

ATKINS SAWS *on the* FARM

50



ONE of the truest indications of the *good* farmer is the quality of tools he has in his tool kit. A farmer may be fairly successful and prosperous; he may keep up the appearance of his place; he may have good implements with which to work, yet, in many cases, when doing some building work or repairs, old, inefficient tools are brought out. Nine chances out of ten, there are two or three rusty saws hanging in the woodhouse; and work with a poor saw is twice as hard and takes twice as long as with a good one. Still the farmer goes on with his work and wastes time for himself and hands, "getting along" with the old saw, not realizing he is losing actual money.

The Atkins family has been making saws for nearly 300 years. Year by year the qualities of material and workmanship in Atkins saws have been improved until the Great Atkins Works turns out as perfect saws as it is humanly possible to make. High quality alone has been instrumental in placing us in our position as the largest saw company in the world.

We make a saw for every purpose—and each is the best of its kind. Backed by a strong guarantee of quality and service. Every farmer should have on his place one or more Atkins cross-cut saws, and one-man saws, for logging purposes; wood saws, butcher saws and a good hand saw. Many farmers are running small saw mills, and it pays to get good equipment. We make all types and sizes of circular saws, both solid tooth and inserted tooth. Atkins saws are not to be confused with the ordinary circular saw; they will cut more and better lumber with less refitting. The operator of an ordinary small plant does not have to be an experienced filer, and can avoid sending his saws away frequently for refitting and rehammering and avoid breaking off points of teeth.

Besides saws, we make saw tools for all purposes—saw clamps, saw sets and tools for filing, swaging and shaping saw teeth. With Atkins saw tools, the novice can produce saw teeth of absolute uniformity, so that each will do its full quota of cutting.

Atkins saws are for sale by the best dealers almost everywhere. It may be, however, that your local dealer does not have the particular saw that you wish. He can get it for you and will be glad to do so, if you ask him. If you have the least trouble getting the saw you want, let us know, and we will see to it that your order is filled promptly and satisfactorily.

Keep this book for ready reference. It contains the most complete line of saws for the farm of any book ever issued. The number of practical suggestions on farm carpentry are tried and accurate. For these as well as the convenience of buying an Atkins saw the next time, this book will prove valuable to you.

E. C. ATKINS & CO., Inc.

Established 1857

The Silver Steel Saw People

Home Office and Factory, INDIANAPOLIS, IND.

Canadian Factory, Hamilton, Ont.

Machine Knife Factory, Lancaster, N. Y.

Branches carrying complete stocks in the following cities:

Address

E. C. ATKINS & CO.

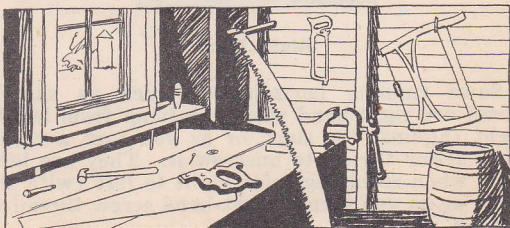
Atlanta Chicago Memphis Minneapolis New Orleans

New York City Portland, Ore. San Francisco Seattle

Vancouver, B. C. Sydney, N. S. W.

Paris, France

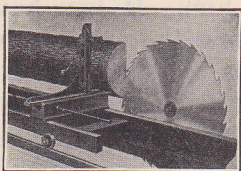
Made in U. S. A.



Instructions for Ordering Circular Saws

In ordering Circular Saws be careful to give following specifications in detail:

- (a) Diameter of saw in inches.
- (b) Right or left hand (see cut below).
- (c) Gauge (thickness) of saw at center and also at rim.
- (d) Number of teeth in saw.
- (e) Style of pattern of tooth.
- (f) Diameter of mandrel hole; diameter of pin holes; and distance center to center of pin holes.

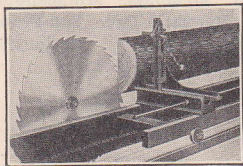


Left Hand

- (g) Number of revolutions of saw per minute while in cut.
- (h) Greatest feed used.
- (i) Kind of timber sawed.
- (j) Spring or swage set.
- (k) For rip or cross-cut work.

N. B.—All our stock saws forty inches and larger in diameter have Standard mandrel and pin holes, namely: Two-inch mandrel hole and five-eighths lug pin holes, three inches from center to center. If wanted different please send full pattern of holes.

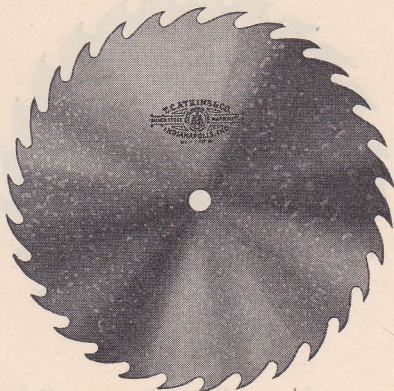
Standing in front of a circular saw, with the saw revolving toward you, if the log passes to the right of the saw it is a right-hand saw; if to the left it is a left-hand saw.



Right Hand

Saws running horizontally (such as shingle saws) are right-hand when revolving from left to right (against the sun), or as you turn a right-hand screw thread to unscrew it. They are left-hand when revolving from right to left (with the sun), or as you turn a right-hand screw thread to tighten it.

Atkins Silver Steel Solid Tooth Circular Saws



The quality of our famous Silver Steel, from which all our Mill Saws are made, is particularly adapted to this purpose.

It is the most expensive and finest Crucible Steel that has ever been employed in the making of saws and is Gas Tempered by our own secret process, which imparts a uniform hard, tough temper, insuring saws which stand up to their work under the most trying conditions, with the least cost for maintenance.

Diameter Inches	Thickness Gauge	Size of Hole Inches	Price Each	Extra for Each Gauge Heavier	Extra for Each Gauge Beveling
6	18	$\frac{3}{4}$	\$ 3.30	\$0.07	\$0.25
8	18	$\frac{7}{8}$	4.40	.10	.35
10	16	1	5.60	.20	.45
12	15	1	7.00	.30	.55
14	14	$1\frac{1}{8}$	8.50	.40	.65
16	14	$1\frac{1}{8}$	10.50	.50	.75
18	13	$1\frac{1}{4}$	12.50	.60	.90
20	13	$1\frac{5}{8}$	15.00	.75	1.05
22	12	$1\frac{5}{8}$	17.50	.90	1.20
24	11	$1\frac{3}{8}$	20.50	1.05	1.35
26	11	$1\frac{3}{8}$	24.00	1.25	1.55
28	10	$1\frac{1}{2}$	28.00	1.50	1.75
30	10	$1\frac{1}{2}$	32.00	1.75	1.95
32	10	$1\frac{5}{8}$	36.50	2.00	2.15
34	9	$1\frac{5}{8}$	41.00	2.25	2.35
36	9	$1\frac{5}{8}$	47.00	2.60	2.55
38	9	$1\frac{5}{8}$	54.00	3.00	2.75
40	9	2	62.00	3.40	2.95
42	8	2	71.00	3.80	3.25
44	8	2	83.00	4.40	3.55
46	8	2	98.00	5.15	3.85
48	8	2	112.00	5.90	4.15
50	7	2	127.00	6.65	4.45
52	7	2	142.00	7.40	4.80
54	7	2	157.00	8.80	5.15
56	7	2	180.00	10.25	5.50
58	7	2	200.00	11.75	5.95
60	6	2	224.00	13.25	6.40

All saws under 6 inches in diameter take list of 6-inch saw.

All saws filed and set, ready for use.

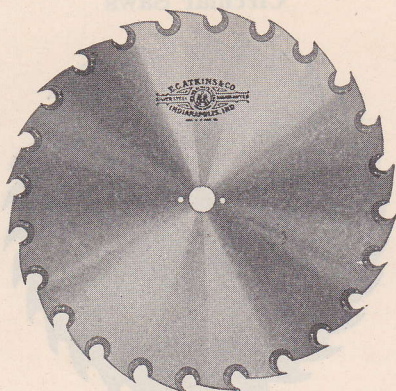
All saws of odd diameters take list of next larger size.

No extra charge for saws one gauge thicker than list. No extra charge for saws one to three gauges thinner than list; when more than three gauges thinner, add 5% for each gauge.

Saws 48 inches and under, and 62 inches and over, in diameter, more than two gauges thinner than list not warranted. Saws 50 inches to 60 inches in diameter thinner than 10 gauge not warranted.

Saws 42 inches or less in diameter beveled one gauge without extra charge; 44 inches or larger beveled two gauges without extra charge. Saws hollow or concave ground add for each additional gauge hollow or concave ground double the list for beveling.

Atkins Silver Steel Inserted Tooth Saws



We use, and are willing to prove it by actual test, finer material in Atkins inserted Tooth Saw Plates than any other maker.

We consider this essential, because Atkins Silver Steel Inserted Tooth Saws are thus able to hold their tension under conditions that would render some saws absolutely useless.

Atkins Teeth and Holders cover the widest possible range of patterns to suit all conditions. They are made of a Special Steel, peculiarly adapted for this use, and will last longer without breakage or losing their sharp cutting edge.

The following are some of the most popular sizes of Atkins Silver Steel Inserted Tooth Saws:

Diam. Inches	Thick-ness Gauge at Rim	Standard Number Teeth No. 3	Greatest Number Teeth That Can Be Put in Saw No. 3	Size Hole Inches	Price Each No. 3	Extra for Each Additional Gauge Heavier	Price for Beveling New Saws per Gauge
40	8	26	34	2	\$125.00	\$ 3.40	\$ 2.95
42	8	28	36	2	137.00	3.80	3.25
44	8	30	38	2	150.00	4.40	3.55
46	8	32	40	2	165.00	5.15	3.85
48	8	34	42	2	180.00	5.90	4.15
50	8	36	44	2	200.00	6.65	4.45
52	7	38	44	2	220.00	7.40	4.80
54	7	40	46	2	250.00	8.80	5.15
56	7	42	48	2	280.00	10.25	5.50
58	7	44	50	2	310.00	11.75	5.95
60	7	46	52	2	340.00	13.25	6.40
62	6	48	54	2	380.00	14.75	6.85
64	6	48	56	2	425.00	17.60	7.35
66	6	50	58	2	470.00	22.00	7.85
68	6	52	60	2	520.00	26.40	8.45
70	6	54	62	2	570.00	30.80	9.05
72	6	56	64	2	620.00	35.20	9.65

One extra set teeth or bits, and two extra holders or shanks, given with each saw.

One wrench given with each saw or set of saws.

No extra charge for saws one gauge thicker than list. No extra charge for saws one to three gauges thinner than list. When more than three gauges thinner, add 5% to list for each gauge.

Saws 48 inches and under, and 62 inches and over, in diameter, more than two gauges thinner than list not warranted. Saws 50 inches to 60 inches in diameter thinner than 10 gauge not warranted.

Saws 42 inches or less in diameter beveled one gauge without extra charge; 44 inches or larger beveled two gauges without extra charge.

Write for prices on extra Bits and Shanks.

INSERTED TOOTH SAWS—Continued

Bits

No. 3.....per hundred, \$4.50

Holder

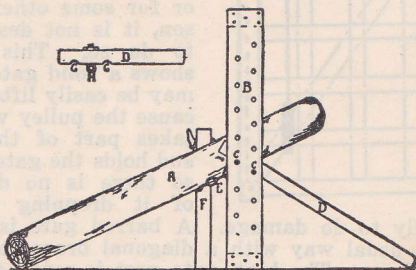
No. 3.....each, net, \$0.40

Wrenches

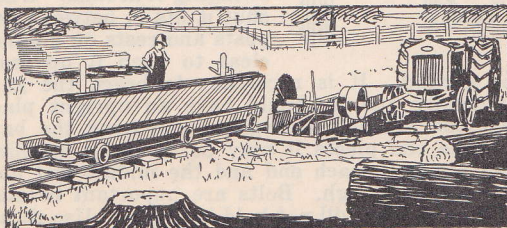
No. 3.....each, \$1.35

No. 3 Teeth are made regular and short holder pattern.

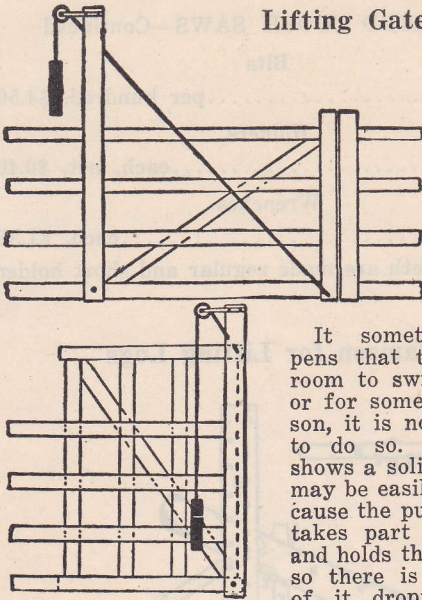
Samson for Lifting Logs



A Samson for raising trees or logs to be sawed or loaded is shown in the cut: (B) is a good solid hardwood plank $1\frac{1}{2} \times 8$ inches by five feet long. There is another plank the same size, separated from (B) with cleats at top and bottom, leaving a two-inch space between for lever (D); (CC) are iron pins or bolts which fit easily in the holes bored through both planks three inches apart up and down and five inches apart sideways. A forked limb on the opposite side of the log is marked (F); (E) is the end of a logging chain hooked into eye (H) on the lever. The chain is passed under the log and looped over the fork of the stick; (GG) are notches in the lever (D), to hold the lever on the pins. To operate, place the plank upright edgewise to the log and leaning against it, put the forked stick on the other side, adjust the chain and raise the log by working the lever and moving the pins up one hole at a time. This device will raise a tree two feet through at the butt end high enough to saw easily without a backache.



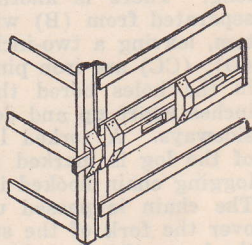
Lifting Gate



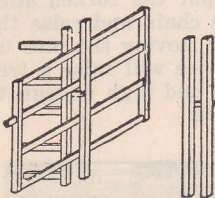
It sometimes happens that there is no room to swing a gate, or for some other reason, it is not desirable to do so. This plan shows a solid gate that may be easily lifted because the pulley weight takes part of the lift and holds the gate open so there is no danger of it dropping unexpectedly to do damage. A barred gate is built in the usual way with a diagonal brace to keep it in shape. The high gate post is made double and the gate is fastened between by one bolt at the bottom, as shown in the cut.

Sure Gate Latch

An ordinary sliding gate latch is made into a lock by cutting a notch into the back end and fitting a block on the gate bar to engage the notch. This arrangement is beyond the comprehension of trickiest horse or cow.



Cheap Farm Gate



The cheapest practical gate ever used is made without hinges. It is supported by a cleat and is opened by sliding it back three or four feet, then swinging it around. When shut it fits in between two posts and rests on another cleat to keep it up from the ground. It is necessary to brace the gate diagonally and it should have an upright place near the middle. Instead of mortising the bars into the end pieces it may be made by doubling inch pieces at each end and the middle and putting bolts through. Bolts are important because nails or screws will not hold in a gate. Use three-eighths inch bolts with washers.

U. S. Weights and Measures

Apothecaries' Weight: 20 grains = 1 scruple; 3 scruples = 1 dram; 8 drams = 1 ounce; 12 ounces = 1 pound.

Avoirdupois Weight (short ton): 27 $\frac{1}{2}$ grains = 1 dram; 16 drams = 1 ounce; 16 ounces = 1 pound; 25 pounds = 1 quarter; 4 quarters = 1 cwt.; 20 cwt. = 1 ton.

Avoirdupois Weight (long ton): 27 $\frac{1}{2}$ grains = 1 dram; 16 drams = 1 ounce; 16 ounces = 1 pound; 112 pounds = 1 cwt.; 20 cwt. = 1 ton.

Troy Weight: 24 grains = 1 pennyweight; 20 pennyweights = 1 ounce; 12 ounces = 1 pound.

Circular Measure: 60 seconds = 1 minute; 60 minutes = 1 degree; 30 degrees = 1 sign; 12 signs = 1 circle or circumference.

Cubic Measure: 1,728 cubic inches = 1 cubic foot; 27 cubic feet = 1 cubic yard.

Dry Measure: 2 pints = 1 quart; 8 quarts = 1 peck; 4 pecks = 1 bushel.

Liquid Measure: 4 gills = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; 31 $\frac{1}{2}$ gallons = 1 barrel; 2 barrels = 1 hogshead.

Long Measure: 12 inches = 1 foot; 3 feet = 1 yard; 5 $\frac{1}{2}$ yards = 1 rod or pole; 40 rods = 1 furlong; 8 furlongs = 1 statute mile (1,760 yards or 5,280 feet); 3 miles = 1 league.

Mariners' Measure: 6 feet = 1 fathom; 120 fathoms = 1 cable length; 7 $\frac{1}{2}$ cable lengths = 1 mile; 5,280 feet = 1 statute mile; 6,085 feet = 1 nautical mile.

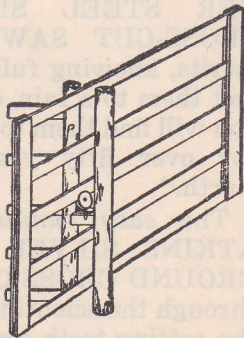
Paper Measure: 24 sheets = 1 quire; 20 quires = 1 ream (480 sheets); 2 reams = 1 bundle; 5 bundles = 1 bale.

Square Measure: 144 square inches = 1 square foot; 9 square feet = 1 square yard; 30 $\frac{1}{4}$ square yards = 1 square rod or perch; 40 square rods = 1 rood; 4 roods = 1 acre; 640 acres = 1 square mile; 36 square miles (6 miles square) = 1 township.

Time Measure: 60 seconds = 1 minute; 60 minutes = 1 hour; 24 hours = 1 day; 7 days = 1 week; 365 days = 1 year; 366 days = 1 leap year.

Roller Gate

A farm gate sixteen feet long, as it should be to get through easily with a hayrack, is too heavy to slide easily. There is a cast iron roller made for the purpose and sold in hardware stores. The cut shows how it is fastened to the posts so the gate slides half-way back. On a long gate there is always a center piece up and down with a diagonal brace running from the center to the front end of the gate. The posts are mortised to let in a two-inch block and the casting that holds the roller is let into this block and an iron washer slipped over the bolt so the casting will turn easily.



CROSS-CUT SAWS

ATKINS SILVER STEEL SEGMENT GROUND CROSS-CUT SAWS are made with the definite object in view of supplying the everyday 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, *cut* twenty-five per cent. *more timber*, 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 that you will find them to be as we have claimed for over fifty years, "The Finest on Earth."

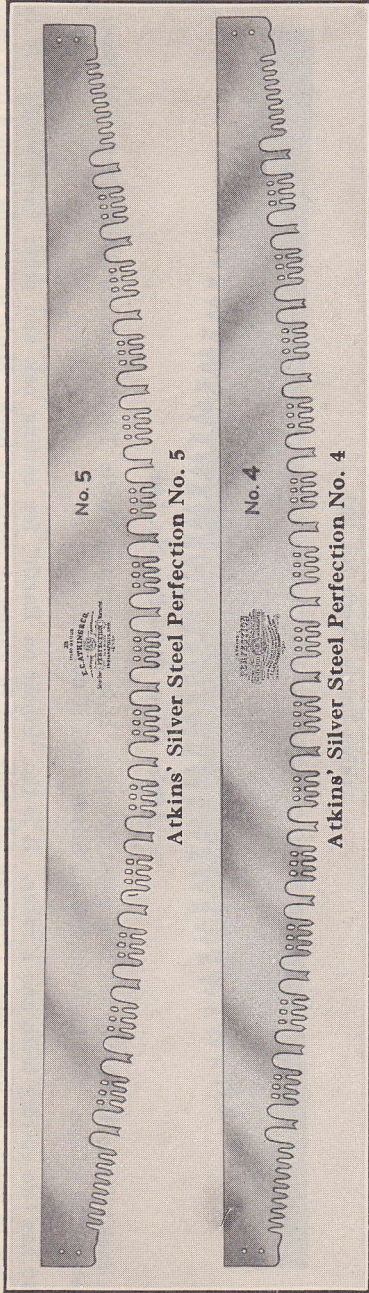
The *easy running* quality found in ATKINS SILVER STEEL SEGMENT GROUND CROSS-CUT SAWS is secured through the scientific principle with which the cutting teeth are constructed.

E. C. ATKINS & CO., Inc.,

E. C. Atkins

President

ATKINS SILVER STEEL CROSS-CUT SAWS



Atkins No. 5 is a famous saw for hard woods. It has four cutting teeth and raker. The gauge along the entire tooth edge is 14, and on the ends at the back, 17; in the center of the back it is 20 gauge. It is a most popular saw where quality is appreciated. Made in lengths from 4 to 8 feet. These saws weigh 6 $\frac{3}{4}$ lbs. each in 6' lengths and are 7" wide in center. At the ends they are 3 $\frac{1}{4}$ " wide. Packed 25 in a box in 6' lengths, and weigh approximately 225 lbs., boxed ready for shipment.

Our No. 4 is similar in every way to the No. 5, except as to the width of the blade in the center. Made in lengths from 4 to 8 feet. The weight of one of these saws is 5 $\frac{1}{2}$ lbs. in 6' length; 6" wide at the center and 3" wide at the ends. Packed 25 in a box in 6' lengths, weighing 185 lbs., boxed ready for shipment. Can be purchased from any first-class hardware dealer or general store. Write us if you can not get them.

ATKINS CROSS-CUT SAWS



No. 331

Atkins Tuttle Tooth No. 331



No. 540

Atkins Silver Steel Rex No. 540

"Our Thin Back" Tuttle Tooth No. 331 is a great favorite. It is the original Tuttle Tooth Diamond Point Cross Cut Saw. Made of special steel, 14x18 gauge. Can be furnished in Silver Steel if desired.

The No. 540 has two cutting teeth and a raker. It is the "Finest on Earth" for cutting oak and other hard woods. It is Segment Ground, being 14 gauge on tooth edge, 17 gauge full ends and 20 gauge on center of back. Made in lengths from 4 to 8 feet, inclusive.

ATKINS ONE-MAN CROSS-CUT SAWS

ATKINS SILVER STEEL ONE-MAN SAW No. 654

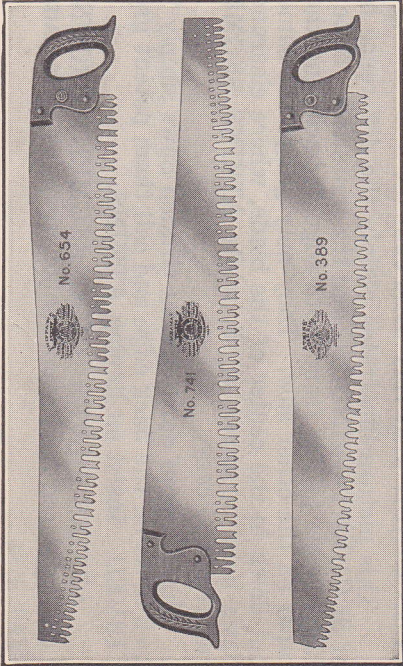
The blade is the same pattern as our Cedar King and it is taper ground. Lance teeth, perforated. Perfection shape rakers, same as 741. Handle is also the same as our No. 741. It is made with extra large hand hold and can be used with heavy gloves for winter sawing. Attached to the saw with three brass screws. The saw is ground 17 gauge on tooth edge, and 19 gauge on the back at the point. The center is 20 gauge, and at the butt, near handle, 19 gauge. Made in lengths from 2½ to 6 feet, inclusive.

ATKINS SILVER STEEL TAPER GROUND ONE-MAN SAWS—TAMARACK No. 741

Extra heavy gauge. Taper ground. Lance tooth, perforated. Perfection shape rakers. Extra large hand hold, for use with heavy gloves. Made of Silver Steel and handle fitted with three brass screws. Made in lengths from 2½ to 6 feet, inclusive.

ATKINS SPECIAL STEEL TAPER GROUND ONE-MAN SAWS—CEDAR KING No. 389

One of the finest One-Man Cross-Cut saws that has ever been manufactured. The blade is of Atkins High-Grade Special Steel. Teeth are same patterns as the Rex Cross-Cut Saw. The raker teeth are swaged. Skew back. An easy grip handle, finely carved, varnished edges, fastened to the blade by three brass screws and a medallion. Made in lengths from 2½ to 6 feet, inclusive. If you want additional information on Cross-Cut Saws, write for Atkins complete catalogue.



WHAT IS SEGMENT GRINDING?

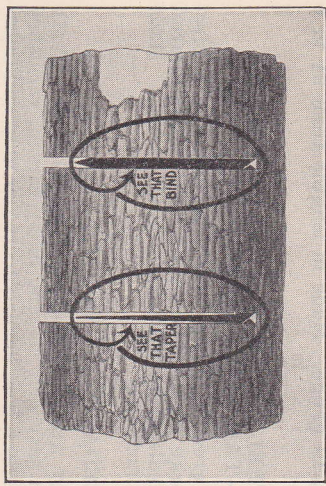
Our process of Segment Grinding is patented.

NO SAW BUT AN ATKINS SAW IS SEGMENT GROUND. NOW, REMEMBER THAT! SEGMENT GRINDING gives our Cross-Cut Saws CLEARANCE with very little set.

This picture illustrates plainly the difference between Atkins process of SEGMENT GRINDING and the imitation. Note carefully how the ATKINS blade tapers from tooth edge to back, and then look at the so-called taper on the other saw. They may gauge the same on the extreme back, but down in the center of the blade, where clearance is needed, the other Saws have no taper at all, while ATKINS SEGMENT GROUND SAWS run free and easy.

Imitators of our Segment Ground Saws simply "dubb" them off for an inch or so on the back edge and call them patent ground. DON'T BE DECEIVED. Insist on having ATKINS.

ATKINS SILVER STEEL SEGMENT GROUND CROSS-CUT SAWS can be ordered from your Jobber, from us at Indianapolis, or at any of our Branches.



Segment Ground An Imitation

If you study this illustration carefully you will see why Atkins Silver Steel Cross-Cut Saws operate easier, cut faster and hold their edge longer. They will not bind.

Number of Trees Required to Yield One Cord

A Cord of Wood or Stone

A cord of wood or stone contains 128 cubic feet. The standard size of a piled cord of wood is 8 feet long by 4 feet wide by 4 feet high.

The figures given are for trees of average height; allowances should be made in case of unusually short or tall timber.

DIAMETER TREE (5 Ft. Above Ground)	HARDWOODS		Soft Woods
	North	South	
2 inches.....		170
3 inches.....		90
4 inches.....		50
5 inches.....	35	25
6 inches.....	20	17
7 inches.....	15	13	20
8 inches.....	11	9	13
9 inches.....	8	7	10
10 inches.....	6	6	8
11 inches.....	5	5	7
12 inches.....	4	4	6
13 inches.....	3.5	3.4	4.5
14 inches.....	3.0	3.0	3.7
15 inches.....	2.5	2.5	3.0
16 inches.....	2.0	2.2	2.5
17 inches.....	1.7	2.0	2.1
18 inches.....	1.5	1.8	1.9
19 inches.....	1.3	1.5	1.6
20 inches.....	1.2	1.3	1.5
21 inches.....	1.0	1.2	1.4
22 inches.....	.9	1.1	1.2
23 inches.....	.8	1.0	1.1
24 inches.....	.7	.9	1.0

APPROXIMATE WEIGHTS PER CORD

KIND OF WOOD	Green Lb.	Air Dry Lb.
Ash, white.....	4,300	3,800
Beech.....	5,000	3,900
Birch, yellow.....	5,100	4,000
Chestnut.....	4,900	2,700
Cottonwood.....	4,200	2,500
Elm.....	4,400	3,100
Hickory.....	5,700	4,600
Maple, sugar.....	5,000	3,900
Maple, red.....	4,700	3,200
Oak, red.....	5,800	3,900
Oak, white.....	5,600	4,300
Willow.....	4,600	2,300



SHAVINGS—Not Saw Dust

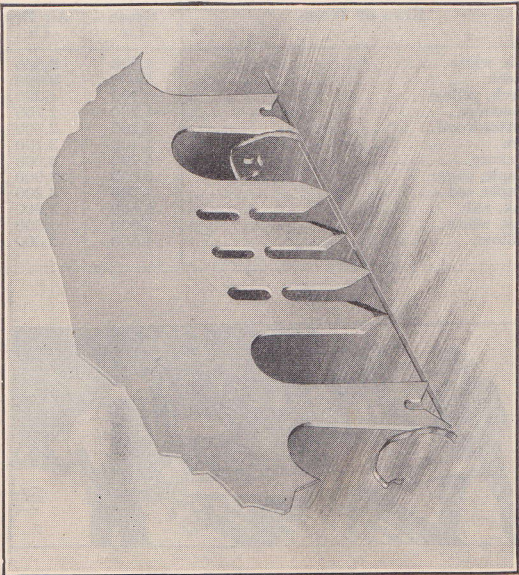
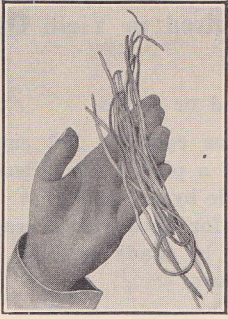
By referring to this illustration, you will see how perfectly the alternating cutting teeth *cut* the sides of the kerf, *clean* and *smooth*, leaving the rakers to *clear* the bottom.

The principle is just the same as that of cutting the sides of a groove with an ordinary Saw and clearing the center with a chisel.

Notice this illustration and see "how they cut." We call your attention especially to the fact that ATKINS SILVER STEEL SEGMENT GROUND CROSS-CUT SAWS cut SHAVINGS—not saw dust.

"Every tooth and point has its purpose," and is so constructed that it performs its work with ease and precision.

We have a treatise entitled, "Saw Fitting for Best Results." Send for a free copy.

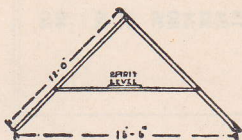


Average Tree Sizes and Lumber per Tree in the United States

ESTIMATES OF LOGGING COMPANIES ON TIMBER HOLDINGS		ESTIMATES OF UNITED STATES BUREAU OF FORESTRY		
KIND OF TIMBER		Average Yield per Tree in Board Feet, Lumber Measure	Average Length in Feet of Portion of Tree Used for Lumber	Average Diameter of Tree in Inches*
175	38	150	40	14
300	48	350	64	18
474.4	60	350	64	18
750	80-90	500	66	22
550	48	3,000	110	36
660	50-70	400	50	20
1,200-2,000	†	370	64	18
235	24	500	50	24
350	50	650	88	22
600	65	560	48	24
222	42	1,000	64	30
		750	72	28
		500	64	22
2,500	†	3,000	120	36
6,962	140			
7,000-8,000	80-85			
2,500	†	4,000	144	40
		800	80	30

*Diameter outside bark 4.5 feet above ground. †Not specified.

A Good Land Level



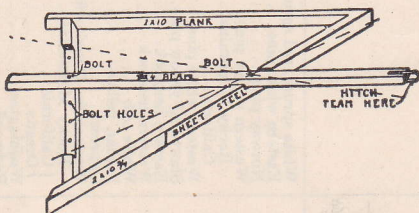
A cheap land level that would be found useful on any farm is easily made out of three pieces of seven-eighths inch pine three inches wide. The two outside legs or strips are twelve feet long, and the bottoms are placed sixteen and one-half feet apart, so that the level when finished will step a rod at a time. Nail the legs together at the top and nail the cross-pieces on at one end. Then place the feet a rod apart on a level floor, put the level on the cross-piece and raise or lower the loose end until it comes right. When it shows right, tack it and reverse the feet to prove. The same rig may be used by hanging a plumb-bob from the point at the top. Make a mark on the board where the line crosses when the feet are standing level.

To Pull Old Fence Posts

A piece of plank or two by four scantling about three feet long and a common logging chain will help a man and a pair of horses to lift a good many old fence posts out of the ground in a short time. The chain is hooked around the post to be lifted and the piece of plank set at an angle as shown in the cut.

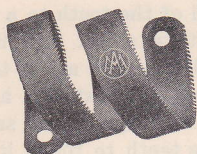


Ditch Cleaner



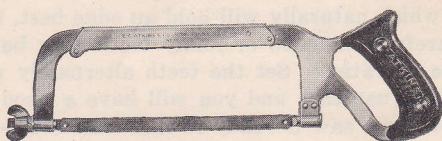
A road ditch cleaner, to be used in connection with a road drag, is made in the style of a snow-plough, but the hitch is different. Two planks, each two inches thick and ten inches wide, are used. The left-hand plank should be about six feet long and the right-hand plank seven or eight feet long. The left-hand plank is set vertical on edge and the right-hand plank is placed so that it works on the principle of a plough-share, digging the earth from the bottom of the ditch and shoving it up the side of the turnpike. The hitch is made adjustable by means of bolts as shown. Something by way of steering may be done by the driver by shifting his weight from one side to the other.

Atkins Non-Breakable Hack Saw Blades For Use on the Farm



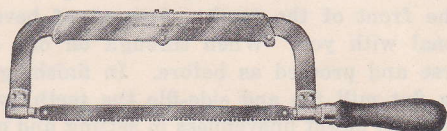
These blades are made with the usual hard edge, but with a soft back that practically prevents breakage. They should not be confused with any so-called "flexible" blades. To those who have suffered a heavy loss on account of breakage, the Atkins non-breakable blade will prove extremely profitable. Send 10 cents for a sample.

Atkins No. 10 Hack Saw Frame



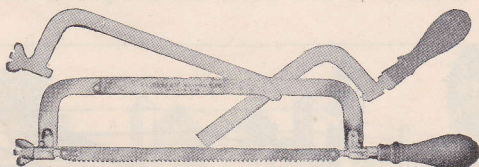
Hard rubber handle, "easy grip" pattern; hung low, thus directing entire force of stroke on a line with the cutting edge of blade. Frame of cold rolled steel $\frac{1}{8}$ -inch thick and $\frac{3}{4}$ -inch wide. Nickeled and highly polished: adjustable to 8, 9, 10, 11 and 12-inch blades. Ask your dealer for one.

Atkins No. 7 Hack Saw Frame



Strong, rigid extension frame, taking 8 to 12-inch blades. Handle turns to adjust tension. Can be set to four different angles. Nickel-plated, finely buffed and polished. Depth, 3 inches; width, $\frac{1}{8}$ -inch; thickness, $\frac{1}{8}$ -inch.

Atkins No. 1 Hoosier Extension Frame



High-grade steel; heavily nickeled, highly polished. Takes blades 8 inches to 12 inches, inclusive. Blade can be used in four different positions. Fine enameled handle.

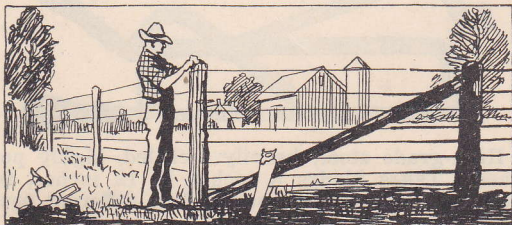
HOW TO FILE A HAND SAW

The first operation is usually called "jointing"—or bringing all of the teeth to a uniform length. It is better to take a flat mill file and rub the teeth down until they are all of the same length. In a breasted saw, for instance, a short straight-edge laid along the edge of the saw should cause every one of the teeth to touch it.

Now comes the setting. Do not set too deeply. Just enough to enable the saw to clear nicely is better than too much. Also use care to see that you do not set your teeth too far into the saw. A turning of the *point* is enough and much better for the saw. In using the setting block, use care to see that you do not have a sharp edge where the tooth bends down, or you are apt to break the teeth. Bear in mind that a perfectly tempered saw, which naturally will hold an edge best, must be carefully handled or many teeth may be lost in the operation. Set the teeth alternately right and left; use care and you will have a good job.

Now your saw is ready to file. For a six- and seven-point saw, use a 7-inch slim taper. For an eight- and nine-point, use a 6-inch slim taper, and for ten-, eleven- and twelve-point use a 5-inch slim taper. Place your saw securely in your vise and commence to file at the point and work toward the butt or heel. Many skilled saw-filers work from heel to point, but the other method is to be ordinarily recommended. Always file the teeth which are set AWAY from you, putting the bevel on the front of the tooth. Amount of bevel is optional with you. When through on one side, reverse and proceed as before. In finishing up, use a flat mill file and side-file the teeth, which will remedy slight unevenness in setting and make a smoother cutting saw. For a keen, sharp edge, go lightly over the sides of the teeth with a hard oil stone to take off the burr or wire edge left from filing.

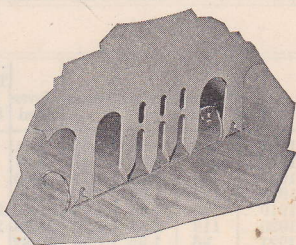
In filing rip saws, use a 7-inch slim taper file. Bevel slightly if to be used in hard lumber, and for ordinary or soft wood, file straight across.



SHARPENING CROSS-CUT SAWS

The cross-cut saw has two sets of teeth—the cutters which sever all fibers of the wood; and the clearing teeth or “rakers” to clear the bottom. The principle is the same as when you cut the two sides of a groove with an ordinary saw and clear the intervening space into a groove with a chisel. In jointing or making all the teeth the same length be sure to hold the file squarely, so as to make the cutting teeth on both sides of the saw the same length, otherwise the long side will cut faster and cause the saw to run to that side.

When the cutting teeth are even, the rakers should be regulated as to length. A gauge should be used (Excelsior Raker Gauge). Rakers should be from $\frac{1}{100}$ th to $\frac{1}{64}$ th of an inch shorter than the cutters, unless the rakers are swaged, in which case they may be left same length as cutters and shortened to proper length by swaging.



Now file rakers to sharp edge, seeing to it that tops are square with side. Point up rakers in this manner whether to be swaged or not.

Shape up the teeth before beveling. Carry the square shape up to the point of the tooth. Be sure to square up from same side as that you intend to bevel. You naturally bevel slightly in order to keep file in position to prevent “chattering”—therefore, the importance of squaring up from bevel side. Now you are ready to bevel. Let your experience guide you in this. File all cutting teeth to a sharp point. If rakers are to be used unswaged, you are ready to set. If to be swaged, do that now. Use light blow of hammer and take care not to spread the point of the raker to a thickness exceeding that of saw plate.

In setting, the point of the tooth should project about $\frac{1}{4}$ inch over the apex of the setting block and the setting should be done by a firm sharp blow on the top, just the place where it rests on the apex of the setting block. Uniformity in setting is absolutely necessary. Set your saw wide enough to cut freely, but remember every $\frac{1}{1000}$ th of an inch added set calls for more pulling power because of more wood to cut.



Average Prices Received by Producers of the United States

JAN. 15	Hogs	Beef Cattle	Veal Calves	Sheep	Lamb	Wool	Milch Cows
1915.....	6.57	5.99	7.66	4.95	6.47	18.6	58.47
1916.....	6.32	5.85	7.67	5.52	7.29	23.3	57.79
1917.....	9.16	6.86	9.15	7.33	9.59	31.8	63.92
1918.....	15.26	8.33	11.16	10.55	13.83	58.1	76.54
1919.....	15.69	9.65	12.39	9.68	12.71	55.2	86.10
1920.....	13.36	8.99	12.89	9.34	12.91	53.3	94.42
1921.....	8.72	6.32	9.34	5.30	8.44	19.6	66.82

	Horses	Onions	Beans	Clover Seed	Timothy Seed	Alfalfa Seed	Cotton Seed	Bran	Cotton Seed Meal
1915..	130	.89	2.63	8.51	2.63	7.61	19.14	27.91	29.53
1916..	128	1.13	3.47	10.27	3.05	8.84	36.85	25.93	37.03
1917..	129	2.08	5.71	9.60	2.44	7.97	52.53	32.76	42.95
1918..	130	1.79	7.00	14.48	3.57	10.14	67.51	41.32	55.93
1919..	120	1.34	4.98	21.69	23.48	20.42	64.93	49.78	62.81
1920..	118	2.81	4.70	23.78	24.59	24.13	69.88	50.23	79.39
1921..	96	1.35	2.95	10.82	3.04	9.95	18.96	39.74	42.92

The figures represent cents per pound, or dollars per 100 pounds, in the cases of hogs, cattle, calves, sheep and lambs; cents per pound as to wool; dollars per head for cows and horses; dollars per bushel as to onions, beans and all seeds but cotton; dollars per ton as to bran and cotton seed meal; cotton seed prices are dollars per ton.

JAN. 1	Wheat	Corn	Oats	Barley	Rye	Buck- wheat	Pota- toes
1914.....	81.0	69.6	39.1	52.2	62.5	76.6	68.4
1915.....	107.8	66.2	45.0	54.3	90.2	77.9	49.7
1916.....	102.8	62.1	39.1	54.9	85.3	81.5	70.6
1917.....	150.3	90.0	51.4	87.1	118.5	117.2	147.3
1918.....	201.9	134.8	73.9	126.5	170.3	162.7	121.0
1919.....	204.8	144.7	70.8	91.3	150.7	162.9	116.1
1920.....	231.8	140.4	78.2	130.2	152.3	150.7	178.6
1921.....	149.2	66.7	45.6	64.4	124.7	125.4	105.6

	Sweet Pota- toes	Flax- seed	Apples	Hay	Cotton	Butter	Eggs	Chick- ens
1914..	79.2	124.2	107.1	12.42	11.7	29.2	30.7	11.5
1915..	79.0	134.8	68.0	11.29	6.6	28.7	31.6	11.2
1916..	64.9	185.9	79.7	10.94	11.4	28.3	30.6	11.4
1917..	90.1	250.7	101.1	10.86	17.1	34.0	37.7	13.9
1918..	117.2	310.8	128.8	18.09	28.9	43.1	46.3	17.9
1919..	142.1	327.7	147.7	19.92	28.7	54.9	57.2	21.7
1920..	138.2	433.6	213.8	20.55	35.9	61.3	56.9	24.1
1921..	113.0	163.7	118.6	16.16	11.5	49.0	61.1	20.7

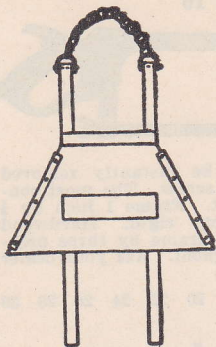
The figures represent cents a bushel for grains, potatoes, and apples; dollars a ton for flaxseed and hay; cents a pound for cotton, butter, chickens; cents a dozen for eggs.

Figures up to and including 1922 will be given in next edition of this book; 1922 figures were not available when we went to press.

E. C. ATKINS & CO.

Figures taken from the World Almanac and
Encyclopedia.

Corn Cutting Sled



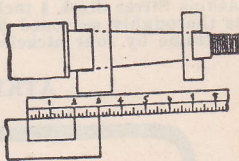
A sliding corn cutter, to be drawn by one horse, may be easily made by using two hardwood 4x4 pieces eight feet long, each rounded up in front for runners. A board platform is nailed very firmly on top of the runners, as shown in the cut. Old saw blades are bolted on the edges of the platform for knives. The saw blades should project at least two inches in order to cut

CORN CUTTING SLED.

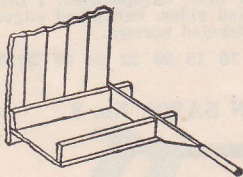
through the larger stalks. A good, solid box is fastened to the floor for a seat. Two men ride upon the seat and gather the corn.

Card Board Calipers

To measure the diameter of round bolts cut a square notch in a piece of card board until it just fits the round at the middle. Then measure the opening with a rule. This is a simple trick that may save a trip to the machine shop.



Corn Chopper

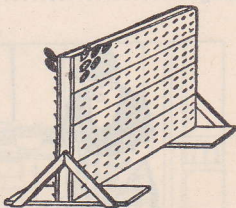


A trough about a foot wide and six or eight feet long, with a knife bolted as shown in the cut, makes a handy rig to chop ears of corn into short lengths for feeding. The knife may be

made from a steel wagon tire.

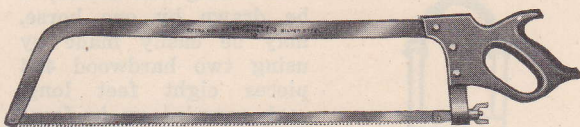
Rack for Seed Corn

When it is desirable to test seed corn and to keep an accurate account of each ear there is no better plan than to stick the cobs on the points of wire nails that have been driven through a partition of inch boards. Each nail is numbered so that when the corn is tested a correct record can be kept.



Atkins Butcher Saws

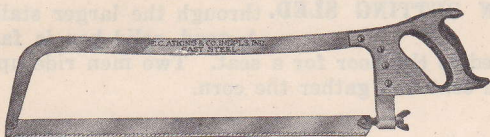
ATKINS No. 16



Blades quick detachable—may be instantly removed for sharpening by turning thumb screw. The most convenient adjustment on the market. Frame 1 inch by $\frac{1}{4}$ inch, made of spring steel. Very rigid. Hardwood handle, not varnished, fastened to frame by three nickeled screws. Nicely finished throughout. Ask your dealer for these saws.

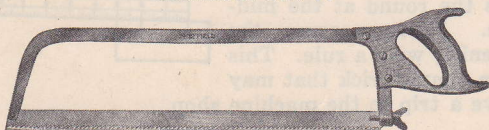
Length.....inches 14 16 18 20 22 24 26 28 30

ATKINS No. 7



Frame is Atkins Special Spring Steel, flat back, square edge, 1 inch wide and $\frac{1}{4}$ inch thick. Blade is Atkins Silver Steel, $\frac{5}{8}$ inch wide, finished bright. Handle is thoroughly seasoned beech, varnished edges, fastened to frame by four nickeled screws.

ATKINS No. 77



Flat back frame, square edge made of fine spring steel, $\frac{3}{4}$ inch wide, $\frac{1}{4}$ inch thick. The blade is Atkins Special Steel, finished either bright or blue, as specified, $\frac{1}{2}$ inch wide. Beech handle with sanded sides, varnished edges. Fastened to frame by three nickeled screws.

Length, Nos. 7-77..inches 14 16 18 20 22 24 26 28 30

ATKINS KITCHEN SAWS, No. 8



Flat back, $\frac{5}{8} \times \frac{3}{16}$ -in. Special steel blade, bright, $\frac{5}{8}$ -in. wide. Beech handle, three blued wood screws.

Length.....inches 12 14 16 18



Atkins Pruning Saws

ATKINS FORESTER PRUNING SAW No. 17



A splendidly constructed Pruning Saw that sells on sight, because it appeals to the good judgment of buyer and user.

No. 3 DUPLEX PRUNER



Made of Atkins Silver Steel, specially hardened and tempered. Will require very little refiling. Toothed on one edge with tittle shaped teeth for extra heavy coarse work and with fine tooth on the opposite edge for fine cutting. The handle is of thoroughly seasoned, air-dried applewood, finely finished, varnished edge, Easy Grip Pattern, fastened to the blade by three brass screws.

No. 2 is same pattern as No. 3 except Sheffield quality.

ATKINS No. 16 "AAA" POLE TREE PRUNER



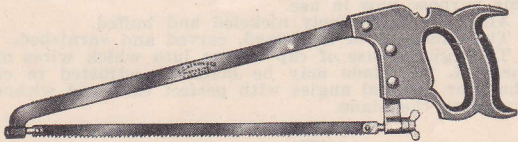
A 12-inch curved blade with peg teeth, fastened to the casting by use of a 5/16 bolt and wing nut. Three holes in butt end of blade work in a peg, so that the blade may be changed to cut at any angle. Blade of Silver Steel.

No. 4



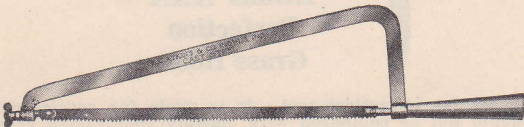
The blade is heavy-gauge and is of Atkins High-Grade Special Steel, tempered very tough and hard, but not brittle. The handle is of thoroughly seasoned hardwood, handsomely carved, varnished and polished; fastened to the blade by three brass screws and a medallion.

No. 11 TAPERED



Frame is of high-grade crucible steel, $\frac{3}{4}$ inch wide, $\frac{3}{16}$ inch thick. The blade may be used at any angle. Blued, 8 points to the inch. The handle is of our new Easy Grip Pattern, varnished on the edge, and fastened to the frame by three brass screws.

No. 7 TAPERED



The frame is made of very fine crucible steel, $\frac{3}{4}$ inch wide, $\frac{3}{16}$ inch thick. The blade is of high quality special steel, blued, 8 points to the inch. Blade may be adjusted any angle to the back. Handle constructed to permit mounting on a pole, enabling the user to operate from the ground.

Ask your dealer for Atkins Pruning Saws.

Atkins No. 1 Nest of Saws



We recommend this set for general purposes. Made of Silver Steel. It consists of a keyhole, compass and pruning saw blade and handle as shown. Ask your dealer to supply you.

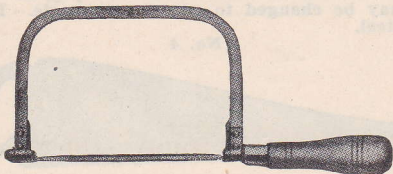
Atkins Nests of Saws No. 3

SILVER STEEL



No carpenter's kit is complete without this nest of saws, which consists of an adjustable handle, a compass and a keyhole blade and a Metal Cutting Blade, all of which are interchangeable. The nail cutting blade is tempered hard for cutting nails, pipe or any metal obstruction. Instead of resorting to a cold chisel, or other tool, the user may saw through metal with the hard blade and proceed with the ordinary hand saw. No. 3 Nest is equipped with an adjustable handle of the latest Improved Pattern. For repair work, plumbers, gas fitters, stair builders and similar trades.

Atkins Coping Saw No. 50



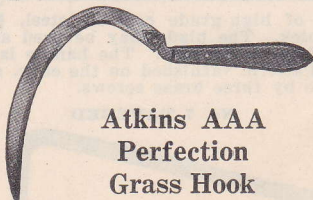
This is a very durable and rigid coping saw, as the back is $\frac{3}{8}$ inch wide and $\frac{3}{16}$ inch thick and made of cold rolled steel, nicked and buffed. Frame, $7\frac{1}{4}$ by $4\frac{5}{8}$ inches deep.

Fastened to the handle by malleable iron threaded ferrule, thus producing the strongest attachment for this purpose now in use.

All parts handsomely nicked and buffed.

The handle is of hardwood, carved and varnished.

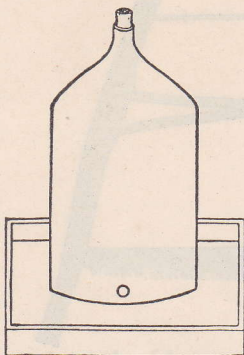
Through the use of cap screws into which wires are inserted, the blade may be instantly adjusted to cut sharp or unusual angles with perfect ease and without strain on the blade.



Atkins AAA Perfection Grass Hook

This is a practical tool. It is made for service and should not be compared with cheaply constructed grass hooks or sickles. The blade is similar to the material used in Atkins Silver Steel Saws. It may, therefore, be ground to a sharp cutting edge, which it will hold much longer than is possible with ordinary blades. It is extremely light and may be used without tiring the wrist. The handle is offset to prevent injury to knuckles.

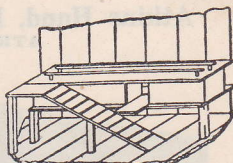
Poultry Drinking Fountain



Take a gallon jug and drill a quarter-inch hole in one side near the bottom. Fill it with good pure water, cork tight and set in a shallow pan. The pan should be set on a block or box to raise it a few inches above the ground so that the chickens won't kick dirt into it. Use a box six or eight inches high, placed in the shade.

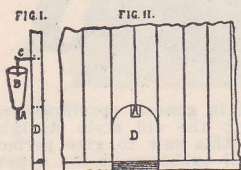
Roost and Nest Boxes

A good arrangement for heavy fowls is a set of nest boxes with roosts on top and an inclined board for the hens to walk up and down on. The nests are made large, about sixteen inches square and from sixteen to twenty inches high. The entrance to the nests is from the back and there is a runway at the back so the hens may enter any nest. There is also an entrance from the stairway in front, as shown in the cut. The whole thing is made so it may be taken apart easily for cleaning.



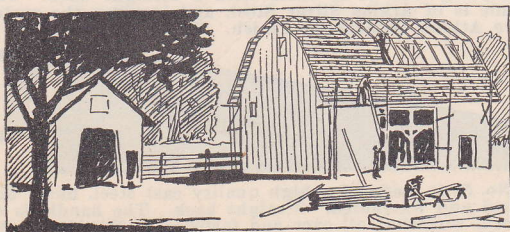
The entrance to the nests is from the back and there is a runway at the back so the hens may enter any nest. There is also an entrance from the stairway in front, as shown in the cut. The whole thing is made so it may be taken apart easily for cleaning.

Automatic Poultry Oiler

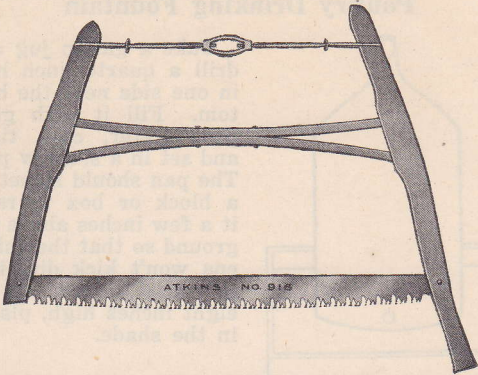


Kerosene is valuable to rid fowls of lice, but it is a disagreeable thing to use by hand. An automatic device that answers the purpose splendidly can be made by cutting a gash in the

bottom of a tin pail with a chisel. The cut is a close fit for an ordinary lamp wick. The wick is pulled through until it hangs down about three inches. It is hung in the small door that the chickens are obliged to pass through. Each chicken brushes against the hanging lamp wick and gets a drop of oil and the hen will do the rest.

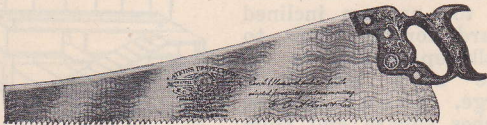


Atkins Wood Saws



This is our No. 923 Wood Saw complete; frame double braced, double riveted; painted vermilion and varnished; blade special steel, thin back, tuttle teeth, finely polished, hand filed, breasted, 2 $\frac{1}{4}$ " wide, 30 and 32 inch lengths.

Atkins Hand, Panel and Rip Saws ATKINS No. 53



This saw appeals to high-class mechanics for general carpentry work and is the most popular saw on the market today. The blade is of genuine SILVER STEEL, taper ground. It is given the Atkins Exclusive Damaskeen Finish—similar to the old Damascus Sword Blades. It has a skew back and is fitted with the ATKINS PERFECTION HANDLE, made of applewood, embossed and polished.

ATKINS No. 51



This saw is similar to No. 53 in general specifications, excepting that it is made with the old style straight across handle. We guarantee this saw to give perfect satisfaction or your dealer will exchange it for a new saw. Our leading old-style handle pattern.

ATKINS No. 65 HAND SAW

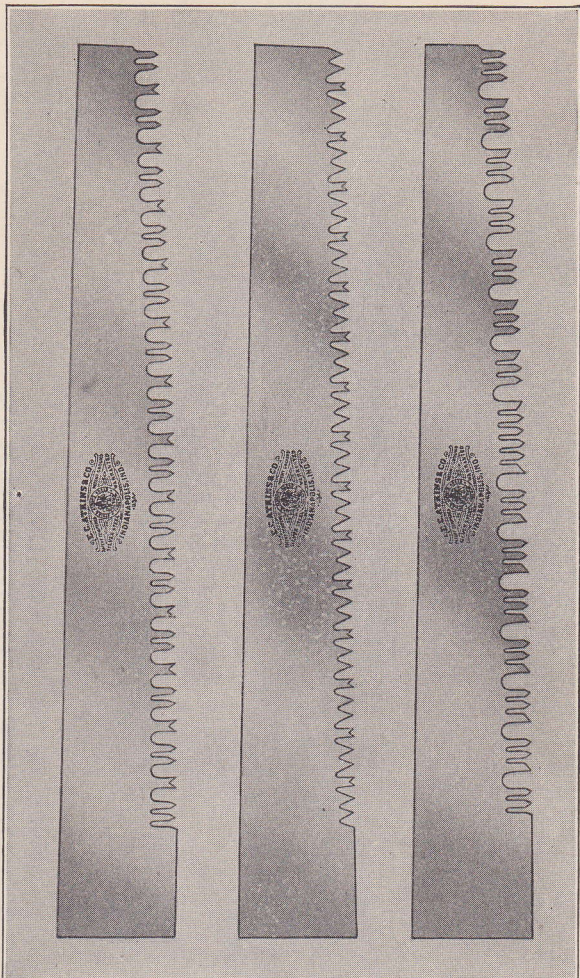


This is the companion saw to No. 53 and is similar excepting that it is made with a straight back. The blade is of Atkins Silver Steel, and is given the exclusive Atkins Damaskeen Finish. Taper Ground.



No. 58 is made of a high quality cast steel, finely finished and warranted. Straight back. The handle is of beech, varnished all over and fastened to the blade with three brass screws and a medallion.

Specify
the
blade
you
want
by
giving
name
of
tooth
style

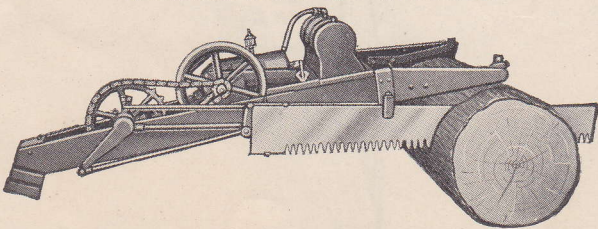


Vaughn
Tooth

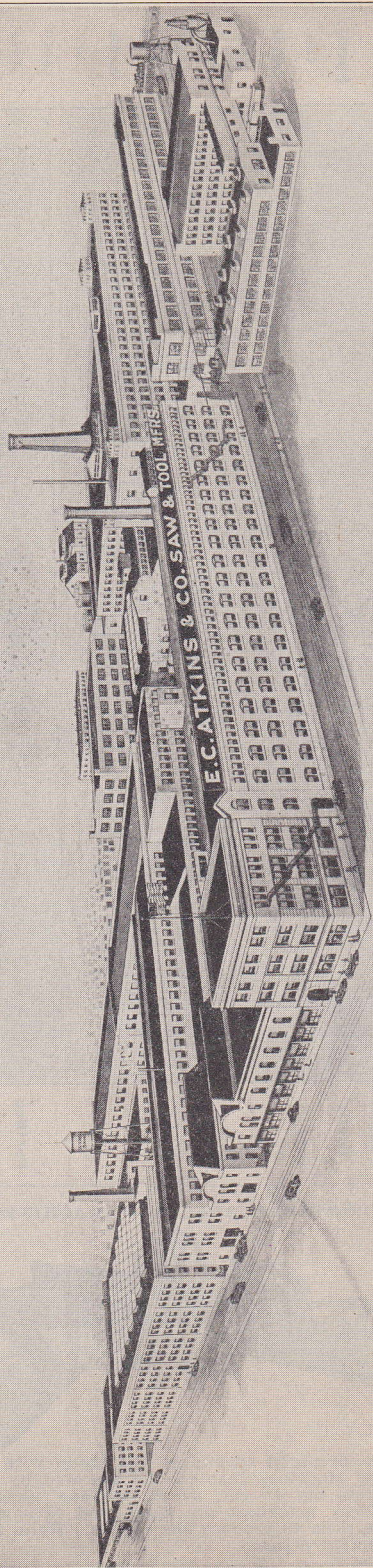
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