

Saw Filing Simplified

BY THE USE OF
ANDERSON SAW
FILING TOOLS

For Cross-Cut Saws

PATENTED IN U. S. AND CANADA

MANUFACTURED BY

**G. Anderson Saw Gauge
Manufacturing Co.**

1112 RAINIER AVENUE

SEATTLE, WASH.

U. S. A.

PRINTED IN U. S. A.

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175
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INTRODUCTION

THE ANDERSON Saw Filing Tools for cross-cut saws were placed on the market at the beginning of the industrial depression in 1929-1930. In spite of adverse industrial conditions, these tools have now become the leading tools among Saw Filers in logging camps and users of cross-cut saws, throughout Oregon, Washington and Idaho, and other localities where the tools have been introduced.

The Anderson Saw Filing Tools are the only tools on the market that simplify saw filing to such an extent as to enable a comparatively unskilled person to refit a cross-cut saw better than many saw filers, who have had years of experience, can by using the old type of tools.

It pays to use Anderson Saw Tools.

They save saws, time and labor.

They simplify saw filing.

They require no skill.

They produce accurate results.

They minimize eye strain.

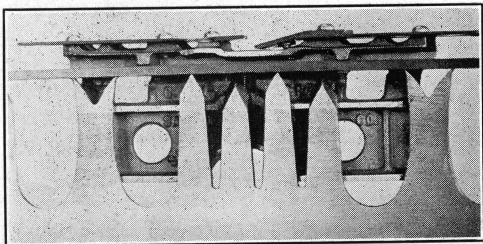
They eliminate guesswork.

They are the proven best and

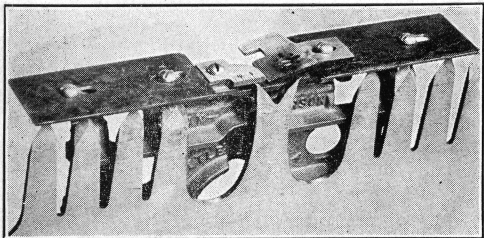
They are priced to sell.

Once tried always used.

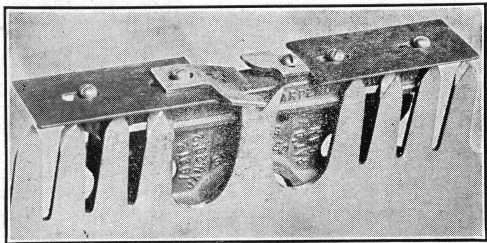
All dealers who sell cross-cut saws should have in stock the Anderson line of Saw Tools, even if it be only a few samples to start with.



Cut 1



Cut 2



Cut 3

ANDERSON

No. 3 Raker Sharpening Gauge

PATENTED

DESCRIPTION

No. 3 Raker Gauge is shown in three different positions as used upon a cross-cut saw. It has an accurately and fully machined cast iron frame. Saw jointer, Raker tooth checking gauge and Raker sharpening gauge, shown in cuts 1, 2 and 3 respectively, are all at one edge of the frame. This arrangement of the parts is particularly advantageous when filing narrow saws, such as felling saws, as it does not only require less space on the side of the saw, but it leaves broader and truer guiding surfaces on sides of frame.

The checking plate shown in cut 2, to swage by and for checking adjustment of the filing plates shown in cut 3, takes the place of the usual "pin" or screw used in other gauges. This plate has notches along one edge, one thirty-second of an inch apart on its top and bottom surfaces, and is mounted on a slanting machine-finished surface on the frame. The angle of slant causes a variation in the height of the plate one thousandth of an inch between any two of the notches. By sliding the tool gently upon the saw teeth the raker points will catch in the bottom notches and the top notches will show the length of the rakers at the point of contact with the plate.

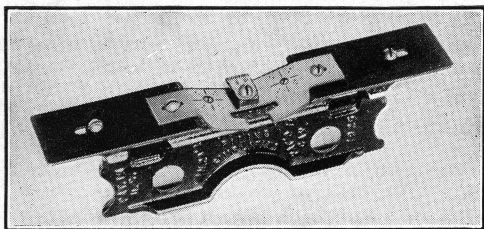
The filing plate is mounted on top of one of the cap plates and has an inclined file-guiding portion to give clearance to the points of the rakers. A counter-sunk perforation in the plate overlying an adjustment screw. Around the perforations are graduations in the form of a dial having eight divisions, each denoting about .005

of an inch vertical variation at the tooth stop of the plate as the adjusting screw is being turned; the slit on the head of the adjusting screw will serve as a pointer to cooperate with the graduations when changing the adjustment. This plate has enough flexibility to allow adjustment without danger of breaking. All the plates have glass hard surfaces to resist wear, and an inside soft core to facilitate straightening, in case of accidental bending of the plates.



No. 4 Raker Sharpening Gauge

PATENTED



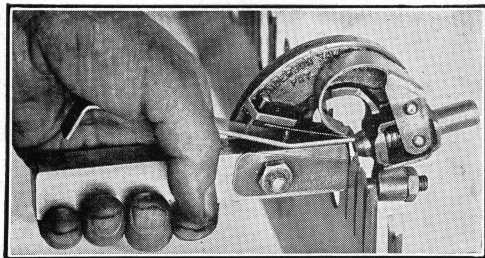
DESCRIPTION

This gauge has two filing plates and a checking plate between the filing plates, otherwise it is the same as the No. 3 gauge. The checking plate in both the No. 3 and No. 4 gauges prevents the file from coming in contact with the opposite prong of the raker tooth, so that no jar or vibration of the saw will result to cause injury to the points of the cutting teeth. These gauges are very light and handy.

PAGE FOUR

Anderson No. 5 Saw Set

PATENTED



DESCRIPTION

The No. 5 is a hammer set. It is adjustable to angle of set and to depth of set in the saw teeth. By pressing down lever, the gauge rises from the tooth point and automatically brings the plunger into contact with the saw tooth, gripping the same against the anvil face on end of stock. This prevents injuring the points of the saw teeth when the plunger is being struck with a hammer and the blow becomes as effective as when struck direct on the saw tooth.

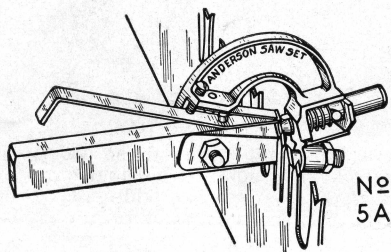
The stock and plunger are of good quality of tool steel, bracket is of high grade bronze, and all wearing parts are hardened to resist wear.

This is the most practical and efficient saw set made for setting the teeth of cross-cut saws, particularly by persons who are not highly skilled in the use of a hammer and are apt to miss when striking the teeth direct; with this saw set there is no danger of missing and breaking the teeth. If a saw tooth has been sprung while in use, it can be brought back into alignment with the other teeth by using the free end of the handle as a set block in the usual and well-known manner. Weight 2 lbs.

PAGE FIVE

NO. 5A—ANDERSON SAW SET

PATENTED

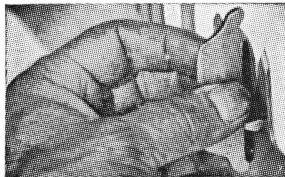


This saw set has not got the semi-circular spring for bringing plunger against the saw teeth, but is the same in all other respects as the No. 5 saw set. The screw beneath the plunger governs the angle and the amount of set to be given the saw teeth; the leaf-spring serves to hold the gauge portion of the lever in contact with the anvil bar, and is stiff enough to carry the weight of the saw set when placed on a saw tooth.

Before striking the plunger with a hammer, lift up on back end of anvil bar enough to keep saw set from slipping, then press down lever the full limit to raise gauge from the tooth point, against the tension of the leaf spring. This is important. You cannot have a saw set weighing two pounds resting on the points of the saw teeth, and be pounding on it with a hammer without injuring the points of the teeth. Therefore, the gauge must be kept away from the points of the saw teeth when a blow on the plunger is being struck.

PAGE SIX

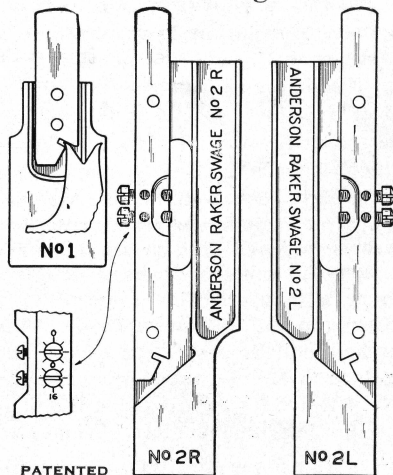
Anderson No. 6 Set Gauge



DESCRIPTION

Has a long and wide rib so as to be conveniently held in position without cramping the fingers of the filer. It has wide enough bearing points on the cross bar not to get in between the teeth of the saw. Three different sets can be gauged with this gauge.

Anderson No. 1 and No. 2 Raker Swages



PAGE SEVEN

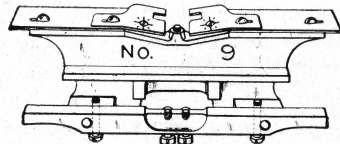
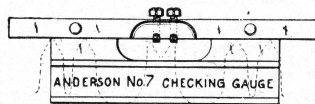
DESCRIPTION

The Anderson Raker Swages produce better results than can be had by striking the raker points direct with a hammer, even by the most highly skilled saw filer, and they are designed particularly for the average users of cross-cut saws, who may have had little or no previous experience in the saw-filing art.

The bar, or stem, in these swages is of high grade tool steel, and the guides are of aluminum. The guide on No. 1 swage has a wide rearwardly projecting rib, for convenient manipulation of the swage. The rib is not shown in the cut, but it is similar to the rib of the No. 6 Set Gauge. This guide is reversible on the stem for either right or left-hand use.

The No. 2 is a combination swage and micrometer gauge. The bar has two checking screws with set screws to hold the adjustment. A full turn of these screws causes a variation in their height of one thirty-second of an inch, of which the decimal equivalent is $3\frac{1}{4}$ one-thousandths of an inch. This is divided by markings on the bar into eight equal divisions, leaving practically .004 of an inch variation in the height of the screws for each division as the screws are being turned. A notch on head of the screws serves as a pointer. The numerals 0 and 16 stand for zero and .016 respectively. This is all shown in the little fractional cut on the side. The guides in No. 2 swages are not reversible. The No. 2-R are for right-handed filers, and No. 2-L are for left-handed filers. Weight approximately 8 ounces.

Anderson No. 7 Micrometer Checking Gauge and No. 9 Combination Jointer, Micrometer Checking Gauge, and Raker Sharpening Gauge



PATENTED

DESCRIPTION

The bars in these gauges are of mild steel and case hardened, and have the same markings, checking screws, and set screws as described in connection with the No. 2 swage. These gauges have aluminum frames. The No. 7 checking gauge should be used in combination with our No. 3 and No. 4 gauges, by saw filers who use a screw gauge to swage by. It is a real handy little gauge and weighs only $5\frac{1}{2}$ ounces.

The No. 9 gauge is a combination of the No. 7 checking gauge and No. 4 Raker Sharpening Gauge. It has a hardened tool steel pin between the filing plates, for limiting the edgewise movement of the file. The checking screws and set screws in these gauges are case hardened. Weight, scant 8 ounces.

Filing Instructions

The rakers should always be shorter than the cutting teeth, usually from .010 of an inch to about .025 of an inch, depending on the hardness and character of the timber for which the saw is to be used. The softer and smaller the timber the greater the variation. We aim to place the notched checking plate at a suitable height for hardwood, plus the graduated slant of the plate. However, the height of the plate, in respect to the cap plates, may be varied by means of paper shims, either beneath the plate itself or beneath the cap plates if necessary, and when once adjusted to suit, it hardly ever needs to be readjusted; the graduated slant of the plate usually is enough to include all the required variations between the hardest and the softest wood in any one locality.

To adjust filing plate, first file a raker point to the height or length required by using the checking plate as in the position shown in cut 2, then place the tool in the position shown in cut 3, with tooth stop against the same tooth point, and turn the adjusting screw until top surface of plate is flush with the tooth point. The adjustment of the filing plates can always be determined, merely by reversing the tool and sliding it gently upon the saw teeth until the raker point, that has been filed off even with filing plates, touches the checking plate in one

of the notches. As for example: Supposing that the checking plate is .010 inch lower than the cap plates and the raker point does not touch the plate until it reaches the fifth notch, the raker tooth would be .015 inch shorter than the cutting teeth. Bearing in mind that $.015\frac{1}{8}$ inch is equal to one sixty-fourth of an inch.

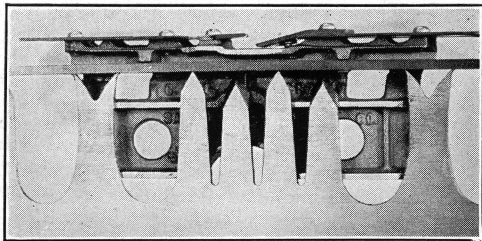
We find that some Saw Filers use our No. 3 and No. 4 gauges for sharpening the rakers and use the checking screw in their old gauges to swage by. In order to meet the requirement of such Filers, we can furnish these gauges with smooth and level checking plates, to be used in the same manner as the checking screw in other gauges.

The gauges having smooth and level checking plates are to be known as:
No. 3B and No. 4C Raker Sharpening Gauges.

The different operations should be performed in their regular order preferably as follows:

Jointing

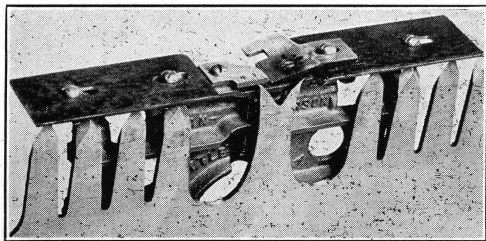
The length of the cutting teeth should be kept as uniform as possible. If after being examined they are found to be too uneven, then they should be jointed, by clamping a worn out file in the tool and drawing the file gently over the teeth in the position shown in cut 1; it can then be seen how many of the teeth have been touched by the file. Repeat the operation if necessary.



Cut 1
Swaging Rakers

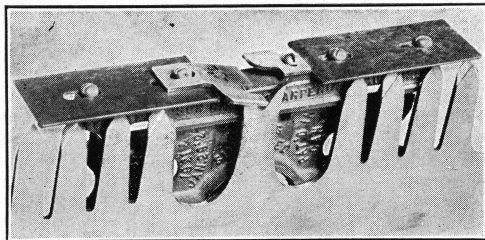
The raker points should be filed thin enough to bend freely when being struck either direct with a hammer, or by using the No. 1 or No. 2 Anderson Swages which are illustrated on page seven. A short hook at a somewhat greater angle of curvature is better than a long hook at less angle, for breaking up shavings to give the saw a better chance to clear itself. No skill in the use of a hammer is required when using the swage for providing a true curve and a square edge to the tooth points. The rakers should be left long enough to allow sharpening of their points after being swaged.

The raker swages are good tools, but they will not stand abusive use, such as keeping



Cut 2
PAGE TWELVE

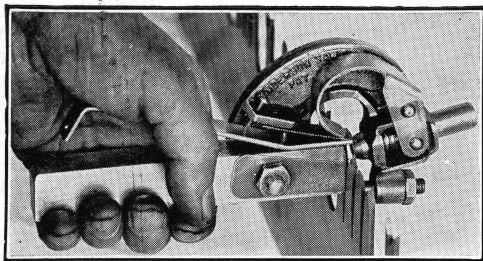
the raker points of a saw so thick that a very hard blow is required for bending their points, or by tilting the swages, which when struck, drives the raker points into the narrow opening like a wedge. When used in such manner the swages are apt to break, as they must be very hard to stand long usage. The working face of these swages has enough slant to produce a nice curve to the points of the rakers. If held approximately perpendicular and the raker points kept fairly thin there is little or no danger of breaking the swages.



Cut 3
Sharpening Rakers

After the raker points have been swaged, the gauge should be placed in the position shown in cut 3, with tooth stop at end of slot against the rakers and their points filed off even with the filing plate by running the file square across the gauge and level with top surface of filing plates. This practice insures absolute uniformity in the length of the rakers and leaves their points with a uniform clearance and a true square edge. This cannot be done accurately by the necessary free hand filing of the raker points, when using a gauge of the flat slot-plate type.

No free hand filing on the extreme points of the rakers is necessary when using the Anderson Gauges.



Cut 4

Setting the Cutting Teeth

First adjust saw set to give the required amount of set, place saw set on a tooth as shown in cut 4, see that the center of the plunger-face is opposite the sawtooth and its point in contact with lever gauge, then lift on handle simultaneously as you press down the lever to raise the gauge from the tooth point, then strike the setting plunger with a hammer. One well directed blow usually is enough to set the tooth against the bevel of the anvil face. Excessive hammering on the plunger after the tooth is against the bevel face is apt to damage the face of the plunger. Repeat the operation on every alternate tooth, first on one side of the saw, then on the other. Sometimes during the use of the saw a saw tooth may accidentally get sprung; in that case use the free end of the handle, as a set block, and the set gauge for bringing the tooth into alignment with the other teeth, by striking the tooth direct with a hammer in the usual and well-known manner.

PAGE FOURTEEN

Filing the Cutting Teeth

How to file the cutting teeth depends much on the quality of the saw. However, the teeth should not be filed too pointed nor too thin, causing points to break off when in use. In order to maintain uniformity in the length of the cutting teeth, it is important to stop filing when the points are reached or just before they get to a needle point.

It is well known that saw filers differ widely in ideas and practice, therefore no set of rules could be laid down that would not be open to criticism. Nevertheless, the foregoing filing instructions will enable those not skilled to file a cross-cut saw so that it will run smooth and easy and cut fast, thereby saving themselves much time and labor, by using the Anderson Saw Tools.

**G. ANDERSON
SAW GAUGE MFG. CO.**

1112 Rainier Avenue

Seattle, Wash.

U. S. A.

PAGE FIFTEEN

PRICE LIST

April 15, 1939

	Each
	Post Paid
No. 1 Raker Swage.....	\$1.50
No. 2R Raker Swage:	
With one micrometer checking screw....	2.50
With two micrometer checking screws....	3.00
No. 2L Raker Swage:	
With one micrometer checking screw....	2.50
With two micrometer checking screws....	3.00
No. 3 Raker Sharpening Gauge.....	1.50
No. 3B Raker Sharpening Gauge.....	1.50
No. 4 Raker Sharpening Gauge.....	1.75
No. 4C Raker Sharpening Gauge.....	1.75
No. 5 Saw Set	5.00
No. 5A Saw Set.....	4.50
No. 6 Set Gauge20
No. 7 Micrometer Checking Gauge:	
With only one checking screw.....	1.50
With two checking screws.....	2.00
No. 9 Raker Sharpening Micrometer Gauge:	
With only one checking screw.....	2.50
With two checking screws.....	3.00

Prices subject to change without notice.

NOTICE

To all points outside of Washington and Oregon, add 25 cents to prices quoted, except on No. 6 Set Gauge.

Ask your dealer; if he cannot furnish you, write and we will send to you direct.

▼▼
G. Anderson Saw Gauge Mfg. Co.

1112 Rainier Avenue

Seattle, Wash.