

# THE WEST HAVEN MANUFACTURING COMPANY



WORKS  
WEST  
HAVEN  
CONN.

POST  
OFFICE  
ADDRESS  
NEW  
HAVEN  
CONN.

**MAKERS OF  
UNIVERSAL  
HACK SAW BLADES  
FRAMES AND MACHINES  
AND HARDWARE  
SPECIALTIES**

*NEW YORK 30 CHURCH STREET, ROOM 500.*

*SAN FRANCISCO 111 NEW MONTGOMERY ST.*

*LONDON*

*GLASGOW*

*PARIS.*

CATALOG No. 15 Jan. 1, 1918.

# THE WEST HAVEN MANUFACTURING COMPANY

MAKERS OF

“Universal” Hack Saw Blades,  
Frames, Machines,  
Hardware Specialties, and  
“Acme” High Speed Hack Saw  
Machines

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POST OFFICE	-	-	-	-	NEW HAVEN, CONN.
WORKS	-	-	-	-	WEST HAVEN, CONN.
NEW YORK	-	-			30 CHURCH STREET, ROOM 500
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LONDON					GLASGOW
					PARIS

Catalog No. 15

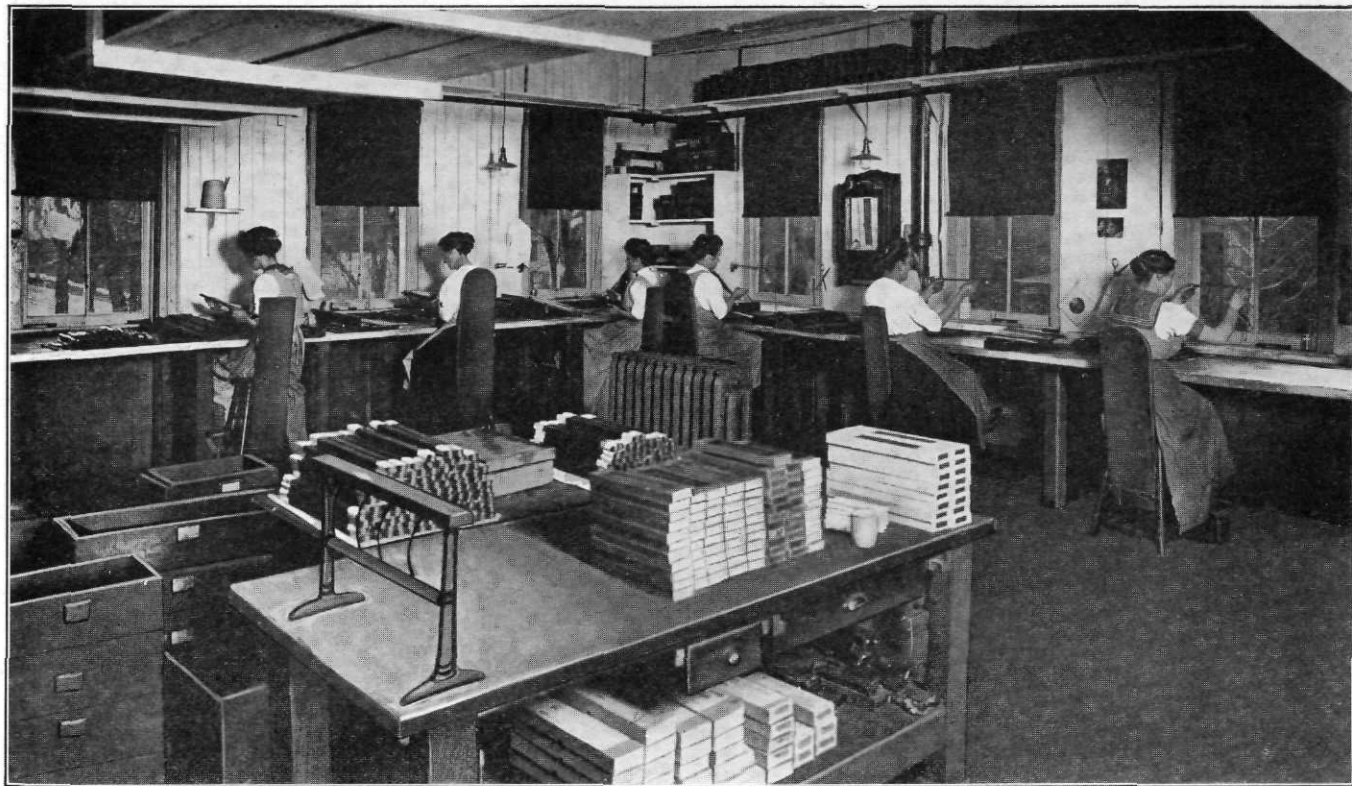
JANUARY 1, 1918



OUR PLANT



10. Oct. 1967 Pa. Appraisal Co.



Section Inspecting Department, showing how every UNIVERSAL HACK SAW is inspected before packing, to prevent shipment of imperfect blades.



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## INTRODUCTORY

**I**N OFFERING this catalog to the trade, we desire to call especial attention to the addition of several heavy gauge blades,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$  and  $1\frac{3}{4}$  inches wide with 4, 6, 8 and 10 teeth per inch. These sizes are made to meet the demand of all the high-speed heavy machines on the market and especially the "Acme." The list, however, does not include all sizes we are equipped to make, and we are prepared to furnish at short notice any width up to 2 inches and any length up to 36 inches with 4, 6, 8 or 10 teeth per inch as desired.

The "Acme" High Speed Power Hack Saw Machine is shown for the first time in our regular catalog in four sizes, and to this line also you are especially referred.

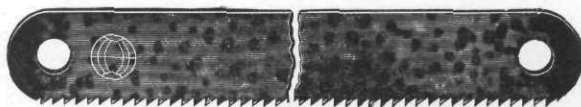
We wish to express here our appreciation of the continued support of the trade in our efforts to build a business on "Quality and Service."

THE WEST HAVEN MANUFACTURING COMPANY.

NEW HAVEN, CONN., Jan. 1st, 1918.

All prices in this catalog are in effect from this date.

## "UNIVERSAL" HACK SAWS



### HAND BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH				PER DOZ.	PER GRO.	NO. IN BOX
6 inches	1/2 inch	23=.025	16	20	24	32	\$ .59	\$ 7.00	1/2 Gross
7 "	1/2 "	23=.025	16	20	24	32	.63	7.50	1/2 "
8 "	1/2 "	23=.025	16	20	24	32	.67	8.00	1/2 "
8 "	5/8 "	22=.028	14	20		32	.75	9.00	1/2 "
9 "	1/2 "	23=.025	16	20	24	32	.75	9.00	1/2 "
9 "	5/8 "	22=.028	14	20		32	.80	9.60	1/2 "
10 "	1/2 "	23=.025	16	20	24	32	.84	10.00	1/2 "
10 "	5/8 "	22=.028	14	20		32	.85	10.20	1/2 "
11 "	1/2 "	23=.025	16	20	24	32	.92	11.00	1/2 "
12 "	9/16 "	23=.025	14	20	24	32	1.00	12.00	1/2 "
12 "	9/16 "	22=.028	14	20		32	1.05	12.60	1/2 "
12 "	5/8 "	22=.028	14	20		32	1.05	12.60	1/2 "
14 "	9/16 "	22=.028	14	20		32	1.25	15.00	1/2 "

### NOTE

The "Universal" Hand Blades in 23 gauge = .025, listed above, are made in four cuts of teeth, each cut especially adapted to some particular class of material, and having also a special temper in accordance with the class of material for which it is designed.

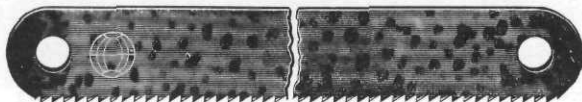
Information as to the "proper" blade to use will be found on the following page, and we strongly urge our customers to make themselves familiar with it, for our mutual benefit, as, without doubt, it is the most important point to be considered in purchasing Hack Saws. Blades with 20 teeth per inch will be supplied where full specifications are not given.

All cuts of teeth, same price.



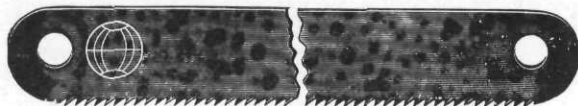
## "UNIVERSAL" HACK SAWS

REGULAR CUT—14 or 16 Pts. per inch



This blade is especially adapted to cutting soft steel or iron solids, and Rails. Not recommended for Brass, Pipe, Tubing, etc.

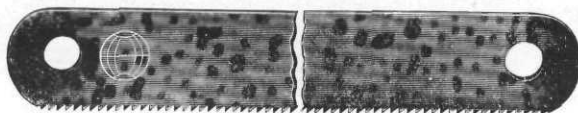
MEDIUM CUT—20 Pts. per inch



We recommend 20 point blades used in a hand frame, as the best for general purposes. Especially adapted to cutting Brass Castings, Iron Pipe and Heavy Tubing.

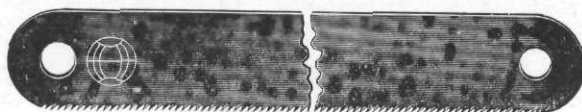
This cut of tooth will be furnished on all orders where full specifications are not given.

FINE CUT—24 Pts. per inch



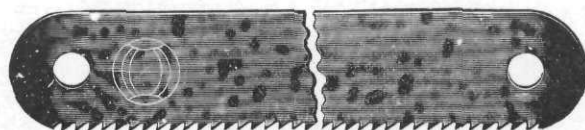
The 24 point or fine cut of tooth is most satisfactory for cutting light work, i. e., Brass Rod, Drill Rod, Brass Pipe or Medium Tubing.

TUBING CUT—32 Pts. per inch



For Thin Tubing, Thin Sheet Metal, etc.

## "UNIVERSAL" HACK SAWS



### HAND OR LIGHT POWER BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH			PER DOZ.	PER GRO.	NO. IN BOX
8 inches	$\frac{5}{8}$ inch	22=.028	14	20	32	\$ .75	\$ 9.00	$\frac{1}{2}$ Gross
9 "	$\frac{5}{8}$ "	22=.028	14	20	32	.80	9.60	$\frac{1}{2}$ "
10 "	$\frac{5}{8}$ "	22=.028	14	20	32	.85	10.20	$\frac{1}{2}$ "
12 "	$\frac{9}{16}$ "	22=.028	14	20	32	1.05	12.60	$\frac{1}{2}$ "
12 "	$\frac{5}{8}$ "	22=.028	14	20	32	1.05	12.60	$\frac{1}{2}$ "
14 "	$\frac{9}{16}$ "	22=.028	14	20	32	1.25	15.00	$\frac{1}{2}$ "

The blades listed above, while suitable for hand frame use, will be found economical for use in light weight power machines, for cutting various and irregular shapes of special metals of small dimensions; especially the 20 and 32 point blades, for cutting material demanding a fine tooth saw. 14" blades are  $13\frac{1}{2}$ " to centers.

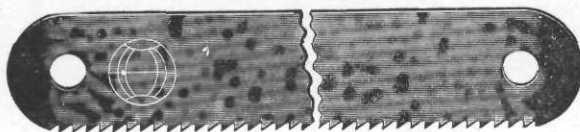
We cannot emphasize this point too strongly, as in many instances a heavier gauge with a coarser tooth is used in a power machine, for cutting material to which it is not well adapted, and therefore not only more expensive, but not nearly as satisfactory.

See next page for more detailed information.

Heavier gauge power machine blades are listed on following pages.

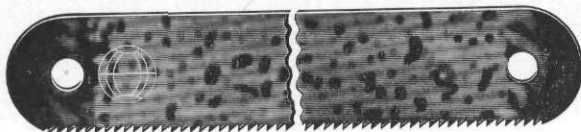
## "UNIVERSAL" HACK SAWS

REGULAR CUT—14 Pts. per inch



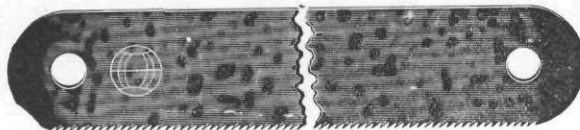
Above blade in 22 gauge in light weight power machine is especially adapted to cutting solids not more than  $1\frac{1}{2}$  inches. Also will be found best adapted to many uses in hand frames.

MEDIUM CUT—20 Pts. per inch



This blade in 22 gauge is especially for use in light weight machines or hand frames, for cutting Brass Castings, Iron Pipe, Heavy Tubing, etc.

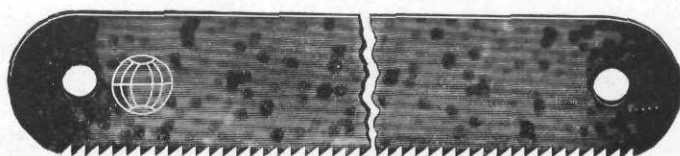
TUBING CUT—32 Pts. per inch



For light weight machines only, cutting Thin Tubing or other shapes equiring a very fine tooth saw.



## "UNIVERSAL" HACK SAWS



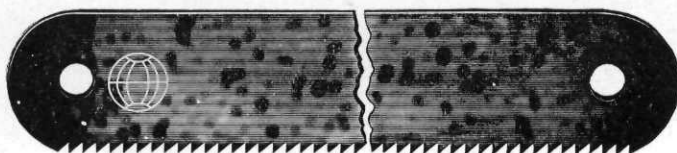
### POWER MACHINE BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH			PER DOZ.	PER GRO.	NO. IN BOX
10 inches	$\frac{3}{4}$ inch	21=.032	14			\$1.15	\$13.50	$\frac{1}{2}$ Gross
12 "	$\frac{9}{16}$ "	21=.032	14	20		1.15	13.80	$\frac{1}{2}$ "
12 "	$\frac{5}{8}$ "	21=.032	14	20		1.20	14.40	$\frac{1}{2}$ "
12 "	$\frac{3}{4}$ "	21=.032	14	20	24	1.35	16.20	$\frac{1}{2}$ "
14 "	$\frac{5}{8}$ "	21=.032	14			1.40	16.80	$\frac{1}{2}$ "
14 "	$\frac{3}{4}$ "	21=.032	14	20	24	1.58	18.90	$\frac{1}{2}$ "
16 "	1 "	21=.032	14			2.54	30.40	$\frac{1}{3}$ "
17 "	$\frac{3}{4}$ "	21=.032	14			1.92	22.95	$\frac{1}{3}$ "
17 "	1 "	21=.032	14			2.70	32.30	$\frac{1}{3}$ "
18 "	1 "	21=.032	14			2.85	34.20	$\frac{1}{3}$ "

Our 14 and 17" power machine blades are  $\frac{1}{2}$ " less to centers than length given. Lighter gauge power blades are listed on preceding page and heavier gauge on following pages.

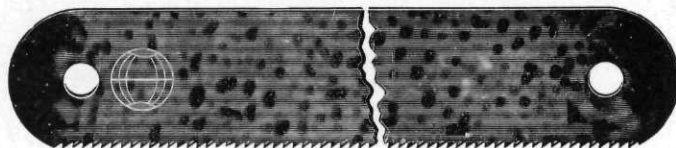
## "UNIVERSAL" HACK SAWS

REGULAR CUT—14 Pts. per inch



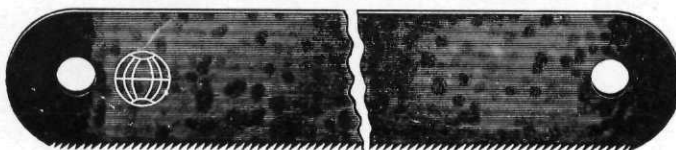
Above blades are designed for use in ordinary power machines for cutting solids in iron or steel and general power machine work.

MEDIUM CUT—20 Pts. per inch



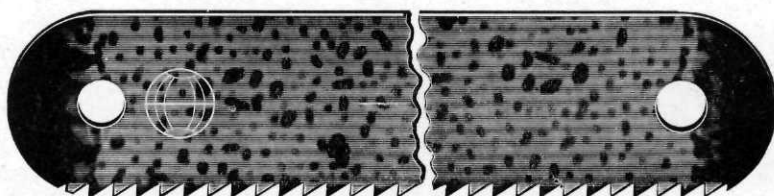
The 20 point blade in 21 gauge is especially adapted to special work in the ordinary power machine, such as Brass Castings, Iron Pipe, Heavy Tubing, etc.

FINE CUT—24 Pts. per inch



The 24 point blade in 21 gauge is especially adapted to special work in the ordinary power machine, when it appears a fine tooth is necessary. There are instances where this blade would be best adapted to cutting cast iron.

## “UNIVERSAL” HACK SAWS



### HEAVY POWER MACHINE BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH		PER DOZ.	PER GRO.	NO. IN BOX
10 inches	$\frac{3}{4}$ inch	18=.049	10		\$1.63	\$19.50	$\frac{1}{3}$ Gross
12 "	$\frac{3}{4}$ "	18=.049	10	14	1.95	23.40	$\frac{1}{3}$ "
12 "	1 "	18=.049	6	10	2.45	29.40	$\frac{1}{4}$ "
13 "	1 "	18=.049	6	10	2.66	31.85	$\frac{1}{4}$ "
14 "	$\frac{3}{4}$ "	18=.049	10	14	2.28	27.30	$\frac{1}{4}$ "
14 "	1 "	18=.049	6	10	2.86	34.30	$\frac{1}{4}$ "
14 "	$1\frac{1}{4}$ "	18=.049	6	10	3.68	44.10	1 Doz.
15 "	1 "	18=.049	10	14	3.07	36.75	$\frac{1}{4}$ Gross
15 "	$1\frac{1}{4}$ "	18=.049	6		3.94	47.25	1 Doz.
16 "	1 "	18=.049	10	14	3.27	39.20	$\frac{1}{4}$ Gross
16 "	$1\frac{1}{4}$ "	18=.049	6	10	4.20	50.40	1 Doz.
17 "	$\frac{3}{4}$ "	18=.049	10	14	2.77	33.15	$\frac{1}{4}$ Gross.
17 "	1 "	18=.049	10	14	3.48	41.65	$\frac{1}{4}$ "
18 "	1 "	18=.049	10		3.68	44.10	$\frac{1}{4}$ "
19 "	1 "	18=.049	10		3.88	46.55	$\frac{1}{4}$ "
20 "	1 "	18=.049	10		4.09	49.00	$\frac{1}{4}$ "
21 "	1 "	18=.049	10		4.29	51.45	$\frac{1}{4}$ "
23 "	1 "	18=.049	10		4.70	56.35	$\frac{1}{4}$ "
24 "	1 "	18=.049	10	14	4.90	58.80	$\frac{1}{4}$ "

14 and 17" power blades 1" wide and less are  $\frac{1}{2}$ " less to centers than length given. All other power blades will be shipped true to length given. Lighter gauge power blades are listed on preceding pages, and still heavier gauges on following page.

Table of Weights, Page 51.



## “UNIVERSAL” HACK SAWS

LENGTH	WIDTH	GAUGE	TEETH PER INCH		PER DOZ.	PER GRO.	NO. IN BOX
14 inches	1 inch	16=.065	8		\$ 3.68	\$ 44.10	¼ Gross
14 “	1¼ “	17=.056	6	10	4.50	53.90	1 Doz.
15 “	1¼ “	17=.056	6	10	4.82	57.75	1 “
16 “	1 “	16=.065	8		4.20	50.40	¼ Gross
16 “	1¼ “	17=.056	6	10	5.14	61.60	1 Doz.
16 “	1½ “	16=.065	4	8	6.67	80.00	1 “
17 “	1 “	16=.065	8	10	4.47	53.55	¼ Gross
17 “	1¼ “	16=.065	4	8	6.03	72.25	1 Doz.
17 “	1½ “	16=.065	4	8	7.09	85.00	1 “
18 “	1 “	16=.065	8		4.73	56.70	¼ Gross
18 “	1¼ “	17=.056	6	10	5.46	69.30	1 Doz.
18 “	1½ “	16=.065	4	8	7.50	90.00	1 “
19 “	1¼ “	17=.056	6	10	6.10	73.15	1 “
19 “	1 “	16=.065	8		4.99	59.85	¼ Gross
19 “	1½ “	16=.065	4	8	7.92	95.00	1 Doz.
20 “	1 “	16=.065	8		5.25	63.00	¼ Gross
20 “	1¼ “	17=.056	6	10	6.42	77.00	1 Doz.
20 “	1½ “	16=.065	4	8	8.34	100.00	1 “
21 “	1 “	16=.065	8		5.52	66.15	¼ Gross
21 “	1¾ “	16=.065	4	8	10.50	126.00	1 Doz.
22 “	1½ “	17=.056	6	10	8.35	100.10	1 “
22 “	1¾ “	16=.065	4	8	11.00	132.00	1 “
23 “	1 “	16=.065	8		6.04	72.45	¼ Gross
23 “	1¾ “	16=.065	4	8	11.50	138.00	1 Doz.
24 “	1 “	16=.065	8	10	6.30	75.60	¼ Gross
24 “	1½ “	17=.056	6	10	9.10	109.20	1 Doz.
24 “	1¾ “	16=.065	4	8	12.00	144.00	1 “
26 “	1½ “	16=.065	4	8	10.84	130.00	1 “
28 “	1½ “	16=.065	4	8	11.67	140.00	1 “
30 “	1½ “	16=.065	4	8	12.50	150.00	1 “
32 “	1½ “	16=.065	4	8	13.34	160.00	1 “

14 and 17" power blades 1" wide and less are ½" less to centers than length given. All other power blades will be shipped true to length given. Lighter gauge power blades are listed on preceding pages.

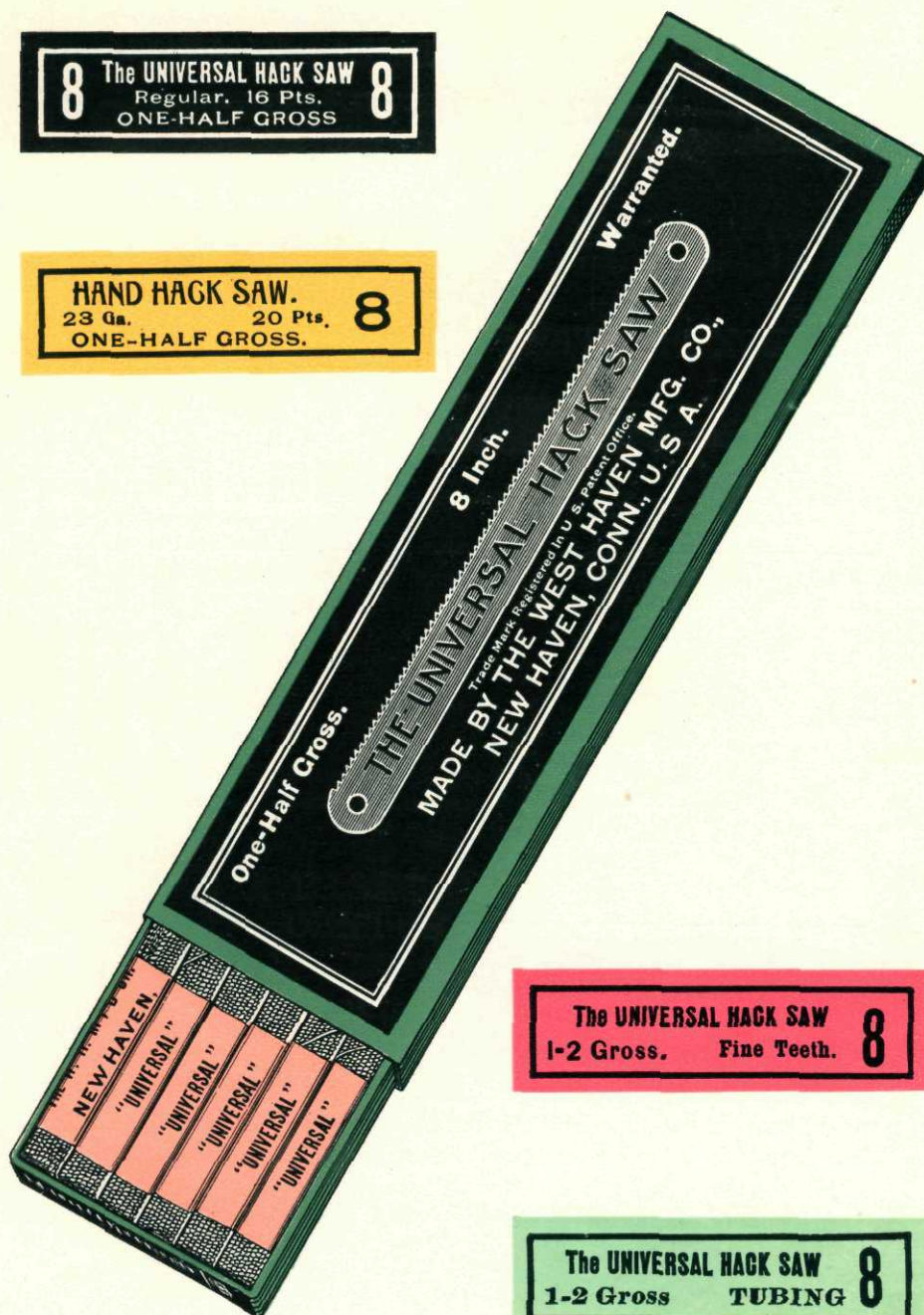
## **SPECIAL "UNIVERSAL" HACK SAW BLADES**

While we have endeavored to list in the preceding pages, "UNIVERSAL" Hack Saw Blades to meet the demands of all machines, we are prepared to furnish special sizes from 12 to 36 inches long, and  $\frac{1}{2}$  to 2 inches wide, in 21, 18, 17 and 16 gauges, at short notice.

**THERE'S A "UNIVERSAL"  
FOR EVERY REQUIREMENT**

**8** The UNIVERSAL HACK SAW **8**  
Regular. 16 Pts.  
ONE-HALF GROSS

**HAND HACK SAW.** **8**  
23 Ga. 20 Pts.  
ONE-HALF GROSS.

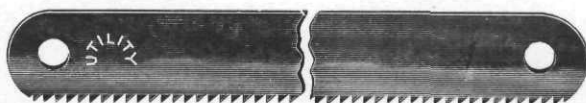


The UNIVERSAL HACK SAW **8**  
1-2 Gross. Fine Teeth.

The UNIVERSAL HACK SAW **8**  
1-2 Gross TUBING



## “UTILITY” HACK SAWS



### HAND BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH				PER DOZ.	PER GRO.	NO. IN BOX
6 inches	1/2 inch	23= .025	16	20	24	32	\$ .59	\$ 7.00	1/2 Gross
7 "	1/2 "	23= .025	16	20	24	32	.63	7.50	1/2 "
8 "	1/2 "	23= .025	16	20	24	32	.67	8.00	1/2 "
9 "	1/2 "	23= .025	16	20	24	32	.75	9.00	1/2 "
10 "	1/2 "	23= .025	16	20	24	32	.84	10.00	1/2 "
11 "	1/2 "	23= .025	16	20	24	32	.92	11.00	1/2 "
12 "	9/16 "	23= .025	16	20	24	32	1.00	12.00	1/2 "
13 "	1/2 "	23= .025	16	20	24	32	1.09	13.00	1/2 "
14 "	1/2 "	23= .025	16	20	24	32	1.17	14.00	1/2 "
15 "	1/2 "	23= .025	16	20	24	32	1.25	15.00	1/2 "
16 "	1/2 "	23= .025	16	20	24	32	1.34	16.00	1/2 "

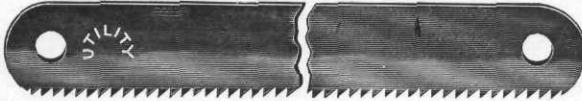
The “Utility” Hack Saws, Hand Frame sizes in 23 gauge = .025 listed above, are as with the Universal made in four different cuts of teeth, each cut especially adapted to some particular class of material.

Information in detail concerning the “proper” blade to use will be found on the following page. Blades with 20 teeth per inch will be supplied where full specifications are not given.

All cuts of teeth same price.

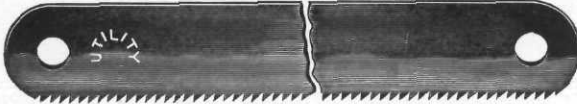
## "UTILITY" HACK SAWS

REGULAR CUT—16 Pts. per inch



This blade is especially adapted to cutting soft steel or iron solids, and Rails. Not recommended for Brass, Pipe, Tubing, etc.

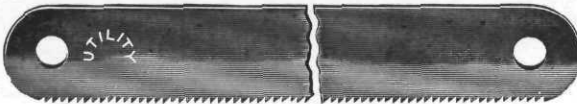
MEDIUM CUT—20 Pts. per inch



We recommend 20 point blades used in a hand frame as the best for general purposes. Especially adapted to cutting Brass Castings, Iron Pipe and Heavy Tubing.

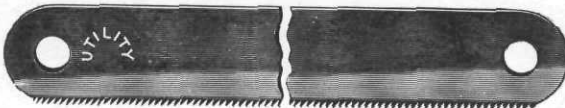
This cut of tooth will be furnished on all orders where full specifications are not given.

FINE CUT—24 Pts. per inch



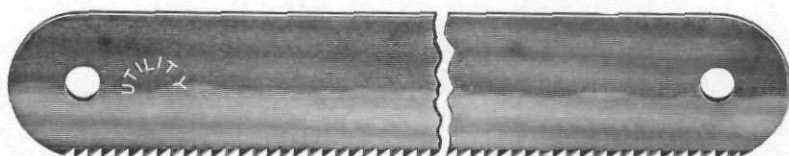
The 24 point or fine cut of tooth is most satisfactory for cutting light work, i. e., Brass Rod, Drill Rod, Brass Pipe or Medium Tubing.

TUBING CUT—32 Pts. per inch



For Thin Tubing, Thin Sheet Metal, etc.

## “UTILITY” HACK SAWS



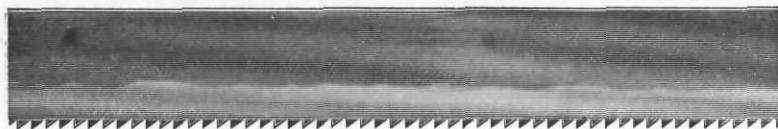
### POWER MACHINE BLADES

LENGTH	WIDTH	GAUGE	TEETH PER INCH	PER DOZ.	PER GRO.	NO. IN BOX
12 inches	$\frac{5}{8}$ inch	21=.032	14	\$1.20	\$14.40	$\frac{1}{2}$ Gross
12 "	$\frac{3}{4}$ "	21=.032	14	1.35	16.20	$\frac{1}{2}$ "
13 "	$\frac{5}{8}$ "	21=.032	14	1.30	15.60	$\frac{1}{2}$ "
13 $\frac{1}{2}$ "	$\frac{5}{8}$ "	21=.032	14	1.40	16.80	$\frac{1}{2}$ "
13 $\frac{1}{2}$ "	$\frac{3}{4}$ "	21=.032	14	1.58	18.90	$\frac{1}{2}$ "
14 "	$\frac{5}{8}$ "	21=.032	14	1.40	16.80	$\frac{1}{2}$ "
14 "	$\frac{3}{4}$ "	21=.032	14	1.58	18.90	$\frac{1}{2}$ "
16 "	$\frac{5}{8}$ "	21=.032	14	1.60	19.20	$\frac{1}{2}$ "
16 "	$\frac{3}{4}$ "	21=.032	14	1.80	21.60	$\frac{1}{2}$ "
16 $\frac{1}{2}$ "	$\frac{5}{8}$ "	21=.032	14	1.70	20.40	$\frac{1}{2}$ "
16 $\frac{1}{2}$ "	$\frac{3}{4}$ "	21=.032	14	1.92	22.95	$\frac{1}{2}$ "

“Utility” power saws are made extra heavy and will stand a great amount of strain. Many prefer them to an all hard blade as even with very rough usage they will not snap or break.

Many sizes listed under Hand Blades may be used effectively in power machines on special work where a fine tooth is desirable.

## "UTILITY" BAND SAWS



WIDTH	GAUGE	PRICE PER FT.	PRICE PER LB.
1-4 inch	23= .025	\$ .07	\$3.50
3-8 "	23= .025	.06	1.75
1-2 "	23= .025	.06	1.25
5-8 "	21= .032	.08	1.12
3-4 "	21= .032	.09	1.00

23 Ga. stock made in 16, 20 and 25 teeth per inch.

21 Ga. stock made in 14, 16 and 20 teeth per inch.

Brazing 20c per saw, net.

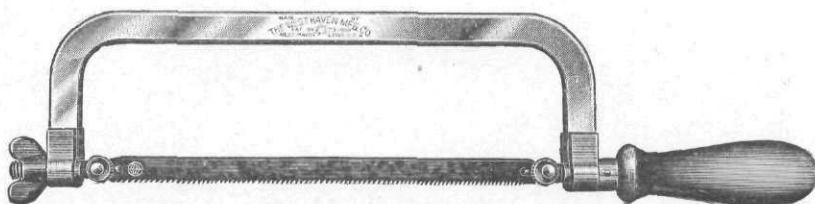
"Utility" Band Saws are made in different widths, gauges and number of teeth per inch for cutting all kinds of metal: Brass, Nickel, Bronze, Gun Metal, Sheet Metal, Mica, Copper, Tool Steel, Iron, Pearl, Onyx, Fiber, etc., and are furnished in any length desired.

If you are not familiar as to the cut of tooth best adapted to the material you desire to cut, give the length of saw and name of metal to be cut, and we will send the saw best adapted to such metal.

We carry in stock in the coil  $\frac{1}{4}$  inch,  $\frac{3}{8}$  inch,  $\frac{1}{2}$  inch,  $\frac{5}{8}$  inch, and  $\frac{3}{4}$  inch widths, differing in set, number of teeth per inch and temper.

The most economical way to buy band saws is in the coil by the pound, doing your own brazing when practicable.

## "UNIVERSAL" HACK SAW FRAMES

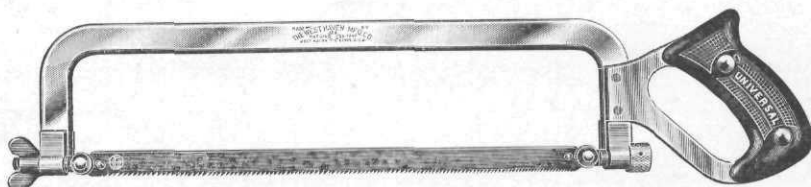


No. 5 "UNIVERSAL" SOLID

8 inch	Each \$ .85	Per Doz. \$10.20
9 "	" .90	" " 10.80
10 "	" .95	" " 11.40
12 "	" 1.00	" " 12.00

### NOTE

The body of this frame is made of Crucible steel and highly finished. All small parts are case hardened. Handles of hard wood. Blades adjustable to face four different directions without removing from frame. Distance from bottom of frame to tooth edge of saw blade on the 8-inch, 9-inch and 10-inch size is  $2\frac{3}{4}$  inches, and on the 12-inch size,  $3\frac{1}{8}$  inches.



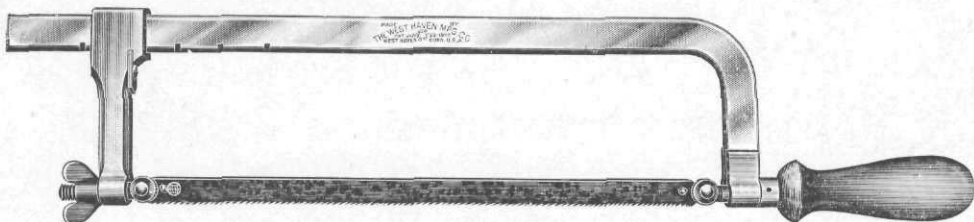
No. 6 "UNIVERSAL" SOLID

Same as No. 5 above, except with "Easy Grip" handle.

8 inch	Each \$1.20	Per Doz. \$14.40
9 "	" 1.25	" " 15.00
10 "	" 1.30	" " 15.60
12 "	" 1.40	" " 16.80



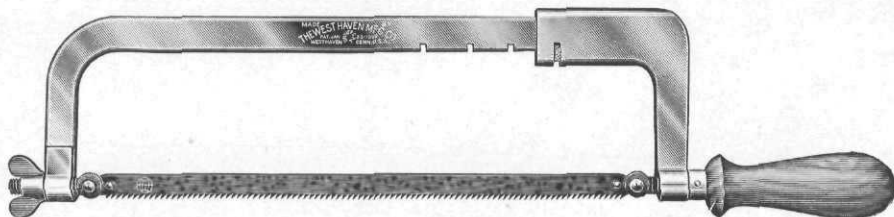
## "UNIVERSAL" HACK SAW FRAMES



No. 1908 "UNIVERSAL" ADJUSTABLE

Each \$1.00

Per Doz. \$12.00



No. 10 "UNIVERSAL" ADJUSTABLE

Each \$1.10

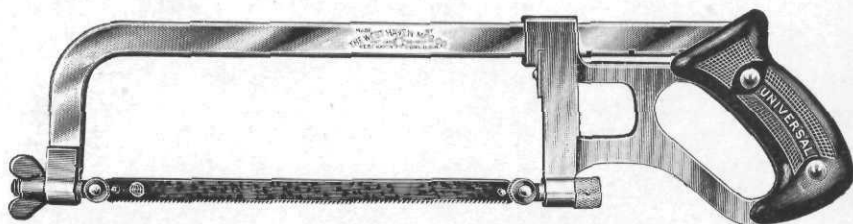
Per Doz. \$13.20

### ARGUMENT

These frames are made of  $\frac{3}{4} \times \frac{3}{16}$  Crucible steel, full nickel plated. Take blades from 8 to 12 inches. Hardwood Handles. Distance from bottom of frame to tooth edge of saw  $3\frac{1}{8}$  inches.

Very rigid and will not break or buckle. All small parts case hardened.

## "UNIVERSAL" HACK SAW FRAMES



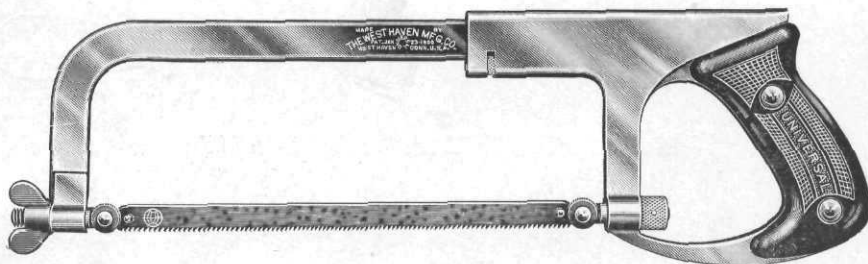
No. 12 "EASY GRIP" EXTENSION

Each \$1.50

Per Doz. \$18.00

### ARGUMENT

Can be used to advantage as far as the arm can reach. In fact, it is just what the name implies: "Easy Grip." Extension features all retained. A rigid solid back with all the advantages possible. Full nickel plated. Small parts case hardened. Takes blades from 8 to 12 inches. Distance from bottom of frame to tooth edge of saw  $3\frac{1}{8}$  inches. Body of frame  $\frac{3}{4}$  inch by  $\frac{3}{16}$  inch.



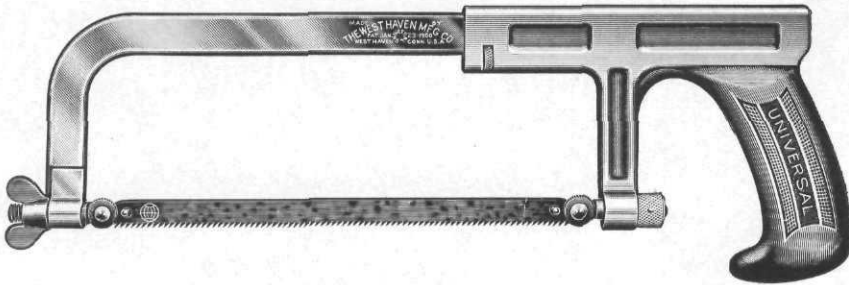
No. 14 "EASY GRIP" EXTENSION

Each \$1.75

Per Doz. \$21.00

Similar to No. 12 but differs in that the handle is brought forward closer to the saw blade, and the housing for the body is extended  $2\frac{1}{4}$  inches forward of the post. This construction insures more rigidity, and provides a frame of very great strength.

## "UNIVERSAL" HACK SAW FRAMES



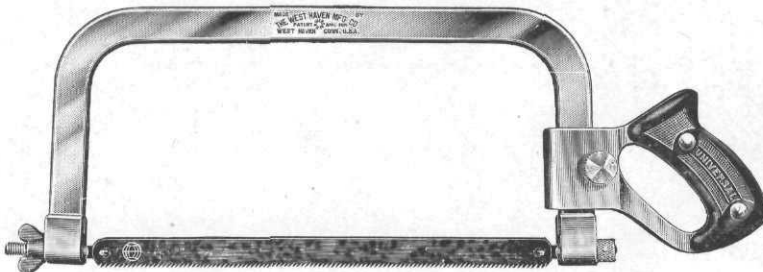
### No. 11 "AUTOMATIC GRIP" EXTENSION

Each \$1.25

Per Doz. \$15.00

An all around extension frame suited to all purposes, but finished with special regard to outdoor usage, or in other places where it will not receive the best of care. Has a rigid, solid back; will not break or buckle and, being sherardized, will not rust.

Takes blades from 8 to 12 inches. Distance from bottom of frame to tooth edge of saw  $3\frac{1}{8}$  inches. Body of frame  $\frac{3}{4} \times \frac{3}{16}$  inch. Material of Frame—Steel. Material of Grip and Guide—Semi-Steel. Finish—Sherardize.



### No. 7 "UNIVERSAL" SOLID

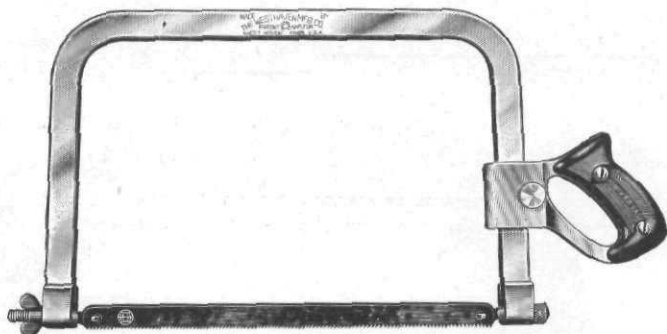
Distance from bottom of frame to tooth edge of saw is 6 inches.

Especially designed for Architectural Iron Workers and others requiring a frame of greater depth than the ordinary. Has "Easy Grip" movable handle which may be raised or lowered as convenience requires. Made of 1 by  $\frac{1}{4}$  inch crucible steel.

12 inch only, Sherardized, Each \$1.75

Per Doz. \$21.00

## "UNIVERSAL" HACK SAW FRAMES



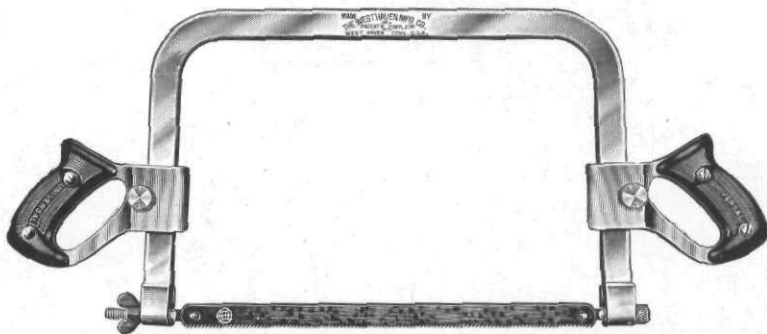
No. 8 "UNIVERSAL" R. R. TRACK FRAME

Distance from bottom of frame to tooth edge of saw is  $10\frac{1}{4}$  inches.

For Girders, Beams, and Street Railroad Track Work, etc. Important feature—"Easy Grip" movable handle, which may be raised or lowered to suit depth of work when used for cutting rails in street. Made of 1 by  $\frac{1}{4}$  inch crucible steel.

12 inch, Sherardized, Each \$1.85  
14 " " " " 1.95

Per Doz. \$22.00  
" " 23.00



No. 9 "UNIVERSAL" R. R. TRACK FRAME

For Girders, Beams, and Street Railroad Track Work, etc. Important feature: Two "Easy Grip" movable handles, one on either end, which may be raised or lowered to suit depth of work when used for cutting rails in street. A "Two Man" frame. Made of 1 by  $\frac{1}{4}$  inch crucible steel.

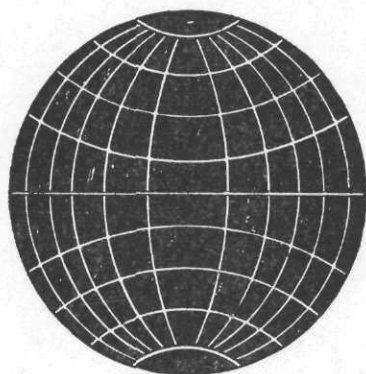
12 inch, Sherardized, Each \$2.00  
14 " " " " 2.10

Per Doz. \$24.00  
" " 25.00

**REGISTERED TRADE MARKS**

**UNIVERSAL**

Pertaining to Hack Saw Blades—Registered U. S. Patent Office, June 25, 1907.



Pertaining to Hack Saw Blades—Registered U. S. Patent Office, June 18, 1907.

**UTILITY**

Pertaining to Hack Saw Blades—Registered U. S. Patent Office, Oct. 15, 1907.

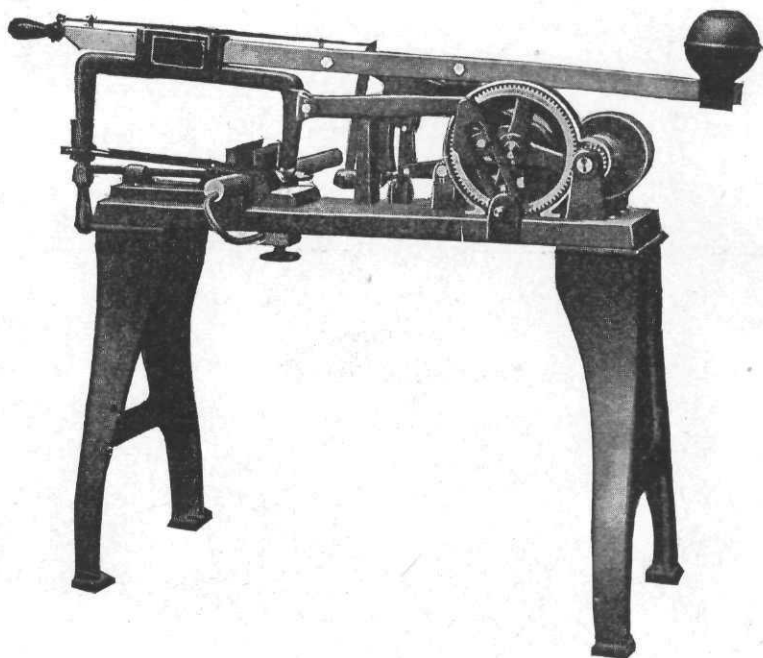
**UNIVERSAL**

Pertaining to Hack Saw Frames—Registered U. S. Patent Office, July 30, 1907.



## “UNIVERSAL” POWER HACK SAW

### 1910 MODEL



Capacity.....6 inch solids  
 Size of Pulley.....6×1¾ inches  
 Speed.....240 revolutions  
 Length Saw Blades...12 and 14 inches  
 Net Weight, 240 pounds

Floor Space.....52 x 16 inches  
 Height Work Vise.....28 inches  
 Height over all.....42 inches  
 Measurements.....52×16×42 inches  
 Gross Weight, 300 pounds

**Special Features: Quick Return Stroke, 3 to 1: Blade lifts entirely off work on return stroke**

This machine is designed especially for economy and speed.

There are two fixed strokes, viz.: 5 inch and 7 inch with only one adjustment required, i. e., for work above 5 inches diameter or square; and this adjustment can be made in 15 seconds.

The automatic lift is adjustable for wear, the automatic stop is absolute, and the pulley can be oiled without throwing off the belt.

#### EXTRAORDINARY

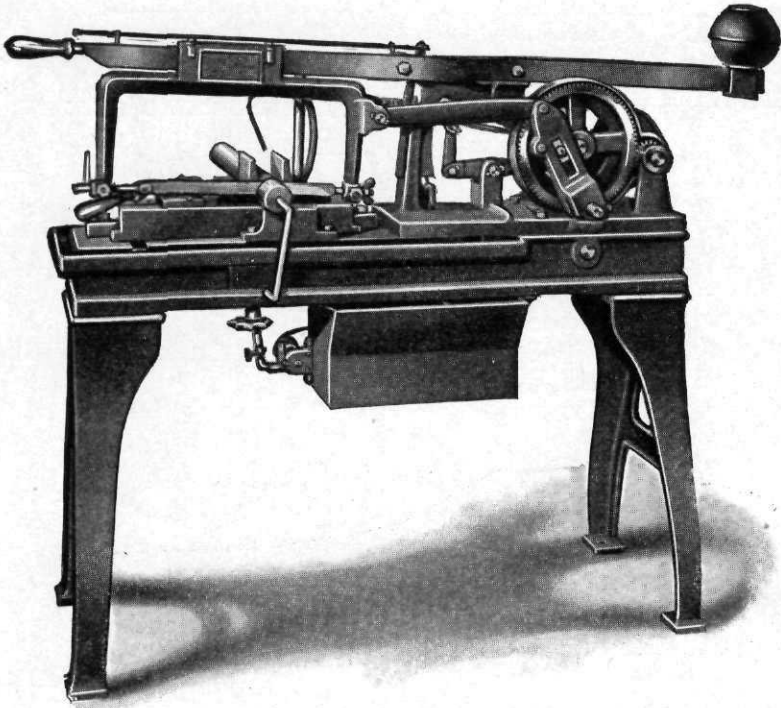
As all shafts are silent, it is obvious that bearings on bed of machine cannot wear out, and it will never, therefore, be necessary to return machine to factory for repairs.

As all movable parts are interchangeable immediate delivery can be made of any part desired.

**PRICE, \$50.00**

## “UNIVERSAL” POWER HACK SAW

### 1912 MODEL



Capacity.....6 inch solids  
 Size of Pulley.....6 × 2 inches  
 Speed.....240 revolutions  
 Length Saw Blades, 12 and 14 inches  
 Net Weight, 350 pounds

Floor Space.....52 × 16 inches  
 Height Work Vise.....28½ inches  
 Height over all.....42 inches  
 Measurements...56 × 16 × 42 inches  
 Gross Weight, 425 pounds

**Special Features:**    **Quick Return Stroke, 3 to 1:**    **Blade lifts entirely off work on return stroke**

This machine is designed especially for economy and speed.

There are two fixed strokes, viz.: 5 inch and 7 inch with only one adjustment required, i. e., for work above 5 inches diameter or square; and this adjustment can be made in 15 seconds.

The automatic lift is adjustable for wear, the automatic stop is absolute, and the pulley can be oiled without throwing off the belt.

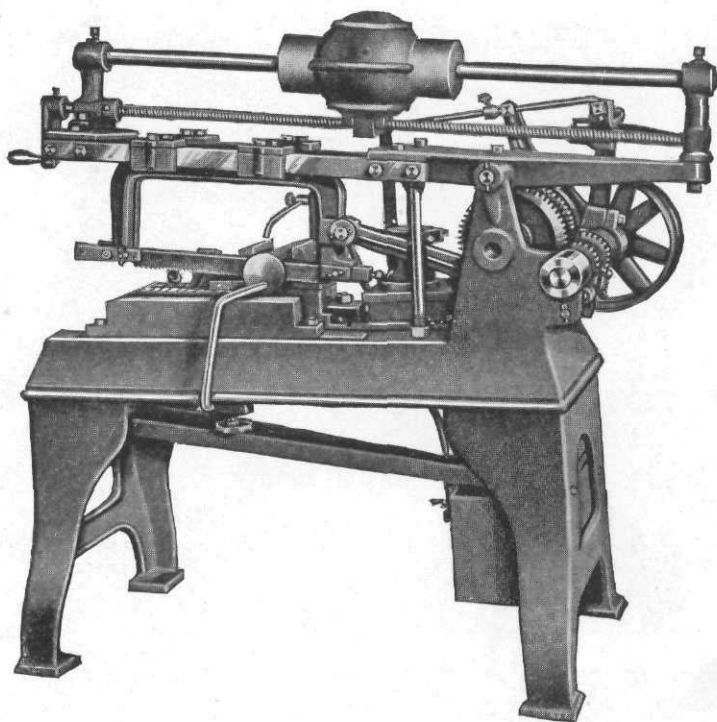
#### EXTRAORDINARY

**Deep Bed. Finished surfaces on bed and vise jaws. Tank and Pump.**  
**Removable Vise. Parts interchangeable. Silent Shafts.**

**PRICE, \$90.00**

## “ACME” HIGH SPEED POWER HACK SAW MACHINE

TWO SPEEDS—POSITIVE FOUR FUNCTION HYDRAULIC OIL LIFT  
DRAW CUT PATTERN



6 INCH MODEL

Capacity.....6 inch solids  
Size of Pulleys.....10 × 2½ inches  
Speed of Pulley.....250 revolutions  
Length Saw Blades.....See page 32

Stroke.....5½ inches  
Net Weight, 725 pounds

Speeds of Machine, 80 and 120 revolutions

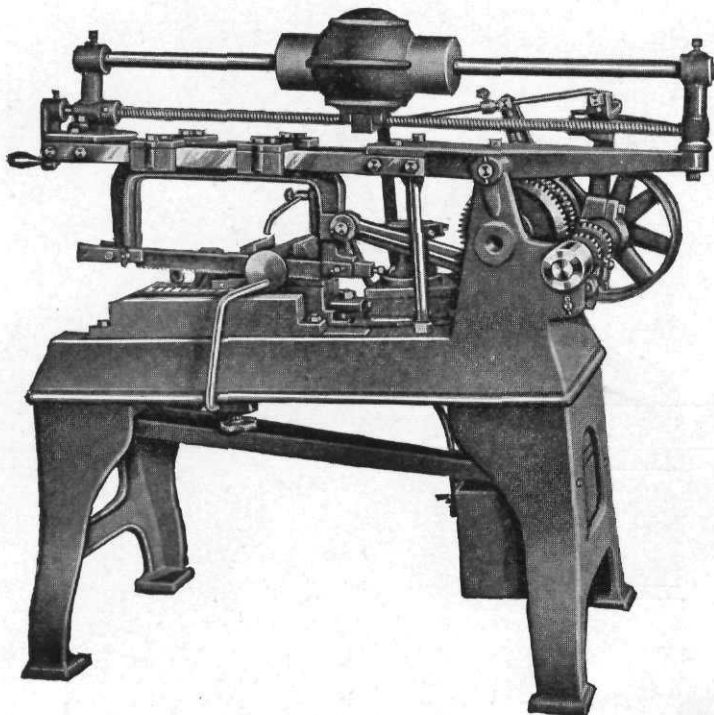
Floor Space.....50 × 29 inches  
Height Work Vises.....25 inches  
Height over all.....45 inches  
Measurements...50 × 29 × 45 inches

Gross Weight, 825 pounds

Requires 1 H. P. Motor

## “ACME” HIGH SPEED POWER HACK SAW MACHINE

TWO SPEEDS—POSITIVE FOUR FUNCTION HYDRAULIC OIL LIFT  
DRAW CUT PATTERN



7 INCH MODEL

Capacity.....7 inch solids  
Size of Pulleys..... $10 \times 2\frac{1}{2}$  inches  
Speed of Pulleys.....250 revolutions  
Length Saw Blades.....See page 32  
Stroke..... $5\frac{1}{2}$  inches

Speeds of Machine, 80 and 120 revolutions  
Floor Space..... $50 \times 29$  inches  
Height Work Vises.....25 inches  
Height over all.....46 inches  
Measurements... $50 \times 29 \times 46$  inches

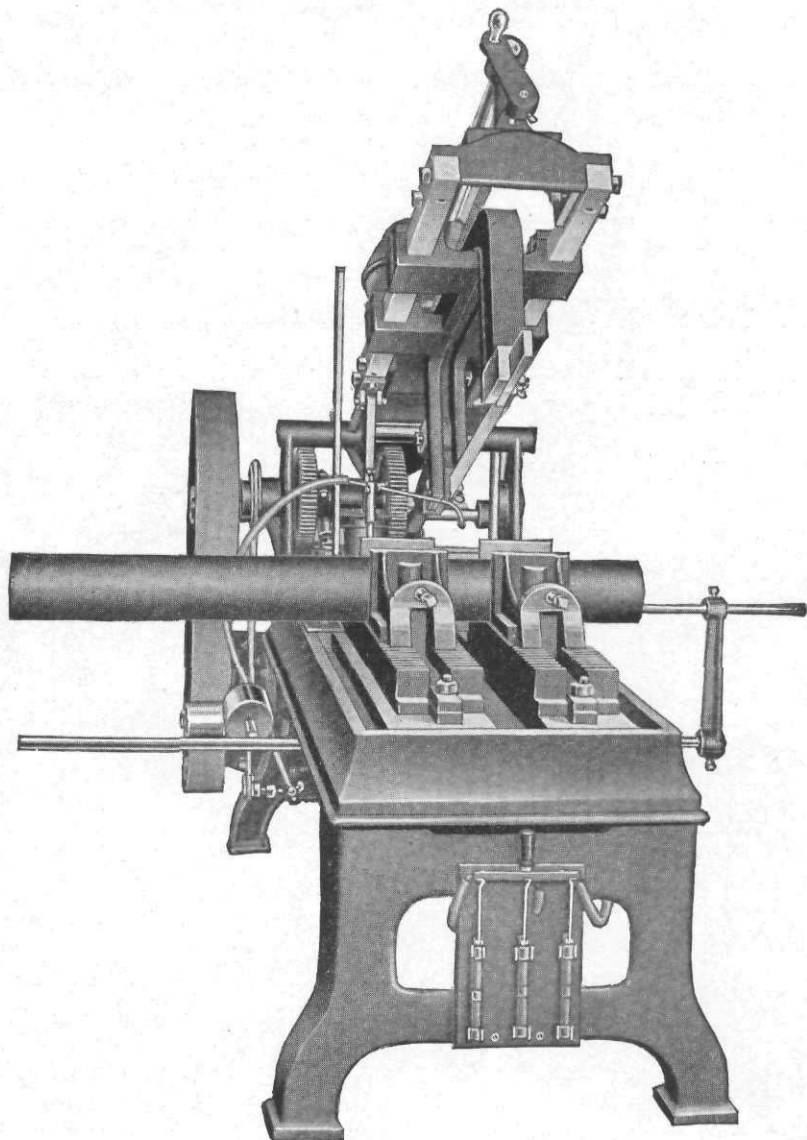
Net Weight, 760 pounds

Gross Weight, 860 pounds

Requires 1 H. P. Motor

## “ACME” HIGH SPEED POWER HACK SAW MACHINE

TWO SPEEDS—POSITIVE FOUR FUNCTION HYDRAULIC OIL LIFT  
DRAW CUT PATTERN



### 9 INCH MODEL—MASSIVE

Capacity.....9 inch solids  
Size of Pulleys.....14 × 3 inches  
Speed of Pulley.....250 revolutions  
Length Saw Blades.....See page 32  
Stroke.....6 inches

Speeds of Machine, 76 and 110 revolutions  
Floor Space.....66 × 36 inches  
Height Work Vises.....25 inches  
Height over all.....50 inches  
Measurements...66 × 36 × 50 inches  
Gross Weight, 1,500 pounds

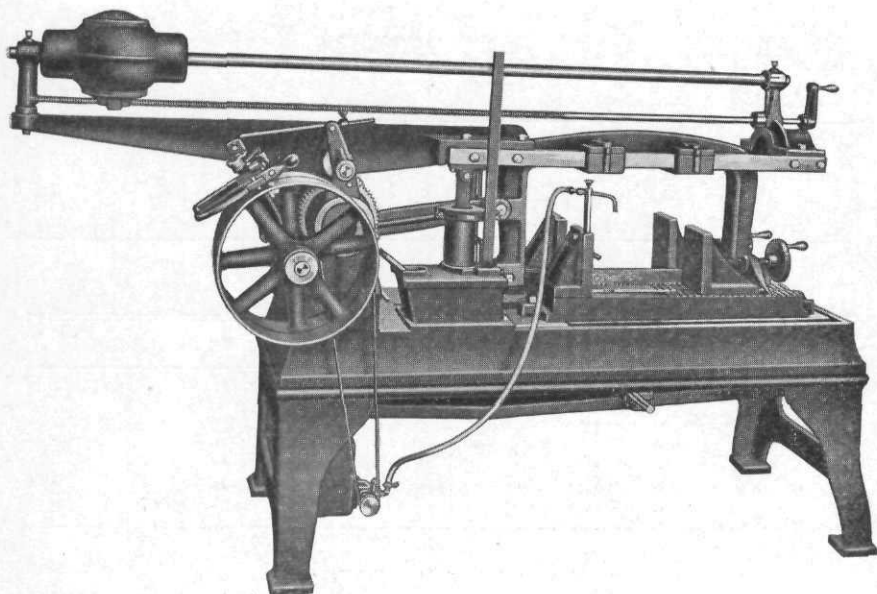
Net Weight, 1,335 pounds

Requires 1½ H. P. Motor



## “ACME” HIGH SPEED POWER HACK SAW MACHINE

TWO SPEEDS—POSITIVE FOUR FUNCTION HYDRAULIC OIL LIFT  
DRAW CUT PATTERN



12 x 15 INCH MODEL

Capacity.....12 × 15 inch solids  
Size of Pulleys.....14 × 3 inches  
Speed of Pulley.....250 revolutions  
Length Saw Blades.....See page 32  
Stroke.....6 inches

Speeds of Machine, 76 and 110 revolutions  
Floor Space.....87 × 36 inches  
Height Work Vises.....26 inches  
Height over all.....54 inches  
Measurements...87 × 36 × 54 inches

Net Weight, 1,700 pounds

Gross Weight, 2,175 pounds

Requires 2 H. P. Motor

# UNIVERSAL HACK SAW BLADES

Epecially adapted for use in

"ACME" HIGH SPEED HACK SAW MACHINES

## 6-INCH MODEL

LENGTH	WIDTH	GAUGE	TEETH PER IN.		LENGTH	WIDTH	GAUGE	TEETH PER IN.	
12 inches	1 inch	18	6	10 14	14 inches	1 inch	16	8	
13 "	"	18	6	10 14	14 "	1 1/4 "	18	6	10
14 "	"	18	6	10 14	14 "	1 1/4 "	17	6	10

## 7-INCH MODEL

LENGTH	WIDTH	GAUGE	TEETH PER IN.		LENGTH	WIDTH	GAUGE	TEETH PER IN.	
12 inches	1 inch	18	6	10 14	14 inches	1 1/4 inches	17	6	10
13 "	1 "	18	6	10 14	15 "	1 "	18	10	14
14 "	1 "	18	6	10 14	15 "	1 1/4 "	18	6	
14 "	1 "	16	8		15 "	1 1/4 "	17	6	10
14 "	1 1/4 "	18	6	10					

## 9-INCH MODEL

LENGTH	WIDTH	GAUGE	TEETH PER IN.		LENGTH	WIDTH	GAUGE	TEETH PER IN.	
14 inches	1 inch	16	8		16 inches	1 1/4 inches	17	6	10
14 "	1 1/4 "	18	6	10	16 "	1 1/2 "	16	4	8
14 "	1 1/4 "	17	6	10	17 "	1 1/4 "	16	4	8
15 "	1 1/4 "	18	6		17 "	1 1/2 "	16	4	8
15 "	1 1/4 "	17	6	10	18 "	1 1/4 "	17	6	10
16 "	1 "	16	8		18 "	1 1/2 "	16	4	8
16 "	1 1/4 "	18	6	10					

## 12 x 15-INCH MODEL

LENGTH	WIDTH	GAUGE	TEETH PER IN.		LENGTH	WIDTH	GAUGE	TEETH PER IN.	
18 inches	1 1/4 inches	17	6	10	21 inches	1 3/4 inches	16	4	8
18 "	1 1/2 "	16	4	8	22 "	1 1/2 "	16	4	8
19 "	1 1/4 "	17	6	10	22 "	1 3/4 "	16	4	8
19 "	1 1/2 "	16	4	8	23 "	1 3/4 "	16	4	8
20 "	1 1/4 "	17	6	10	24 "	1 1/2 "	17	6	10
20 "	1 1/2 "	16	4	8	24 "	1 3/4 "	16	4	8

Four teeth per inch in 16 gauge and six per inch in 17 and 18 gauges are especially adapted to cutting soft steel.

Eight teeth per inch in 16 gauge and ten per inch in 17 and 18 gauges are especially adapted to cutting tool steel.

Fourteen teeth per inch is especially recommended for cutting thin material, angle iron, channels, and pipe in the smaller machines.

# "ACME" HIGH SPEED POWER HACK SAW MACHINE

## GENERAL DESCRIPTION

MASSIVE AND RIGIDLY CONSTRUCTED MACHINE OF THE VERY  
BEST WORKMANSHIP

## "DRAW CUT" PATTERN

### SPECIAL FEATURE

**Return Stroke Relief**—This is accomplished by means of a Four Function Hydraulic Oil Ram, by the operation of which the saw frame is raised to its highest position; lifts off work on return stroke; remains at any height, or gradually drops, this latter function performing whether the machine be idle or working.

Weight is adjusted by means of a coarse pitch screw, machine is equipped with tight and loose pulleys, and belt is shifted automatically when cut is finished. Suds pump and belt are outside and accessible. Tank is of ample size with three divisions to prevent chips, etc., clogging pump.

No priming is necessary, as pump is below level of suds.

Conservatively stated, this machine will cut about one superficial circular inch per minute of machinery steel. Cast steel requires about double the time.

Rapid Adjustable Vise which may also be removed from bed altogether.

Special attention is called to the illustration of the 9" Model to show the rigid construction of the Saw Frame and its bearings, which, together with the special type of saw holders for keeping the blade in perfect alignment, insures accurate cutting.

Below is a list of Average Cutting Speeds per blank in mild steel which can easily be maintained, using Universal Hack Saw Blades and lubricant we supply:

1" diameter	1 minute
2" "	3 minutes
3" "	6 "
4" "	8 "
5" "	15 "
6" "	20 "
7" "	30 "
8" "	40 "

These speeds may be considerably increased by extra pressure when necessary.

Cast steel requires about twice the time.

## SQUARE KNURLED NAIL SETS

### QUALITY NOTICE

All our Nail Sets and Punches bearing our "Easy Hold, Won't Roll" or "O. K." Brand are of steel made especially for their purposes. They are properly tempered and finished.



Cut Full Size.

### THE "EASY HOLD, WON'T ROLL" NAIL SET

The Square Knurled surface of this Nail Set enables the user to hold it in use very securely and with but little danger of its flying out of his fingers. Made in color drawn temper finish. Points cupped and beveled.

No. E. H. Points  $\frac{1}{32}$ ,  $\frac{2}{32}$ ,  $\frac{3}{32}$ ,  $\frac{4}{32}$ ,  $\frac{5}{32}$  inch

Per Gross \$24.00

Packing. In Display Boxes holding 2 Dozen Assorted.

In Pasteboard Boxes holding 1 Dozen of a Size or Assorted.

In absence of full specifications, orders will be filled with our regular assortment, namely  $\frac{1}{32}$  inch and  $\frac{4}{32}$  inch, two each;  $\frac{2}{32}$  inch and  $\frac{3}{32}$  inch, four each to the dozen.

No. E. H.  
NAIL SETS



Specify whether wanted in 2 dozen Display Box, Assorted, or if in 1 dozen pasteboard box. The size or if assorted.

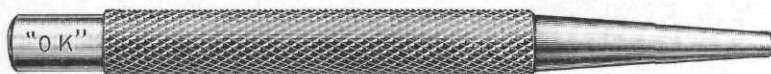
DISPLAY BOX FOR "EASY HOLD, WON'T ROLL" NAIL SETS  
PROVIDED WITH COVER SECURELY FASTENED ON

Table of Weights, Page 52.

## ROUND KNURLED NAIL SETS

"O. K." BRAND

All Nail Sets are made with cupped and beveled points.



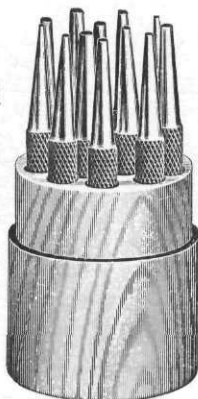
BODY	LENGTH	POINTS	NUMBERS	AND	PACKING
$\frac{9}{32}$ inch	4 inches	$\frac{1}{32}$ inch	10	{	1 doz. assorted or of a size in a pasteboard box. Per Gross..... \$22.00
$\frac{5}{16}$ inch	4 inches	$\frac{2}{32}$ inch	12		1 doz. assorted or of a size in a round wood telescope box. Per Gross..... \$24.00
$\frac{5}{16}$ inch	4 inches	$\frac{3}{32}$ inch	24	{	2 doz. assorted in a display box. Per Gross..... \$24.00
$\frac{5}{16}$ inch	4 inches	$\frac{5}{32}$ inch			

**Finish.** Made in both Bright and Blued finish. If particular, specify finish wanted.

**Assorted Sizes.** In absence of full specifications, orders will be filled with our following **Regular Assortment** of sizes, to the dozen:  $\frac{1}{32}$  inch and  $\frac{2}{32}$  inch, two each;  $\frac{3}{32}$  inch and  $\frac{5}{32}$  inch, four each.

DISPLAY  
BOX FOR  
"O. K."  
BRAND  
NAIL  
SETS

Polished  
wood.  
Capacity  
one dozen.



DISPLAY  
BOX FOR  
"O. K."  
BRAND  
NAIL  
SETS

Capacity  
two dozen.



DISPLAY BOXES ARE PROVIDED WITH COVERS



## NAIL SETS, "O. K." BRAND

PACKED TO HELP THEIR SALES



SIZES OF POINTS ● ● ●

Sets of three sizes of nail sets are wrapped with printed wrapper, to sell for 25 cents. Four of these sets (one dozen nail sets) in a box. The packages should be displayed where they can be seen and wrapper read. They make an attractive purchase for carpenters.

NO.	BODY	LENGTH	POINTS	PACKING	GROSS
234	$\frac{5}{16}$ inch	4 inches	$\frac{2}{32}$ inch	1 dozen Nail Sets in a box	\$24.00
			$\frac{3}{32}$ "		
			$\frac{4}{32}$ "		
			$\frac{5}{32}$ "		

## ROUND KNURLED NAIL SETS

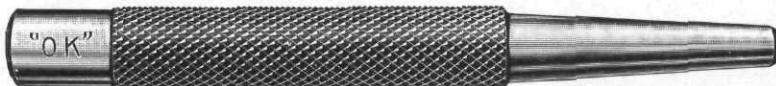


"O. K." BRAND

NO.	BODY	LENGTH	POINTS	GROSS
332	$\frac{3}{8}$ inch	$4\frac{1}{2}$ inches	$\frac{2}{32}$ inch	\$29.00
			$\frac{3}{32}$ "	
			$\frac{4}{32}$ "	
			$\frac{5}{32}$ "	

Packed one Dozen of a size in a box or evenly assorted.

## LARGE NAIL OR SPIKE SETS



"O. K." BRAND

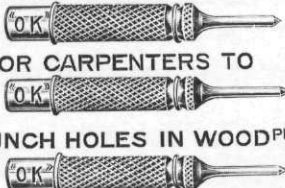
NO.	BODY	LENGTH	POINT	GROSS
38	$\frac{3}{8}$ inch	5 inches	$\frac{2}{32}, \frac{3}{32}, \frac{4}{32}, \frac{5}{32}, \frac{6}{32}$ inch	\$32.00
39	$\frac{7}{16}$ "	5 "	$\frac{1}{4}$ inch	39.00
40	$\frac{1}{2}$ "	5 "	$\frac{5}{16}$ "	48.00

Packed one Dozen of a size in a box or evenly assorted.

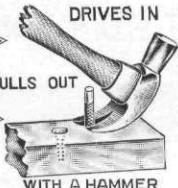
## WESTHAVEN SET, No. 25, WOOD SCREW PUNCHES

A tool for carpenters to punch holes in wood for wood screws.

**"WESTHAVEN" NO. 25 SET  
WOOD SCREW PUNCHES**



FOR CARPENTERS TO  
PUNCH HOLES IN WOOD  
FOR WOOD SCREWS



DRIVES IN  
PULLS OUT  
WITH A HAMMER

**THE 3 FOR CTS.**

MADE BY THE WEST HAVEN MFG. CO. NEW HAVEN, CONN., U. S. A.

Three sizes of tempered steel Punches are mounted on a card as shown in cut.

The sizes of points are suitable to make hole and countersink for wood screws of lengths  $\frac{1}{2}$  to  $1\frac{1}{4}$  inch.

**No. 25 . . . . . \$ .50**

6 Sets packed in a box.

Weight per set 2 oz.

Full length of middle size  
Punch is  $2\frac{1}{4}$  inches.

## SQUARE KNURLED PRICK PUNCH

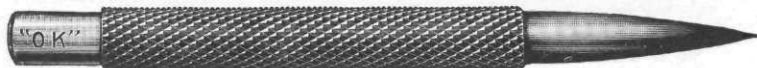


Cut Full Size.

**No. E. H. "EASY HOLD, WON'T ROLL" Per Doz. \$2.40**

Packed one Dozen in box.

## ROUND KNURLED PRICK PUNCHES



**"O. K." BRAND**

NO.	BODY	LENGTH	PACKING	DOZEN
16	$\frac{9}{32}$ inch	4 inches	1 Doz. in Box	\$2.20
	$\frac{5}{16}$ "	4 "	1 " " "	2.20
	$\frac{3}{8}$ "	4 "	1 " " "	2.60
	$\frac{3}{8}$ "	5 "	1 " " "	3.00

## SQUARE KNURLED CENTER PUNCH

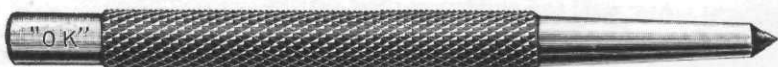


Cut Full Size.

No. E. H. "EASY HOLD, WON'T ROLL" Per Doz. \$2.40

The square knurled body provides a positive grasping surface. Packed one dozen in box.

## ROUND KNURLED CENTER PUNCHES



"O. K. BRAND"

NO.	BODY	LENGTH	PACKING	DOZEN
	$\frac{9}{32}$ inch	4 inches	1 Doz. in Box	\$2.20
	$\frac{5}{16}$ "	4 "	1 " " "	2.20
	$\frac{3}{8}$ "	4 "	1 " " "	2.60
14	$\frac{3}{8}$ "	5 "	1 " " "	3.00
	$\frac{7}{16}$ "	4 "	1 " " "	3.00
	$\frac{1}{2}$ "	4 "	1 " " "	3.80
	$\frac{1}{2}$ "	5 "	1 " " "	4.50

Also packed one dozen in box,  $\frac{9}{32}$  and  $\frac{5}{16}$  inch x 4 inches, evenly assorted; or  $\frac{3}{8}$ ,  $\frac{7}{16}$ , and  $\frac{1}{2}$  inch x 4 inches, evenly assorted.

Table of Weights, Page 52.

## No. 3 C. P. SET OF "O. K." BRAND CENTER PUNCHES

"O. K." BRAND NO. 3 C. P. SET

**LIGHT TOOL MAKERS'**

**CENTER PUNCHES**


**c. EACH      3 FOR      c.**

MADE BY THE WEST HAVEN MFG. CO., NEW HAVEN, CONN., U. S. A.

Size of  
Center Punches

BODY DIA.	LENGTH
$\frac{3}{16}$ in.	2 $\frac{1}{4}$ in.
$\frac{1}{4}$ "	2 $\frac{3}{4}$ "
$\frac{3}{8}$ "	4 "

No. 3 C. P. Set  
Per Set... \$ .50

Weight per set 2 oz.

No. 3 C. P. Set comprises one of each size mounted on a card—6 Sets packed in a box.

# "WESTHAVEN" "O. K." BRAND

## NO. 36 SET

### LIGHT DRIVE PIN PUNCHES



Set comprises one each size mounted on a card.

DIA. BODY	LENGTH	APPROXIMATE DIA. POINTS
$\frac{3}{16}$ inch	$2\frac{1}{4}$ inch	$\frac{1}{16}$ inch
$\frac{3}{16}$ "	$2\frac{3}{8}$ "	$\frac{5}{64}$ "
$\frac{3}{16}$ "	$2\frac{1}{2}$ "	$\frac{3}{32}$ "

### No. 36 Set Pin Punches

Per Set..... \$ .50

6 Sets packed in a box.

Weight per set 1 oz.

## SQUARE KNURLED SOLID DRIVE PUNCH



Cut Full Size.



Plate giving sizes at points and size numbers. Packed one Dozen in box.

No. E. H. "EASY HOLD, WON'T ROLL" Per Doz. \$2.40

The square knurled body provides a positive grasping surface.

## ROUND KNURLED SOLID DRIVE PUNCHES



### "O. K." BRAND

NO.	BODY	LENGTH	POINT	DOZEN
18	$\frac{5}{16}$ inch	4 inches	$\frac{1}{8}$ inch	\$2.20
	$\frac{3}{8}$ "	4 "	$\frac{3}{16}$ "	2.60
	$\frac{3}{8}$ "	5 "	$\frac{3}{16}$ "	3.00
	$\frac{7}{16}$ "	4 "	$\frac{1}{4}$ "	3.00
	$\frac{7}{16}$ "	5 "	$\frac{1}{4}$ "	3.40
	$\frac{1}{2}$ "	4 "	$\frac{5}{16}$ "	3.80
	$\frac{1}{2}$ "	5 "	$\frac{5}{16}$ "	4.50

Packed one Dozen of a size in a box, one dozen 4 inch lengths, or one dozen 5 inch lengths, evenly assorted.

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**No. 100 R**  
**SET OF TEN PUNCHES**  
**"O. K." BRAND**

**FULL LENGTH OF TOOLS, 4  
 INCHES**

**No. 100 R Set comprises**

One each Pin Punches, Points,  $\frac{1}{8}$ ,  
 $\frac{3}{32}$ ,  $\frac{1}{16}$ ,  $\frac{1}{32}$  and  $\frac{1}{4}$  inch diameter.

One Drive Punch,  $\frac{1}{8}$  inch Point.

One Prick Punch.

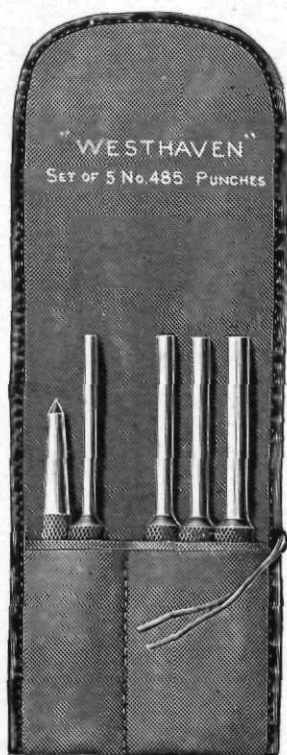
Three sizes of Center Punches.

In cloth roll.

Per Set..... \$3.00

6 Sets in a box.

Weight per set 1 lb.



**No. 485**  
**SET OF FIVE PUNCHES**

**"O. K." BRAND**

**No. 485 Set comprises**

One Center Punch,  $\frac{3}{8}$  inch x 5 inches.

One each Drive Pin Punch, 6 inches long; Points,  
 $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$  and  $\frac{3}{8}$  inch diameters.

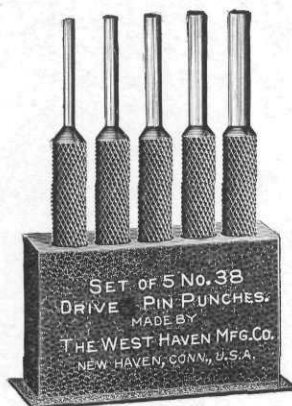
In cloth roll.

Per Set..... \$3.00

6 Sets in a box.

Weight per set 1 lb. 2 oz.

## "WESTHAVEN" DRIVE PIN PUNCHES



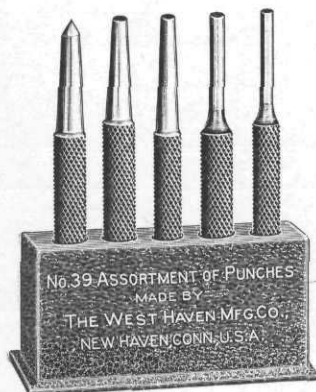
Box is provided  
with cover.

Weight per set 9 oz.

## "O. K." BRAND DRIVE PIN PUNCHES

	BODY	LENGTH	POINT	PER SET
SET OF 5 No. 38	$\frac{5}{16}$ inch $\frac{5}{16}$ " $\frac{3}{8}$ " $\frac{3}{8}$ " $\frac{3}{8}$ "	4 inches 4 " 4 " 4 " 4 "	$\frac{1}{8}$ inch $\frac{5}{32}$ " $\frac{3}{16}$ " $\frac{3}{16}$ " $\frac{1}{4}$ "	Packed one of each size in a box, as illustrated above.
				\$1.25

## No. 39 SET OF ASSORTED PUNCHES



### "O. K." BRAND

No. 39 Set comprises

One  $\frac{3}{8}$  x 4 inches Center Punch.  
 One Solid Drive Punch,  $\frac{1}{8}$  inch Point.  
 One Solid Drive Punch,  $\frac{3}{16}$  inch Point.  
 One Drive Pin Punch,  $\frac{5}{32}$  inch Point.  
 One Drive Pin Punch,  $\frac{3}{16}$  inch Point.  
 All 4 inches long.

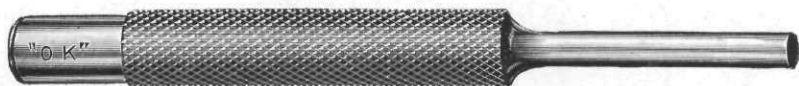
Per Set..... \$1.25

Weight per set 9 oz.

Box is provided with cover.



## No. 48 DRIVE PIN PUNCHES



Display Box for  
one dozen No. 48 Punches  
assorted.

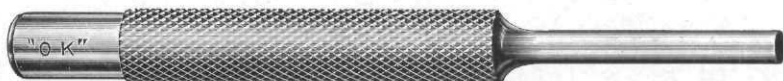
Weight of the one dozen  
Punches in Display Box  
2 lbs.



Box is provided  
with cover.

	BODY	LENGTH	POINT	PACKING	PER DOZEN
No. 48	$\frac{1}{2}$ inch	6 inches	$\frac{3}{16}$ inch	1 doz. of a size in a paste-board box or assorted. Also in Display Box holding 1 doz. assorted.	\$5.50
	$\frac{1}{2}$ " "	6 " "	$\frac{1}{4}$ " "		
	$\frac{1}{2}$ " "	6 " "	$\frac{5}{16}$ " "		
	$\frac{1}{2}$ " "	6 " "	$\frac{3}{8}$ " "		

## ROUND KNURLED DRIVE PIN PUNCHES



### "O. K." BRAND

	BODY	LENGTH	POINT	PACKING	PER DOZEN
No. 38	$\frac{5}{16}$ inch	4 inches	$\frac{1}{8}$ inch	1 Doz. in box	\$2.60
	$\frac{5}{16}$ " "	4 " "	$\frac{5}{32}$ " "	1 " " " "	
	$\frac{3}{8}$ " "	4 " "	$\frac{3}{16}$ " "	1 " " " "	
	$\frac{3}{8}$ " "	4 " "	$\frac{7}{32}$ " "	1 " " " "	
	$\frac{3}{8}$ " "	4 " "	$\frac{1}{4}$ " "	1 " " " "	

Also packed in Display Box holding two dozen.

If ordered assorted, in display box, in absence of specifications, will be filled as follows: Three each,  $\frac{1}{8}$  inch and  $\frac{1}{4}$  inch; and six each,  $\frac{3}{32}$  inch,  $\frac{3}{16}$  inch and  $\frac{7}{32}$  inch points to the box. (The display box for the above assortment is the same box as shown on next page with No. 384 assortment.)

## ROUND KNURLED PUNCHES, ASSORTED

### No. 384

Assortment of  
24 Punches.

PER DOZEN  
\$2.60



Length of  
Tools  
4 inches

Display Box  
provided with  
cover.

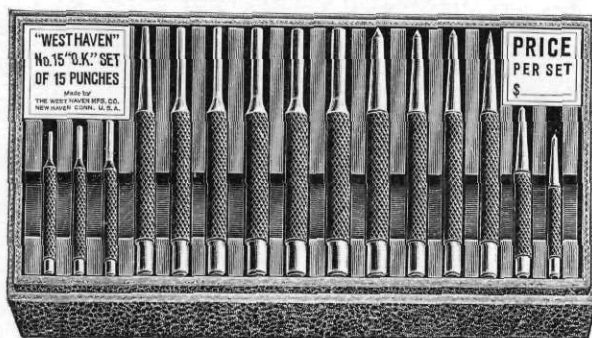
Display Box holding two dozen "O. K." Brand No. 384 Assortment of Punches.

Six each,  $\frac{3}{8}$  inch x 4 inch Center and Prick Punches.

Two each, Drive Pin Punches, 4 inches long,  $\frac{1}{8}$  inch,  $\frac{5}{32}$  inch,  $\frac{3}{16}$  inch,  $\frac{7}{32}$  inch and  $\frac{1}{4}$  inch points.

Two solid Drive Punches,  $\frac{3}{8}$  inch; body, 4 inches long,  $\frac{3}{16}$  inch point.

## No. 15 SET OF 15 "O. K." BRAND PUNCHES



A Handy Set for the  
Mechanic.

An attractive Display  
Set for the Dealer.

Weight per set  
1 lb. 5 oz.

Cut  $\frac{1}{8}$  size of Set.

The case is provided with a cover.

This Set comprises

Five sizes of Center Punches.

One size of Prick Punch.

Eight sizes of Pin Driving Punches.

One size of Pin Starting Punch.

Largest tools,  $\frac{3}{8}$  x 4 inches. Smallest tools,  $\frac{3}{16}$  x  $2\frac{1}{4}$  inches.

In a wood base case having compartments for each tool.

No. 15 Set. . . . . Per Set \$3.50

## TAP AND REAMER WRENCH

"HOLD FAST"

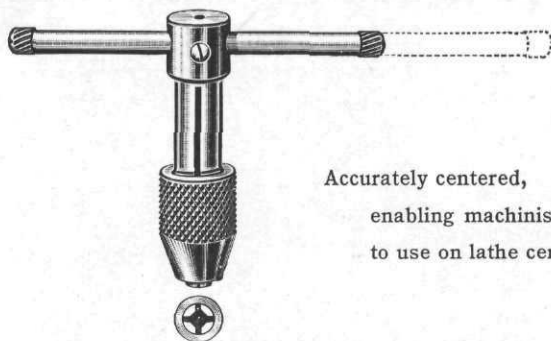


This wrench holds tight, each size of tap or reamer within the range specified, and there is therefore no liability of wearing off the corners of taps. The line of applying leverage is in direct line with the center of reamer or tap. This, and the secure hold, greatly lessens the liability of breaking the taps in use. Wrench is of steel, highly polished, and shows the best workmanship in its manufacture.

			DOZEN
No. 1	Length 5 inches	Holds taps $\frac{1}{4}$ inch down or Nos. 14 and 1 inclusive	\$ 9.00
No. 2	" 9 "	" " $\frac{1}{4}$ " and $\frac{1}{2}$ inch inclusive	14.00

Packed one in a box.

## SLIDE OR RIGID T-HANDLE TAP WRENCH



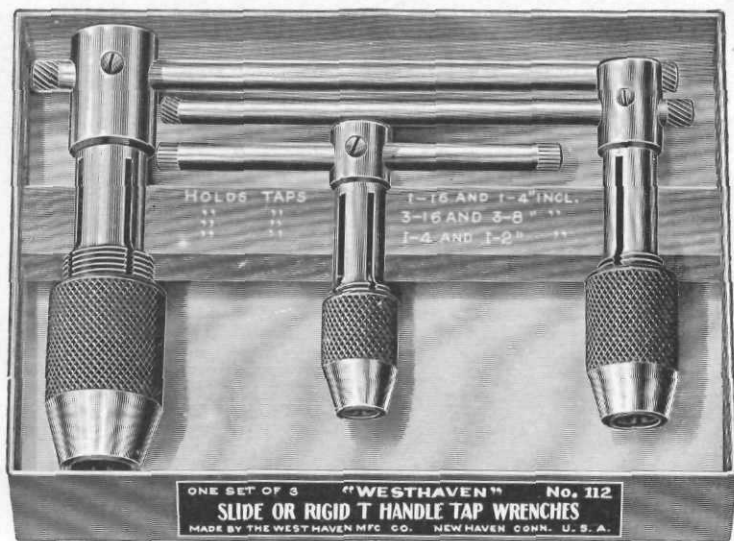
Accurately centered,  
enabling machinists  
to use on lathe center.

This Tap Wrench is made with a handle that slides, permitting its use in many places where a rigid handle cannot be turned. For ordinary work the handle may be set rigid by means of set screw. The jaws are tempered, sleeve case hardened, and the tool made up to meet the requirements of mechanics desiring a first-class wrench in every detail.

NO.	HOLDS TAPS	PACKING	DOZEN
10	$\frac{1}{16}$ inch and $\frac{1}{4}$ inch inclusive	$\frac{1}{2}$ Doz. in Box	\$10.00
11	$\frac{3}{16}$ " " $\frac{3}{8}$ " "	$\frac{1}{2}$ " " "	12.00
12	$\frac{1}{4}$ " " $\frac{1}{2}$ " "	$\frac{1}{6}$ " " "	18.00

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## SLIDE OR RIGID T-HANDLE TAP WRENCH



The above cut illustrates our Nos. 10, 11 and 12 Tap Wrenches packed one each in a box.

Set No. 112.....Per Set \$3.35

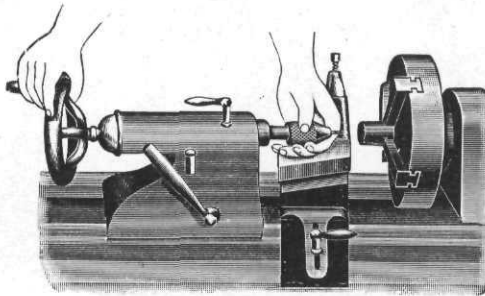
Weight per set 1 lb. 2 oz.

# "SURE" CENTER FINDER

## A NEW LATHE TOOL



Cut full size of No. 2.



Illustrating "Sure" Center Finder in Use.

The "Sure" Center Finder has a socket that fits on the 60° angle taper of Center in tail stock of lathe, and when held in that position and fed up to the work held and revolving in lathe chuck it immediately locates the center. The friction of the Center Finder socket on lathe center is sufficient to hold for drilling and countersinking, enabling one to make the three operations without change or use of any other tool. The fingers need to do little more than steady the tool. Each Center Finder is sent out complete with a combination drill and countersink.

Packed  $\frac{1}{2}$  Dozen in a box.

	OUTSIDE DIAMETER	DRILL DIAMETER	DIAMETER OF BODY OF COMB. DRILL	DOZEN
No. 0	1 inch	$\frac{1}{8}$ inch	$\frac{3}{10}$ inch	\$18.00
No. 1	1 "	$\frac{5}{64}$ "	$\frac{15}{64}$ "	18.00
No. 2	$\frac{7}{8}$ "	$\frac{1}{16}$ "	$\frac{13}{64}$ "	18.00
No. 3	$\frac{3}{4}$ "	$\frac{3}{64}$ "	$\frac{5}{32}$ "	18.00

Extra combination countersink and drill for Nos. 0, 1, 2, 3, \$4.50 per dozen.

Table of Weights, Page 52.

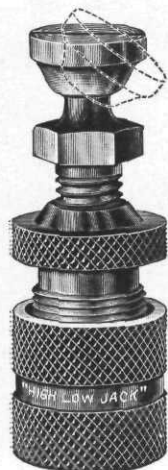
## “WESTHAVEN” MACHINISTS’ JACK SCREW

No. 10

“HIGH LOW JACK”

Per Doz. \$20.00

1 inch Diameter

Range  $2\frac{1}{4}$  inches to 4 inches

This Jack Screw is made with a telescoping base, giving a greater range of adjustment than is obtained in any other pattern on the market. All parts are machine-turned, of steel, and fully case-hardened. The tilting cap has a milled V slot adapting it to use under round work. Several of these tools could be used to an advantage in any machine shop for leveling up work on planers, shapers and milling machines; as an adjustable blocking for clamping work to be machined, or as a support under lathes and screw machine tools for heavy cuts. The tilting cap with a hexagon head screw can be removed and the telescoping base used as a blocking, thereby giving a range from  $1\frac{5}{16}$  in. low to  $2\frac{1}{2}$  in. high. In this position another “High Low Jack” can be set on top of the telescoping base, giving an adjustment up to 6 in.

Packed  $\frac{1}{2}$  dozen in a box.

## “WESTHAVEN” MACHINISTS’ SCRIBERS



No. 1



No. 2



No. 3

These Scribers are properly tempered and made of high grade steel.

Packed one dozen in a box.

	PER DOZEN
No. 1 is $6\frac{1}{2}$ in. to 7 in. long, knurled body, $\frac{1}{4}$ in. dia.	\$3.60
No. 2 is $4\frac{1}{4}$ in. long, knurled body, $\frac{1}{4}$ in. dia.	3.25
No. 3 is $3\frac{1}{2}$ in. long, knurled body, $\frac{3}{16}$ in. dia.	3.00

Table of Weights, Page 52.



## No. 123 SET OF MACHINISTS' SCRIBERS



Weight,  
per set,  
3 oz.

This Set comprises one Scriber  $3\frac{1}{2}$  inches long, one Scriber 4 inches long, one Scriber  $6\frac{1}{2}$  inches long, mounted on a card.

### No. 123 Set Scribers.

Per set \$1.00.

Six sets in a box.

## "WESTHAVEN" SPRING LEAF OPENER



A STRONG, POSITIVE WORKING TOOL FOR OPENING LEAVES OF AUTOMOBILE SPRINGS

Automobile springs well lubricated between the leaves makes a car ride much easier and lessens the liability of springs breaking and accident.

With the "WESTHAVEN" No. 8 Spring Leaf Lubricating Tool, car springs can be easily and thoroughly lubricated. In using this tool it is only necessary to see that the wedge is fairly placed between two leaves of the spring and turn up the screw. The smooth end of the clamp draws against the opposite side of the spring and the wedge is forced between the leaves. When open wide enough, graphite and grease should be applied between them.

No. 8 Spring Leaf Lubricator. Per Dozen \$20.00

Packed one in a box, 6 doz. in a case

Weight,  $1\frac{3}{4}$  lbs. each

## "WESTHAVEN" PLUMB BOBS

MACHINE TURNED—HIGHLY POLISHED

Cut full size No. 1

Packed one-half dozen in box

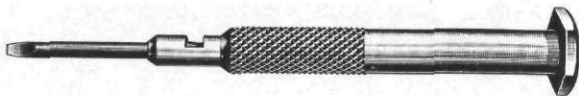
	WEIGHTS	DOZEN
No. 1	3 oz.	\$4.00
No. 2	6 oz.	5.00

	WEIGHTS	DOZEN
No. 3	8 oz.	\$8.00
No. 4	14 oz.	12.00



## "WESTHAVEN" REVOLVING HEAD SCREW DRIVERS

For Assembling Light Work  
and Electricians' and Opticians' Use.



With Reversible Blade

Full Length, 5 inches

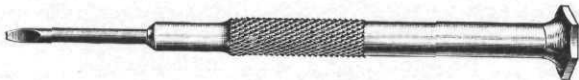
Nickel Plated

No. 4 Dia. Body  $\frac{1}{4}$  inch.  
No. 5 " "  $\frac{5}{16}$  "

Width of Blade at points  $\frac{3}{32}$  and  $\frac{1}{16}$  inch.  
" " " " "  $\frac{1}{8}$  "  $\frac{3}{8}$  "

Per Dozen \$6.40

These screw drivers are time savers for turning in or out small screws. In use the revolving head should rest in the hollow of the hand and the driver twirled between finger and thumb. The blade is made of drill-rod steel, temper drawn to a blue. Hexagon head prevents rolling when laid down.



Jewelers' Special

Head Cupped for Finger Rest

Nickel Plated

No. 30. Dia. Body  $\frac{1}{4}$  inch. Width of Blade at point  $\frac{3}{32}$  inch.  
Full Length  $4\frac{1}{2}$  inches. Per Doz. \$5.50  
No. 32. Dia. Body  $\frac{1}{4}$  inch. Width of Blade at point  $\frac{1}{16}$  inch.  
Full Length  $4\frac{1}{2}$  inches. Per Doz \$5.50

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## REPAIR PARTS FOR "UNIVERSAL" HACK SAW MACHINE

### 1910 MODEL

#### CASTINGS

The castings on this machine are all numbered, and it will only be necessary therefore, to use numbers in ordering.

No.	List	No.	List
1 Bed.....	\$13.50	13 Lifting Clamp.....	\$ .75
2 Vise Jaw.....	.90	14 Lifting Lever.....	.50
3 Quick Return Lever.....	1.25	15 Gauge Clamp Wheel.....	.15
4 Large Gear.....	2.75	16 Gauge Clamp.....	.10
5 Pulley.....	1.75	17 Automatic Stop Lever.....	.25
6 Small Gear.....	1.25	18 Starting Cam.....	.20
7 Connecting Rod.....	.50	19 Starting Lever.....	.75
8 Saw Frame Arm.....	3.00	20 Weight.....	2.00
9 Saw Frame Cap.....	.50	21 Gear Shield.....	1.00
10 Saw Frame.....	2.50	22 Vise Screw with Handle....	.75
11 Leg.....	5.00	23 Frame Supporting Lever....	.15
12 Lifting Link.....	.15	24 Thumb Screw.....	.15
No. 25 Thumb Nut, List, \$ .10			

#### STEEL PARTS

Automatic Stop Lever Pin.....	\$ .10	Pulley Shaft.....	\$ .50
Automatic Stop Lever Spring...	.10	Push Bar.....	.15
Fiber Washer $\frac{1}{8}$ inch Thick.....	.05	Push Bar Nut.....	.05
Fiber Washer $\frac{3}{16}$ inch Thick.....	.05	Push Bar Spring.....	.10
Gauge Rod.....	.25	Saw Frame Bar.....	3.00
Knurled Pin.....	.15	Saw Frame Wrist Pin.....	.10
Large Gear Stud.....	.40	Saw Holder (Long).....	.40
Lifting Cam Roll.....	.15	Saw Holder (Short).....	.35
Lifting Clamp Pin.....	.10	Sliding Block.....	.15
Lifting Clamp Plate (Narrow)...	.30	Spring Washer.....	.30
Lifting Clamp Plate (Wide)....	.30	Spring Washer Spring.....	.05
Lifting Lever Link Pin.....	.15	Steel Washer.....	.10
Lifting Lever Spring.....	.10	Vise Strap.....	.15
Lifting Lever Wrist Pin.....	.15		

## WEIGHTS—"UNIVERSAL" SAWS

For the convenience of our customers to whom transportation is quite an important item we publish the approximate weight per gross of the different sizes of Universal Blades. By consulting this list transportation charges can be very correctly figured.

For weight of case, from 15 to 20 pounds should be added to every 200 pounds of blades, as we ship in cases of this weight as near as possible.

SIZE		WEIGHT PER GROSS	SIZE		WEIGHT PER GROSS
6 × ½ × 23	Gauge	3 Pounds	14 × 1 × 16	Gauge	32½ Pounds
7 × ½ × 23	"	3½ "	16 × 1 × 21	"	22 "
8 × ½ × 23	"	4 "	16 × 1 × 18	"	32 "
8 × ⅝ × 22	"	6 "	16 × 1 × 16	"	42½ "
9 × ½ × 23	"	4½ "	17 × ¾ × 21	"	17 "
9 × ⅝ × 22	"	6½ "	17 × 1 × 21	"	22 "
10 × ½ × 23	"	4¾ "	17 × ¾ × 18	"	26 "
10 × ⅝ × 22	"	7¾ "	17 × 1 × 18	"	34 "
10 × ¾ × 21	"	9¾ "	17 × 1 × 16	"	44 "
10 × ¾ × 18	"	15¼ "	18 × 1 × 21	"	25 "
11 × ½ × 23	"	5¼ "	18 × 1 × 18	"	37 "
12 × ⅝ × 23	"	7 "	18 × 1 × 16	"	48 "
12 × ⅝ × 22	"	7¾ "	19 × 1 × 18	"	39 "
12 × ⅝ × 22	"	8¾ "	19 × 1 × 16	"	51 "
12 × ⅝ × 21	"	8½ "	20 × 1 × 18	"	41 "
12 × ⅝ × 21	"	9¾ "	20 × 1 × 16	"	54 "
12 × ¾ × 21	"	11½ "	20 × 1 × 14	"	68 "
12 × ¾ × 18	"	17¾ "	21 × 1 × 18	"	43 "
12 × 1 × 18	"	24½ "	21 × 1 × 16	"	56 "
14 × ⅝ × 22	"	9 "	23 × 1 × 18	"	48 "
14 × ⅝ × 21	"	10¾ "	23 × 1 × 16	"	61 "
14 × ¾ × 21	"	12½ "	24 × 1 × 18	"	47 "
14 × ¾ × 18	"	20 "	24 × 1 × 16	"	63 "
14 × 1 × 18	"	28 "	24 × 1 × 14	"	78 "

## WEIGHTS—MECHANICS' TOOLS

ARTICLE	WEIGHT PER DOZ.	ARTICLE	WEIGHT PER DOZ.
<b>Center Finders.</b>		<b>Prick Punches.</b>	
"Sure," No. 0	3½ lbs.	"Easy Hold	¾ lbs.
"Sure," No. 1	3½ "		
"Sure," No. 2	2¾ "		
"Sure," No. 3	1¾ "		
<b>Center Punches.</b>		<b>Screw Drivers.</b>	
"Easy Hold"	¾ "	Revolving Head.	
"O. K." Brand.		No. 4	1¼ "
4 x $\frac{9}{32}$ and $\frac{5}{16}$ inch Assorted	¾ "	No. 5	1 "
4 x $\frac{3}{8}$ inch	1¼ "		
4 x $\frac{7}{16}$ "	1¾ "	<b>Solid Drive Punches.</b>	
4 x $\frac{1}{2}$ "	2¼ "	"Easy Hold"	¾ "
5 x $\frac{1}{2}$ "	2¾ "		
<b>Jack Screws.</b>		"O. K." Brand.	
No. 10	4 "	4 x $\frac{5}{16}$ x $\frac{1}{8}$ inch	¾ "
		4 x $\frac{3}{8}$ x $\frac{3}{16}$ "	1¼ "
<b>Nail Sets.</b>		4 x $\frac{7}{16}$ x $\frac{1}{4}$ "	1¾ "
"Easy Hold"	¾ "	4 x $\frac{1}{2}$ x $\frac{5}{16}$ "	2¼ "
"O. K." Brand.		5 x $\frac{3}{8}$ x $\frac{3}{16}$ "	1½ "
4 x $\frac{9}{32}$ and $\frac{5}{16}$ inch Assorted	¾ "	5 x $\frac{7}{16}$ x $\frac{1}{4}$ "	2¼ "
5 x $\frac{3}{8}$ inch	1½ "	5 x $\frac{1}{2}$ x $\frac{5}{16}$ "	2¾ "
5 x $\frac{7}{16}$ "	2¼ "		
5 x $\frac{1}{2}$ "	2¾ "	<b>Tap Wrenches.</b>	
<b>Plumb Bobs.</b>		No. 1	1½ "
No. 1	2½ "	No. 2	5 "
No. 2	4 "	No. 10	1¾ "
No. 3	6 "	No. 11	3½ "
No. 4	10½ "	No. 12	7 "

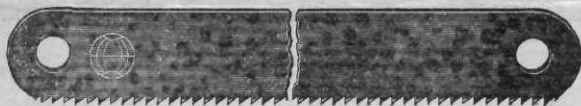
112B 1000

## Discount and Price Sheet

*Subject to Change Without Notice*

# THE WEST HAVEN MANUFACTURING COMPANY

NEW HAVEN, CONN., U. S. A.



Applying to Catalog No. 15 of Jan. 1st, 1918




# HACK SAW BLADES, FRAMES AND MACHINES

Pages 6 to 33, Catalogue No. 15

Terms: F. O. B. New Haven, less 2% 10 days

Band Saws.....	
"Universal" Hack Saw Blades.....	30%
"Universal" Hack Saw Frames.....	Net - List
"Universal" Hack Saw Machine.....	20-10%
"Universal" Hack Saw Machine Parts.....	20-10%
"Utility" Hack Saw Blades.....	30%

# MECHANICS' TOOLS—NET PRICES

 In Effect July 1, 1918. Subject to change without notice.

Pages 34 to 49, Catalogue No. 15.

TERMS F. O. B. NEW HAVEN, CONN., LESS 2% 10 DAYS

## CENTER FINDERS

Page 46

Nos. 0, 1, 2, 3, \_\_\_\_\_ Per Doz.  
Extra Bits \_\_\_\_\_

## JACK SCREWS

Page 47

No. 10 \_\_\_\_\_ Per Doz., \$8.00

## NAIL SETS

Pages 34 to 36

"Easy Hold" Brand \_\_\_\_\_ Per Gro., \$10.80

"O. K. Brand

No. 10 in Pasteboard Box \_\_\_\_\_ 9.00

No. 24 in 2 Doz. Display Box \_\_\_\_\_ 9.50

No. 12 in 1 Doz. R'd Wood Box \_\_\_\_\_ 10.00

No. 234 in No. 234 Sets \_\_\_\_\_ 10.00

No. 332 in Pasteboard Box \_\_\_\_\_ 12.50

No. 38 " " " \_\_\_\_\_ 13.25

No. 39 " " " \_\_\_\_\_ 16.50

No. 40 " " " \_\_\_\_\_ 19.80

No. 38, 39 & 40, Assd \_\_\_\_\_ 16.55

## PLUMB BOBS

Page 49

No. 1 \_\_\_\_\_ Per Doz. \$1.55

No. 2 \_\_\_\_\_ 2.20

No. 3 \_\_\_\_\_ 3.30

No. 4 \_\_\_\_\_ 4.40

## PUNCHES

Pages 35 to 43

### CENTER PUNCHES

Page 38

"Easy Hold" \_\_\_\_\_ Per Doz. \$ .95

No. 14 "O. K." Brand \_\_\_\_\_

$\frac{9}{16}$  x 4 in. \_\_\_\_\_ .85

$\frac{5}{16}$  x 4 in. \_\_\_\_\_ .85

$\frac{3}{8}$  x 4 in. \_\_\_\_\_ 1.05

$\frac{3}{8}$  x 5 in. \_\_\_\_\_ 1.30

$\frac{7}{16}$  x 4 in. \_\_\_\_\_ 1.30

$\frac{1}{2}$  x 4 in. \_\_\_\_\_ 1.50

$\frac{1}{2}$  x 5 in. \_\_\_\_\_ 1.75

$\frac{3}{8}$ ,  $\frac{7}{16}$  &  $\frac{1}{2}$  x 4 in. Ass'd \_\_\_\_\_ 1.30

No. 3 C. P. Set \_\_\_\_\_ Per Set .20

## PIN PUNCHES

Pages 39 to 43

No. 36, Set \_\_\_\_\_ Per Set \$ .20

No. 38, Set of 5 Pin Punches \_\_\_\_\_ .45

No. 38, Pin Punches \_\_\_\_\_ Per Doz. 1.05

No. 48, " " \_\_\_\_\_ 2.25

## PRICK PUNCHES

Page 37

"Easy Hold" \_\_\_\_\_ Per Doz. \$ .90

No. 16 "O. K." Brand  $\frac{9}{16}$  &  $\frac{5}{16}$  x 4 in. \_\_\_\_\_ .85

$\frac{3}{8}$  x 4 in. \_\_\_\_\_ 1.05

$\frac{3}{8}$  x 5 in. \_\_\_\_\_ 1.30

## PUNCHES—Continued

### SOLID DRIVE PUNCHES

Page 39

"Easy Hold" \_\_\_\_\_ Per Doz. \$ .90

No. 18 "O. K." Brand \_\_\_\_\_

$\frac{9}{16}$  x 4 in.— $\frac{1}{8}$  Pt. \_\_\_\_\_ .85

$\frac{3}{8}$  x 4 in.— $\frac{3}{16}$  Pt. \_\_\_\_\_ 1.05

$\frac{3}{8}$  x 5 in.— $\frac{3}{16}$  Pt. \_\_\_\_\_ 1.30

$\frac{7}{16}$  x 4 in.— $\frac{1}{4}$  Pt. \_\_\_\_\_ 1.30

$\frac{7}{16}$  x 5 in.— $\frac{1}{4}$  Pt. \_\_\_\_\_ 1.55

$\frac{1}{2}$  x 4 in.— $\frac{5}{16}$  Pt. \_\_\_\_\_ 1.50

$\frac{1}{2}$  x 5 in.— $\frac{5}{16}$  Pt. \_\_\_\_\_ 1.75

4 in., assorted \_\_\_\_\_ 1.30

5 in., assorted \_\_\_\_\_ 1.55

### WOOD SCREW PUNCHES

Page 37

No. 25, Per Set \_\_\_\_\_ \$ .20

### PUNCHES ASSORTED

Pages 40 to 43

No. 100 R Set, \_\_\_\_\_ Per Set \$ .95

No. 485 " \_\_\_\_\_ .95

No. 39 " \_\_\_\_\_ .45

No. 384 Assortment \_\_\_\_\_ Doz. 1.05

No. 15 " \_\_\_\_\_ Per Set 1.40

## SCRIBERS

Pages 47 and 48

No. 1 \_\_\_\_\_ Per Doz. \$1.45

No. 2 \_\_\_\_\_ 1.35

No. 3 \_\_\_\_\_ 1.10

No. 123 Set \_\_\_\_\_ Per Set .35

## SCREW DRIVERS

Page 49

No. 4 \_\_\_\_\_ Per Doz.

No. 5 \_\_\_\_\_

No. 30 \_\_\_\_\_

No. 32 \_\_\_\_\_

Extra Blades for Nos. 4 and 5 \_\_\_\_\_

## SPRING LEAF OPENER

or Spring Leaf Lubricator

Page 48

No. 8 \_\_\_\_\_ Per Doz. \$8.40

## TAP WRENCHES

Pages 44 to 45

No. 1 \_\_\_\_\_ Per Doz. \$4.00

No. 2 \_\_\_\_\_ 6.00

No. 10 \_\_\_\_\_ 4.15

No. 11 \_\_\_\_\_ 5.30

No. 12 \_\_\_\_\_ 7.70

No. 112 Set \_\_\_\_\_ Per Set 1.43

# 1515  
112B 2000

THE BITTENBENDER COMPANY

## Discount and Price Sheet

*Subject to Change Without Notice*

# THE WEST HAVEN MANUFACTURING COMPANY

NEW HAVEN, CONN., U. S. A.



Applying to Catalog No. 15 of Jan. 1st, 1918

*Recd. 1/25/18*

# HACK SAW BLADES, FRAMES AND MACHINES

Pages 6 to 33, Catalogue No. 15

Terms: F. O. B. New Haven, less 2% 10 Days

Band Saws.....	
"Universal" Hack Saw Blades.....	25%
"Universal" Hack Saw Frames.....	20%
"Universal" Hack Saw Machine.....	20-10%
"Universal" Hack Saw Machine Parts.....	
"Utility" Hack Saw Blades.....	25%

# MECHANICS' TOOLS—NET PRICES



In Effect Jan. 1, 1918

Pages 34 to 49, Catalogue No. 15

TERMS F. O. B. NEW HAVEN, CONN., LESS 2% 10 DAYS

## CENTER FINDERS

Page 48

Nos. 0, 1, 2, 3.....	\$5.80
Extra Bits.....	1.75

## JACK SCREWS

Page 47

No. 10.....	Per Doz., \$7.20
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## NAIL SETS

Pages 34 to 36

"Easy Hold" Brand.....	Per Gro., \$9.00
"O. K. Brand	
No. 10 in Pasteboard Box.....	8.00
No. 24 in 2 Doz. Display Box.....	8.25
No. 12 in 1 Doz. R'd Wood Box.....	8.50
No. 234 in No. 234 Sets.....	8.50
No. 332 in Pasteboard Box.....	11.40
No. 38 " " ".....	12.00
No. 39 " " ".....	15.00
No. 40 " " ".....	18.00
No. 38, 39 & 40, Assd.....	15.00

## PLUMB BOBS

Page 49

No. 1.....	Per Doz., \$1.40
No. 2.....	2.00
No. 3.....	3.00
No. 4.....	4.00

## PUNCHES

Pages 35 to 43

### CENTER PUNCHES

Page 38

"Easy Hold".....	Per Doz., \$0.80
No. 14 "O. K." Brand	
$\frac{3}{32}$ x 4 in.....	.75
$\frac{5}{16}$ x 4 in.....	.75
$\frac{3}{8}$ x 4 in.....	.95
$\frac{3}{8}$ x 5 in.....	1.15
$\frac{7}{16}$ x 4 in.....	1.15
$\frac{1}{2}$ x 4 in.....	1.35
$\frac{1}{2}$ x 5 in.....	1.55
$\frac{3}{8}$ , $\frac{7}{16}$ & $\frac{1}{2}$ x 4 in. Ass'd.....	1.15
No. 3 C. P. Set.....	Per Set .18

## PIN PUNCHES

Pages 39 to 43

No. 36, Set.....	Per Set \$0.18
No. 38, Set of 5 Pin Punches.....	.40
No. 38, Pin Punches.....	Per Doz. .95
No. 48, " ".....	2.00

## PRICK PUNCHES

Page 37

"Easy Hold".....	Per Doz., \$0.80
No. 16 "O. K." Brand $\frac{3}{32}$ & $\frac{5}{16}$ x 4 in. ....	.75
$\frac{3}{8}$ x 4 in.....	.95
$\frac{3}{8}$ x 5 in.....	1.15

## PUNCHES—Continued

### SOLID DRIVE PUNCHES

Page 39

"Easy Hold".....	Per Doz. \$0.80
No. 18 "O. K." Brand	
$\frac{5}{16}$ x 4 in.— $\frac{1}{8}$ Pt.....	.75
$\frac{3}{8}$ x 4 in.— $\frac{3}{16}$ Pt.....	.95
$\frac{3}{8}$ x 5 in.— $\frac{3}{16}$ Pt.....	1.15
$\frac{7}{16}$ x 4 in.— $\frac{1}{4}$ Pt.....	1.15
$\frac{7}{16}$ x 5 in.— $\frac{1}{4}$ Pt.....	1.40
$\frac{1}{2}$ x 4 in.— $\frac{5}{16}$ Pt.....	1.35
$\frac{1}{2}$ x 5 in.— $\frac{5}{16}$ Pt.....	1.55
4 in., assorted.....	1.05
5 in., assorted.....	1.37

### WOOD SCREW PUNCHES

Page 37

No. 25, Per Set.....	\$0.18
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### PUNCHES ASSORTED

Pages 40 to 43

No. 100 R Set.....	Per Set \$0.85
No. 485 ".....	.85
No. 39 ".....	.40
No. 384 Assortment.....	Doz. .95
No. 15 ".....	Per Set 1.25

## SCRIBERS

Pages 47 and 48

No. 1.....	Per Doz., \$1.30
No. 2.....	1.20
No. 3.....	1.00
No. 123 Set.....	Per Set .32

## SCREW DRIVERS

Page 49

No. 4.....	Per Doz., \$2.60
No. 5.....	2.60
No. 30.....	2.00
No. 32.....	2.00
Extra Blades for Nos. 4 and 5.....	.70

## SPRING LEAF OPENER

or Spring Leaf Lubricator

Page 48

No. 8.....	Per Doz., \$7.40
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## TAP WRENCHES

Pages 44 to 45

No. 1.....	Per Doz., \$3.60
No. 2.....	5.40
No. 10.....	3.80
No. 11.....	4.80
No. 12.....	7.00
No. 112 Set.....	Per Set 1.30