ATKINS

THE SAW WITH *THE* BLUE STICK

SILVER STEEL SEGMENT GROUND CROSSCUT SAVS "The Finest on Earth"

EASTERN PATTERNS

ATKINS SILVER STEEL SAWS

NOTE THE FOLLOWING

A TKINS SILVER STEEL SEGMENT GROUND CROSS CUT SAWS are made with the definite object in view of supplying the every-day user of Cross Cut Saws with saws which are so eminently superior to any other that their merits will be immediately appreciated. They *must* be so much better in every particular that any fair trial will at once demonstrate their superiority.

We claim that our SILVER STEEL CROSS CUT SAWS are superior to those of any other manufacturer in *Material*, *Temper*, *Grinding* and *Finish*, and that they will *run* easier, and will *hold* their cutting edge *longer* than any saw that has ever been made.

As a user of Cross Cut Saws you owe it to yourself to investigate the truthfulness of these statements, and in order to do so we want you to give ATKINS CROSS CUT SAWS a practical test. Put them into operation and keep a careful record of the results as compared with any other saw you have been using. Compare, First, the ease with which they run; Second, their speed; Third, the amount of timber they will cut, and lastly, the length of time they will run without refiling.

We are satisfied to place ATKINS SILVER STEEL SEGMENT GROUND CROSS CUT SAWS entirely on their merits, knowing full well that if you subject them to a fair, conscientious test you will find them to be as we have claimed for over seventy-seven years. "The Finest on Earth."

The easy running quality found in ATKINS SILVER STEEL SEGMENT GROUND CROSS CUT SAWS is secured through the scientific principle with which the cutting teeth are constructed.

E. C. ATKINS AND COMPANY,

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President.

ASK FOR THF SAW WITH THE BLUE STICK

	Our Cross Cut Saw Department	The Cross Cut Saw Department located at our great factories in Indianapolis is maintained year in year out by experts in their line, each man having devoted his life study to his particular duty. It our department where you can secure scientific information in regard to the different operations well as how to save money and what saws to buy to increase production.	It is the hope of E. C. Atkins and Company that when you have a problem to solve you will not itate to call upon us for we earnestly believe we can help you.	Our Demonstrators	The nation-wide force of saw demonstrators employed by E. C. Atkins and Company plays an portant part in the service to the saw user. It is his duty to visit the lumber camps, demonstrate the proved features of Atkins Silver Steel Saws; to give 100% service and satisfaction. Each of the demontors is thoroughly versed in Cross Cut Saw work and can be of real help to you.
ATKINS SILVE	Our Cross Cut S	The Cross Cut Saw Department located at our ind year out by experts in their line, each man hav s your department where you can secure scientifi is well as how to save money and what saws to bu	It is the hope of E. C. Atkins and Company t nesitate to call upon us for we earnestly believe we c	Our Dem	The nation-wide force of saw demonstrators mportant part in the service to the saw user. It is h mproved features of Atkins Silver Steel Saws; to giv trators is thoroughly versed in Cross Cut Saw wor

S A W S--ATKINS SILVER STEEL

About Silver Steel

THE STEEL used in ATKINS SILVER STEEL SEGMENT GROUND CROSS CUT SAWS is made under our own secret formula. It is the finest steel that has ever been put into Saw Blades.

Gullet Widest Place) Width of Tooth

> Depth of Tooth Gullet

Width of Raker Widest Place) Gullet

> **Depth** of Raker Gullet

> > Saw No.

SPECIFICATIONS OF TEETH

1/4 " 1/4 "

32" 32"

11

3/4 " ... 8/2 3/4 " 13 "

 $1 \frac{13}{16}$ " 111"

10

113,

32-A 32-A

14 " 16 "

14''

1 3/8 " 132"

113" L 18"

224

L 13 "

553 540 225 226 228 330

There is no Steel as good as SILVER STEEL. Others have tried to imitate it and may tell you that their steel "is just as good as SILVER STEEL." But it isn't, and a trial will convince you of this fact.

37-C 73 33 73 SILVER STEEL receives our special process of Gas Tempering, which gives it a marvelous edge-holding quality. This is the reason why ATKINS SILVER STEEL No one can sell you Saws that will stand up to their work as long as ours, as the SEGMENT GROUND CROSS CUT SAWS will hold their edge longer and cut faster. formula for SILVER STEEL and our process of Gas Tempering are OUR secrets. Others do not "know how."

Atkins Guarantee

We guarantee Atkins SILVER STEEL Cross Cut Saws as to quality and workmanship. Atkins SILVER STEEL Cross Cut Saws are SEGMENT GROUND; that is, they have a true and even taper from the back to the cutting edge. The cutting edge is the same gauge throughout, Every Atkins SEGMENT GROUND Saw is guaranteed for proper hardness and against any visible flaws in workmanship or material.

We will appreciate any one calling our attention to any defect in an Atkins SILVER STEEL Cross Cut Saw. In such a case we will promptly make complete and satisfactory adjustment to the customer.

3 "

 $1\frac{1}{4}$ " $1\frac{1}{4}$ " $\frac{15}{16}$ "

1/2 "

101 000

1/2 "

14'

13%" 13%"

 $1\frac{3}{13}$ "

332

331

37-C 37-C 37-C 15-A

23 13 389 654 390

132"

392

48

However

Atkins SILVER STEEL SEGMENT GROUND Cross Cut Saws are not guaranteed against improper usage, such as breakage caused by a wedge being driven against the saw, or a tree falling on the saw by accident.

We do not replace saws which are worn down more than ¼ inch unless the customer can justly show there is a natural defect in the steel or in the workmanship. All replacements should be made before saw has been in use over thirty days.

In order to make the best Cross Cut Saw, it must have a very hard temper. A Cross Cut cannot stand much abuse. Special care should be used in setting the teeth

	smber That! Segment Grinding gives our Cross Cut your jobber, from us at Indianapolis, or at any of	The transformation of the set of the transformation of the set of	
ATKINS SILVER STEEL SAWS	What Is Segment Grinding? No Saw But An Atkins Saw Is Segment Ground. Now, Reme Steel, Segment Ground Cross Cut Saws can be ordered from.	By the state of	
4	Our process of Segment Grinding is patented. Saws Clearance, with very little set. Atkins Silver Sour branches.	The process of Segment from the sentence of th	
	Saw	A A A A A A A A A A A A A A A A A A A	

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ATKINS SILVER STEEL SAWS ATKINS SILVER STEEL SAW No. 4	- WWW Disin	A TKINS No. 4 Cross Cut Saw is one of the most popular on the market today, especially designed for cutting Yellow Pine, Hard- woods, and resinous knotty timber. Made of genuine SILVER STEEL, Segment Ground, and has perfection pattern teeth, with four cutting teeth and raker. Gullets are polished which enables the saw to cut faster, and eliminates choking in the cut. The blade is highly polished and etched "ATKINS SILVER STEEL." The blade is 3 [‡] wide at the ends and 5-3/5" wide at the center on six foot lengths. Other lengths have widths in proportion. Straight back. 14x20x16 gauge. Narrow breast requiring a straight stroke. The easy running quality of this saw is secured through the scientific principle with which the cutting teeth are designed. This saw will cut faster and hold its sharp cutting edge longer than any other saw of similar design. <i>Segment Grinding</i> enables the saw to run smooth and easy with very little set. Actual size section of the No. 4 Cross Cut Saw Teeth illustrated on page 7. This shows the correct bevel for this style tooth. Rakers not swaged. The style handles recommended for use on this new saw are illustrated on page 7. This shows the correct bevel for this style tooth. Weight
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ATKINS SILVER STEEL SAWS	ATKINS SILVER STEEL SAW No. 5 	A TKINS No. 5 Perfection Cross Cut Saw is another very popular style pattern especially adapted for cutting hard and soft wood. Blade made of genuine SILVER STEEL, the finest material ever used in saw blades, and equal in quality, yet tougher than steel found in extra fine razors. Accurately tempered by Atkins exclusive process whereby the steel is uniformly hard, stiff, and tough, but not brittle. <i>Segment Ground</i> , which enables the saw to run fast, free, and easy. Takes extra sharp keen edge and stays sharp exceedingly long time. <i>Segment Ground</i> , which enables the saw to run fast, free, and easy. Takes extra sharp keen edge and stays sharp exceedingly long time. <i>Segment Ground</i> , which enables the saw to run fast, free, and easy. Takes extra sharp keen edge and stays sharp exceedingly long time. <i>Segment Grinding</i> gives ample clearance in the cut without the use of excessive set. Has four cutting teeth and raker, large roomy gullets highly polished for rapidly clearing the kerf of saw dust. Blade $3\frac{3}{8}^{m}$ wide at ends and 7^{m} wide at center in 6 foot lengths. Other lengths have widths in proportion. 14x20x16 gauge, straight back. Actual size section of the teeth shown on page 9 illustrating the correct bevel. Rakers not swaged.	Made in lengths feet
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ATKINS SILVER STEEL SAWS ATKINS NEW No. 9 CROSS CUT SAW ATKINS New OWDANDANDANDANDANDANDANDANDANDANDANDANDAND



ATKINS SILVER STEEL SAWS ATKINS SILVER STEEL SAW No. 553 ATKINS SILVER STEEL, Atkins cxclusive formula. SILVER STEEL will take an timber. The blade is made of genuine SILVER STEEL, Atkins cxclusive formula. SILVER STEEL will take an ter process in special furnaces. The blades are uniformly hard, siff, and tough, but not brittle. The saw is <i>Segment</i> and the number of the blades are uniformly hard, siff, and tough, but not brittle. The saw is <i>Segment</i> anger of the saw bliding in the cut. The blade is 34 ⁿ wide at the center in the 6 foot length, to run free and easy, has ample clearance with very little set. Has four cutting teeth and raker, extra large, polished anger of the saw bliding in the cut. The blade is 34 ⁿ wide at ends and 5 ² ⁿ wide at the center in the 6 foot length, to cruect bevel and rakers not sweged. de in lengths, feet

-ATKINS SILVER STEEL SAWS-



and more tapered. Four teeth to the section. Center tooth gullet wide and deep. Has two braces, forming two pair teeth, in each section. Braces keep Actual size of Atkins SILVER STEEL Segment Ground Cross Cut Saw No. 553. Teeth are similar to the No. 9 saw with the exception of wider the teeth in line and free from springing. Extra wide, and deep polished raker gullets. Blade 14 gauge on tooth edge-19 gauge on center at back-16 gauge on back at ends.

13

ATKINS SILVER STEEL SAWS ATKINS SILVER STEEL SAW No. 540 ATKINS SILVER STEEL SAW No. 540 ATKINS SILVER STEEL SAW No. 540 ATKINS No. 540 Cross Cut Saw is particularly recommended for cutting Oak, Cottonwood, and similar hard timber and the shape of the teeth, width of the gultes, and size and shape of the raker. (See illustration on page 15). The pr adifference in the style of this saw is that the tooth and raker gultes are larger and deeper. This eliminates the possibilities aws, secured through scientific design and manufacturing methods. Blade is made of genume SILVER STEEL Segment C saws, secured through scientific design and manufacturing methods. Blade is made of genume SILVER STEEL, highly po segment ground (Akins exclusive grinding process). Blade is 34, wide at ends of genume SILVER STEEL, bighly po segment ground (Akins exclusive grinding process). SILVER SILVER STEEL, for your protection. This saw sub and will take a sharp keen cutting edge and hold it an exceptionally long time. This is one of the most popular style saws will proportion. J420x16 gauge. Blade plainly etched "ATKINS SILVER STEEL" for your protection. This saw signary the proportion. I + 2000 gauge. Blade plainly etched "ATKINS SILVER STEEL" for your protection. This saw signary and will take a sharp keen cutting edge and hold it an exceptionally long time. This is one of the most popular style saws, sector of the states are at a sade at and s and 7" wide at center on 6 tool length. Other 1 Made in lengths, feet



ATKINS ELECTRIC ALLOY SAWS ATKINS ELECTRIC ALLOY SAWS ATKINS NEW VICTOR LINE ELECTRIC ALLOY SAWS These saws are made of extra ligh grade Electric Alloy Seel and are destined to be the most popular line made. Toohed with the vells time made of extra ligh grade Electric Alloy Seel and are destined to be the most popular line made. Toohed with the vells time performance descholding qualities and six end teaching. Given the ends of the distribution of the cut Access the same of the set and the set

The No. 225 is a straight back wide pattern, particularly adapted for bucking. 3[‡] inches wide at ends and 7 inches wide at center in the 6-foot length, and 3[‡] inches wide at ends and 6[§] inches wide at ends for use. The No. 226 is of the narrower pattern straight back, being 34 inches wide at the ends and 548 inches wide at center in the 6-foot length, and 34 inches wide at ends and 54 inches wide at center in the 54-foot length. Ground 14 x 19 x 16 gauge. Filed sharp and set ready for use. The No. 228 is skew back with heavy breast; 38 inches wide at ends and 53 inches wide at center in the 6-foot length, 38 inches wide Lengthsfeet, 5, 5<u>1</u>, 6 at ends and 5½ inches wide at center on the 5½-foot length. Ground 14 x 19 x 16 gauge. Filed sharp and set ready for use. MA TAMUTANI UNITUNITUNI TANITANI TANITANI TANI WW I WINDOWN DUNNDOWN I WW No.226 No. 228

ATKINS SPECIAL STEEL SAWS ATKINS SPECIAL STEEL CROSS CUT SAWS Nos. 330, 331, 332 and 3321/2		A TKINS Nos. 330, 331, 332 and 332 ¹ / ₂ Tuttle Tooth are the original high grade, medium priced Cross Cut Saws, the most popular medium priced cross cut saws on the market today. They are designed principally for general utility work, and made of Atkins high grade special steel. No. 330 is 14 x 16 gauge, thin back; No. 331 is 14 x 18 gauge, thin back; No. 332 ¹ / ₂ is 14 x 20 gauge, thin back.	Lengths, feet
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-ATKINS CROSS CUT SAW HANDLES-



ATKINS No. 6 CROSS CUT HANDLE

No. 6 Crosscut Handle is 10 inches long irrespective of loops. Grey iron castings. Steel loop spot electric welded. Capacity 3 to $4\frac{1}{2}$ inches. This handle is made of specially selected air-dried hardwood stock. Packed 10 pairs in a carton weighing $13\frac{1}{2}$ pounds.

ATKINS No. 8 CROSS CUT HANDLE No. 8 Regular Pattern Handle is 10 inches ng, irrespective of loops. The loop is of extra

No. 8 Regular Pattern Handle is 10 inches long, irrespective of loops. The loop is of extra strong high tensile strength steel, spot electric welded. Grey iron bell socket, Japanned black. Packed 10 pairs in a carton weighing 19 pounds.

No. 8 Short Pattern. The short style of No. 8 Handle is the same as No. 8 Regular except that it is $7\frac{1}{2}$ inches long. Packed 10 pairs in a carton weighing 12 pounds.



ATKINS No. 11 CROSS CUT HANDLE

This Handle is reversible, and is the Climax pattern. The face plate and washer is cast iron. A steel bolt with lock rivet feature prevents the rivet from becoming detached. The handle is easily adjusted. No. 11 is 14 inches long. Packed 10 pairs in a carton weighing $16\frac{1}{2}$ pounds.

-ATKINS CROSS CUT SAW HANDLES-



hand and is a pleasure to use. Strong, easily Machine-made steel bolt, extra large. "Big Bolt" pattern and large wing nut. Sturdy condried Hickory, sanded all over and treated to struction. Japanned black. Packed 10 pairs in No. 22 Handle is 14 inches long, of selected, wear smooth. Has very hard surface. Fits the adjusted. Extra heavy malleable castings. a carton weighing 20 pounds

ATKINS No. 28 CROSS CUT HANDLE



"stocky," yet has plenty of hand room. Made from selected, air-dried hardwood. Extra hard No. 28 Handle is 8 inches long. One of the screws into malleable socket on end. Case hardened washer prevents saw from cutting most popular Handles on the market. Short and Has even grip that you will like at once. High tensile strength. Malleable bolt extends and into pressed steel ferrule. Capacity: 2¹/₂ to 4 inches. Exceedingly strong-will not break. Easy to adjust. Packed 10 pairs in a carton smooth surface, sanded, waxed and polished. weighing 16 pounds

ATKINS No. 33 CROSS CUT HANDLE

long, irrespective of 100p, ", which is just the proper length for practical bolt, quick detachable. Cross Cut Handle No. 33 is 7 inches long, irrespective of loop, Atkins solid steel machine sawyers.



from becoming loose, yet releases quickly. Packed one pair in a sack; 10 pairs in a and steel washer which prevents the handle Specially selected hardwood, thoroughly seasoned and kiln dried. Sanded, waxed and polished. Designed to fit the hand perfectly. heavy steel bolt, very hard and will not wear or break. Also one fibre washer between socket Heavy steel washer, specially heat-treated arton weighing 16 pounds.

LVEK STEEL SAWS	ATKINS No. 389 CEDAR KING ONE-MAN CROSS CUT SAW	This is the finest one-man cross cut saw that has ever been manufactured. The blade is of Atkins high-grade SILVER STEEL. Teeth are similar to the No. 540 shown on page 14, except smaller. Has two cutting teeth and raker, deep gullets. Skew back taper ground. An easy grip handle, finely carved, varnished edges; is fastened to the blade by two nickel screws and a medallion. 15 x 19 x 17 gauge. Blade is $2\frac{4}{5}''$ wide at point; $7''$ wide at handle on 4 foot lengths. Other lengths have widths in proportion. Made in lengths of $2\frac{4}{5}$ to 5 feet inclusive. Furnished complete with supplementary handle.	ATKINS No. 654 ONE-MAN CROSS CUT SAW	Atkins No. 654 One-Man Cross Cut Saw has a blade the same pattern as our Cedar King and it is taper ground. Lance teeth—perforated. Accurately tempered. Perfection shape rakers. It is made with extra large grip handle; carved and varnished on edge and can be used with heavy gloves for winter sawing. Attached to the saw with three nickel screws. The Saw is ground 15 gauge on tooth edge. 17 gauge on the back at the point and 19 gauge at the butt near the handle. Has gauge on the back at the point and 19 gauge at the butt near the handle. Has 9 cutting teeth and raker, large deep gullets. 23° wide at point, 7° wide at handle 23 to 5 feet, inclusive.
ATKINS SIL		OBE ON THE ORDER OF THE OBE ON THE OPENAL OF		

ECIAL STEEL SAWS ATKINS ONE-MAN TUTTLE TOOTH SAW No. 390	This one-man cross cut saw is made of SPECIAL STEEL. Blade is taper ground 2 gauges thin back. It is finely finished to run free and easy. The handle is of hardwood and polished on the edge, and is an easy- grip pattern. The teeth are the same as found in the regular patterns of Tuttle Tooth. Made in lengths from $2\frac{1}{2}$ feet to 6 feet inclusive.	ATKINS ONE-MAN CROSS CUT SAW No. 392 Atkins No. 392 is a straight back pattern SPECIAL STEEL one- man saw. The teeth are the same style as the regular Victor No. 225 Cross Cut Saw, only smaller. Blade is taper ground 2 gauges thin back. The handle is made of selected air-dried beech, Atkins easy grip pattern, nicely finished and varnished on edges. It may be obtained in lengths from 2 ³ / ₂ to 6 feet inclusive.
ATKINS 81	OR DA TO	ZSEN ZSEN ZSEN

NDLES	ATKINS No. 389 ONE-MAN HANDLE	Cos	Made of air-dried selected hardwood, sanded. Has extra smooth edges. Large roomy grip. Handle carved, varnished on edge and polished. Screws not furnished with handle. Packed one dozen to a car- ton. Weight: per dozen $6\frac{3}{4}$ pounds.
S ONE-MAN CROSS CUI SAW HA	ATKINS No. 202 SUPPLEMENTARY ONE-MAN HANDLE		Thoroughly seasoned air-dried hard- wood. Socket and washer of high-grade ferrule steel. New style steel bolt with rivet locking feature, preventing rivet from becoming detached. Used for con- verting one-man saw into a two-man cross cut saw, or enables the operator to saw with ease using both hands. Packed one dozen to a carton. Weight: per dozen, 3 ³ ₂ pounds.
ATKIN	ATKINS No. 2 ONE-MAN HANDLE		Made of carefully selected hardwood, air-dried, thoroughly seasoned. Varnished edge, well finished. Extra large roomy easy grip pattern. This handle is highly recommended. Does not include screws. Packed one dozen to a carton. Weight: Per dozen, $6\frac{3}{4}$ pounds.

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Saw Fitting Tools

This briefly describes four of our most popular patterns of Saw Tools. For further information on Saw Tools make request for our catalog.

ATKINS EXCELSIOR SAW TOOL No. 1



This tool may be used as a jointer, raker gauge or side file. An 8-inch flat file is fastened in the tool. The proper curve is obtained by the set screw slightly bending the file. The proper length of raker teeth may be gauged with the tool after jointing, and then, by readjusting the file, it may be used for side filing. There is also a tooth gauge with each set. This is made with long and short ends, which by reversing, indicates a correspondingly light or heavy set as desired.

The Atkins Improved Channeling Set Block completes the outfit. The block fastens to any flat surface, and the anvil having a slight declivity produces a concave on one side of the teeth, thus insuring a more durable set and relieving the friction on the side of the teeth.

This set requires very little adjustment, and is compact and easy to carry. Packed one set in a box.

ATKINS SAW FITTING TOOLS

Atkins Patent Excelsior Saw Tool No. 5



It is used as a jointer, as a raker gauge and also as a side file.

An 8-inch file is fastened in the tool. The set screw slightly bends the file, giving it the proper curve. After jointing, the tool may also be used for gauging proper length of raker teeth, after which, by readjusting the file, it may be used for side filing. A tooth set gauge is also included. This is made with long and short ends, which by reversing, indicates a corresponding light or heavy set as desired.

Atkins "AAA" Saw Tool No. 9



This is an exceptionally good tool used for fitting cross cut saws in order to get the best results from them. The tool is 6¼ inches long by 2 inches wide and made of good, substantial material throughout. All parts are carefully fitted. It will last for years.

The Raker Gauge Plate is tempered file proof. The ends are beveled so that the depth of the gauge may be regulated by the use of the adjusting screws. This does away with paper packing, which has been used on all tools heretofore.

For jointing, fasten a flat file by set screw, and pass same lightly over the points of the teeth until filed to a uniform height.

For jointing the rakers, place the tool over the raker teeth. Turn adjusting screws until the rakers protrude the desired distance through the gauge, then file them off to a level with top of gauge. This will render all raker teeth exactly the same length.

For gauging the rakers, reverse the tool and set gauge pin and tighten by use of thumbscrew, then pass the tool along toothed edge, thus measuring the proper length for each raker. This will be indicated when the point of the raker tooth touches the gauge pin.

The Bearing Plates are the only parts of the tool touching the teeth points and are made of SMOOTH, HARD TOOL STEEL, and will neither dull the points nor wear with use.

Note the little cut-out on each end of the top bar of tool. This is to gauge the set of the cutting teeth and does away with the necessity of carrying an extra tooth gauge. The shallow gauge is for set of teeth in hard wood and the deep gauge is for set of teeth in soft wood.

The tool being open in construction, it is possible to see all work plainly at all times.

Atkins Micrometer Saw Tool THE NEWEST THING IN SAW TOOLS



With our long experience in the manufacture of Saws and Saw Tools, we have found it necessary to make a Precision Tool to regulate the fitting of Cross

Cut Saws-or, in other words, a tool which is accurate in every way and when properly used will fit the saws accurately or to the one-thousandth part of an inch.

The The body is made of High Grade Aluminum. steel bars, or plates, which are the only parts that touch the tooth points, are made of smooth hard steel and will neither dull the points nor wear with use. The filing plate is made of special steel which will not wear from the file passing over it.

The extra length causes it to cover more teeth at the same time and thus insures great accuracy in operation. The open construction of Atkins Micrometer Saw Tool

enables the operator to see his work at all times.

DIRECTIONS FOR USE

DIRECTIONS FOR USE For Jointing, place a flat file in slot "A" as indicated in drawing. Turn Knurled Thumb Screw "B" to right until file is tight, then turn lock nut "C" to right which locks "B" and keeps file from becoming loose, then pass file lightly over points of teeth until filed to a uniform length. Remove file by loosening lock nut "C." turn thumb screw "B" to left until file drops out, then turn thumb screw "B" to right about four complete revolutions, or until "O" on "B" becomes directly opposite line "D." File plate "E" will then be set at zero or flush with points of teeth. For jointing rakers turn "B" to right for any required amount that is to be removed off points of rakers. For in-stance, one complete revolution of nut "B" is twenty-five one-thousandths (.025) part of an inch. Each small mark on "B" is one one-thousandth (.001) part of an inch as 0-5-10-15-20. For gauging the length of rakers after swaging reverse the tool and text an Micanaria the interval

as 0-5-10-15-20. For gauging the length of rakers after swaging reverse the tool and set top Micrometer thumb screw "F" to the required amount; then pass the tool along the tooth edge, thus meas-uring the proper length of each raker; this will be indicated when the point of the raker tooth touches the point of thumb screw "F."

Atkins Micrometer Tooth Set Gauge As Accurate as a Watch

Atkins Micrometer Tooth Set Gauge should be used by all first-class saw mechanics. Made of a high grade steel, nickelplated, equipped with a hardened steel Micrometer thumb screw with graduations on it measuring from naught (0) to twenty-five on e-thousandths (.025) part of an inch.



DIRECTIONS FOR USE

When set at zero all four legs of tool are the same length and No. 0 on barrel of thumb screw is directly opposite, or in line, with No. 0 on body of tool as shown in drawing. If 1-64 part of an inch, or .015 set in teeth is desired, turn knurled head thumb screw to left to .015, then lock with small knurled nut and set teeth accordingly. The crowning feature of this tool is that you can get any amount of set with the one tool. Some filers carry several tooth set gauges ground differently, as they may want to cut several kinds of timber in the same day. After one becomes familiar with the required amount of set for each kind of wood it requires only a second to adjust the gauge from one wood it requires only a second to adjust the gauge from one

extreme to the other. This tool can be used for gauging the set of cross cuts and drag saws, also the set and swage of shingle, band and drag saws, a circular saws.

ATKINS SAW FITTING TOOLS

ATKINS CRITERION SAW SET No. 1



Atkins Criterion Saw Set is used in setting all kinds of cross cut, hand, wood and other small saws.

We recommend the use of a hammer set in preference to a lever set, on account of the ability to secure more uniform results, and there is less likelihood of breaking the teeth.

The Criterion Set has a die resting on the tooth which is struck by the hammer. A set screw on the opposite end makes the tool adjustable so that any desired degree of set may be secured. The pointed die makes the device adaptable to any size of tooth.

Made of the best refined malleable iron, lacquered a rich blue to prevent rusting. The die and anvil are drop forged from the very finest tool steel and are properly hardened and tempered to give excellent service. Packed in individual box.

ATKINS AAA SAW SET, No. 4 FOR CROSS CUT SAWS



The action of this device is clearly shown in the above illustration. The hammer blow reaching the tooth through the plunger prevents the likelihood of breaking the saw teeth. The amount of set may be regulated by moving the top slide. Absolute uniformity is assured as well as maximum speed. Given the amount of bevel the slide may be instantly set to proper position. By simply placing the tool over the point of the tooth, and striking the plunger one blow, a perfectly uniform set, located properly on the tooth, is secured.

Made of fine crucible steel, nicely finished. Weight 2 pounds.

Atkins No. 4 Setting Hammer



Atkins No. 4 Setting Hammer is made of the finest grade tool steel and accurately tempered. Extra high-grade Setting Hammer. Solid peen. Perfectly shaped and balanced for setting cross cut, drag and circular saws. Polished head. The thoroughly seasoned hardwood handle, sanded smooth, is securely fastened to the head by means of a special wedge arrangement. Will not slip. Packed in individual boxes. Weight each, 14 ozs.

Atkins No. 3 Setting Hammer



Atkins No. 3 Setting Hammer is made of special grade tool steel, drop forged. A very high-grade setting Hammer. Has slotted peen. Highly polished and finished with selected air-dried Hardwood Handle, sanded smooth and fastened to the head by a special wedge arrangement which prevents it from coming loose. Well balanced and the correct weight for setting purposes. Packed half dozen to a box.

Great American Cross Cut File

Atkins SILVER STEEL Great American Cross Cut File is made expressly for the filer who likes a knife shaped file. Made in lengths from 6" to 12" inclusive. This style file has been used for many years in filing Cross Cut Saws and for which there is still a great demand. Atkins SILVER STEEL Files will stand up better, and file more material than any other file.

Atkins Special Cross Cut Saw File

ATKINS

Made of genuine SILVER STEEL in lengths 6" to 10" inclusive, expressly for filing Cross Cut Saws. Are regularly made with two square edges. Also furnished with thumb grip when desired. The most popular file used in the logging camps for keeping Cross Cut Saws sharp and keen. The superior quality of Atkins SILVER STEEL Files makes them the "favorite" among filers. ATKINS SILVER STEEL SAWS



Instructions for Filing and Setting Cross Cut Saws

The best saw in the world, pulled by the best sawyer, cannot do efficient work unless the teeth are kept in proper shape to cut and rake out the sawdust. The best saw filer must have proper gauges and tools, or he cannot do his work accurately.

We must illustrate the fitting of saws by illustrating the use of proper saw-fitting tools. Fitting crusaws is based on a few well-known principles. Fitting cross cut With these principles in mind, slight variation must or can be made in the bevel of the teeth, shape of the teeth, angle of the cutting point, shape and length of the raking or clearing teeth to suit local requirements. These slight variations are made expedient by reason of the fact that it is necessary to adapt the saw for cutting in different kinds of wood; sometimes hardwood, sometimes soft or frozen logs, knotty logs, and logs that are full of pitch.

The principles involved in making the teeth of cross cut saws are as follows:

The cutting teeth constitute a series of knives 1. adapted to sever all fibres of the wood. When these fibres are cut through they must be collected in the gullets of the teeth, or dust chambers, and carried out of the kerf, so as to enable the saw to freely start in on a new cut.

2. The clearing teeth constitute a series of rakers to free the kerf from the dust or shavings that are severed by the cutting teeth. With these principles in mind we come to the prepara-

tion of the teeth for the work.

1. All cutting teeth must be the same length, so that each tooth will do its share of the cutting, and no more.

To make all teeth the same length place the saw in a vise, or, if the filing is to be done in the woods, where no vise is available, place the blade, teeth uppermost, in a notch in a convenient stump, pass a file carefully over the teeth, as shown in Figure 1, until all teeth touch the This can readily be determined by the bright, flat file. tops on the cutting teeth.



Care must be taken to hold the file squarely, so that the cutting on each side of the saw will be the same length. If the file is

allowed to pass over the teeth at an angle, one side of the saw will be longer than the other, and this will invariably make a saw run to the side which has the longest teeth, as this side cuts faster.

2. When all of the cutting teeth are even on top, the next operation should be to regulate the length of the rakers or clearing teeth. We advocate regulating the length of the rakers at this point, because the rakers should be adjusted by gauge, and any tool which is used

for this purpose would have a tendency to dull the sharp points of the cutting teeth if it were used after they had been finally finished.

This operation is one which requires the same accuracy and attention to details. Experience is the best teacher in determining the proper length of rakers, as compared to the length of the cutting teeth. It is essential for good cutting that the rakers should be some shorter than the cutting teeth—not less than 1/100 part of an inch, nor more than 1/64 of an inch. If the rakers are to be swaged, it is proper to leave them the same length as the cutting teeth and allow the swaging to shorten them sufficiently for good work. Unswaged rakers should be cut off accurately to gauge, as shown in Figure 2.

The saw teeth will now look like Figure 3.

3. The next operation consists of filing up the rakers to a keen, sharp edge, using care that their tops shall be square with the side of the blade.



Figure 2-Cutting down rakers.

It is necessary to point up the rakers in this manner, whether they are to be swaged or not. (Figure 1.)

4. After determining the shape you desire in the cutting teeth, proceed to shape them to suit you before starting to bevel. It is much better to preserve a uniform tooth formation, and to use that which is best adapted to the various kinds of wood, as can be seen in the diffent styles of teeth shown at the end of these instructions. Shaping of the teeth should be done at right angles to the teeth, always making square lines, not attempting to do any beveling until all teeth are formed. Carry the square shape up to the point of the teeth. It is important to square up the cutting edge of a cross cut saw from the same side of the teeth that you intend to do the beveling. The reason for this is that it is very difficult to handle a file on a thin cross cut saw absolutely square across the saw, without having it chatter more or less. In the effort to keep the file from chattering you will naturally lean the file slightly toward you at the handle end, which will form a slight bevel on the teeth.

5. You now have your teeth the right length and the correct shape, and can proceed to bevel. The amount of bevel required can be determined by your own experience, and by reference to cuts of various bevels shown at the end of these instructions. Care must be taken not to cut off the points of the teeth in beveling.

To make a flat, straight bevel, a full, straight stroke of the file is necessary, but if a rounded bevel is wanted to follow a round-tooth formation (Figures 14 and 15, page 33), it is necessary to roll the file, following the contour of the saw teeth.

File all cutting teeth to a sharp point.

Your cutting teeth should now be finished, and if you are using unswaged rakers your rakers are finished and the saw is ready to set. If you are using swaged rakers, you are now ready for the swaging process.

6. Swage the rakers with light blows of a light hammer, using care not to spread the point of the raker to a thickness exceeding that of the saw plate. This can be



Figure 3

saw to bind. Whereas, swaged rakers act as a plane on the bottom of the cut, going under the severed fibres and planing out the V-shaped chip left in the bottom cut. See Figure 5.

Your saw is now ready to set.

7. The amount of set necessary is determined by the kind of ma-terial to be cut. Perfect alignment is absolutely necessary. Therefore, always use the set gauge. The use of a set gauge is shown in Figure 6, Page 32.

The operation of setting can be accomplished in several ways. If filing is done in the woods, the saw can be set as shown in Figure 7, Page 32.

The point of the tooth should project about 1 inch over the apex of the setting block, and the setting should be done by means of a firm, sharp blow on the top, just at the place where it rests on the apex of the setting block. If too large set is imparted, reduce the set by ham-mering the tooth placed on the flat surface of the set-block. If too little set is imparted at the first blow, reset the tooth as in the first operation,

either using a little harder blow or allowing the tooth to project a little farther from the apex of the anvil.



Figure 5

done by inclining your hammer slightly, as shown in Figure 4.

This will give your raker teeth a formation as shown in Figure 10, Page 33.

An unswaged raker up the fibres breaks which are severed by the cutting teeth into short pieces which are more apt to pass by the side of the saw and cause the



Figure 4

Each tooth, after setting, should be gauged for accuracy, as shown in the cut illustrating the use of a set gauge (Fig. 6). We submit on Page 33 a numof cuts for your ideration which ber consideration show the principal forms of saw teeth, both cutting teeth and rakers, for different kinds of timber and different requirements.

will You note by carefully studying the different forms of teeth

and the different beveling, that the same principle is involved in each case, but different methods are employed to cover special requirements.

ATKINS SILVER STEEL SAWS

In frozen timber, exceedingly hard wood, or wood that has many hard knots (See Figures 13, 14 and 15, Page 33), you will find that it is always better not to make the bevel too flat. Yet by following out the lines laid down in roundedpoint beveling (Figs. 14, 15), you are able to secure a fast-cutting saw



15), you are able to secure a fast-cutting saw Figure 6 with plenty of bevel, without the danger of leaving the extreme point of the tooth too weak. In other words, a rounded-point beveling will leave more backing to the point of the tooth than a flat bevel, and still leave the saw in shape to do fast cutting. It is

saw in shape to do fast cutting. considerably more work, howev

Figure 7

rk, however, to file a saw with a rounded point than a saw with a straight, flat bevel.

If your saw has a tendency to lose its points,

Wy.

we would advocate reducing your bevel or perhaps increasing the angle of your cutting point. In hard hemlock knots the points have a tendency to bend. Very often with a little less bevel your saw will stay sharpened twice as long, and will cut just as fast, and preserve its points. We would always advocate filing the saw with as much bevel as possible consistent with leaving enough backing to the point of the teeth so that the point will neither bend nor break off in striking small knots in such timber as hemlock or hard woods.

There are many who advocate beveling the teeth clear down to the gullet, but such beveling necessitates extra filing, which is unnecessary, as the point of the teeth is the part of the saw which does the cutting. Each stroke of the saw only allows the point of the teeth to sink as far into the wood as the wedge-shaped point of the bevel will allow it. This is governed to a certain extent by the action of the rakers, which are clearing the cut ahead of the cutting teeth, but as a rule one stroke of the cutting tooth of a cross cut saw will carry each tooth only down to a point where the bevel causes the tooth to wedge into the cut.

Always set your saw wide enough so that it cuts freely, but do not set it wide enough to chatter, as every 1/1000 part of an inch means an excess of power required to pull the saw, as the cut is just that much wider.

In frozen timber, properly ground saws ought to work with very little set. In hard woods they require very little; in pitchy pine woods the saws usually require a little more set, but if they are kept well cleaned, a saw set for hard wood ought to cut in yellow pine.

We sincerely hope that these instructions will be of service to you in carrying on your work, and if at any time we can be of assistance to you, we are at your service.

For Figures Nos. 9 to 19, inclusive, see Page 33.

ATKINS SILVER STEEL SAWS



Raker without Swage.



Swaged Rakers.



No. 11

Diamond Point Bevel, considered the best point holding method of filing and easy to maintain in good order.



Bevel for com-mon tooth, where there are no Rakers, each tooth doing its share of the clearing.



Bevel suitable for knots and frozen timber, where extra strength is need-ed in the ex-treme point. Not adapted for fast sawing sawing.



Round point bevel, for fast, smooth sawing where strength of point must be considered as in the case of pine knots. knots.



No. 15

Bevel for fast, smooth sawing and where strength in the teeth must be considered.



Bevel for ordi-nary work, where skill is not es-sential. A poor method and a poor tooth. Point too delicate to stand hard usage. No. 17

Flat, thin bevel, for soft wood and fast sawing, where strength in points is not par-ticularly essential.



No. 18

Bevel adapted for general work.



No. 19

suitable Bevel for general work.



E. C. ATKINS AND COMPANY

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