

# BOYNTON'S

## IMPROVED PATENT

**PATENT LIGHTNING SAW**  
SUPER EXTRA SPRING STEEL WARRANTED REFINED  
NOV. 27. 1866. JAN. 14 1868  
JULY 23. 1867. JULY 27. 1869



**NEW YORK**

# LIGHTNING SAWS.

NEW YORK:

**E. M. BOYNTON,**

SOLE PROPRIETOR AND MANUFACTURER,

No. 80 BEEKMAN STREET.

## Answer to Henry Disston's "Important" Circular.

Since the date of my first patent, Nov. 27, 1866, several of the large saw manufacturers, after opposing, ridiculing and endeavoring to crush out my Lightning Saws, have at length paid me the tribute of imitating my goods and infringing upon my patents. They can sell inferior goods at lower prices and there is no excuse for their breaking the laws of the country and seeking to rob inventors of their hard earned rights and property. The fact that these men have amassed millions from patent machinery and inventions of others gives them no right to use such gains to rob and oppress inventors. The Government did not protect their patents nor the people render them their wealth for any such purpose. Believing, as I do, that right will triumph in the end, I am pushing my cause in the United States courts of equity to a speedy and, I trust, successful conclusion, so that a single suit may settle the question for all persons who make, sell, or use my goods in defiance of patent law. But even if sure retribution does not always follow the criminal, what high-toned merchant wishes to sell infringements knowingly? The public conscience must support the right, or law is valueless, and the rights of the lofty and lowly have alike one foundation. NO MAN CAN AFFORD TO DO WRONG.

Wealthy saw manufacturers may pay legal costs, but can not shield the consciences of their customers, and the meanness of a wrong is increased by chances of escaping detection and punishment.

For the information of the public, I submit the following letter of my Attorney, which explains itself:

E. M. BOYNTON, Esq., 80 Beekman St., N. Y.

DEAR SIR,—We have received your letter asking our opinion as to the validity of the claims in your Re-Issue Letters Patent, No. 3,566, for the **M** shaped cutting teeth described therein. Your original Letters Patent, No. 59 951, dated November 27, 1866, contain the said invention and consequently the Re-Issue was legally and properly granted.

The invention referred to is secured by the first and second claims, and in our opinion both said claims are valid. The first is, in substance, for the **M** shaped tooth provided with cutting faces.

The second claim covers such a tooth having its cutting points dressed to cut in line on the same side of the kerf, and so on with each succeeding tooth, successive teeth cutting on opposite sides of the kerf from each other, but the cutting points of each tooth are dressed to cut on one side only of the kerf.

The said claims are, in our opinion, good and valid, and any persons making, selling or using the devices and constructions specified therein without license from you, are infringers of your Patent and are liable to suit, since the Patent was properly granted, and no anticipation of the improvements above referred to has been found, so far as we are aware, which cast any doubt upon either of said claims, or upon the correctness of the action of the Patent Office in granting the same.

Yours truly,

VAN SANTVOORD & HAUFF,

Solicitors of Patents,

NEW YORK, February 28th, 1873.

41 Park Row, N. Y.

I have received from my customers a Private Sheet Circular entitled "IMPORTANT," and signed, Henry Disston & Sons. Said circular seems dictated by love for me. Can the public doubt that since the time when H. Disston & Sons Manufactured for me and highly recommended my Patent Lightning Saws, they have followed with affectionate interest, their resistless advance in public favor, until now a hundred thousand annual purchasers in America add their testimony to the superiority of my Patent Lightning Saws

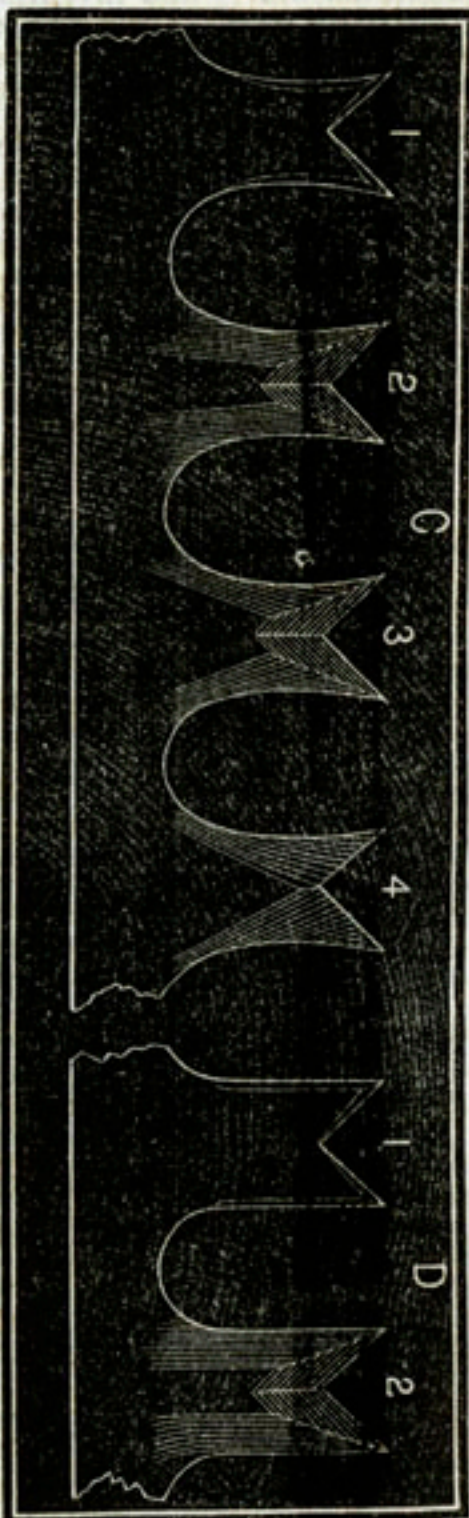
The reason no one can take my \$500 TEST Challenge, is manifest when on the fourth page of "IMPORTANT" sheet, we find, that if any one will conceal a  $\nabla$  obstruction between points of my Patent  $\mathcal{M}$  tooth, a "saw will cut four times as fast," as if its points were all of the old  $\nabla$  teeth.

Henry Disston, stakes his reputation on this recommendation of my goods.

If an adulterated Lightning (Dubbed Great American,) "will cut four times as fast as the common tooth" used by other saws, what then will my genuine Patent Lightning do?

"If such the sweetness of the stream,  
What must the fountain be?"

But the unkindest cut of all, is this exact copy of H. D. & S. diagram representing the "Champion saw" to be nothing but a worn out Lightning, and that nothing may be wanting an old



V tooth and also every possible modification and form of saw teeth is represented as derived from my broad pointed M by injudicious filing. See remains fig. 2, 3 & 4

The superior speed of my Lightning Saws, is not questioned, and for two men to cut 26 cords of hard wood in one day, as has been done with my saw by hand, indicates an ease that permits sustained effort.

As to the good Policy of gumming Saws with files, I submit the following letter just received, but will only remark that H. D. being Judge, my teeth may be worn out *without* deepening the arches (see his diagram above.) saving files and time.

The cost of time and files, to gum out of hard tempered steel, a new set of teeth as recommended by this "*Important*" Circular, may be not more than \$25 per Saw, a gummer will do it for \$1. \$25 saved is desirable, added to a thousand dollars earned by six months, constant use of a genuine *Lightning*, but to speed, ease and simplicity, add thrice the durability. Henry Disston used to represent my teeth as narrowing at base, now as widening, he evidently has read page 3 and 7 in my 1872 list, and has changed his views. He may read this letter.

MR. E. M. BOYNTON, Dear Sir:

"I send you a saw to cut new teeth upon, it has been in heavy and constant use since last September, in sawing down trees, and sawing up between one and two thousand large timber trees, consisting of White Oak, Hickory, and other hard wood, all without gumming new teeth or using files on any thing beside the teeth. The saw cuts easier and faster, and gives better satisfaction than any other I ever used, and for twenty years I have used the best I could obtain. To deepen the arches into the plate, the length of the teeth with files, is too costly an operation on any saw, and I am thankful the immense expense entailed filing V teeth, is saved by the extra quantity of steel in your M tooth which contains the old V and enough steel beside (if men will only file on top skilfully,) to last an ordinary farmer a life time for all his timber and wood cutting. I learn you will re-cut saws at any time for one Dollar, and it would cost me many dollars to do it with files. In speed, ease and simplicity I consider your saws unrivaled.

March 1st, 1873.

H. B. GRISWOLD,  
PORT CHESTER, NEW YORK.

Answer to Charge of "Private Threatening."

Iron Age of Sept. 5th, 1872. To the Hardware Trade.

"My thanks are due the many honorable dealers and hardware jobbers who have aided me in my struggles to produce a superior saw for cutting cord wood and timber. It has cost me six years and \$50,000 to perfect and introduce my patented direct cutting saws; and now, when their superiority is conceded, I exceedingly regret that any persons should be so unprincipled as to try to rob me of my hard earned property. My goods are fully patented, and the public are hereby cautioned against buying imitation "Lightning" saws. I have retained competent counsel, and am now engaged in opening legal proceedings to protect my interests. Any party making, selling or using any imitation is liable, and will be dealt with according to the full legal penalty. E. M. BOYNTON, N.Y."

Iron Age, April 7th, 1870, in answer to Great American Illustrated, March 31st, 1870.

"I regret to see so illegal, unjust, and ungenerous an infringement as my saw tooth, stolen entire, and dubbed Disston's Great American. We occasionally used to leave an old V obstruction between points, but this gives him no right to appropriate my property. Any modification, or even a positive and patented improvement, could give him no such right in law or Justice. My saws are patented, and any person making, selling or using, is liable to legal penalty, which will be enforced."

Nine days later this receipt was required of me, and I have a copy in their hand-writing, at my store.

"Received, Philadelphia, April 16th, 1870, from Henry Disston & Son, Five Hundred Dollars, and list or schedule of twenty one hundred feet or upwards of Lightning Saws, made with the name of E. M. Boynton thereon, said saws to be delivered, boxed and free of charges at Depot and addressed to said Boynton, 87 Beekman St., N. Y. within ten days from date. The above named money and goods to be a full compromise settlement of contract of May 18th, 1869, (Four Thousand Saws Manufacture) also, of all royalties and infringements or any other claims to this date."

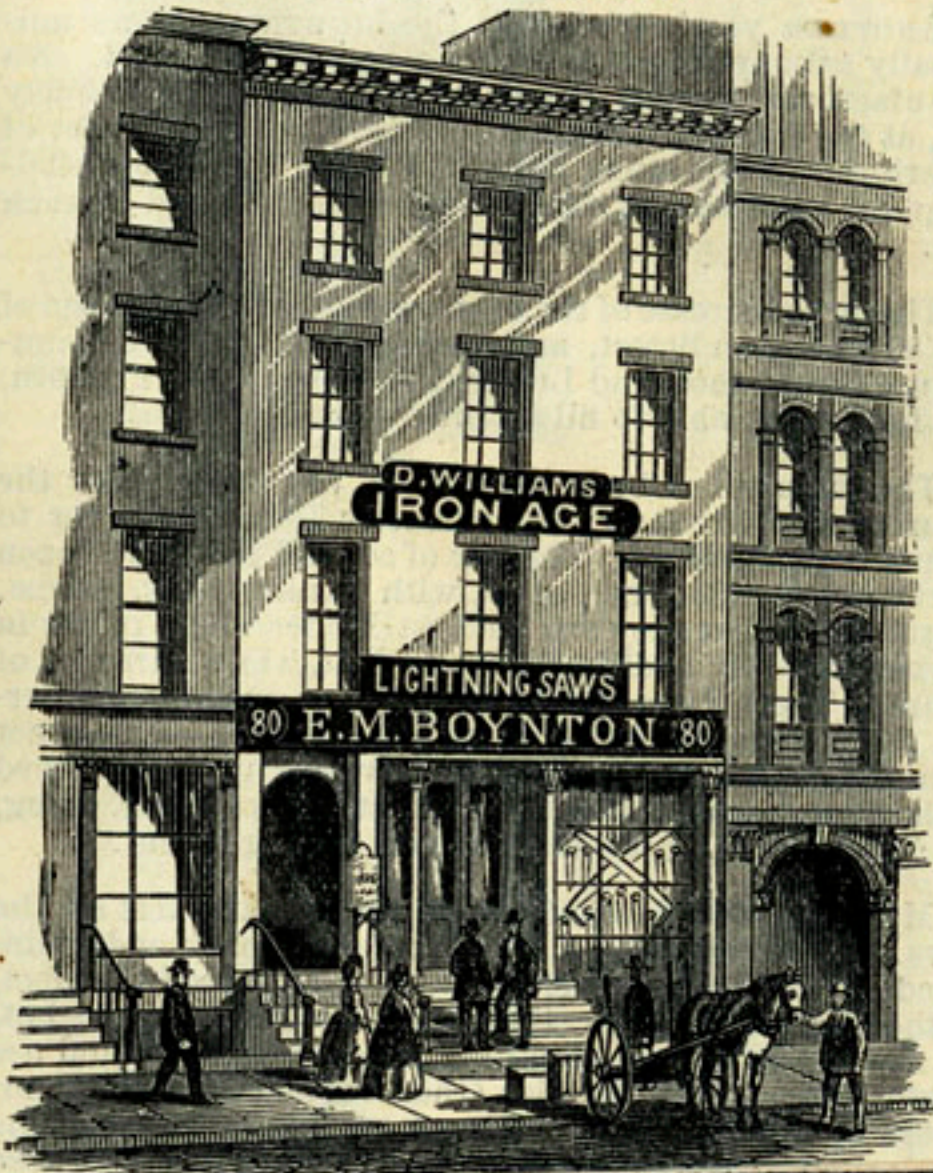
(Signed.)

E. M. BOYNTON.

These Saws cost \$3ets pr foot, making \$2,000 payment.

At end of suit Mr. Disston will pay again willingly, from a sense of Justice, my "Alabama Claims." BEWARE!

**E. M. BOYNTON,**  
Sole Proprietor and Manufacturer,  
No. 80 BEEKMAN STREET,  
NEW YORK.



**TRADE DISCOUNT FOR 1873**

Lightning Saws, from Page 2 to 14 inclusive, 30 PER CENT. DISCOUNT for cash, on receipt of invoice. No party allowed to sell my saws for less than these rates, except in jobbers quantities. Common Tooth Saw List, from page 15 to 24 inclusive, 15 PER CENT. Discount and 5 per cent. for cash on receipt of invoice.

**N. B. All after page 14 Common Teeth.**

78 BEEKMAN ST., NEW YORK, March 8, 1873.

This certifies that at request of Mr. E. M. Boynton, sole proprietor and manufacturer of the LIGHTNING SAWS, No. 80 Beekman Street, New York, I have examined his books and accounts of sales, for the year 1872, and find the sum total of his shipments, for said year to be more than three times the amount of the year preceding.

HENRY L. PRATT, Pres't.

Millers Falls Co.,

ANOTHER year's trial finds the LIGHTNING SAWS universally acknowledged to lead the American market. No manufacturer of saws has dared to question or publicly test, at the American Institute or elsewhere, the matter of superiority of the latest improved SAWS. The \$500 challenge for expenses of public contest is engraved on each saw.

The large increase of the business has compelled lease of No. 80 Beekman Street, and arrangements for the manufacture of five thousand LIGHTNING cross-cuts per month, and hope to be able to fill all orders promptly.

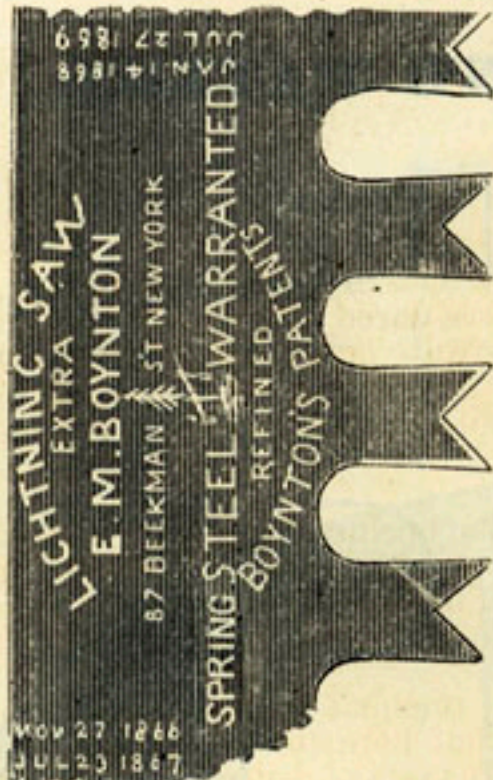
The supply has been unequal to the demand for the LIGHTNING BUCK SAW, but hereafter I will endeavor to keep a stock on hand. The sale of several thousand dozen of the above-mentioned saws, with Hankin's Pat. Frame, causes belief that they are the best Blades and Frames in the market. By additional Trade List, ALL VARIETIES of common Teeth Saws will be furnished to customers ordering them, thus rendering them independent of all other manufacturers. All Lightning Saws are indelibly etched with my name, and also with directions for filing, using, &c.; and also the \$500 challenge on each cross-cut.

My brothers will continue to inspect and test all the saws. Each Lightning Saw will coil and touch ends uninjured. Not one in twenty thousand has proved imperfect, so thorough is the inspection of these regular Goods; but, for the benefit of such unskilled men as cannot set and use a thin saw, a gauge heavier (than regular 15) will be inserted to order. Since enlargement of dust space, one year ago, no complaint of clogging has been received. The Lightning Saws are equally adapted for large and small timber, soft or hard wood, but soft timber requires saws to be set wider. Lightning Saws are all set and sharpened ready for use when sent out, are two to three gauges thinner on back. Note changes in Price Lists and Discounts when ordering. Soliciting your patronage,

I am truly yours,

E. M. BOYNTON.

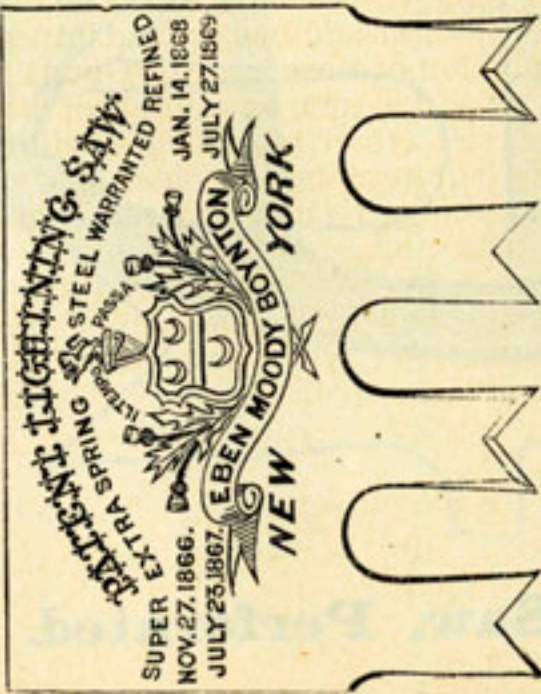
OLD TRADE MARK.



**"The Greater Includes the Less."**

Note extra steel and durability as contrasted with old V outlined on M tooth. After wearing teeth out they may be re-cut, or sold to some admirer of the old V friction process, used by all other saws.

NEW TRADE MARK.



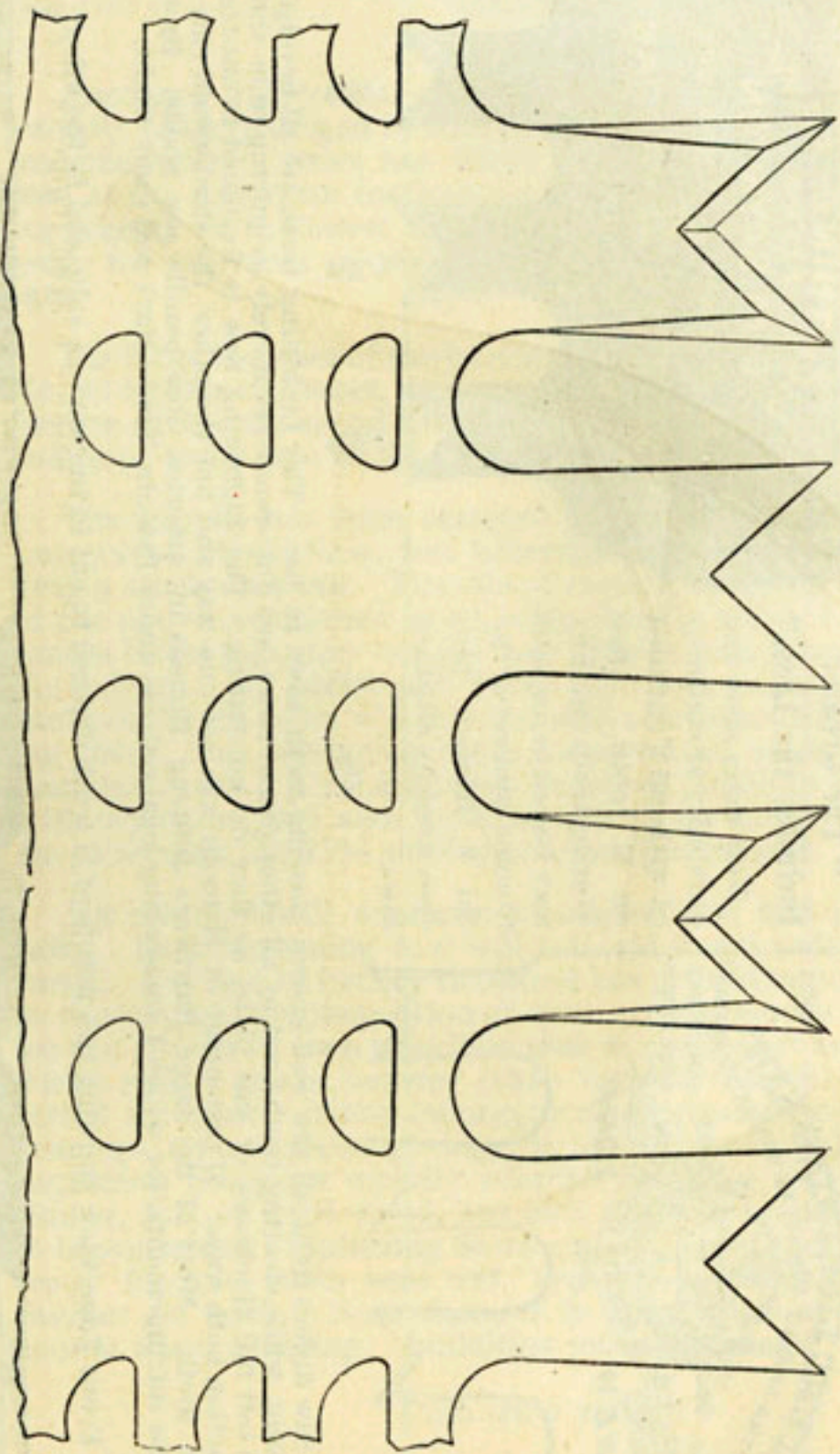
This Saw differs from all the well-known clearing-teeth saws in use. The Lightning teeth are all beveled blades for cutting, while clearing-teeth used by all other patent Saws, are dust-removers merely, requiring to be shortened, and are left full thickness of saw plate, as they do no cutting. The Lightning Saw is designed to cut-timber by direct-action both ways. If one point of M tooth was set one way and one the other, the slant would ride and lift out the tooth. Most of the large Hardware Jobbing Houses in America now handle my goods. BEWARE of worthless infringements, for which I am seeking legal redress under Patents, Trade Mark and Copy Right.

Front Edge View showing two points of M tooth dressed to cut in line-on one side, and to the other.



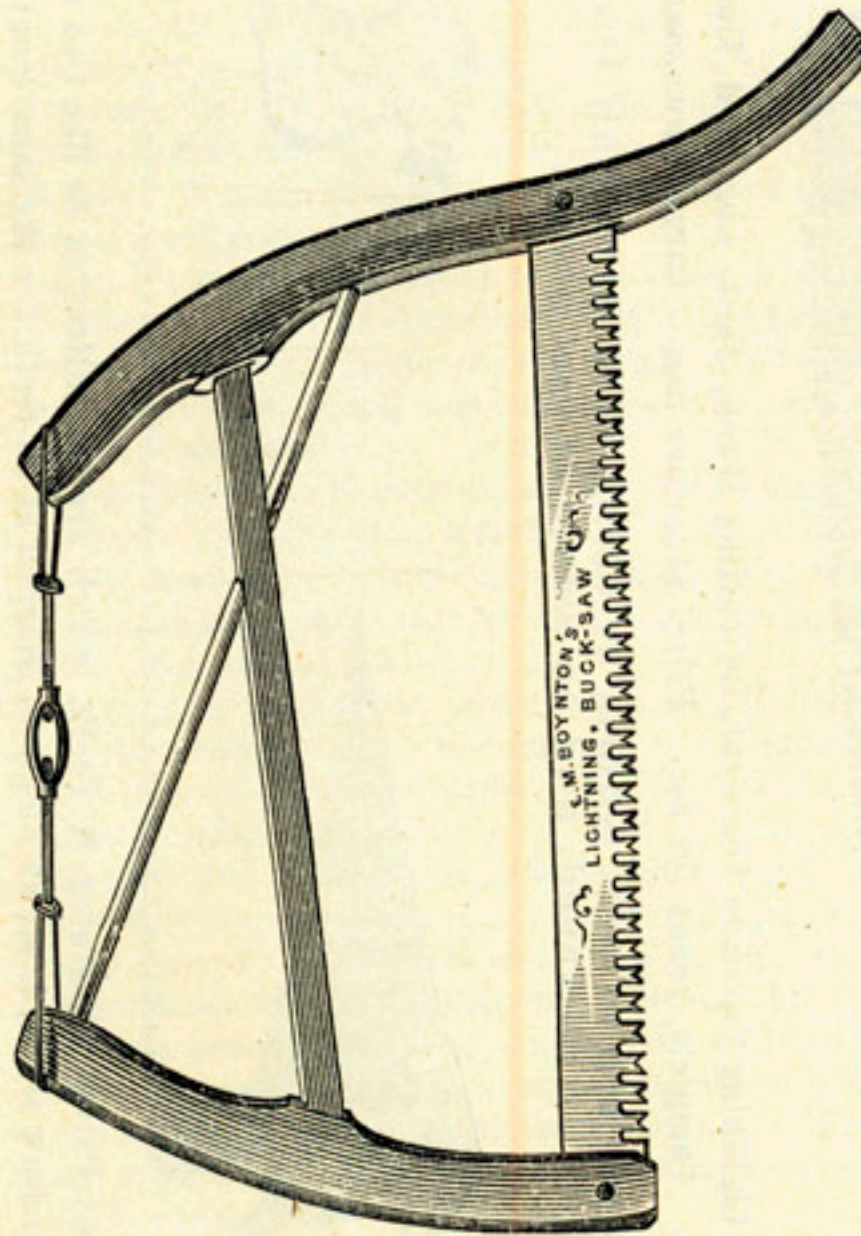


## BOYNTON'S PATENT.

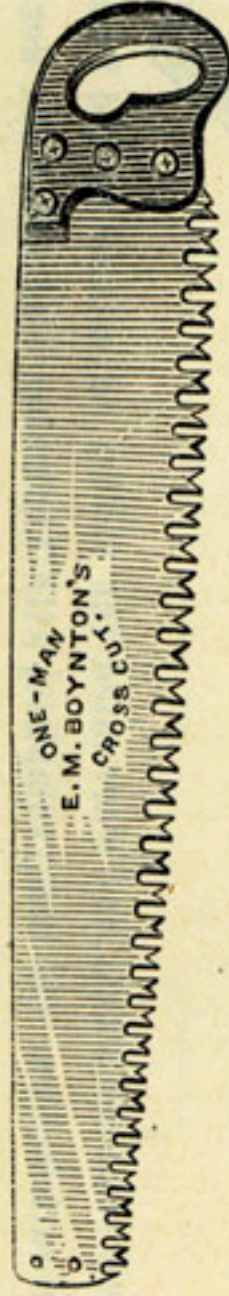


**Lightning Saw, Perforated.**

This is made to order at \$1.25 per foot.

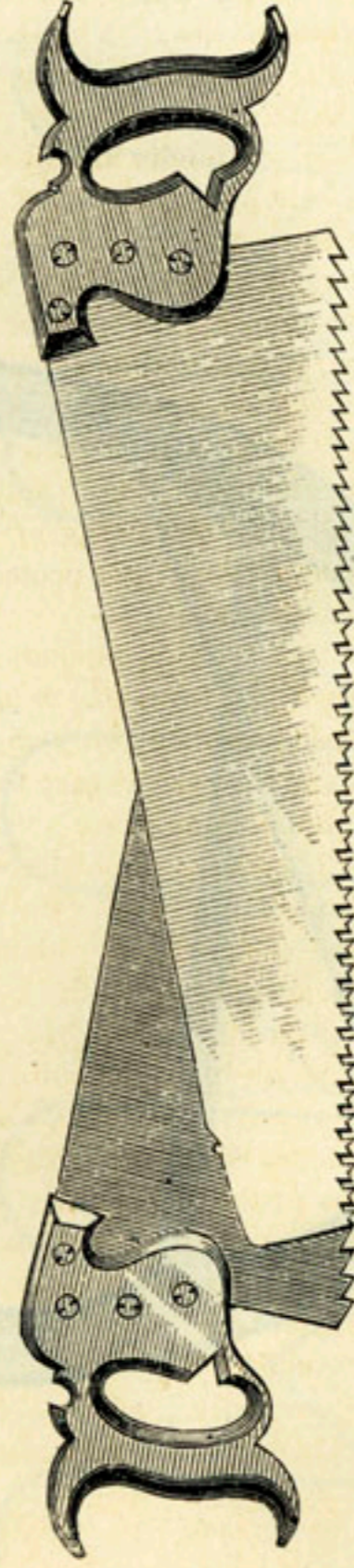


Frame made of best seasoned stock, and warranted the stiffest adjustable braced frame in the market.  
Gives universal satisfaction. (30 inch) complete, with Lightning Blades, \$15 per doz.; \$1.25 each.



**E. M. Boynton's Lightning One-man Cross-cut, for cutting Wood, Joist, Logs and Timber, and sawing down trees. Complete, ready for use. Price, \$1.25 per foot. Larger Saws made to order.**

**Millions of Axes are in use, where, by using this Saw, half the time would be saved, and no waste of fuel occur.**



**This Cut shows my Patent Lightning M Teeth, which are all cutters to be like two reversed common Handsaw teeth, i. e., as simple to sharpen as all teeth are the same length.**

## BOYNTON'S PATENT LIGHTNING SAW.

This saw possesses several great advantages over the ancient V tooth, which has hitherto been relied on, especially in cross-cut saws. The strength, stiffness and durability of these teeth, and their capacity for deep gumming are so obvious that we will only name four other points of comparison, viz.: Speed, ease, simplicity and perfect clearness.

*Speed.*—All are aware that an ordinary hand-saw cuts only one way; i. e., the front cut is more effective than the back or retreating cut. These teeth with their opposite cutting faces, cutting in line, are equivalent to the front cut both ways of a hand saw, in distinction to the two back cuts of the old V saw. Hence, speed is inevitable.

*Ease of Cutting.*—It is easier to plow a groove in timber than to crush one out. The application of this principle is very perfect, all the teeth being of even length, double pointed, cut with outside vertical and projecting edges, and clear simultaneously with the same.

*Simplicity.*—This is obvious, all the points being like hand-saw teeth, viz., the same length. No hooks or thick, raking teeth to be shortened; only one mill file is needed to keep them in order, and they are as easy for the unskilled laborer to sharpen as the old-fashioned saw.

*Perfect Clearance.*—Continuously cutting and clearing, these opposite "cutting faces" not only cut, but clear, by lifting the fibre above the projecting blades, like a plow, which is the most perfect clearing implement.

By their circular we see that two Boynton brothers, by hand, cut off a twelve-inch sycamore (buttonwood) log in *eight seconds*, before Major-General Meade and other distinguished men, at Independence Square, Philadelphia, September 1, 1869. We also note, as a proof of the ease that permits sustained effort, the sawing, by hand, of twenty-six cords of hard beech, maple, elm, ash and hickory wood in eight hours (ten hours, including lost time) in Michigan. Such work, by two men with one saw once filed, is wonderful.

These saws are made and sold by Mr. E. M. Boynton, 80 Beekman Street, New York, and are protected by four patents, dated, respectively, Nov. 27, 1866; July 23, 1867; January 14, 1868; July 27, 1869. We trust that the inventors of so valuable an improvement, in an article of such universal use as the saw, will be able to enjoy the fruit of their labors free from infringement or piracy of any kind.—(IRON AGE, April 7, 1870.)

## WHY USE THE LIGHTNING SAW?

Because the fastest is the cheapest, IF SIMPLE.

As it costs five hundred or more dollars for the labor that wears out the cross cut saw, a saving of one-fifth by speed and ease of an improved saw saves the cost of a dozen. The only difficulty has been that unskilful men neglect to shorten any clearing teeth properly, *if complicated*.

These patent teeth are all of one length and *no shortening required, and cut twice as fast as common saws.*

There have been many devices for clearer teeth, but *no other patent cutting teeth for cross-cutting but these are known.* Why should a saw-tooth be an indirect rasped V, riding over the timber, when, if the outside edges be projecting and points double with one dress of set, a direct cutting and clearing is substituted? True, it will require better steel and harder tempering for a *cutting saw*, but do you buy a poor tool of any other description, or use a rough rasp to sharpen your pen-knife? Note carefully these Patent Cutters, how different from any other saw:

1st. Double pointed, with ONE DRESS and SET for two points on one side of kerf, and next two *reversed cut on other side.*

2d. One point behind the other, consequently cuts and clears only with *outside edges.* No slant cut to gauge out. If one point of M tooth was set one way, and one the other, the slant would ride and lift out the tooth.

3d. Cuts at a direct or opposite angle to the old V tooth saw, beneath all sawdust, as a plow instead of a harrow.

4th. Are edged on an oil stone, after filing teeth.

5th. These are the only patent direct cutting and clearing teeth known for cross cutting saws; cut faster, easier than any other, *and are, with present form, as simple to sharpen as the old V tooth, as M shape.*

## TESTIMONIALS.

### EXTREME TESTS.

"He either fears his fate too much,  
Or his desert is small,  
That dare not put it to the touch,  
And win or lose it all!"—SIR WALTER SCOTT.

NEW YORK AMERICAN INSTITUTE FAIR BUILDING.

Nov. 4, 1871.

E. M. BOYNTON, 80 Beekman Street, New York.

SIR:—This certifies that I saw the Lightning Cross-Cut Saw worked by hand, by two men, Nov. 2, at this Fair. Said men and Saw cut off a sound 8x9 inch chestnut log in  $3\frac{3}{4}$  seconds; and 16 cuts of same, *continuously*, in two minutes and 18 seconds, or at a rate of a cord of wood in less than nine minutes. I am satisfied that for all purposes of cross-cutting large and small timber, your cross-cuts and wood-saws have no rival in speed, in ease, and in simplicity.

I believe their universal use would save a vast amount of money and time, and lighten the toil of millions of men.

J. W. BLAKE,

Superintendent and Engineer American Institute Fair

I select this from many letters received this year regarding my new latest improved Lightning Saws of 1871 pattern. The House, Messrs. EVERSON, FRISSELLE & Co., Syracuse, N. Y., are known for their high character. They deal largely with Farmers and lumbermen.

Mr. E. M. BOYNTON, 80 Beekman Street, N.Y.

SIR: The ninth shipment of your Cross-Cut and Wood-Saws to us this season, arrived last Wednesday. Please send us 50 more Lightning Cross-Cut Saws as soon as possible. The sale of your Saws continues good, and we are nearly out. We shall require fully 500 Lightning Cross-Cuts, and as many Wood-Saws to complete our year's purchases. We would like to have you reduce the price, if you can still keep up their unrivalled quality of manufacture. We should have sold more, only we have been over-stocked with other varieties of patent teeth-clearing saws, and have been obliged to sell your saws at an advance of 50 per cent. over any other; yet many will have no other saw but yours. Our customers say the Lightning Saws save the difference of

cost in one day's use—are more simple to sharpen, and run easier than any other. We think our new patent M tooth saws do surpass in speed, in ease, in simplicity and perfect clearance anything we ever saw, and we are ready to endorse your challenge of \$500, to settle by public contest their superiority over any other saw in the world, which, of course, no one can question.

EVERSON, FRISSELLE & CO.

The following letter is from a practical lumber man, whose name can be seen at my office, but for obvious reasons is not appended:

Dec. 18th.

MR ALPHERT BOYNTON

SIR I Rec your Saw and Gave her a trial 17th & 18 and I and my Son Cut 200 logs and got 2 miles to our work. But as for the Saw I would Not take a 20 Dollar green Back for it it is the fastest cutting Saw that Ever was in this Swamp I am cutting logs for Mr ——— and he and his men tried her and they Say that the Saw is worth fifteen Dollars to Enny man that uses a Saw I can cut a Spruce log 2 feet over in 56 secons there is no wonder that the men Could do nothing with the old fashion Cog Saws for I got Too as good ones of the Kind as there is in these parts, and I could measure and trim the logs and fix the places to saw for Enny x cut Saws in the woods. But I will Bet a twenty Dollar Green Back that there is not 2 men in the Cuntry that can keep this one agoing and if enny man dare take the Bet the money is Ready, I am going over in another Job to Show them how foolish they spend their time, as I did with them old Cog Saws when they can cut as Easy 20 to 25 thousand with those Saws as they can cut 8 or 10 thousand with these old Rakes we git 80 cts. Per thousand for cutting, that is \$16 to \$20. With the old Rake \$6.40 to \$10 wich would Pay them a Saw in less than one day let the farmer have them to iron his Boddy What I Rote is So a lumber man is a fool without your Saw or Enny man that Cuts Cord Wood, there are 2 men hear from ——— a chopping Cord Wood and Mr. ——— had one that he had Bought of Mr. ——— they Bought and Paid him \$11.05 and they Say they Would Not take \$20, for it they may well Say so for they ar worth Every cent of it they can Bare their own Prais By taking a holt of them and saw off one log

Yours Truly

## EXPLANATION OF SAW TEETH

IN

### OPERATION.

These Pat. M teeth being double, with one dress and set, cut only with outside edges, one blade follows while the other is cutting and *vice versa*. As the saw is drawn back and forth, meeting the fibre direct at an opposite angle from the old V tooth, the fibre is cut off by a forward and upward motion; the cutting is mechanical, inevitable, steady and uniform.

In practical use the following advantages are observed:

- 1st. Simplicity in sharpening. No shortening required—all teeth double M *cutting* clearers.
- 2d. A cutting edge. The file is only used to dress teeth, edge, being given with whet stone—a saving of friction, as well as files, steel, strength and time.
- 3d. Double teeth—are stiffer, less vibration.
- 4th. Consequently, may be, and are, gummed longer, saving expense and frequent repairs.
- 5th. Are stronger than any other.
- 6th. Direct cutting (upward) avoids grit, divides resistance relieves the pressure and wear on Point of tooth—avoiding the grinding, weighing and clogging of old style saws.
- 7th. No waste of power, as in the old scratching system, the cutting being direct, uniform, economical, continuous.
- 8th. In direct cutting, edge holds longer than if dragged over the timber.
- 9th. The cutting inclination is beneath and against the fibre.
- 10th. *It is the front cut of a hand saw cutting both ways.*
- 11th. This saw CUTS with less friction, MUCH EASIER AND FASTER, than any heretofore known, while more simple than any other patent saw.

**BOYNTON'S PATENT LIGHTNING SAWS**

**E. M. BOYNTON, Manufacturer.**

**CROSS CUT AND TENON SAWS**

*Warranted Extra Cast Steel, Set & Sharpened.*

4 feet in length, a \$1 00 per foot.....	\$4 00
4½ " " " a 1 00 " .....	4 50
5 " " " a 1 00 " .....	5 00
5½ " " " a 1 00 " .....	5 50
6 " " " a 1 00 " .....	6 00
6½ " " " a 1 00 " .....	6 50
7 " " " a 1 00 " .....	7 00
7½ " " " a 1 25 " .....	9 37
8 " " " a 1 25 " .....	10 00
8½ " " " a 1 25 " .....	10 62
9 " " " a 1 25 " .....	11 25
9½ " " " a 1 25 " .....	11 87
10 " " " a 1 25 " .....	12 50

My PATENT CROSS-CUT HANDLES, screwing on the Blade by Hand, firmly, and removable at pleasure....Per Dozen \$4 00

**Lightning Web, or Buck Saw Blades.**

30 in. Long, Set and Sharpened. (Each, 75 cts.) Per Dozen \$10 00  
Framed Complete, \$15.00 per dozen.

Ordinary Files and Whet Stones, Current Rates.

**Lightning Butting, or Drag Saws.**

5 ft. for Saw Machines, \$2.00 per ft., No, 10 to 13 Guage, \$10 00
5½ " " " 2.00 " .....11 00
6 " " " 2.00 " .....12 00
6½ " for Shingle Mills, 2.00 " .....13 00
7 " " " 2.00 " .....14 00
7½ " " " 2.00 " .....15 00

DIRECTIONS FOR SHARPENING ANY SAW.—Even length of teeth, carefully jointing. Care should be taken not to file off the points in sharpening. Set points evenly and wide enough, according to kind of timber to run easy. Joint sides of teeth after setting and sharpening edge with whet stone.



The metal workers of Damascus, and all Oriental people, have saws cut by drawing, which diminishes risk of injury to blade.

The Saws of European nations cut by shoving.

The Lightning combines the two principles in one tooth. One point of M follows while the other is cutting, which regulates the feed, and enables the teeth of the plow or vertical form to be used for both CROSS CUTTING and Slitting. We use only cutting points of even length, avoiding all complication, while thick, clearing teeth require too much shortening and readjusting. This patent tooth is simple as any hand-saw tooth to sharpen. From experience, we recommend the Lightning Hand Saw in all cases where SPEED is desirable in Cross Cutting. No gain is made in slitting except saving the use of an extra saw. For all coarse work you will like them.

**No. 7, Lightning Hand Saws.**

Spring Steel warranted ; Beech Handle Polished Edges, four Brass Screws, one embossed ; warranted equal to any in the market.

26 inch. (Each, \$2.50).....	per dozen, \$30 00
28 ".....	" 40 00
16 " panel. (Each, \$1.50).....	" 24 00

The Mulay Saws are just being experimented with, and, it is believed, will work well.

**No. 1, Extra Mulay and Gang Saws,**

**Of Lightning Pattern, Made to Order.**

**NET CASH.**

Gauge,	4	5	6	7	8
10 inch wide, per ft.,	\$2.00	1.93	1.72	1.61	1.51
11 " "	2.40	2.30	2.00	1.88	1.82
12 " "	2.58	2.45	2.11	2.00	1.93

# WARRANTED EX. C. S. CIRCULAR SAWS.

Patent Lightning M Tooth for Cross Cutting, (and will Rip.)

STAMPED E. M. BOYNTON.

4 in. diam.	all gauges to 19 ea.	\$1 00 ea.	add'l gauge	\$0 08	Net.
5	"	" 19	"	1 25	" " 0 10 "
6	"	" 18	"	1 55	" " 0 12 "
7	"	" 18	"	1 80	" " 0 14 "
8	"	" 18	"	2 00	" " 0 16 "
9	"	" 17	"	2 45	" " 0 22 "
10	"	" 16	"	2 80	" " 0 22 "
12	"	" 15	"	3 50	" " 0 28 "
14	"	" 15	"	4 10	" " 0 34 "
16	"	" 14	"	4 90	" " 0 40 "
18	"	" 13	"	6 20	" " 0 50 "
20	"	" 13	"	7 75	" " 0 60 "
22	"	" 12	"	9 80	" " 0 70 "
24	"	" 11	"	11 75	" " 0 80 "
26	"	" 11	"	14 50	" " 0 94 "
28	"	" 10	"	15 75	" " 1 10 "
30	"	" 10	"	18 00	" " 1 26 "
32	"	" 10	"	20 70	" " 5 46 "
34	"	" 9	"	24 50	" " 1 74 "
36	"	" 9	"	28 80	" " 2 00 "
38	"	" 8	"	35 00	" " 2 50 "
40	"	" 8	"	42 40	" " 3 00 "
42	"	" 8	"	52 20	" " 3 60 "
44	"	" 7	"	61 20	" " 4 30 "

All Saws subject to the usual Manufacturers' warrantee and conditions as to alteration, etc.

For size of holes in Circular Saws, see list of Mandrels.

Circular Saws made Concave, double price.

Circular Saws for Metal and Ivory, double price.

# Price List of Common Teeth.

January 1, 1872.

## E. M. BOYNTON,

MANUFACTURER OF WARRANTED

# CAST STEEL SAWS

OF EVERY DESCRIPTION,

MANUFACTORY,

## BROOKLYN, E. D.

All Orders must be sent to

## E. M. BOYNTON,

80 Beekman Street, N. Y.

STAMPED E. M. BOYNTON.

Diameter.	Thickness.	Price Each.	Each Additional Gauge. Net Extra.
4 inch.....	19 gauge.....	\$0 75.....	\$0 06
5 ".....	19 ".....	0 95.....	0 09
6 ".....	18 ".....	1 12.....	0 11
7 ".....	18 ".....	1 40.....	0 12
8 ".....	18 ".....	1 60.....	0 14
9 ".....	17 ".....	2 00.....	0 18
10 ".....	16 ".....	2 40.....	0 20
12 ".....	16 ".....	2 95.....	0 25
14 ".....	15 ".....	3 50.....	0 30
16 ".....	15 ".....	4 25.....	0 35
18 ".....	14 ".....	5 00.....	0 45
20 ".....	13 ".....	6 00.....	0 55
22 ".....	12 ".....	7 10.....	0 65
24 ".....	11 ".....	8 50.....	0 75
26 ".....	11 ".....	10 60.....	0 80
28 ".....	11 ".....	12 75.....	0 95
30 ".....	11 ".....	14 80.....	1 10
32 ".....	10 ".....	17 00.....	1 15
34 ".....	10 ".....	19 00.....	1 40

# Warranted Extra Cast Steel Circular Saws

**Patent Ground.**

**COMMON TEETH.**

*Stamped E. M. Boynton.*

Diameter.	Thickness.	Price Each.	Each. Additional Gauge.
36 inch.....	10 gauge.....	\$22 25.....	\$1 60
38 ".....	0 ".....	26 00.....	2 00
40 ".....	8 ".....	30 50.....	2 45
42 ".....	8 ".....	37 00.....	2 90
44 ".....	7 ".....	44 00.....	3 50
46 ".....	7 ".....	52 00.....	4 00
48 ".....	6 ".....	60 00.....	4 80
50 ".....	6 ".....	70 00.....	5 00
52 ".....	5 ".....	84 00.....	6 80
54 ".....	5 ".....	95 00.....	8 00
55 ".....	5 ".....	116 00.....	10 00
58 ".....	5 ".....	136 00.....	12 00
60 ".....	5 ".....	158 00.....	14 00
62 ".....	4 ".....	185 00.....	16 00
64 ".....	4 ".....	210 00.....	18 00
66 ".....	4 ".....	240 00.....	20 50
68 ".....	3 ".....	275 00.....	23 00
70 ".....	3 ".....	300 00.....	25 00
72 ".....	3 ".....	350 00.....	27 00

## CIRULAR CROSS-CUTTING SAWS

are very liable to break from unequal pressure on the sides of the Saw, while cutting. If the angle or bottom of the tooth is filed tapering with the edge of the file, it weakens the angle and renders it more liable to break. We caution all persons using Cross-Cutting Saws to keep the bottom of the teeth filed round, the Saw being much stronger round than tapering, and, consequently, less liable to break. Unless this is strictly observed we do not warrant Cross-Cutting Saws against breaking.

N. B.—I recommend the Patent Lightning for all Cross-Cutting Saws. See page 13.

# Shingle Saws, Tapered to 14 or 15 Gauge.

Inch,	30	32	34	36	38	40	42	44
Each,	\$22.50	27.00	32.50	37.80	43.20	54.00	67.50	81.00

## Circular Saw Mandrels.

*With Pulleys. Babbit Metal Boxes, and Bolts complete, Stamped E. M. Roynton.*

No. 1, ½ in. Hole, Saw 4 to 5 in., Mandrel, 16 in. long,	\$11 50
No. 2, ¾ " " 6 " 17 "	13 25
No. 3, ⅞ " " 7 to 9 " 18 "	15 75
No. 4, 1 " " 10 to 12 " 20 "	18 25
No. 5, 1 ⅛ " " 14 " 22 "	19 25
No. 6, 1 ¼ " " 16 to 18 " 24 "	20 00
No. 7, 1 ⅜ " " 20 to 22 " 26 "	20 50
No. 8, 1 ½ " " 24 " 28 "	23 50
No. 9, 1 ⅝ " " 26 to 30 " 32 "	24 50
No. 10, 1 ¾ " " 32 to 36 " 36 "	28 00

Larger sizes made to order. In ordering Mandrels, please state the exact size of hole in saw.

## Prices for Taper or Bevel Grinding Circular Saws.

Diameter.	Each Gauge Beveled.	Diameter.	Each Gauge Beveled.
10 Inch.....	Net, \$0 40	42 Inch.....	Net, \$3 25
12 ".....	" 0 50	44 ".....	" 3 60
14 ".....	" 0 50	46 ".....	" 3 70
16 ".....	" 0 50	48 ".....	" 3 90
18 ".....	" 0 60	50 ".....	" 4 10
20 ".....	" 0 80	52 ".....	" 4 20
22 ".....	" 0 90	54 ".....	" 4 40
24 ".....	" 1 10	56 ".....	" 4 60
26 ".....	" 1 30	58 ".....	" 4 70
28 ".....	" 1 50	60 ".....	" 5 00
30 ".....	" 1 80	62 ".....	" 5 20
32 ".....	" 1 90	64 ".....	" 5 40
34 ".....	" 2 10	66 ".....	" 5 50
36 ".....	" 2 30	68 ".....	" 5 70
38 ".....	" 2 50	70 ".....	" 5 90
40 ".....	" 2 90	72 ".....	" 6

## MILL, GANG, DRAG & PIT SAWS.

### No. 1—E. M. Boynton's Extra Tempered Cast Steel Mill and Gang Saws.

Gauge,	5	6	7	8	9	10 to 14
Per foot,	\$1.57	1.36	1.31	1.25	1.23	1.20

### No. 2—E. M. Boynton's Cast Steel Mill and Gang Saws.

Gauge,	5	6	7	8	9	10 to 14
Per foot,	\$1.37	1.16	1.11	1.05	1.03	1.00

### No. 1—E. M. Boynton's Extra Tempered Cast Steel Mulay Mill Saws.

Gauge,	4	5	6	7	8
10 inch wide, per foot,	\$2.00	1.93	1.72	1.61	1.51
11 " " "	2.40	2.30	2.00	1.88	1.82
12 " " "	2.58	2.45	2.11	2.00	1.93

### No. 2—E. M. Boynton's Cast Steel Mulay Mill Saws.

Gauge,	4	5	6	7	8
10 inch wide, per foot,	\$1.74	1.68	1.47	1.36	1.26
11 " " "	2.15	2.06	1.75	1.63	1.57
12 " " "	2.33	2.20	1.86	1.75	1.68

### Warranted Extra Cast Steel Butting or Drag Saws.

*Stamped E. M. Boynton.*

5 foot, Mill Saw size, 8 inches wide	Each.	\$6 25
5½ " " 8 " "		6 90
6 " " 8 " "		7 60
6½ " " 8 " "		8 30
7 " " 8 " "		9 00
5 " Tapered Saws, 7 in. wide at Butt, 5 in. at point.		5 50
5½ " " 7 " " 5 " "		6 10
6 " " 7 " " 5 " "		6 70
6½ " " 7 " " 5 " "		7 30
7 " " 7 " " 5 " "		8 00

In ordering, specify Mill Saw or Cross-Cut Tooth.

### Warranted Extra Cast Steel Pit Saws.

*Stamped E. M. Boynton.*

5 ft., at \$1.30 per ft.	each.	\$6.50	7 ft., at \$1.30 per ft.	each.	\$9 10
5½ " 1.30 " " " " " " " "		7.15	7½ " 1.30 " " " " " " " "		9 75
6 " 1.30 " " " " " " " "		7.80	8 " 1.30 " " " " " " " "		10 40
6½ " 1.30 " " " " " " " "		8.45	8½ " 1.30 " " " " " " " "		11 05

Fillers and Boxes for Handles, per Set, \$2.50.

## HAND, PANEL AND RIP SAWS.

### No. 45—E. M. Boynton.

Spring Steel, warranted ; Apple Handle, Polished Edges, four Brass Screws, one Embossed. This is in every respect a first-class Saw, and warranted equal to any in the market.

Inch ...	14	16	18	20	22	24	26	28	30
Per doz,	\$14.25	15.70	17.25	18.70	20.20	22.50	24.40	26.50	28.60

### No. 50—E. M. Boynton.

This Saw is of Double Refined Spring Steel warranted ; Polished Rosewood Handle, five Steel Raised Rivets. No Saw superior to this in the market.

Inch.....	16	18	20	22	24	26	28	30
Per doz.	\$19.00	20.50	22.00	23.50	26.00	28.00	30.00	32.00

## BACK SAWS.

### No. 40—E. M. Boynton.

Spring Steel warranted ; Blue Back, Apple Handle, Polished Edges, three Brass Rivets, one Embossed.

Inch.....	6	8	10	12	14	16	18
Per doz.....	\$11.60	13.45	14.20	17.20	20.20	23.10	24.70

### No. 50—E. M. Boynton.

Double Refined Spring Steel, warranted ; Brass Back, Apple Handle, Polished Edges, three Brass Rivets, one Embossed.

Inch....	6	8	10	12	14	16	18
Per doz.....	\$13.50	17.20	18.70	21.60	23.90	28.40	29.90

## COMPASS SAWS.

### No. 50—E. M. Boynton.

Inch	8	10	12	14	16	18
Per Dozen,	\$3.90	4.75	5.40	5.70	6.00	6.75



### FRAMED BILLET OR WOOD SAWS.

No. 5, 30 inches long, with frame, complete.....	per doz.	\$6 20
No. 10, 30 " " " " " " " " " " " "	"	6 80
No. 20, 30 " " " " " " " " " " " "	"	7 85
No. 35, 30 " " " " " " " " " " " "	"	8 80
No. 40, 30 " " " " " " " " " " " "	"	10 10
No. 50, 30 " " " " " " " " " " " "	"	11 00

Nos. 5 and 10 have straight rods only, all other numbers have twisted rods, and can be furnished with straight rods if so ordered.

### Hankins' Patent Buck Saw Frame.

With No. 40, Billet Web, 30 inch.....	per doz.	\$12 50
" No. 40, " 32 " " " " " " " " " "	"	13 50

### Cabinet Scrapers.

4x2 inches.....	per doz.	\$1 50
5x2½ " " " " " " " " " " " "	"	1 75
3x6 " " " " " " " " " " " "	"	2 00

### Cast Steel Plastering Trowels.

Inch.....	10	10½	11	11½	12
Per Dozen.....	\$15 40	16 45	17 25	18 90	20 50

### Mason's Cast Steel Miterring Rods.

6 inch.....	per doz.	\$4 25	14 inch.....	per doz.	\$10 00
8 " " " " " " " " " " " "	"	5 70	16 " " " " " " " " " " " "	"	11 40
10 " " " " " " " " " " " "	"	7 15	18 " " " " " " " " " " " "	"	12 80
12 " " " " " " " " " " " "	"	7 50	20 " " " " " " " " " " " "	"	14 30

### Terms of Warranty.

Each Saw is warranted free from seams or flaws, and as true as possible. Any Saw found defective in either of the above particulars, if returned within a reasonable time, will be made good, or a new one given in its place. The greatest care is taken that every Saw shall be true and of even temper. A Circular Saw is sometimes condemned when the fault rests with the Mandrel upon which it is run.

Alterations made in the Mandrel or pin-holes of Circular Saws, either by filing or reaming, will almost invariably spring the plate, and render it unfit for use. When the alteration is made, the Saw will not be subject to the above warranty.

In ordering Circular saws, specify Cross-Cut or Rip, Diameter of Saw Gauge (or thickness), size of Holes, number of Teeth (or space between Teeth), Log Side (right or left hand), when standing with Saw cutting toward you; also, the general kind of lumber to be cut.

### HAND, PANEL AND RIP SAWS.

#### No. 5H. E. P. Whipple.

Cast Steel, Beech Handle, Polished Edges, four Raised Iron Screws.

26 inch.....	per doz.	\$12 00
28 " " " " " " " " " " " "	"	14 25

#### No. 25-C. H. Mead.

Cast Steel, Walnut Handle, Polished Edges, four Raised Brass Screws, Steel Plate.

26 inch.....	per doz.	\$17 40
28 " " " " " " " " " " " "	"	19 10

#### No. 35-E. M. Boynton.

Cast Steel, Warranted, Beech Handle, Polished Edges, four Brass Screws, one Embossed. Warranted equal to any in the market.

Inch .....	16	18	20	22	24	26	28
Per dozen.....	\$13 00	14 00	16 00	18 00	19 50	20 00	24 00

#### No. 40-E. M. Boynton.

Spring Steel, warranted; Beech Handle, Polished Edges, four Brass Screws, one Embossed. Great attention is paid to the grinding, tempering and finishing of this Saw, which is fully equal to Spear & Jackson's, and may be regarded as a standard.

Inch....	14	16	18	20	22	24	26	28	30
Per doz. \$	13 40	14 90	16 45	17 90	19 40	21 70	23 60	25 70	27 75

## BILLET WEBS.

### No. 10.—E. P. Whipple.

30 Inch, Cast Steel, set and sharpened..... per doz. \$4 50

### No. 20.—G. H. Mead.

30 Inch, Cast Steel, set and sharpened..... per doz. \$5 25

### No. 35.—E. M. Boynton.

This Billet Web is made of Best Cast Steel, and warranted.

30 Inch, Cast Steel, set and sharpened ..... per doz. \$6 00

### No. 40.—E. M. Boynton.

Spring Steel, warranted. Made of the best material and carefully finished, and especially adapted to the use of wood sawyers.

30 Inch, Spring Steel, set and sharpened..... per doz. \$7 00

### No. 50.—E. M. Boynton.

Double refined Spring Steel, warranted ; extra finished, selected blades. Without exception the best common Billet Web offered to the trade.

30 Inch, Spring Steel, set and sharpened..... per doz. \$8 50

### Boston, or Peg Tooth.

No. 10, 30 in. Boston, or Peg Tooth, set and sharpened.....\$5 00.

No. 20, 30 " " " " ..... 6 25

No. 35, 30 " " " " ..... 7 00

No. 40, 30 " " " " ..... 8 00

No. 50, 30 " " " " ..... 9 50

32 Inch, 50 cents per dozen extra.

## HAND, PANEL AND RIP SAWS.

### No. 3.—E. P. Whipple.

Cast Steel, Beech Handle, Polished Edges, four Brass Screws, one Embossed.

26 inch..... per doz. \$10 00

28 " ..... " 14 00

## COMPASS SAWS.

### No. 40—E. M. Boynton.

Inch, *	8	10	12	14	16	18
Per dozen,	\$3.45	4.00	4.60	4.90	5.15	5.75

## Spring Steel Table and Pruning Saws.

### No. 50—E. M. Boynton.

This Saw is Steel Spring, warranted; Beech Handle, Polished Edges, two Brass Screws.

Inch,	16	18	20	22	24	26
Price,	\$10.40	11.30	12.30	13.60	16.00	18.50

## Kitchen Saws.

Per dozen.....\$6.50

## BUTCHER BOW SAWS.

### No. 10—E. P. Whipple.

Flat Back, Beech Handle, three Oval Head Iron Screws.

Inch,	12	14	16	18	20	22	24
Per dozen,	\$12.00	12.60	13.20	14.10	15.60	16.80	17.60

### No. 30—G. H. Mead.

Flat Back, Beech Handle, Polished Edges, three Brass Screws, one Embossed.

Inch,	12	14	16	18	20	22	24
Per dozen,	\$13.45	14.20	14.90	15.65	17.20	17.80	20.40

### No. 40—E. M. Boynton.

Best Oval Back, Beech Handle, Polished Edges, Three Brass Screws, one Embossed.

Inch,	14	16	18	20	22	24	26
Per dozen,	\$18.70	19.40	20.30	21.70	22.50	23.50	24.40

### No. 50—E. M. Boynton.

Best Flat Back, Beech Handle, Polished Edges, Four Brass Screws, one embossed.

Inch,	14	16	18	20	22	24	26
Per dozen,	\$23.20	24.65	25.40	26.10	26.85	27.60	28.30

## CAST STEEL CROSS-CUT & TENON SAWS

Warranted Cast Steel Cross-Cut and Tenon Saws.

*Stamped E. M. Boynton.*

Feather Edge, set and sharpened..... per foot, \$0 92  
 No. 1, Cast Steel..... " 0 66

**No. 2—Cast Steel Cross-Cut Saws.**

*Stamped E. P. Whipple.*

Common or Single Hook Tooth..... per foot, \$0 44  
 " " " set and sharpened " 0 50

### Butcher Bow Webs—Warranted Extra.

*Stamped E. M. Boynton.*

Inch,	14	16	18	20	22	24	26
1¼ to 2 inch wide,	\$6.00	6.30	6.60	6.90	7.20	7.50	8.00
1½ " " "	5.45	5.65	5.85	6.05	6.25	6.50	7.00

### Warranted Extra Cast Steel Iron Webs or Hack Saw Blades.

Inch,	6	8	10	12	14	16
Per dozen,	\$1.80	2.45	3.00	3.65	4.25	4.85

### Warranted Extra Cast Steel Key Hole or Fret Saw Blades.

Assorted, 6 to 12 inches, set and sharpened..... per doz., \$2 25  
 " 6 to 12 " plain..... " 1 80

### Warranted Extra Cast Steel Turning or Chair Webs.

*Beveled Backs—Stamped E. M. Boynton.*

To ½ in. wide, all lengths; set and sharpened.... 1½ cts. per in.  
 To ½ " " " plain..... 1¼ " "  
 Above ½ in. to 1 in. wide, all lengths, set and  
 sharpened..... 1¾ " "  
 Above ½ in. to 1 in. wide, all lengths, plain..... 1½ " "

### Warranted Extra Cast Steel Felloe Webs.

*Beveled Backs.*

To ½ in. wide, all lengths, set and sharpened.... 1¾ cts. per in.  
 To ½ " " " plain..... 1½ " "  
 Above ½ in. to 1 in. wide, all lengths, set and  
 sharpened..... 2 " "  
 Above ½ in. to 1 in. wide, all lengths, plain..... 1¾ " "

The above are made from 17 Gauge Steel. Extra thickness and widths, extra prices.

*N. B.*—Agents not allowed to sell where Hardware Dealers keep my goods.



**MANUFACTURER OF**

• ALL VARIETIES OF

**S A W S .**