	3″x6″	4″x8″
Speed of cutter head	3450-3600	3450-3600
Diameter of pulley for belt drive	2½″	2½″
Shipping weight with motor	250 lbs.	460 lbs.
Shipping weight for belt drive	175 lbs.	420 lbs.
Floor stand adds to weight	40 lbs.	270 lbs.
Cubic contents, with motor	9 c. f.	10 c. f.
Cubic contents, for belt drive	4½ c. f.	8 c. f.
Floor stand adds	2 c. f.	13 c. f.

Bench Jointer Eight Inch

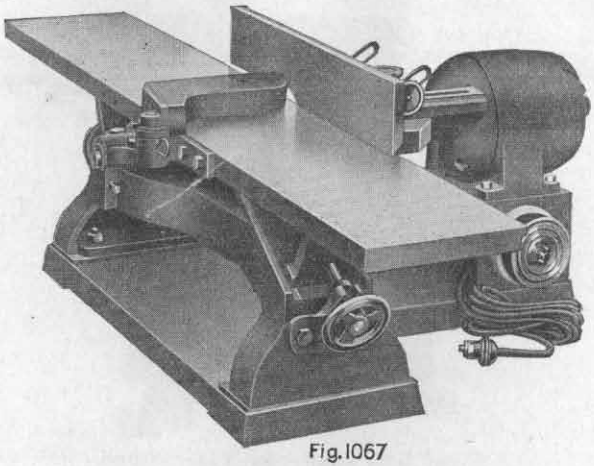


Fig. 1067

Fig. 1067

With ½ H. P. Motor, Code, Wohaf. With 1 H. P. Motor, Code, Wohag

For the use of contractors, builders and others who must necessarily figure close on their jobs, this machine is of particular value, as it will eliminate much slow, hard manual labor, doing in one operation the same work which requires a number of operations with the Jack-plane, Fore-plane and Square, and doing this work much faster and better. The difference between the cost of machine work and hand work frequently means the securing or losing of a profitable job. Furnished with direct motor drive or with Pulley for belt drive.

Regular Equipment: Each machine is furnished with Tilting Fence for bevel work, Automatic Guard, and Knives. We will, at the option of the purchaser, furnish either Round Safety Head or regular Square Head with knives on two sides, the other two sides being slotted for carrying special knives or bits. In ordering, please specify which style head is desired.

SPECIFICATIONS

Length over all, 49", width for belt drive, 16".
Width with motor, 30". Height to top of table, 11½". Fence, 3¾"x20".
Pulley, 2½"x2½". Speed 3600 R. P. M. Weight for belt drive 300 lbs.
Weight with motor, 490 lbs. Export weight adds 75 lbs.
Cubic contents for belt drive, 8 c. f.; with motor, 12 c. f

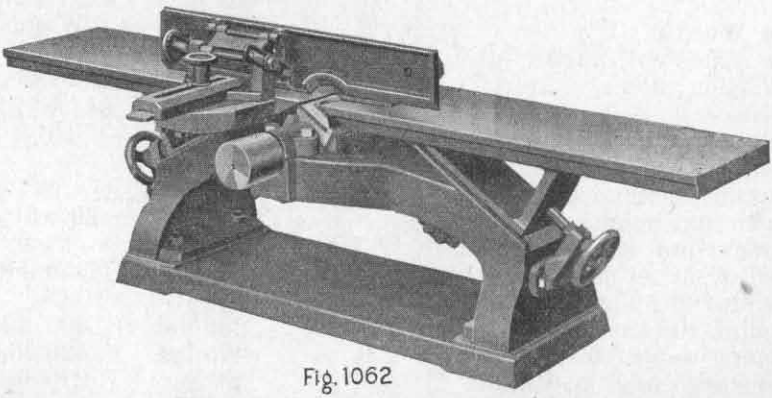


Fig. 1062

With Pulley for belt drive, Code Word, Wohen

Monarch

Ball Bearing Jointer No. X11

Twelve and Sixteen Inch

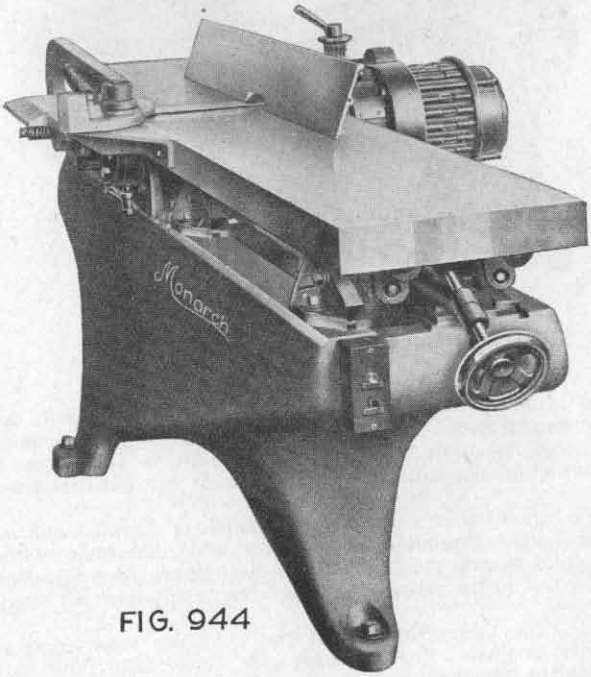


FIG. 944

With Shaftless Motor Drive, Code Word, Wohal

Here is a machine that is not only up-to-date but also distinctly in advance of present-day general practice. A machine that embodies the ideas of eminent woodworking experts and designers. A radical departure from conventional types has enabled us to produce a machine of pleasing design, free from obstructions to the operator; with three-point floor contact which insures against rocking; and a guard that meets the most rigid requirements of safety regulations. The 12″ machine can be furnished with tilting table if desired at extra cost.

The frame is cast in one piece, with wide-spread feet at the feeding-out end and one central leg at the feeding-in end, so as to give clear foot room for the operator.

The tables are heavily ribbed and accurately ground. The feeding-in table is 48″ long and the feeding-out table is 36″ long. The tables are fitted with steel lips but will be furnished plain, if desired, at less cost.

The safety guard is unique in design and is marked by three principal features. When in its operating position the guard covers the head close up to the work passing through, adjusting itself to any width. It can be held open by means of a latch when its use is not desired. It can be thrown over entirely out of the way for rabbetting, without removing from the machine, and when brought back into position it is instantly ready for service.

Monarch Jointer

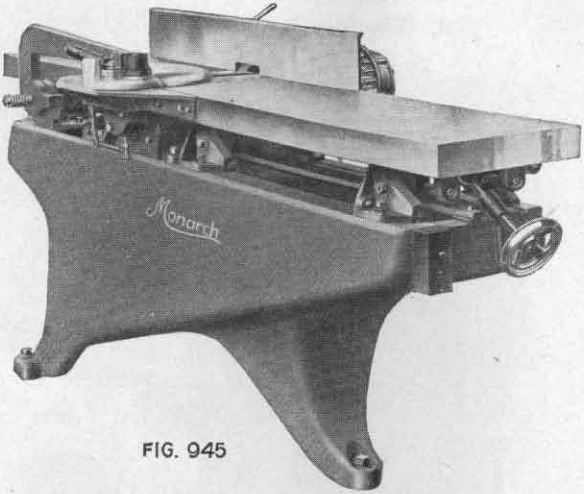


FIG. 945

The fence is actuated by means of a cut rack and pinion and when in position it is clamped fast. The fence has adjustment for alignment with the rabbetting edge of the table. It tilts to any angle to 45 degrees from vertical with positive stops for these two positions. It has parallel traverse across the table.

The head is mounted in a heavy yoke which is doweled and bolted direct to the bed and it cannot move out of line. It is 5″ diameter, of improved design, made of solid forged steel, and fitted with three high speed knives. Provision is made for knife adjustment and for excluding all dust from the bearings.

The Motor, when furnished, is of the shaftless type, high speed (3600 R. P. M.) fully enclosed, for 3 Phase, 60 Cycle, 220 Volt current only, mounted directly on the extended shaft of cutter head. Temperature rating not exceeding 40°C. under full load.

The machine may be converted from motor to belt drive, or from belt to motor drive, and if preferred the machine may be equipped with babbitted bearings for belt drive only.

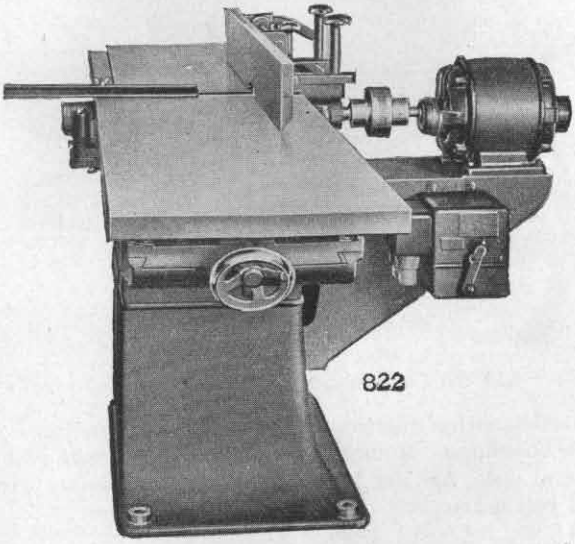
For connection to a factory exhaust system a cast iron hood or chute is fastened to the under side of the yoke inside of the base to which an exhaust pipe may be connected. For individual exhaust a specially designed fan is placed inside of the frame and is driven by a small belt from the head shaft to the fan pulley just outside of the frame, an opening being left in the frame for the pulley shaft to pass through.

The jointer may be equipped as follows:
With ball bearings, with motor on the head.
With ball bearings, with pulley for belt drive.
Motors are for 3 phase, 60 cycle alternating current.

SPECIFICATIONS

	12″	16″
Extreme length	86″	86″
Height working surface from floor	34″	34″
Feeding in table	15¼″x47½″	19″x47½″
Feeding out table	13¼″x35½″	17″x35½″
Width over motor and rabbetting arm	38″	42″
Depth of rabbetting, max.	5/8″	5/8″
Shipping weight, lbs.	1600	1850
Export weight	1950	2400
Cubic feet	80	96

Hand Jointer



With Direct Motor Drive

The "Jointer" is a necessity in every wood-working shop. Its convenience and ready adaptability to such a large variety of work is so universally understood that it really needs very little explanation.

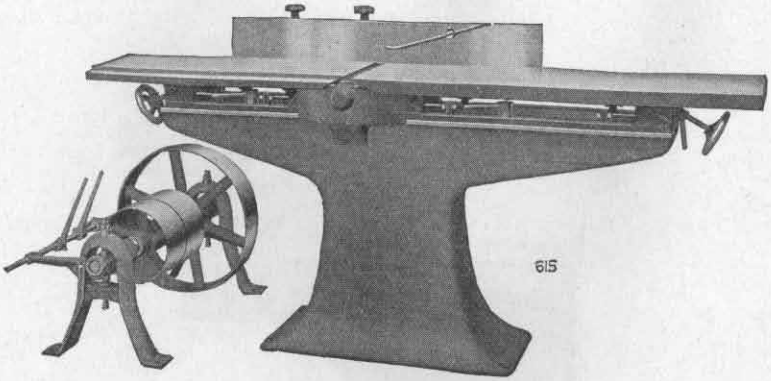
The Frame is of the pedestal type, strongly braced, insuring strength, rigidity and absence of vibration.

The Tables measure 7′ over all. They are strongly ribbed, planed perfectly true and arranged for rabbetting. Both are mounted on inclines having independent adjustment for different depths of cut, this adjustment being regulated by a screw and hand wheel is in convenient reach of the operator.

Each table can be drawn away from the cylinder without deranging its height, allowing free access and providing for the use of formed cutters and bits swinging in a larger circle than the knives.

The Solid Round Safety Cylinder Head is made of machine steel with long bearings running in self-oiling boxes. Its construction is such as to permit the use of four knives. The angle at which the knives are set insures clean, smooth, rapid cuts in all kinds of lumber. When it is desired to make mouldings two of the knives are removed. A hardened steel throat piece is inserted under the lip of each knife.

Hand Jointer



With Countershaft for belt drive.

Motors are mounted on substantial bases and are connected with cutter heads by flexible couplings. Motors and starters are furnished to suit power currents in general use. Ask for Special Bulletins of Jointers with shaftless motor drive and ball bearings.

The Fence may be tilted to any angle from 90 degrees to 45 degrees and is adjustable to any desired position, allowing the use of the full width of the knives without removing the fence.

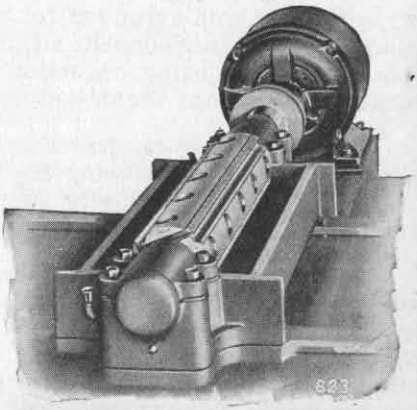
Each machine is equipped with one set of four knives, one socket wrench for cylinder head, one safety guard and one countershaft if for belt drive.

SPECIFICATIONS

	12″	16″	20″
Floor space, belted machine, inches	27x84	32x84	36x84
Size of Tight and Loose Pulleys	10x5	10x5	10x5
Speed of Countershaft, R. P. M.	800	800	800

	12″	16″	20″
Length front table	47″	47″	47″
Length rear table	35″	35″	35″
Width of tables	16″	20″	24″
Height of tables	34″	34″	34″
Weight belted mch.	1300	1500	1600
Gross export, belted Cubic f. with motor	1420	1675	1850
Cubic ft. belted	40	53	59

	12″	16″	20″
Code word with 3 H. P. motor	Wohay	Wohbe	Wohbo
Code word with 5 H. P. motor,	Wojco		
Code word belted	Woham	Wohap	Wohas

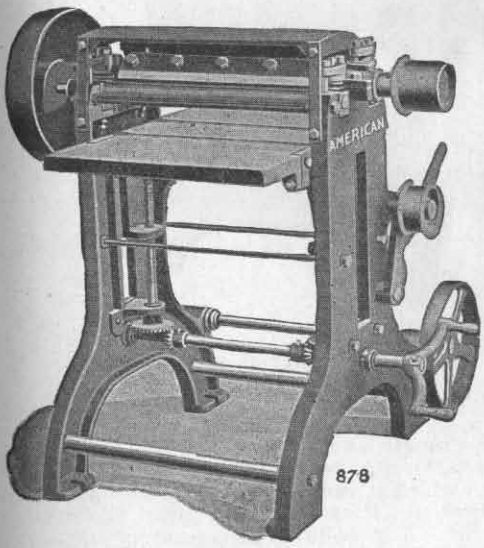


4-Knife Safety Head

"Jewel" Planer

This **Planer** is designed to meet the needs of small shops and those requiring a light but good, strong, durable single-surfacer for general work at a low price. It is built throughout of the best grade iron and steel, and the workmanship is first class. Its simplicity, compactness and large capacity in proportion to its size, has made it very popular, and secured for it a very large sale.

While somewhat lighter than our "Pony" Planer, it possesses many of the valuable features of that machine, and is amply heavy for the work it is intended to do, being much heavier than any other planer of its class on the market. It works either hard or soft wood equally well, and is particularly adapted to planing short stock. The work turned out is first class and equal to that done by the larger, high-priced machines.



Equipped With Ball Bearings at Extra Cost

The Cutter Head is made from high-grade steel, and is accurately milled and balanced with lips projecting under the cutting edge of the knife to insure smooth work. Its position is not changed when adjusting for different thicknesses of lumber, so that the driving belt remains tight, though belted from any direction. All adjustments are quickly and easily made without loosening any bolts or screws, or disturbing the belts.

It has two **Steel Feed Rolls,** one in front and one in rear of the cutter head, the feeding-in roll being fluted to insure a strong, positive feed. Two rates of feed are provided, 25 and 35 lineal feet per minute, by means of cone pulleys. The feed can be stopped or started instantly by means of a convenient tightener.

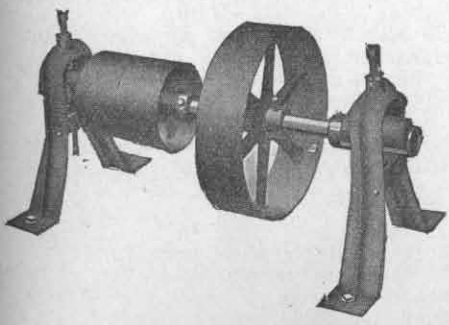
The Bed is very stiff, with heavy ribs underneath, and is accurately surface ground and fitted with two steel idle rolls. The rear section is adjustable.

The Planer is built in two sizes to plane up to 16" and 20" wide, and from ¼" to 6" thick. It is furnished with one pair of planer knives, and with or without countershaft, as ordered. Belting is extra. Feed belts require 13½' of 1½". Counter shaft has 8"x4" tight and loose pulleys. Speed, 900 R. P. M. Cutter Head Pulley, 4" dia., 3½" face. Speed, 3600 R. P. M.

16" machine, with countershaft. Shipping weight, 720 lbs.; gross weight, 820 lbs. Cubic measurement, 31'. Code Word, **Wohbu.**

20" machine, with countershaft. Shipping weight, 745 lbs.; gross weight, 930 lbs. Cubic measurement, 35'. Code Word, **Wohce.**

If countershaft is not wanted, deduct 150 lbs.

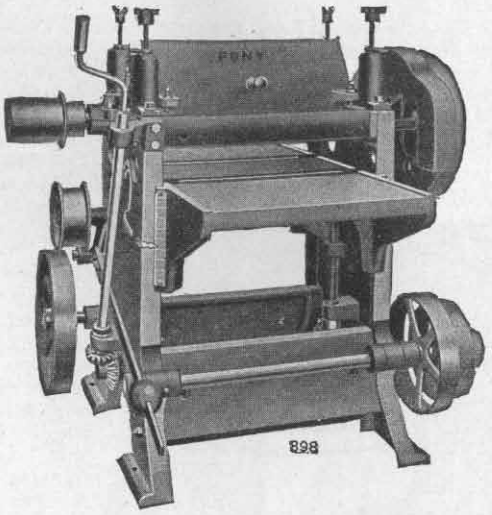


Countershaft

"Pony" Planer or Surfacer

Modern Design, Compact, Rigid, Handy

This **Single Surfacer Pony Planer** is very similar in design to our "Triump" Planer and Matcher. It is compact and rigid and embodies the very best materials and highest class workmanship. It is intended for all kinds of surfacing and finishing, and will do first-class work on hard or soft wood with great rapidity. It is adapted to planing stock for sash, doors, window casings, panels, etc.; and as the rolls are close to the cylinder, and a pressure bar is provided, it will plane box boards and other short stock in a most satisfactory manner. It has no superior for this class of work.



Equipped with Ball Bearings at extra cost.

The Main Frame is designed for strength and stiffness.

The Table is a single casting, deep, strong, heavily ribbed and gibbed to the outer edges of the main frame, to which it can be securely locked at any point, thus avoiding all rocking or vibration. It carries two 3″ steel idle rolls, and is raised or lowered by hand screw. Top of table is accurately surface ground.

The Cutter Head is forged steel, accurately milled and balanced, with ample journals and babbitted bearings. It has lips to strengthen the cutting edge of the knives and insure smooth, fine work.

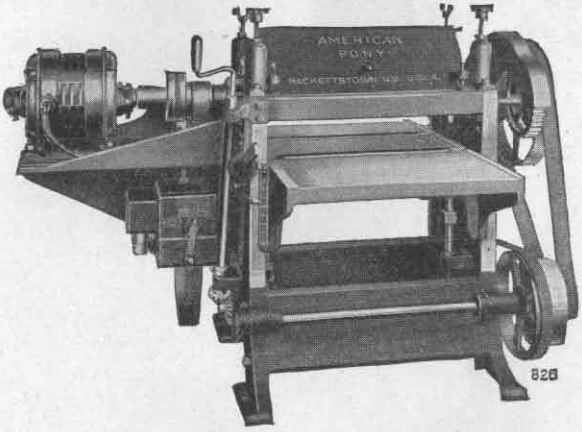
The Feed is positive and powerful, having two 3″ steel rolls, one in front and one in rear of the cylinder, both strongly geared, the feeding-in roll being fluted.

Two Rates of Feed are provided, 29 and 48 lineal feet per minute, and the feed is stopped or started by a belt tightener in easy reach of the operator. Built in two sizes to plane 20″ and 24″ wide, and any thickness from ¼″ to 8″. Furnished with countershaft and one pair of planer knives. Belting is extra. Width of cylinder belt, 5″.

Feed belts require 20′ 3″ of 2″. Tight and loose pulleys on countershaft, 12″x6″. Speed, 800 R. P. M. Cutter Head Pulley, 4½″ dia., 5″ face. Speed, 3600 R. P. M.

20″, weight 1,500 lbs. Code Word, **Woids.**
24″, weight 1,700 lbs. Code Word, **Wohco.**
For export, 20″ machine, gross 1,760 lbs. Cubic measurement, 70′.
For export, 24″ machine, gross 2,075 lbs. Cubic measurement, 75′.
If countershaft is not wanted, deduct 215 lbs.
Countershaft shown on preceding page.

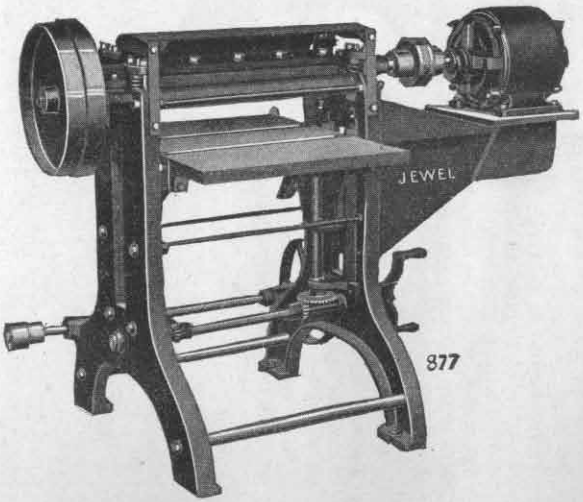
Direct Motor Driven Planers



The illustrations are of our "Pony" and "Jewel" Planers, fully described on preceding pages and equipped with direct motor drive.

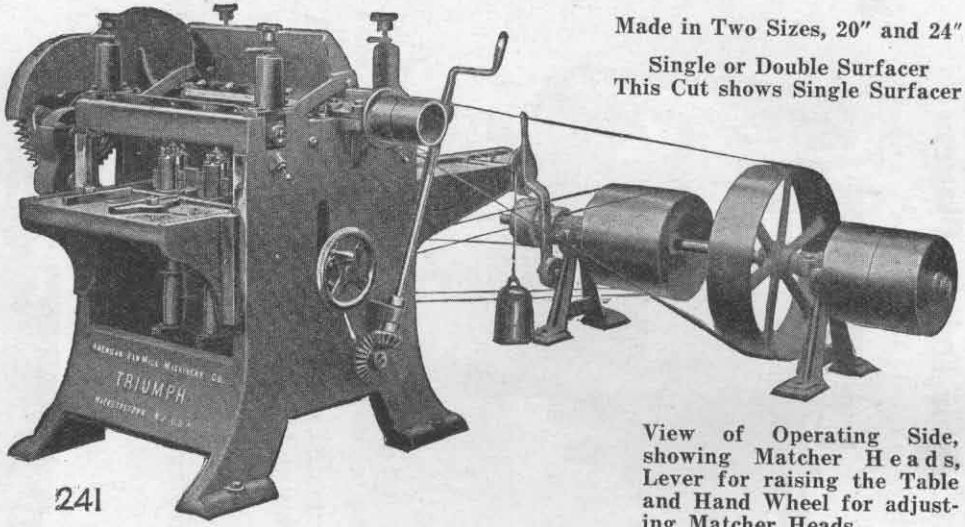
The Motor is mounted on a substantial base attached to the main frame and coupled to cutter head by means of a flexible coupling.

Motors and starters are supplied to suit power current in general use, and in applying for prices a description of the current should be given.



American "Triumph" Planer, Matcher and Moulder

This is a very compact, rigid machine, and is designed to economize space and withstand the hardest usage, as well as to do the best class of work. There is an entire absence of vibration so common in small planers of this class; hence, the work turned out is uniform and equal in quality to that of large, expensive machines. The workmanship and material throughout are of the highest grade. It is adapted to the use of Saw Mills and small Planing Mills having limited room and power, where a machine is required for a large variety of work, such as planing and matching, beading, working flooring, ceiling, siding, casing, wainscoting, and a large variety of moulding and trim.



Made in Two Sizes, 20" and 24"

Single or Double Surfacer
This Cut shows Single Surfacer

View of Operating Side, showing Matcher Heads, Lever for raising the Table and Hand Wheel for adjusting Matcher Heads

The Table is cast in one piece and is deep and strong, being heavily ribbed and having arched braces under side. It is surface ground on top and has a right hand guide to prevent the material from leading against the side frame. The slides are long and placed far apart, being fitted to the outer edges of the main frame, to which they are gibbed, thus securing the greatest rigidity and least possible wear.

The Cylinders are made of forged steel and are accurately milled on four sides, with projecting lips to strengthen the cutting edge of the knives; two of the sides being slotted to carry beading and moulding knives in addition to the regular planing knives, which do not have to be removed when beading and moulding is being worked.

Matcher Spindles are unusually large and run in long babbitted boxes, ample provision being made for thorough lubrication.

"Triumph" Planer, Matcher and Moulder

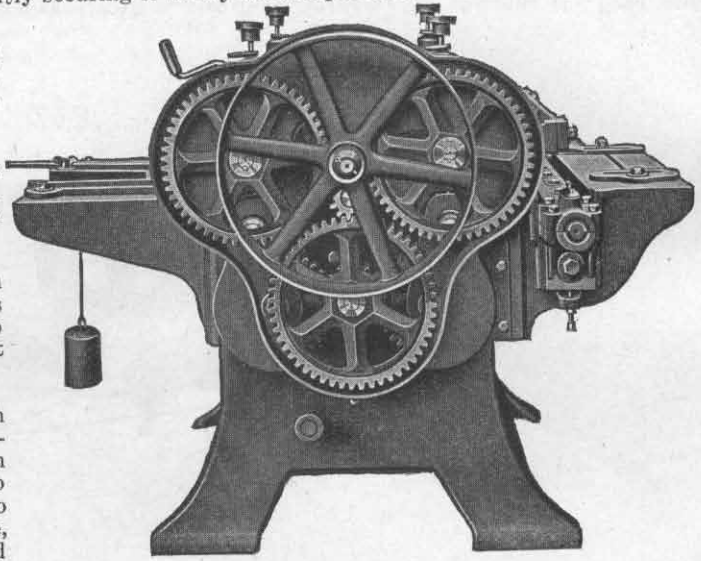
The Matcher Frames are also very strong and are carried by $1\frac{11}{16}$" round steel guides at top and bottom, provision being made to easily take up any wear or lost motion. One of the matcher spindles is adjustable by means of a hand wheel at the side of the machine and has an eccentric clamp for instantly securing it in any desired position.

Matcher Heads are made of bronze of standard design and will carry Matcher, Edger or Moulding bits $\frac{5}{16}$" thick and up to $2\frac{1}{2}$" wide. Shimer heads can be used when desired. Moulding knives can also be used on the main cylinder where the cut is not over $\frac{7}{8}$" deep.

Chip Breakers. A heavy adjustable chip breaker is placed in front of the cylinder, which also acts as a hood. It may be swung back to expose the knives. Each matcher head has a chip breaker, one of which is self-adjusting.

Pressure Bar is adjustable and prevents any vibration of material between the cylinder and matcher heads. This pressure bar and the front chip breaker may be set close to the cylinder for special smooth surfacing and can be set out so as to clear moulding bits when used.

The Feed is very simple, powerful and positive, with steel rolls 3" diameter, turned from the solid, the top feeding-in roll being fluted. The feed is driven by a belt from the countershaft, to which a belt tightener is attached so that the operator can stop or start the feed at will. Two rates of feed are provided, namely 35' and 42' per minute, and the change from one to the other can be quickly and easily made.



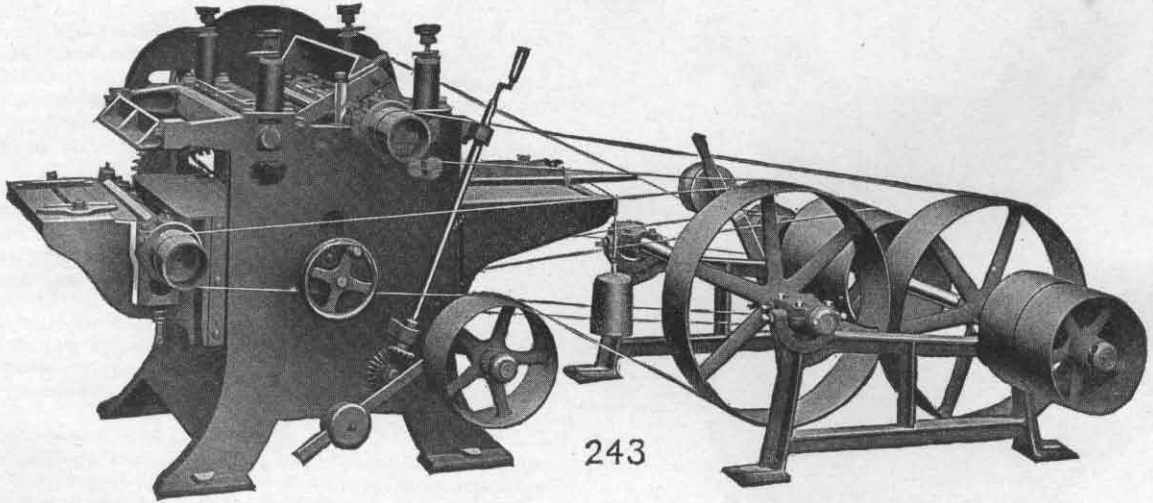
View of Feed Side, showing Double-Geared Machine with all Four Feed Rolls Driven

Each planer and matcher furnished with one set of planer knives, two beading bits, four 2" edging bits and one set standard matcher bits for 1" flooring. Belts are furnished, when wanted, at extra cost.

The Cut shows the machine double geared with both top and bottom rolls driven, but they are also furnished single geared with the top rolls only driven, when so desired.

Double Surfacer "Triumph" Planer, Matcher and Moulder

Cut shows Double Surfacer

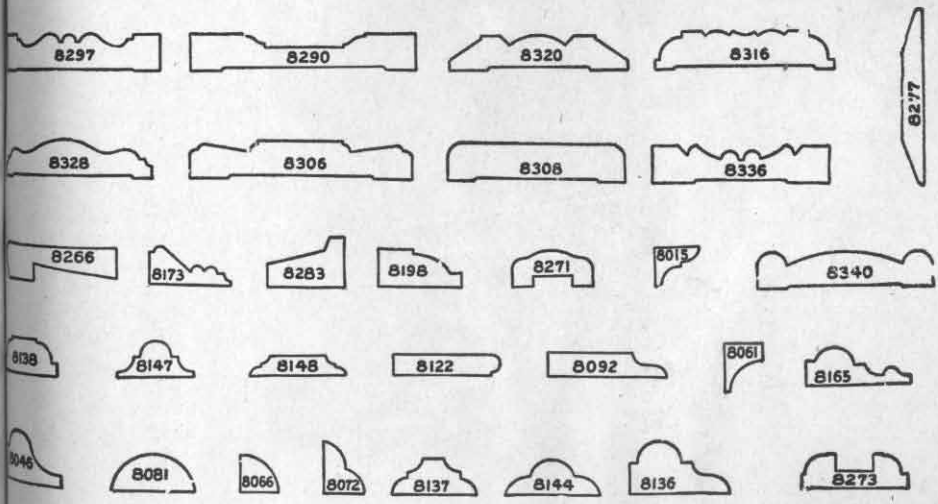


View of Operating Side, showing the Double Countershaft furnished with it, also Belt Tightener for stopping the Feed, and Method of Belting up the Machine

"Triumph" Planer, Matcher and Moulder

	Single Surfacer		Double Surfacer	
Planes any Width up to	20"	24"	20"	24"
Planes any Thickness from	3/8" to 6"	3/8" to 6"	3/8" to 6"	3/8" to 6"
Matches or Edges up to 2" thick and up to	10" wide	14" wide	10" wide	14" wide
Tight and Loose Pulleys should run 800 R. P. M.	12"x6"	12"x6"	12"x6"	12"x6"
Floor Space, including Countershaft	8'6"x6'	8'6"x6'4"	9'x6'	9'x6'4"
Distance from center of Cylinder to center of Countershaft	5'6"	5'6"	5'6"	5'6"
Shipping Weight	2,250	2,440	2,850	3,000
Weight Packed for Export	2,750	2,850	3,450	3,700
Dimensions Packed for Export	90 c. f.	97 c. f.	108 c. f.	117 c. f.
Main Cylinder Belt, 6" wide	14'8"	14'8"	16'	16'
Lower Cylinder Belt, 6" wide	Not used	Not used	14'3"	14'3"
Feed Belt, 3" wide	15'4"	15'4"	15'4"	15'4"
Two Matcher Belts, 3" wide, each.	14'3"	14'3"	14'3"	14'3"
Code Word	Woher	Wohet	Wohex	Wohfe

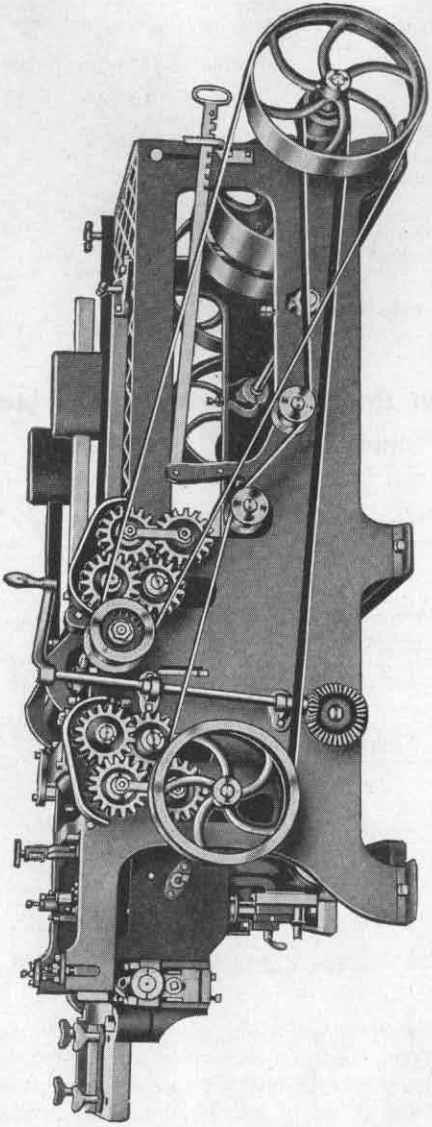
Some of the Shapes Which the "Triumph" and "Monarch" Can Work



These cuts show a small selection of the many varieties of moulding, trim, flooring, siding, etc., that can be worked successfully on the "Triumph" and "Monarch" Planers and Matchers. We can supply knives for any of these designs and many others. A set of knives comprises ordinarily from four to six, according to pattern selected, and the price per set varies according to shape and width of moulding selected. Moulding knives are sold by the inch in length, and should be measured across the cutting edge.

We also furnish regular Planer Knives for any make or size of planer.

"Monarch" Planer, Matcher and Moulder



Made Either Single or Double Surfacer. (Cut Shows Double Surfacer)

"Monarch" Planer, Matcher and Moulder

To meet the demand for a somewhat heavier machine than our "Triumph," we now offer our "Monarch" Planer, Matcher and Moulder, which is compact and rigid, and capable of turning out a large quantity of first-class work.

It is entirely self-contained and has the countershaft mounted on the main frame at the rear of the machine. The bed is very stiff and extends back over the countershaft.

Every part of the machine is in easy reach of the operator from the outside and is readily changed from surfacing and matching to surfacing only.

The Cylinders are made of the best grade solid steel forgings, and are slotted on four sides so that beading or moulding bits having a depth of cut not over 1¼" may be used without removing the planer knives.

Both cylinders are fitted with perforated pulleys, the top cylinder being double belted, and the lower one single belted. The journals on the top cylinder are 1⅞"x9" and those of the lower one 1⅞"x8", and the bearings are lined with best grade of babbitt.

The Pressure Bar and **Chip Breaker** are adjustable so as to provide ample clearance for moulding knives and bits.

Matcher Spindles are 1⅜" diameter and run in long babbitted bearings, which are self-oiling. They can be dropped below the bed when surfacing only is being done. Steel matcher heads are furnished, but **Shimer Heads** can be used when desired, and will be furnished at extra cost.

The machine will plane 24" wide, and any thickness from ⅜" up to 6". It will match from 2½" up to 12" in width, and from ⅜" up to 2" thick. Rate of feed from 30 to 60 feet per minute.

Each machine furnished with one set of 24" Planer Knives, two Novelty Siding Knives, four 2" jointer knives, two beading bits and one set of matcher bits.

Tight and Loose Pulleys on countershaft 12"x6½" should run 900 to 1,000 R. P. M. Belting required: Single surfacer, 31' of 4", 53' of 3"; Double surfacer, 48' of 4", 53' of 3". Belts are extra. From 10 to 15 H. P. required.

	Weight Net	Weight Crated	Weight Boxed for Export	Size of Case	Floor Space	Code Word
Single Surfacer	3,900	4,200	4,400	9'x4'x4'	11'x5'	Wohfo
Double Surfacer	4,350	4,600	4,800	9'x4'x4'	11'x5'	Wohfu

Four Speed Head Stock M. T. Lathe

Code Word, Wohge

No. — MMT

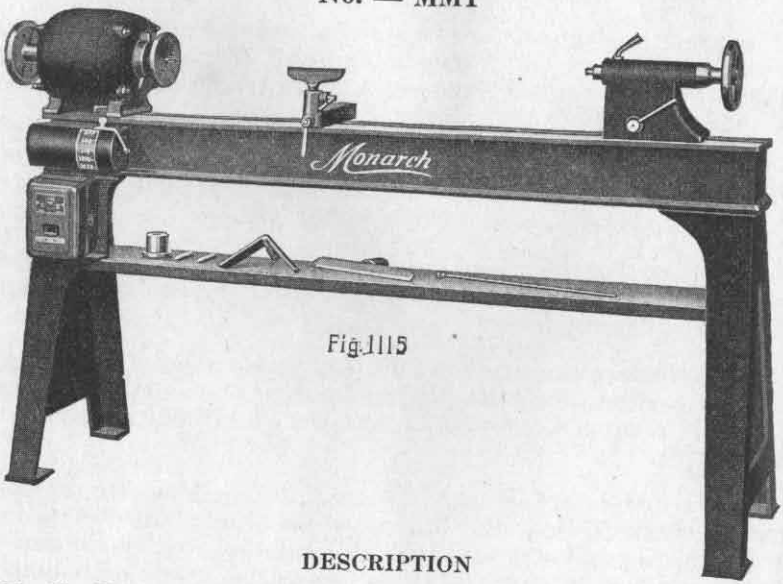


Fig. 1115

DESCRIPTION

The No. M.M.T. Speed Lathes are especially designed to meet the requirements of Industrial Schools, Pattern Shops and Woodworking Departments of Factories.

The Bed is a strong, one-piece casting ribbed across on the inside for added strength. It is supported by heavy cast Iron Legs of open design, having inside web at base, drilled for bolting to floor. Cabinet type Legs with built-in shelves for tools, etc., furnished on special order at extra cost.

The Fully Enclosed Motor Head Stocks are for 2 or 3 Phase, 60 Cycle, 220 Volt or Single Phase, 60 Cycle, 110 or 220 Volt Current, having four speeds, of approximately 600, 1200, 1800 and 3600 R. P. M., with a temperature rating not exceeding 55°C under full load. Motors develop a full ½ H. P. at all speeds. These speeds are provided through an especially designed control.

This type of motor is much superior to the Single Phase, variable speed motors as it is simpler mechanically. No governors which easily become out of adjustment, requiring constant attention. These motors also provide a dynamic brake for quickly slowing down spindle or bringing it to a stop.

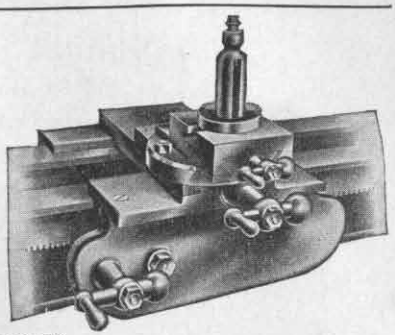
The Control is a four speed lever control attached to the bed beneath the Motor. This is within easy reach of the operator and the various speeds are indicated by a dial. A Magnetic Switch with Push Button, having overload and undervoltage protection is furnished. The Motor can be started only on low speed but can be stopped at any speed by the push button.

Head Stock Spindles have a ½" hole the entire length to facilitate removal of centers and are threaded at both ends for face plates. The inside is bored to receive No. 2 Morse Taper Shanks. An 8" combination hand wheel and face plate is provided at outer end of spindle which may be removed when a larger face plate is used. A convenient push button is provided for locking the motor when removing face plates.

Tail Stock is of box design with screw spindle having 5" range of travel. It is fitted to the bed and secured by a quick acting eccentric clamp.

The Tool Rest furnished may be adjusted up and down and to and from the work. It will swing to any angle and is locked to the bed by an eccentric clamp.

HAND FEED CARRIAGE with compound tool rest will be furnished at extra cost. The lateral travel covers the entire distance between centers. The transverse movement is 6". The swivel is provided with degree graduations and graduations will also be provided for lateral and transverse movements at small extra cost.



SPECIFICATIONS

Swings over Bed .....12"
Swings over Tool Rest .....8⅝"
Movement of Tail Stock Spindle ....5"
Height to top of Bed .....37"
Height to center of Spindle .....43"
Spread of legs on Floor .....20"

Length of Bed —50", 62", 68", 74", 87", 99"
Distance betwen centers 24", 36", 42", 48", 60", 72"
Net Weight, Lbs. 550, 590, 610, 630, 670, 770
Shipping Weight, Lbs. 650, 690, 710, 730, 770, 880

REGULAR EQUIPMENT

1—¾" spur center
1—½" cup center
1—conical center
1—2½" screw chuck
1—6" face plate
1—6" angle rest
1—6" "T" rest
1—12" "T" rest
1—drift rod
1—8" combination hand wheel and face plate on outer end of arbor.
1—Blue Print Holder
1—Tool Board below or attached to back of bed

EXTRA EQUIPMENT ON ORDER

Hand feed carriage with compound tool rest (travels entire distance between centers) with Offset Tail Stock.

Tool Post Turning Tools for use with Compound Tool Rest.

Floor Stand and 14" face plate for outside turning.

Group "A" Fig. 1042
Code Word—Wohgu

1—1" skew chisel
1—1" spear point chisel
1—1" straight chisel
1—1" turning gouge
1—½" round nose chisel
1—⅛" parting tool
1—6" inside caliper
1—6" outside caliper

Group "B" Fig. 1042
Code Word—Wohha

1—½" skew chisel
1—1" skew chisel
1—1" spear point chisel
1—1" straight chisel
1—½" turning gouge
1—1" turning gouge
1—½" round nose chisel
1—⅛" parting tool
1—6" inside caliper
1—6" outside caliper

Manual Training Lathe

With Motor Head Stock

Code Word, Wohhi

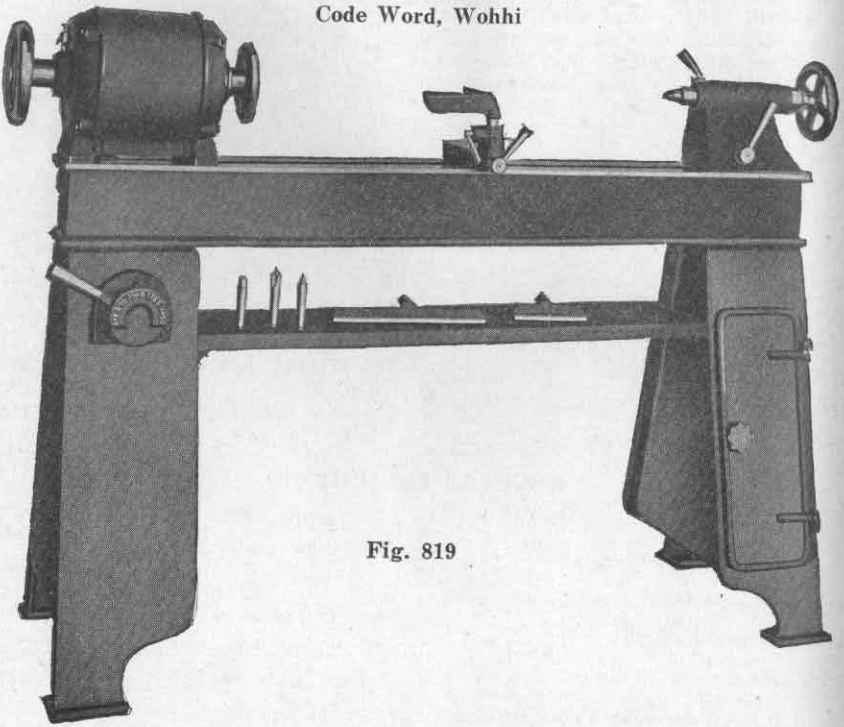


Fig. 819

These lathes are designed to meet the severe requirements of industrial schools and will commend themselves to the most critical investigator.

The bed is cross-girted with brackets which form a knife edge on top to prevent holding dirt or shavings.

Cabinet Legs are of an attractive design, strong and rigid. The left hand leg of the Motor Head Stock Lathe (Figs. 819 and 846), forms a complete enclosure for the controller and a large door in the rear provides easy access. The control lever is outside convenient for the operator and is indicated for the various speeds. All wiring is concealed.

The motor for the belted type lathe (Figs. 761-2-3 and 852), is contained within the leg, a large door being provided for easy access. When this door is closed no chips or other refuse can reach the motor.

Head Stocks for both motor and belted types are planed to fit the bed and the spindles run in ball bearings. Motor Head Stocks are for 3-phase, 60 cycle, 220 volt current, having four speeds, of 570, 1140, 1725 and 3450 R. P. M. Direct Current head stocks are furnished on special order

Manual Training Lathe

Code Word, Wojki

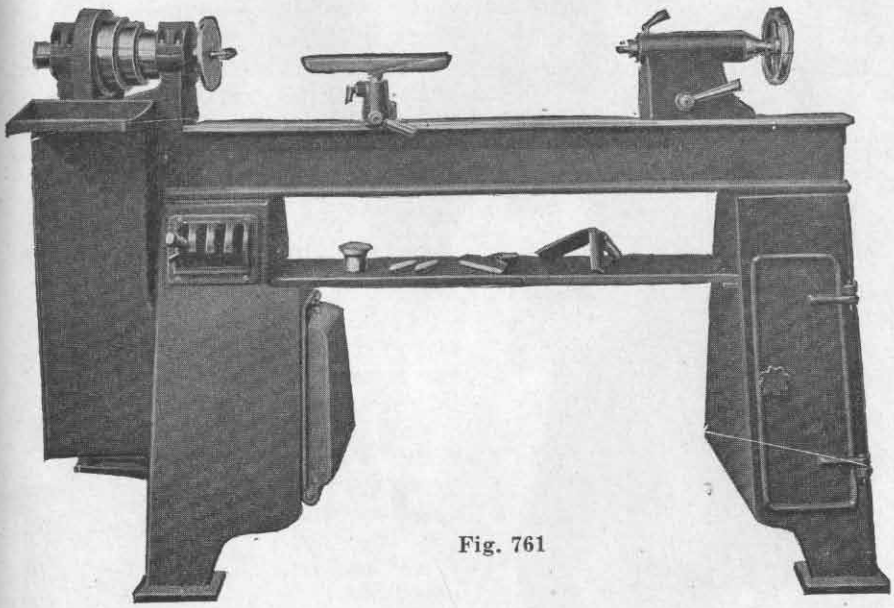


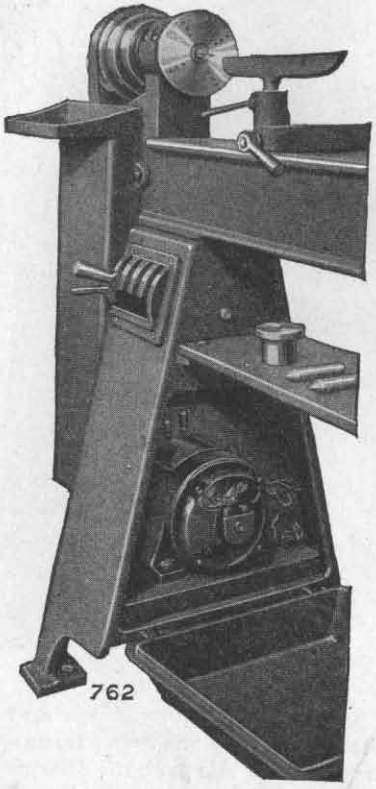
Fig. 761

Belted head stocks are provided with four-step cone pulleys, the lower cone being direct connected to the motor shaft and fitted with an adjustable ball bearing for end of shaft opposite the motor. For this type of lathe motors are furnished for 1, 2, or 3-phase, or direct current. The one-handle control feature eliminates all hand shifting of belt. Dropping the handle releases the belt tension and the machine comes to a stop. A convenient brake provides for quick stopping. The handle may be moved instantly from one notch to another for shifting the belt and four speeds are obtained—835, 1200, 1730 and 2450 R. P. M.

Head Stock Spindles are threaded at both ends for face plates. Lathe with motor head stock is fitted with a 7″ combination hand wheel and face plate at outer end of spindle which may be removed when large face plate is used. On the belted lathe the end of spindle is provided with a cap to cover the thread when face plate is not used.

Tail Stock is of box design with screw spindle having 5″ range of travel. It is fitted to the bed and secured by a quick-acting eccentric clamp. Offset tail stock, having a movement of 1″ in either direction, with quick adjustment, will be furnished at extra cost.

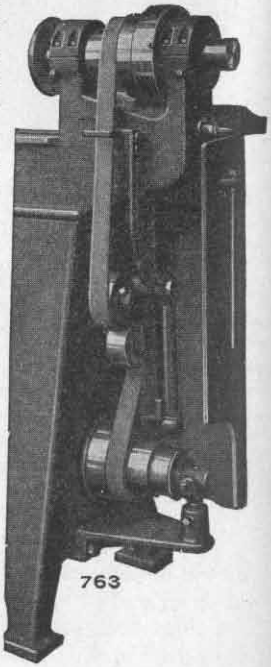
The Tool Rest regularly furnished may be adjusted up and down and to and from the work. It will swing to any angle and is locked to the bed by an eccentric clamp.


762

Hand Feed Carriage with compound tool rest will be furnished at extra cost. The lateral travel covers the entire distance between centres. The transverse movement is 6″. The swivel is provided with degree graduations and graduations will also be provided for lateral and transverse movements at small extra cost.

For outside turning a floor stand and 14″ face plate are furnished.

Covers for head stock and belts are furnished for belted type lathes as illustrated by Fig. 852. These provide a complete enclosure for the head stock and belt assembly.


763

All lathes swing 12″ over the bed and 8⅝″ over the tool rest. Distance from floor to top of bed 37″, and to centre of spindle 43″. Extreme width on floor, 22″.

Equipment—One ¾″ spur center; one ½″ cup center; one conical center; one 2½″ screw chuck; one 6″ face plate; one 6″ angle rest; one 12″ T rest; one drift rod. Belt is furnished with belted lathe.

Dimensions and Weights

Length of bed	50″	62″	68″	74″	87″	99″
Distance between centers	24″	36″	42″	48″	60″	72″
Shipping weight, with Motor	900	940	960	980	1020	1125
Shipping weight, less Motor	820	860	880	900	940	1050
Weight with Motor Headstock	840	880	900	920	960	1070
Boxing for export adds	100	110	120	150	160	200

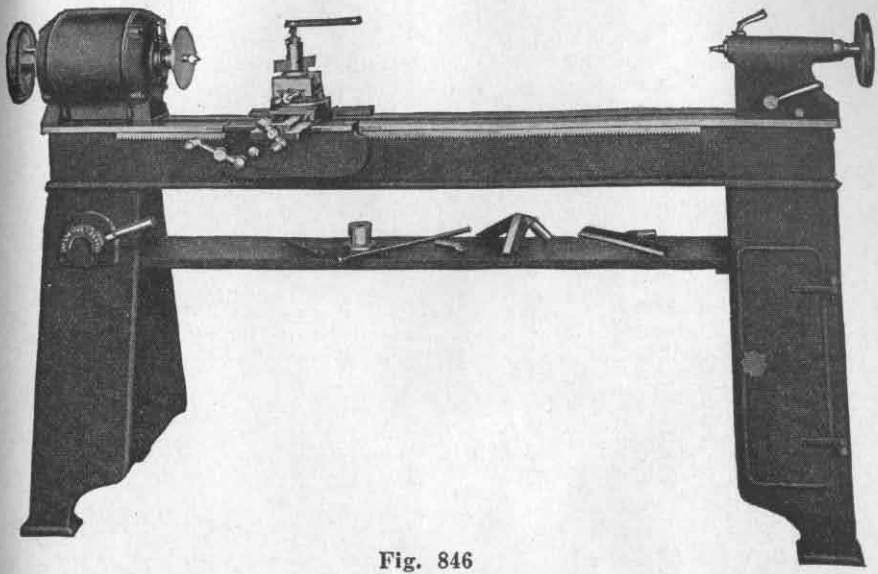


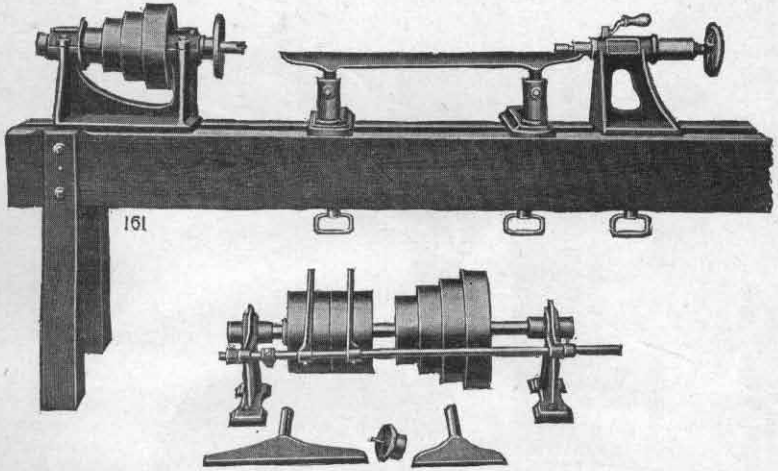
Fig. 846

Hand feed Carriage with compound tool rest for either motor head stock or belted type lathes.

Fig. 852

Lathe With Head Stock Cover

Wood Turning Lathes



Our Wood Lathes possess every desirable improvement and convenience. They are well built, neatly finished, and will stand the hardest kind of turning.

The Head and Tail Stocks are made heavy and rigid, so as not to spring or chatter when running. The bottoms of the head and tail stocks are planed on a mandrel, so that the centers come exactly in line when fitted to the shears.

The Spindles and Centers are made of the best steel. The cone driving pulleys are made of iron. The bearings of the head stock spindle are lined with genuine babbitt.

The Countershaft is complete, with shifter, and will be furnished with iron cone pulleys.

The parts furnished with a single-end lathe are the head and tail stocks, one each spur and cup center, one face plate, one screw face plate, two rest stands and three tool rests of different lengths, three clamp bolts for the stands and tail stock, countershaft with shifter. The **Double-End Lathe,** besides the above parts, is furnished with a floor stand with adjustable rest and one large rear face plate for turning large circles, for which an extra charge is made. The wood bench is not furnished unless specially ordered, at extra cost.

DIMENSIONS

Swing	Face of Cones	Changes of Speed	T. & L. Pulleys	Speed of Countershaft	Weight	Gross Weight	Cubic Measurement	Code Word
12″	2″	4	6″x3½″	800	340	490	13′	**Wohib**
16″	2″	4	8″x4½″	700	430	580	14′	**Wohic**
20″	2½″	5	10″x4½″	600	480	640	14′	**Wohif**

Fixtures for "Double-End" or "Pattern" Lathe, add 90 lbs. to above weights.

Monarch Ball Bearing Bench Band Saws

No. X9
12″ size

No. X20
16″ size

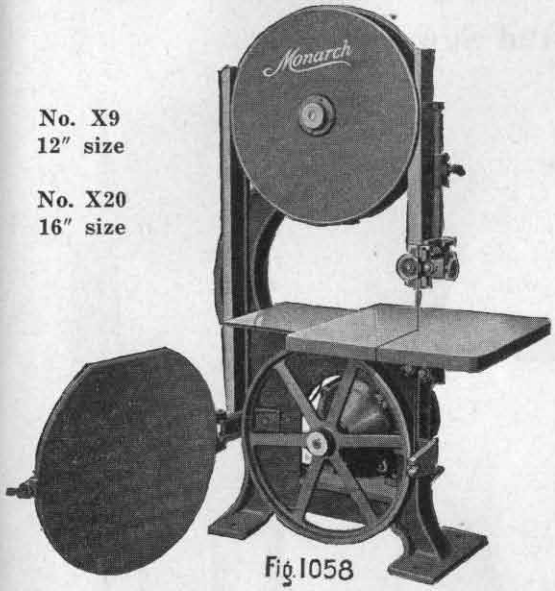


Fig. 1058

The small Band Saw, which may be operated from a lighting current or by belt from any convenient power, is so universal in its use as to be indispensable in shops not provided with large machines.

The table is of cast iron, surface ground and with babbitted throat for the saw. It tilts to any angle up to 45 degrees and is held by a positive clamp.

The upper wheel alignment is by means of a convenient hand wheel and the saw may be trained while the saw is in motion. The lower wheel is mounted on the motor shaft and the entire asembly is adjustable for alignment. For belt drive the lower wheel is mounted on a shaft with pulley to receive the belt.

The saw tension is regulated by means of a hand wheel, screw and compensating spring. It may be adjusted while the saw is in motion.

The wheel guards are of solid construction, securely fastened to the main frame. The Lower Guard is cast iron and hinged to a rigid frame and is easily opened for access to lower wheel or motor. When closed it is locked by a thumb nut which prevents vibration or noise. The Upper Guard, of sheet iron construction, is fastened to the bearing casing but at the same time provides easy access to the upper wheel and saw blade. They cannot sag or get out of place. The saw is also protected by a long guard at the back between Upper and Lower Wheels. Also an adjustable sheet iron guard extending from roller guide to top of Wheel.

The saw guide is of the latest improved anti-friction roller type.

The machines will be furnished as illustrated, with direct connected motor, or with pulley for belt drive. The standard motor is single phase—110-220 volt for 60 cycle current. Three-phase or direct current motors furnished on special order. When furnished with single phase motor a circuit breaker starting switch is furnished.

Size of machine	12″	16″
Height over all	35″	45½″
Length	22″	29″
Width	16″	23″
Size of wheels	12″x1″	16″x1¼″
Size of table	12″x12″	16″x16″
Max. Distance between table and guide	6″	8″
Distance from saw to column	12″	16″
Speed	1725	1150
Pulley for belt driven machine	4″	5″
Shipping weight with motor, lbs.	220	400
Shipping weight for belt drive	155	320
Export weight, with motor, lbs.	260	440
Cubic contents, C. F.	7½	13
Code Word	Woidy	Woife

Monarch 20 in. Ball Bearing Motor Built in Band Saw, No. 72

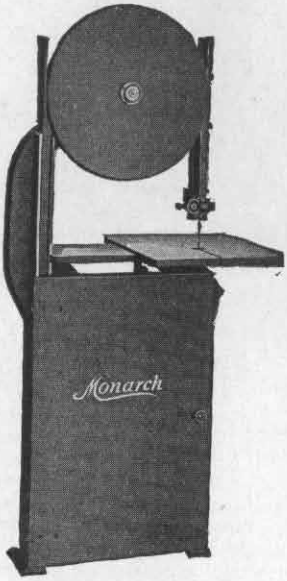


Fig. 1005
Front View

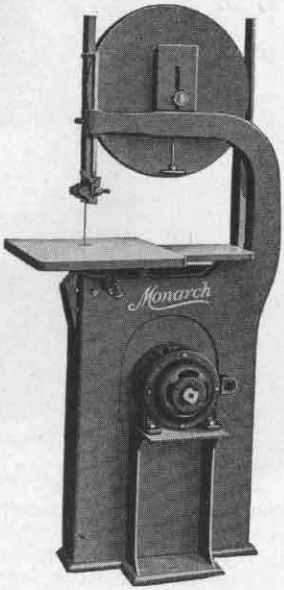


Fig. 1004
Rear View

The No. 72 is a self-contained machine of the latest design, built to meet all requirements of safety regulations.

The Frame is a one-piece cored casting of sufficient weight and width at base to eliminate vibration.

The Upper Wheel is mounted in Ball Bearings and the Lower Wheel is mounted on the shaft of a Ball Bearing Motor. Both wheels are faced with rubber.

The Base to which the Motor is attached is cast in the Frame, insuring perfect alignment.

Every moving part is fully guarded, except the cutting edge of the blade between the Table Top and Roller Guide.

The Guards are made of heavy sheet iron. The Upper Front and Back Guards are fastened to the bearing casing, but provides easy access to upper wheel and saw blade. The Back Guard covers top of wheel. The Lower Guard is a door hinged to the back of the Frame and also acts as a container for the saw dust.

The Saw is also protected by a long Guard at the back, between Upper and Lower Guards and by an adjustable hinged sheet iron Guard extending from Roller Guide to top of wheel.

A Roller Saw Guide is regularly furnished above the table with a plane Guide below. However, provision is made for using a Roller Guide below the Table, and will be furnished at extra cost.

The Saw is tracked by means of hand screw at back of machine. The tension is obtained by means of screw and spring.

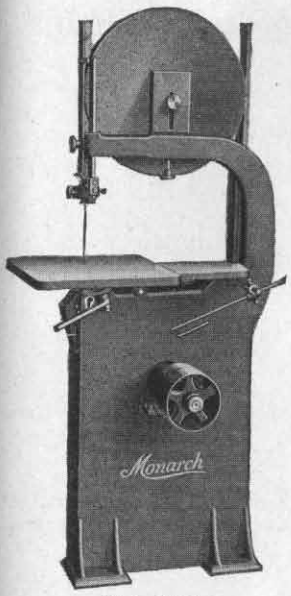


Fig. 1031
Can also be furnished without power, with tight and loose pulleys as per Fig. 1031. Ball Bearing in top and bottom wheels.

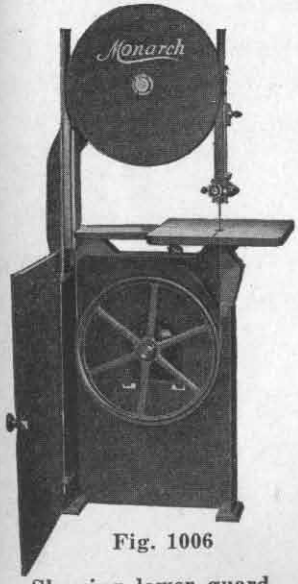


Fig. 1006
Showing lower guard door open.

SPECIFICATIONS

Motors of ½, ¾, and 1 H. P. may be used and furnished for the following Electric Currents:—

110, 220, 440-volt, two and three phase, 60-cycle, 875 R. P. M.

550-volt, three phase, 60-cycle, 875 R. P. M.

550-volt, three phase, 25-cycle, 715 R. P. M.

110, 220, 440-volt, two and three phase, 25-cycle, 715 R. P. M.

220, 440, 550-volt, three phase, 50-cycle, 970 R. P. M.

110, 220-volt Single phase, 850 R. P. M.

115 or 230-volt Direct current, 850 R. P. M.

SPECIFICATIONS

Table—Length	21⅝″
Width	17¾″
Height	38¾″
Tilts 45° to right.	
Tilts 5° to left.	
Auxiliary Table:—	
Length	10½″
Width	9¾″
Wheels—diameter	20″
Width of rim face	1½″
Saw Blade—Maximum length	11′ 6″
Saw guide raises above table	10½″
Distance between Saw and Frame	20½″
R. P. M. of Wheels	900
Horse Power, ½, ¾ or 1.	
Over all height	73″
Floor Space—Length	35″
Width	22″
Weight, Net	525 lbs.
Weight, Shipping	600 lbs.
Cubic Contents	33 Cu. Ft.
Code Word with Motor Drive	**Wohig**
Code Word with Tight and Loose Pulleys	**Wohil**

If less Motor, specify if wanted with Ball or Babbitted Bearings in lower wheel. Top wheel always furnished with Ball Bearings.

REGULAR EQUIPMENT

⅜″ Saw Blade, 11′ 6″ long.

Roller Saw Guide.

Brazing Tongs and Clamp.

½ H. P. 3-phase, 60-cycle, 875 R. P. M. Ball Bearing Motor.

30 in. Ball Bearing Band Saw—Motor Built In

No. X25

Code Word, Wojhi

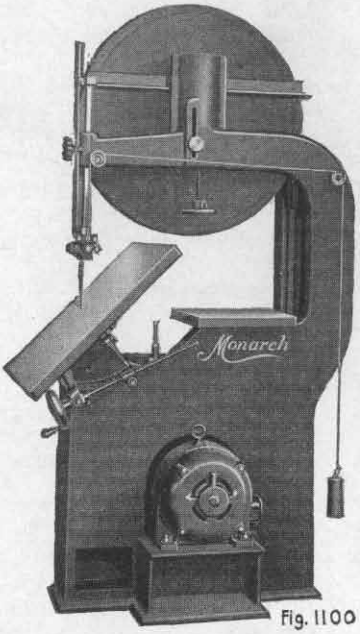


Fig. 1100

All moving parts are entirely inclosed except portion of the saw between table top and saw guide.

Guarding inclosure of upper wheel moves up and down with the wheel and its front can be swung open on hinges to allow free access to wheel for assembling saw blade.

Blade is tracked and tension adjusted by hand wheels so placed as not to interfere with the capacity height of machine.

Rear View—Motor direct connected

All Moving Parts Fully Guarded—Maximum Power

Frame is iron cast in one piece shaped for rigidity, appearance and non-interference with capacity stock.

Cast iron spoked wheels are used with rubber bands.

The front of the lower guard consists of a door which may be swung open allowing free access to wheel and lower guide.

All guards are sheet metal with angle frames.

Upper wheel is ball bearing.

The lower wheel is mounted on the shaft of a ball bearing motor.

The table is tilted in either direction and locked in any position by means of a hand wheel, degree of tilt being indicated by a scale.

This machine can also be furnished with tight and loose pulleys for belt drives fitted with ball bearings on lower shaft.

SPECIFICATIONS

Diameter of wheels over bands	30″
Face of wheels	1¾″
Maximum horizontal distance between saw and back guard for saw	29″
Table tilts to right	45°
Table tilts to left	15°
Height of table from floor	39⅝″
Size of main table	26x28″
Distance saw to left edge	13″
Distance saw to right edge	13″
Distance saw to front edge	8½″
Maximum distance between table and Roller Guide	14″
Size of small table	14½x14½″
Speed of saw full load	575 R.P.M.
H. P. of motor	2
Maximum height of machine	87″
Floor space	28x53″
Net weight	1185 lbs.
Shipping weight Domestic	1510 lbs.
Shipping weight Export	1650 lbs.
Cubic Contents Export	65 1-3 c. f.

REGULAR EQUIPMENT—½″ saw blade 16′8″ long. Upper and lower roller guides for saws. Ripping guide.
2 H. P. Motor, 575 R. P. M., Full load.

Tilting-Table Band Saws

20″ and 27″

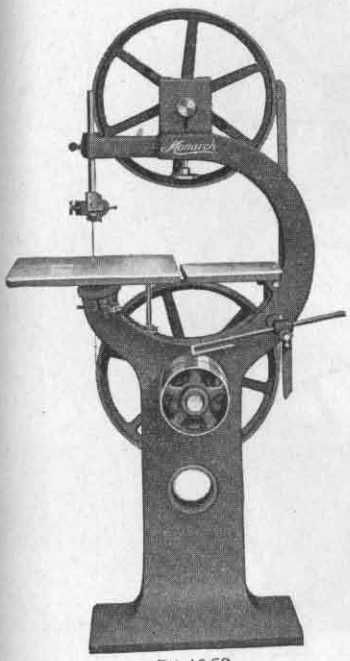
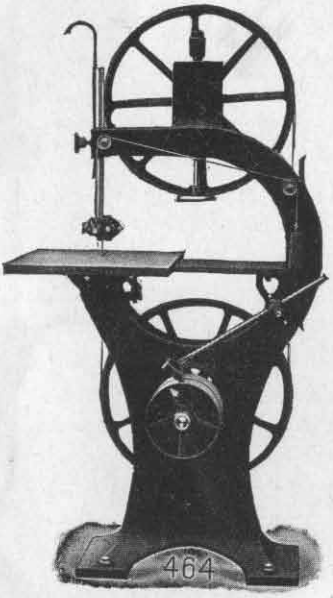


Fig. 1063

20″ Machine



27″ Machine

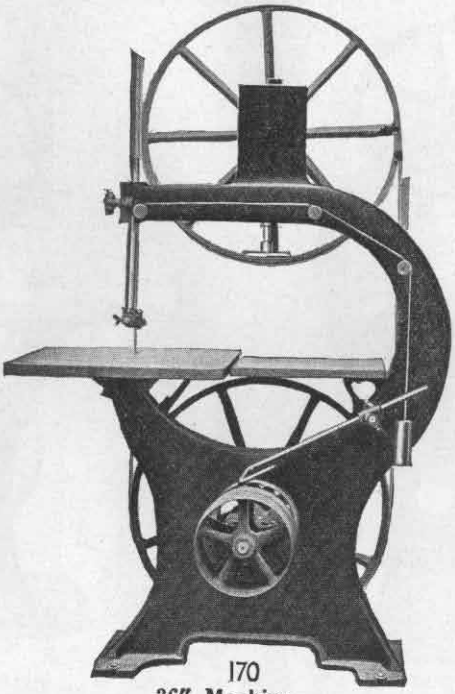
Each machine is furnished with guides as shown above, brazing clamp and tongs and one blade—½″ on 27″ and ⅜″ on 20″ machine. The 27″ machine is also furnished with ripping guide.

Motor, motor base and wheel guards furnished at extra cost; can be furnished with Ball Bearings at small extra cost. The 20″ machine is regularly furnished with Ball Bearings in top wheel.

SPECIFICATIONS

Size of Wheels	20″	27″
Size of Table	22″x18″	22″x26″
Distance from Saw to Frame	20″	27″
Guide Raises above Table	9″	12″
Length of Blade	10′ 5″	14′
Size of Tight and Loose Pulleys	7″x3″	10″x3½″
Speed of Pulleys, R. P. M.	400-450	400-450
Shipping Weight	450	940
Weight, Boxed for Export	550	1,140
Measurement in Cubic Feet	20″	40
Code Word	Wohja	Wohip

36″ Tilting-Table Band Saw



170
36″ Machine

These machines are built from new patterns of the most approved design. The frame is cored out and cast in one piece, with very broad base, insuring stiffness, good floor space, and absence of vibration.

The Table is iron, accurately planed, and may be tilted to any angle up to 45 degrees. It is held securely in position by a positive clamping device.

The Guide Bar is planed true and counterbalanced. All machines are fitted with Wright non-friction saw guide above the table and plain guide below.

The Belt Shifter will receive a belt from any direction above or below the floor, and is right at the operator's left hand.

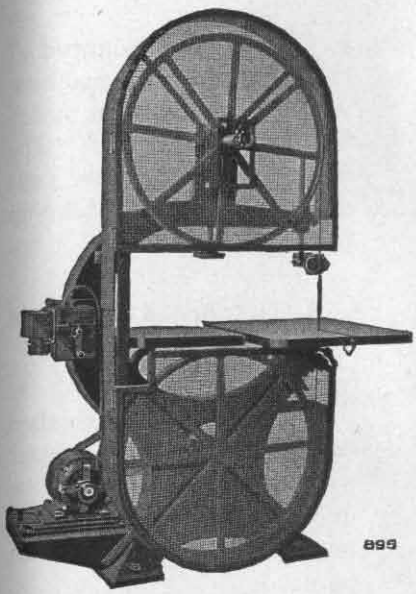
Wheels are accurately turned and balanced, rims covered with rubber, and so made throughout as to guarantee them remaining round, and running true. Fitted with positive and convenient training device.

Furnished with Guide as shown, Brazing clamp and tongs and one ½″ Blade, also furnished with ripping guide.

SPECIFICATIONS

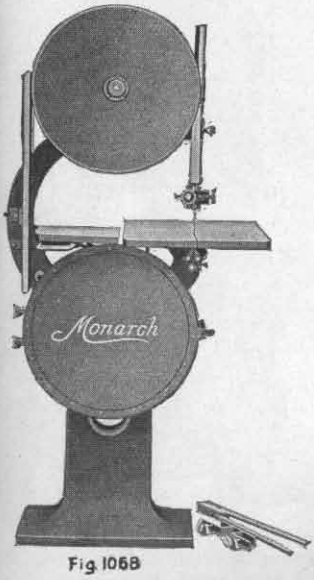
Size of Wheels	36″
Size of Table	28″x32″
Distance from Saw to Frame	36″
Guide Raises above Table	14″
Length of Blade	18′ 6″
Size of Tight and Loose Pulleys	12″x4″
Speed of Pulleys, R. P. M.	400-450
Shipping Weight	1,400
Weight, Boxed	1,650
Measurement in Cubic Feet	60
Code Word	**Wohim**

Guards

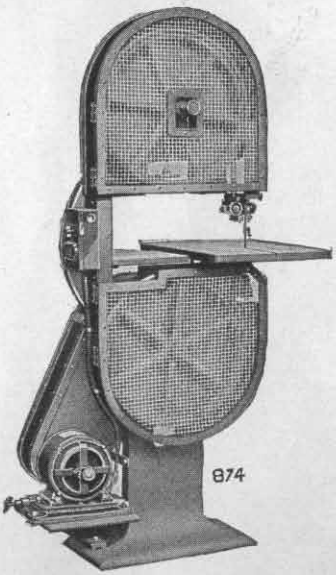


36″ Band Saw
with wheel guards and motor drive

These machines will be equipped with hinged wheel guards, or completely guarded. The upper doors are made of wire mesh and the lower doors wire mesh. When completely guarded in addition to the wheel guards, wheels are protected by guards on the opposite side and between the doors where the saw would be exposed. A guard also follows the guide and no part of the blade is exposed except at the cutting point.

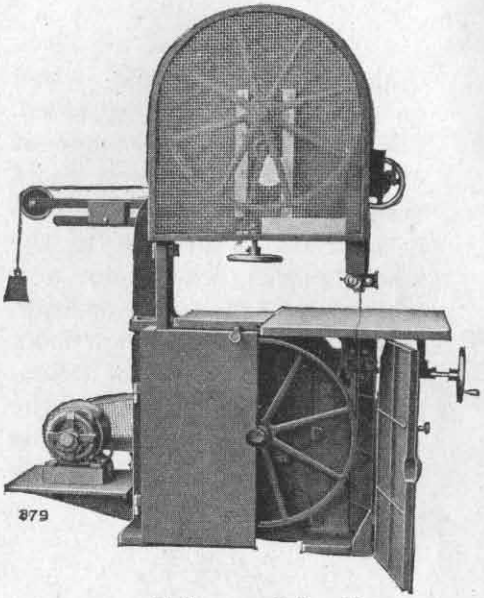


20″ Band Saw
with wheel guards



20″ Band Saw
Fully guarded, Motor drive

Motor Drive

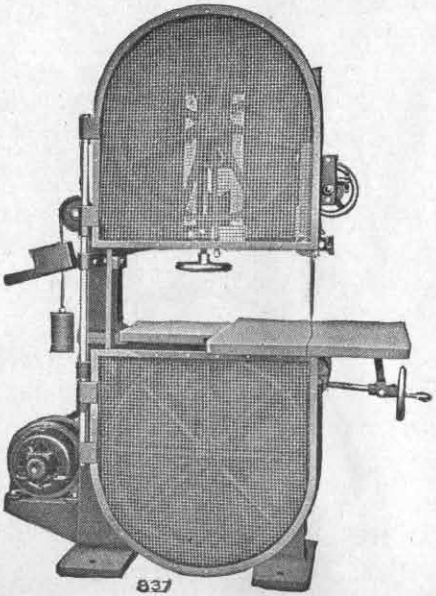


Fully guarded with cast iron lower doors

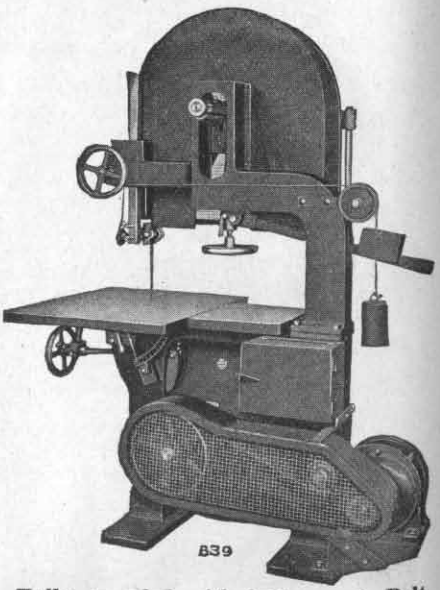
The motor is mounted on the base of the machine with belt drive from motor to the lower shaft. The motor is mounted on rails to provide ample take-up for the belt.

A suitable starting switch is furnished.

Motors are furnished for any standard electric current and prices will be quoted on receipt of specifications of the current to be used.



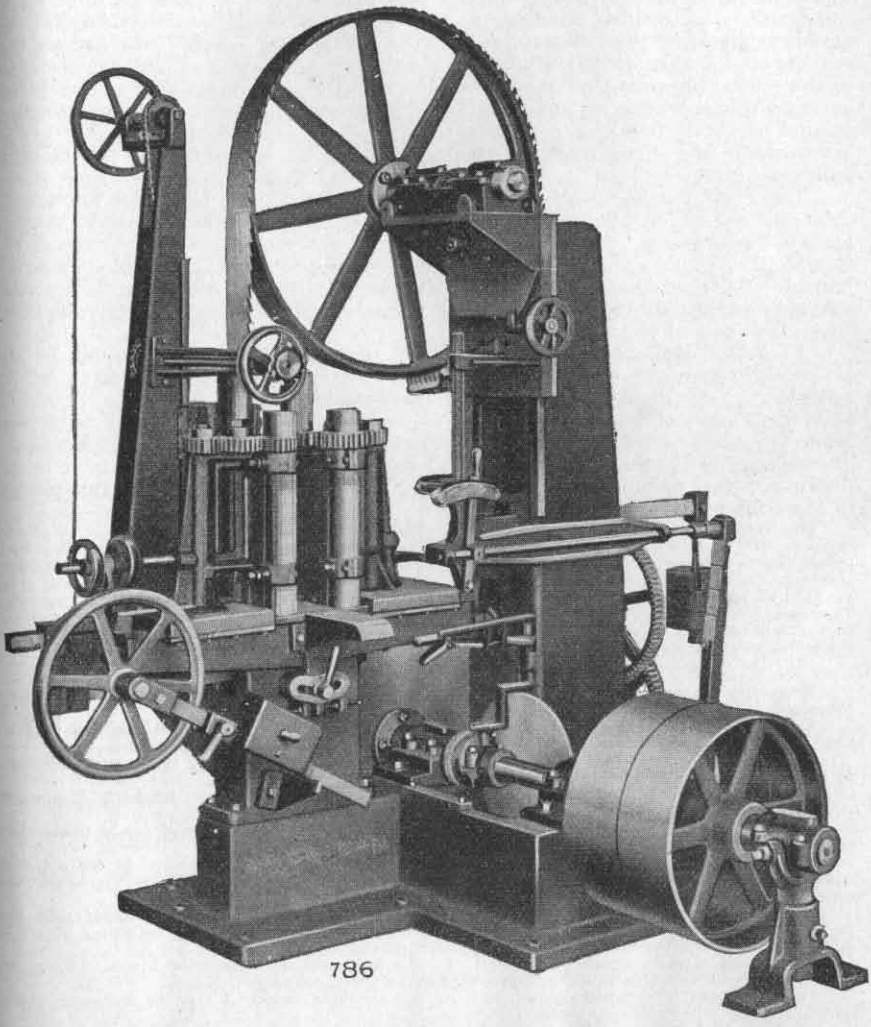
Fully guarded with wire doors



Fully guarded with belt guard. Belt idler not now used. Motor adjustable for belt tension.

42″ Band Resaw

Code Word, Wohka



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This Band Resaw is an ideal machine for resawing stock rapidly and economically, up to 24″ wide and any thickness up to 8″. It is especially adapted to sawing veneer, etc., in furniture factories.

The Base is large and heavy, providing a splendid floor bearing and a solid foundation for the column, feed works and lower wheel shaft. The top surface of the base, as well as the parts mounted upon it, are planed to insure accurate fitting.

The Perpendicular Column is cast hollow, and placed as close as practicable to the wheel shafts. It furnishes the most direct support for the top wheel and its parts and on account of its great strength and rigidity permits operating the machine at top speed without vibration.

42″ Band Resaw

Wheels. The lower wheel is of the heavy web type serving as a counterbalance and maintains the speed of the saw when it encounters knots. The top wheel is of the open type, having eight spokes. It is made as light as is consistent with proper strength and is therefore always susceptible to the action or speed of the lower wheels. Both wheels are carefully turned on the outside and inside of the rims and accurately balanced. They are secured to the shafts by means of flanges shrunk on the shafts and fitted to the faced surfaces of the wheels by heavy bolts. The wheel shafts are of large diameter, ground perfectly true and revolve in long, self-oiling adjustable bearings. The lower shaft has three bearings, giving support to both sides of the driving pulley.

The Feed Works. Consists of four driven rolls placed just close enough to clear the saw blade. The rolls have an automatic receding movement to accommodate the varying thickness of the board, a lever and weight tension restoring the rolls to their normal position. The roll housings have adjustable journal bearings, the back part which receives the thrust being of bronze, and also made that they may be set up by a screw to secure the correct relative alignment of the rolls.

Feed Roll Housings are mounted on a planed rail, all of which can be set at once for straight or bevel sawing. A half turn on the large hand wheel actuates the cut pinion and steel racks, causing the self-centering feed rolls to open instantly to the full width, or to completely close. The feed is driven from the lower wheel shaft and should the saw slow down the feed will do likewise. The friction on the lower wheel shaft, shifted by means of a lever, provides a fast or slow feed and abundant power, the power being transmitted to the rolls by compound gears.

The Guide Stand is built in proportion to other parts of the machine and is fitted to planed surface. Our saw guides are simple in construction. The top guide has tool steel roller back thrust for saw blade and revolves with the movement of the blade in dust-proof self-oiling bearings. It is counterbalanced and can be instantly raised or lowered by the operator from his natural position by a slight turn of hand wheel. It can be locked to any desired position. The lower guide is of the plain type. Both guides have hard wood side pieces, and both swing back out of the way to give the operator free access to the saw. This movement being accomplished without the aid of a wrench.

SOME LEADING FEATURES

Excepting the outside support for the lower wheel shaft, this Band Resaw is wholly self-contained.

The wheel shafts with their bearings are adjustable, to maintain perfect alignment at all times. The wheels are attached truly and securely to their shafts by an improved method.

Top Wheel has universal adjustment which allows the operator, in his natural position, to give the desired lead to the saw while it is in motion.

The Feed can be instantly adjusted to run fast or slow, and may be instantly stopped or started without change of position on the part of the operator.

Feed Rolls can be speedily set for siding, and also be instantly spread for a thick piece of stock and just as quickly closed for a thin piece.

The Back Half Bronze Reed Roll Journals, that take the pressure of rolls, in contact with stock, being resawed, are adjustable for wear where it actually occurs. This improved feature is peculiar to our machine alone.

The feed rolls are made sensitively and positively self-centering, yet one set of rolls can be locked to position while the opposite set yields for the variation in the thickness of stock. A screw is provided for hair line and independent adjustment of rolls.

The guides may be quickly thrown back to allow a rapid change of blades. They are adjustable every way—for light or heavy gauges, for wide or narrow blades.

The top guide is counterbalanced, and by our patented device it may be instantly raised or lowered for wide or narrow boards.

When it is remembered that a band saw blade is strained above and below the sawing point, it becomes plain why a piece of steel as thin as 19-gauge may be successfully used.

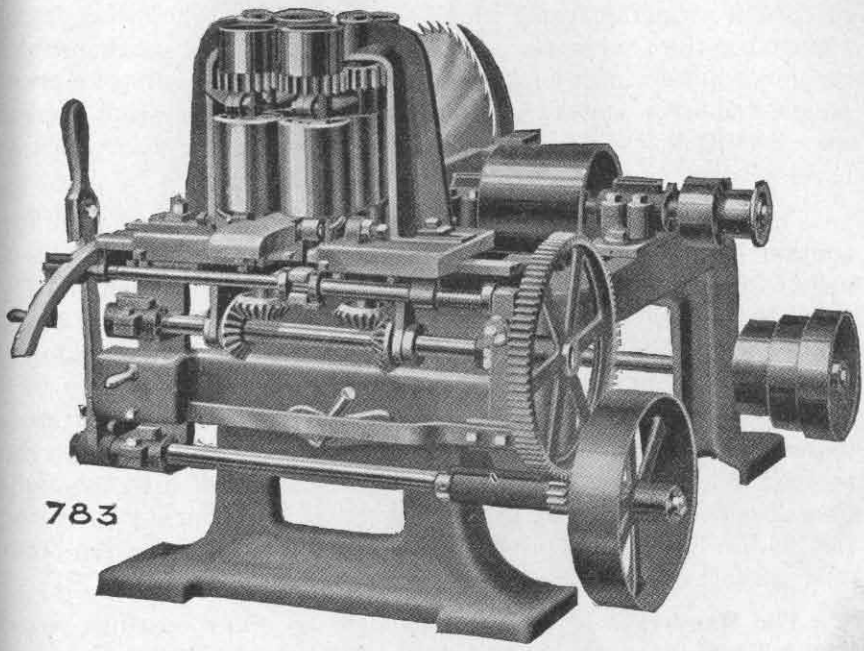
EQUIPMENT

One 4½″ blade 21′6″ long, 19-gauge, teeth spaced 1½″ point to point, brazed, swaged and filed, ready for use. Thinner blades, or blades with finer or coarser teeth supplied at same cost. Improved brazing frame and iron, saw guides, guard for lower wheel, also wheel brushes for wheels, and an assortment of different size wrenches.

DIMENSIONS AND WEIGHTS

Home shipping weight	5,200 lbs.
Export shipping weight, boxed	6,000 lbs.
Cubic measurement	125′
Floor space over all	6′ x 8′
Extreme height	8′
Diameter of feed rolls	3½″
Extreme height of feed rolls	24″
Wheels	42″ dia. x 4″ face
Diameter of lower wheel shaft	2 7-16″
Diameter of top wheel shaft	2″
Tight and loose pulleys 22″ dia. x	6½″ face
Speed of tight and loose pulleys, 600 r.p.m.	

Circular Resaw, 24″, 30″, and 36″



Code Words, 24″, Wohki; 30″, Wohle; 36″, Wohlo.

This is a very powerful and compact machine capable of rapid and accurate resawing. It will split successfully hard or soft wood and saw straight or bevel, making it particularly desirable for saw and planing mills, furniture factories, etc. The frame is extra heavy, has broad foot plates, and will stand solidly on the floor.

The Feed Works consist of four 5½″ rolls strongly geared and held to their work by a heavy weight. The feed is driven from the saw mandrel by means of an intermediate countershaft so arranged to permit the tilting of the feed-roll frame without changing the tension of the driving belts. The feed can be instantly stopped, started or reversed. Two changes of feed are provided, of 50 and 75 linear feet per minute, with a saw speed of 1500 R.P.M. Faster feeds furnished if desired. Each set of feed rolls is carried in a cradle frame in such manner as to permit a thick board following a thinner one, or vice versa, and have all four rolls engaged with the ends of outgoing and in-feeding boards, even though they be of different thicknesses.

24", 30" and 36" Circular Resaws

The housings supporting the cradle frames are gibbed to the rail of the swinging frame which supports them. The swing frame supporting the feed works has a large semi-circular bearing which rests in a suitable seat made part of the frame. By means of a crank handle and screw the frame, with entire feed works resting upon it, may be tilted as a whole by a single operation, for such work as bevel sawing.

The rolls are made self-centering to permit a board to follow another of different thickness without making a separate adjustment of the rolls and sawing both boards exactly in the centre. Or, if desired, either set of rolls can be made stationary by simply tightening a nut, while the opposite yields, thus enabling the operator to cut a quarter or half inch from a board any thickness up to 4 inches. Another excellent feature is that the feed rolls are made to work close up to the board rest, so that a strip half inch high can be split if necessary. Both sets of rolls are adjusted at the same time or one independently of the other, by a crank on the operating side of the machine. On the 24" and 30" machines the top front rolls are left off, not being required.

The Mandrel is $1\frac{11}{16}$" diameter, with self-oiling bearings yoked together and fitted in planed, grooved ways on the frame, to adjust forward as required, allowing for all wear on the saw and keeping the saw close to the rolls. The machine can be made to carry two saws at once, so as to permit the cutting of three thin pieces of stock at one operation.

A planing attachment will be furnished on order at additional cost, for the purpose of jointing or planing the edges of boards and removing the ragged edges which the saw may leave in passing through the board. Illustration of this attachment will be furnished on application.

General Information

A 24" saw splits 9" wide. Mandrel pulley 9" diameter, 8" face, on 24" and 30" machines and 12" diameter, 9" face on 36" machines, speed for 24" saw, 1,500 R. P. M.; 30", 1,200 R. P. M. Floor space required for 24" and 30" machines, 5'x5'. Shipping weight, 24" and 30" machines, 1,700 lbs. Boxed for export, 2,100 lbs. Cubic contents, 100 C. F.

A taper ground saw with $1\frac{1}{2}$" hole is furnished with each machine. Belts are not furnished. Belting required, 7' of $2\frac{1}{2}$" and 10' 8" of 4".

Ball Bearing Drum and Disc Sander

No. X8

Fig.1090

This machine is built as a plain drum sander or a combined drum and disc sander.

Bearings—The best grade ball bearings are used requiring the minimum of power to operate and relieving the worries about lubrication.

Main Frame—Is cast in one piece of cored form with large flanged base measuring 23"x28½" at the floor. A Deflector plate directs the air from both the drum and the disc to a large opening in the rear of the machine. The suction created carries the dust to the same place where a screen is placed allowing the air to pass through but stopping the dust so it can not be mixed with the atmosphere of the work shop.

Motor—Is mounted in the frame on a hinged base—the weight of motor keeping the belt in tension. The deflector plate above mentioned prevents dust from coming in contact with the motor.

Drum Table—May be adjusted to the height of sand paper on the drum and may be swung to a vertical position where it is automatically held or it may be removed entirely without removing a single screw. When drum table is in vertical position the space available for curved sanding extends over the whole upper half of drum and some distance below its center.

Disc—Is mounted on end of drum shaft outside of main frame. It is entirely inclosed with a guard below the table and has its back and sides guarded above the table. To remove the disc it is only necessary to loosen two screws in top guard and three screws in mandrel collar and lift disc table out of quadrants.

Disc Table—Is mounted in quadrants which allow it to be set at 45° each way from the horizontal. The table always pivots in the plane of the face of the disc. The table may always be returned to the horizontal position without any adjustment by swinging a stop into position. A groove is machined in the table to take a bevel guide.

Drive Belt and Pulleys—Are entirely inclosed.

Drum Shaft—Is 1 7-16" dia. and the end on the side opposite disc is threaded and small face plate furnished to which a spindle sander, etc., may be attached.

Ball Bearing Drum Sander

No. X8

Fig. 1092

SPECIFICATIONS

Size of drum table	21½"x32"
Height of drum table	39"
Diameter of drum	10"
Length of drum	16"
Size of disc	18"
Size of Disc Table	10"x25"
Height of disc table	34"
Motor	
H. P.	1 or 2
Full load R. P. M.	1750
Pulley on motor dia. and face	5½"x2"
Pulley on shaft dia. and face	6"x2"
Belt width	1½"
R. P. M. Drum and Disc	1600
Floor space	32x39
Weight—Domestic shipping—Drum and Disc Sander	865 lbs.
Weight—Domestic shipping—Drum Sander only	725 lbs.
Weight—Export shipping—Drum and Disc Sander	1065 lbs. cu. ft. 28
Weight—Export shipping—Drum Sander only	925 lbs. cu. ft. 26

Combined Machine—Code Word, Wojgo
Drum Sander only—Code Word, Wojgu

REGULAR EQUIPMENT

Miter Gauge
1 H. P. Motor
2 H. P. Motor extra on order
1 small face plate for small cylinder sanders.

Motorized Hollow Chisel Mortiser

No. X1

The XI Vertical Hollow Chisel Mortiser is designed for light mortising in hard or soft woods. It is a well made tool and free from vibrations and the chisel is held rigidly at all points of stroke. The same will mortise 3½" deep with ½" chisel in hardwood, or with ⅝" chisel in softwood; and will bore 4" deep with ¾" bit and is easy to operate.

¾" hollow chisels may be used.

A vertical motor is mounted on chisel ram, which is operated by foot power and slides on ways, gibbed to take up wear.

Bit spindle is direct connected to motor shaft and has a speed of 3600 R. P. M.

Adjustable stops control depth of hole without altering height of table.

Foot lever and connections are adjustable for stroke and power.

Table slides, up and down, in and out and to left or right, on machined ways gibbed to take up wear. The first two sets of movements being controlled by hand wheel and screw, the last by hand wheel, rack and pinion, and is regulated by stops. The table tilts 45 degrees to right or left.

A clamp on front of the table, operated by hand wheels holds stock against the stop at back of table. Renewable wooden top to table for through mortising. Adjustable hold down and top back stop.

By removing the table assembly from the ways, a door 30" wide may be mortised.

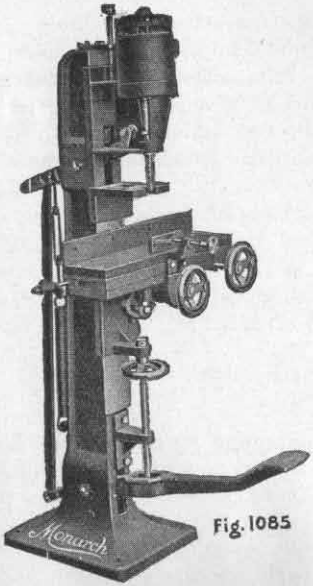


Fig. 1085

Direct Motor Drive
Code Word, Wojge

SPECIFICATIONS

Height over all	66"
Floor space	36"x40"
Length of Table	24"
Width of Table	6"
Vertical Adjustment of Table	12"
Travel of table in and out	4"
Travel of table lengthwise	12"
Travel of table clamp	3¾"
Dist. Center of Chisel to back stop (max.)	4¾"
Dist. End of Chisel to table top (max.)	13"
Adjustment of depth stop	4"
Vertical travel of chisel	4"
Dia. of hole in spindle for bits	½"
Dia. of hole in chisel ram	1⅛"
Shipping weight	530 lbs.
Export weight	620 lbs.
Cubic contents	22 cu. ft.

One ⅜" chisel and bit, two bit bushings and two chisel bushings and one ½ H. P. Motor, 3600 R. P. M., are furnished with each machine.

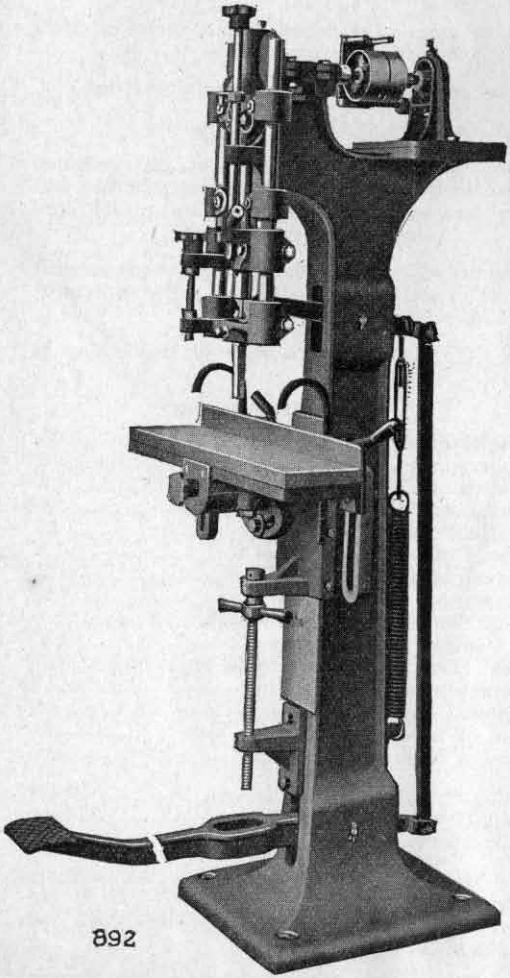
The motor may be for direct current, single, two or three phase alternating current.

Belt Driven Vertical Hollow Chisel Mortiser

No. 892

This machine is designed to operate easily and to give maximum production with ½" or smaller chisels and ¾" or smaller boring bits, and will perform these operations in hard, dry wood. Chisels up to ¾" may be used.

The frame is cast in one piece and is provided with a base of ample dimensions to insure a firm support.



Code Word, Wohmy

The gear shaft is fitted with 4"x1½" tight and loose pulleys and an outer bearing for shaft—a handy belt shifter is also provided.

All necessary adjustments are provided for.

SPECIFICATIONS

Height over all	70"
Floor space required	24"x40"
Length of table	24"
Width of table	6"
Vertical adjustment of table	11"
Horizontal adjustment of table	4"
Table tilts, either side	45 degrees
From end of chisel to top of table (maximum)	12"
From center of chisel to fence (maximum)	4¼"
Adjustment of depth stop	4"
Vertical travel of chisel	3¾"
Hole in spindle for bits	½"
Hole in chisel bar	1⅛"
Speed of Spindle	2400

Shipping weight	500 lbs.
Export weight	700 lbs.
Cubic contents	24 cu. ft.

One ⅜" chisel and bit, two bit bushings and two chisel bushings furnished with each machine.

Single Spindle Shaper

Code Word, Wohnu

No. X19

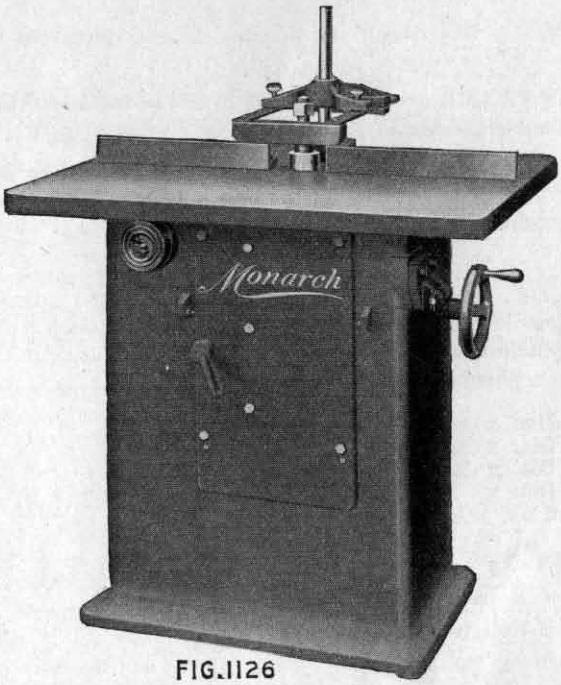


FIG.1126

HIGH SPEED—MOTORIZED—SELF-CONTAINED

Quantity Production With Highest Efficiency

Here is a Machine up-to-the minute in design and workmanship. A high grade, high speed, single spindle Shaper. All refinements required for particular work are incorporated in this Machine at very low cost. It is designed so as to receive a one or two horsepower motor (Motor Characteristics given under Specifications) and is intended for light as well as heavy shaper work. It will cut without reversing, against, across, as well as with the grain. The high speed spindle (10,000 R. P. M.) eliminates the necessity of reversing as required in the slower speed Machines.

Single Spindle Shaper and Router No. X19

THE REGULAR SPINDLE is made in one piece, is exceptionally heavy, runs in the best obtainable Ball Bearings and requires oiling only at long intervals. It is raised and lowered by means of hand wheel and screw. A detachable spindle can be furnished in place of regular spindle if purchaser so desires.

THE TABLE is well ribbed and of least weight consistent with strength and rigidity.

THE MAIN FRAME or column is cast in one piece, Motor and Belt being completely assembled inside of frame.

The High Speed is obtained without excessive cost or cycle changes, by belting direct from Motor to Spindle; the belt is always held at proper tension by means of a conveniently located spring.

SPECIFICATIONS

Diameter of Spindle below the Table ..... 1 1/16"
Diameter of Spindle above the Table ..... 1"
Distance between Shoulder and Nut ..... 4"

1—7/16 Outside Dia. x 1/4"
1—7/16 Outside Dia. x 1/2"
1—7/16 Outside Dia. x 3/4"
1—7/16 Outside Dia. x 1"
2 Chuck Collars 2 1/2"x5/8"
} Size of Spacing Collars.

26"x36" Size of Table

4 1/4" Diameter of Hole in Table

2 3/4" Diameter of Hole in Rings

7"x3" size of Driving Pulley

2 1/2"x3" size of Spindle Pulley

10,000 R.P.M. Speed of Spindle

3600 R.P.M. Speed of Motor

Motors: Ball Bearing, 1 or 2 H. P.—1, 2 or 3 Phase or D. C.

3 1/4" Vertical Adjustment of Spindle

15 1/2" Distance from Front edge of Table to center line of Spindle

18" Distance from side edge of Table to center line of Spindle

36" Height from Floor

3" Width of Driving Belt

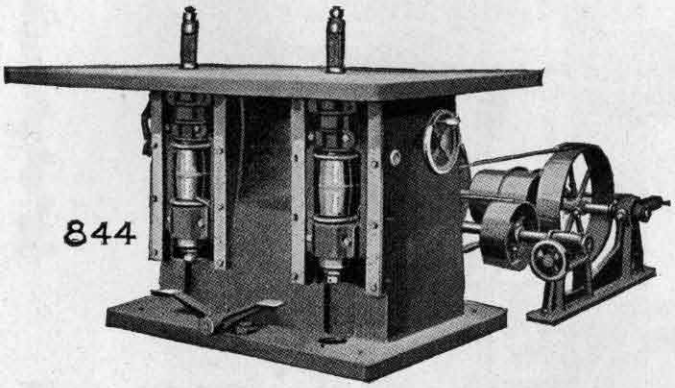
Shipping wt., 720 lbs.; Export wt., 875 lbs.; Cubic Contents, 28 c. f.

Shaper Fence and Guard furnished at extra cost.

Router Bit and Chuck can be furnished for use with detachable Spindle at small extra cost.

Double Spindle Shaper

Code Word, Woict



The Frame is unusually large and heavy, having a base 33x43 inches. Machine weighs 2,200 pounds.

The Spindles are 24 inches apart, measuring $1\frac{3}{8}$ inches diameter below table. Both spindles revolve in self-oiling bearings. The bearings below the table are 7 inches long, and the bottom bearings are tapered and revolve in phosphor-bronze boxes. Either spindle can be dropped entirely below the table.

The Table is in one piece, made of iron, measuring 60x40 inches. A cutter with 6½ inches swing can pass through table opening. This table extends 18 inches in front and 18 inches on outside of the spindles.

The Countershaft can be placed close to the machine to give a straight pull to the spindles, making them run steadier. A tightener is provided for taking up the slack in the belts. A treadle in front starts and stops the machine.

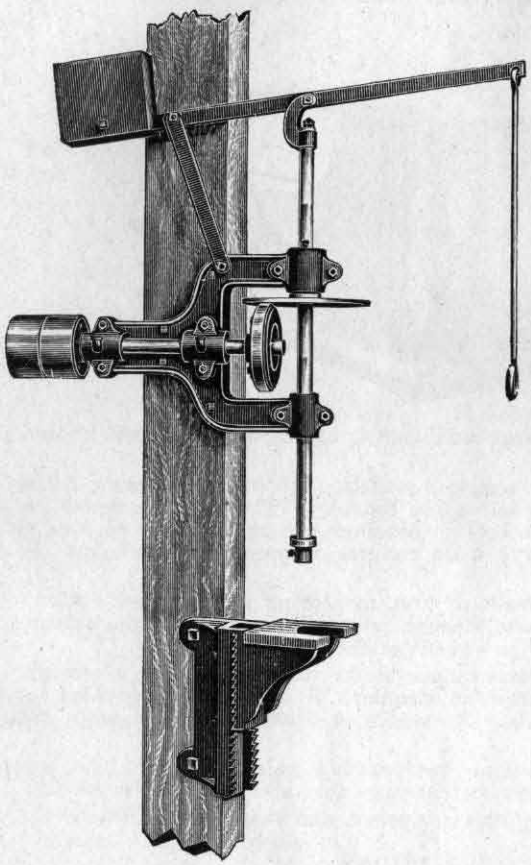
Equipment. With each machine we furnish a pair of straight bits, and fill-up collars for each spindle, concentric rings for table and countershaft.

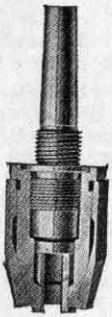
Tight and loose pulleys are 10x4½" inches, and should make 800 revolutions per minute.

SPECIFICATIONS

	Double Spindle Shaper
Size of Base	33"x43"
Size of Table	40"x60"
Front of table to spindle	18"
From side of table to spindle	18"
Diameter of spindle opening	6½"
Diameter spindle above table	1¼"
Diameter spindle below table	$1\frac{3}{8}$"
Distance between collar and nut	6"
Distance center to center of spindle	24"
Spindle pulleys	4"x7¼"
Speed of spindles	4500 R. P. M.
Receiving pulley on countershaft	10"x4½"
Speed of countershaft	800
Drive pulley on countershaft	20"x4½"
Horse power required	5 H. P.
Shipping weight	2200 lbs.
Gross weight for export	2600 lbs.
Cubic measurement	75 c. f.

"Noiseless" Boring Machine





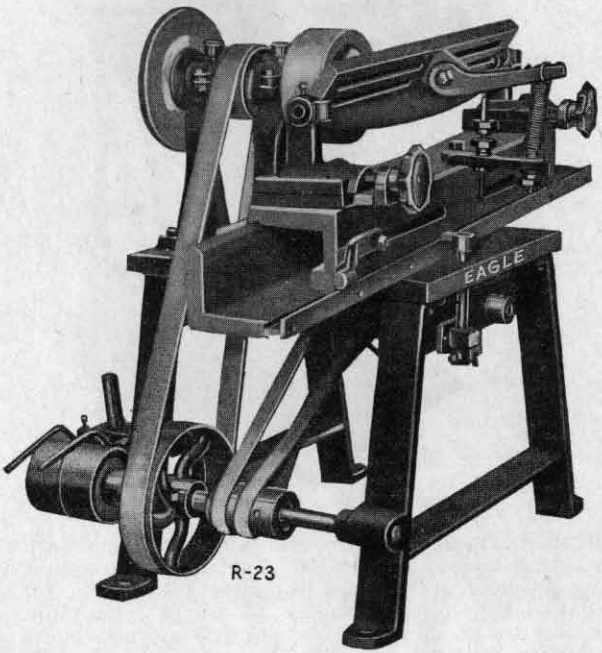
The accompanying cut illustrates a **Friction Drive Boring Machine,** which is intended to be erected on any convenient post. The first of these machines we built especially for our own use in our shops, and have now had the same machine in daily use for 25 years. Operators of wood-working plants who have seen the machine in operation have unanimously declared that it is the most desirable machine of its kind they have ever seen. Its operation is absolutely noiseless and the speed of the spindle can be varied at will to suit the requirements of the work. In putting this machine on the market we know its actual value as a time saver and positively guarantee satisfaction.

A universal chuck that will hold any size shanks from 0″ to ¾″ can be fitted, at extra cost, if desired. We can also furnish the bits, when desired, from ¼″ to 2″ by sixteenths, with ½″ shanks and 6″ or 12″ twist. It will bore a hole 14″ deep and up to 2″ diameter.

Steel spindle, $1\frac{7}{8}$″. Stroke, 14″. Hole in end of spindle, ½″.
From post to center of bit, 8″. Fits any post from 6″ to 14″.
Tight and loose pulleys, 6″x4″. Speed, 400 to 500 R. P. M.
Weight, with table, 300 lbs. Weight, without table, 270 lbs.
Gross weight, with table, 300 lbs. Gross weight, without table, 270 lbs.
Cubic measurement, 8′.
Code Word, complete, with table, **Wohod.**
Code Word, without table, **Wohoh.**

EAGLE

AUTOMATIC KNIFE GRINDER
MODEL "G"



This improved Automatic Grinder embodies all of the latest developments in a machine for grinding knives up to 44" in length.

The feed and reverse mechanism has been greatly simplified and all of the working parts are fully protected from grit and slime by the broad, square table. The top slide completely protects the essential gears from grit.

The machine is made in three sizes for grinding knives up to 26", 32" or 44" lengths. The wheel shaft is made double end to carry a plain wheel at the outer end for tool grinding.

Each machine is furnished with one 6"x2½" cup wheel, one emery dresser, necessary wrenches and inside belts.

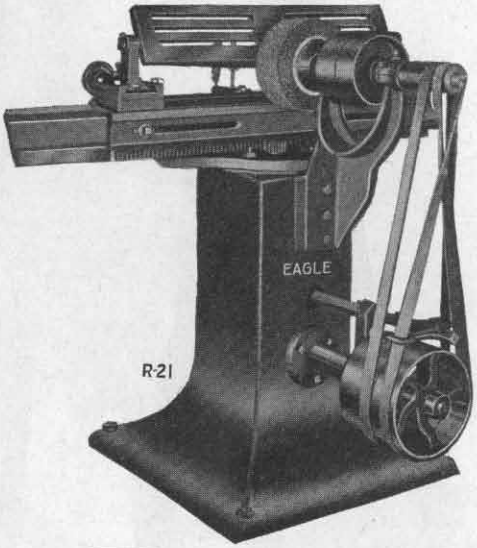
The countershaft is equipped with 4"x2" tight and loose pulleys and belt shifter. Speed of countershaft 600 to 700 R. P. M. The approximate table travel is 11½ ft. per minute at 600 R. P. M., and 13 ft. per minute at 700 R. P. M. Power required ½ to ¾ H. P.

Furnished also with ½ H. P. motor belted to the countershaft at extra cost.

WEIGHTS AND DIMENSIONS

Size of machine	26"	32"	44"
Extreme height	32"	32"	32"
Length over all	48"	54"	66"
Width over all	27"	27"	27"
Shipping weight	375	385	415
Weight for export	400	425	450
Cubic measurements	18'	19'	20'
Code Word	Wohoj	Wohok	Wohon

Eagle Automatic Knife Grinder
MODEL "A"



STYLE "A"—REAR VIEW

The illustration, Figure R21, herewith is of the original style "A" Knife Grinder with spring tension cross feed. For thirty years this machine has been rendering splendid service and complete satisfaction to hundreds of users. Its adaptability to the grinding of knives with either concave or straight edges by use of the cupped wheel and the possibility of swinging the knife bed to any angle necessary for hollow grinding have made it an all around suitable machine for general grinding. A gravity water attachment is furnished.

This machine may be equipped with either one or two horsepower motor; the same being installed on a motor base in similar position as is now shown with tight and loose pulleys. When motor is furnished the cup wheel is direct connected to arbor of motor.

Tight and loose pulleys are 6"x2¼" and should run from 700 to 900 R. P. M. The approximate table travel is 25¾ ft. per minute at 900 R. P. M., and 20 ft. per minute at 700 R. P. M.

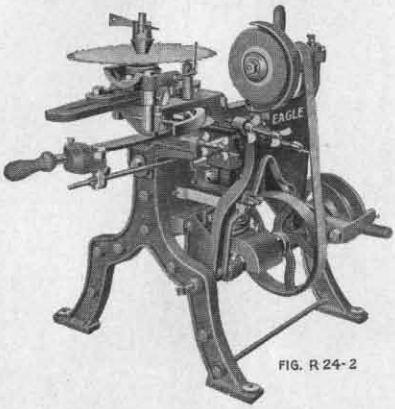
Machine is built in four lengths for taking knives up to 26", 32", 44" and 54" in length, each machine is furnished with an 8x3½" cup wheel, emery dresser, wrenches and feed belts.

Weights and Dimensions.

Size of Machine	26"	32"	44"	54"
Extreme Height	40"	40"	40"	40"
Length over all	50"	55"	70"	82"
Width over all	34"	34"	34"	34"
Shipping Weight, lbs.	565	610	810	850
Export Weight, lbs.	595	655	855	940
1 H. P., Motor adds to weight	108	108	108	108
2 H. P., Motor adds to weight	205	205	205	205
Cubic Measurement	16′	17′	19′	20′
Code Word, belt driven	Wohor	Wohot	Wohov	Wohoz
*Code Word, with Motor	Wohos	Wohou	Wohow	Wohoy

*Name horsepower, phase, cycle and voltage.

Eagle Saw Sharpeners



No. 1 Sharpener for Saws 6″ to 30″ Dia.

The No. 1 machine is illustrated above. The No. 2 is made with extended legs to rest on floor, and will take saws up to 60″ diameter.

Their extreme simplicity and ready adaptation to the different diameters and gullets make them particularly desirable. They sharpen the teeth of the saws more quickly than can be done by hand and keep the teeth perfectly gummed, of uniform size and shape, and the saws perfectly round and true.

The machines will handle all ordinary saws, and can be arranged to sharpen metal cutting saws with teeth as fine as four to the inch.

Motor drive furnished when desired at extra cost.

The No. 1 machine is mounted on a low box table in which it is packed for shipment.

Two emery wheels, 6″ diameter, and from ⅛″ to ½″ thick are furnished with each No. 1 machine, and two 8″ diameter ¼″ to ½″ thick with each No. 2 machine; also emery dresser, wrench and inside belt is furnished.

On the No. 1 the tight and loose pulleys are 4″ diameter, 2¼″ face and should run 900 R. P. M., the same size pulleys are furnished on the No. 2 and should run 600 R. P. M.

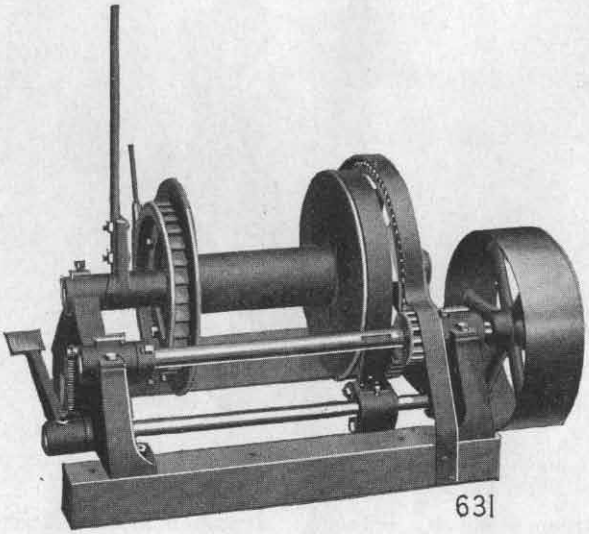
Larger sizes of this type machine built for heavy mill saws.

WEIGHTS AND DIMENSIONS

	No. 1	No. 2
Extreme Height	28″	44″
Length over all	34″	36″
Width over all	20″	36″
Shipping Weight, lbs.	160	215
Export Weight, lbs.	190	275
Cubic Measurement	10′	15′
K. D. and Boxed	145 lbs.	245 lbs.
Code Word	Wohpi	Wohpy

No. 1 Single Drum Hoist

Code Word, Woibu



Our No. 1 Hoist, shown here, is constructed throughout of high-grade materials and the workmanship is first-class. It has a single drum which revolves easily on the drum shaft, and is driven by means of powerful cone-shaped wood frictions, thus imparting a steady, strong and positive motion. It may be driven by gasoline, steam or electric power and is adapted for use by contractors, carpenters and builders, masons and others in raising and lowering or moving loads of any kind where the load on the direct lift with single line is 1,000 lbs. or less.

It may also be used for storing hay or other crops, harvesting ice and many other purposes for which a light single drum hoist can be used. The lever shown at the end of the drum shaft operates a cam which imparts a very powerful end motion to the drum, thus bringing the frictions into contact with the driving gear.

A movement of the same lever in the opposite direction releases the frictions and allows the drum to turn on the shaft.

The brake is operated by foot treadle and there is also an independent safety ratchet for holding the load.

SPECIFICATIONS

Drum 5" diameter, 13" long. Winding capacity 500' of ½" rope. Hoisting capacity, 1,000 lbs. 100' per minute with single line on direct lift. Driving pulley, 16"x5". Speed, 360 R. P. M. Power required, 3 H. P. and up according to work to be done. Floor space required, 29"x40". Weight, net, 430 lbs. Weight, boxed for export, 650 lbs. Cubic measurement, 20 cu. ft.

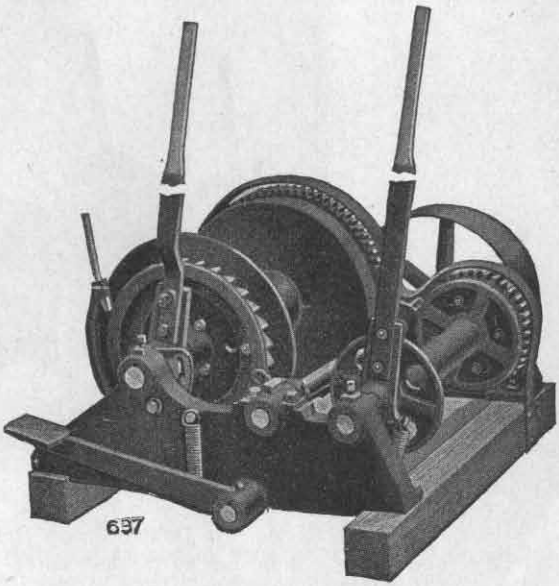
NOTE—This hoist can be furnished mounted on skids with engine or motor when so desired at extra cost.

No. 2 "Handy Man" Hay Hoist

Code Word, Woice

This hoist is primarily intended for use by farmers in unloading and storing hay. It, however, may be used for harvesting ice and many other purposes about the farm, as well as by carpenters, builders and others for handling light loads of any kind.

It is constructed throughout of the best materials and workmanship and is strictly first class in every way.



There are two drums; the larger one, for handling the load, carries 500′ of ½″ rope, and the smaller one, for returning the hay fork to the load, carries 200′ of ½″ rope.

These drums revolve freely on the shafts and are driven by means of powerful wood cone frictions. The action is strong and positive and under perfect control by the levers, which may be operated by small ropes passing to the load or into the barn. In this way, the man on the load can operate the hoist, thus saving one man.

The brake is operated by foot treadle except when hoist is controlled from the load. It is then operated by means of a weight. There is an independent safety ratchet for holding load when hand controlled.

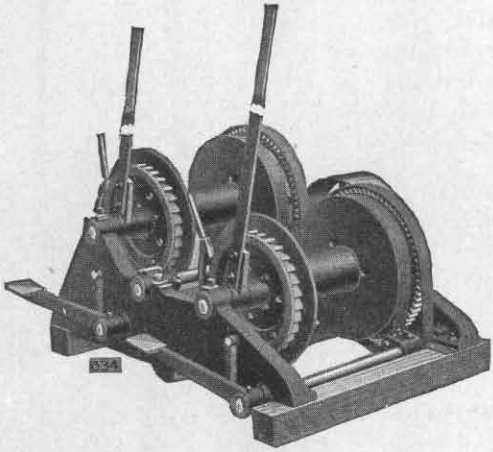
SPECIFICATIONS

Large drum, 5″x13″; small drum, 2⅝″x16″. Winding capacity of large drum, 500′. Hoisting capacity, 1,000 lbs. 100′ per minute, with single line on direct lift. Driving pulley, 16″x5″. Speed, 360 R. P. M. Power required, 3 H. P. and up, according to work to be done. Floor space, 32″x40″. Weight, net, 545 lbs. Weight, boxed for export, 750 lbs. Cubic measurement, 21′.

NOTE—This hoist can be mounted on skids with engine or motor when so desired at extra cost.

No. 3 Double Drum Hoist

Code Word, Woico



In the construction of this Double Drum Hoist we use the same drums, frictions and other component parts that make up our No. 1 Single Drum Hoist, and the method of operation and control is about the same.

It is adapted to use by contractors, builders, masons, in raising or lowering light loads of any kind, also on docks or piers and lighters for loading or discharging cargoes, handling derricks, etc. It may be used by farmers for storing hay and other crops; ice harvesting, etc.

It can be driven by belt from any convenient power or may be mounted on a base or truck and direct connected by gearing or sprocket and chain to gasoline or steam engine or electric motor.

It will operate two builders platform elevators independently at the same time or will do pulling, hauling, or hoisting in opposite directions at different locations on the same job at once.

The drums revolve freely on their shafts and are driven by means of powerful cone-shaped wood frictions.

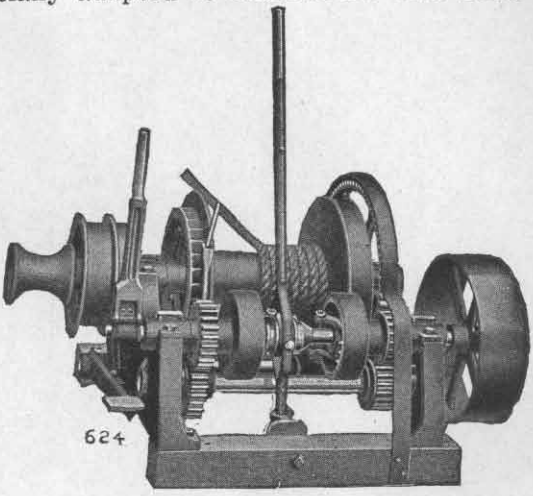
In lowering the load or returning the line, the drums are fully controlled by powerful band brakes operated by foot treadle. There are also independent safety ratchets for holding the load.

SPECIFICATIONS:—Drums, 5″ diameter, 13″ long. Winding capacity, each drum 500′ of ½″ rope. Hoisting capacity, 1,000 lbs. on each drum, 100′ per minute, with single line on direct lift. Driving pulley, 16″x5″. Speed, 360 R. P. M. Power required, 5 H. P. and up, according to work to be done. Floor space, 40″x44″. Weight, net, 760 lbs. Weight, boxed for export, 950 lbs. Cubic measurement, 28′.

No. 4 Contractors and Builders Hoist

Code Word, Woicu

Our 4 Single Drum Reversible Hoist, is a time, labor and money saver. It is especially adapted to contractors' and builders' requirements, but may be used for a large variety of other purposes, where the load is not over 1,000 lbs., with single line, on direct lift.



The Drum, the Sheave and the Winch Head are reversible and may be used independently one of the other. The Winch Head is for "snubbing" or quick short work and general utility and is keyed fast to the shaft. The Sheave is for **double platform elevator** work and the drum for heavy single line lifting, or for use with block and tackle.

It is not necessary to disturb cables on drum or sheave, as both can be engaged and disengaged independently of each other.

Forward and reverse motion is obtained by a movement of the operating lever which engages and disengages the internal expanding friction clutches, which are provided with simple and strong screw adjustments, having no delicate parts to get out of order.

A powerful hand brake is furnished for large drum, which is controlled by treadle, in convenient reach of the operator. The double platform elevator sheave is equipped with a hand brake in convenient reach of the operator, to control the drop of elevator. An independent safety ratchet and pawl are provided for holding the load.

The hoist may be driven by belt from any convenient power, or may be mounted on a base or truck and direct connected by gearing, or sprocket and chain, to a gasoline engine or electric motor, Sprocket will be furnished in place of drive pulley when desired.

This hoist occupies but little space, and being comparatively light is easily moved and can be used in cramped quarters.

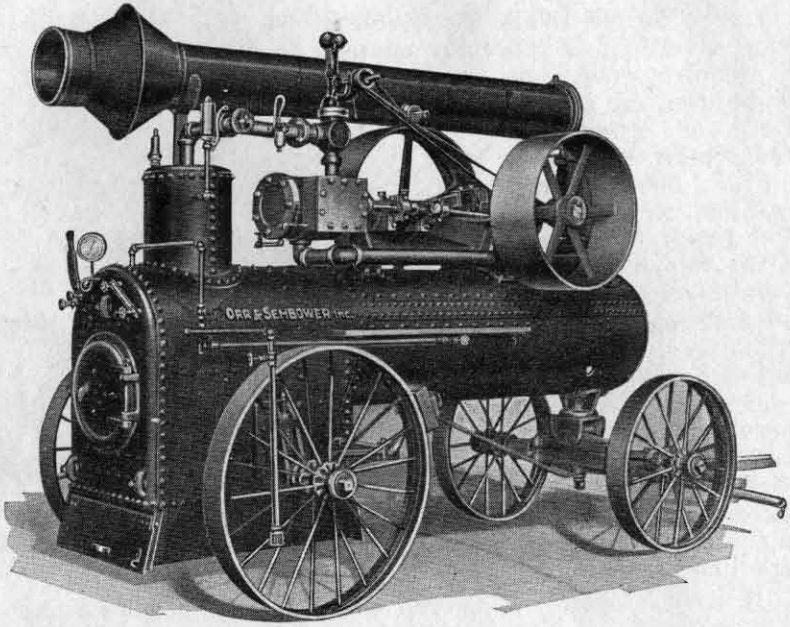
SPECIFICATIONS

Drum, 5″ diameter; 13″ between flanges. Winding capacity, 500′ of ½″ wire cable. Hoisting capacity, 1,000 lbs., 100′ per minute with single line on direct lift. Sheave 10″ diameter. Drive pulley, 16″x5″, speed 360 R. P. M. Power required 5 H. P. or more, according to work to be done. Floor space 32″x47″. Net weight, 645 lbs. Weight, boxed for export, 825 lbs. Cubic measurement, 26′.

We furnish this hoist with gasoline engine mounted on same skids.

Portable Boiler and Engine

Built for 125 lbs. Pressure A. S. M. E. Code



The Engine is suitable for all kinds of work where high speed and smooth running are required. It is correctly proportioned, especial attention having been given to distributing the metal along the lines of strain.

The Bed is made with a solid bottom and arranged to catch all drippings which are conveyed to an exit which has been provided.

The Crank Shaft is cut from a solid forging of the best quality of steel and is equipped with counterbalancing weights. The main bearings of the crank shaft are made especially large and strong and are provided with bronze quarter-boxes for adjustment.

The Connecting Rod is equipped with extra heavy phosphor bronze boxes at each end. The cross-head end is of the solid end type, while the crank pin end is of the strap type. Both brasses are adjusted by means of wedges.

The Crank Pin and Cross-Head Pin are long and of large diameter, giving very liberal wearing surfaces.

The Piston is the hollow head type and is provided with self-adjusting rings.

Other features are balanced fly-wheel and eccentric keyed to the crank shaft.

The Boiler is made of open-hearth steel plates, thoroughly braced and staybolted to withstand a working pressure of 125 pounds.

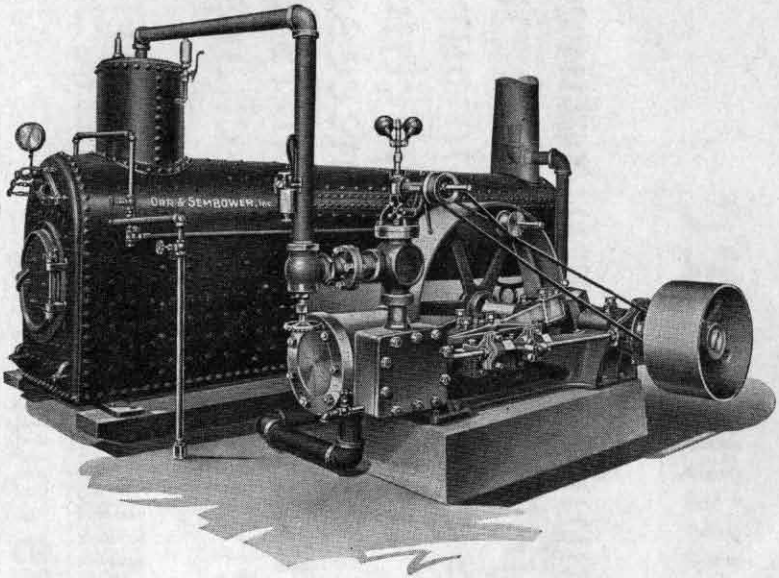
The fittings and fixtures comprise grates, water gauge, gauge cocks, steam gauge, safety valve, check and stop valves, blow-off valve, stack, whistle, injector attached, fly wheel, pulley, oil cups, lubricator, throttle valve, automatic governor and belt. Ash pan furnished with rig on wheels; also tongue yoke, whiffletrees and brake.

The Grates regularly furnished are the plain type, but the Tupper or herringbone, or sawdust grates will be furnished, when preferred, without extra cost.

Boilers are regularly furnished with steel tubes, but can be furnished with charcoal iron tubes, if desired, at extra cost.

High Pressure Portable Boiler

With Engine Detached or Mounted on Boiler. Built for 125 lbs. Pressure A. S. M. E. Code



Piping for setting boiler and engine 10 feet apart between centers, and 10 feet of exhaust pipe are furnished when rig is ordered with detached engine.

SPECIFICATIONS

Horse-power (Nominal)	15	20	25	30	40
Size of Cylinder	7½″x9″	8½″x10″	9½″x10″	10″x12″	11″x14″
Revolutions per Minute	225	225	225	200	180
Size of Fly Wheel	40″x10½″	44″x10½″	48″x12½″	52″x12½″	60″x14½″
Size of Pulley	32″x10½″	36″x10½″	36″x12½″	36″x12½″	48″x14½″
Diameter of Boiler	29″	34″	36″	36″	40″
Length of Furnace	42″	41″	50″	50″	52″
Width of Furnace	24″	28″	30″	30″	34″
Height of Furnace	30″	34″	36″	36″	40″
Diameter of Flues, inches	2	3	3	3	3
Number of Tubes	36	28	32	34	40
Length of Tubes, inches	80″	90″	90″	101″	124″
Diameter of Smoke Stack	12″	16″	18″	18″	20″
*Length of Smoke Stack	12′	14′	14′	16′	16′
Shipping Weight on Skids	6500 lbs.	8300 lbs.	9400 lbs.	11,100 lbs.	13,900 lbs.
Approximate Shipping Weight. Crated for export	7200 lbs.	9200 lbs.	10,500 lbs.	12,250 lbs.	15,500 lbs.
Approximate Cubic Measurement. with Stack complete, crated for Export	316′	440′	504′	534′	795′
Shipping Weight on Wheels	8400 lbs.	10,100 lbs.	11,500 lbs.	12,700 lbs.	16,000 lbs.
Approximate Shipping Weight, Crated for Export	9400 lbs.	11,850 lbs.	13,300 lbs.	14,600 lbs.	18,000 lbs.
Approximate Cubic Measurement. with Stack complete, Crated for Export	423′	609′	726′	764′	1029′
Code Word on Wheels	Wohra	Wohsa	Wohsi	Wohsy	Wohto
Code Word with Detached Engine as Illustrated	Wohtu	Wohud	Wohuk	Wohun	Wohur
Code Word with Engine Mounted on Boiler	Wohut	Wohuv	Wohux	Woibe	Woibo

*Hinged stack as illustrated is furnished with rig on wheels.

Our Guarantee

All Machinery or Equipment manufactured by the American Saw Mill Machinery Company is guaranteed to be as represented in our catalogs and descriptive circulars or bulletins except such minor changes as may be necessary to effect improvements. Any part or parts proving defective will be replaced without charge.

AMERICAN SAW MILL MACHINERY CO.

HACKETTSTOWN, N.J.

For more than Twenty Years we have been building a reputation for fair dealing and for a product always up to the minute in design, quality and performance.

American Machinery is known not only in America but throughout the world, and many hundreds of satisfied users have been willing to testify to its merits.

To our thousands of customers no introduction nor recommendation is needed, and the letters from banks of high standing published herewith are for the purpose of establishing confidence in the minds of those with whom we do not have this personal acquaintance, and who may contemplate placing their orders with us.

THE PEOPLES NATIONAL BANK
HACKETTSTOWN, N. J.

TO WHOM IT MAY CONCERN: Dec. 11, 1924

The American Saw Mill Machinery Company is one of our leading industries. It occupies a commanding position in the saw mill and woodworkers machinery field and has a splendidly equipped plant with a management of known integrity.

Our business relations have extended over a period of many years and the standing of the company is such as to warrant the faithful fulfillment of its promises and contracts.

Very truly yours,
Cashier.

The Hackettstown National Bank
HACKETTSTOWN, N J

SEYMOUR R SMITH PRESIDENT
WILLIAM J BARKER VICE PRESIDENT
F LOUIS SMITH VICE PRESIDENT
HOWARD KLOTZ CASHIER
WILBUR L CREGAR ASST CASHIER

Dec. 11, 1924

To whom it May Concern:

The American Saw Mill Machinery began its business in Hackettstown in 1903 and we have seen it grow into one of our principal manufacturing industries. Our business relations have been of the most cordial character, and all of those connected with its management are well known to us to be of high standing in this Community. We are confident that any contracts or promises made by this Company will be fulfilled to the letter.

HACKETTSTOWN NATIONAL BANK
President.

TESTIMONIALS

Indiana Tie Co., Evansville, Ind., July 29, 1930—We are at the present time using eleven of your saw-rigs and they have proven satisfactory.

Allen Ranch, Augusta, Mont., March 1, 1930—We have been well satisfied with our No. 1 American Belt Feed Mill. We have Lodge Pole and Fir, average logs about 20″; two men operate it, sawing 2000′ in an 8-hr. day with a Fordson.

Globe Timber Co., Salt Lake City, Utah., March 21, 1930—We are using Your No. 1 Variable Belt Feed Tie Saw Mill equipped with Roller Bearings. We operate by 15-30 McCormick-Deering Tractor sawing 7″x9″ railroad ties and we consider it a big day's run if we get from 300 to 330 Ties.

Hobson Jones, Lothian, Md., Feb. 15, 1930—I have used my No. 2 American Friction Feed Saw Mill three years and have had no breaks.

A. J. Rogalski—Mahmomen, Minn., Feb. 5, 1930—I own one of your No. 4 Hercules Saw Mills and use a 65 H. P. Steam Engine and 80 H. P. Boiler. Use a 52″ Inserted Saw and 14″ Drive Belt. My average is 20,000 ft. per day of 10 hours; my best days were 26,000 ft. on white pine building materials.

Simon H. Pleoger—Iron River, Mich., March 5, 1930—I have an American No. 1 Variable Belt Feed Saw Mill and 48″ Inserted Saw, using a 50 H. P. "Case" Gas Engine. I saw from 600 to 700 railroad ties in eight hours, mostly hard maple, in zero weather; can cut 10,000 ft. of soft wood lumber in 10 hours. I have a Variable Belt Feed Mill which cannot be beaten.

E. B. Harris, Bumpass, Va., Feb. 7, 1930—I have had a No. 2 American Heacock Belt Feed Mill eight years; have seen lots of mills run but like this one lots better, it saws faster and operates easier.

W. C. Reed & Bros., Upshaw, Va., May 13, 1930—We own and operate two American Saw Mills, Nos. 1 and 2 and find they are very satisfactory. We have been using these mills between ten and twelve years and average from four to six thousand feet daily and they are still in good condition.

Belhaven Stave Co., Belhaven, N. C., March 14, 1930—We have an American No. 3 Heacock Belt Feed Saw Mill and 50″ Inserted Tooth Saw. We drive this mill with 175 H. P. Steam Engine and our output is thirteen thousand feet per ten hour day and if we have good logs we can cut twenty thousand feet.

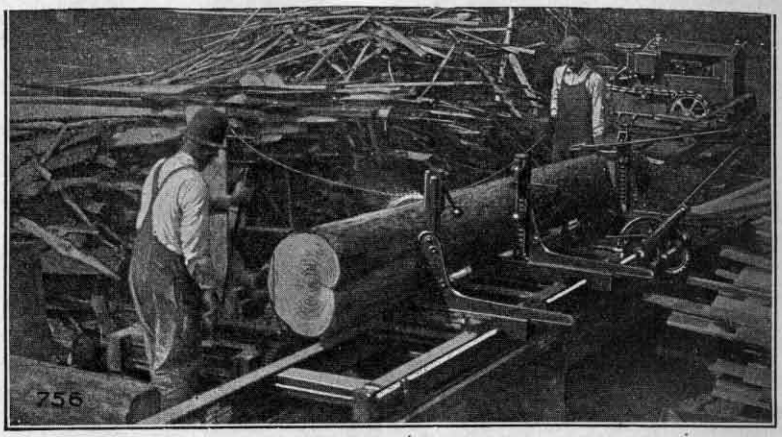
Perry Trotter, Lapine, Ala., June 7, 1930—I wish to extend my compliments to the American Saw Mill Machinery Co. for their excellent work in building Saw Mills. I have a portable Mill that I bought about eight months ago. This Mill has run every working day cutting true lumber and a mill that turns out well manufactured lumber will win the mill man many orders.

Woodville Lumber Company, Inc., Crawford, Ga., May 16, 1930—We are very glad to state that we have been operating your make of mill, bought through the American Machinery Co., Atlanta, Ga., for the past ten years. We now have thirty-five mills running, and the AMERICAN leads the field, both in number and performance.

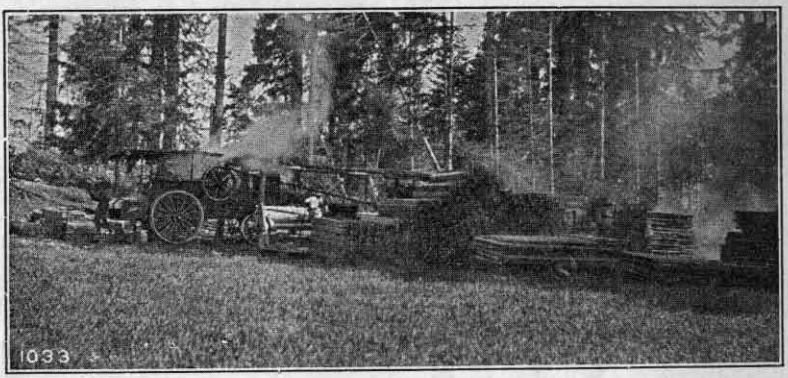
D. F. Bulow, Hudson Bay Jct., Sask., Can., Feb. 21, 1930—In regards to the No. 1 Variable Friction Feed Saw Mill I bought from you four years ago, must say it has given good satisfaction. I believe it is a very good advertisement for The American Saw Mill Machinery Co. when a small Mill, built for light power, will stand the heavy feed and excessive power I am using. I am using a 60 H. P. Steam Engine and average from five to eight thousand feet per day.

Sam Waychoff, LaGarita, Colo., April 22, 1930—I have been using one of your Saw Mills since 1918 and don't believe there is a better Mill made; am also using your Pony Gang Edger and think it is as good as the Saw Mill.

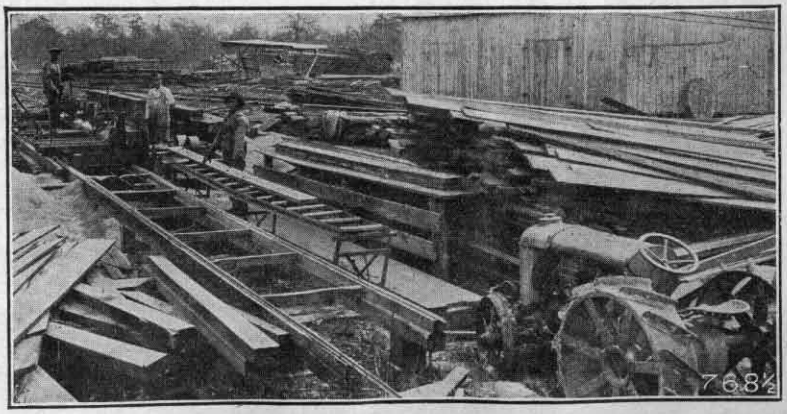
Guy T. Beatty, Helena, Ohio, Feb. 4, 1930—I am operating your No. 3 Friction Feed Saw Mill with a 50 H. P. Electric Motor and use a 55″ Dia. Saw, sawing all kinds of hardwood such as oak, hard maple and beech. This mill has been in use better than four years and am glad to say it does first class work.



No. 1 Mill and Small Caterpillar Tractor, Pocono Lake Preserve, Pennsylvania



"Empire" Bolter sawing Fir Ties in Washington
Made 282 ties and 4,000 ft. of side lumber in eight hours



No. 2 Saw Mill and Farm Tractor in Virginia
1,025 ft. of 1-inch boards in one hour.

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Telegraph Code

Cable Address, "Amsawmilco," New York. Codes used: Western Union, Lieber Five-Letter, A B C, 4th and 5th Editions.

Orders, Questions, Etc.

Sabal ..... Ship as soon as possible by freight.
Saber ..... Ship as soon as possible by express.
Sabbath ..... You may enter our order for ————.
Sabot ..... Prepare for shipment, particulars by mail.
Sachem ..... Await further instructions before shipping.
Sacked ..... How soon can you ship?
Sacral ..... When did you ship?
Sacred ..... When will you ship?
Sacrum ..... Can you ship at once?
Saffron ..... Order depends on shipment in ———— days.
Sampler ..... Shall we ship?
Samson ..... How shall we ship?
Sandy ..... Shall we ship what we have ready?
Sagacious ..... We have shipped.
Sagacity ..... We can ship.
Sagum ..... We cannot ship.
Sailing ..... We expect to ship.
Saint ..... We can ship immediately.
Sake ..... We can ship in ————.
Sallow ..... Order received, expect to ship in ————.
Salmon ..... Shipment went forward on ————.
Salon ..... Have ready for shipment. Send instructions.
Sandwich ..... Referring to your letter of ————.
Sanity ..... Referring to your telegram of ————.
Sapling ..... Referring to your order of ———— or No. ————.

Power Recommended

For Single Machine Under Average Working Conditions

When working in groups, power required is 50% to 75% of that given

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Power requirements vary greatly according to conditions under which machines may operate, character of material, etc. These recommendations are therefore approximate only.

The Stryker Press, Washington, N. J

Our Guarantee

We guarantee every machine to be made of the Best Obtainable Materials, embodying high-grade workmanship, and if properly set up and adjusted and carefully operated without prejudice, to be capable of doing the work for which it is intended in a thoroughly first-class and satisfactory manner.

We will replace, without charge, f. o. b. cars, any piece or part of our machines that may break because of flaws, or defective workmanship, provided the piece is returned to us on request, charges paid, and shows the defect claimed.

If a machine should fail to start off satisfactorily we will send an expert to examine and properly start the machinery on the following conditions, viz:—If it is found that failure to operate properly is from any fault of ours or any defect in manufacture we will gladly bear all expenses; but if it is found that the machinery is all right but failed to start right because of not being properly set up and adjusted, or from ignorance or carelessness on part of purchaser or his operator, then the purchaser must bear the expert's expenses.

Notice

Standard Machines and appliances, when shipped out on bonafide orders, cannot be returned without our written consent.

Special machines, or machines in which changes are made on purchaser's order, will be sold only on cash terms, and will not be returnable under any conditions.