

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



Styles "D" and  
"E" Right  
Hand

The Style "D" Swing Saw is made with countershaft, or 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. This is a popular type of swing saw, the frame being cast in one piece, hollow and very strong and rigid. It swings on independent trunnions which fit the hangers, thus relieving the countershaft and bearings of all weight and insuring light-running cool bearings.

The Mandrel is turned and ground perfectly true and runs in babbitted-cap boxes, so that wear and lost motion can be taken up.

The Hangers have ample vertical and



Style "D" with  
Motor

Code Name,  
Sawmot

transverse adjustment, making it easy to align and level the machine. They may be secured to timbers directly overhead or to the wall or upright posts, as may be more convenient.

The Belt Shifter is so arranged that the countershaft may be belted from either direction, and the 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.** We can furnish this machine with 3 or 5 H. P. electric motor, mounted in frame as shown, or without the motor. If ordered without motor complete motor dimensions should accompany the order.

## Swing Cut-Off Saws

**Style "C" Swing Saw.** This machine can be used for a large variety of light work and is especially useful in wood-working establishments where a large, heavy frame is unnecessary. 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. The frame swings on trunnions, which are carried by the hangers, and none of the weight of the frame is borne by the shaft or bearings.

Made also for motordrive similar to style "D".



Style "C"  
Right hand "Machine"

### SPECIFICATIONS of Style "C", "D" and "E" Swing Saws

Style of Frame.....	"C"	"D"	"E"
Diameter of Mandrel.....	1 $\frac{3}{8}$ "	1 $\frac{5}{8}$ "	1 $\frac{11}{8}$ "
Size hole in Saw.....	1"	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "
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 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	2 $\frac{1}{8}$ "
Length of Frame, Countershaft to Mandrel..	42"	6'	6'
Other lengths of Frame on special order.....		5 $\frac{1}{2}$ ' and 6 $\frac{1}{2}$ '	5 $\frac{1}{2}$ ' and 6 $\frac{1}{2}$ '
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 Name.....	Sawga	Sawdi	Sawgo

NOTE.—Countershaft speeds vary according to saws used. Speeds given are for Style "C", 16"; Style "D", 18"; Style "E", 24".

NOTE.—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.

## Wood Frame Swing Saw

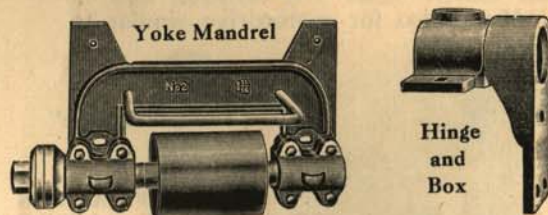


We furnish Wood Frame Swing Saws, as shown here, complete with a mandrel, hard wood frame, hinges, boxes, shaft and pulleys. A pair of bevel

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  $2\frac{1}{8}$ ", when so ordered.

	No. 1	No. 2	No. 3
Mandrel, Steel.....	$1\frac{1}{8}$ " x 22"	$1\frac{1}{8}$ " x 25"	$1\frac{1}{8}$ " x 28"
Mandrel Pulley.....	6" x 6"	6" x 8"	8" x 8"
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.....	$1\frac{1}{8}$ "	$2\frac{1}{8}$ "	$2\frac{3}{8}$ "
Tight and Loose Pulleys.....	10" x 6"	10" x 8"	12" x 8"
Driving Pulley.....	16" x 6"	16" x 8"	20" x 8"
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.

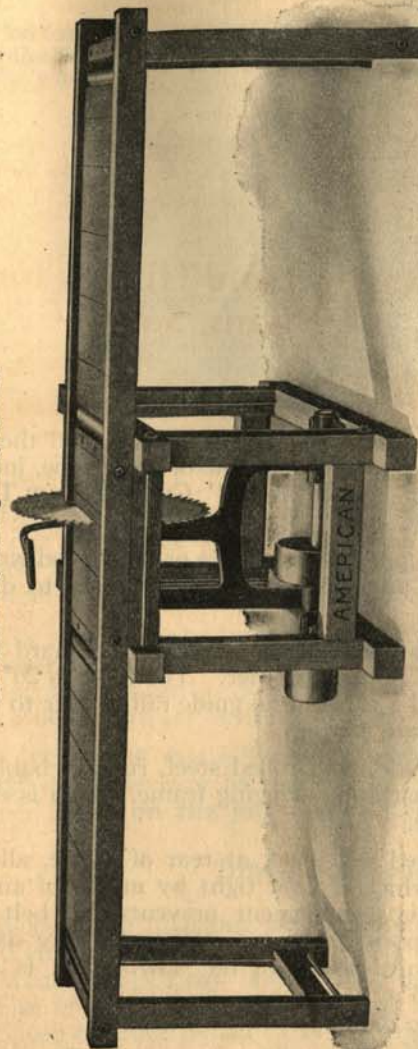
Saw Guard furnished at extra cost. Saw Blade and Belt are extra.

Code name complete machine, less saw, Sawtry. Irons only, less saw, Sawfly. (Give size wanted.)

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

## American "Perfection" Cut-Off Saw Table

Code Name, Complete, Sawts



Every well-equipped saw mill, planing mill, or other wood-working 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,  $3\frac{1}{2}$ " x  $3\frac{1}{2}$ ".

Timbers in table frame, 2" x 4".

Mandrel,  $1\frac{1}{8}$ ", for saws with  $1\frac{1}{4}$ " hole.

Mandrel pulley, 4" x 4".

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

This machine also made on special order with countershaft and idler like new model cut-off saw shown on following page.

Countershaft pulley, 6" x 6"; speed, 700 R. P. M.

Floor space required, 4' x 10'.

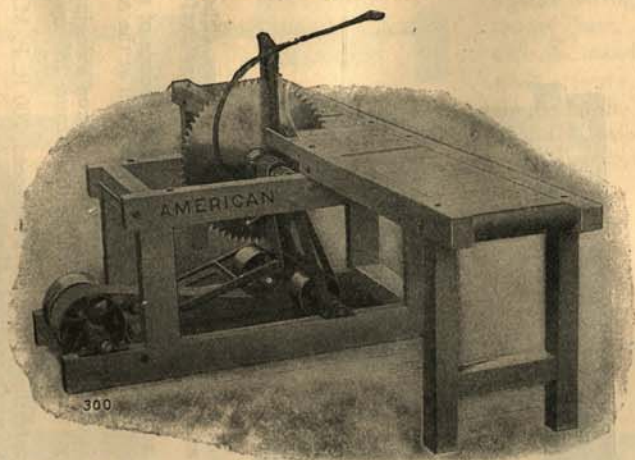
Shipping weight, 430 lbs.

Export weight, 575 lbs.

Cubic contents, 28 cubic feet.

## American "New Model" Cut-Off Saw Table

Code Name, Newlock



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 of 6" x 14".

**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".

Timbers in main frame,  $3\frac{1}{2}$ " x  $5\frac{1}{2}$ ".

Timbers in table frame,  $3\frac{1}{2}$ " x  $3\frac{1}{2}$ ".

Mandrel  $1\frac{1}{4}$ " fitted for saws with  $1\frac{1}{4}$ " hole

Mandrel pulley 4" x 6".

Size of saw furnished, 30".

Pulleys on countershaft, 12" x 6", speed 350 R. P. M.

Floor space required, 12' x 6'.

Shipping weight, 985 lbs. Export weight, 1150 lbs. Contents 78 C. F.

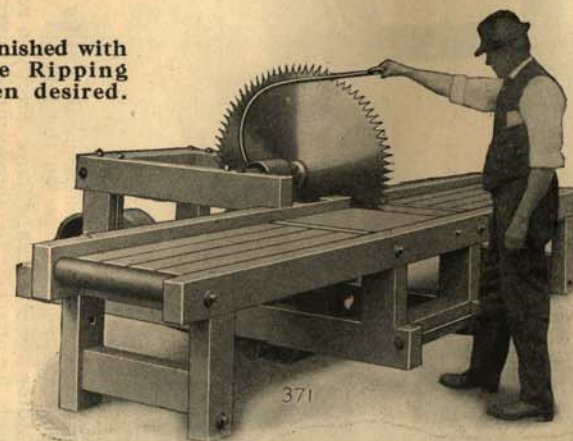
Weight, iron parts only, no saw, 365 lbs.

## Heavy "New Model" Cut-Off Saw

Capacity 15" x 15"

Code Name, Newton

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" x 15". 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' x 12'.

Width of work table, 24".

Mandrel,  $2\frac{3}{8}$ "; 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" x 8".

Inside belt required, 19' 8" x 8".

Speed of countershaft, 450 R. P. M.

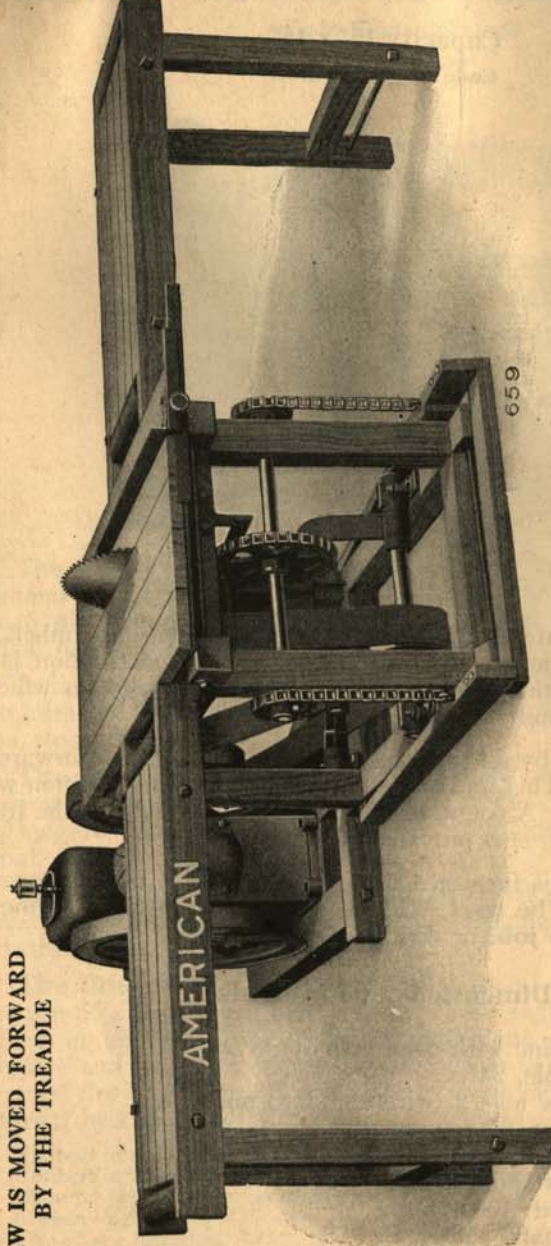
Shipping weight, net, 1,540 lbs.

Weight, gross, for export, 2,200 lbs.

Cubic contents, 95 cubic feet.

## Combined Rip and Cut-Off Saw

SAW IS MOVED FORWARD  
BY THE TREADLE



659

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, Kerosene 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 ready for attaching to other available power.

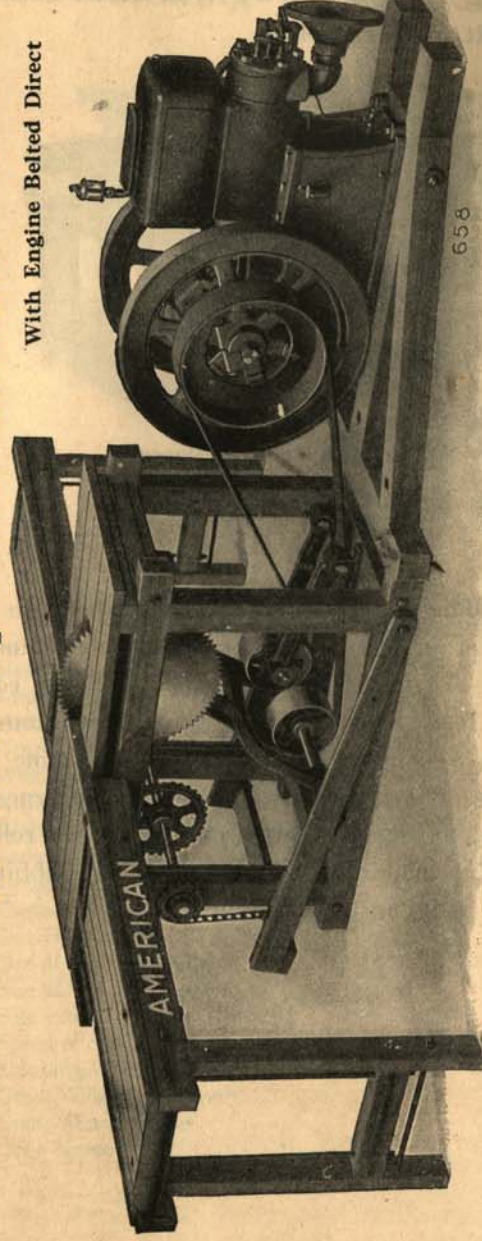
THE EXTENSION TABLES can be detached and the legs collapsed for convenience in moving.

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



658

Rear View—Ready for Cutting-Off  
Made in Two Sizes—No. 1 to take 20" Saws; No. 2 to take 30" Saws.

### SPECIFICATIONS

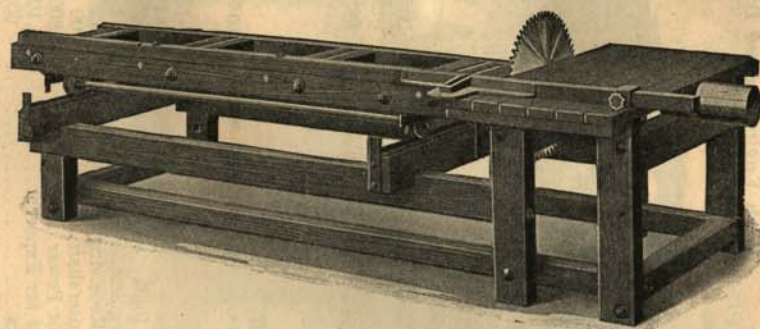
Size	No. 1	No. 2
Length over all	10' 4"	15' 8"
Approximate Width with Engine	9' 7"	10'
Width with Countershaft	5' 11"	6'
Ripping Table	27 1/2' x 54'	36' x 58'
Width of Extension Tables	20'	23'
Height of Table from Floor	34"	34"
Size of Saws furnished (1 each Rip & C. O.)	20"	30"
Will cut off Square Timbers	6" x 6"	9" x 9"
Will cut off Boards or Planks up to	16"	16"
Will rip any thickness up to	6"	10"

No. 1	No. 2
1 1/4"	1 1/4"
4" x 4"	4" x 6"
1,800	1,200
12" x 4"	12" x 6"
600 r.p.m.	400 r.p.m.
800 lbs.	1,300 lbs.
1,100 lbs.	1,700 lbs.
60 c. f.	85 c. f.
850	Gross 1,050
1,350	Gross 1,600

Made also with Countershaft

## American "Rolling-Table" Cut-Off Machines

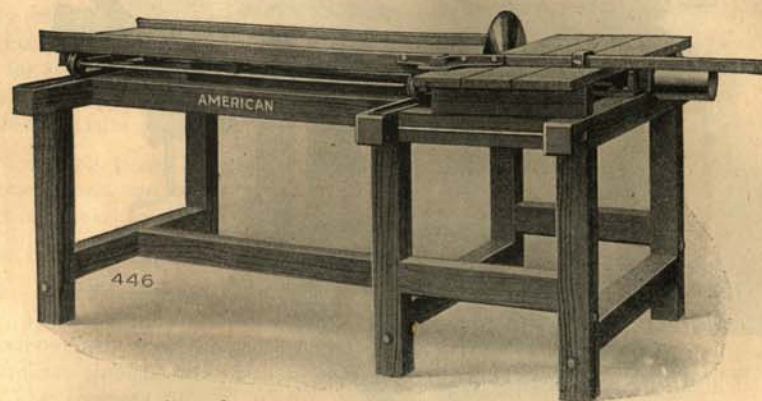
Built in Three Sizes



Cut Shows No. 2—No. 3 is Similar in Appearance

The cuts illustrate our rolling-table cut-off machines which we are prepared to furnish in three sizes. Frames are made of selected timber strong, rigid and durable. A gauge extends along the front edge, against which the material rests, thus producing square and accurate work. An adjustable stop, as shown, is provided to determine the correct length of the pieces. The carriage has steel ways underneath, which rest on the steel axles, to which are fitted grooved wheels rolling on V-shaped steel track. The mandrel runs in chain-oiling, babbitted boxes, and is supplied with pulley to meet conditions.

## "Rolling-Table" Cut-Off Machines

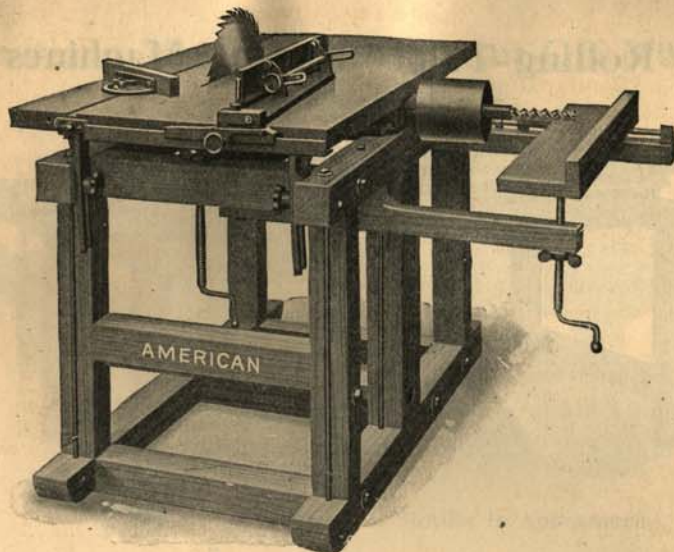


No. 1 Rolling Table Cut-off Saw  
Especially Adapted for Box Factories

### DIMENSIONS AND SPECIFICATIONS

Size.....	No. 1	No. 2	No. 3
Length over all.....	7' 2"	10' 6"	14'
Width over all.....	48"	56"	56"
Length of Carriage.....	5'	8'	10'
Width of Carriage.....	24"	25"	25"
Number of Rolls in Carriage.....	None	4	4
Width of Stationary Table.....	18"	26"	36"
Length of Stationary Table.....	48"	54"	54"
Height to top of Carriage.....	36"	31½"	32"
Diameter of Saw Mandrel.....	1½"	1½"	2½"
Size Hole in Saw.....	1¼"	1½"	2"
Size of Mandrel Pulley.....	5" x 6"	6" x 8"	8" x 10"
Size of Saw Furnished.....	16"	24"	30"
Saw extends through Table.....	4½"	8½"	10½"
Speed of Saw.....	1,800	1,500	1,200
Shipping Weight.....	525 lbs.	1,050 lbs.	1,250 lbs.
Gross Weight for Export.....	725 lbs.	1,225 lbs.	1,450 lbs.
Cubic Measurement.....	20'	45'	50'
Code Name.....	Cutlet	Cutout	Cutlass

## American "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  $3\frac{1}{2}$ " vertical adjustment. 6" twist bits with  $\frac{1}{2}$ " shank are used.

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

**The Mandrel** is  $1\frac{1}{16}$ " 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 sawhole,  $1\frac{1}{4}$ ". 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.

**Countershaft** furnished at extra cost.

**Specifications:** Table, 54" x 30". Arbor pulley, 5" x 6". Speed, 1,600 to 2,400 R. P. M., depending on size of saw. Countershaft has 8" x 6" tight and loose pulleys, and 16" x 6" drive pulley. Speed of countershaft from 600 to 900 R. P. M., according to size of saw. Weight with boring attachment, 560 lbs. Weight without boring attachment, 510 lbs. Weight packed for export, 850 lbs. Cubic contents, 52 cubic feet. Countershaft adds to weight, 150 lbs. Code name, with borer, **Combat**. With borer and countershaft, **Combust**.

## "Utility" Rip and Cut-Off Saw

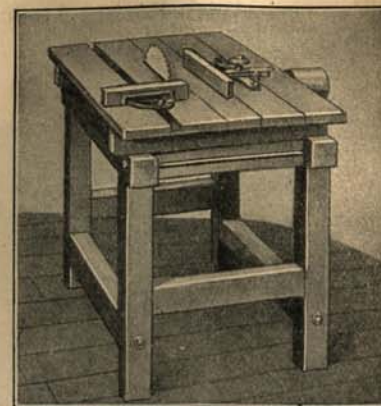
Code Name, Utility

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.

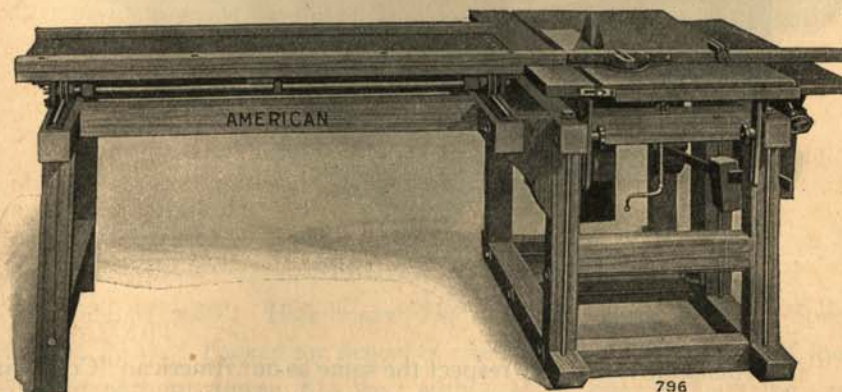
The ripping gauge has rack and pinion adjustment, and can be instantly removed for cut-off work.

The cut-off gauge has mitre adjustment.

Size of top, 30" x 48". Mandrel,  $1\frac{1}{16}$ ". Pulley, 5" x 5". Furnished with one 16" rip saw, and one 16" cut-off saw, with  $1\frac{1}{4}$ " 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.

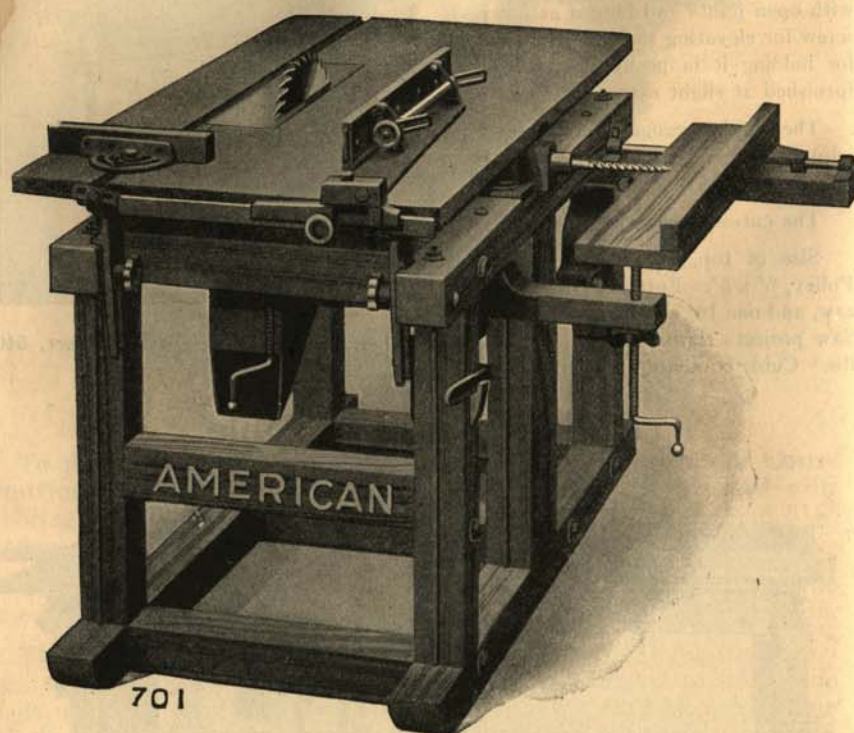
The carriage rolls on both axles and track. Friction is thereby greatly reduced and maximum travel of carriage is obtained with a very short track.

### Specifications

Length of table.....	60"
Table travel.....	24"
Width of table.....	24"
Code Name, Rollic.	

## American Contractors Saw Bench

With Boring Attachment. Without Power.



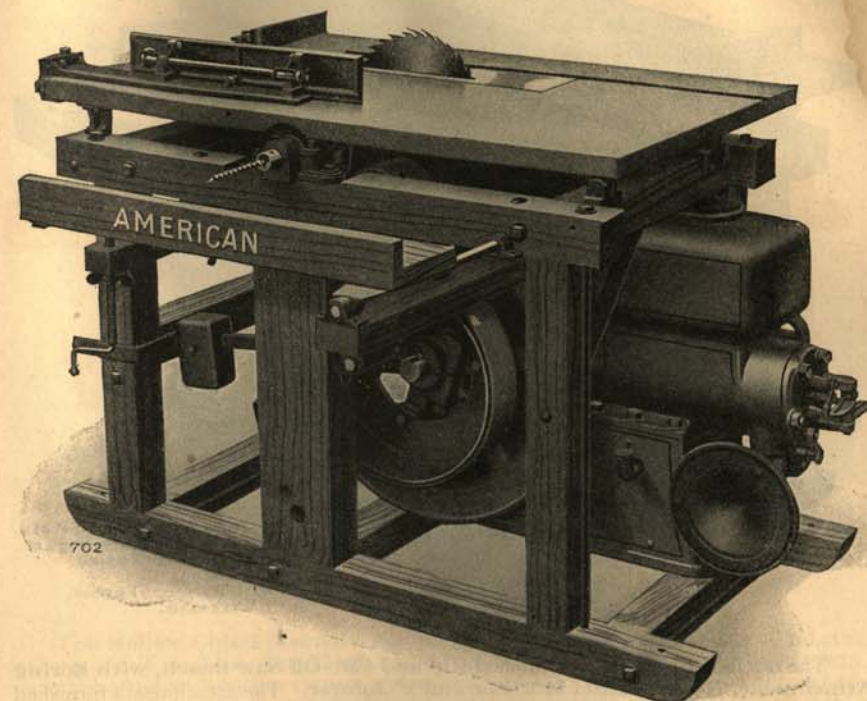
701

This machine is in every respect the same as our American "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. 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".

## Contractors Saw Bench

With Power Built In



702

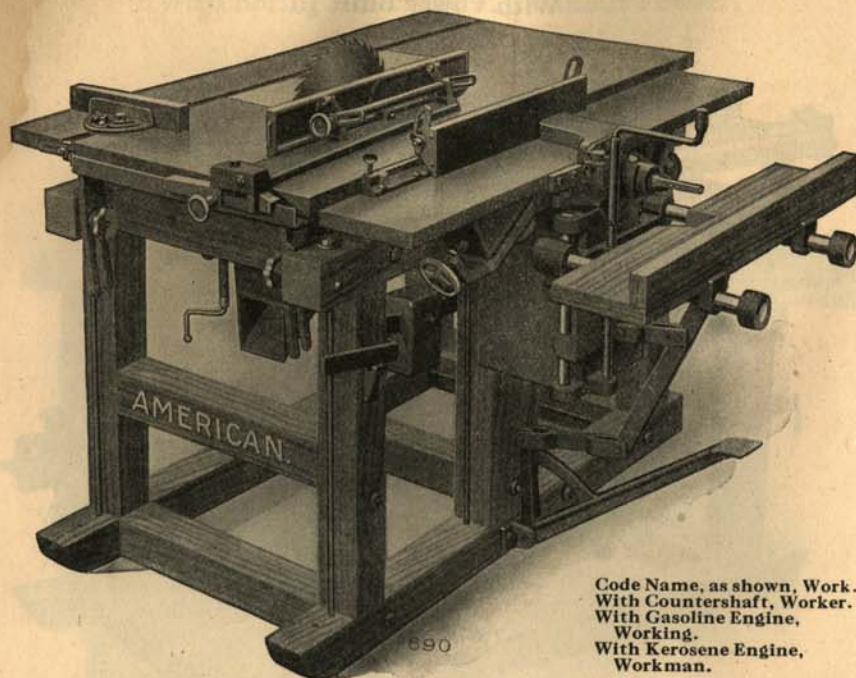
### SPECIFICATIONS

Table, 54" x 30". Hole in saw, 1 1/4". Arbor pulley, 4" x 4". Speed, 2400 R. P. M. Packed for export in case, 3' wide, 3' 8" high, 5' 8" long. Weight without power, 675 lbs.; with 5 H. P. engine, 1500 lbs. net. Boxed, 1775 lbs. gross. With electric motor (about) 875 lbs.; with countershaft, 750 lbs. Countershaft has 8" x 6" tight and loose pulleys. Speed, 800 R. P. M.

### Code Name

Without Power, Contrary	With Gasoline Engine, Contralto
With Countershaft, Contrast	With Kerosene Engine, Contract

## Contractors Portable Variety Woodworker Without Power



Code Name, as shown, Work.  
With Countershaft, Worker.  
With Gasoline Engine,  
Working.  
With Kerosene Engine,  
Workman.

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, kerosene engine or electric motor mounted in 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.

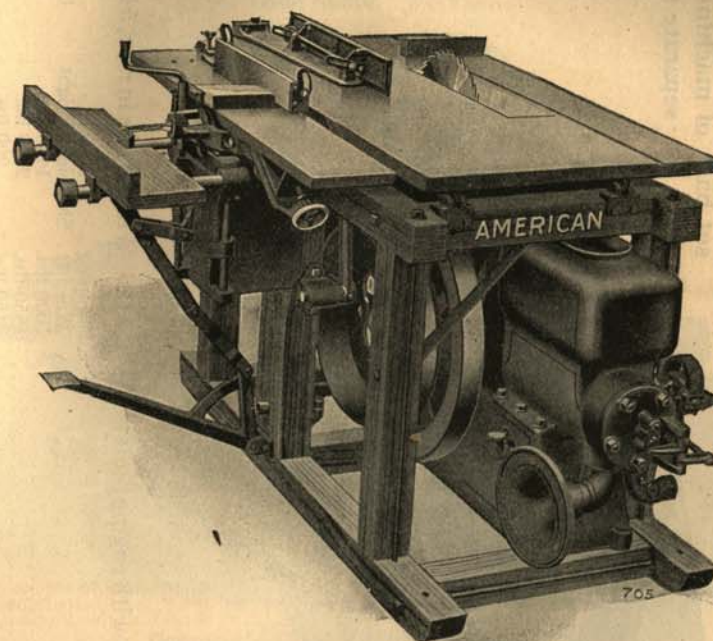
**The Frame** is made of seasoned hard wood, and **The Top** is iron 54" x 30", accurately planed and strongly hinged to the rear of the frame. It is readily raised and lowered by hand screw and firmly held in any position by side clamps. It is independent of the jointer tables and neither interferes 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 15" from the saw.

**The Cut-Off Gauge** slides in an accurately planed groove the entire length of the table, and can be set to cut squares, mitres, or any angle desired.

**The Jointer or Planer** 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 43" 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.

## Contractors Portable Variety Woodworker With 5 H. P. Engine Built In



**The Hollow Chisel Mortiser-Boring Attachment** is one of the most valuable features of this machine. It will work mortising bits from  $\frac{3}{8}$ " to  $\frac{3}{4}$ " and cuts a clean, smooth mortise with square corners and accurate to size. The table has a vertical adjustment of  $3\frac{1}{2}$ ", 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. 77.)

**The Engine** is 5 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.

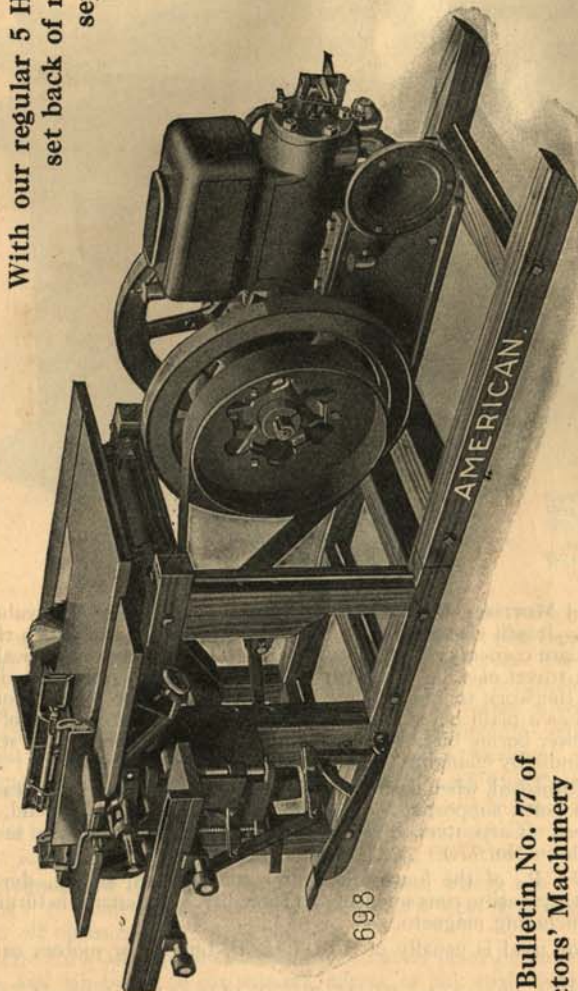
**The Electric Motor** used is usually of 3 to 5 H. P. but larger motors can be supplied if wanted.

**The Arbor** is  $1\frac{5}{8}$ " diameter, running in self-oiling, babbitted boxes strongly yoked together. It is driven by a  $3\frac{1}{2}$ " 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  $\frac{3}{8}$ " 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 our regular 5 H. P. Engine set back of machine, on separate skids



Ask for Bulletin No. 77 of Contractors' Machinery

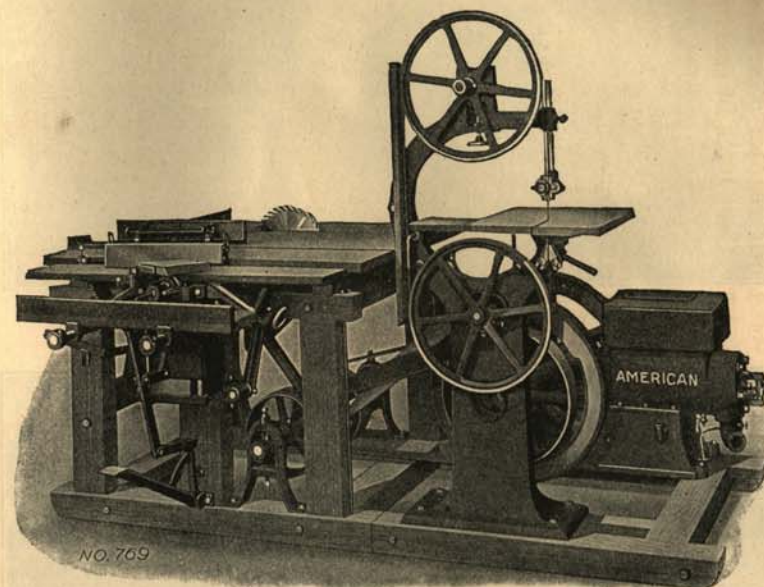
Weights and Dimensions: Floor space, machine with engine built in, 54" x 54". With engine in rear, 54" x 102".

	Shipping Weight	Export Shipping Weight	Cubic Contents
Weight, complete Machine without Power.....	1000 lbs.	1400 lbs.	68'
With 5 H. P. Engine built in.....	1850 lbs.	2250 lbs.	75'
Scroll Saw adds.....	150 lbs.	200 lbs.	8'
Countershaft adds.....	150 lbs.	150 lbs.	..
Motor adds, approximately.....	250 lbs.	250 lbs.	..

# Portable Variety Woodworker

With 20-Inch Band Saw

Code Name, "Workband"



Operator's Side for Jointer and Band Saw

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. Can also be furnished with 27" Band Saw.

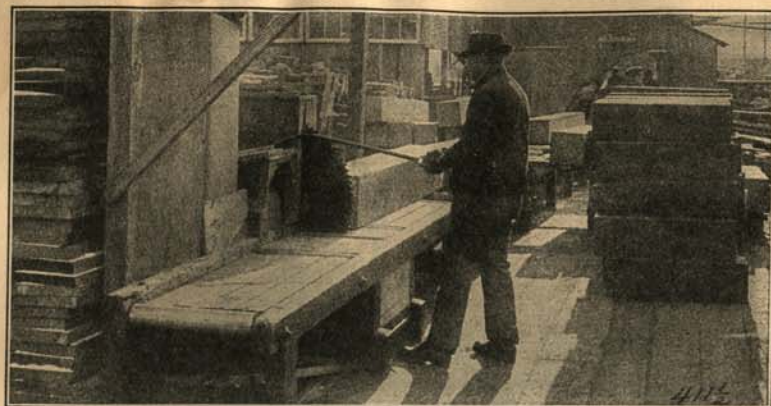
A suitable countershaft is built in, the method of belting being from power to countershaft and from countershaft to saw, jointer and band saw.

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. engine.....	2540	3150	108
Weight without engine.....	1690	2250	99
Weight with electric motor.....	1940	2550	105
Floor Space—76" x 106".			
Height of Table—38½".			
Speed of Countershaft—700 R. P. M.			
Pulley to receive belt from engine—12" x 4". Belt 9' x 3½".			
Pulley to drive arbor—12" x 4". Belt 6' 5" x 3½".			
Pulley to drive band saw—5" x 6". Belt 8' 8" x 3".			
Arbor and Jointer Pulley—3" x 3½".			
Arbor and Jointer Speed—2800 R. P. M.			
Band Saw T. & L. Pulleys, 7" x 3"; Speed—500 R. P. M.			
Internal belts furnished with machine.			



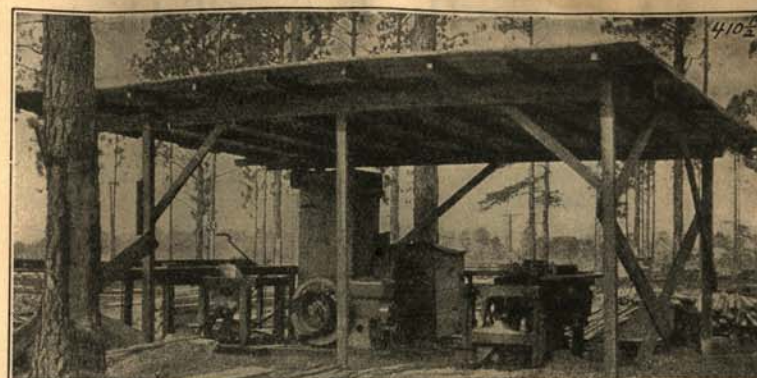
Heavy New Model Cut-off Saw Cutting Ship Timbers



Combined Rip and Cut-off Saw Helping Build 30-Acre Arena, Jersey City, N. J.



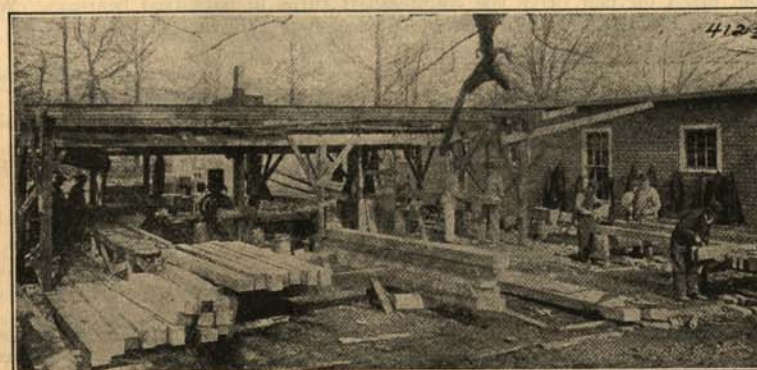
American Woodworker on a Bridge Job at Atlantic City, N. J.



American Woodworkers and Cut-off Saws Beginning Large Construction Job in South Carolina

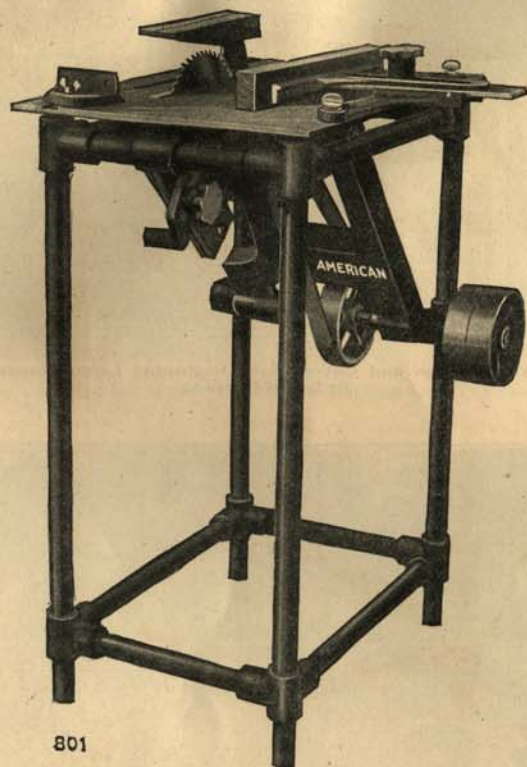


American Variety Woodworker Responds to a Hurry-up Call in Erequippa, Peru



American Woodworkers in Factory Construction Work, Elizabeth, N. J.

## American Handy Saw Table



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.

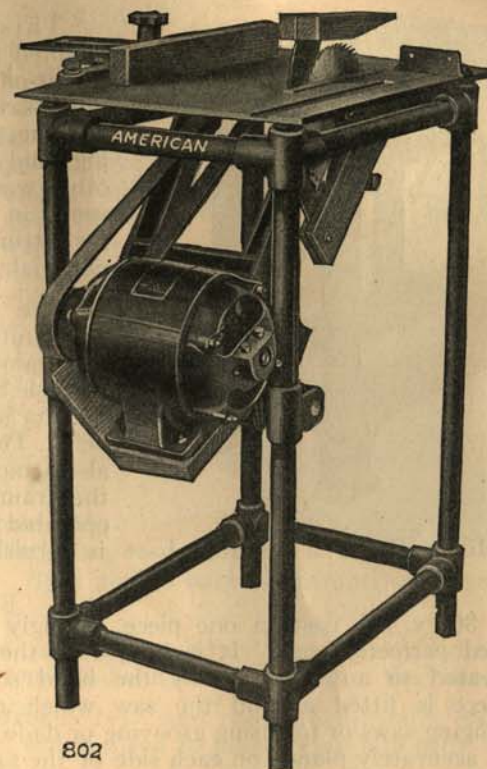
A slot is planed in the table for cut-off gauge which is supplied with each machine. This gauge can be set at any angle, right or left, for mitre work.

An excellent ripping gauge is provided which opens  $9\frac{1}{2}$ " 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.

### GENERAL SPECIFICATIONS

Table, 20" x 26"; height from floor, 36".

Mandrel,  $\frac{7}{8}$ " diameter; Mandrel pulley, 2" diameter; speed about 2,250 R. P. M.

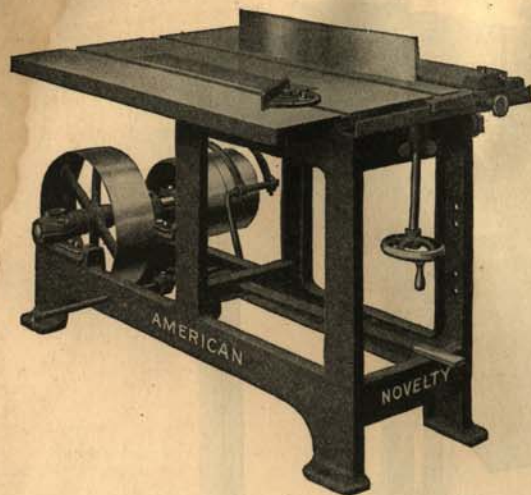
Saw, 8" diameter with  $\frac{3}{4}$ " hole; saw teeth suitable for either ripping or cutting off. Saw projects through table  $2\frac{1}{4}$ " and may be lowered to any position required. Mandrel will carry dado heads up to  $\frac{3}{4}$ " thick. Tight and loose pulleys are 6" diameter,  $1\frac{1}{2}$ " face and should run about 750 R. P. M. Speed of motor recommended 1,700 to 1,800 R. P. M. with  $2\frac{1}{2}$ " 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.

## American "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.

**The Top** is 30" x 40", 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".

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

**The Mandrel** is 1⅝" diameter with long, babbitted 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.

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.

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 Name, **Sawnov**.  
Code Name, with boring attachment, **Bonov**.

## American "Variety" Tilting-Table Saw Bench

This machine is built throughout of iron and steel with pedestal base cast in one piece.

**The Table** tilts to any angle up to 45 degrees by means of quadrant and gear operated by handwheel. 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.

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

**The Mandrel** is 1⅝", and runs in adjustable babbitted bearings. The right-hand end is fitted to take boring bits with ½" round shank.

**The Countershaft** is mounted on the rear of the frame, and is adjustable so that the **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.

For **Motor Drive** a suitable base is furnished instead of countershaft.

**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.

### SPECIFICATIONS

Floor space, 40" x 72".	Belt furnished—9' x 3½".
Table 30" x 40"—height from floor, 34".	Shipping weight, 1050 lbs.
Mandrel 1⅝"—saw hole 1"—pulley 3½" x 4".	Gross weight for export, 1200 lbs., 30 c. f.
12" saw projects through table 3".	Boring attachment adds 100 lbs.
Largest saw which can be used, 14".	Code Name, regular machine, <b>Sawvar</b> .
Drive pulley, 16" x 4".	Code Name, boring attachment, <b>Borea</b> .
	Tight and loose pulleys, 10" x 5"—speed 650 R. P. M.



## American 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 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 2 1/4" 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.

## American 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.

**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 3 1/2". 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 1 1/2" 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" x 44".

Stationary Table, 22" x 44".

Rolling Table, 16" x 44".

Height of table, 34".

Diameter of saw mandrels, 1 3/4", saw hole, 1".

Tight and loose pulleys, 10" x 4 1/2", speed 750 R. P. M.

Mandrel pulleys, 4" x 5", speed about 3,000 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.

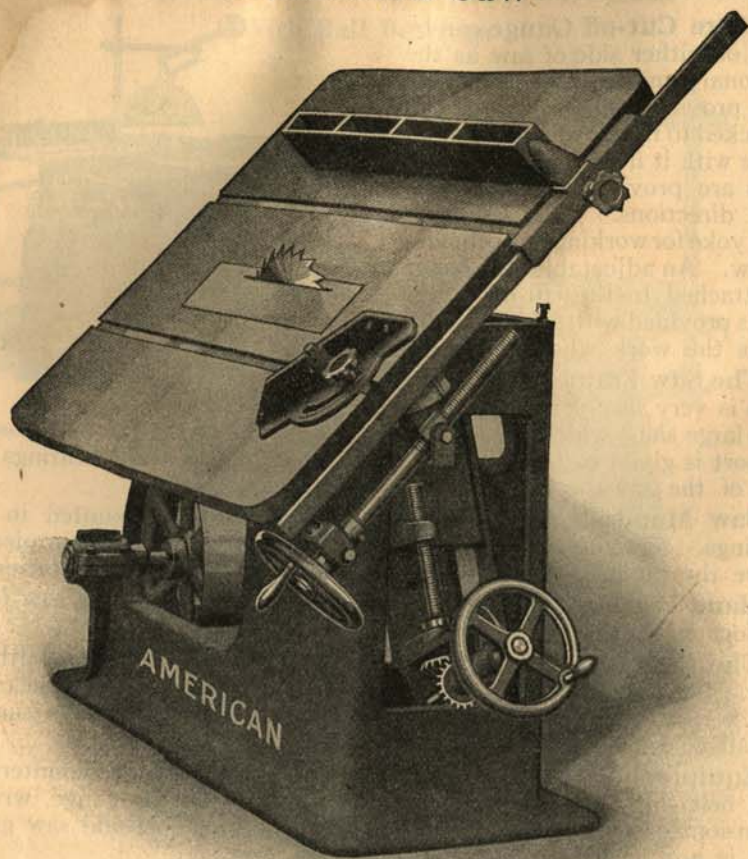
Deduct for countershaft, if not wanted, 150 lbs.

Code name with ball bearings—Universal.

Code name with babbitted bearings—University.



## Dimension Saw



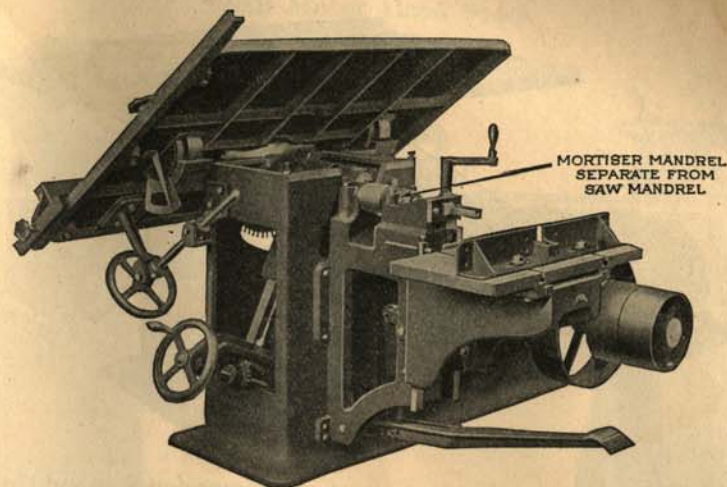
This machine is designed for ripping, cross-cutting and mitering, and with suitable attachments and heads, for boring, mortising, routing, dadoing, grooving, matching and tenoning.

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. An adjustable miter gauge is also furnished.

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  $\frac{3}{4}$ " mortising chisel. For boring only the hollow chisel is removed and boring bit substituted for it.

## SPECIFICATIONS

The table is 36" x 48". From floor to table top is 34". Floor space, 6' x 4' and with mortiser, 6' x 5' 6". Mortiser table, 12" x 24". Will take saws up to 20" with  $1\frac{1}{8}$ " hole, and space between saw collar and nut is 2". Vertical adjustment of mandrel, 6 $\frac{1}{2}$ ". Tight and loose pulleys are 10" x 4 $\frac{1}{2}$ ", speed, 500 R. P. M.

Power required, 3 to 5 H. P.

Shipping weight, regular, 1,500 lbs. Code Name, **Fillmore**.

Gross weight for export, 1,800 lbs.

Cubic contents, 40 cubic feet.

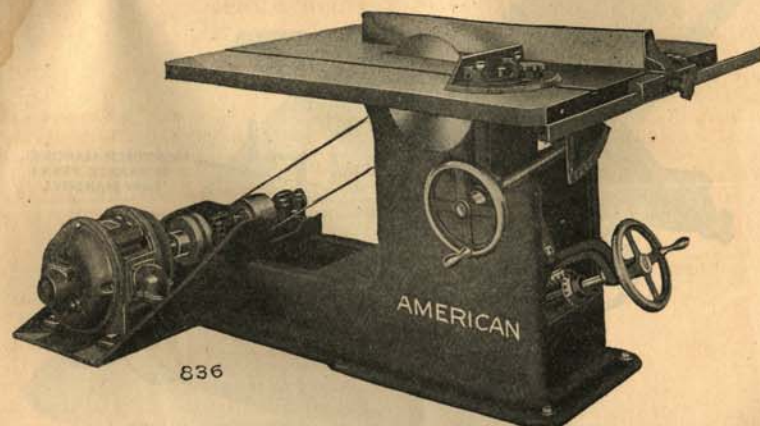
Shipping weight, with mortiser, 1,700 lbs. Code Name, **Filter**.

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  $\frac{1}{2}$ " mortising chisel and bit and one each  $\frac{1}{2}$ " and  $\frac{3}{8}$ " boring bits with mortising attachment. Belts required are: 9' 6" x 4" for saw and 9' x 3" for mortiser. These are not furnished with machine.

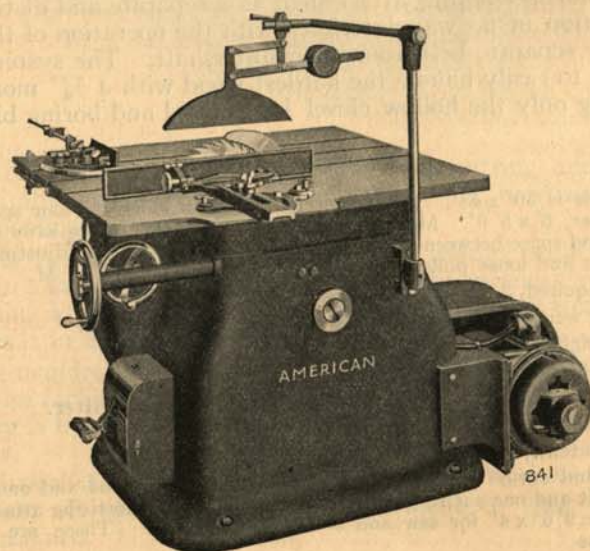
## Motor Driven Saw Tables



836

The illustrations on this page are of our Dimension Saw and Universal Saw, with motors mounted in such manner as to form self-contained units. Our Novelty and Variety saws will also be similarly equipped when so desired.

We are also in a position to furnish electric motors suitable for any of the electric currents in general use. When applying for prices on motor equipment always give a description of the electric current in use.

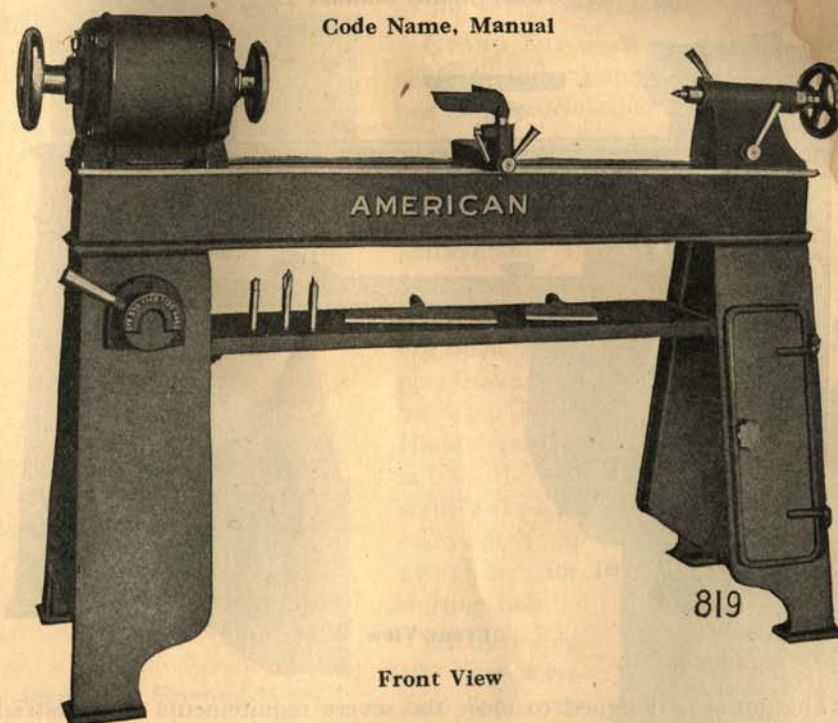


841

## American Manual Training Lathe

With Motor Head Stock

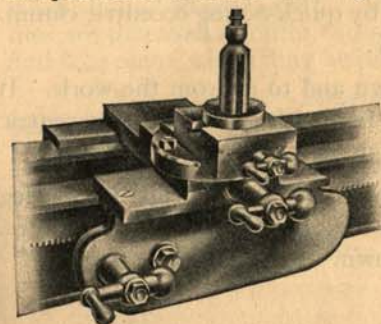
Code Name, Manual



819

Front View

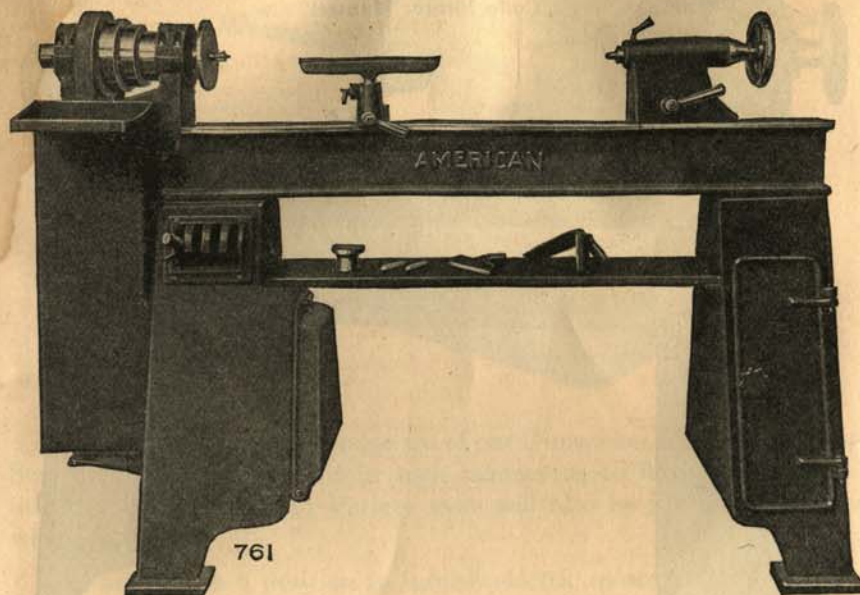
**Motor Head Stock Lathes** are of the same general construction as the belted lathes, except that the motor is in the head stock.  $\frac{1}{2}$  H. P., 3-phase, 60-cycle or 115-230 volt D. C. motors are standard equipment. A. C. motors have a speed variation of 570, 1140, 1725 and 3450 R. P. M., and D. C. motors 600 to 3000 R. P. M. A. C. motor controller is located inside of leg under the motor with the control lever and indicator outside of leg in a convenient position for the operator. D. C. rheostat is mounted outside of leg. A large door provides easy access to the A. C. controller. Enclosed, fused switches are furnished and suitably mounted. Motors are provided with ball bearings.



**Hand Feed Carriage** with compound tool rest will be furnished instead of plain tool rest at extra cost. The lateral travel covers entire distance between centres. The rack and pinion have cut teeth. Transverse movement is 6". Swivel is provided with degree graduations.

## American Manual Training Lathe

Code Name, Manual



Front View

This lathe is designed to meet the severe requirements of industrial schools and will commend itself to the most critical investigator.

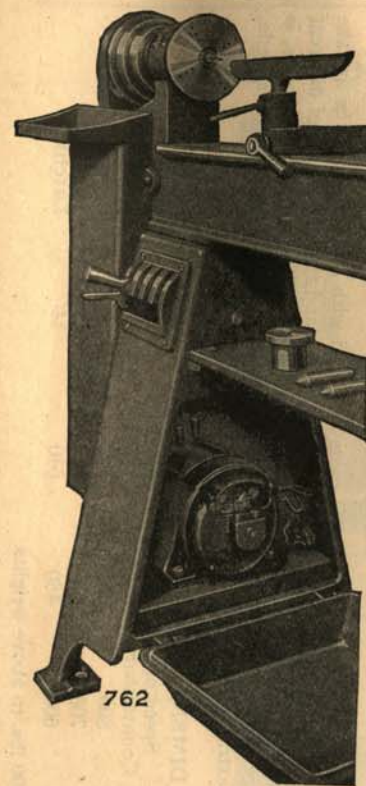
The bed is cross-girted with brackets which form a knife edge on top to prevent holding dirt or shavings.

Head stock is planed and fitted to planed surface of bed. The spindle runs in self-aligning ball bearings, is fitted with a 4-step cone and a brake is provided for quickly stopping momentum, for safety and examination of work.

Tail stock is of box design, fitted with screw spindle having 5" range of travel. It is fitted to bed and secured by quick-acting eccentric clamp. Tail centre is removed by backing screw.

Tool rest may be adjusted up and down and to or from the work. It will swing to any angle and is locked to bed with quick-acting eccentric clamp. Compound rest furnished when desired at extra cost.

Cabinet legs are of an attractive design, strong and rigid. One leg provides an enclosure for the motor and the other is fitted with shelves. There is also a shelf under the bed as shown.



Door Open Showing Motor

tool rest. Distance from floor to top of bed is 37" and 43" to centre of spindle. Extreme width on floor 22". Diameter of head stock spindle, 1 1/8". Speeds: 835, 1200, 1730 and 2450. Motor speed 1700 to 1800.

**Equipment**—One 3/4" spur centre, one 1/2" cup centre, two conical centres, one 2 1/2" screw block, one 6" face plate, one 6" angle hand rest, one 12" tee rest, 1 1/2"x7" belt.

14" outside face plate and floor stand furnished when desired at extra cost. All head stock spindles are threaded at outer end and fitted with 7" combination hand wheel and face plate, which may be removed for the use of large face plate.

### Dimensions and Weights

Size of Lathe.....	24"	36"	42"	48"	60"	72"
Distance between centres.....	24"	36"	42"	48"	60"	72"
Length of bed.....	52"	64"	70"	76"	88"	100"
Shipping weight with motor.....	900	940	960	980	1020	1125
Shipping weight less motor.....	820	860	880	900	940	1050
Weight with motor head stock....	840	880	900	920	960	1070
Boxing for export adds.....	100	110	120	150	160	200

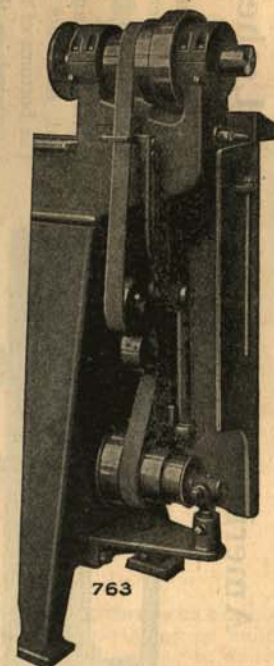
**Motor Drive**—Motor is direct connected to lower cone shaft, this shaft having a four-way adjustable bearing at end of opposite motor.

**Group Drive**—With this drive the shaft extends through underneath the bed and is enclosed in tubing.

### Control and Belt Shifting Device.

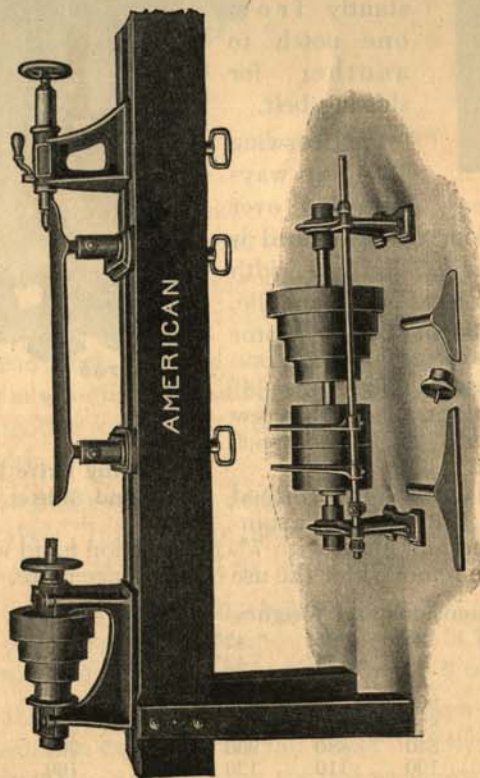
One-handle control feature eliminates all hand shifting. Dropping the handle and latching it relieves the belt tension and machine comes to a stop. For quick stopping brake may be applied. Handle can be moved instantly from one notch to another for shifting belt.

**Latheswing**  
12" over ways  
and 8 5/8" over



Showing Drive Belt and Shifter

## American 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.

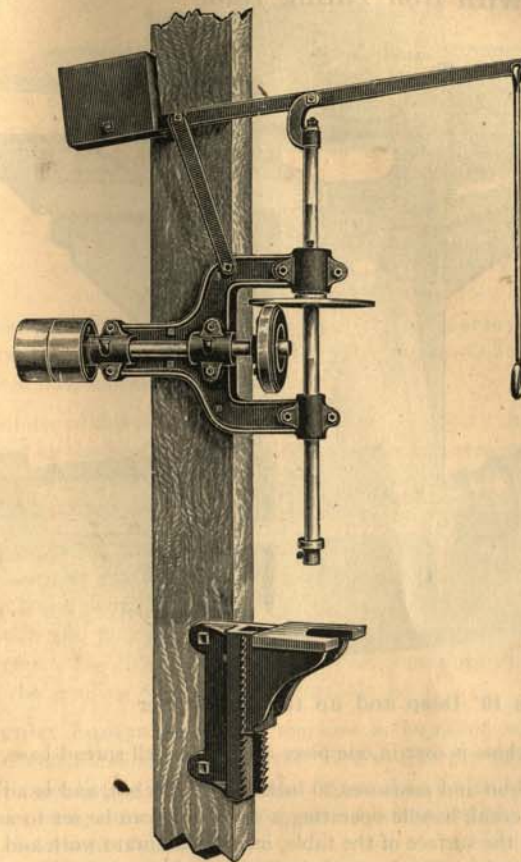
The parts furnished with a single-end lathe are the head and tail stocks, one each spur and conical center, one face plate, one screw face plate, two rest stands and three tool rests of different lengths, three clamp bolts for the stands and tail stock, countershaft with shifter. The Double-End Lathe, 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 Name
12"	2"	4	6"x3½"	800	340	490	13'	Latch
16"	2"	4	8"x4½"	700	430	580	14'	Latchet
20"	2½"	5	10"x4½"	600	480	640	14'	Latching

Fixtures for "Double-End" or "Pattern" Lathe, add 90 lbs. to above weights.

## American "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 15 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, 1½". 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" x 4". Speed, 400 to 500 R. P. M.

Weight, with table, 300 lbs. Weight, without table, 270 lbs.

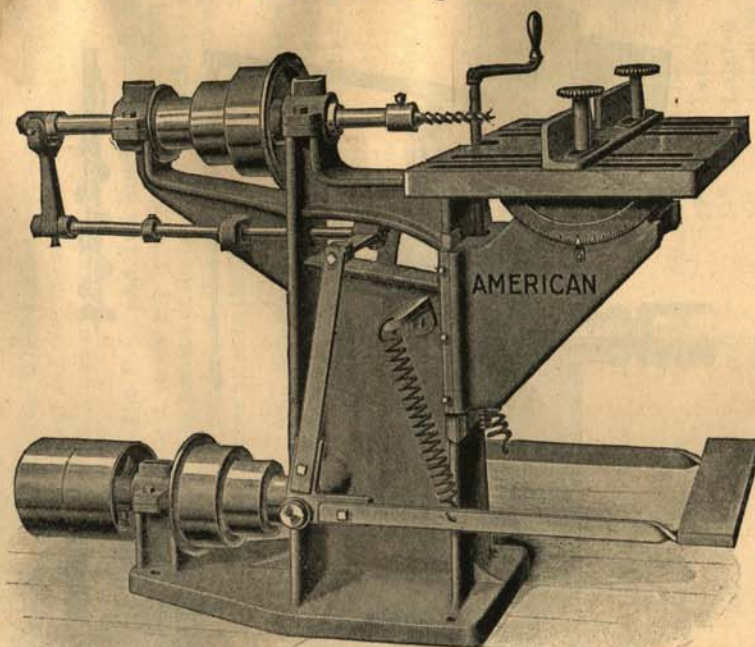
Gross weight, with table, 300 lbs. Gross weight, without table, 270 lbs.

Cubic measurement, 8'.

Code Name, complete, with table, Boring.

Code Name, without table, Borer.

## Horizontal Boring Machine With Iron Tilting Table



**Bores 10" Deep and up to 2" Diameter**

The **Frame** of this machine is cast in one piece and has a well spread base.

The **Table** is made of iron and measures 30 inches by 18 inches, and is adjustable vertically by a convenient crank handle operating a screw. It can be set to an angle, the pivoting point being on the surface of the table, insuring accurate work and making it easy to get the required angle. The fence of the table can be angled also.

The **Boring Spindle** is  $1\frac{1}{8}$ -inch diameter and is fitted in a sleeve the entire length of the cone pulley, which is 18 inches. The method of construction secures durability and makes the boring spindle work in and out with very little exertion. The boring spindle has an extreme movement of 10 inches; the amount can be regulated by an adjustable stop. There are three rates of speed and the face of the cones are wide enough for a 3-inch belt.

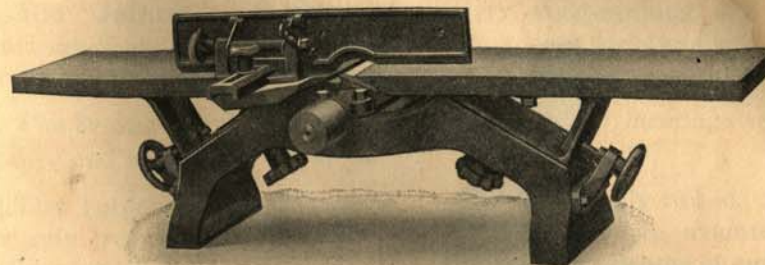
The **Treadle** and lever mechanism are constructed on the proper mechanical principles and it requires very little exertion of the operator to move the spindle. A spring is provided for the return of the spindle and is much superior to a weight.

We furnish with the machine five auger bits under one inch.

The tight and loose pulleys are 8 inches by  $4\frac{1}{2}$  inches and should make 1,000 revolutions per minute.

Net Weight	Gross Weight	Cubic Measure	Horse Power	Code Word
800 lbs.	1,000 lbs.	32 ft.	One	Insole

## American Bench Jointer



In designing this **Bench Jointer**, it has been our aim to place on the market a machine which will meet the need of those whose requirements do not warrant the installation of a large floor machine.

A jointer of this size is better adapted for small work than a large jointer, and it can be placed on the bench or near it as may be most convenient. Up to 8" width in it will do everything which can be done on the larger machine, and it has all the adjustments of a regular floor jointer.

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.

**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.

### DIMENSIONS

Length of Knives.....	8"
Length of each Table.....	23½"
Closest Tables will come together.....	1¼"
Height to top of Table.....	10½"
Height of Adjustable Fence.....	3¾"
Length of Adjustable Fence.....	20"
Pulley.....	2½" x 2½" x 1" Bore
Speed.....	3,600 R. P. M.
Floor Space required.....	4' long by 16" wide
Shipping Weight.....	300 lbs.
Weight for Export.....	375 lbs.
Measurement, Boxed for Shipment.....	4' 6" x 1' 6" x 1' 2"
Cubic Contents.....	8'
Code Name.....	Bench

American Hand Planer or Jointer



## American Hand Jointer

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 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.

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.

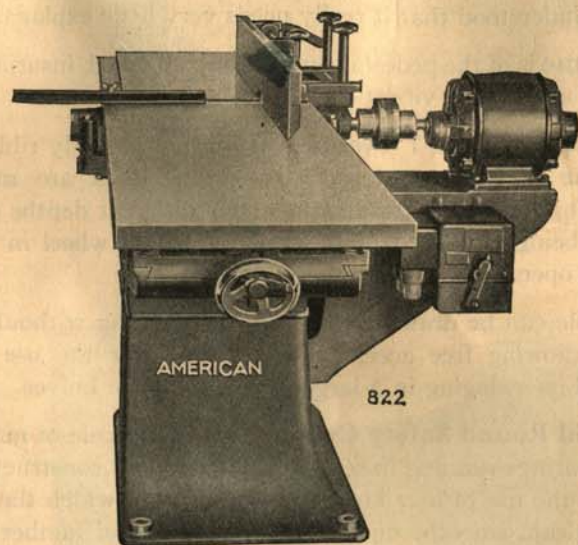
Each machine is equipped with one set of four knives, one socket wrench for cylinder head, one safety guard and one countershaft.

### SPECIFICATIONS

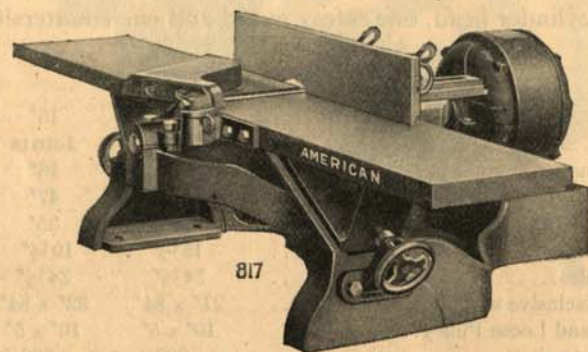
Size.....	12'	16'	20'
Code Name.....	Joist	Joints	Joiner
Length of Knives.....	12"	16"	20"
Length of Front Table.....	47"	47"	47"
Length of Rear Table.....	35"	35"	35"
Width of Tables.....	15½"	19½"	23½"
Height of Tables.....	34½"	34½"	34½"
Floor Space Exclusive of Countershaft.....	27" x 84"	32" x 84"	36" x 84"
Size of Tight and Loose Pulley.....	10" x 5"	10" x 5"	10" x 5"
Speed of Countershaft.....	800	800	800
Weight, Crated.....	1,300	1,500	1,600
Weight, Net.....	1,125	1,250	1,375
Weight, Gross Export.....	1,420	1,675	1,850
Cubic Feet.....	46	53	59

## American Hand Jointer

With Direct Motor Drive



These are our Standard Hand and Bench Jointers, described on preceding pages, except with direct motor 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.



## American Bench Jointer

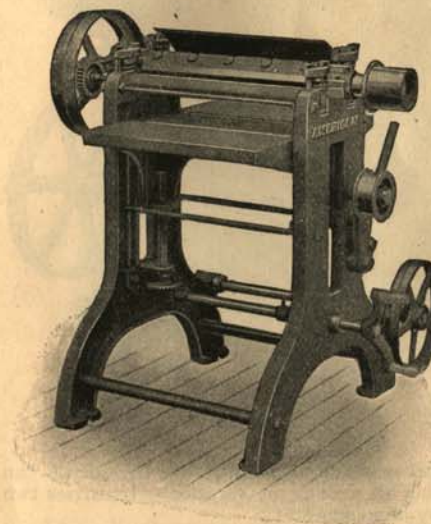
With Direct Motor Drive

## American "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.

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 speeds of feed are provided for by means of cone pulleys. The feed can be stopped or started instantly by means of a convenient tightener.

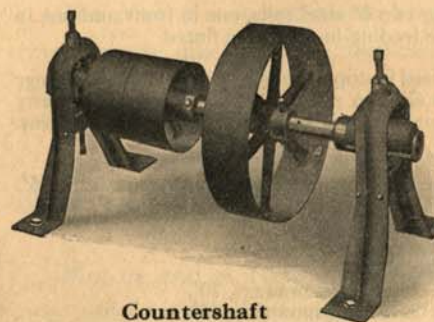
The **Bed** is very stiff, with heavy ribs underneath, and is accurately planed and fitted with two steel idle rolls. The rear section is adjustable.

The **Planer** is built in two sizes to plane up to 16" and 20" wide, and from  $\frac{1}{4}$ " 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  $13\frac{1}{2}'$  of  $1\frac{1}{2}"$ . Countershaft has 8" x 4" tight and loose pulleys. Speed, 900 R. P. M. Cutter Head Pulley, 4" dia.,  $3\frac{1}{2}"$  face. Speed, 3600 R. P. M.

16" machine, with countershaft. Shipping weight, 720 lbs.; gross weight, 820 lbs. Cubic measurement, 31'. Code Name, **Plant**.

20" machine, with countershaft. Shipping weight, 745 lbs.; gross weight, 930 lbs. Cubic measurement, 35'. Code Name, **Planted**.

If countershaft is not wanted, deduct 150 lbs.



## American "Pony" Planer or Surfacer

Modern Design, Compact, Rigid, Handy

This Single Surfacer Pony Planer is very similar in design to our "Triumph" 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.

**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.

**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 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 1/4" 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" x 6". Speed, 800 R. P. M. Cutter Head Pulley, 4 1/2" dia., 5" face. Speed, 3600 R. P. M.

20", weight 1,500 lbs. Code Name, **Planish**.

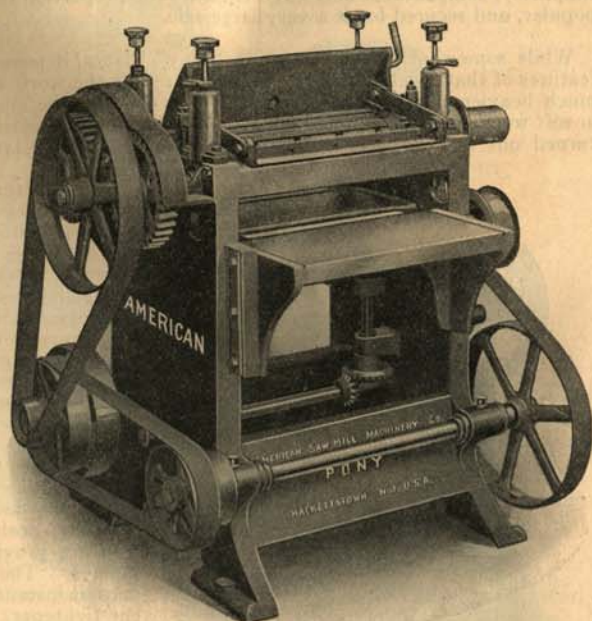
24", weight 1,700 lbs. Code Name, **Planished**.

For export 20" machine, gross 1,760 lbs. Cubic measurement, 70'.

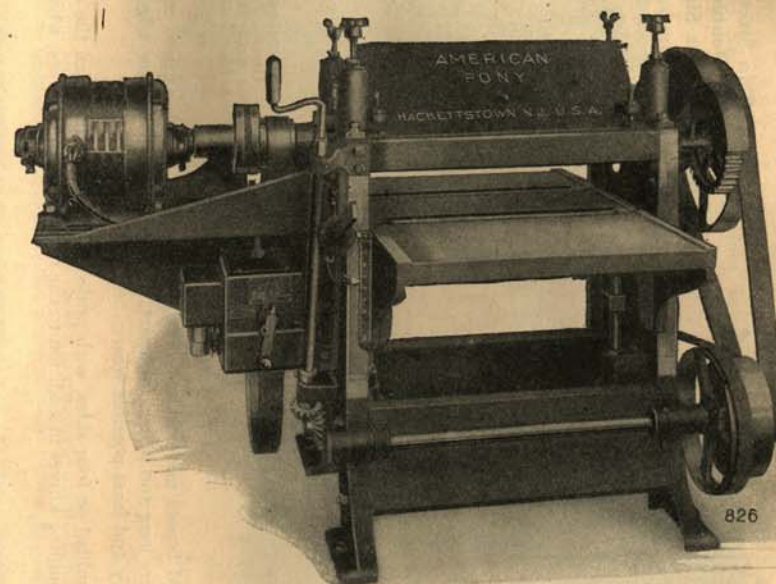
For export 24" machine, gross 2,075 lbs. Cubic measurement, 75'.

If countershaft is not wanted, deduct 215 lbs.

Countershaft shown on preceding page.



## Direct Motor Driven Planers



The illustration above is of our Pony Planer, fully described on preceding page, and equipped with direct motor drive.

The Motor is mounted on a substantial base attached to the main frame of the machine and coupled to cutter head by means of a flexible coupling.

Jewel Planers, described on page 175, are also fitted with direct motor drive in a similar manner.

Motors and starters are supplied to suit power currents in general use, and in applying for prices a description of the current should be given.

## American "Triumph" Planer, Matcher and Moulder

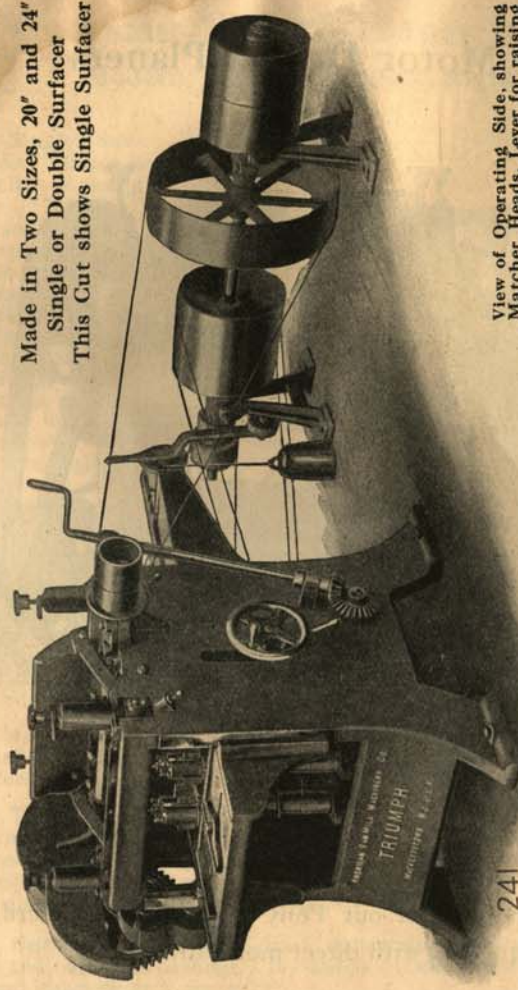
This is a very compact, rigid machine, and is designed to economize space and withstand the hardest usage, as well as to do the best class of work. There is an entire absence of vibration so common in small planers of this class; hence, the work turned out is uniform and equal in quality to that of large, 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.

The Table is cast in one piece

and is deep and strong, being heavily ribbed and having arched braces under side. It is planed on top and has raised edges to prevent the material from leading against the side frames. 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.



Made in Two Sizes, 20" and 24" Single or Double Surfacers  
This Cut shows Single Surfacers

View of Operating Side, showing  
Matcher Heads, Lever for raising  
the Table and Hand Wheel for  
adjusting Matcher Heads

## "Triumph" Planer, Matcher and Moulder (Continued)

The Matcher Frames are also very strong and are carried by  $1\frac{1}{4}$ " 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  $\frac{1}{8}$ " thick and up to  $2\frac{1}{2}$ " wide. Shimmer heads can be used when desired. Moulding knives can also be used on the main cylinder where the cut is not over  $\frac{3}{8}$ " deep.

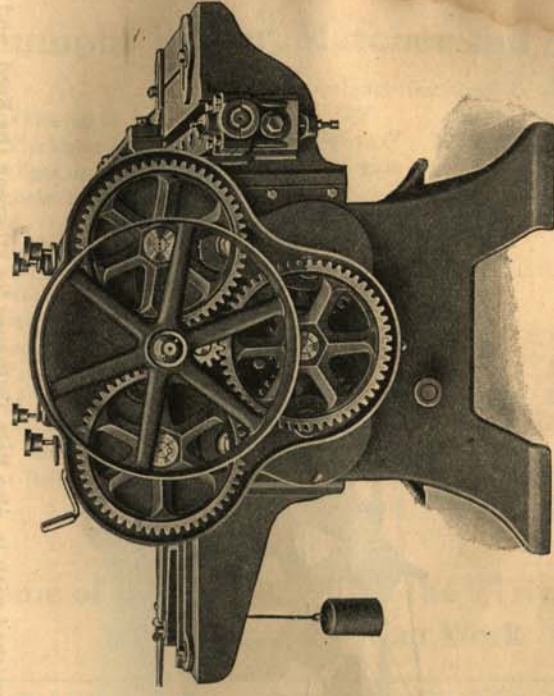
**Chip Breakers.** A heavy adjustable chip breaker is placed in front of the cylinder, which also acts as a hood. It may be swung back to expose the knives. Each matcher head has a chip breaker, one of which is self-adjusting.

**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.

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.

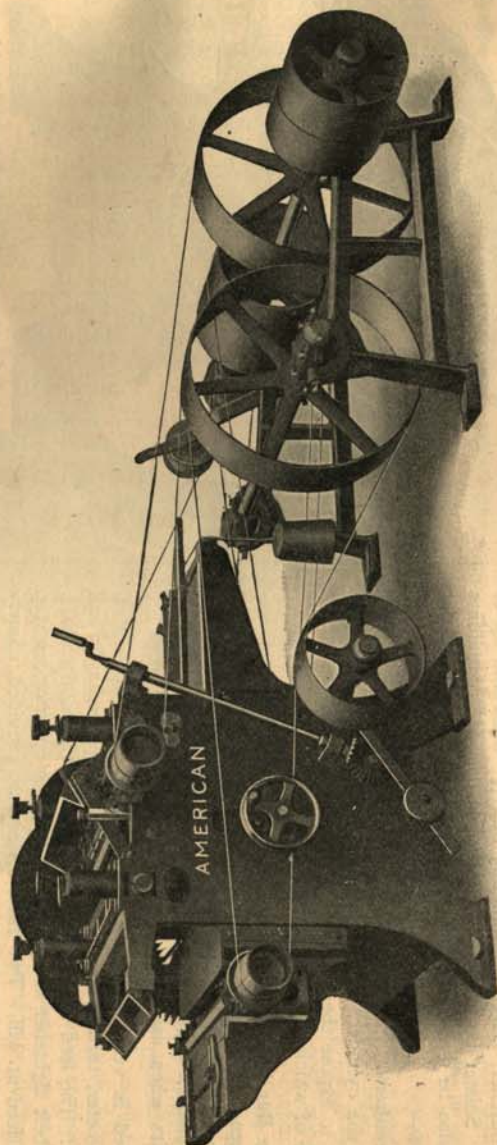
The Cut shows the machine double geared with both top and bottom rolls driven, but they are also furnished single geared with the top rolls only driven, when so desired.



View of Feed Side, showing Double-Geared Machine with all  
Four Feed Rolls Driven

## Double Surfer "Triumph" Planer, Matcher and Moulder

Cut shows Double Surfer

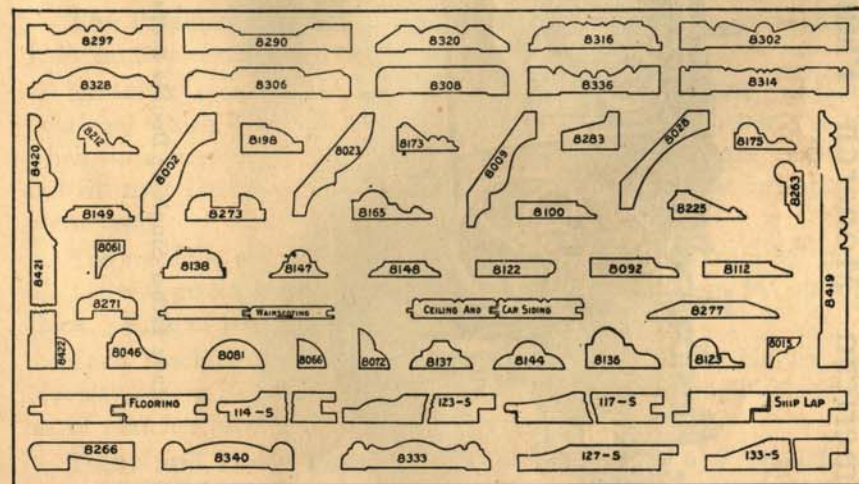


View of Operating Side, showing the Double Countershaft furnished with it, also Belt Tightener for stopping the Feed, and Method of Belting up the Machine

## "Triumph" Planer, Matcher and Moulder

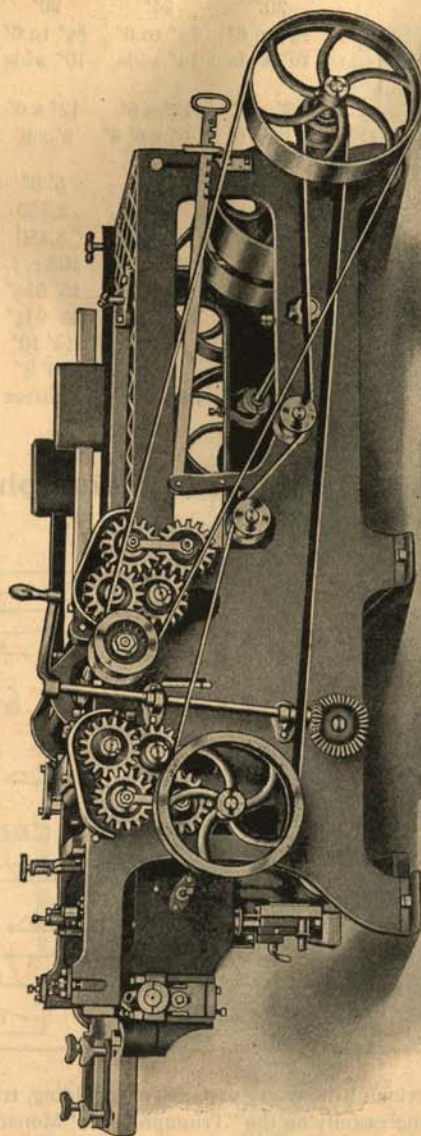
	Single Surfer		Double Surfer	
Planes any Width up to.....	20"	24"	20"	24"
Planes any Thickness from.....	$\frac{3}{8}$ " to 6"	$\frac{3}{8}$ " to 6"	$\frac{3}{8}$ " to 6"	$\frac{3}{8}$ " to 6"
Matches or Edges up to 2" thick and up to 10" wide	10" wide	14" wide	10" wide	14" wide
Tight and Loose Pulleys should run 800 R. P. M.....	12" x 6"	12" x 6"	12" x 6"	12" x 6"
Floor Space, including Countershaft.....	8' 6" x 6'	8' 6" x 6' 4"	9' x 6'	9' x 6' 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' 9 $\frac{1}{2}$ "	14' 9 $\frac{1}{2}$ "	15' 5 $\frac{1}{2}$ "	15' 5 $\frac{1}{2}$ "
Lower Cylinder Belt, 6" wide.....	Not used	Not used	13' 9 $\frac{1}{4}$ "	13' 9 $\frac{1}{4}$ "
Feed Belt, 3" wide.....	14' 10"	14' 10"	14' 10"	14' 10"
Two Matcher Belts, 3" wide, each.....	13' 8"	13' 8"	13' 8"	13' 8"
Code Name.....	Planting	Plantain	Planter	Planters

## 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.



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  $1\frac{1}{4}$ " 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  $1\frac{7}{8}$ " x 9" and those of the lower one  $1\frac{7}{8}$ " x 8", 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  $1\frac{3}{8}$ " 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.

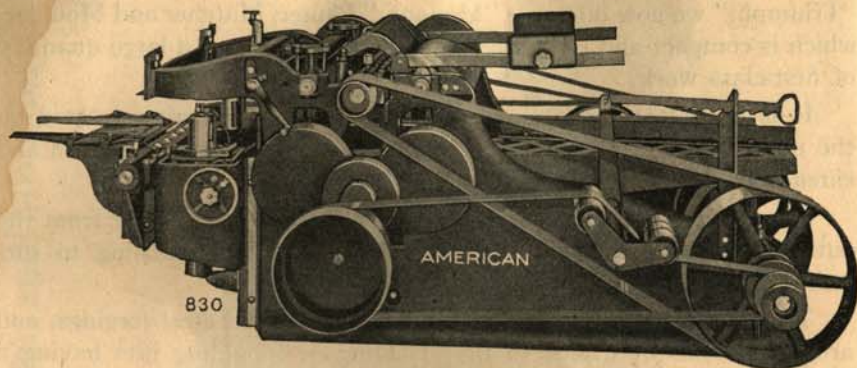
The machine will plane 24" wide, and any thickness from  $\frac{3}{8}$ " up to 6". It will match from  $2\frac{1}{2}$ " up to 12" in width, and from  $\frac{3}{8}$ " up to 2" thick. Rate of feed from 30 to 60 feet per minute.

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  $12$ " x  $6\frac{1}{2}$ " 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	Weight	Weight	Size of	Floor	Code
	Net	Crated	Boxed for	Case	Space	Name
Single Surfacer...	3,900	4,200	4,400	9'x4'x4'	11'x5'	<b>Monar</b>
Double Surfacer..	4,350	4,600	4,800	9'x4'x4'	11'x5'	<b>Monarch</b>

## American No. 830 Heavy Planer Matcher and Moulder



Operating Side

This is a heavier machine than either the "Triumph" or "Monarch" planers, and in addition to being a planer, matcher and moulder, can also be used for sizing dimension timbers up to 15" wide and 4" thick.

**The Bed** is in one piece 9' 6" long, with a rise and fall of 8 inches, traveling on gibbed ways. The countershaft is attached to the main frame, making a self-contained machine with the exception of one out-board bearing for the end of the countershaft. The loose pulley of the countershaft, also the two large idlers, run on ball bearings.

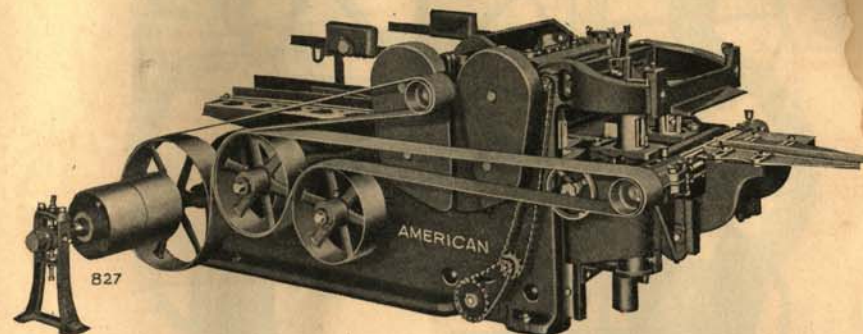
**Feed**—There are four driven feed rolls, 5" in diameter. The feed roll bearings, as well as the bearings of the countershaft and feed shaft, are provided with oil reservoirs and with wick under shaft. All feed shafts have two bearings and all feed gears have cut teeth. There are three changes of feed provided for, 40', 60' and 80' per minute, with a countershaft speed of 875 revolutions per minute. All feed gears are fully guarded.

**Cutter Heads**—Upper and lower cutter heads each carry two planer knives and are slotted also on opposite sides for moulding cutters, or each head may be equipped with four planer knives. Both heads run in babbitt bearings,  $2\frac{3}{8}$ " diameter and 10" long. These bearings have oil reservoirs and are wick oiling.

**Matcher Heads**—The standard matcher heads furnished are slotted to take straight knives up to  $4\frac{1}{2}$ " long or moulding cutters. These heads are adjustable by hand wheels, each independently of the other. They are adjusted by means of a worm with cut teeth,  $\frac{1}{8}$ " deep, and may be clamped securely in any position. The matcher heads do not have to be removed or dropped down for wide surfacing, but may be run out into a recess at either side of the bed to clear the full width of the bed.

**Matcher Spindles** are  $1\frac{3}{4}$ " diameter, turned to  $1\frac{1}{2}$ " where the heads fit on. They are carried in substantial frames and run in ball bearings.

## American No. 830 Heavy Planer Matcher and Moulder



Rear View Showing Lower Head Drive

Each machine is furnished with four 24" planer knives, two standard matcher heads, one set of matcher bits, and one set of  $4\frac{1}{2}$ " straight edging knives.

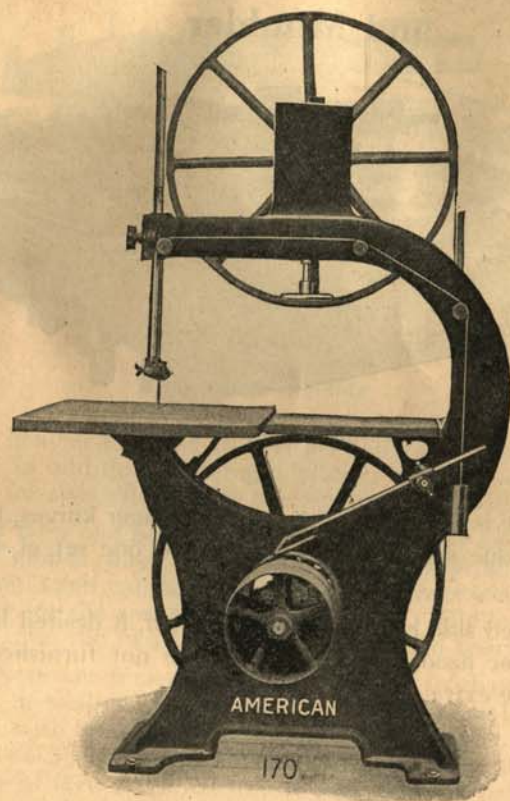
Square, slotted side heads will be furnished, if desired instead of the standard matcher heads. Matcher bits are not furnished with these heads. Belts are extra.

### SPECIFICATIONS

Net weight.....	6,000 lbs.
Shipping weight.....	6,500 lbs.
Weight packed for export.....	7,200 lbs.
Cubic contents packed for export.....	160 C. F.
Floor space, 10' 6" x 8' 6"	
Tight and loose pulleys, 12" x 8"	
Speed of countershaft, 875 R. P. M.	
Planes any width up to 24"	
Planes any thickness from $\frac{3}{8}$ " to 8"	
Matches or edges up to 4" thick and 2" to 15" wide.	
Upper head belt 6" x 15' 6"	
Upper head belt 6" x 14' 8"	
Lower head belt 6" x 16'	
Matcher belts (2) 3" x 17' 6" each.	
Feed belt, 3" x 13' 2"	

## American Tilting-Table Band Saws

20", 27" and 36"



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.

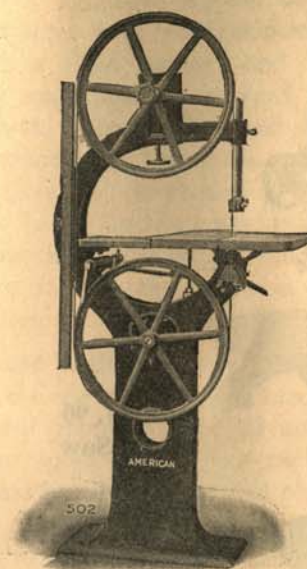
**The Table** is iron, accurately planed, and may be tilted to any angle up to 45 degrees. It is held securely in position by a positive clamping device.

**The Guide Bar** is planed true and counterbalanced. 36" and 27" machines are fitted with Wright non-friction saw guide above the table and plain guide below.

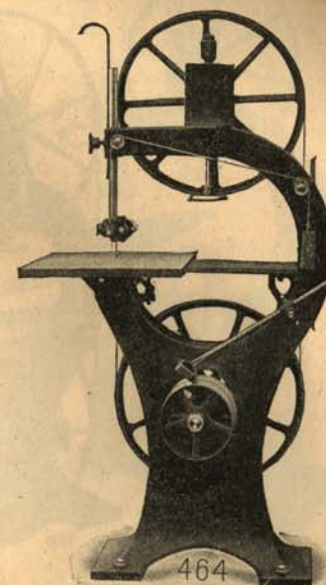
**The Belt Shifter** will receive a belt from any direction above or below the floor, and is right at the operator's left hand.

**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.

## American Band Saws



20" Machine



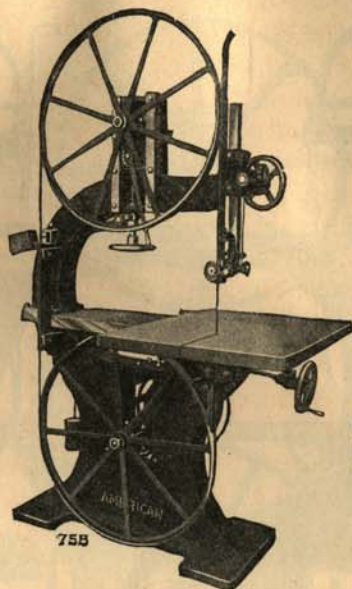
27" Machine

Each machine is furnished with guides as described above, brazing clamp and tongs and one blade— $\frac{1}{2}$ " on 36" and 27" and  $\frac{3}{8}$ " on 20" machine. 36" and 27" machines also furnished with ripping guide.

## SPECIFICATIONS

Size of Wheels.....	36"	27"	20"
Size of Table.....	28"x32"	22"x26"	22"x18"
Distance from Saw to Frame.....	36"	27"	20"
Guide Raises above Table.....	14"	12"	9"
Length of Blade.....	18' 6"	14'	10' 5"
Size of Tight and Loose Pulleys.....	12"x4"	10"x3 $\frac{1}{2}$ "	7"x3"
Speed of Pulleys, R. P. M.....	400-450	400-450	400-450
Shipping Weight.....	1,400	940	450
Weight, Boxed for Export.....	1,650	1,140	550
Measurement in Cubic Feet.....	60	40	20
Code Name.....	Bandit	Bandy	Banding

## 36" No. 90 and 30" No. 93 Band Saws

36" No. 90  
Band Saw

These machines are built to meet the demands of the most critical as to convenience of operation, accuracy and durability. The design is massive and the column and frame of sufficient weight to insure against vibration. They are built in a department of our factory devoted exclusively to the production of high grade precision machines and all parts are made interchangeable throughout by the use of jigs.

The upper and lower wheels are of the solid spoke type two inch face. Web lower wheel will be furnished, if preferred, at additional cost together with a special brake attached to belt shifter to quickly stop rotation of wheel. Both wheels are keyed to ground steel shafts. A collar is forged solid on each shaft against which hub of wheel is firmly held by a large nut. Both top and bottom shafts run in extra long bearings, made adjustable for alignment of saw blade, and in two parts to take up wear. The upper wheel bearing is hinged for tilting the wheels by means of a lever, convenient to the operator.

Saw guide is of the Wright anti-friction type and is mounted on a counterbalanced square post. A hand wheel is provided for raising and lowering the guide post with one hand while eyes are on the work.

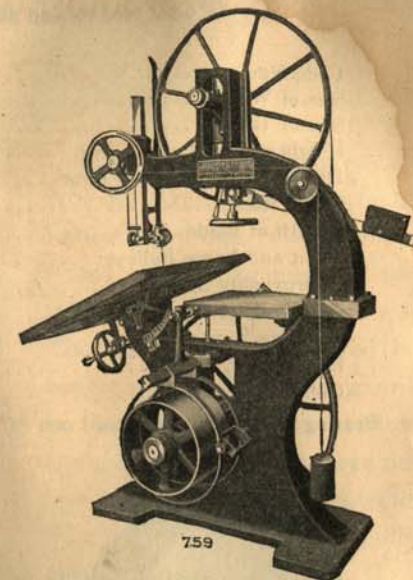
The Straining Device for the upper wheel is of wide range and very sensitive, due to the use of both spring and weight.

The Slide Head carrying the upper wheel bearings slides in a groove in the column and is held in place by steel gibs.

## 36" No. 90 and 30" No. 93 Band Saws

The table is made unusually rigid by extensive ribbing on the under side. It is cast face down to insure a clean surface, and after being machined is scraped and polished. A hand wheel and screw are provided for tilting the table to 45 degrees for bevel sawing and a brass index and pointer register the position of the table. A locking device fastens the table in any position.

**Loose Pulley.** Any one familiar with the use of high speed machinery will appreciate the advantage of our loose pulley construction. A brass bushing is fastened on the shaft, hollowed out next to the shaft to retain oil, which passes to the outer wearing surface through small holes. Over this bushing the pulley revolves and the wear of the pulley cannot affect the shaft. This bushing can be replaced without disturbing the shaft.

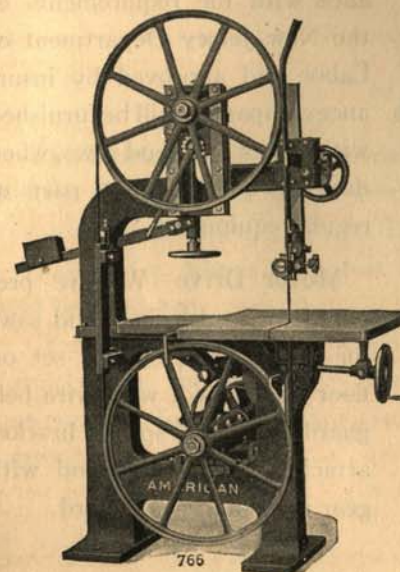


36" No. 90

## 30" No. 93

This machine differs somewhat in design from our 36-inch No. 90, but all of its working parts are essentially the same in construction and arrangement.

The machine is built of the best obtainable materials, by skillful workmen under strict supervision and inspection. It is a machine we guarantee to render first-class service under the most exacting conditions.



30" No. 93

## SPECIFICATIONS

## 36" No. 90 and 30" No. 93 Band Saws

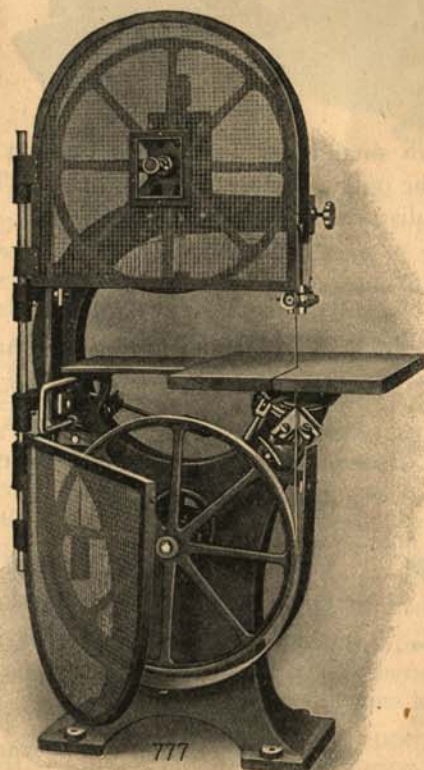
	30"	36"
Code Name.....	Journey	Jersey
Size of Wheels.....	30"x 2"	36"x 2"
Size of Table.....	20"x32"	30"x36"
Height of Table.....	36"	39½"
Distance from Saw to Frame.....	30"	36"
Guide Raises.....	15"	15"
Length of Blade.....	16'	18' 6"
Tight and Loose Pulleys.....	12"x4"	14"x4"
Approximate Speed.....	600	600
Net Weight.....	1,350	1,520
Shipping Weight.....	1,675	1,850
Export Weight.....	1,750	2,000
Cubic Contents.....	60 c. f.	70 c. f.

Brazing clamp and tongs and one ¾" blade furnished with each machine.

### Standard Hinged Wire Guards

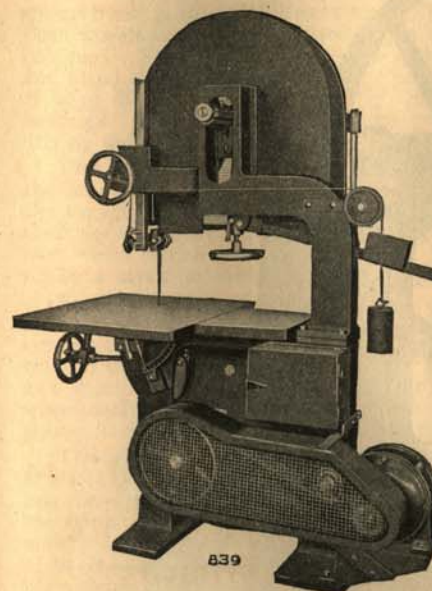
These guards, made in accordance with the requirements of the New Jersey Department of Labor and approved by insurance companies, will be furnished with any of our band saws, when desired, but are not part of regular equipment.

**Motor Drive**—We are prepared to furnish our band saws for motor drive, motor set on floor and belted, with wire belt guard, or set on special bracket attached to machine and with gear drive and gear guard.



Hinged Wire Guards  
Code Name, Wired

### Motor Driven Band Saws

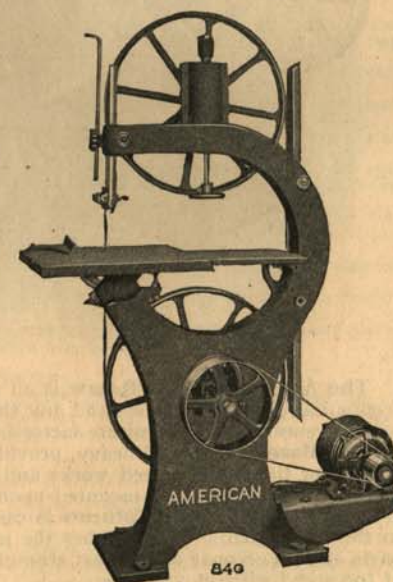


This illustration is of our 30" No. 93 Band Saw with belted motor drive and fully guarded. Front side of wheels are protected by hinged wire guards. The saw is fully protected between upper and lower guards in the rear and a guard follows the guide in front. Lower pulleys and belt are also protected by a wire mesh guard. An idler takes up slack in the belt.

This illustration is of a convenient belted motor drive which can be furnished with any of our Band Saws.

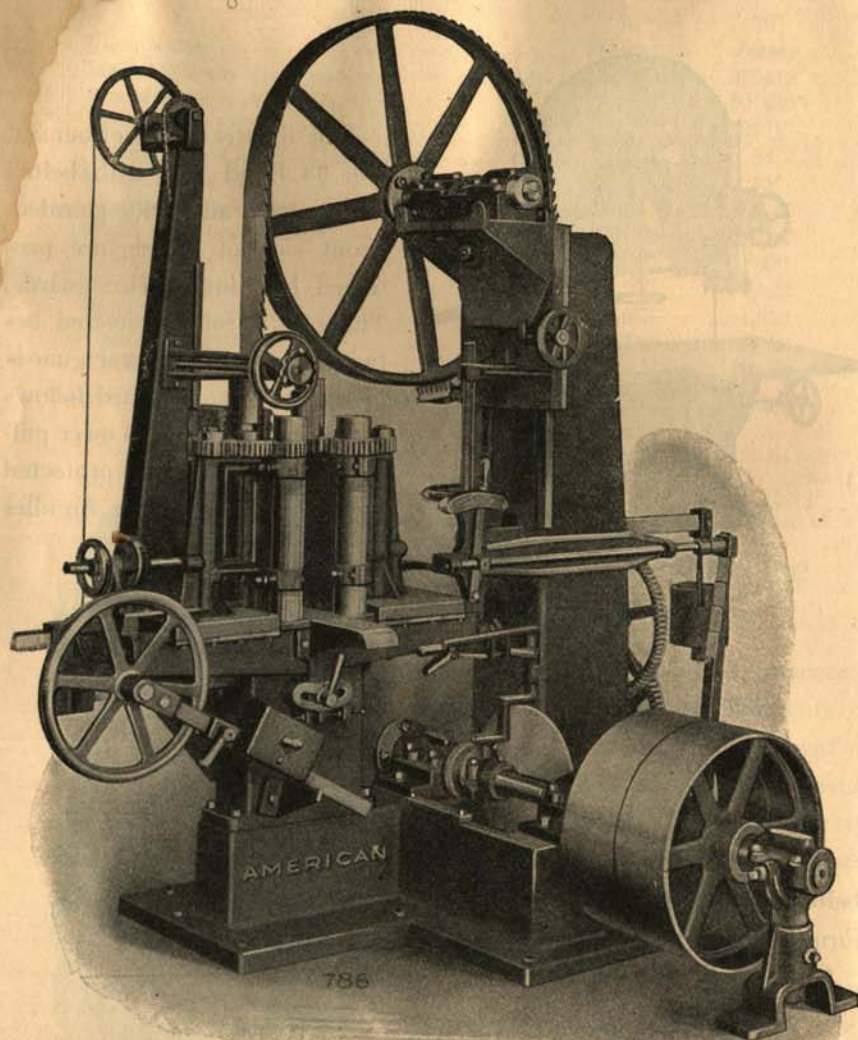
Guards for wheels and belt can also be furnished.

Geared motor drive can also be furnished on special order. Motors are supplied for all standard electric currents.



## 42" Band Resaw

Code Name, Joan



The American 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 wheel. 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.** Consist 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 Feed 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.

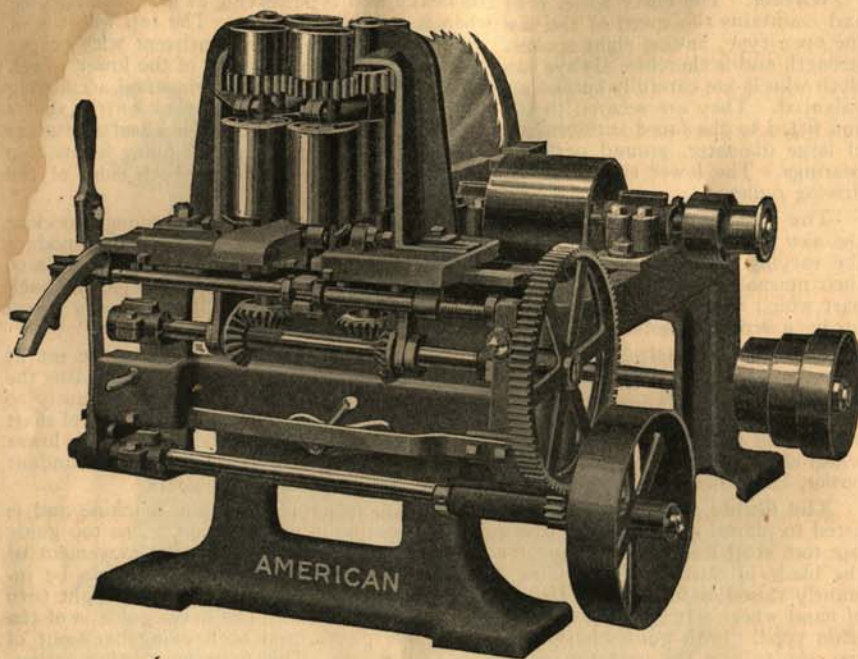
## EQUIPMENT

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.	Extreme height of feed rolls.....	24"
Export shipping weight, boxed.....	6,000 lbs.	Wheels.....	42" dia. x 4" face
Cubic measurement.....	125'	Diameter of lower wheel shaft.....	2 7-16"
Floor space over all.....	6' x 8'	Diameter of top wheel shaft.....	2"
Extreme height.....	8'	Tight and loose pulleys.....	22" dia. x 6½" face
Diameter of feed rolls.....	3½"	Speed of tight and loose pulleys.....	600 R.P.M.

## Circular Resaws, 24", 30", and 36"



Code names, 24", Obquid; 30", Obrim; 36", Ober.

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  $5\frac{1}{2}$ " 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 as to permit the tilting of the feedroll 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 of 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  $1\frac{1}{8}$ " 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.

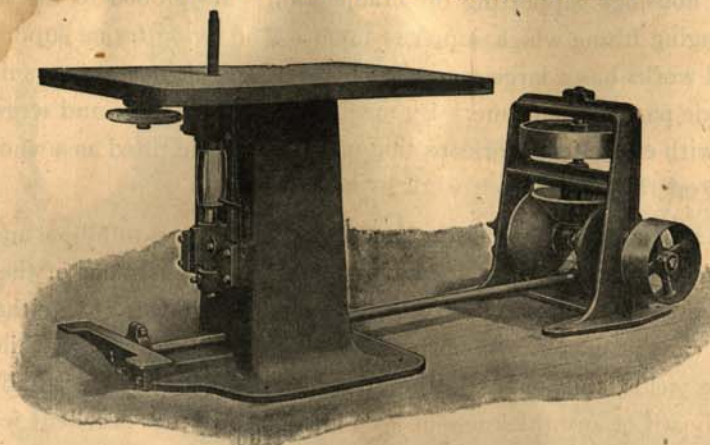
A planing attachment will be furnished on order at additional cost, for the purpose of jointing or planing the edges of boards and removing the ragged edges which the saw may leave in passing through the board. Illustration of this attachment will be furnished on application.

## General Information

A 24" saw splits 9" wide. Mandrel pulley 9" diameter, 8" face, speed for 24" saw, 1,500 R. P. M.; 30", 1,200 R. P. M. Floor space required for 24" and 30" machines, 5' x 5'. 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".

## Single Spindle Shaper With Friction Countershaft



**The Frame** is a heavy cored-out casting and has a well spread base.

**The Table** is made of iron and measures 30 x 42 inches. The hole for spindle is provided with concentric rings.

**The Spindle** revolves in connected self-oiling bearings, measuring  $\frac{5}{8}$ " diameter above table, and has a full set of fill-up collars. When desired, the spindle top is made flush with top of table and bored for the reception of a detachable cutter stem.

**The Housing** carrying spindle is fitted in planed slides with gibs for wear, being easily adjusted by the hand wheel below table.

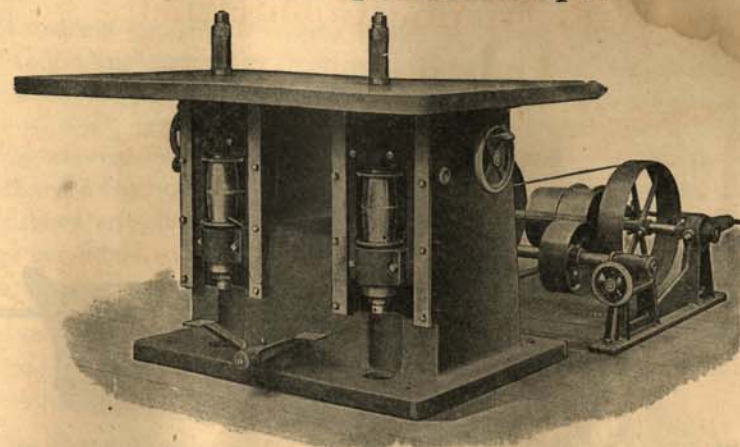
**The Friction Countershaft** consists of a driving pulley placed between two bearings, holding it in perfect line with the paper friction shaft and keeping every part in first class working order and preventing the frictions from getting out of shape. The paper frictions are made of compressed pulp and are very durable. The frictions are shifted by a treadle in front of machine, there being a compression collar to make the friction contact gradual and hold them together when set. The bearing that shifts the paper friction shaft is placed on the outside and not between the paper frictions; thus preventing oil from splattering and causing the frictions to slip and rot.

The 10" x  $4\frac{1}{2}$ " pulley on friction countershaft should make 750 revolutions per minute.

### GENERAL INFORMATION

Size of Table.....	30"x42"
Spindle—Diameter above Table, Regular.....	$\frac{5}{8}$ "
Diameter in Bearings.....	$1\frac{1}{4}$ "
Spindle Pulley.....	$3\frac{1}{4}$ "x6"
Space between Shoulder and Nut.....	6"
Speed of Spindle.....	4,500 R. P. M.
Horse Power.....	2
Net Weight.....	1,200 lbs.
Gross Weight.....	1,500 lbs.
Cubic Measurement.....	42 cu. ft.
Code Name.....	Hilt

## Double Spindle Shaper



**The Frame** is unusually large and heavy, having a base 33 x 43 inches. Machine weighs 2,200 pounds.

**The Spindles** are 24 inches apart, measuring  $1\frac{1}{4}$  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 60 x 40 inches. A cutter with  $6\frac{1}{2}$  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 10 x  $4\frac{1}{2}$  inches, and should make 800 revolutions per minute.

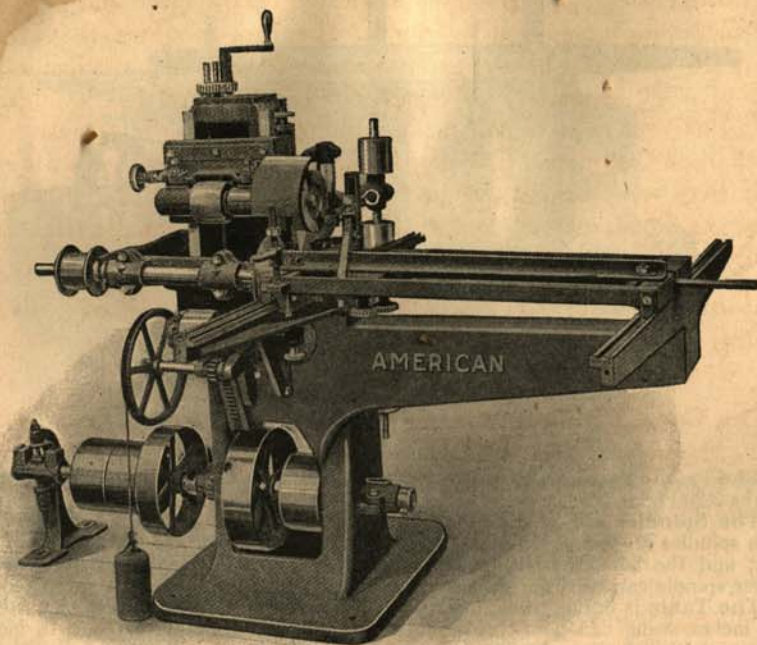
### GENERAL INFORMATION

Size of Base.....	33"x43"
Size of Table.....	60"x40"
Distance from Front of Table to Spindles.....	18"
Distance from Side of Table to Spindles.....	18"
Diameter of Spindle Opening.....	$6\frac{1}{2}$ "

### SPINDLES

Diameter above Table.....	$1\frac{1}{4}$ "
Diameter below Table.....	$1\frac{1}{4}$ "
Distance, Center to Center.....	24"
Spindle Bearings.....	6" and 7"
Spindle Pulleys.....	$4\frac{1}{2}$ "x7"
Speed.....	4,500 R. P. M.
Tight and Loose Pulleys.....	$10\frac{1}{2}$ "x4"
Speed.....	800 R. P. M.
Drive Pulley on Countershaft.....	$20\frac{1}{2}$ "x4"
Idler Pulley on Countershaft.....	$10\frac{1}{2}$ "x4"
Horse Power.....	5
Shipping Weight.....	2,200 lbs.
Gross Weight for Export.....	2,600 lbs.
Cubic Measurement.....	75 cu. ft.
Code Name.....	Hilsole

## American Tenoner



Will make tenons 4" long from shoulder to end on a single cut, or 6" on a double cut. Maximum width, 14". Maximum thickness,  $4\frac{1}{4}$ ".

This machine is adapted to all general tenoning of a light or medium character, such as sash, doors, cabinet work, furniture, truck bodies, etc. Its design permits of easy handling of the stock by the operator, there being no obstruction to the free use of the hands and body in moving the carriage or table. The frame is cast in one hollow or cored-out piece, with wide base, and the parts are all well proportioned, there being an abundance of weight, evenly distributed throughout, insuring rigidity and durability.

The carriage or table is cast in one piece and is easily operated on the rails, being provided with dust-proof anti-friction rolls that will move with the pressure of a finger. This enables the operator to work without fatigue. The table rests solidly and has gibs for wear. Its top side is planed and ruled and is fitted with an adjustable fence which may be set to make angle tenons. It is also fitted with planed, adjustable gauge rod and spring stops, also clamp or hold-down bar and lock. It is provided with wipers to remove shavings and saw dust from the rails.

## American Tenoner (Continued)

**Mandrels** carrying tenoning heads are extra large and revolve in long, self-oiling connected bearings. They are mounted in yokes on dovetailed ways and have gibs for wear. They have a vertical adjustment of  $4\frac{1}{4}$ ", separately or together. Top mandrel has a lateral or overcut movement to permit making the tenons longer or shorter on one side than on the other. The position of the mandrels is such as to make the cutters self-clearing and to make clean tenons with tight, snugly fitting shoulders. A self-compensating binder takes up the slack in the belts as the position of the mandrels is changed.

**Mandrel Pulleys** are placed between the bearings, evenly dividing the belt strain, to insure cool-running, evenly wearing journals and preserving the relative alignment of both.

**The Cope Heads**, with their connected bearings, etc., are mounted on the main head stocks and rise and fall with the same. They are fitted to milled surfaces and have independent horizontal and vertical adjustments. The cope countershaft is attached to the main frame, when this attachment is desired, or may be added later on should it be needed.

**The Cut-off Saw** attachment is placed beyond the tenoning heads, cutting off waste from the stock after cutting the tenon, but will be placed in front of the heads on special order without additional cost. It is driven directly from the main countershaft and is independent of the cutter head mandrels. A suitable guard covers the saw. The cut-off saw is easily adjusted for long or short tenons.

### GENERAL INFORMATION

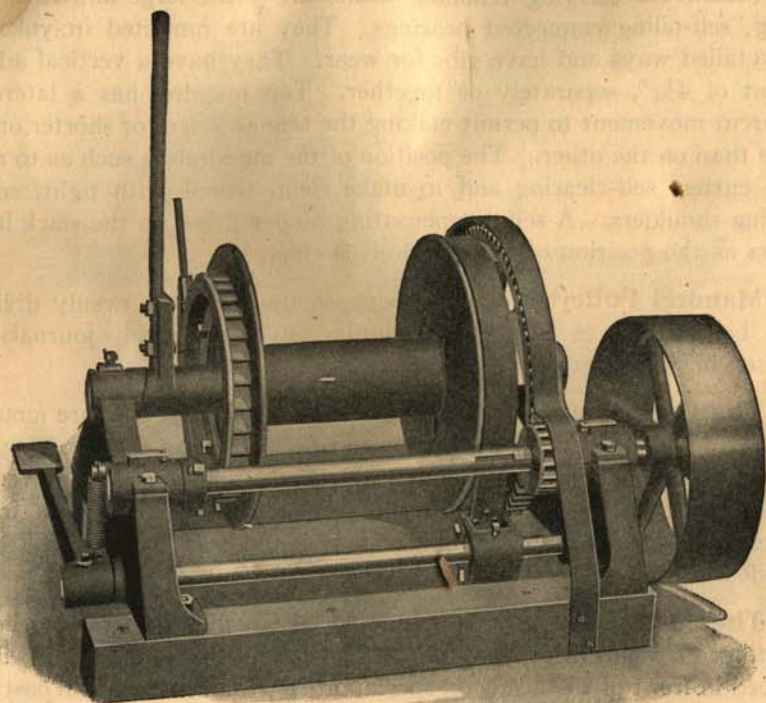
Floor Space, Regular Machine, 80" x 54".	Cope Attachments, add to Weight, 130 lbs.
Floor Space with Cope Attachment, 80" x 64".	Cut-off Attachment adds to Weight, 60 lbs.
Length of Table, 36".	Code Name, Regular Machine, <b>Hopkins</b>
Height of Table from Floor, 38".	Code Name, Top Cope Head, <b>Hoque</b>
Height of Machine over all, 60".	Code Name, Bottom Cope Head, <b>Hoqued</b>
Tight and Loose Pulleys, 8" x 4".	Code Name Both Cope Heads, <b>Hoquos</b>
Speed of Countershaft, 875 R. P. M.	Code Name Cut-Off Attachment, <b>Hoquam</b>
Shipping Weight of Regular Machine, 1,400 lbs.	
Weight for Export, 1,600 lbs.	

### Belts required

Main Belt 8' 9" x 3"	Cope Countershaft, 5' 10" x 3"
Cope Heads, each, 5' 4" x 2"	Cut-Off Saw, 7' 6" x 2"

## American No. 1 Single Drum Hoist

Code Name, Hostage



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 280' of  $\frac{3}{4}$ " rope. Hoisting capacity, 1,000 lbs. 100' per minute with single line on direct lift. Driving pulley, 16" x 5". Speed, 360 R. P. M. Power required, 3 H. P. and up according to work to be done. Floor space required, 29" x 40". Weight, net, 430 lbs. Weight, boxed for export, 650 lbs. Cubic measurement, 20'.

NOTE—This hoist can be furnished mounted on skids with engine or motor when so desired at extra cost.

## American No. 2 "Handy Man" Hay Hoist

Code Name, Hostel

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 280' of  $\frac{3}{4}$ " rope, and the smaller one, for returning the hay fork to the load, carries 200' of  $\frac{1}{2}$ " rope.

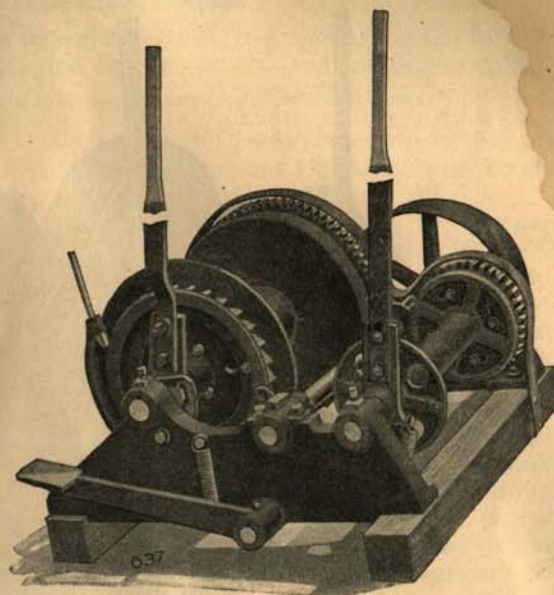
These drums revolve freely on the shafts and are driven by means of powerful wood cone frictions. The action is strong and positive and under perfect control by the levers, which may be operated by small ropes passing to the load or into the barn. In this way, the man on the load can operate the hoist, 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

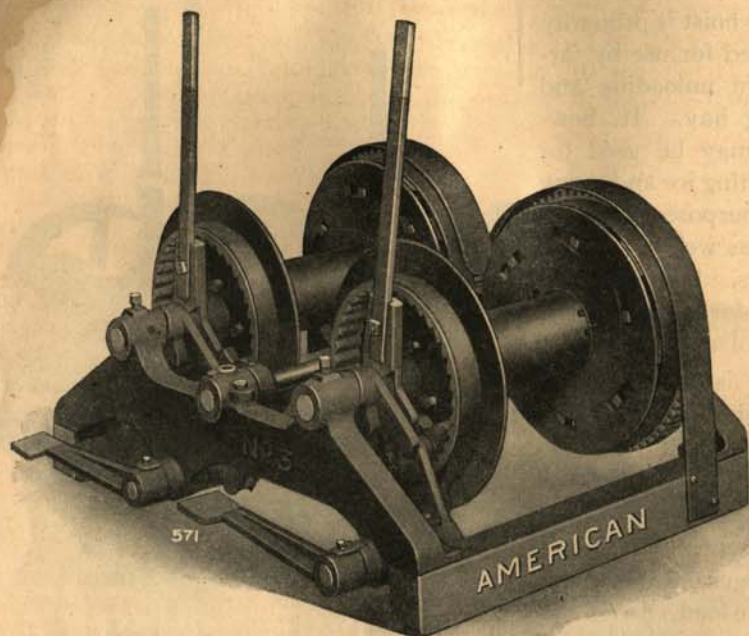
Large drum, 5" x 13"; small drum, 2 $\frac{5}{8}$ " x 16". Winding capacity of large drum, 280'. Hoisting capacity, 1,000 lbs. 100' per minute, with single line on direct lift. Driving pulley, 16" x 5". Speed, 360 R. P. M. Power required, 3 H. P. and up, according to work to be done. Floor space, 32" x 40". 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.



## American No. 3 Double Drum Hoist

Code Name, Host



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, 280' of  $\frac{3}{4}$ " rope. Hoisting capacity, 1,000 lbs. on each drum, 100' per minute, with single line on direct lift. Driving pulley, 16" x 5". Speed, 360 R. P. M. Power required, 5 H. P. and up, according to work to be done. Floor space, 40" x 44". Weight, net, 760 lbs. Weight, boxed for export, 950 lbs. Cubic measurement, 28'.

## American No. 4 Contractors and Builders Hoist

Code Name, Hostile

Our No. 4 Single Drum Reversible Hoist, is a time, labor and money saver. It is especially adapted to contractors' and builders' require-

ments, 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 or 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 band 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 operator, to control the drop of elevator. An independent safety ratchet and pawl are provided for holding the load.

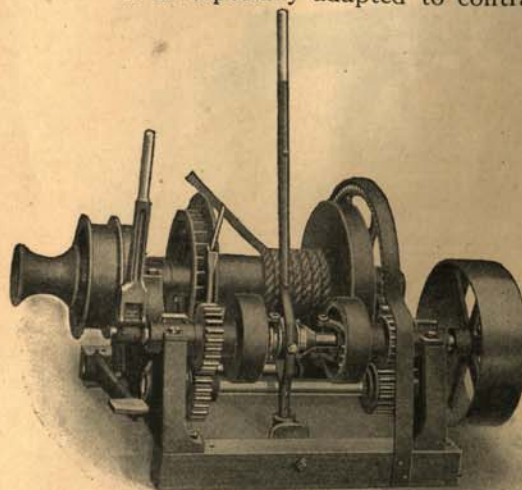
The hoist may be driven by belt from any convenient power, or may be mounted on a base or truck and direct connected by gearing, or sprocket and chain, to a gasoline engine or electric motor. Sprocket will be furnished in place of drive pulley when desired.

This hoist occupies but little space, and being comparatively light is easily moved and can be used in cramped quarters.

### SPECIFICATIONS

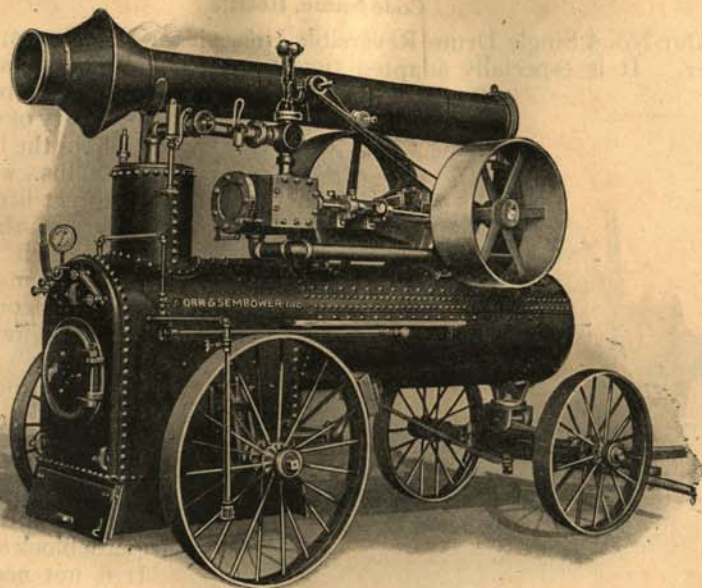
Drum, 5" diameter; 13" between flanges. Winding capacity, 500' of  $\frac{1}{2}$ " wire cable. Hoisting capacity, 1,000 lbs., 100' per minute with single line on direct lift. Sheave 10" diameter. Drive pulley, 16" x 5", speed 360 R. P. M. Power required 5 H. P. or more, according to work to be done. Floor space 32" x 47". 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



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 valve, 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.

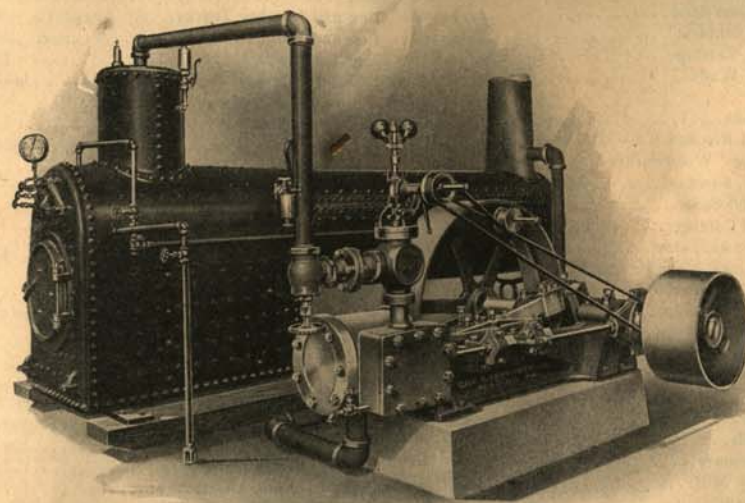
The fittings and fixtures comprise grates, water gauge, gauge cocks, steam gauge, safety valve, check and stop valves, blow-off valve, stack, whistle, injector attached, fly wheel, pulley, oil cups, lubricator, throttle valve, automatic governor and belt. Ash pan furnished with rig on wheels; also tongue yoke, whiffletrees and brake.

The Grates regularly furnished are the plain type, but the Tupper or herring-bone, 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



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.....	428'	609'	726'	764'	1029'
Code Name, on Wheels.....	Weldy	Welker	Wells	Weltmer	Wendel
Code Name, with Detached Engine as Illustrated.....	Werley	Werner	Wert	Wesley	Wesner
Code Name, with Engine Mounted on Boiler.....	Weiser	Weist	Weitzel	Welch	Welder

\*Hinged stack as illustrated is furnished with rig on wheels.

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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. ———.
Sapor.....	Referring to your letter of ———.

## 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.

## Our Guarantee

We guarantee that every machine made by us and bearing our name "American," is made of the Best Obtainable Materials, embodies high-grade workmanship, and if properly set up and adjusted and carefully operated without prejudice, it is 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.