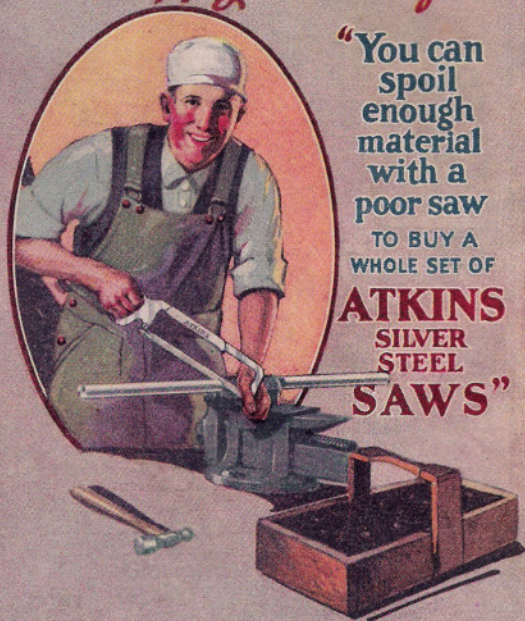


*Mr. Happy Man says~*



**"You can  
spoil  
enough  
material  
with a  
poor saw**

**TO BUY A  
WHOLE SET OF**

**ATKINS  
SILVER  
STEEL  
SAWS"**

**FREE**

We will gladly furnish  
Saw Sense Books with

**YOUR NAME AND ADDRESS**  
imprinted, for distribution  
to your customers.

**HOW MANY CAN YOU USE?**

**ATKINS**  
SILVER STEEL SAWS



**SawSense**

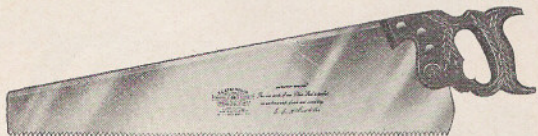
# ATKINS HAND, RIP AND PANEL SAWS

SILVER STEEL



**No. 54—SHIP POINT**

This is a finely finished saw, but is made to sell at a somewhat lower price than other SILVER STEEL saws. The blade is of genuine SILVER STEEL, straight back, Damaskeen finish. The handle is beech, with weather-resisting lacquer finished surface, old style straight across pattern. Made in both regular and ship patterns.



**No. 64—REGULAR PATTERN**

An old and very popular pattern. This is a full width blade, particularly adapted for all kinds of carpentry work where fast and accurate cutting is required.

It is made of SILVER STEEL, straight back, Damaskeen finish. Spindle carved, highly polished, lacquered, applewood handle, of the old style straight across pattern. Made in both regular and ship patterns.

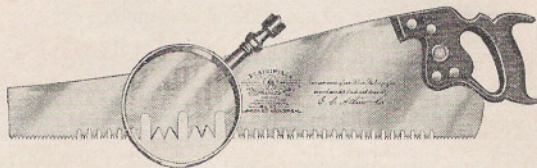


**No. 72—SHIP POINT**

Made only in ship pattern. A very popular light weight saw. Made of SILVER STEEL, straight back, carved and lacquered handle, old style pattern; 26-inch hand only, and a dandy.

# ATKINS HAND, RIP AND PANEL SAWS

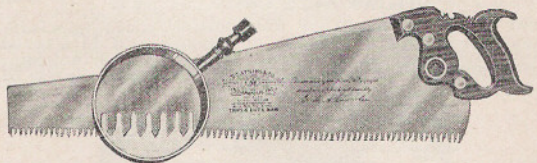
SILVER STEEL



**No. 93—IMPROVED UNIVERSAL**

This saw is made with a special patented tooth. Extra large gullet and raker tooth. It is especially adapted for heavy work. It cross-cuts, mitres and rips equally well. Blade is made of high-grade SILVER STEEL, skew back, lacquered old style handle.

Made in 26-inch length only.



**No. 82—TRIPLE DUTY SAW**

A splendid saw for heavy work. Will cross-cut, rip or mitre equally well. This saw can be fitted with no more work than a regular hand saw. Made in 26-inch length only. Perfection pattern handle. High lacquer finish.



**ATKINS JUNIOR MECHANIC**

Made in 20-inch length only, skew and straight back, nine point, taper ground blade, highly polished. Beech handle, lacquer finish, full carved, with two nickel-plated screws and a medallion. Packed in attractive individual boxes.

# ATKINS SPECIAL SAWS

SILVER STEEL



## No. 21—METAL CUTTING HAND SAW

Made of SILVER STEEL and will cut all classes of ordinary metal with ease. Straight breast and back. Eighteen gauge on the toothed edge, 20 gauge on the back and gradually tapers to 23 gauge on the point.

The teeth are specially milled, straight across, but are tempered for slow filing.

The handle is made of thoroughly seasoned hardwood, lacquer finished, fastened to the blade by medallion and two nicked screws.

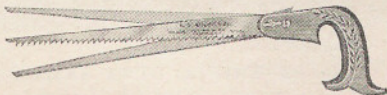
No. 22 same as No. 21, except adjustable handle.



## ATKINS No. 2 COMPASS SAW

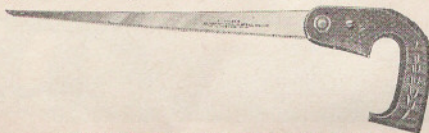
The blade is made of SILVER STEEL, specially tempered. The handle is of carved and lacquered applewood, made in lengths from 10 to 16 inches.

We make a number of other Compass Saws of similar construction.



## ATKINS No. 11 ADJUSTABLE COMPASS SAW

Here is a saw that will be found most convenient for general use. The blade is notched so as to fit into an adjustable handle and may be adjusted so as to cut at various angles. Made in lengths from 10 to 16 inches. SILVER STEEL.



## ATKINS No. 14 COMPASS SAW

Atkins No. 14 Wood and Metal Cutting Compass Blade is made of SILVER STEEL, highly polished and fitted with Interchangeable handle, finished with weather resisting lacquer. Made in 12" and 14" lengths only.

# ATKINS SPECIAL SAWS

SILVER STEEL



## ATKINS No. 6 KEYHOLE SAW

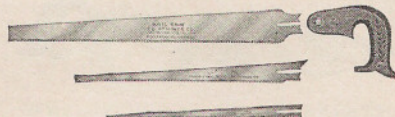
The finest keyhole saw in the world. SILVER STEEL adapts itself to this class of saw most admirably. On account of its extreme toughness, the blade holds its sharp cutting edge and is not easily broken.



## ATKINS No. 1 NEST OF SAWS

This supplies a tool which should be in every carpenter's kit. The No. 1 set consists of a keyhole blade 12 inches long, compass blade 14 inches long and pruning blade 16 inches long. All fitted to an interchangeable handle.

No. 2 Nest is composed of a 10-inch keyhole blade, together with a 12 and 16-inch compass blade and an interchangeable handle.



## ATKINS No. 3 NEST OF SAWS

Here is the best of all. It contains a keyhole and compass blade same as No. 1, but includes an 18-inch special nail-cutting blade. When nails or other metals are encountered, you may easily cut through the metal with the nail-cutting blade and proceed with your regular hand saw. Adjustable pattern handle, lacquer finish.

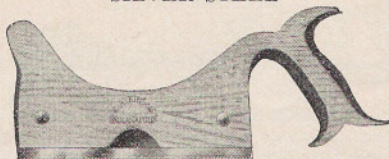


## ATKINS No. 28 CARPENTERS' HANDY SAW

This is an indispensable tool for the general carpenter. It is light and compact and may be used in hundreds of cases where the ordinary saw blade is too large or cumbersome. The blade is of genuine SILVER STEEL, carved apple handle, lacquer finish.

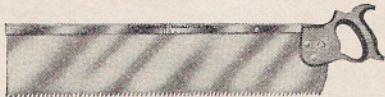
## ATKINS SPECIAL SAWS

SILVER STEEL



**ATKINS No. 27 STAIRBUILDERS' SAW**

This saw is designed for sawing into flat surfaces where it is necessary to cut to an even depth. The blade is adjustable to cut the desired depth. The wood parts are of beech, lacquer finished in natural color. Made in lengths 6, 8, and 10 inches.



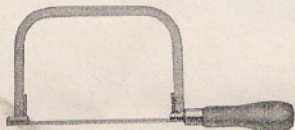
**ATKINS No. 1 MITRE SAW**

In the manufacture of this saw we use our genuine high-grade SILVER STEEL. The back is of extra heavy spring steel, and is clamped in place so as to hold the blade rigid. The handle is of applewood with lacquer finish. Made either 4, 5 or 6 inches under back.



**ATKINS No. 100 FLOORING SAW**

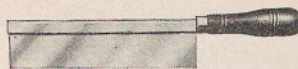
Designed for sawing into flat surfaces, such as floors, without necessity of boring or using chisel. The point is toothed on both edges so that out-of-the-way spots may be reached with ease. Made of SILVER STEEL, beautifully polished and etched. Made only in 18-inch length, 10 point. Lacquered, hardwood handle.



**ATKINS No. 50 COPING SAW**

A strictly high-grade tool sold at a moderate price. Strong, durable, action perfect. Frame,  $\frac{3}{8}$  inch wide;  $\frac{3}{16}$  inch thick; made of cold-rolled steel, nicked and buffed,  $7\frac{1}{4} \times 4\frac{1}{2}$  inches deep. Blade cuts at any angle.

## ATKINS SPECIAL SAWS



**ATKINS No. 25 DOVETAIL SAWS**

This Saw is made for light, fine work and in our Famous SILVER STEEL quality only. The steel back makes it rigid and strong, yet very light. They are recommended for fine cabinet work where a Back Saw is not practical.

These Saws are  $1\frac{1}{2}$  inches wide under the back, 26 gauge, and toothed 17 points to the inch. The blade is nicely polished and fitted with hardwood, lacquered handle.

## ATKINS SCRAPERS AND SAW SPECIALTIES



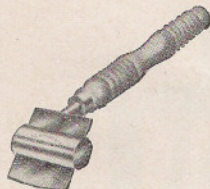
**Atkins No. 4 Ramshorn Floor Scraper**

Hardwood frame, lacquer finish, easy grip, will not chatter. Furnished with genuine SILVER STEEL scraper blade which holds its edge for the longest time.



**Atkins No. 5 Scraper**

Made of solid metal, 11 inches long. Two thumbscrews hold blade securely in place. Center thumbscrew presses into convex form so as to hug the work closely. SILVER STEEL blade.



**Atkins No. 3 Perfection Scraper**

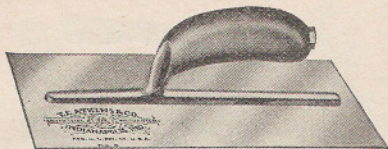
The most popular pattern. Hardwood handle, lacquer finish. Metal parts nicked and buffed. Blade cuts on all four sides.



**Atkins No. 0 Scraper Blades**

SILVER STEEL is admirably adapted for this purpose and you will find that it makes the best scraper blades that you have ever used. All standard sizes. Each blade packed in wax paper carton.

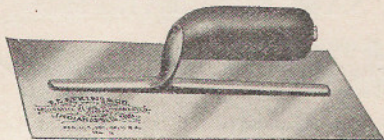
## ATKINS SAW SPECIALTIES



**ATKINS No. 15 TROWEL**

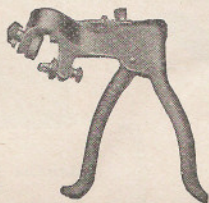
The newest in Plastering Trowels is Atkins No. 15 and 16 Aluminum Mounted Featherweight Trowels. They are equipped with high grade aluminum mounting the blade of genuine SILVER STEEL highly polished, finely tempered, and well balanced.

Curved Handle blade fastened to handle with ten rivets, made in sizes 10 to 11½ inch length, 4 to 4¾ inch width, 23 by 25 gauge.



**ATKINS No. 16 TROWEL**

Atkins No. 16 Trowel is the same Trowel as shown above with the exception that it has a different type handle. Slightly tapered and fits the hand perfectly. Blade is made of SILVER STEEL, has a strong, light aluminum mounting. Size 10 to 11½ inches in length, 4 to 4¾ inches in width, 23 by 25 gauge.

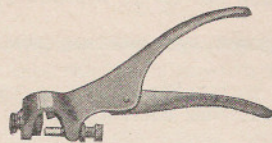


**ATKINS No. 430 SAW SET**

Atkins No. 430 Pistol Grip Saw Set has an oscillating plunger making it possible to set the plunger to the pitch of tooth. Will not interfere with any other tooth. Hardened anvil and plunger. For all teeth from 4 to 16 teeth per inch.

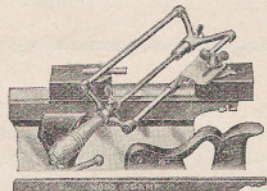
Finely tempered steel spring. Nickel plated and polished. Packed in individual boxes.

## ATKINS SAW TOOLS



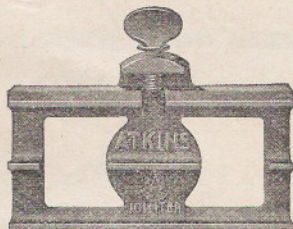
**ATKINS No. 395 SAW SET**

No. 395 revolving anvil with indicator dial. Lever placed below the body of set. Gauge screw has check nut, which prevents it from coming loose. The revolving anvil gives the required bevel and length of all saw teeth from 4 to 16 to the inch. Hardened anvil and plunger. Finely tempered steel spring. Nickel plated.



**ATKINS NO. 8 HAND-SAW FILER**

A simple, accurate tool whereby saws may be uniformly filed. Action virtually automatic. Can be used with any clamp.



**ATKINS NO. 15 "AAA" HAND SAW JOINTER**

Atkins "AAA" Hand Saw Jointer is a very essential tool in filing hand, rip and panel saws. It is very light in construction, adds to the efficiency of the saw by making the teeth uniform in length. Should be in every saw kit.

## DIRECTIONS

### How to File and Set Hand, Rip and Panel Saws



Fig. 1

Bottom view showing correctly fitted Hand Saw.



Fig. 2

Side view of properly filed and set Hand Saw. Note bevel on front of teeth.



Fig. 3

Top view of correctly fitted Hand Saws. Note set is slightly wider than entire thickness of blade, thus eliminating the chances of saw binding in the cut.

By examining the teeth of your saw you can readily tell if the teeth are uniform.

If you find the teeth are uneven, it will be necessary to "joint" and correctly shape the teeth according to the directions under "Jointing" on page 19.



Fig. 4

Showing bottom view of properly fitted Rip Saw.

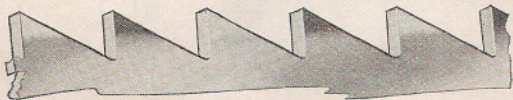


Fig. 5

Enlarged section of Rip Saw correctly filed and set. Note there is no bevel on front of teeth. Teeth are filed straight across.



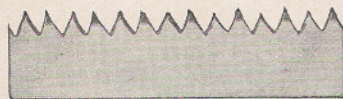
Fig. 6

This shows view looking down on back of blade. You can see that the set in the Rip Saws extends slightly wider than thickest part of blade.

If the teeth are of an even size and shaped correctly, as shown in the above illustration, the teeth will not require "jointing" and in this case refer to the directions under "Setting Saw Teeth" given on page 22.

### JOINTING

Unevenness of teeth is caused in many ways by normal wear, cutting of nails, dropping the saw and unnecessary carelessness. You should remember to always treat a saw with care. This adds longer life.



Uneven Hand Saw Teeth



Uneven Rip Teeth

Fig. 7

Examine Fig. 7 and note how uneven the teeth are in both Cross Cut and Rip Saw. It shows the condition of some teeth before jointing. It is always good practice to use a jointing tool to hold a file square with the blade; see blade jointer and clamp in illustration No. 8 on page 20. This saw is ready for the jointing operation.

Jointing the teeth means filing the tops of the teeth to make them all level and of even height. Place the saw in the clamp as in illustration No. 8, pass the file lightly over the tops of the teeth until the file touches each tooth; joint until the shortest tooth is touched lightly. The teeth will then look like illustration No. 9.

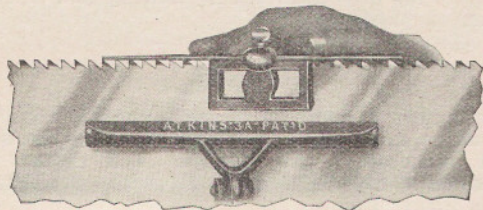
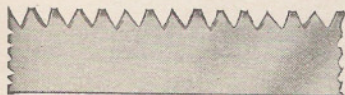
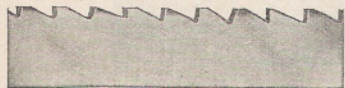


Fig. 8



**Hand Jointed**  
Enlarged view of saw teeth jointed down evenly showing flat tops on the teeth.



**Rip Jointed**  
Illustration of saw teeth after jointing; showing flat tops and the uneven gullets of the teeth.

Fig. 9

It is necessary that all teeth be of uniform size, shape and hook. After jointing, shape the teeth as shown in illustration No. 10. This illustration represents cross cut teeth not beveled. If you are shaping teeth for Rip Saws, see illustration No. 11 on page 21.

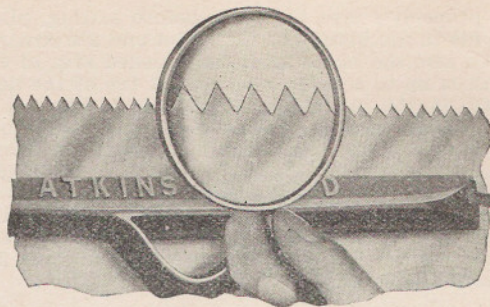


Fig. 10

Teeth not beveled for cross cutting.

The above shows an enlarged section of a Cross Cut Hand Saw with the teeth jointed and shaped properly ready for setting.

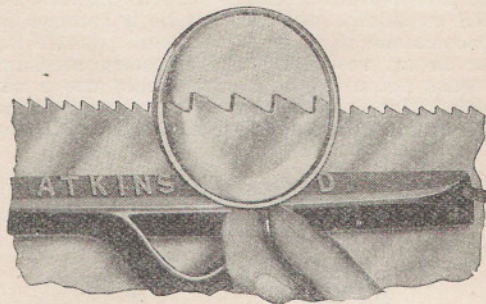


Fig. 11

Teeth shaped to a point for ripping.

This illustration shows the teeth of a Rip Saw, jointed and shaped ready for setting.

To properly shape the teeth before setting, place the file in the bottom of the gullet and file straight down into the blade until the finished side of the tooth is up to a point, and the flat top of the next tooth on the other side of the file is divided in two. Then go on to the next gullet, finishing one tooth to a point and dividing the next as before, continuing through the entire length of the blade. If the teeth in the saw are unevenly spaced as in illustration No. 9, bear in heavily against the tooth having the largest top until you reach the center of the flat top. Be sure to hold your file square and level.

### SETTING SAW TEETH

Saw teeth, to clear properly, so that the saw will not bind in the wood, whether Cross Cut or Rip, should be bent outward alternately from  $3/1000''$  to  $5/1000''$ . Saws that are straight, level and properly ground for clearance need very little set. This is to be found in ATKINS SILVER STEEL SAWS. Do not set the saw teeth too low down on the tooth. Setting should not be deeper than two-thirds the distance from the point to gullet. For skilled mechanics who can handle a hammer set we recommend it as more accurate, positive and better in all respects. The ordinary mechanic who does not often fit a saw should use a saw set especially designed for this work as shown in the illustration No. 12 of Atkins No. 395 Saw Set.

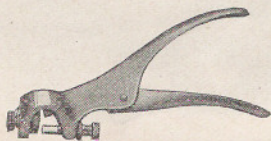


Fig. 12

#### ATKINS No. 395 LEVER SAW SET

Whether you use the hammer or especially designed saw set, when you have finished your saw it should look like illustration No. 13 if for cross cutting, and No. 14 if for ripping.

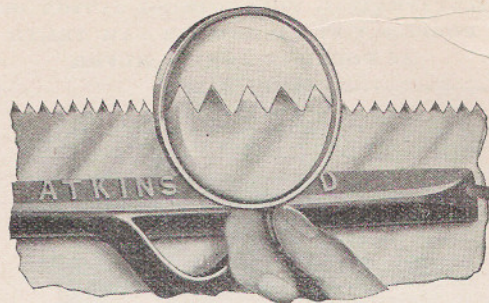


Fig. 13

The above shows Cross Cut teeth set ready to file. The teeth are even, properly shaped and set. Inspect the illustration carefully and note that the teeth are set about two-thirds the distance from point to the gullet. In general, Cross Cut Saws are tools made up of a series of "sharp knives," so arranged as to sever the fibers of the wood across the grain, as shown in illustration No. 15 on page 24.

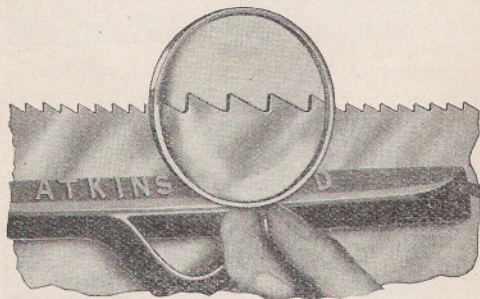


Fig. 14

This shows Rip Saw teeth ready to finish. After jointing, shaping and setting Rip Saws the pitch in rip teeth should be as shown in illustration No. 14.

With the saw teeth properly jointed and set you are now ready for finishing or pointing up and beveling.



ILLUSTRATING THE CUTTING ACTION OF  
PROPERLY FILED AND SET SAW TEETH  
AS FOUND IN ATKINS SILVER  
STEEL SAWS

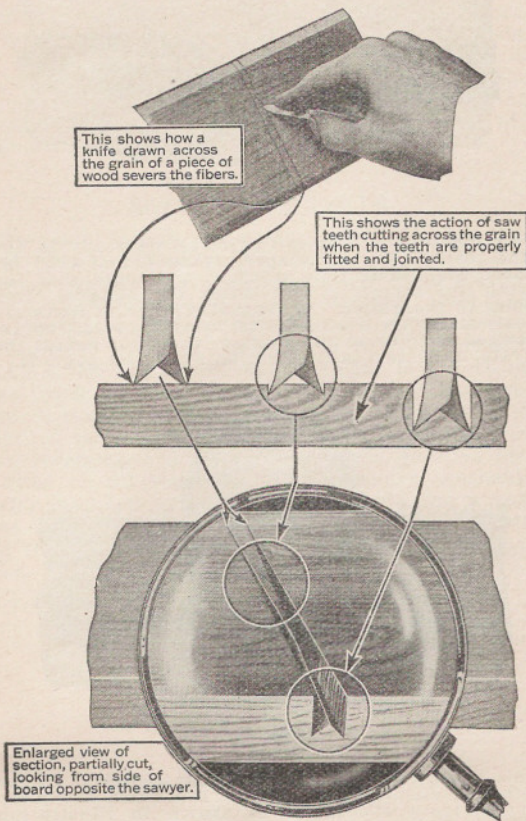


Fig. 15

FILING HAND SAWS

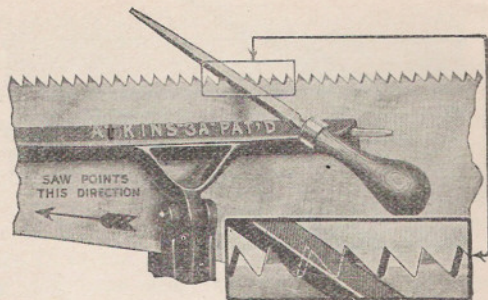


Fig. 16

The above shows a section of Cross Cut Hand Saw teeth filed properly, also the position of the file. For filing a Cross Cut Hand Saw, place the saw in a vise with the handle to the right. The vise should grip the saw from  $\frac{1}{8}$ " to  $\frac{1}{4}$ " below the teeth. Just before starting to bevel, pass a fine file very lightly over the tops of the teeth to make what we call a "shiner," or bright top, as you will find this useful as a guide for finishing each tooth. Your position and the position of the passing of the file should be as shown in illustration No. 16. Start in the first gullet to the LEFT of the first tooth, set away from you with your file in the position shown in illustration No. 16. Hold the file level and push it evenly and at the same time angle it across the saw, bringing each tooth to a point, possibly leaving a trifle of the "shiner" on the tooth to the right of your file. With your file in this position you can easily watch the cut of the file as you proceed with your work. Duplicate this process in EVERY OTHER gullet straight through to the handle.

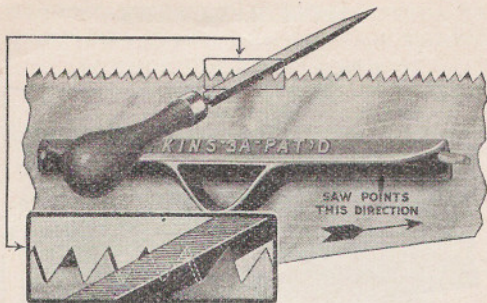


Fig. 17

Then reverse your saw in the clamp, placing the handle to the left and proceed in exactly the same manner as in the first place, except start in the first gullet to the RIGHT of the first tooth set away from you. File each tooth to a sharp point. Your position and the position of the file in this operation should be as shown in illustration No. 17.

When your saw is finished it should look like illustrations Nos. 1, 2 and 3, on page 18, showing a correctly filed Cross Cut Hand Saw, top, side and bottom views. To accomplish this result we recommend the following ATKINS SILVER STEEL FILES for various sizes of teeth:

- 5-5½ pt. Cross Cut Saw Teeth 6" or 7" Slim Taper File
- 6-7 pt. Cross Cut Saw Teeth 6" or 7" Slim Taper File
- 8-9 pt. Cross Cut Saw Teeth 7" Extra Slim Taper File
- 10-11 pt. Cross Cut Saw Teeth 4", 4½", 5" or 5½" Extra Slim Taper File

*Ask your Hardware dealer for Atkins Silver Steel Files*

## FILING RIP SAWS

Rip Saws are filed in exactly the same manner as Cross Cut Saws are filed, except there is no bevel to the tooth of a Rip Saw. Therefore, the file is held straight across the saw at right angles to the blade and no bevel should be left on the teeth. Some filers, however, leave a slight bevel, but as Rip Saws are chisels instead of knives, as such they do not need beveling. A well filed Rip Saw should look like illustrations Nos. 4, 5 and 6 on page 18 at the beginning of the directions, showing top, side and bottom views. The proper ATKINS SILVER STEEL FILES to use for filing Rip Saws are as follows:

- 4 and 4½ pt. 7" Slim Taper Files
- 5 and 5½ pt. 7" Slim Taper Files
- 6 and 6½ pt. 6" or 7" Slim Taper Files

If these directions are followed carefully, there should be no reason why the youngest apprentice should have trouble in caring for his most valuable tool—the Saw. Too many fine tools are ruined every day to carelessly overlook the most minute attention to your saws.

Ask for ATKINS SILVER STEEL Files as shown on pages 28, 29, 30 and 31 of this "Saw Sense" book. Accept no substitute.

# ATKINS SILVER STEEL FILES

BAND SAW TAPERS



REGULAR PATTERN

ATKINS SILVER STEEL Band Saw Taper Files **Regular** Pattern are made from 4 to 10 inches, except in the 5½-inch length, which is not made. They operate easily and do fast work.



SLIM PATTERN

Here is the **Slim** Pattern of ATKINS Band Saw Taper Files. Made of SILVER STEEL—the same high-grade material as used in Atkins Saws. The sizes are confined to 6 and 8 inch lengths only.



EXTRA SLIM PATTERN

You can keep your saws in perfect working order by using "The Finest Files Made," ATKINS SILVER STEEL Files. This illustration is of the **Extra Slim** Pattern of the other Taper Files on this page. Made in 4 to 8 inch lengths only. Fast and smooth cutting.



*In buying Atkins Files remember you are getting the best file known to file users—ATKINS SILVER STEEL—The Finest on Earth.*

# ATKINS SILVER STEEL FILES

BAND SAW BLUNT



REGULAR PATTERN

Band Saw Blunt Files as made by ATKINS are "The Finest on Earth." The **Regular** Pattern is made in the following lengths, 4, 4½, 5, 6, 7, 8 and 10 inches. They will keep your saws in better shape.



SLIM PATTERN

This is the **Slim** Pattern of ATKINS SILVER STEEL Band Saw Blunt Files. Made in two lengths only, the 6 and 8 inch. Truly a remarkable file.



EXTRA SLIM PATTERN

The illustration above is of the **Extra Slim** Pattern Band Saw Blunt. It is made in all the regular sizes from 4 to 8 inches inclusive. These files are adapted for fast, accurate and smooth work.

*ATKINS manufactures a complete line of Files in all of the regularly used sizes—look for the name ATKINS, before you buy.*



## ATKINS SILVER STEEL FILES

IMPROVED DIAMOND POINT



### REGULAR PATTERN

ATKINS Six-inch SILVER STEEL Improved Diamond Point Files are recommended for Automatic Band Saw Filing Machines. The **Regular** Pattern is made with 13/32-inch face. A more perfect Band Saw File is not made.



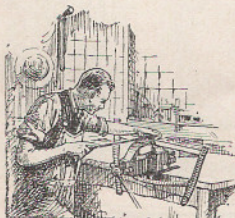
### SLIM PATTERN

The **Slim** Pattern in the above file, also SILVER STEEL, is made 5/16-inch wide. Other lengths can be made but are not essential as the 6-inch length fits all popular or standard machines.



### EXTRA SLIM PATTERN

Here is the **Extra Slim Pattern** of ATKINS SILVER STEEL Improved Diamond Point Files. The quality and workmanship is the best. The Improved Diamond Point Files are adapted for such machines as the Wardwell, Poley and Black Diamond.



*Spoiling your work and temper with a poor file is one way of doing nothing; use ATKINS and be happy.*

## ATKINS SILVER STEEL FILES

SPECIAL FILES



### ATKINS HAND SAW SPECIAL

ATKINS SILVER STEEL Hand Saw Special File is made 5½ inches long. Used by carpenters who know files. Has perfect teeth—the real file for filing Hand Saws.



### ATKINS HAND SAW SPECIAL

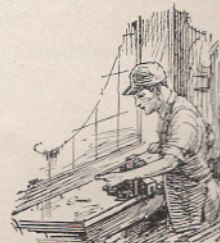
Another SILVER STEEL Hand Saw Special made 7 inches long and ¼-inch face on each side. SILVER STEEL in Files, as in Saws, holds its edge longer and cuts more.



### ATKINS HAND SAW SPECIAL

When experts buy files they demand the best; that is why they buy ATKINS, "The Finest on Earth." There are two sizes in this Hand Saw Special, 8 x ¼ inches and 8 x 5/16 inches. Both made of SILVER STEEL.

*Why wear away a lot of files and energy when it's so easy to use ATKINS—  
"The Finest File Made."*



## Some Valuable Information to the Everyday Carpenter

### ROOF FRAMING

#### 1. A Simple Method for Getting Lengths of Hips and Jacks for Any Pitch Roof

Draft the half of one end of building to scale with the base of the triangle equal to  $\frac{1}{2}$  of the building, at one end erect a perpendicular equal to the length of common rafter, then the line joining the extremities of the legs (hypotenuse) is equal to the length of the hip for that particular building.

The jacks may be found by spacing off the building so that you have the required number of jacks. There will always be one more space than jacks. Then divide the length of the common rafter by the number of spaces and this quotient will be the length of the shortest jack. Double this for the second, treble for the third and so on.

#### 2. Other Rules for Finding Lengths of Common Rafters

I. For one-quarter pitch roof, multiply the width of building by the decimal .56—example: 12 feet equal W X .56 equal 6.72 feet or 6 feet 9 inches.

II. For one-third pitch roof, multiply width of building by the decimal .6—example: 12 W X .6 equal 7.20 or 7 feet  $2\frac{1}{2}$  inches.

III. For one-half pitch roof, multiply the width of building by the decimal .71—example: 12 W X .71 equal 8.52 or 8 feet 6 inches.

IV. For one full pitch, multiply the width of building by the decimal 1.12—example: 12 W X 1.12 equal 13.44 or 13 feet  $5\frac{1}{2}$  inches.

#### Another Method for Finding Lengths of Rafters

Take the number of inches the roof is to rise to the foot on the tongue and one foot on the blade, which is the rise and run of one foot, then apply the square to the timber as many times as the number of feet in half the width of building. This gives you the exact length of the rafters, also the line of the tongue gives you the plumb-cut, and the line of the blade gives the seat cut.

### Table for Finding the Length and Side Cuts of Jack Rafters

1. One-quarter pitch roof.  
13.5 in. shorter when spaced 12 in. on center.  
18 in. shorter when spaced 16 in. on center.  
27 in. shorter when spaced 24 in. on center.  
12 and 13.5 gives the side cuts for jacks in this pitch; the plumb-cuts and seat-cuts are the same as the common rafters for this pitch.
2. One-third pitch roof.  
14.4 in. shorter when spaced 12 in. on center.  
19.2 in. shorter when spaced 16 in. on center.  
28.8 in. shorter when spaced 24 in. on center.  
12 and 14.4 gives the side cut on jacks for this pitch.
3. One-half pitch roof.  
17 in. shorter when spaced 12 in. on center.  
22.6 in. shorter when spaced 16 in. on center.  
34 in. shorter when spaced 24 in. on center.  
12 and 17 gives the side cut on jacks for this pitch roof.

### SHINGLING

#### To Find the Number of Shingles Required to Cover 100 Square Feet or One Square

Deduct 3 inches from length of shingle, divide the remainder by three, the result is the exposed length of shingles.

One square equals 14,400 square inches. Divide this number by the exposed surface; equals the required number of shingles.

Note—A shingle is 4 inches wide and of various lengths, as 15, 18, 21, 24, 27 inches.

#### Table for Estimating Shingles

Length Exposed Shingle to weather by 1,000 shingles		Sq. ft. covered		Shingles for 100 sq. ft.	
Inches	Inches	4 in. Wide	6 in. Wide	4 in. Wide	6 in. Wide
15	4	111	167	900	609
18	5	139	208	720	480
21	6	167	250	600	400
24	7	194	291	514	343
27	8	222	333	450	300

### To Find the Number of Shingles Required for a Roof

Multiply the length or ridge pole by twice the length of one rafter. This gives you the number of square feet in roof. If exposed 4½ inches to weather, multiply square feet by nine, but if exposed 5 inches to weather, multiply square feet by eight.

Note—(a) Shingles are put up in two kinds of bundles, a 250 and a 200 bunch.

(b) 1 M shingles weigh about 250 lbs.

(c) 5 lbs. shingle nails will fasten 1 M shingles on a roof.

### LATH

Lath are of two lengths, 48 inches and 32 inches. The following estimates are based on the 48-inch lathing, which are 4 feet long, 1½ inches wide, which covers an area of 72 square inches. Obtain the number of square yards in building, which multiply by 15, the number required to cover one square yard. Eleven (11) lbs. of nails are required to put on 1,000 laths.

### HOW TO FIGURE PLASTERING

Multiply the distance around the room by the height of room, then for the ceiling multiply the length of room in feet by the width of room in feet. Add the two products and divide by nine, which gives you the number of square yards.

Multiply the number of yards by the price per square yard; equals the total price.

**Mixtures**—Six to eight bushels of lime and 40 cubic feet sharp sand, 1½ bushels of hair will plaster 100 square yards with two coats of mortar. To every bushel of lime, estimate about ⅝ cubic yards (17) sand for plastering. One-third barrel of stucco will hard finish 100 square yards of plastering.

Two bushels of lime will white coat 100 square yards of wall.

### NUMBER OF NAILS REQUIRED IN CARPENTRY WORK

To case a door, 1 lb. of nails are required.

To case a window, 1 lb. of nails are required.

To put on rafters, joists and studding, etc., 3 lbs. to the 1,000 feet.

To lay a 6-inch pine floor, 15 lbs. to the 1,000 feet.

To find side of square that will inscribe in a given circle, multiply diameter by .7071.

To find the capacity of a square tank or cistern, multiply the number of cubic feet by 7½ (or 7.48) and the result will be in gallons.

To find contents of cistern or tank, multiply the square of the mean diameter by the depth (all in feet) and this product by 5⅞, the result will be in gallons.

One-fifth more siding and flooring is needed than the number of square feet of surface to be covered, because of the lap in the siding and matching.

To measure square timbers, multiply the length, width and thickness together and divide the product by 12.

### NUMBER OF NAILS PER POUND

Size	Length and Gauge	Approx. No. to Lb.
2d	1 inch No. 15	876
3d	1¼ inch No. 14	568
4d	1½ inch No. 12½	316
5d	1¾ inch No. 12½	271
6d	2 inch No. 11½	181
7d	2¼ inch No. 11½	161
8d	2½ inch No. 10¼	106
9d	2¾ inch No. 10¼	96
10d	3 inch No. 9	69
12d	3¼ inch No. 9	63
16d	3½ inch No. 8	49
20d	4 inch No. 6	31
30d	4½ inch No. 5	24
40d	6 inch No. 4	18
50d	5½ inch No. 3	14
60d	6 inch No. 2	11

## THE HARDWARE LINE

Owing to the varied uses for saws and other tools of our manufacture and the fact that so many different classes of business are affected, our complete product has been divided into departments. Each of these departments is under the direct personal supervision of experts who have made their particular line a life study. We make:

Hand Saws, Hack Saw Blades and Frames, Cross-Cut Saws, Wood Saws, Ice Saws, Mitre Box Saws, Back Saws, Manual Training Saws, Compass and Keyhole Saws, Pruning Saws, Butcher Saws, Nest of Saws, Coping Saws, Stairbuilders' Saws, Dehorning Saws, Patternmakers' Saws, Grass Hooks, Floor Scrapers, Bench, Wall and Belt Scrapers, Cabinet Scrapers, Corn Knives, Cane Knives, etc.

### ATKINS-OVA ZARUKA

Obchod, v kterem kupujete, je opraven, aby vam dal novou pilu za jakoukoli pilu, ktera ma nasi znacku, kdyz z te neb one priciny nejste s ni spokojeni anebo kdyz ma sebe mensi vadu.

### ATKINSA GWARANCYA

Wasz dostawca upowaznionym jest zmienic pite na nowa, jezeli jest naszego wyrobu, w razie gdyby z jakiegokolwiek powodu was nie zadawolita, lub gdyby miata jakiekolwick uszkodzenia.

### "ATKINS" JOTALLASA

Barmely furesz, mely a mi gyartmanyunk es melyen fel van tuntetve ceg jegyunk, kicsereletho egy teljesen uj fureszszel, azon kereskedo altal a kinel vette, ha a furesz nem volna tokeletes, vagy esetleg serult allapotban volna.

Month \_\_\_\_\_

Job at \_\_\_\_\_

Contractor \_\_\_\_\_

Date	Hours	Rate	Amount
Sun.			
Mon.			
Tues.			
Wed.			
Thur.			
Fri.			
Sat.			
Total			

Mr. Happy Man Says—"If you had as good teeth and temper as an ATKINS Saw, you'd cut up more."

### CARPENTER'S TABLE OF WAGES

HOURS	\$0 65				\$0 70				\$0 75				\$0 80			
	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time
1	65	32 1/2	48 3/4	65	70	35	52 1/2	70	75	37 1/2	56 1/4	75	80	40	60	80
2	65	1 30	1 95	2 60	70	1 40	2 10	2 80	75	1 50	2 25	3 00	80	1 60	2 40	3 20
3	65	1 95	2 92 1/2	3 90	70	2 10	3 15	4 20	75	2 25	3 37 1/2	4 50	80	2 40	3 60	4 80
4	65	2 60	3 90	5 20	70	2 80	4 20	5 60	75	3 00	4 50	6 00	80	3 20	4 80	6 40
5	65	3 25	4 87 1/2	6 50	70	3 50	5 25	7 00	75	3 75	5 62 1/2	7 50	80	4 00	6 00	8 00
6	65	3 90	5 85	7 80	70	4 20	6 30	8 40	75	4 50	6 75	9 00	80	4 80	7 20	9 60
7	65	4 55	6 82 1/2	9 10	70	4 90	7 35	9 80	75	5 25	7 87 1/2	10 50	80	5 60	8 40	11 20
8	65	5 20	7 80	10 40	70	5 60	8 40	11 20	75	6 00	9 00	12 00	80	6 40	9 60	12 80
9	65	5 85	8 77 1/2	11 70	70	6 30	9 45	12 60	75	6 75	10 12 1/2	13 50	80	7 20	10 80	14 40
10	65	6 50	9 75	13 00	70	7 00	10 50	14 00	75	7 50	11 25	15 00	80	8 00	12 00	16 00

94

HOURS	\$0 85				\$0 90				\$0 95				\$1 00			
	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time
1	85	42 1/2	63 3/4	85	90	45	67 1/2	90	95	47 1/2	71 1/4	95	1 00	50	75	1 00
2	85	1 70	2 55	3 40	90	1 80	2 70	3 60	95	1 90	2 85	3 80	1 00	2 00	3 00	4 00
3	85	2 55	3 82 1/2	5 10	90	2 70	4 05	5 40	95	2 85	4 27 1/2	5 70	1 00	3 00	4 50	6 00
4	85	3 40	5 10	6 80	90	3 60	5 40	7 20	95	3 80	5 70	7 60	1 00	4 00	6 00	8 00
5	85	4 25	6 37 1/2	8 50	90	4 50	6 75	9 00	95	4 75	7 12 1/2	9 50	1 00	5 00	7 50	10 00
6	85	5 10	7 65	10 20	90	5 40	8 10	10 80	95	5 70	8 55	11 40	1 00	6 00	9 00	12 00
7	85	5 95	8 92 1/2	11 90	90	6 30	9 45	12 60	95	6 65	9 97 1/2	13 30	1 00	7 00	10 50	14 00
8	85	6 80	10 20	13 60	90	7 20	10 80	14 40	95	7 60	11 40	15 20	1 00	8 00	12 00	16 00
9	85	7 65	11 47 1/2	15 30	90	8 10	12 15	16 20	95	8 55	12 82 1/2	17 10	1 00	9 00	13 50	18 00
10	85	8 50	12 75	17 00	90	9 00	13 50	18 00	95	9 50	14 25	19 00	1 00	10 00	15 00	20 00

47

For wage scale from \$1.05 to \$1.25 per hour, see following page



HOURS	Rate per Hr.				Reg. Time				Over Time				Dbl. Time							
	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time				
1	\$1 05	\$0 52½	\$0 78¾	\$1 05	\$1 10	\$0 55	\$0 82½	\$1 10	\$1 15	\$0 57½	\$0 86¼	\$1 15	\$1 20	\$0 60	\$0 90	\$1 20	\$1 25	\$0 62½	\$0 93¾	\$1 25
2	1 05	1 05	1 57½	2 10	1 10	1 10	1 65	2 20	1 15	1 15	1 72½	2 30	1 20	1 20	1 80	2 40	1 25	1 25	1 87½	2 50
3	1 05	2 10	3 15	4 20	1 10	2 20	3 30	4 40	1 15	2 30	3 45	4 60	1 20	2 40	3 60	4 80	1 25	2 50	3 75	5 00
4	1 05	3 15	4 72½	6 30	1 10	3 30	4 95	6 60	1 15	3 45	5 17½	6 90	1 20	3 60	5 40	7 20	1 25	3 75	5 62½	7 50
5	1 05	4 20	6 30	8 40	1 10	4 40	6 60	8 80	1 15	4 60	6 90	9 20	1 20	4 80	7 20	9 60	1 25	5 00	7 50	10 00
6	1 05	5 25	7 87½	10 50	1 10	5 50	8 25	11 00	1 15	5 75	8 62½	11 50	1 20	6 00	9 00	12 00	1 25	6 25	9 37½	12 50
7	1 05	6 30	9 45	12 60	1 10	6 60	9 90	13 20	1 15	6 90	10 35	13 80	1 20	7 20	10 80	14 40	1 25	7 50	11 25	15 00
8	1 05	7 35	11 02½	14 70	1 10	7 70	11 55	15 40	1 15	8 05	12 07½	16 10	1 20	8 40	12 60	16 80	1 25	8 75	13 12½	17 50
9	1 05	8 40	12 60	16 80	1 10	8 80	13 20	17 60	1 15	9 20	13 80	18 40	1 20	9 60	14 40	19 20	1 25	10 00	15 00	20 00
10	1 05	9 45	14 17½	18 90	1 10	9 90	14 85	19 80	1 15	10 35	15 52½	20 70	1 20	10 80	16 20	21 60	1 25	11 25	16 87½	22 50
10	1 05	10 50	15 75	21 00	1 10	11 00	16 50	22 00	1 15	11 50	17 25	23 00	1 20	12 00	18 00	24 00	1 25	12 50	18 75	25 00

**INSTRUCTIONS:** To find the amount due you at any rate from 65c to \$1.25 per hour, find the column containing the rate you are paid and follow it down to the number of hours you have worked. Opposite is what is due you. For example: If you have worked 7½ hours at 80c per hour, 7 hours at 80c is found to be \$5.60, and ½ hour, 49c. This makes a total of \$6.00 due you for 7½ hours work at 80c per hour regular time. If you are paid regular time for 7 hours work and over time for ½ hour, 7 hours at 80c per hour, regular time, is found to be \$5.60, and ½ hour, overtime, 30c. There would then be due you \$6.20.

These tables are figured at time and one-half for over time.

**E. C. ATKINS AND COMPANY.**

ATKINS  
SILVER STEEL  
SAWS, SAW TOOLS  
AND SAW  
SPECIALTIES  
ARE KNOWN  
THE WORLD  
OVER



ALL FIRST CLASS  
HARDWARE DEALERS  
SELL ATKINS



SAY ATKINS  
WHEN YOU BUY  
AND GET  
THE PINEST ON EARTH