

SIMONDS



SAWS
KNIVES
FILES
STEEL



CATALOG 38

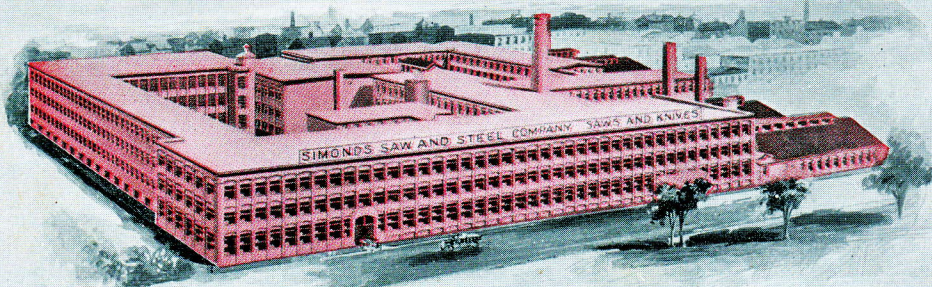


SIMONDS

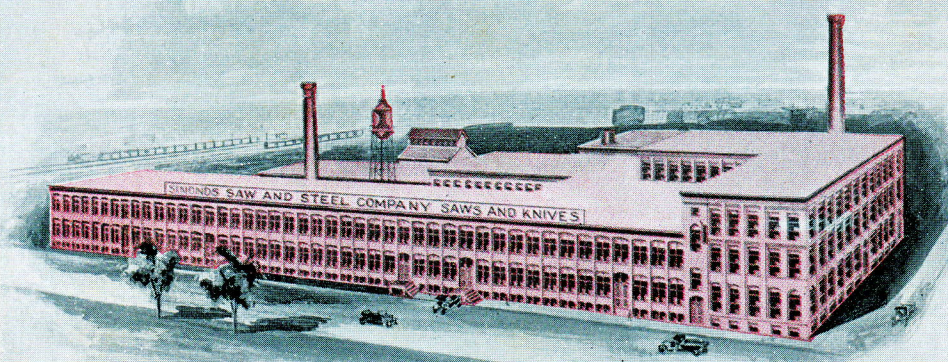
“THE SAW MAKERS”

Catalogue No. 38

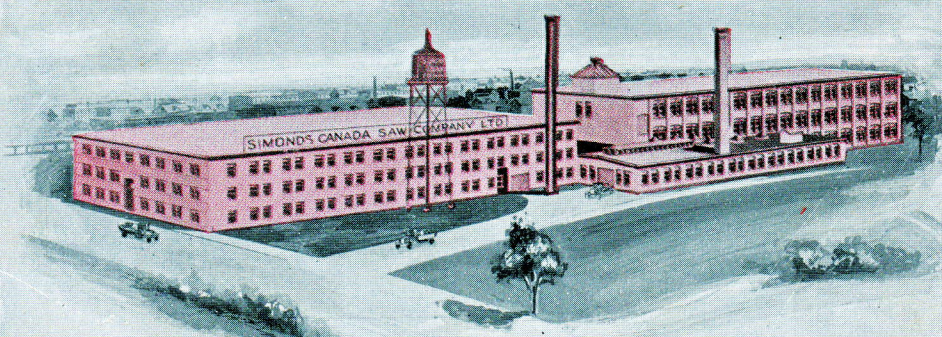
SAWS ~ KNIVES ~ FILES



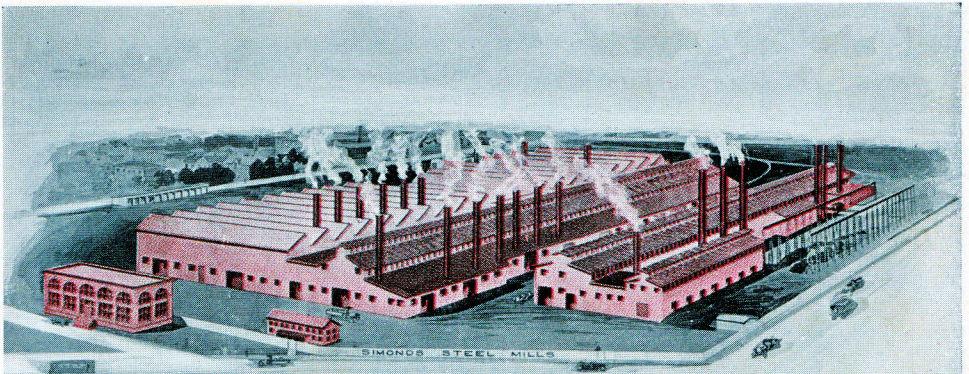
FITCHBURG, MASS.
Circular, Narrow Band Saws, Machine Knives
and Steel Specialties



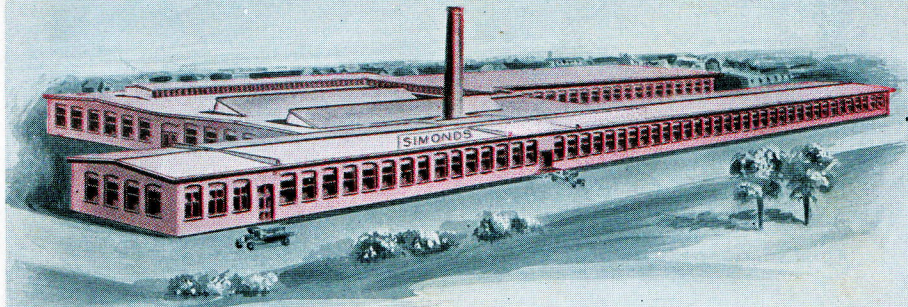
CHICAGO, ILL.
Wide Band Saws-Cross-cut Saws



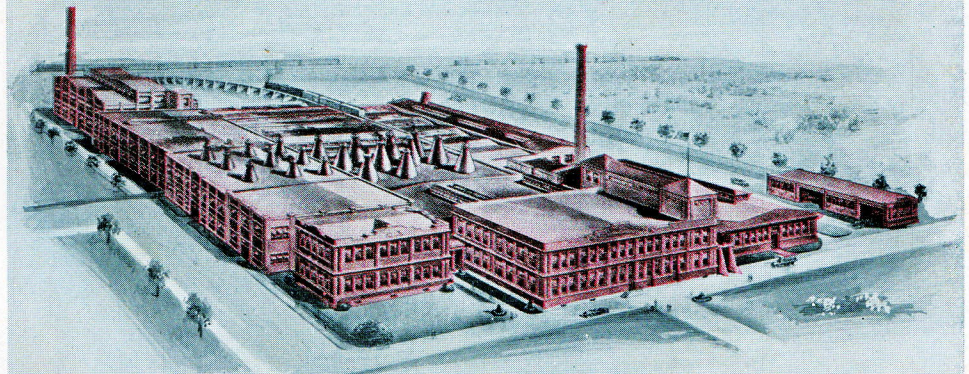
MONTREAL, QUE.
Saws and Machine Knives



LOCKPORT, N.Y.-STEEL MILL
Saw and Special Steels - Tool Holder Bits



FITCHBURG, MASS.
Files, Hack Saw Blades - Metal Cutting Band Saws



ABRASIVE CO., PHILADELPHIA, PA.
Abrasive Grinding Wheels and Grains



SIMONDS SAW AND STEEL CO.

Saws, Knives, Files and Steel

The only American Saw or Knife Manufacturer to have received the Grand Prix at any exposition ever held in Paris

Simonds Saw and Steel Company

ESTABLISHED 1832

Executive Office 470 Main St., Fitchburg, Mass.

Factories 55 North St., Fitchburg, Mass.
 1624 So. Western Ave., Chicago, Ill.
 595 St. Remi St., Montreal, Que.

File and Hack Saw Division . . . Falulah Road, Fitchburg, Mass.

Steel Mill Lockport, N. Y.

Branch Houses 1350 Columbia Road, Boston, Mass.
 127 South Green St., Chicago, Ill.
 228 First St., San Francisco, Calif.
 311 S. W. First Ave., Portland, Ore.
 224 East Third St., Los Angeles, Calif.
 1934 First Ave., South, Seattle, Wash.

Export Department 109 Lafayette St., New York, N. Y.

Simonds Saws, Ltd. The Hyde, Hendon, London, N. W. 9., England

Simonds Canada Saw Company, Ltd.
 595 St. Remi St., Montreal, Que.
 554 Beatty St., Vancouver, B. C.
 1550 Dundas St., W., Toronto, Ont.
 55 Water St., St. John, N. B.

Abrasive Company

Grinding Wheel Division Tacony and Fraley Sts., Philadelphia, Pa.

Cable Addresses: All Standard Codes Used

SIMONDS, Fitchburg SIMANCO, N. Y. City SIMANCO, Chicago



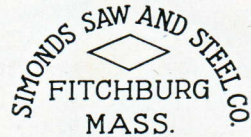
Simonds Trade Marks



Used on all Simonds Saws made in the U.S.A.



Used on all Saws made by us in Canada



Used on Simonds Knives

"RED TANG" Used on Simonds Files
Trademark registered U. S. Patent Office

"RED END" Used on Simonds Hack Saw Blades
Trademark registered U. S. Patent Office

SIMONDS

Stamped on Simonds Files and Hack Saw Blades

RED STREAK

Used on Simonds I. T. Metal Saws, High Speed
Steel Knives and Hack Saws



Sometimes used as a side etch



Warranty. Each "Simonds" Saw is warranted as true as it is possible to make it; free from flaws and seams. If found to be defective in any of these particulars, it may be returned to us, and if on examination the saw is found to be at fault, all necessary repairs will be made free of charge, or a new saw given in exchange, provided it is returned within 30 days from delivery. The gumming of Saws with punches or dies that are not in proper condition; the filing of square corners in the gullets of teeth; or the case hardening of the gullets by improper use of emery wheels, are almost certain to cause cracks in the plate. Our warranty does not cover such cases.

Our Terms are thirty days to all parties who are satisfactorily rated in Dun & Bradstreet, or who will furnish us with suitable bank or commercial references. In other cases we will follow our usual custom and send goods C. O. D.

All Quotations are made and goods invoiced at current prices, these prices being *subject to change without notice*. We reserve the right to correct stenographic errors in quotations or invoices, and we will not hold ourselves responsible for delays due to causes beyond our control.

All Orders, either by mail or through our agents, are subject to our approval, and if declined, parties will be notified immediately.

Shipping Directions. Give explicit instruction for routing each shipment, and thus avoid unnecessary delays in delivery.

Shipments are invariably made at purchaser's risk.

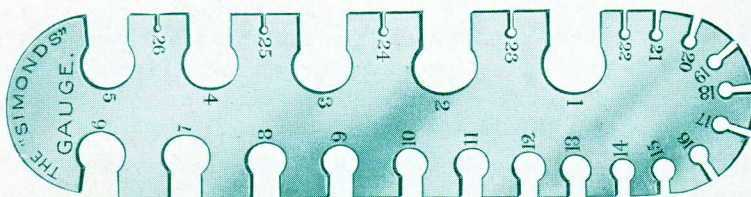
Packages by Mail. Packages may be forwarded by mail in conformity with postal regulations. In the United States, 70 pounds may be mailed to points in the first, second and third postal zones; 50 pounds may be mailed any distance.

Errors or Shortages should be reported promptly on receipt of goods.

Overdue Accounts subject to sight draft.



Saw Gauges



Our Standard Gauge

Gauge (Birmingham)	Fraction Inch	Thousandths Inch	Millimeters
	1	1.000	25.40
	$\frac{7}{8}$	.875	22.225
	$\frac{3}{4}$	.750	19.05
	$\frac{5}{8}$	.625	15.875
	$\frac{1}{2}$	.500	12.70
	$\frac{15}{32}$	.46875	11.905
0000	$\frac{29}{64}$	.454	11.53
000	$\frac{27}{64}$ Full	.425	10.79
00	$\frac{6}{8}$ Full	.380	9.65
0	$\frac{11}{32}$ Scant	.340	8.64
1	$\frac{5}{16}$ Scant	.300	7.62
2	$\frac{9}{32}$	.284	7.21
3	$\frac{1}{4}$ Full	.259	6.57
4	$\frac{15}{64}$	.238	6.04
5	$\frac{7}{32}$	.220	5.59
6	$\frac{13}{64}$	.203	5.18
7	$\frac{3}{16}$ Scant	.180	4.57
8	$\frac{5}{32}$ Full	.165	4.19
9	$\frac{5}{32}$ Scant	.148	3.76
10	$\frac{1}{8}$ Full	.134	3.40
11	$\frac{1}{8}$ Scant	.120	3.05
12	$\frac{7}{64}$	.109	2.77
13	$\frac{3}{32}$	.095	2.41
14	$\frac{5}{64}$ Full	.083	2.10
15	$\frac{5}{64}$ Scant	.072	1.82
16	$\frac{1}{16}$ Full	.065	1.65
17	$\frac{1}{16}$ Scant	.058	1.47
18	$\frac{3}{64}$	.049	1.24
19	. . .	.042	1.06
20	. . .	.035	.89
21	$\frac{1}{32}$	.032	.81
22	. . .	.028	.71
23	. . .	.025	.64
24	. . .	.022	.56
25	. . .	.020	.51
26	. . .	.018	.46
27	$\frac{1}{64}$	.016	.41
28	. . .	.014	.36
29	. . .	.013	.33
30	. . .	.012	.30





Sectional View of our Main Chemical Laboratory

Simonds Steel

The science of steel-making is the knowledge of how steel should be made to secure definite desired qualities in the finished product into which the steel is ultimately made.

Primarily, we are steel scientists.

Secondly, we are steel artisans, because we use our knowledge of steel-making to produce in our own steel mills steel that can be used most effectively in the important industries of the world in the many ways those industries demand.

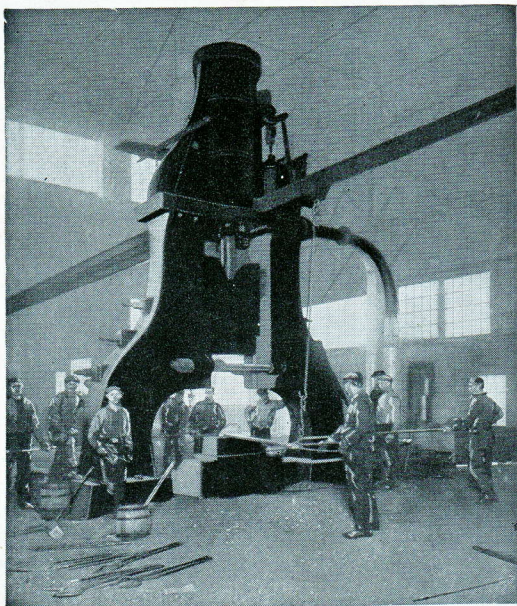
We have made fine tool steels for thirty-two years. We were really compelled to go into the steel business for the reason that we

were unable to buy from the sources outside of our own company steels of a uniformity and a quality which we felt were necessary to maintain the high standard set for Simonds tempered steel cutting edges—Saws, Machine Knives, and Files.

We originally made nothing but crucible steel and did not change over to any electric furnace steels until we had made a thorough study of the electric furnace and its possibilities. In fact we were one of the pioneers in the development of electric furnace steel making.

Our melting process builds into our steels the utmost in quality.





Steam Cogging Hammer

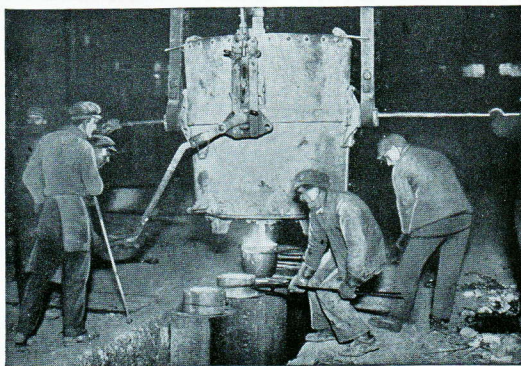
Every step from the melting to the finished bar or plate is in the making of steel a matter of specialized knowledge, and the proper operation of elaborate equipment. For the user of Saws or Machine Knives it is sufficient to know that in Simonds Steel Mill there is that specialized knowledge in the form of a force of steel makers, workers and supervisors, whose experience and proven ability well qualifies them to produce steel especially suited for Saws and Knives that will hold a cutting edge. To this statement let us add that Simonds Steel Mill equipment, the machines used in steel making, is for the one purpose, the most modern

and complete equipment that exists today in any mill anywhere.

No clear idea of the magnitude of this equipment or its operation can be conveyed strongly enough to the Saw or Knife user excepting by a personal visit to the Simonds Mill at Lockport, New York. We therefore cordially invite and strongly urge millmen to visit this mill located only twenty-five miles from Buffalo, and see for themselves how Simonds Steel is made.

In addition to making steels for our own finished products, we make certain

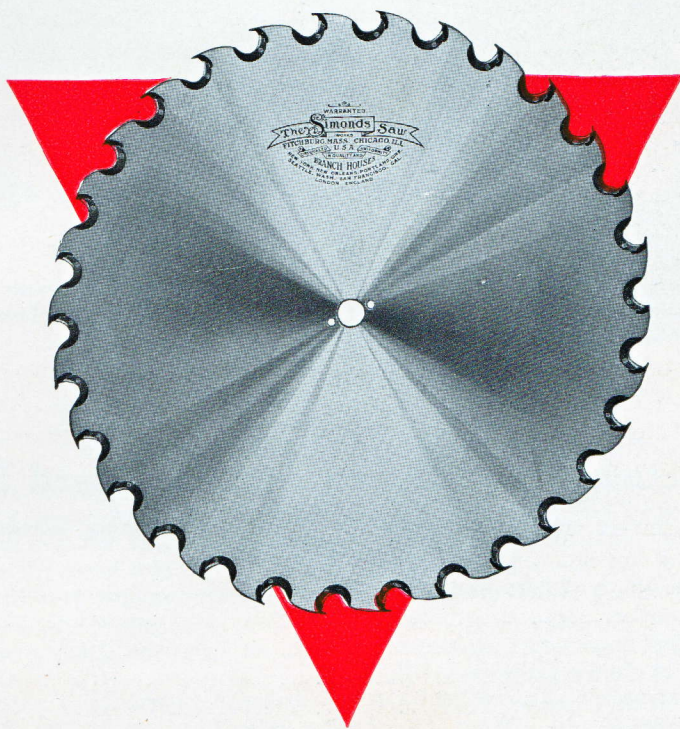
Tool Steels, including High Speed Steel, also other special steels for special purposes such as Bullet Proof Sheets, Thermostatic Nickel and Permanent Magnet Steels. We also make a large amount of special steel to customers' specifications where quality and uniformity are demanded in the finished product made from it.



Pouring Electric Furnace Steel from one of the 6-ton ladles

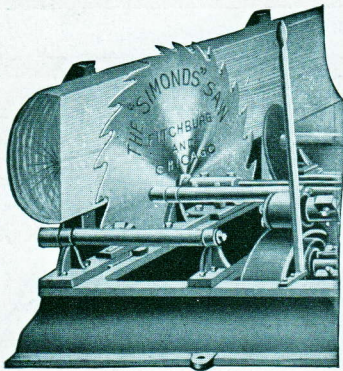
SIMONDS

SAWS

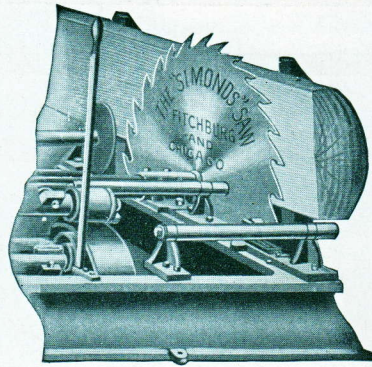


Inserted Point Rip Saws
Inserted Tooth Cut-off Saws
Blue Tip Saw Bits

Right and Left Hand Circular Board Saws



**LEFT HAND
SAW**



**RIGHT HAND
SAW**

N. B.—Standing in front of a circular saw (with the saw revolving towards you), if the log passes to the right of the saw it is a **RIGHT HAND Saw**; if to the left, a **LEFT HAND Saw**, as shown above.

Instructions for Ordering Simonds Board Saws

The following information should be given when ordering Circular Head Saws:—

- Number and Style of Saws wanted
- Diameter, inches
- Right or Left Hand
- Thickness of Center, gauge
- Thickness at Rim, gauge
- Number of Teeth, (If possible, give some latitude as to number)
- Size of Mandrel Hole
- Size of Pin Holes
- Distance apart Pin Holes, center to center
- Number of Revolutions per minute
- Greatest Feed each Revolution
- Kind of Timber to be sawed

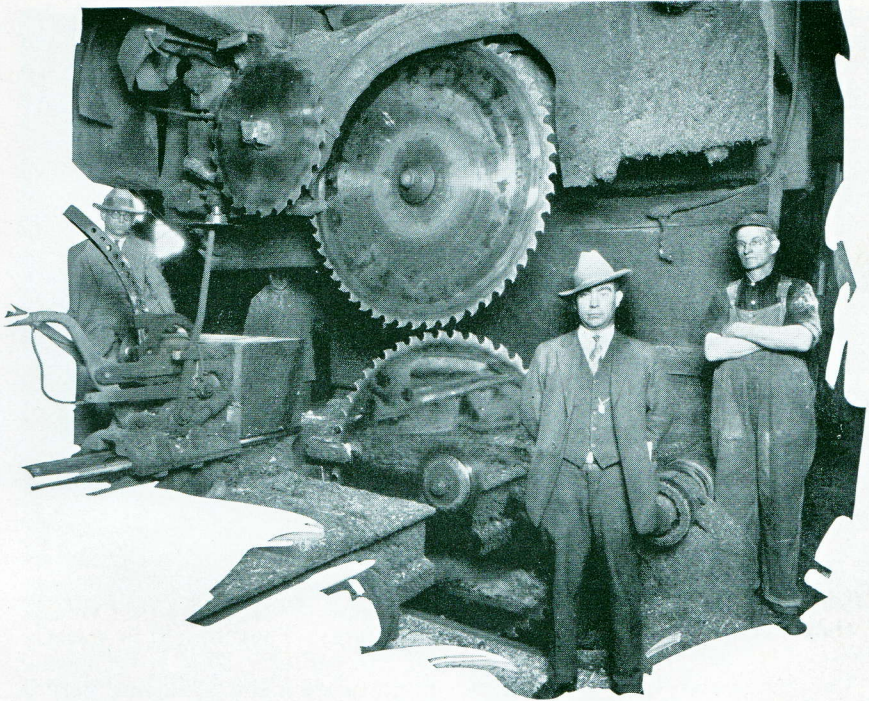
If convenient, send impression of holes taken on a piece of clean white letter paper by pressing against edge of holes.

If Inserted Point Saws are wanted, state style of tooth whether B, D, F, or plain style, 2½, 3, 3½, or 4.

Blanks will be furnished for ordering Saws, upon application.

Do not tear out this page





Simonds Inserted Point Saw

The Simonds Saw is capable of standing heavy feed.

It will run for years. It always remains the same size.

New Points can easily be inserted at any time by any one, and the result is a sharp saw just as good as new.

To have an Inserted Point Saw do good cutting for many years get a Simonds, because the slots or grooves in the teeth and the "V" on the plate are *machine-milled*, making a perfect-fitting joint.

Points are tempered much harder than saw plates. Points not machine-milled are very liable to cut the plate, and soon they will not fit properly. Therefore, to insure the life of your saw see that it is a Simonds and that only genuine Simonds machine-milled

points and shanks are used on it.

The shank is the holder which locks the point in place on the saw plate and is made on a different circle from that of the Point—a decided advantage.

Simonds Saws have good open gullets, allowing plenty of room for sawdust, and the teeth are scientifically made, to allow greatest clearance.

The Point in the Simonds Saw is set so that the body of the plate is back of it, a method far superior to the small shoulder which holds the Point in other makes of changeable-tooth saws.

The Simonds Point can, when necessary, be swaged lightly in the plate or it can be touched up with a file.

Because of its many individual advantages, you will find the

Simonds Saw easily the best wearing and most satisfactory Inserted Point Saw to be had anywhere.

Saws are hammered to suit the speed maintained in customer's mill and made for either right-hand or left-hand mill.

When buying a new mill, specify that a Simonds Saw be furnished with it, or get the mill without a saw and buy your saw direct from our factory.

The inserted tooth saw is most economical for either winter or summer sawing. It always remains the same diameter. It saws well for years. It will stand heavy feed.

The plate must be of good saw steel, capable of holding the tension.

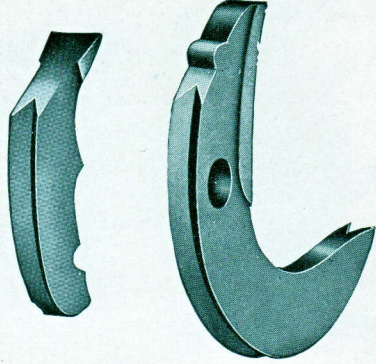
The "V"s into which the points and shanks are inserted are accurately machine milled. They must have good wearing quality for if they become worn or distorted the saw is ruined.

The particular size or style of tooth that will operate to best advantage in a mill is determined by the work to be done. We can assist in selecting the proper tooth if we know the kind of a mill, the wood to be cut, the power available, the speed and the size of the saw desired.

Simonds offers a choice of five different styles or sizes of teeth for inserted point rip saws—B, F, D, 2½ and 3.

Inserting New Points. Before inserting new points the grooves in the plate and shanks should be wiped perfectly clean and well oiled, so that the points will draw easily into the plate. When inserting a point, pick it up with the left hand. After dipping the grooved part in oil, place it in position, holding it even with the sides of the shank. Great care must be taken to have the point

seat clean and free from particles of fine dust or gum which may have collected there in the use of the saw, as this is often the cause of saws being out of round.



Fitting Inserted Points. After inserting a set of points, the shanks should be carefully examined to see that none project on either side of the plate. They should be exactly on the center. This is of special importance when a narrow kerf is desired, for if the shank is allowed to project a little on one side when the kerf is narrow it would be likely to rub against the side of the cut and cause trouble.

Side-dressing Inserted Points. It is almost impossible to make points that are adapted to all kinds of work, but with a little side-dressing our points can be adapted to any kind of work required of an inserted tooth saw.

Hard Wood. In sawing hard wood the points of the teeth should be a trifle narrower than for soft or fibrous timber, yet the extreme point should be quite a little wider than the body of the tooth.

Frozen Timber. In sawing frozen timber great care must be taken to have the extreme point the widest and the corners should be sharp so that the saw will not dodge out in the first cut.



Sapling Pine. Special attention is called to fitting inserted points for sapling pine. It is well known that there is a great deal of trouble in sawing this kind of timber. The inner bark sometimes comes off in long strings instead of sawdust and is drawn in between the saw and the log, causing the saw to run hard and make bad lumber. This can be avoided by side-dressing the points, as shown in cut "C" instead of the filing as in cut "B."



Cut C



Cut B

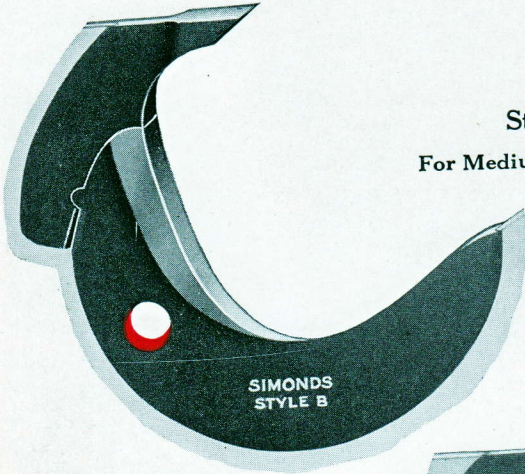
The advantage in this style of side-dressing is that the corners being sharp where they come in contact with the side of the cut, the stringy or fibrous bark is cut into small pieces instead of being pulled out in long strings as referred to above.

The following information should be given on an order for a new saw: size or diameter, gauge at eye, gauge at rim, size of mandrel hole, number and size of pin holes, distance of pin holes from center to center (or send a template of holes made by rubbing a piece of paper held tightly on the loose collar or flange), number of teeth, style of teeth, hand of saw, number of revolutions in cut and out of cut, feed at each revolution, kind of lumber sawed, daily capacity, horsepower available, and say whether the mandrel runs cold, warm, or hot. State when the saw is wanted, and whether it should be shipped freight or express.

If you are in doubt about any of the above specifications, write us, giving full particulars regarding your mill, and we will gladly recommend the proper size saw, etc., which our many years' saw-making experience has found advisable for use on a mill like yours. Write for discounts from list prices.



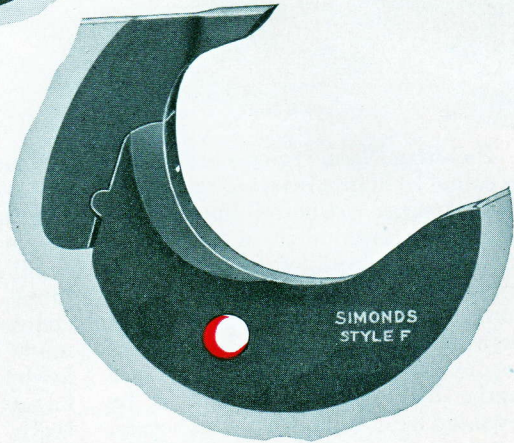
Simonds Inserted Point Saws



Style B

For Medium Tooth Saws

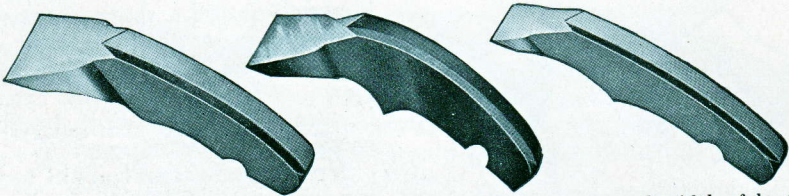
Illustrations
are full size



Style F

For Fine Tooth Saws

Simonds Blue Tip Saw Bits



The following is a list of Bits carried in stock showing gauge and width of kerf or cutting edge. When ordering always specify *kerf* and *gauge*.

11 gauge	$\frac{7}{32}$ inch kerf	9 gauge	$\frac{1}{4}$ inch kerf	7 gauge	$\frac{11}{32}$ inch kerf
10 "	$\frac{1}{4}$ " "	8 "	$\frac{11}{32}$ " "	7 "	$\frac{5}{16}$ " "
9 "	$\frac{9}{32}$ " "	8 "	$\frac{1}{16}$ " "	6 "	$\frac{13}{32}$ " "
9 "	$\frac{17}{64}$ " "	8 "	$\frac{9}{32}$ " "	6 "	$\frac{33}{8}$ " "
		7 "	$\frac{3}{8}$ " "		

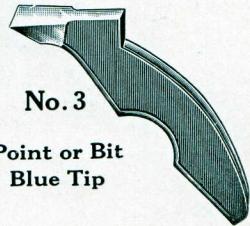
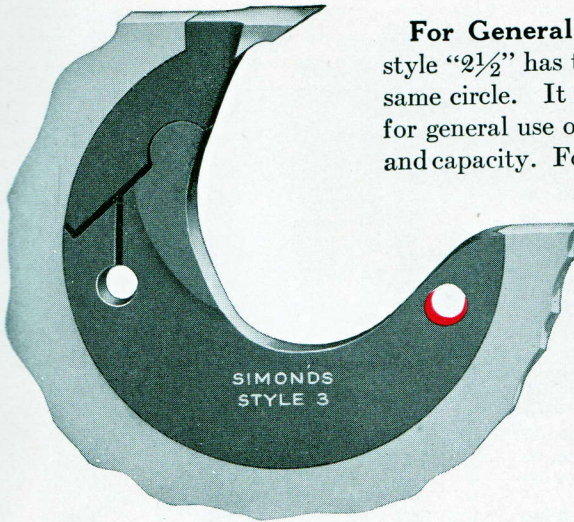
Packed 100, 250, or 500 to a box.



Simonds Inserted Point Saws

No. 3

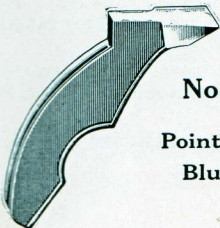
For General Use. This tooth, like style "2½" has the bit and shank on the same circle. It is a good all-around style for general use on mills of average power and capacity. For use in either hard wood or soft wood.



For prices of Simonds Saws fitted with these teeth,
see lists on another page

No. 2½

For Fine Tooth Saws. This tooth has the bit and shank on the same circle in the plate. It has plenty of throat room to handle sawdust and when operated with plenty of power is a fast, smooth-cutting saw.



Simonds Inserted Point Saws

Styles B, F, D, 2½ and 3

Diameter Inches	Base Gauge	Price 2½	Price B, F, D, 3,	Extra for each Gauge Heavier	Price for Beveling New Saws per Gauge
12	11	\$32.00	\$32.00	\$0.30	\$0.55
14	10	37.00	37.00	.40	.65
16	10	43.00	39.00	.50	.75
18	10	49.00	44.00	.60	.90
20	9	55.00	50.00	.75	1.05
22	9	61.00	56.00	.90	1.20
24	9	68.00	62.00	1.05	1.35
26	9	75.00	68.00	1.25	1.55
28	9	82.00	74.00	1.50	1.75
30	9	90.00	80.00	1.75	1.95
32	8	100.00	88.00	2.00	2.15
34	8	110.00	97.00	2.25	2.35
36	8	120.00	106.00	2.60	2.55
38	8	130.00	115.00	3.00	2.75
40	8	140.00	125.00	3.40	2.95
42	8	150.00	137.00	3.80	3.25
44	8	165.00	150.00	4.40	3.55
46	8	180.00	165.00	5.15	3.85
48	8	200.00	180.00	5.90	4.15
50	8	220.00	200.00	6.65	4.45
52	7	245.00	220.00	7.40	4.80
54	7	275.00	250.00	8.80	5.15
56	7	310.00	280.00	10.25	5.50
58	7	340.00	310.00	11.75	5.95
60	7	375.00	340.00	13.25	6.40
62	6	420.00	380.00	14.75	6.85
64	6	470.00	425.00	17.60	7.35
66	6	520.00	470.00	22.00	7.85
68	6	575.00	520.00	26.40	8.45
70	6	630.00	570.00	30.80	9.05
72	6	685.00	620.00	35.20	9.65

One extra set points and two extra shanks given with each saw.

One wrench given with each saw or set of saws.

No extra charge will be made for saws one gauge thicker on the rim than list. No extra charge for saws one to three gauges thinner than list. When more than three gauges thinner, add 5 per cent 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.

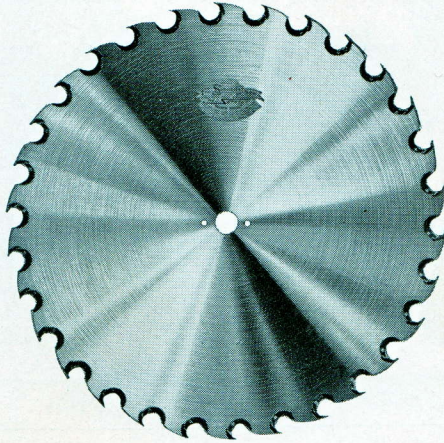
Saws 42 inches or less in diameter, beveled one gauge without extra charge; 44 inches or larger, beveled two gauges without extra charge.

For price extra points and shanks see discount sheet.

Write for Discounts



Simonds *RED STREAK* Inserted Point Saws



For Small and Portable Mills

The Simonds Red Streak Inserted Point Saws are made only with Style F and No. 2½ Teeth in the sizes listed below.

The Red Streak Saw cuts smooth straight lumber, stands up under hardest cutting conditions. Saves power—saves costs—saves trouble.

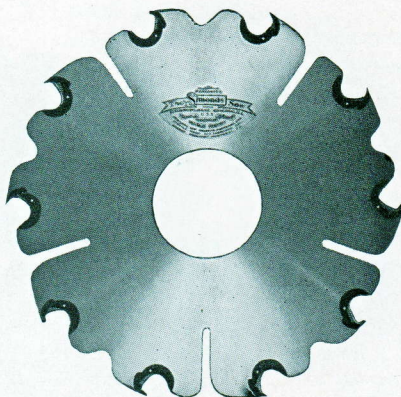
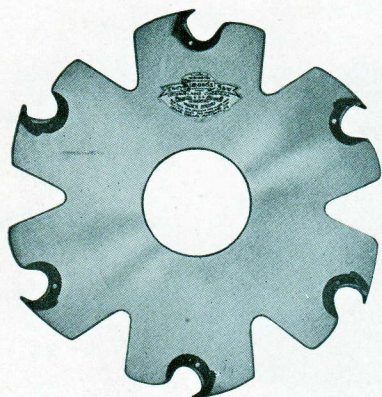
They are equipped with Simonds Blue Tip Bits that make any saw cut better.

Diameter	Standard Gauge	No. Teeth F	List Prices F	No. Teeth 2½	List Prices 2½
44	9-10	42	\$150.00	44	\$165.00
46	9-10	44	165.00	46	180.00
48	7-8	46	180.00	48	200.00
48	8-9	46	180.00	48	200.00
* 50	7-8	48	200.00	50	220.00
50	8-9	48	200.00	50	220.00
52	7-8	50	220.00	52	245.00
52	8-9	50	220.00	52	245.00
54	7-8	52	250.00	54	275.00
54	8-9	52	250.00	60	275.00
56	7-8	54	280.00	60	310.00
56	8-9	54	280.00	60	310.00
60	7-8	58	340.00	64	375.00
60	8-9	58	340.00	66	375.00

Write for Discounts



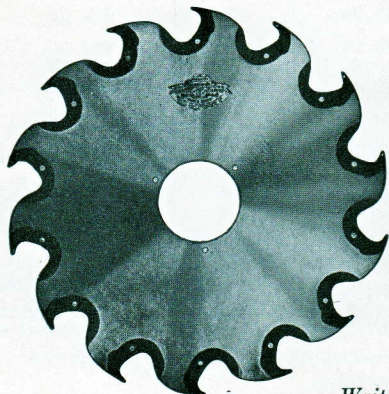
Simonds Rift Saws



Diameter	Base Gauge	4 Teeth	6 Teeth	10 Teeth
14 inch	8	\$22.00	\$27.00	....
16 "	8	25.00	30.00	....
18 "	8	28.00	33.00	....
20 "	8	31.00	36.00	\$44.00
22 "	8	34.00	39.00	47.00
24 "	8	38.00	43.00	51.00
26 "	8	43.00	48.00	56.00
28 "	8	48.00	53.00	61.00
30 "	8	53.00	58.00	66.00

One extra set of points and two shanks furnished with each saw. One wrench furnished with each saw or set of saws.

The standard is 8 gauge but can be supplied in either 9 or 10 gauge. No extra charge will be made for saws one gauge thicker than listed. If more than one gauge thicker add extra for gauges as per Regular Inserted Point Saw list.

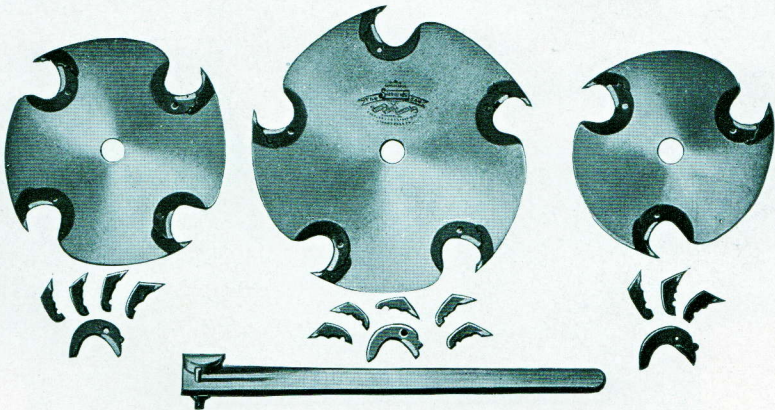


Simonds Inserted Point Edger Saws

For prices use regular
Inserted Point Saw list

Write for Discounts

Simonds Inserted Point Grooving Saws



Price List of Simonds Inserted Point Grooving Saws

Used for cutting dados, and answering the same purpose as a solid tooth grooving saw. The diameter of the saw always remaining the same permits cutting different grooves by simply changing width of bits as per list at the bottom of this page.

Diameter Inches	Base Gauge	Teeth	List Prices
6	7	4	\$13.00
7	7	5	16.00
8	7	6	19.00
9	7	6	21.00
10	7	8	25.00
12	7	10	29.00
14	7	10	33.00
16	7	12	38.00
18	7	14	43.00

Above list covers saws fitted with bits to cut $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{7}{16}$ in., $\frac{1}{2}$ in., $\frac{9}{16}$ in., $\frac{5}{8}$ in., $\frac{11}{16}$ in., or $\frac{3}{4}$ in.

No extras furnished.

When made with a lesser number of teeth than shown above deduct \$1.00 per tooth from list for each tooth less.

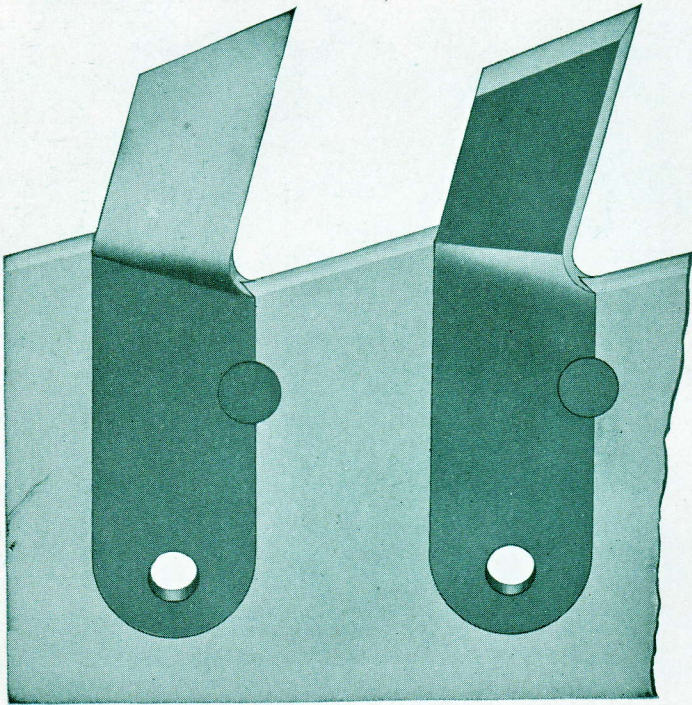
Regular Bits

Extra bits to cut $\frac{1}{4}$ — $\frac{5}{16}$ — $\frac{3}{8}$ in.	\$ 7.50 per hundred
" " " " $\frac{7}{16}$ or $\frac{1}{2}$ in.	15.00 " "
" " " " $\frac{9}{16}$ or $\frac{5}{8}$ in.	17.50 " "
" " " " $\frac{11}{16}$ or $\frac{3}{4}$ in.	20.00 " "

Write for Discounts



Simonds Inserted Tooth Cut-off Saws

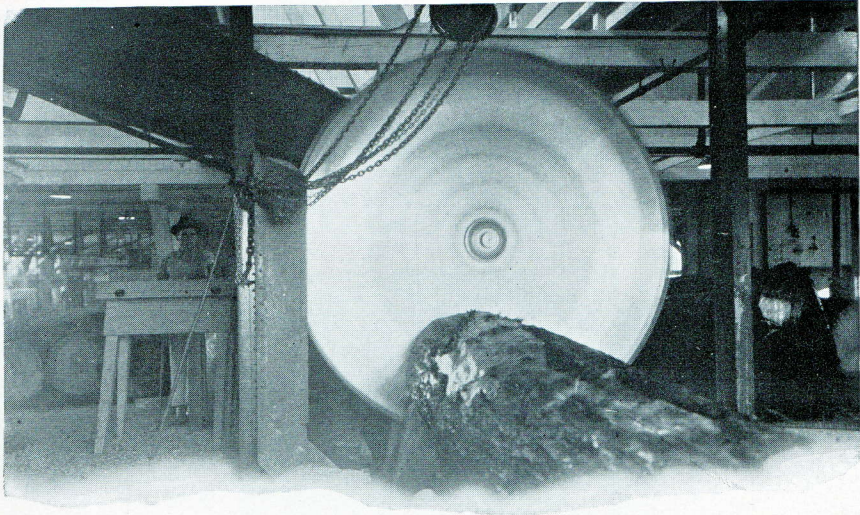


Style No. 4

The teeth of the Simonds Style 4 Inserted Tooth Cut-off Saws are held firmly in place by rivets. Many mills are familiar with this method of holding teeth in the plate and have found that there is very little tendency for the teeth to loosen.

Because of the manner in which they are offset, the teeth may be worn out without resetting. They are provided with ample clearance from the point both downward and backward, the cutting point only coming in contact with the wood.

The forward hook angle of the teeth can be changed by filing a very slight amount from the point of the tooth at the desired angle. The "V" in the Simonds plate and the grooves in the teeth are machine milled, making mechanically perfect, close fitting joints. Full instructions for inserting and removing teeth are sent with each saw or box of teeth.



**Simonds Inserted Tooth Cut-off Saws
Price List**

Diameter Inches	Base Gauge	Standard No. Teeth	Price Each	Diameter Inches	Base Gauge	Standard No. Teeth	Price Each
20	8	32	\$70.00	72	5	118	\$610.00
22	8	36	74.00	74	5	120	675.00
24	8	40	79.00	76	5	124	765.00
26	8	44	84.00	78	5	128	890.00
28	8	46	89.00	80	5	130	1,030.00
30	8	52	94.00	82	5	136	1,170.00
32	8	54	100.00	84	5	140	1,310.00
34	8	54	105.00	86	4	144	1,470.00
36	8	56	110.00	88	4	146	1,650.00
38	8	58	118.00	90	4	150	1,840.00
40	8	60	127.00	92	4	154	2,040.00
42	8	66	139.00	94	4	156	2,280.00
44	8	68	153.00	96	4	158	2,550.00
46	8	72	167.00	98	3	158	2,790.00
48	8	76	182.00	100	3	160	3,070.00
50	7	78	204.00	102	3	160	3,350.00
52	7	80	232.00	104	3	162	3,640.00
54	7	84	262.00	106	3	164	3,940.00
56	7	90	290.00	108	3	164	4,250.00
58	7	94	320.00	110	3	166	4,600.00
60	6	96	350.00	112	2 and 3	168	4,960.00
62	6	100	390.00	114	2 and 3	170	5,320.00
64	6	104	430.00	116	2 and 3	170	5,680.00
66	6	108	475.00	118	2 and 3	172	6,040.00
68	5	110	520.00	120	2 and 3	172	6,428.00
70	5	114	565.00				

Saws of odd diameter take price of next larger size.

No extra teeth included in the above prices.

For each tooth inserted in excess of standard, add to list price \$1.65.

No extra charge for saws one gauge thicker than list. If more than one gauge thicker an extra charge will be made for each additional gauge the same as on Solid Tooth Circular Saws.

This type of saw is intended for cutting heavy stock, and is not recommended in small diameters and thin gauges.

For price extra teeth see discount sheet.

Write for Discounts



Repairing Circular Saws

Diameter Inches	Hammering	Gumming and Hammering	Retooling and Hammering	Grinding		Setting and Sharpening
				First Gauge	Each Addi- tional Gauge	
6	\$0.45	\$0.55	\$0.75	\$0.65	\$0.35	\$0.75
8	.55	.75	1.00	.85	.55	.85
10	.75	1.00	1.30	1.05	.75	1.05
12	.90	1.35	1.60	1.15	.85	1.20
14	1.05	1.60	1.90	1.35	1.00	1.35
16	1.20	1.80	2.20	1.60	1.15	1.50
18	1.45	2.10	2.55	1.95	1.30	1.70
20	1.65	2.50	2.95	2.20	1.45	1.85
22	1.90	2.85	3.30	2.40	1.60	2.10
24	2.10	3.25	3.70	2.70	1.75	2.30
26	2.40	3.70	4.20	3.00	1.90	2.55
28	2.70	4.15	4.75	3.40	2.05	2.80
30	3.00	4.60	5.35	3.75	2.20	3.10
32	3.30	5.05	6.00	4.15	2.35	3.45
34	3.70	5.55	6.90	4.50	2.55	3.75
36	4.30	6.15	7.80	4.90	2.80	4.05
38	4.80	7.00	9.00	5.25	3.00	4.40
40	5.55	8.05	10.20	5.65	3.30	4.70
42	6.30	9.15	11.55	6.00	3.60	5.00
44	7.05	10.35	13.05	6.45	4.05	5.35
46	7.95	11.80	14.70	7.00	4.50	5.75
48	8.85	13.20	16.50	7.60	4.95	6.05
50	9.75	14.65	18.40	8.25	5.40	6.55
52	10.65	16.05	20.25	9.00	5.95	7.00
54	11.55	17.55	22.15	9.90	6.30	7.50
56	12.45	19.05	24.00	10.90	6.75	8.00
58	13.50	20.70	25.90	12.00	7.20	8.45
60	14.70	22.50	27.75	13.20	7.75	8.95
62	15.90	24.30	30.40	14.40	8.25	9.60
64	17.10	26.10	33.00	15.60	8.85	10.05
66	18.30	27.90	35.65	16.80	9.45	10.55
68	19.50	29.70	38.25	18.00	10.15	11.00
70	20.50	31.50	40.90	19.50	11.05	11.50
72	21.90	33.30	43.50	21.00	12.00	12.00
74	23.10	35.10	46.15	22.50	13.15	12.45

Saws smaller than 6 inches take 6 inch price.

Saws of odd diameter, take the price of next larger size.

When saw is ground, add price of hammering to price of grinding. Gumming and retooling prices cover sizes of saws after repairing. All breakages at risk of owner.

Burned Saws. We repair burned saws at two-thirds price of new ones, which includes retempering, grinding, hammering, polishing, etc.

Changing Solid Saws to Inserted Point Saws. For changing Solid Saws into Inserted Point Saws, \$2.00 per tooth plus one-half the list price of Solid Tooth Saws of same size, this price being based on size the saw will cut to, and subject to same discount as Inserted Point Saws. Same extras furnished as with a new saw.

Changing Solid Saws into Inserted Tooth Cut-off Saws, charge is \$1.65 per tooth plus one-half the list price of a Solid Tooth Saw of same size. The price is based on the size the saw will finish after cutting down, and is subject to the same discount as Inserted Tooth Cut-off Saws.

Repairing Burned Inserted Point Saws, two-thirds the price of a new Solid Tooth Saw of the same diameter, plus 30 cents per tooth. Add for any points and shanks inserted at regular prices. No extras furnished.

Shingle and other thin bevel saws generally will not permit being retempered.

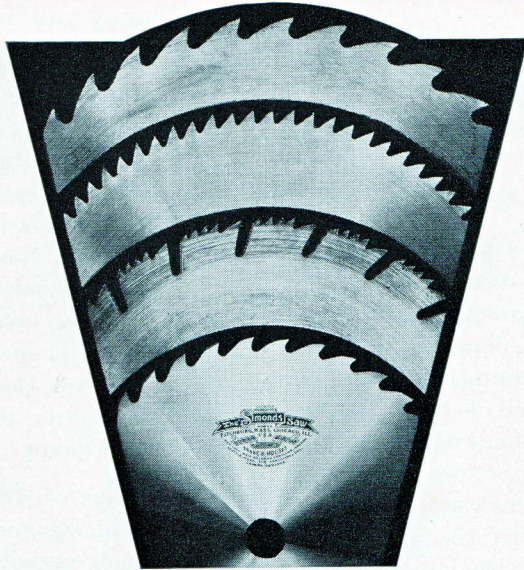
All repairs are at risk of owner, but no charge will be made in case of failure.

Owner's name should appear on each package or board to insure identification at factory.



SIMONDS

SAWS and MACHINE KNIVES
for **MILL and SHOP**



SOLID CIRCULAR SAWS
NARROW BAND SAWS
WOODWORKING KNIVES
ABRASIVE WHEELS



Simonds Circular Saws

Flattened Without Hammering

Such sudden and strenuous changes occur when a circular saw plate is hardened by being plunged when red hot into a cold oil solution that twists and strains in the plate are the inevitable result. These twists must be removed if the plate is to be flat.

Tempered Under Pressure

Tempering reduces the degree of hardness but does not alter the shape of the plate, at least when done in the ordinary way, which necessitates hammering the plate all over to get it approximately flat. The Simonds method of tempering under pressure flattens the plate at the same time, thus saving the abuse given the metal when flattened under the hammer. The less a saw plate is hammered, the better the finished saw.

Much of the unusual success of Simonds Circular Saws over other brands when operated under the most strenuous mill conditions is due to our scientific method of tempering and flattening under pressure, both operations being done at one and the same time.

This does not mean that a hammer never touches a Simonds circular plate. The teeth of the saw are punched on a large punch press, then lightly hammered to overcome

any deviation caused by punching the teeth.

Speed and Tension

Speed and tension are put in a finished circular by hammering. Filers and other millmen are thoroughly familiar with this process. A plate must be opened up, tensioned, as it is called, throughout a portion between the mandrel hole and the rim, to counterbalance the pull caused by centrifugal force when the saw is speeded up on a mill. The larger the plate and the higher the speed, the greater the required tensioning.

Our method of straightening the saw undoubtedly gives much more strength and standing up quality to a Simonds Saw than any other method ever used. We therefore make the claim that our saws will stand heavier crowding and heavier feed than any other saws on the market.

Know Your Mill

The kind of work done by a circular saw depends much on the condition of the mill. Amount of power, alignment of carriage, loose bearings, lost motions, and lead of the blade are questions to be carefully considered in relation to each individual equipment.

SIMONDS "THE SAW MAKERS"

**SIMONDS SAWS
PROPERLY HANDLED IN
PERFECTLY GOOD LOGS
MAKE PERFECTLY GOOD
LUMBER**

and that kind of lumber means profit for the manufacturer.

In order that our saws should be made of steel possessing just the de-

sired analysis, it is necessary for us to own and operate a modern and thoroughly up-to-date Steel Mill. This mill is located at Lockport, New York, equidistant from our factories at Fitchburg, Massachusetts, and Montreal, Quebec. We cordially invite all Millmen when near Lockport to call and see the manufacture of Simonds Steel.

Simonds Standards Solid Tooth Circular Saws

Diameter Inches	Gauge	Number of Teeth		Diameter Inches	Gauge	Number of Teeth	
		Rip	Cut-off			Rip	Cut-off
6	18	40	100-132	22	10		60
7	18	40	110	22	12	36	72
8	17	44		24	8	30	
8	18	44	100-120	24	10	36	72
10	13	30		24	11	36	72
10	14	30-36		26	10		72
10	15	36		28	10		72
10	16	36	100-150	30	9		72
12	12	24-30-36	100	30	10	36	72
12	13	30-36		32	10		72
12	14	24-30-36	72-100-120-150	36	8		80
12	15	36	100-150	36	9	36	72
14	10	30-36		38	8		80
14	11	30		40	6		80
14	12	24-30-36		40	7		80
14	13	24-30-36	90-132	42	6		80
14	14	30-36-44	60-80-100-150	42	7		80
14	15	36		56	6	90	
16	10	30-36		56	8 x 9	60-70	
16	12	30-36	60-80-100	60	6	90	
16	13	30-36	60-80-100-150	60	7	80-90	
16	14	30-36-40	60-80-100-150-200	60	8	70-80-90	
18	9	30		60	6 x 7	90	
18	10	30-36	80	60	7 x 8	90	
18	12	30-36	60-80-100	60	9	60	
18	13	30-36	60-80-100	62	7	80	
20	8	24		64	7 x 8	80	
20	9	30					
20	10		72				
20	12	36	60-72				
20	13	36	80				

Cut-off Saws 44" and larger made to order.



Solid Tooth Circular Saws
 Filed and Set Ready for Use

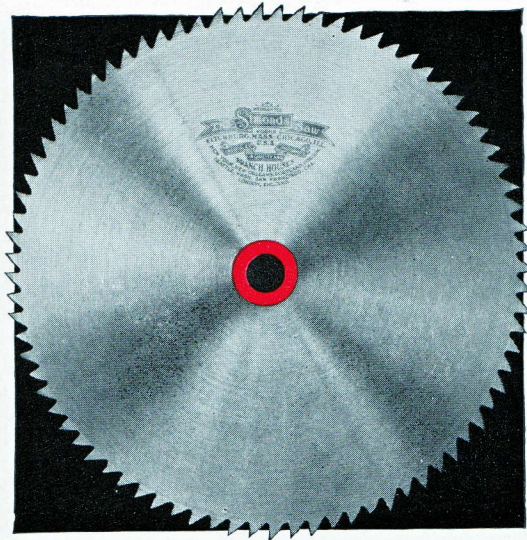


Diameter Inches	Base Gauge	Price Each	Extra for Each Gauge Heavier	Beveling New Saws Per Gauge
6	18	\$3.30	\$0.07	\$0.25
8	18	4.40	.10	.35
10	16	5.60	.20	.45
12	15	7.00	.30	.55
14	14	8.50	.40	.65
16	14	10.50	.50	.75
18	13	12.50	.60	.90
20	13	15.00	.75	1.05
22	12	17.50	.90	1.20
24	11	20.50	1.05	1.35
26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

Write for Discounts



Solid Tooth Circular Saws



Diameter Inches	Base Gauge	Price Each	Extra for Each Gauge Heavier	Beveling New Saws Per Gauge
62	6	\$250.00	\$14.75	\$6.85
64	6	280.00	17.60	7.35
66	6	310.00	22.00	7.85
68	5	350.00	26.40	8.45
70	5	400.00	30.80	9.05
72	5	450.00	35.20	9.65
74	5	510.00	39.60	10.30
76	5	575.00	44.00	11.00
78	5	690.00	49.85	11.85
80	5	810.00	55.75	12.90
82	5	940.00	63.05	14.10
84	5	1,075.00	70.40	15.40

All saws less than 6 inches in diameter take list of 6 inch saw.

All saws fitted ready for use.

All saws of odd diameters not listed 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 than list, add 5 per cent 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 gauges, 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.

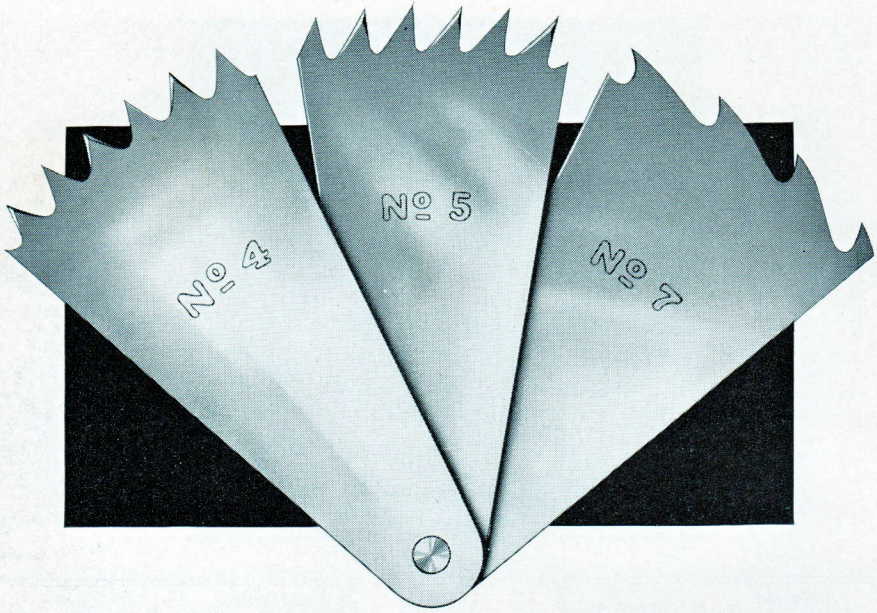
Saws hollow or concave ground, add for each gauge hollow or concave ground, double the list for beveling.

Saws for cutting bone, horn, ivory, pearl, bakelite, celluloid, fibre, formica, micarta, paper, rubber and similar materials. Prices on application.

Write for Discounts



Styles of Circular Saw Teeth



This cut shows Standard Circular Saw Teeth now in use. When ordering, refer to the tooth style number in the above illustration.

Style No. 7 is the standard tooth for Rip Saws.

Style No. 5 is the standard tooth for Cut-off Saws.

Style No. 4 is used in Cut-off Saws where the material passes underneath the saw as in slashers, etc.

The Average Speed of Circular Saws

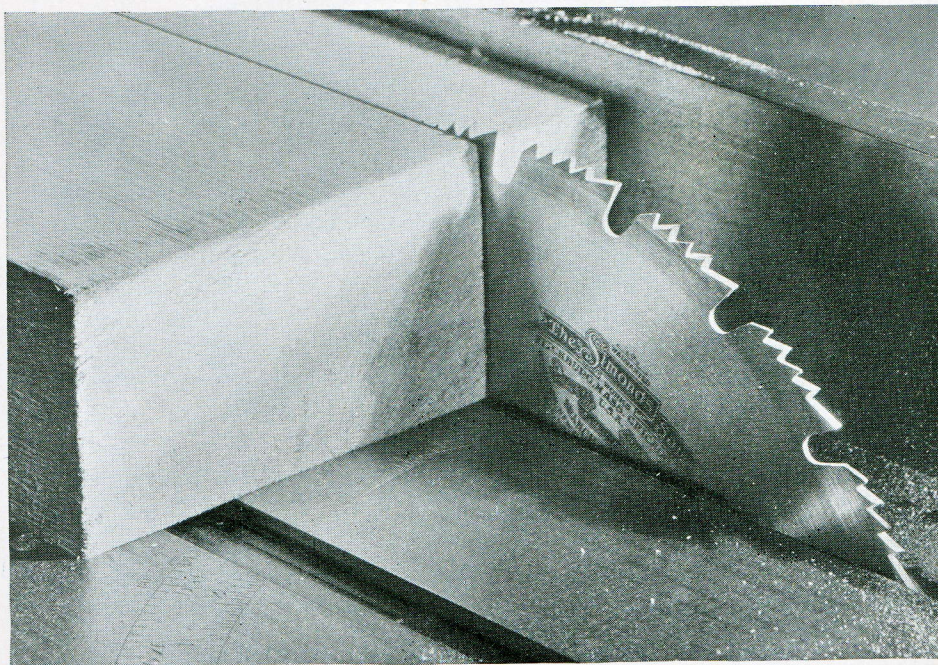
Diameter Inches	Revolutions per Minute	Diameter Inches	Revolutions per Minute	Diameter Inches	Revolutions per Minute
8	5,700	24	1,910	52	880
10	4,570	28	1,640	56	820
12	3,810	32	1,430	60	765
14	3,270	36	1,275	64	715
16	2,900	40	1,150	68	675
18	2,550	44	1,040	72	635
20	2,290	48	955		

The above table is figured on a rim speed of 12,000 feet per minute.

To determine the rim speed of a saw when revolutions per minute are given use the following rule:

$$\frac{3.14 \times \text{Diameter in inches} \times \text{R. P. M.}}{12} = \text{Rim Speed in feet.}$$

The Planer Saw



This saw will work successfully in soft or hard wood, whether ripping, cutting off, or mitering and will stand fast hand feed without rubbing or overheating.

The Simonds Planer Saw has been developed to replace the Novelty Saw and owing to our method of clearance grinding, it can be used on a far greater variety of work, at the same time giving the smooth cut formerly obtainable only in Novelty Saws.

It is made only in standard gauges and with four cutting teeth and a raker to each section.

Give it a trial.

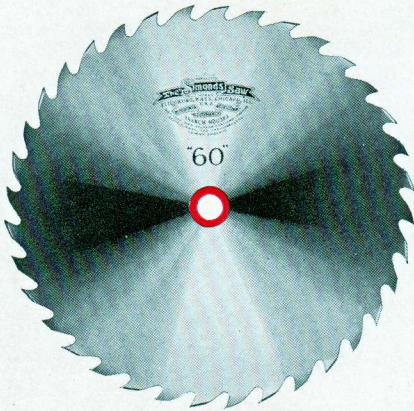
6 inch	\$4.90	16 inch	\$16.00
8 "	6.80	18 "	19.10
10 "	8.70	20 "	22.80
12 "	10.90	22 "	26.50
14 "	13.20	24 "	29.65

All sizes larger than listed add 50% to solid Tooth Circular Saw prices with no extra gauges or hollow grinding added.

Write for Discounts



Simonds Circular Saws for Portable Hand Machines



The Simonds "60" is for fast general cutting—its teeth are set and filed. The tooth design is simple and therefore easy for any man to sharpen. It's easy to keep in condition. Sharp saws always cut best. Remember that and refile your saw. Keep your saw sharp. You will find attention to this detail worth many times the slight work involved in keeping a saw with a simple tooth design sharp. You can refile it yourself.

Made especially for electric hand saws after much experimenting that gives Simonds Saw Quality, yet so designed as to be easy to file and keep in condition.

Order by number, sending a rubbing of center hole of saw and also make of machine on which it is to be used as well as diameter of saw.

Simonds "60" is made in the following sizes:

Inches	Gauge	Teeth	List Price Each	Inches	Gauge	Teeth	List Price Each
6	18	44	\$3.30	12	14	44	\$7.00
8	17	44	4.40	14	14	44	8.50
10	16	44	5.60	16	14	44	10.50

Lathe Saws For Roughing Handles

Diam. Inches	Base Gauge	Price Each	Extra for Each Additional Gauge (heavier)	Diam. Inches	Base Gauge	Price Each	Extra for Each Additional Gauge (heavier)
8	9	\$3.40	\$0.20	14	6	\$6.00	\$0.35
9	8	3.60	.20	15	5	6.60	.40
10	7	4.00	.25	16	5	7.40	.40
11	7	4.40	.30	..	..	....	....
12	6	4.80	.30	..	..	....	....
13	6	5.40	.35	..	..	....	....

All Lathe Saws less than 8 inches in diameter take list of 8 inch saw.
Above Saws are furnished black not ground.

Write for Discounts

Simonds Circular Mitre Saws



Mitre Saws are ground tapering to the collar, to run without set and provide ample clearance. They are especially adapted to smooth, clean cutting such as cabinet and cigar-box work.

List Prices

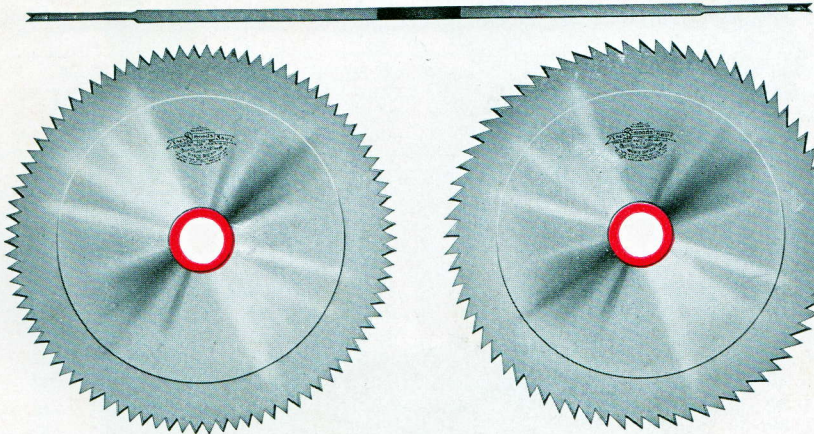
Diameter Inches	Thickness Gauges	No. of Teeth	Price Each	Extra for Each Gauge Heavier	Extra for Each Additional Gauge Concaving
6	16-19-16	150	\$4.85	\$.07	\$.50
8	15-18-15	150	6.70	.10	.70
10	14-17-14	150	8.50	.20	.90
12	13-16-13	150	10.60	.30	1.10
14	12-15-12	200	12.80	.40	1.30
16	12-15-12	200	15.50	.50	1.50
18	11-14-11	200	18.50	.60	1.80
20	11-14-11	250	22.05	.75	2.10
22	10-13-10	250	25.60	.90	2.40
24	10-13-10	250	28.60	1.05	2.70

All sizes larger than listed use Solid Tooth Circular Saw prices, plus extra gauges heavy and hollow or concave grinding.

Above list includes filing teeth so that saw is ready for use. We do not recommend Circular Mitre Saws of thinner gauge than listed.

Write for Discounts

Thin Rim Special Ground Circular Saws



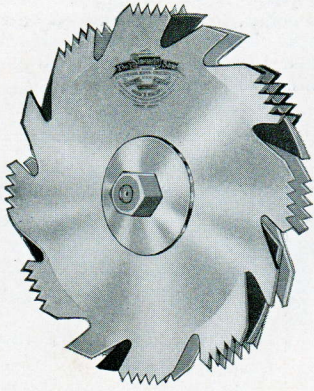
CUT-OFF TOOTH

RIP TOOTH

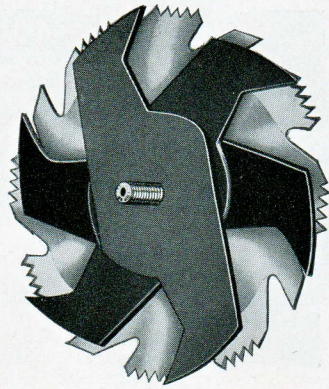
These saws, as may be seen in the sectional view, are ground very thin for a short distance back from the teeth, and the body of the saw is much thicker, to give strength and stiffness. They are made with either cut-off or rip teeth, for very fine, smooth, light cutting. These saws take the Mitre Saw Price List printed above.



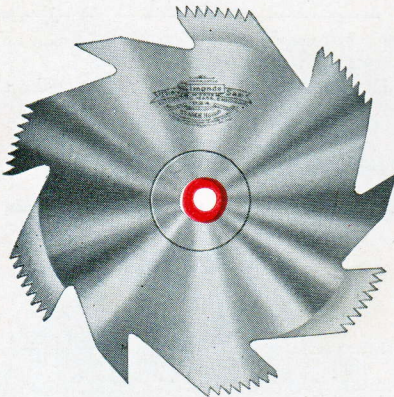
Simonds Groover or Dado Head



Assembled Dado Head



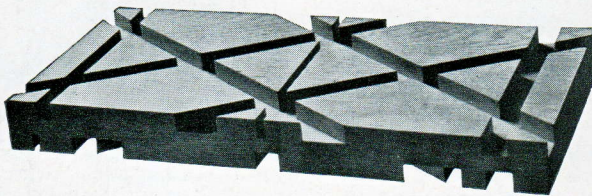
Showing Arrangement
of Dado Fillers



Outside Cutter



Filler



Grooves cut with a Simonds Dado

Simonds Groover or Dado Head

Each outside saw is a special tooth solid groover saw, $\frac{1}{8}$ inch thick. A single saw will cut grooves $\frac{1}{8}$ inch wide and two cutters will cut grooves $\frac{1}{4}$ inch wide.

By using fillers, grooves measurable by sixteenths can be obtained beyond the $\frac{1}{8}$ and $\frac{1}{4}$ inch cuts made by the outside saws.

This tool cuts a clean groove in any direction in the wood and is easily kept in order.

Fillers and rakers on the outside saws should be filed slightly below the marker or cutting points.

The Dado Heads are arranged in standard sets, as follows:

	Outside Saws	Fillers		
		1/16	1/8	1/4
No. 1 set cuts $\frac{1}{8}$ to $\frac{3}{8}$ by eighths	2		1	
No. 2 set cuts $\frac{1}{8}$ to $\frac{5}{8}$ by eighths	2		1	1
No. 3 set cuts $\frac{1}{8}$ to $\frac{3}{4}$ by sixteenths	2	1	2	1
No. 4 set cuts $\frac{1}{8}$ to 1 by sixteenths	2	1	2	2
No. 5 set cuts $\frac{1}{8}$ to $1\frac{1}{2}$ by sixteenths	2	1	2	4
No. 6 set cuts $\frac{1}{8}$ to 2 by sixteenths	2	1	2	6
No. 7 set cuts $\frac{1}{8}$ to 3 by sixteenths	2	1	2	10
No. 8 set cuts $\frac{1}{8}$ to 4 by sixteenths	2	1	2	14

Special sets made up to cut from 4 to 8 inches wide

DIAMETER, INCHES—List Price Per Set

No. of Set	6	7	8	9	10	11	12	14	16	18	20
1	\$11.50	\$13.15	\$14.85	\$16.50	\$19.00	\$21.65	\$25.15	\$29.65	\$34.50	\$37.15	\$43.85
2	13.85	15.65	17.50	19.35	22.00	24.85	28.65	34.00	39.85	43.15	50.35
3	16.60	18.65	20.85	23.00	26.00	29.15	33.35	39.35	45.65	50.00	58.35
4	18.90	21.15	23.50	25.85	29.00	32.35	36.85	43.65	51.00	56.00	65.85
5	23.60	26.15	28.85	31.50	35.00	38.65	43.85	52.35	61.65	68.00	80.85
6	28.25	31.15	34.15	37.15	41.00	45.00	50.85	61.00	72.35	80.00	95.85
7	37.60	41.15	44.85	48.50	53.00	57.65	64.85	78.35	93.65	104.00	125.85
8	46.90	51.15	55.50	59.85	65.00	70.35	78.85	95.65	115.00	126.65	155.85

FILLERS—List Price Each

Diam. In.	Thickness, Inches			Diam. In.	Thickness, Inches			Diam. In.	Thickness, Inches		
	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$		$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$		$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$
5	\$0.90	\$1.50	\$2.00	9	\$1.50	\$2.15	\$2.85	14	\$2.35	\$3.00	\$4.35
6	1.10	1.65	2.35	10	1.65	2.35	3.00	16	2.65	3.15	5.35
7	1.20	1.85	2.50	11	1.85	2.50	3.15	18	3.00	3.85	6.00
8	1.35	2.00	2.65	12	2.00	2.65	3.50	20	3.50	4.50	7.50

SPECIAL TOOTH SOLID GROOVER SAWS—List Price Each

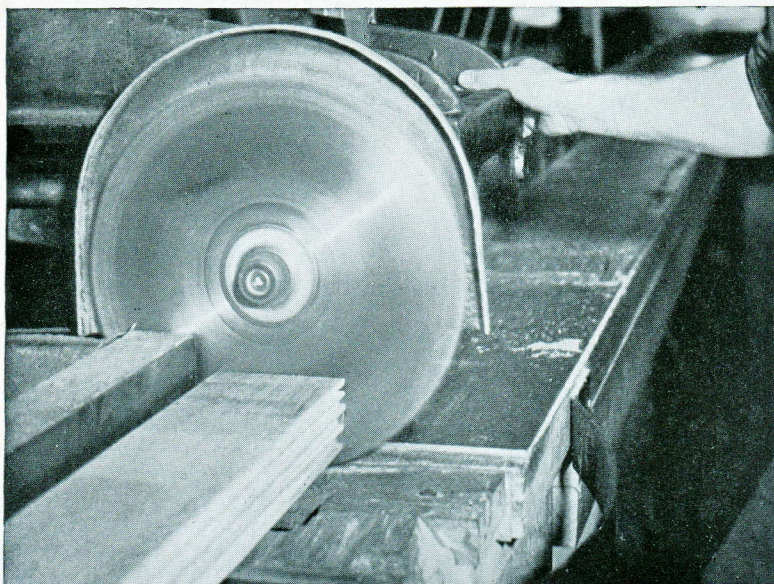
Diameter Inches	Thickness, Inches						
	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
5	\$ 4.15	\$ 5.00	\$7.10	\$ 9.15	\$11.50	\$13.15	\$14.85
6	4.90	5.85	8.35	10.85	13.15	14.85	16.50
7	5.65	6.65	9.60	12.50	14.85	16.50	18.65
8	6.40	7.90	11.25	14.50	16.50	18.15	20.85
9	7.15	9.15	12.90	16.65	18.35	20.00	23.00
10	8.35	10.40	14.60	19.15	20.85	22.90	26.00
11	9.60	12.50	16.25	21.65	23.35	25.40	29.15
12	11.25	13.75	20.00	24.15	26.85	29.15	33.35
14	13.35	15.00	25.00	26.65	31.35	33.85	39.35
16	15.70	16.65	30.00	33.35	36.15	39.15	45.65
18	17.50	19.50	35.00	38.50	42.00	45.50	50.00
20	20.00	22.00	40.00	44.00	48.00	52.50	58.00

Write for Discounts



Simonds Red Center Circular Saws

For Smooth-end Trimming



A single saw cut-off trimmer showing a bundle of clears going through

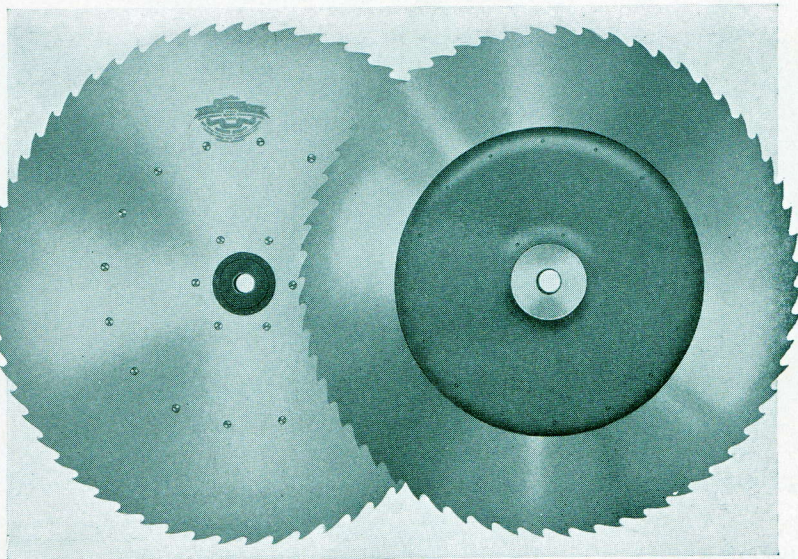
Simonds new hollow ground Smooth Trimmer Saw is especially designed to trim lumber very smoothly, producing clean, bright ends with no splinters or slivers on the bottom of the cut.

There are two important features in this new saw: Simonds method of hollow grinding which gives perfect clearance from the point of the tooth back, eliminating side friction; the razor-like teeth which have a wide front bevel combined with the proper hook to cut off the fibres without tearing or pulling, giving a smooth, clean cut.

When ordering Simonds Smooth Trimmer Saws give the following information: Diameter of Saw, Size of Center Hole and Pin Holes if any, Speed of arbor, kind of wood to be cut, green or dry stock, and the maximum thickness of stock to be trimmed.

Write for Prices

Shingle and Heading Saws



Diameter	Base Gauge	Price Each	Extra for Each Gauge Heavier	Extra for Each Gauge Beveled	Diameter	Base Gauge	Price Each	Extra for Each Gauge Heavier	Extra for Each Gauge Beveled
36 inch	9-17	\$62.00	\$2.60	\$2.55	50 inch	7-15	\$170.00	\$6.65	\$4.45
38 "	9-17	70.00	3.00	2.75	52 "	7-15	200.00	7.40	4.80
40 "	9-17	80.00	3.40	2.95	54 "	7-15	230.00	8.80	5.15
42 "	7-17	95.00	3.80	3.25	56 "	7-15	260.00	10.25	5.50
44 "	6-16	110.00	4.40	3.55	58 "	7-15	290.00	11.75	5.95
46 "	6-16	125.00	5.15	3.85	60 "	6-14	320.00	13.25	6.40
48 "	6-16	145.00	5.90	4.15	66 "	6-14	410.00	22.00	7.85

Saws of odd diameters take price of next larger size.

Add for any additional thickness or beveling.

No extra charge for saws one gauge thicker than listed.

When ordering Shingle or Heading Saws give the following specifications: diameter of saw in inches, thickness or gauge at center and at rim, number of teeth, right or left hand, speed of saw, name of maker of machine and size of flange.

If new flange is required, send full size template of old flange, showing size and location of all holes.

If saw only is required, send the old flange to us to be fitted to the saw, or if this cannot be done, send template of holes taken from board or countersunk side of saw, and a sample screw by which to drill and countersink saw.

Collars for Shingle and Heading Saws or Resaws

New Cast Iron Flanges for standard makes of shingle machines fitted to new saws. Price on application.

New Steel Flanges, 8 inches to 26 inches in diameter, $\frac{3}{8}$ inch thick or less, fitted to new saws, either with screws or rivets. Price on application.

Fitting old flanges to new saws, \$9.20.

Write for Discounts



Concave Saws



LEFT HAND SAW



RIGHT HAND SAW

When ordering Concave Saws give circle to be dished to; or give the diameter of the old saw and the amount of drop in the old saw, accurately measured; also give the greatest diameter of the heading to be cut. State which side is to be dished or concaved, right or left hand, as the saw runs toward you.

			for each additional gauge				for each additional gauge
6 inch	16 gauge	\$9.00	. . .	\$0 10 extra	12 inch	14 gauge	\$17.40 . . .
7 "	15 "	10.20	. . .	.12 "	14 "	13 "	20.25 . . .
8 "	15 "	11.40	. . .	.15 "	16 "	13 "	23.25 . . .
9 "	15 "	12.75	. . .	.20 "	18 "	12 "	26.70 . . .
10 "	14 "	14.25	. . .	.25 "	20 "	12 "	30.75 . . .
11 "	14 "	15.75	. . .	.30 "			

Saws concaved to a circle 16 inches and under, advance 20 per cent. Extra sizes made to order.

Edger Saws (Solid Tooth)

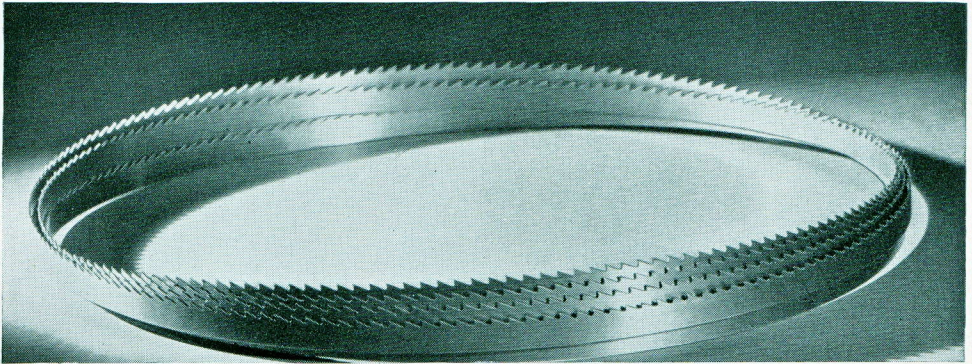
Diameter Inches	PRICE				
	Gauge 8	Gauge 9	Gauge 10	Gauge 11	Gauge 12
12	\$8.80	\$8.50	\$8.20	\$7.90	\$7.60
14	10.50	10.10	9.70	9.30	8.90
16	13.00	12.50	12.00	11.50	11.00
18	14.90	14.30	13.70	13.10	....
20	18.00	17.25	16.50	....	....
22	20.20	19.30	18.40	....	....
24	22.60	21.55	20.50	....	....

NOTE — List prices of all Edger Saws are figured by using Solid Tooth Circular Saw list, adding extra gauges heavy, allowing one gauge heavier than base without extra charge.

Write for Discounts



Simonds Round Gullet Narrow Band Saws
 Made of Simonds Wear-resisting Steel



SPECIAL NOTICE—Narrow Band Saws are furnished *Set* and *Filed*, but not *Welded* unless specified.

Standard Narrow Band Saw List

Width Inches	Gauge	Teeth per Inch	List Price per Foot	Width Inches	Gauge	Teeth per Inch	List Price per Foot
1/8	22	6	\$.13	*1/2	*21	3	\$.15
	25	6	.13		*4	5	.15
*3/16	*22	4	.13	*22	*4	5	.15
		*5	.13		*5	5	.15
	*25	6	.13	*25	*5	6	.15
		*6	.13		*6	6	.15
*1/4	*21	3	.13	*5/8	*21	*3	.16
		*4	.13		*4	4	.16
		5	.13	*3/4	*21	*3	.18
	*22	*4	.13		*4	4	.18
	*25	5	.13	*1	20	3	.22
		6	.13		*21	*3	.22
*5		.13					
*3/8	*21	3	.14	1 1/4	20	2	.26
		*4	.14	1 1/2	20	2	.32
	*22	*4	.14				
	5	.14					
	*25	*5	.14				
6	.14						

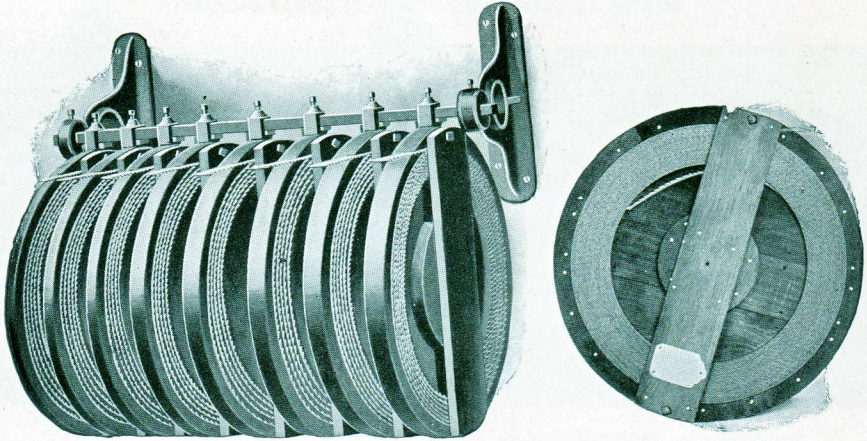
Above prices cover Saws Set and Filed, but not Welded. If not Filed and Set, deduct 4 cents per foot.

*Recommended Saws that will be furnished on orders unless otherwise specified.

Welding—5/8 inch and narrower	\$.50 each
3/4 inch . . . . .	.75 each
1 to 1 1/4 inch	1.00 each
1 1/2 inch	1.50 each



Simonds Narrow Band Saws



Simonds Narrow Band Saws are furnished either joined, or as separate saws, or in coils as shown above, 250 feet to a coil.

Our aim is always to have high quality saws.

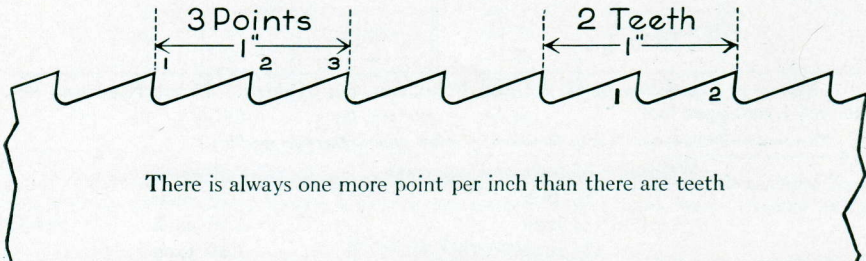
We have originated a Rig for carrying Narrow Band Saws in stock.

The Rig is furnished free with an order for 2,000 or more feet of Narrow Band Saws, assorted in such sizes as may be your best sellers. A well assorted stock for the Rig would cover saws from $\frac{3}{16}$ to 1 inch wide.

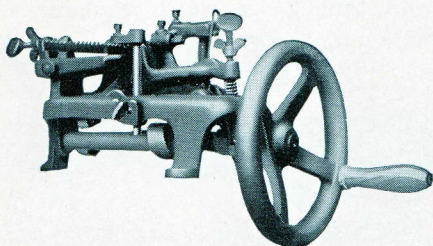
The saw revolves only when projecting piece is pulled out from its board. By using this Rig, a larger assortment in gauges and widths can be carried, and less space be taken. The Rig will often save enough odd inches per coil to make an extra saw.

Points or Teeth?

The illustration herewith shows clearly the difference between "points per inch" and "teeth per inch." When ordering Narrow Band Saws always specify the number of teeth per inch.



Setting Machine for Band Saws



The teeth are set absolutely uniform, which necessitates and guarantees a clean cut.

Saws from $\frac{1}{8}$ inch to $1\frac{1}{2}$ inch in width can be set without bending the smaller saws, as the vise grasps the saw perfectly tight, setting the teeth during the movement; all saws which have been bent before, being straightened out at the same time.

Saws set with this machine do not crack at the edges of the teeth, as points only of the teeth are set, and not the entire tooth.

A saw 20 feet in length can be set in three minutes.

Price on Application

Automatic Filing Machine

For Band Saws

It takes but a few minutes to regulate this machine. It needs no attention after once being started.

By means of a joint, sufficient time is given the file to get properly located in the tooth of the saw before the filing operation begins.

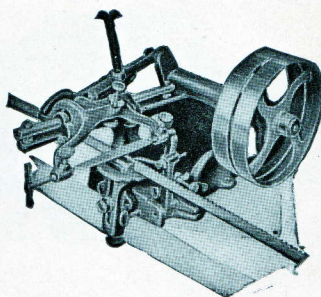
The file falls into the tooth of the saw, imitating exactly the movement of the human hand.

The file works by the pressure of a spring, and comes down in the tooth in a bevel line, receding the same way after the file stroke, filing out equally both top and bottom of tooth.

The teeth of the saw are kept a proportionate height, every single tooth coming to the cut, thus keeping the saw sharp longer.

Any ordinary saw file can be used with this filing machine.

Saws from $\frac{1}{8}$ to $1\frac{1}{2}$ inch wide, and any length, can be filed at the rate of ninety teeth per minute.



Price on Application

Simonds Silver Solder

For Brazing Band Saws

A good flowing and strong solder.

Made in the following widths: $\frac{1}{2}$, $\frac{3}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ and 1 inch.

Thickness: .003 inch.

Put up in one-ounce brass boxes.



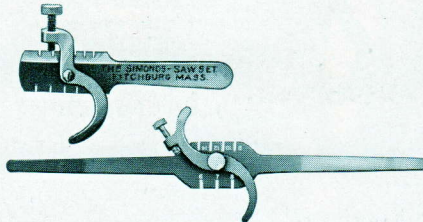
Price \$1.00 per ounce

Write for Discounts



Adjustable Saw Sets

In two sizes and provided with an adjustable gauge, which regulates set and gives absolute uniformity.



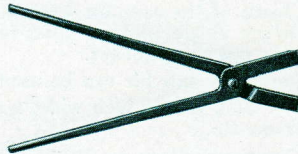
- No. 301.** Saw Set with one handle, for small circulars and band saws will take saws 14 to 19 gauge in thickness, \$4.25.
- No. 302.** Saw Set, for medium and large circulars. Will take saws 6-7-8-9-10-12-14 gauge in thickness, \$6.50.

Saw Sets



- No. 303.** Saw Set with one handle. Will take saws 14 to 17 gauge in thickness \$2.25
- No. 304.** Saw Set with two handles. Will take saws 6-7-8-9-10-12-14 gauge in thickness, \$5.00.

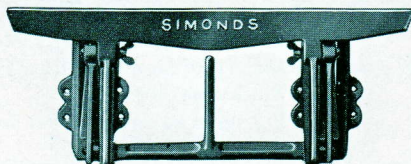
Band Saw Brazing Clamp and Tongs



List Price..... \$5.00

List Price..... \$1.75

Improved Saw Filing Clamp



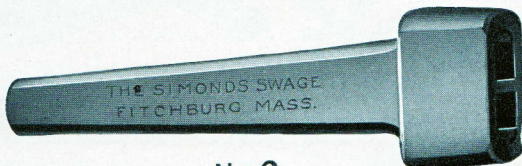
List Price..... \$12.00

Write for Discounts

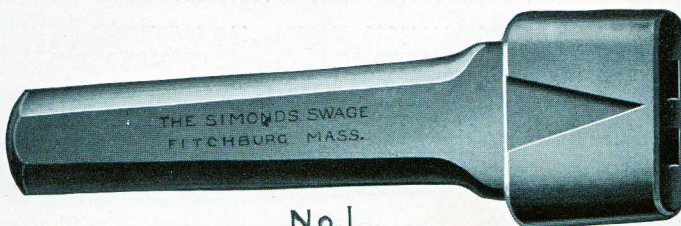
Swages or Upsets



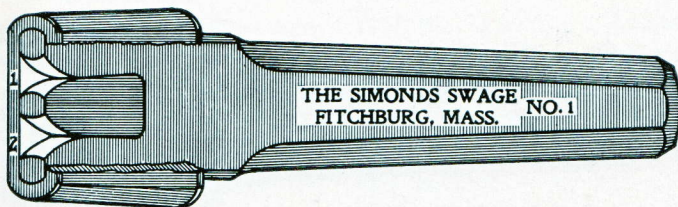
No.3



No.2



No.1



This sectional view shows the construction of the Simonds Swage. Jaw No. 1 spreads or shapes the point of the tooth. Jaw No. 2 squares up the cutting edge and gives body to the swaged point.

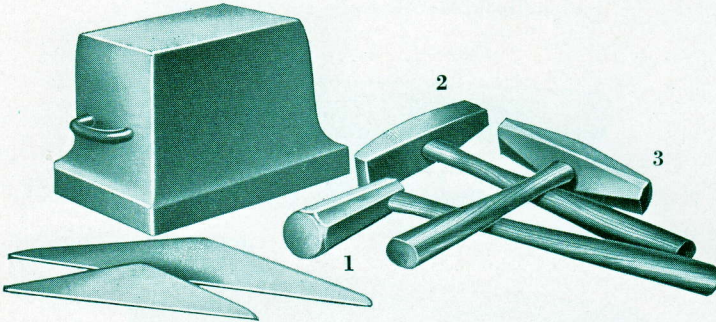
	Each	Net Weight
Simonds Swage, No. 1, for saws 10 gauge and heavier.....	\$5.50	18 ounces
" " No. 2, for saws 11 gauge and lighter.....	4.50	8 "
" " No. 3.....	3.50	3 "
" " (Special), for wide Band Saws.....	4.50	8 "
" " No. 4, for fine tooth saws.....	1.25	2 "

Write for Discounts



Saw Makers' Tools

Anvils, Hammers and Straight Edges



Circular Saw Anvils—Cast Steel Face, Hardened and Polished... Prices on application.

Saw Makers' Hammers

- (1) Dog Head, (2) Cross Face \$1.30 per pound
- (3) Twist Face 2.25 per pound

Minimum price..... 4.50 each

Straight Edges—Under 5 feet..... 2.00 per ft.

Minimum price..... 2.00 each

Over 5 feet, prices quoted on application.

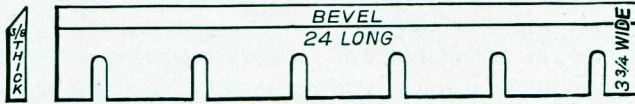
Band Saw Anvils. Prices on application.

We are prepared to furnish any standard make of Saw Fitting and Sharpening appliances. Prices on application.

Simonds Machine Knives

We make any kind of a knife for any kind of a machine for any kind of work, and will guarantee the very best possible results relative to temper, uniformity, cutting qualities, finish, and length of service.

When Ordering Knives



State number of knives wanted, number of sets, number in set, length, width, thickness, name and make of machine, and kind of wood to cut.

The cutting edge always constitutes the length of the knife.

When possible, furnish a pattern. Place the knife face down on the paper, mark around to show the length of the knife and size and position of slots, and be sure to state the width and thickness, as shown in diagram; also state the number of knives in set, and the temper required, whether high, to grind only; medium, to file slowly; or low, to file easily.

We make a wooden pattern like each paper pattern sent us, stamp the same with name of party ordering and date the order is received, and preserve for future use.

It is well to send an old knife or a pattern showing the holes or the slots. This is particularly true in ordering Planer Knives, Paper Knives, Barker and Chipper Knives, etc.

Heat Treating

Our furnaces are all controlled by pyrometers, which register the exact heat; and if we know the wood which you are to plane, it is an easy

matter for us to decide what temper to leave the knife and what degree of heat to use in order to get the exact temper for the work which is to be done. It is well to specify the kind of wood which you wish to plane and the feed per minute.

Our method is such that we keep an accurate record of the temper of every knife that we make. If we have succeeded in giving you a knife of the right temper, when ordering again refer to former order, and we can duplicate the temper and quality as previously furnished.

The varieties of temper adapted for Planer Knives, Paper Knives, Veneer Cutting Knives, Leather Knives, Tobacco Knives, Hog Knives, as well as other knives are most carefully selected. At the same time, much attention is given to the balancing, grinding, finishing and packing of all knives, and an absolute guaranty is given that the knives furnished will prove entirely satisfactory. We are specialists in knife making, having made knives since 1832, and we would like to take up with you any question at all regarding the making of knives to fit your special work. Write us regarding any troubles which you

may have had. Tell us what they are and we will endeavor to overcome them.

In knives, as well as in all other edged tools, good steel is the fundamental part, without which it is impossible to get a satisfactory cutting edge. The Simonds Steel used in the Simonds Knives is a special knife steel, made by ourselves in our own steel mill.

To avoid possible confusion as to just the kind of Woodworking Knife that can be used to best advantage there are listed on the following pages the kinds manufactured and with each a brief word about the use of each knife.

Carbon Steel Knives

FOR PLANERS, VENEER MACHINES,
PAPER TRIMMERS, ETC.

Carbon Steel Knives are used for surfacing lumber, chair stock, and the like on squarehead planer machines; for cutting veneer, trimming paper stock in paper mills, and printing shops.

They are usually made with a hardened carbon steel edge welded to a lower carbon steel back.

Making knives in this way permits the use of the highest grade tool steel to give edge-holding properties and long cutting life. At the same time the lower carbon steel back gives the knife sufficient toughness to resist shocks.

"Tungsweld" Knives

"Tungsweld" Knives are made with a high speed steel cutting edge welded to a carbon steel backing.

Until Simonds engineers discovered the method of doing this successfully it was thought impossible. So far as we know, Simonds is the only welded high speed steel knife.

"Tungsweld" Knives give most of the advantages of the thin high speed steel knives without the expense of changing the head which is necessary to use thin knives. They are used principally for surfacing lumber, etc.

Red Streak

High Speed Steel Knives

These knives, usually $\frac{1}{8}$ inch or $\frac{5}{32}$ inch thick, are made of Simonds famous high speed steel, ground perfectly flat on a 19 ton grinding machine and heat treated in electric controlled furnaces where absolute uniformity of temper is obtained.

The knives are usually not over 2 inches wide and are furnished in any standard length.

They are run on machines with round heads and are used chiefly for surfacing lumber in mills operating under fast feed conditions where production is demanded, the feed often running 150 to 200 feet or more.

The term "high speed" refers to the speed of the feed and not to the revolutions of the head.

The chief qualities of Simonds Red Streak Knives are cutting efficiency, toughness, and resistance to temper drawing. Owing to the heat generated in fast feeding this last item is of great importance and the Simonds Red Streak High Speed Steel Knife has made for itself a remarkable reputation during



the past few years, due largely to its ability to stand a higher temperature without softening in use.

Chromium Plated Red Streak Thin High Speed Steel Knives which we can furnish for all purposes, except where cutting edge is back beveled, greatly increases the life of a knife. Chromium Plated Knives run from 20% to 30% longer on air or kiln dried stock and a much greater per cent longer on green lumber.

When grinding High Speed Steel Knives, remember that you are working with a fine cutting tool and treat it accordingly.

Moulding Knives

These knives are made in six different types.

SOLID CARBON STEEL BLANKS
(UNTEMPERED)

SOLID CARBON STEEL
PLATED CARBON STEEL

"TUNGSWELD" STEEL

HIGH SPEED STEEL

HIGH SPEED STEEL
(CORRUGATED BACKS)

SELF-HARDENING STEEL

The above, with the exception of Solid Carbon Steel Blanks (untempered) are furnished either with straight beveled edge or with edge formed to cut any desired pattern of moulding.

Hog Knives

Edgings and other waste material about a saw mill or planing mill are cut in a machine called a "Hog," into small pieces to be used as fuel. The knives used on these machines are subjected to terrific abuse. Knots, stones, and pieces of metal

are constantly finding their way into the Hog. Because of this, Hog Knives must be hardened and tempered to stand the roughest kind of work. Simonds Saw and Steel Company's shock-resisting Hog Knives are made of solid steel, hardened and tempered to hold their edge under all conditions.

Most Hog Knives are furnished with a single bevel cutting edge. Simonds makes Hog Knives to fit all standard machines.

Anvil Knives for Hog Machines

These knives also must stand the roughest kind of abuse being, as the name suggests, the anvil upon which the material that is thrown into the Hog is chopped up by the Hog Knives.

They are made of Simonds Steel hardened and tempered to stand this terrific pace.

Barker Knives

Barker Knives are used to remove the bark from pulp wood logs. Because of the rough work they do the Simonds Barker Knives are made of steel, heat treated to stand up under most adverse conditions. These knives are made to fit standard machines and are furnished either with round or square corners.

Chipper Knives

Chipper Knives for economical operation must be extremely tough to stand the severe usage they are subjected to and must also hold an extremely sharp cutting edge to keep the percentage of sawdust low.



Simonds Chipper Knives are made either of solid alloy steel or plated.

Simonds Solid Steel Knife is hardened only to a depth of $\frac{1}{8}$ to $\frac{3}{16}$ of an inch which gives the necessary cutting qualities on the cutting edge and also gives an extremely tough core to stand the abuse of the hard cutting done by these knives. On Simonds Plated Chipper Knives the tough low carbon steel backing furnishes this toughness and the alloy steel plate is welded on in such an exacting manner that unless metal of some kind gets into the chipper there is no chance of the steel being pulled off while the knife is in operation.

Excelsior Knives

As the name suggests, these knives are used to make excelsior. The Simonds heat treatment exactly fits them for their work.

Beveled Edged Shaper Steel

Beveled Edge Shaper Steel is now in general use in modern woodworking plants for making special cutters. These bars are made of two kinds of steel: self-hardening and high speed. Both are heat treated, ready for use.

The self-hardening steel comes in mill-rolled bars, 30 inches long, with an accurate 60 degree side bevel.

High-speed shaper steel is furnished in 24-inch bars, ground on all sides with special attention being given to the width, 60 degree side bevel and $\frac{1}{32}$ inch blunt.

With our many years of experience in making steel in our own modern

steel mill, and our knowledge of heat treatment of steel for our saws and knives, we have been able to develop a quality of this material that is considerably different from any other woodworking steel. The thickness, width, 60 degree side bevel and $\frac{1}{32}$ inch blunt are so standardized that on repeat orders new cutters can be run with those made from any bars of this shaper steel previously purchased.

Paper Cutting Knives

To cut paper and card stock properly, a sharp edge-holding knife is required. A sharp knife lessens the strain on the machine, produces better work, requires less power. Simonds Paper Cutting Knives are made plated; that is, a plate of alloy steel which will take the right temper and hold a cutting edge is welded to a back of softer steel. So perfect is this process that the weld can hardly be seen.

Hardening and tempering are two most important operations. Simonds methods of heat treating are a result of long experience and research which guarantees a properly hardened knife with a uniform, tough cutting edge that resists dulling.

Simonds Knives are ground to micrometer accuracy and smoothly polished.

Simonds Knives are dependable for clean, easy cutting and long service, on all grades of paper and card stock. The basis for these knives is Simonds Steel made at our modern mill in Lockport, N. Y.



Simonds Knives



Planer Knife



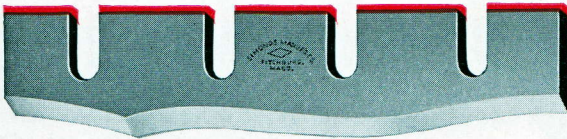
**Chromium Plated
High Speed Steel
Knives**

Run from 20% to 30% longer on air or kiln dried stock and a much greater per cent longer on green lumber.



"Tungsweld" Planer Knife

The Knife with welded High Speed Steel cutting edge



Chair Bottom Knife



**Moulding
Knife**

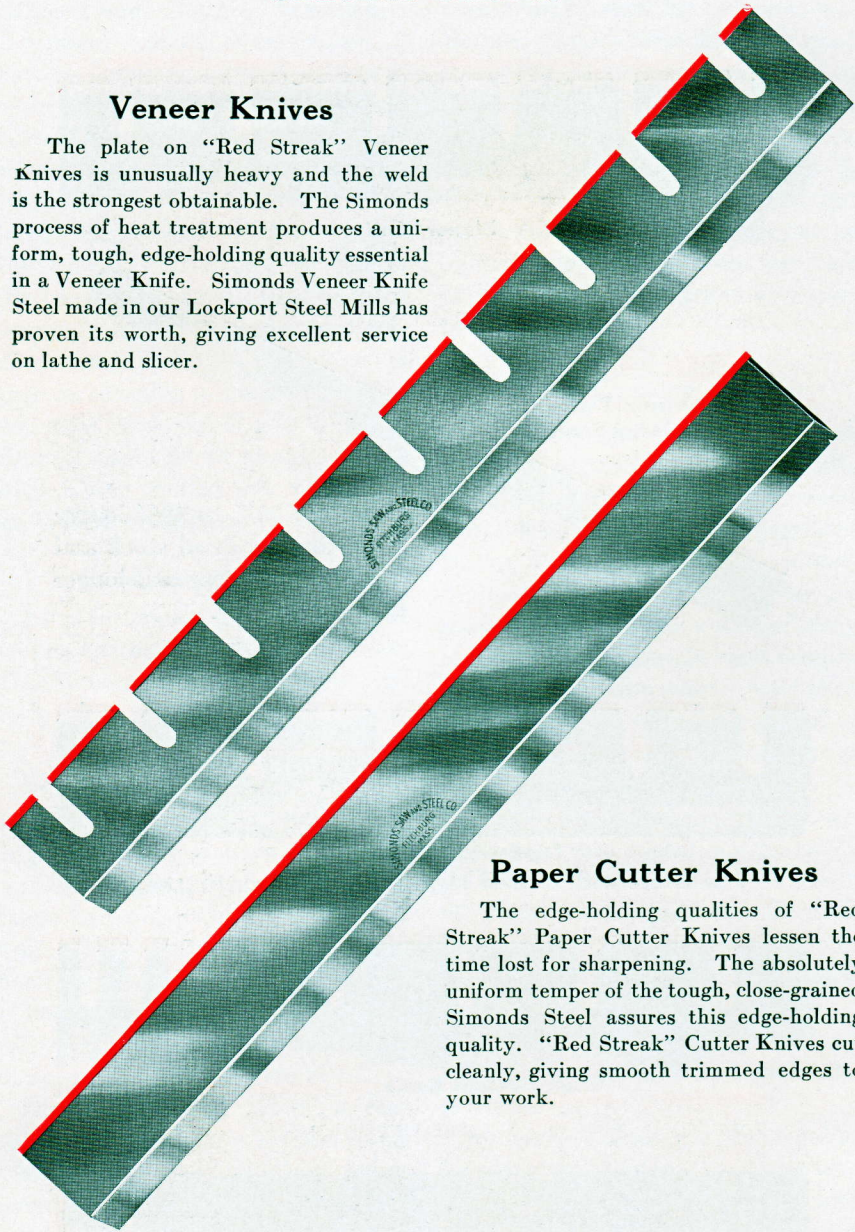


Beveled Steel

Simonds Knives

Veneer Knives

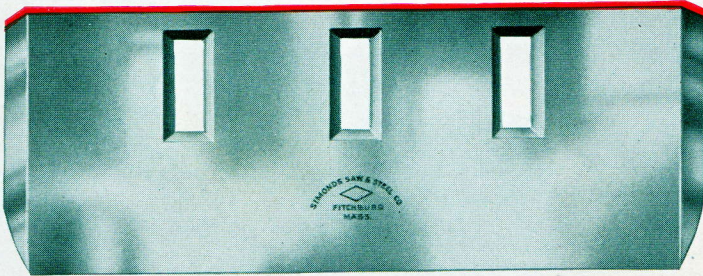
The plate on "Red Streak" Veneer Knives is unusually heavy and the weld is the strongest obtainable. The Simonds process of heat treatment produces a uniform, tough, edge-holding quality essential in a Veneer Knife. Simonds Veneer Knife Steel made in our Lockport Steel Mills has proven its worth, giving excellent service on lathe and slicer.



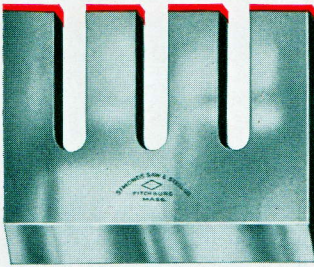
Paper Cutter Knives

The edge-holding qualities of "Red Streak" Paper Cutter Knives lessen the time lost for sharpening. The absolutely uniform temper of the tough, close-grained Simonds Steel assures this edge-holding quality. "Red Streak" Cutter Knives cut cleanly, giving smooth trimmed edges to your work.

Simonds Knives



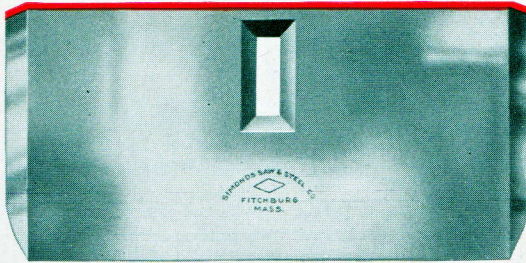
Chipper Knife



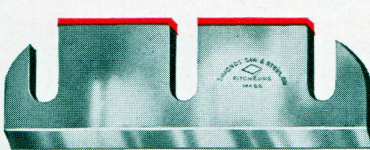
Hog Knife



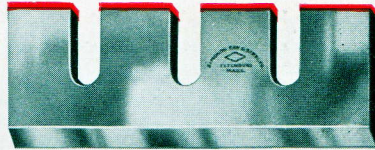
Hog Knife



Beveled End Chipper Knives
Made with one or more slots



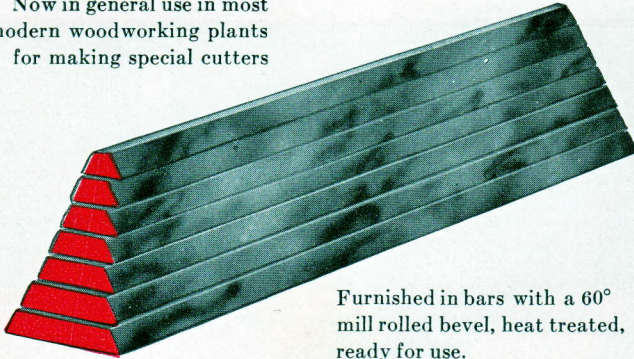
Barker Knife



Barker Knife

Simonds Beveled-edge Shaper Steel

Now in general use in most modern woodworking plants for making special cutters



Furnished in bars with a 60° mill rolled bevel, heat treated, ready for use.

Self-hardening or Semi High Speed Shaper Steel

With Mill Rolled 60° Bevel—Not Ground

In Bars 24 inches long

Width Inches	Thickness				Width Inches	Thickness			
	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "		$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "
1 or less	\$ 5.94	\$ 8.32	\$10.70	\$13.08	2 $\frac{1}{4}$	\$10.90	\$15.26	\$19.60	\$23.96
1 $\frac{1}{4}$	6.98	9.82	12.68	15.38	2 $\frac{1}{2}$	11.88	16.64	21.38	26.14
1 $\frac{1}{2}$	7.92	11.10	14.42	17.74	3	13.46	18.86	24.24	29.62
1 $\frac{3}{4}$	8.88	12.48	16.02	19.66	3 $\frac{1}{2}$	15.06	21.08	27.08	33.12
2	9.90	13.86	17.82	21.78	4	16.64	23.30	29.94	36.60

12-inch bars one-half above prices.

Bars sold only in 12" or 24" lengths; no additional charge for cutting to shorter lengths.

High Speed Bevel Edge Shaper Steel Heat Treated and Ground

List Price per Bar in 24-inch Lengths

Width Inches	Thickness				Width Inches	Thickness			
	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "		$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "
1 or less	\$10.80	\$15.12	\$19.44	\$23.76	2 $\frac{1}{4}$	\$19.80	\$27.72	\$35.64	\$43.56
1 $\frac{1}{4}$	12.68	17.86	23.04	27.94	2 $\frac{1}{2}$	21.60	30.24	38.88	47.52
1 $\frac{1}{2}$	14.40	20.16	26.22	32.26	3	24.48	34.28	44.08	53.86
1 $\frac{3}{4}$	16.14	22.68	29.10	35.72	3 $\frac{1}{2}$	27.36	38.30	49.24	60.20
2	18.00	25.20	32.40	39.60	4	30.24	42.34	54.44	66.52

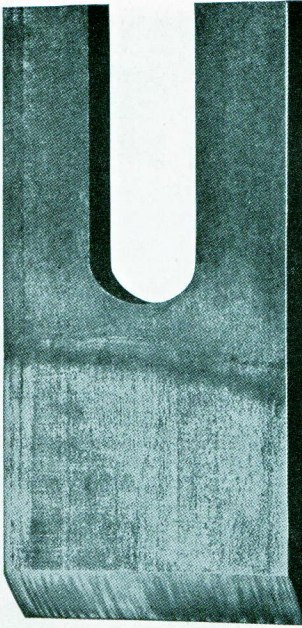
12" Bars—one-half above prices.

For cutting 24 or 12 inch bars into shorter lengths, add 20 cents per cut to price of bar.

Self-hardening and High Speed Shaper Steel when ordered in shorter than standard lengths charge will be made for full length bars plus cutting. Any pieces left from bar after cutting will be sent to customer.

Write for Discounts

Self-hardening Steel Moulding Cutter Blanks



The Simonds Self-hardening Cutters are the most economical cutters. This is due to their great efficiency and long life. You know they are made of Simonds Own Self-hardening Steel and are all ready to be ground to shape—no further heat treatment is necessary. Many shops using the Simonds Self-hardening Steel Moulding Cutters have found them four or five times more efficient than carbon steel cutters.

List Prices

SELF HARDENING STEEL MOULDING BLANKS

Hardened and Tempered—Edge Beveled or Square

Not furnished in any sizes larger than listed

	$\frac{3}{8}$ inch thick and less—Price Each				
	2" long or less	Over 2" to 3" long	Over 3" to 4" long	Over 4" to 5" long	Over 5" to 6" long
3" wide or less	\$4.15	\$5.15	\$6.20	\$7.50	\$8.70
Over 3" to 3½" wide	4.55	5.65	6.80	8.20	9.60
Over 3½" to 4" wide	5.00	6.20	7.50	9.00	10.60
Over 4" to 4½" wide	5.50	6.80	8.25	.....	.....
Over 4½" to 5" wide	6.00	7.45	9.00	.....	.....
Over 5" to 5½" wide	6.60	8.20	9.90	.....	.....
Over 5½" to 6" wide	7.20	8.95	10.80	.....	.....

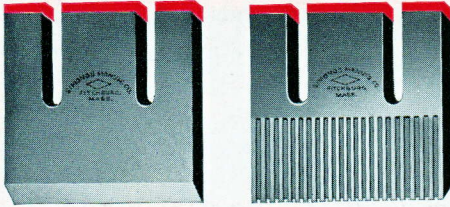
	$\frac{7}{16}$ inch thick—Price Each				
	2" long or less	Over 2" to 3" long	Over 3" to 4" long	Over 4" to 5" long	Over 5" to 6" long
3" wide or less	\$4.78	\$5.92	\$7.13	\$8.63	\$10.01
Over 3" to 3½" wide	5.23	6.50	7.82	9.43	11.04
Over 3½" to 4" wide	5.75	7.13	8.63	10.35	12.19
Over 4" to 4½" wide	6.33	7.82	9.49	.....	.....
Over 4½" to 5" wide	6.90	8.57	10.35	.....	.....
Over 5" to 5½" wide	7.59	9.43	11.39	.....	.....
Over 5½" to 6" wide	8.28	10.28	12.42	.....	.....

Self Hardening Steel Moulding Blanks furnished with a straight edge only.

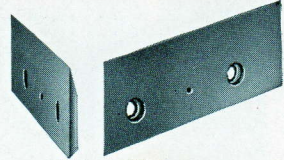
Write for Discounts



Simonds Knives



Excelsior Knife



Mitre Knives



Stave Jointer Knife



Untempered Moulding Blank



Jointer Knife



Cope Cutters



Stave Knife



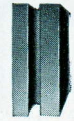
Bearer Bits



Straight Bit



Tongue and Groover Bit



Washboard Knife



Jointer Knife



Tight Barrel Knife



Spoke Knife



Slack Barrel Knife



Shingle Knife



Stop Cutter Knife

Simonds Knives



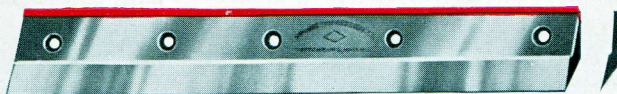
Union Leather Splitter Knife



Curved Fur Bed Knife



Double Bevel
Leather Splitter Knife



Union Leather Splitter Knife



Band Knife Jaw or Guide

Simonds Belt Knives

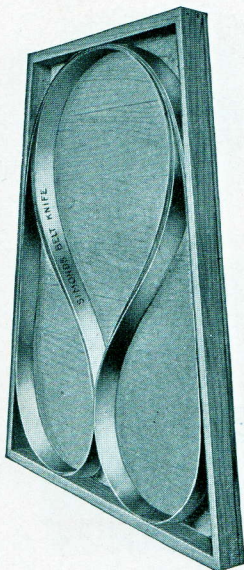
Simonds high grade belt knives are made of electric furnace steel in the following tempers—soft, medium and hard.

When ordering give size of machine, and kind of material to cut.

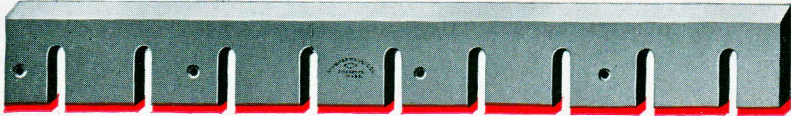
Packed neatly in crates or boxes holding 6 or 12 each. Prices quoted on application.

Standard Sizes

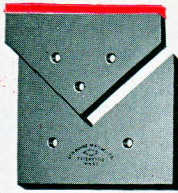
Machine	Length	Width	Thickness	Bevel
24"	18' 5 1/4"	3 1/4"	.054	3/16" double
36"	21'	3 1/4"	.054	3/16" double
57"	24' 5 1/4"	3 1/4"	.054	3/16" double
72"	26' 11 1/4"	3 1/4"	.054	3/16" double
84"	28' 11 1/4"	3 1/4"	.054	3/16" double
106"	32' 6 1/4"	3 1/4"	.054	3/16" double



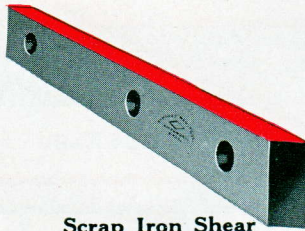
Simonds Shears and Slicers



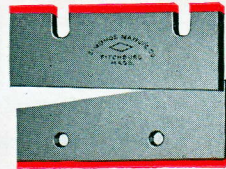
Tack Shears



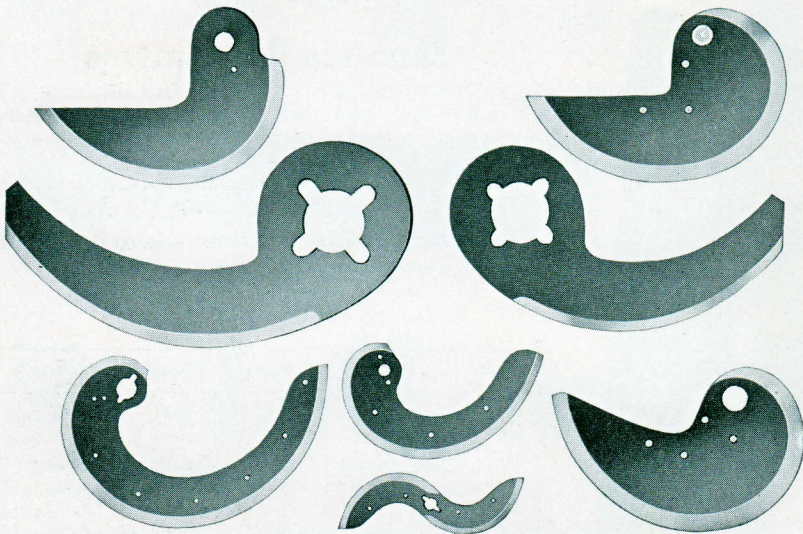
Angle Shears



Scrap Iron Shear

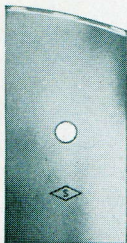


Boiler Plate Shears



Vegetable Slicers

Simonds Knives



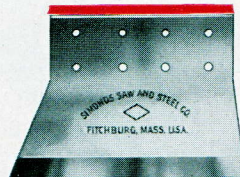
**Wafer
Cigarette Cutters**



Legg Tobacco Knife



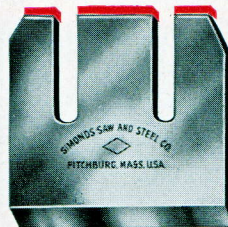
Cigarette Cutter



Foreign Tobacco Knife

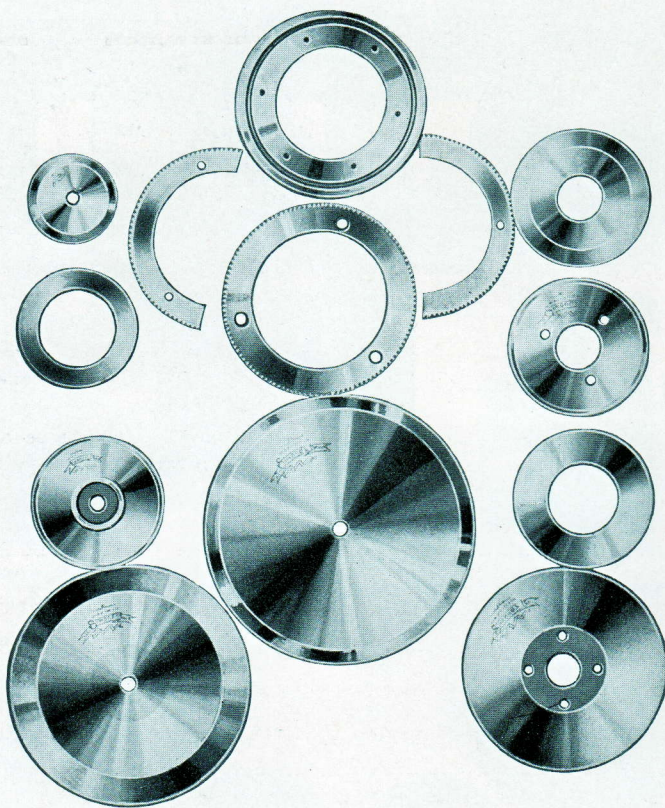


Pease Tobacco Knife



Pease Tobacco Knife

Simonds Circular Cutters for Paper, Cork, Rubber, Cloth, and Leather



Diameter	List Price	Thickness
10 inches and less	\$0.57 per inch in diameter	$\frac{3}{32}$ inch
Over 10 to 12 inches	.65 " " " "	$\frac{1}{8}$ " "
" 12 " 14 "	.72 " " " "	$\frac{1}{8}$ " "
" 14 " 16 "	.80 " " " "	$\frac{1}{8}$ " "
" 16 " 18 "	.88 " " " "	$\frac{5}{32}$ " "
" 18 " 20 "	.95 " " " "	$\frac{5}{32}$ " "
" 20 " 22 "	1.04 " " " "	$\frac{5}{32}$ " "
" 22 " 24 "	1.12 " " " "	$\frac{5}{32}$ " "
" 24 " 26 "	1.20 " " " "	$\frac{3}{16}$ " "
" 26 " 28 "	1.27 " " " "	$\frac{3}{16}$ " "
" 28 " 30 "	1.35 " " " "	$\frac{3}{16}$ " "
" 30 " 32 "	1.51 " " " "	$\frac{3}{16}$ " "
" 32 " 34 "	1.68 " " " "	$\frac{1}{4}$ " "
" 34 " 36 "	1.90 " " " "	$\frac{1}{4}$ " "

For Cutters heavier than listed add 5 per cent for each $\frac{1}{64}$ inch heavier.

When ordering give diameter, gauge, size of hole, whether beveled on both sides or only on one, and how deep bevel is to run.



SIMONDS Steel Rule Standards

CUTTING RULE



HARD—*Straw Color*



MEDIUM HARD—*Black*



SOFT—*Polished*

HARD—*Straw* Straight work, slight bends and circular bends, 1/2" diameter and over.

MEDIUM HARD—*Black* Circular bends as small as 1/8" diameter and medium angular bends.

SOFT—*Polished* Extreme bends. Rule may be hardened for longer wear.

STANDARDS

Kind	Length	Height	Thickness	Temper
Cutting	30"	.937	2 pt. 3 pt.	Hard, Medium
		& .923	4 pt. 6 pt.	Hard, Soft
Cut-Scoring	30"	.923	2 pt. 3 pt.	Hard, Medium
		& .918	4 pt. 6 pt.	Hard, Soft
Creasing	30"	.918	2 pt. 3 pt.	Medium Hard,
		& .895	4 pt. 6 pt.	Soft
*Perforating	24"	.937	2 pt. 3 pt.	Medium Hard,
				Polished

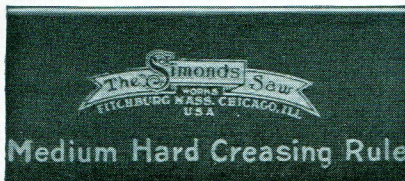
We can furnish rule in 24" lengths; also any desired height.

Simonds Steel Rule is uniform in temper and height which means the same degree of bends from every order, less make-ready trouble, and maximum production.

Rule is packed 100 pieces to a carton, 4 cartons to a box, oiled to prevent rusting.

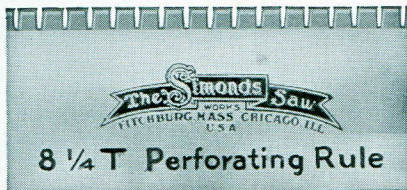
*8 1/4, 12, 17 teeth per inch

CREASING RULE



MEDIUM HARD—*Black and soft-polished*

PERFORATING RULE



Polished

8 1/4, 12 and 17 teeth per inch.

Prices on Application



Abrasive Grinding Wheels

Abrasive Company, Philadelphia, Pa., manufacturers of grinding wheels and kindred products is owned and operated by Simonds Saw and Steel Company. This unified control enables Simonds to assure their customers of a complete saw and knife grinding service.

Simonds Abrasive Saw Gummers

Abrasive Company saw gumming wheels cut free and fast without burning and retain their shape so the saw teeth will be uniform and give a good smooth finish.

Three processes are employed in the manufacture of Abrasive saw gummers, Vitrified, Elastic and Bakelite. Each has its merits, the selection of which depends on the type of saws, the grinding equipment used and the filer's preference.

Saw gumming wheels should be run at approximately 5000 to 5500 surface feet per minute to give best results. As the wheel wears down, the surface speed decreases, therefore the wheel speed should be increased to get maximum results from the wheel. If this is not done, the wheel will act softer as it wears down.

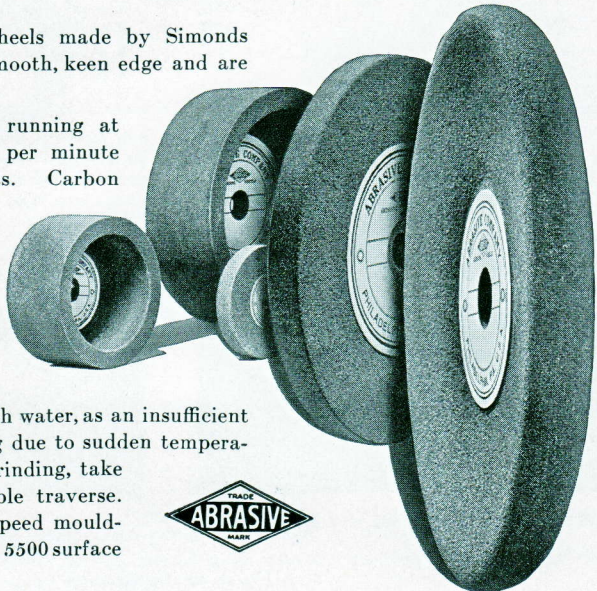
Wheels for saw gumming must be in balance and run true. If they wobble or are out of balance the machine will shake, tending to loosen bearings and break down the wheel structure at the point of grinding contact, causing it to waste away.

Abrasive Company has special equipment for machining and balancing saw gumming so they will run true and be in balance.

Simonds Abrasive Knife Grinding Wheels

The knife grinding wheels made by Simonds Abrasive Co. produce a smooth, keen edge and are free cutting.

Knife grinding wheels running at 4000 to 4500 surface feet per minute produce the best results. Carbon knives require plenty of grinding solution or water, as the wheel contact is broad, tending to heat up quickly. High speed steel knives may be ground either wet or dry. If ground wet, flood them with water, as an insufficient supply may cause cracking due to sudden temperature changes. For dry grinding, take light cuts with a fast table traverse. Wheels for grinding high speed moulding knives should run about 5500 surface feet per minute.





Greyhound Cutter Heads

In the following pages we are illustrating only a few of the specially constructed types of heads developed by the Jones and Orth Cutter Head Co. These practical and economical cutter heads are designed for use on any type or make of machine.

The maintenance of a country-wide direct contact with the woodworking industry and its cutter head and knife problems has developed an invaluable fund of information and experience which we place at your service. We also offer the services of our engineering department in *working out any special head problems confronting you.*

We wish to call to your particular attention our direct factory service repair and maintenance department, where we recondition used cutter heads and knives and render efficient and prompt service on short notice. *A complete head and cutter catalog sent on request.* Write any branch of the Simonds Saw and Steel Company.

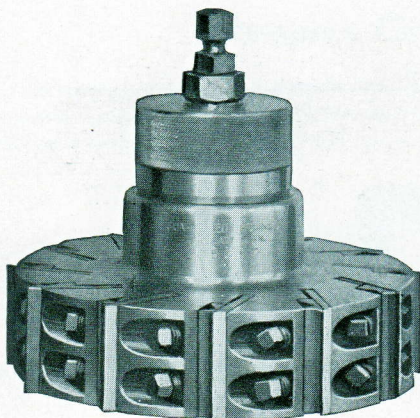
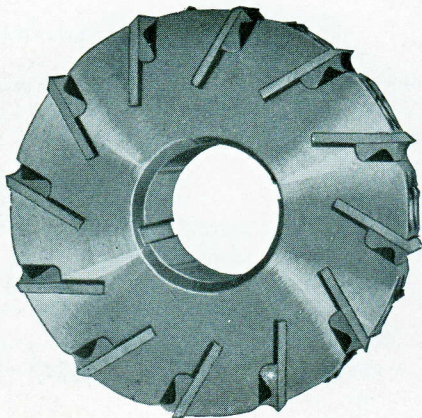


Illustration No. 300

Greyhound Round Jointer Head

Many different type jointer heads are carried in stock, and in most cases we can make immediate delivery of these heads for standard make machines. The above illustration shows a 12-knife corrugated head and is fitted with a removable self-centering device which makes it adaptable for different size spindles. Heads can be furnished with smooth or corrugated knives and with any number up to and including sixteen.



This 8-knife side head is shown equipped with thin knives and is used on surfaces that must stand hard usage and fast feeds. All of our heads are made of special alloy nickel steel, accurately machined, and designed to meet the requirements of modern heavy-duty machines.

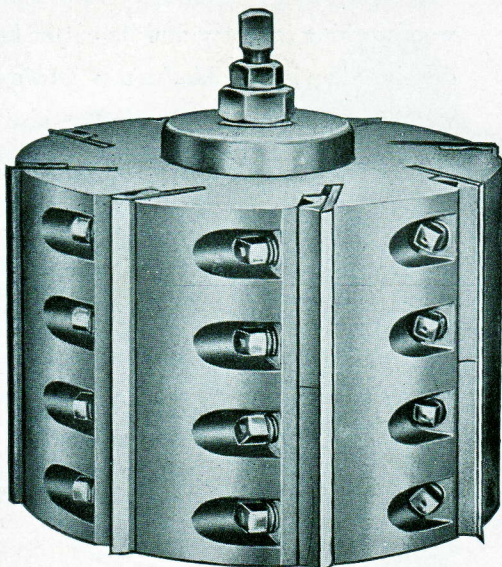


Illustration No. 301

Greyhound Round Jointer Head

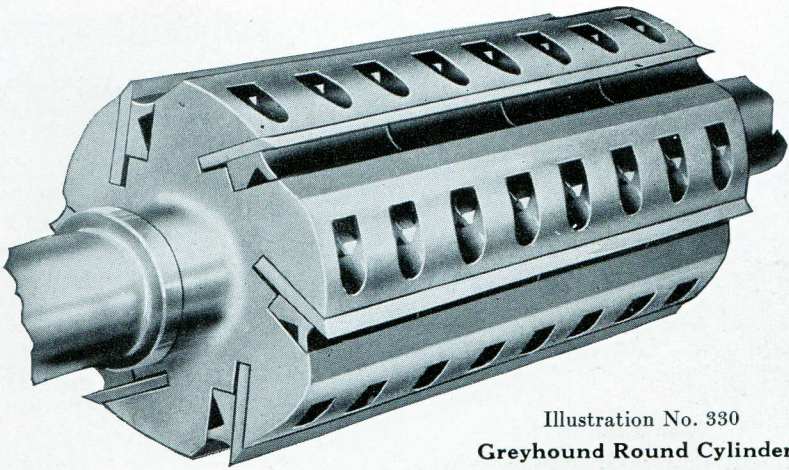


Illustration No. 330
Greyhound Round Cylinders

Cylinders of all types and sizes can be furnished to specifications. The best quality of alloy steel is used in the construction. Accurate workmanship is assured and all cylinders are tested to running balance at 4000 R. P. M.

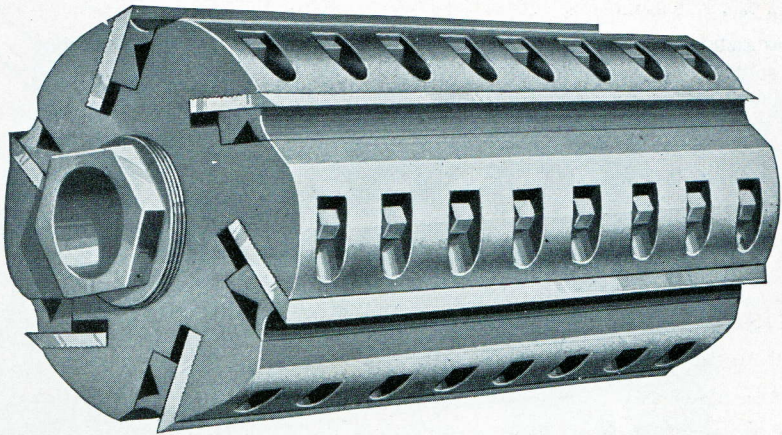


Illustration No. 332
Greyhound Round Self-centering Head

Any diameter or length round slip-on head can be furnished. Large quantities of standard size heads are carried in stock and prompt delivery is assured. Illustration shows 12" 6-knife corrugated head complete with knives, gibs, screws and self-centering device. Backing strip can be supplied for corrugated heads, which makes it possible to use thin or corrugated knives.

processes which the saw passes through. This requires men skilled in practice as well as in theoretical knowledge.

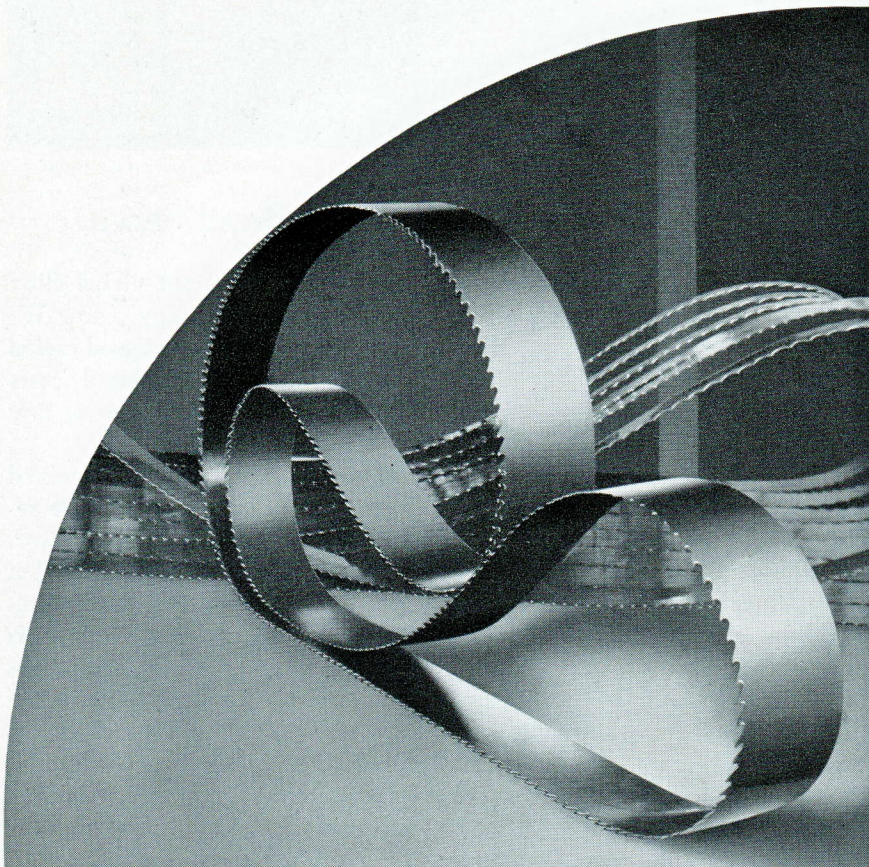
As the saws are ground with practically no variation in gauge throughout the entire length of the saw, filers and mechanics will readily appreciate that with this accuracy of manufacture the saw can be kept in condition easily and consequently has added life and durability.

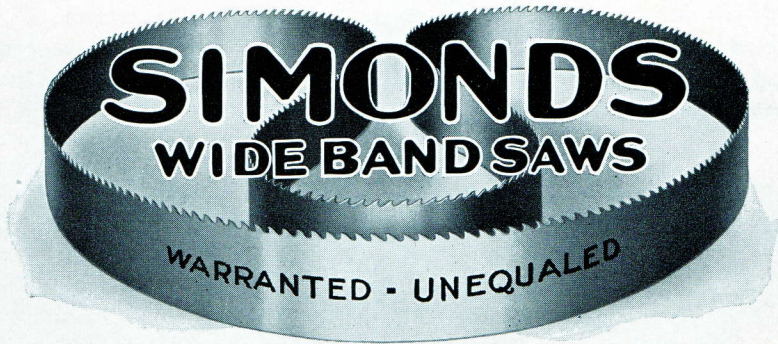
In combining this care of manufacture with the Simonds process of

tempering, the toughness of the steel, the quality of the cutting edge,

We challenge the world to produce a Band Saw as good as Simonds.

Our own tests, and the letters which we are furnished from many mills where our saws have been used, seem to fully warrant our claim that the Simonds Band Saws are tougher, will hold their tension longer, stand more feed, and do more work than any other saw on the market.





BRAZED AND FITTED

Width	Usual Gauge	Price per foot
2 inch	18 to 20	\$1.00
3 "	18 to 20	1.40
3½ "	18 to 20	1.60
4 "	17 to 19	2.00
4½ "	17 to 19	2.20
5 "	17 to 19	2.40
6 "	17 to 19	3.00
7 "	16 to 18	3.40
8 "	14 to 16	3.80
9 "	14 to 16	4.30
10 "	14 to 16	4.80
11 "	14 to 16	5.40
12 "	13 to 15	6.00
13 "	13 to 15	7.20
14 "	13 to 15	8.40
15 "	12 to 14	10.20
16 "	12 to 14	12.00
17 "	12 to 14	16.80
18 "	12 to 14	21.60

Saws of odd widths, not listed, take price of next wider size listed.

For saws of heavier gauge than listed add 5 per cent to list for each gauge heavier.

No extra charge for saws one or two gauges thinner than list; when more than two gauges thinner, add 5 per cent to list for each gauge.

Band Saws with round holes or perforations to remove surplus sawdust from the cut, add 10 per cent to list.

Single Cut Saws. With sliver or rubbing teeth punched on back, not swaged or fitted, add 5 per cent; if fitted in any manner, use Double Cut Saw price.

Double Edge Band Saws. List price per foot, all widths, advance 10 per cent over list prices of single edge saws as above.

Toothed Blanks. Same price as finished saws.

Band Saws Blanks. Bright, of any width, furnished to order, but not warranted.

Back Gauges and Tension Gauges

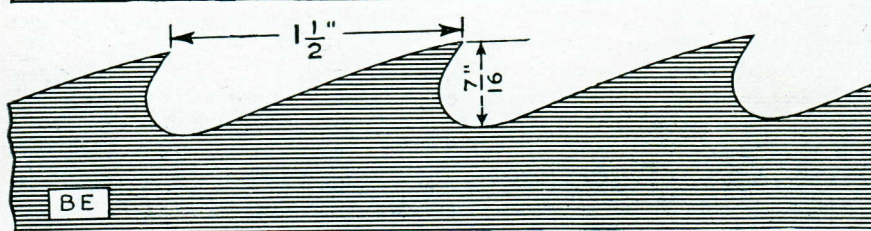
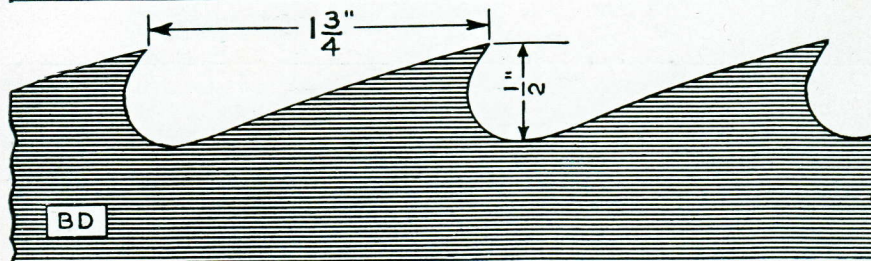
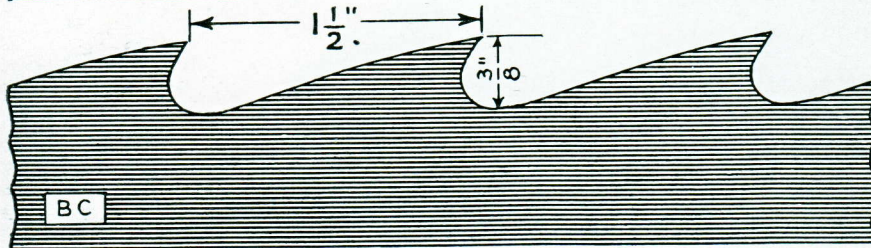
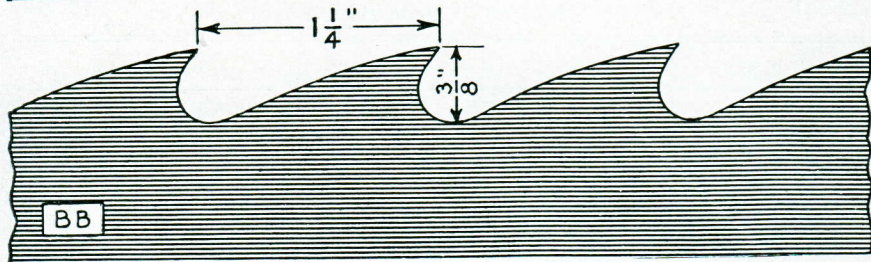
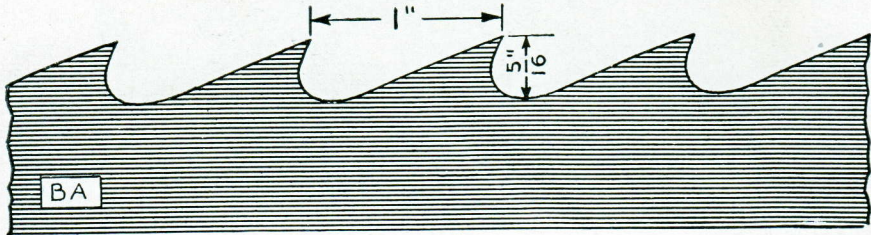
Under 5 feet (minimum price 1 foot).....\$2.00 per foot
Over 5 feet, price on application.

Write for Discounts



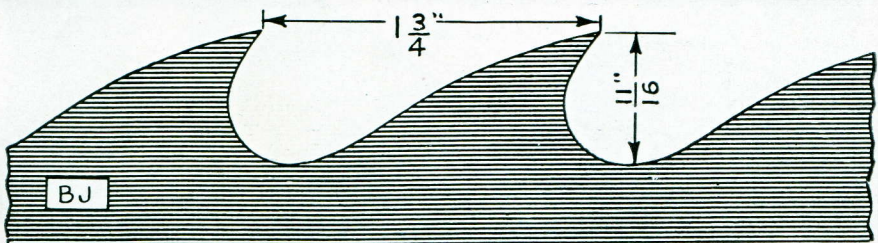
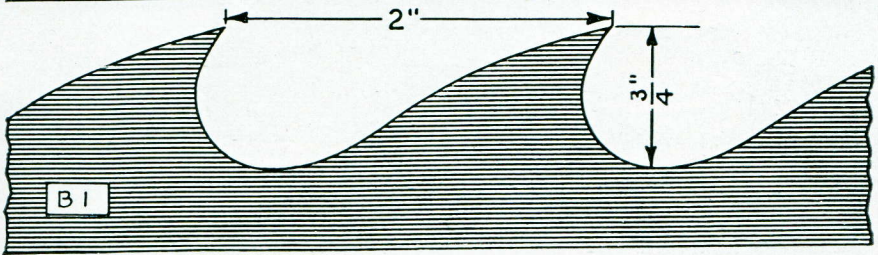
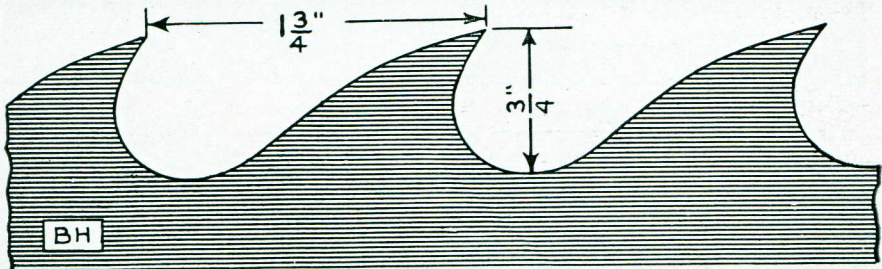
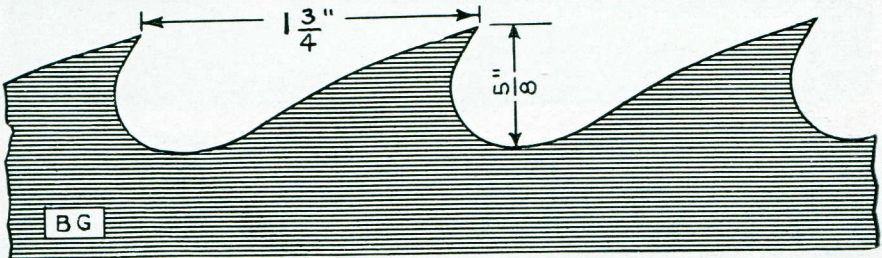
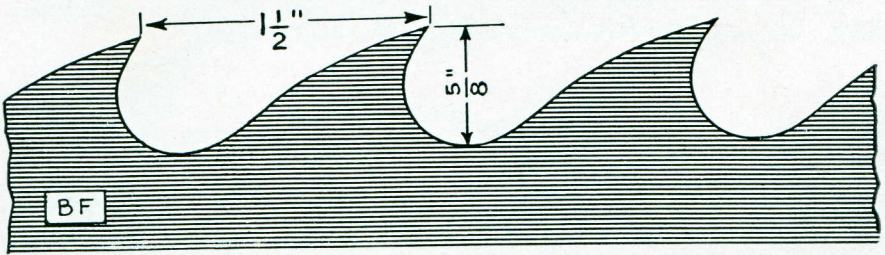
Simonds Band Saws

The illustrations herewith show spacing and depth of teeth, also patterns or die letters used. When ordering please refer to style tooth and spacing wanted.



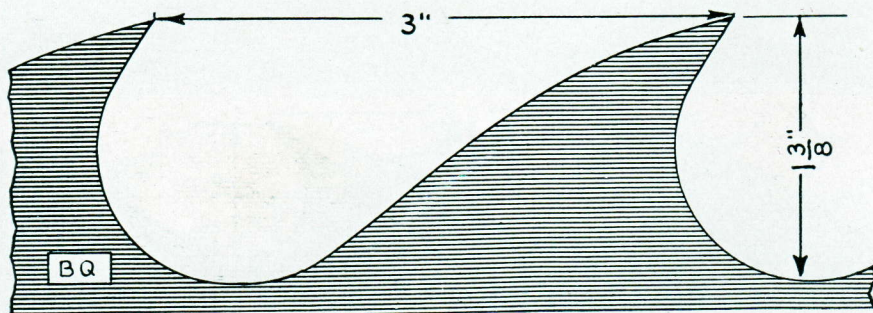
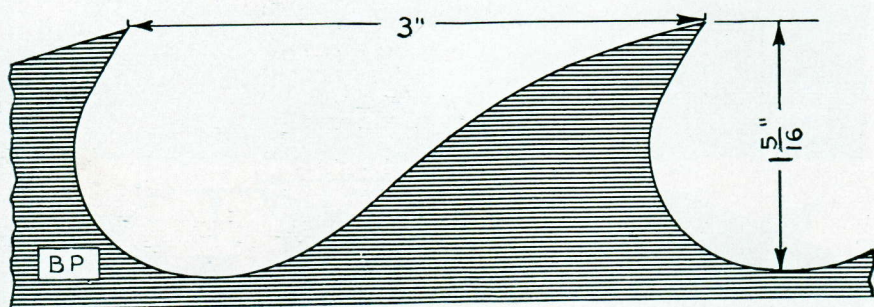
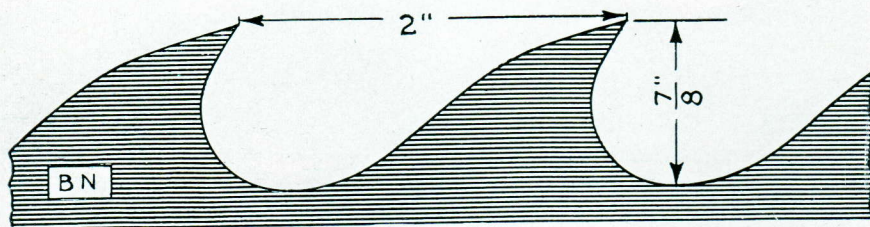
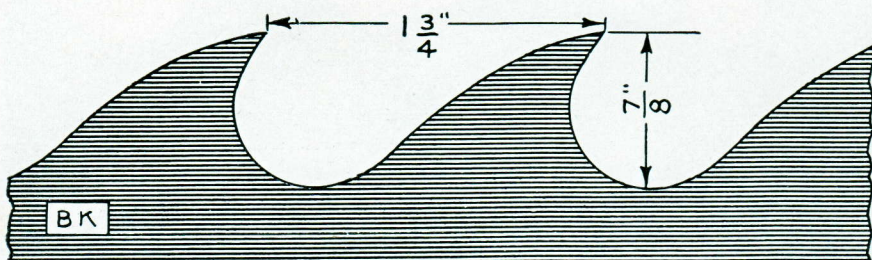
Simonds Band Saws

The illustrations herewith show spacing and depth of teeth, also patterns or die letters used. When ordering please refer to style tooth and spacing wanted.



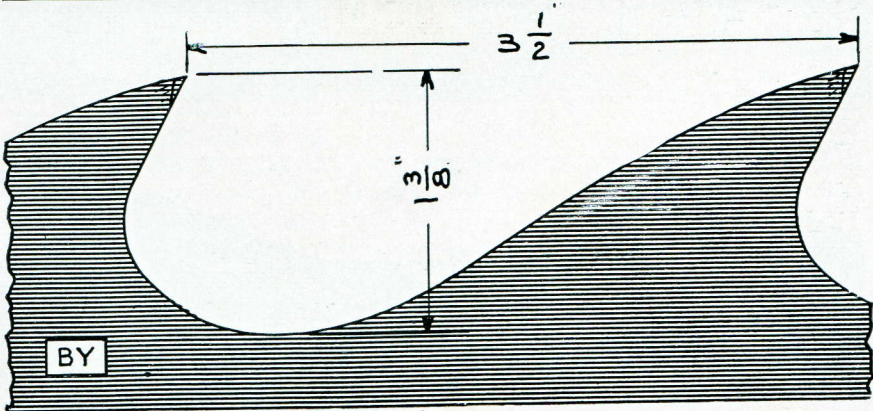
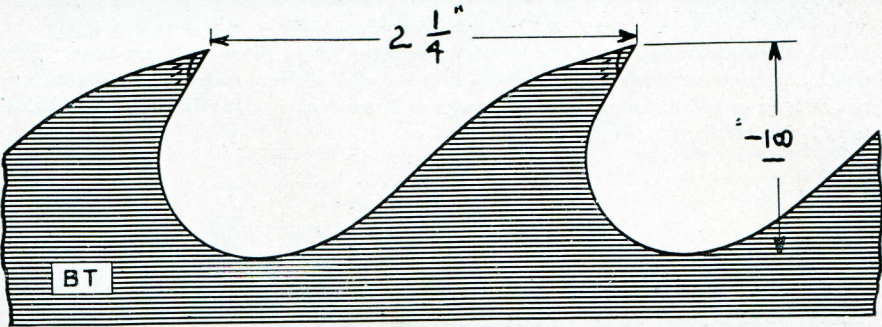
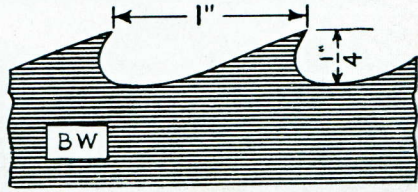
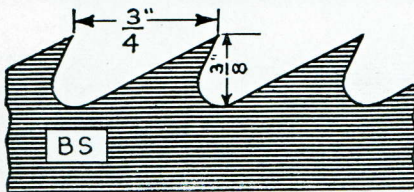
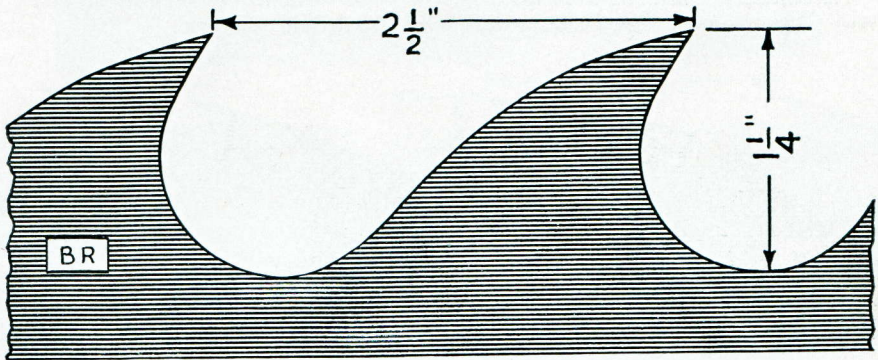
Simonds Band Saws

The illustrations herewith show spacing and depth of teeth, also patterns or die letters used. When ordering please refer to style tooth and spacing wanted.



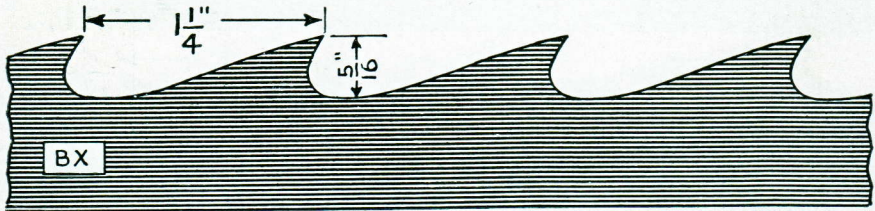
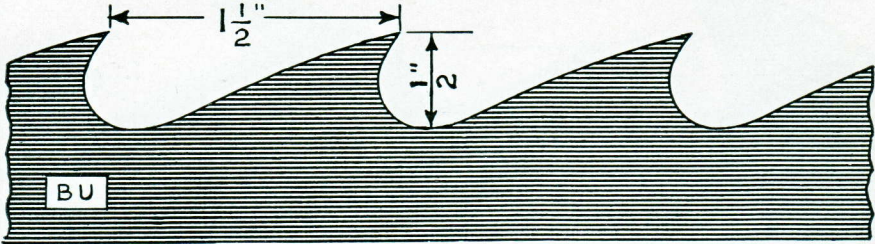
Simonds Band Saws

The illustrations herewith show spacing and depth of teeth, also patterns or die letters used. When ordering please refer to style tooth and spacing wanted.



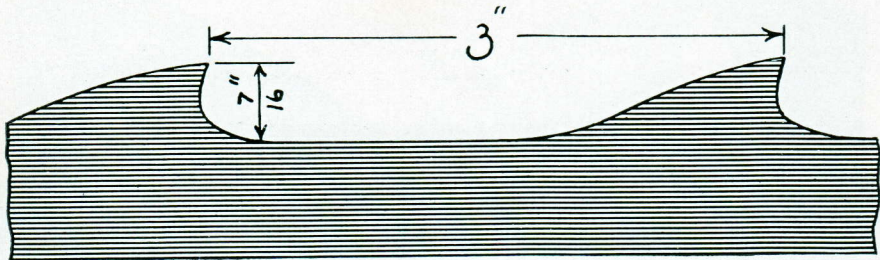
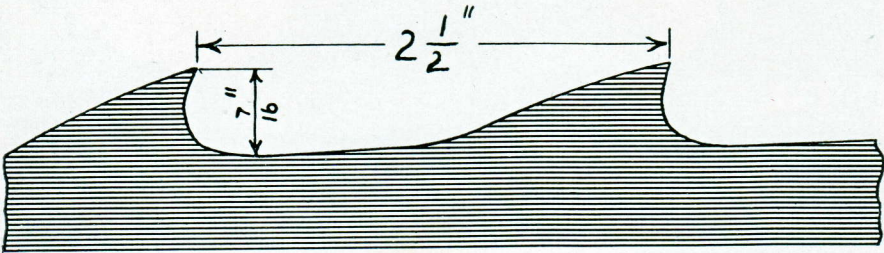
Simonds Band Saws

The illustrations herewith show spacing and depth of teeth, also patterns or die letters used. When ordering please refer to style tooth and spacing wanted.



Sliver Tooth Dies

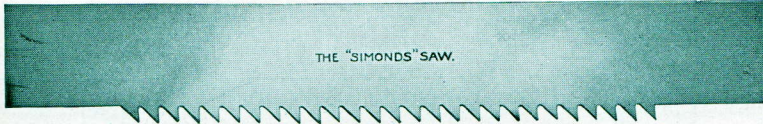
The illustrations below are our standard patterns where sliver teeth are used. The depth and shape as illustrated have been found to give the best results. Sliver teeth are not swaged or fitted. An additional charge of 5 per cent is made for single cut band saws if furnished with sliver teeth.



Mill, Mulay, and Drag Saws



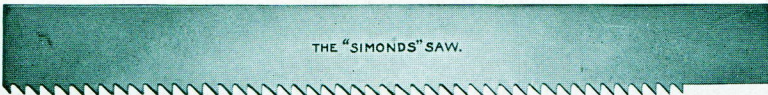
MILL SAW



MULAY SAW



LANCE TOOTH DRAG SAW



DRAG SAW OF EQUAL WIDTH

LIST PRICES PER FOOT FOR ABOVE SAWS

Width	4 Gauge	5 Gauge	6 Gauge	7 Gauge	8 Gauge	9 Gauge	10 Gauge
8 inch	\$6.00	\$5.60	\$5.00	\$4.40	\$4.00	\$3.60	\$3.40
9 "	6.40	6.00	5.40	4.80	4.40	4.00	3.60
10 "	7.00	6.40	5.80	5.20	4.80	4.40	4.00
11 "	7.60	7.00	6.40	5.80	5.40	4.80	4.40
12 "	8.40	7.80	7.00	6.40	6.00	5.40	4.80
14 "	9.60	9.00	8.20	7.60	7.00	6.40	5.80
16 "	11.20	10.60	9.60	8.80	8.20	7.60	7.00

All saws fitted, ready for use.

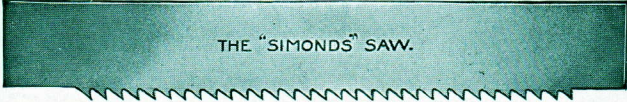
Above prices are for saws with Plain, Mill, Champion, or Lance tooth. Saws with special teeth, special prices. Mill, Mulay, or Drag Saws taper ground, add 5 per cent to list for each gauge taper grinding.

When ordering Mill, Mulay, or Drag Saws give length, width, thickness by gauge, style of teeth, space from point to point of teeth, and distance from end of saw to point of first tooth. If saws are to be drilled, send full size pattern, showing position of holes.

Write for Discounts



Gang Saws



PRICE PER FOOT						
Width Inches	11 Gauge	12 Gauge	13 Gauge	14 Gauge	15 Gauge	16 Gauge
4	....	....	\$1.90	\$1.85	\$1.75	\$1.70
5	....	....	2.00	1.95	1.85	1.80
6	....	....	2.15	2.05	2.00	1.95
7	....	....	2.35	2.25	2.15	2.15
8	\$2.90	\$2.75	2.55	2.45	2.35	2.35
9	3.15	2.95	2.80	2.65	2.55	....
10	3.40	3.20	3.05	2.90	2.75	....

Above prices cover saws fitted, ready for use.

Gang Saws with reversed teeth, add 10 per cent to list prices.

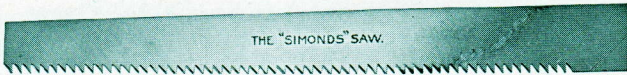
For heavier gauges than listed above, use list on Mill, Mulay, and Drag Saws.

Saws furnished without tabs, but with holes punched, add 2 cents net per hole.

Tabbing Gang Saws with solid bent tabs or two plate tabs.

4 hole	\$1.00
5 "	1.25
6 "	1.50
Round	1.25

Butting or Drag Saws, Tapered



PRICE PER FOOT			
Width	Thickness		
	10 Gauge	11 Gauge	12 Gauge
Tapered 6 in. butt, 4 in. point	\$2.00	\$1.80	\$1.60
" 7 " " 5 " "	2.20	2.00	1.80
" 8 " " 6 " "	2.40	2.20	2.00

All saws fitted, ready for use.

Tapered Drag Saws wider or thicker than above will be figured by the Mill, Mulay, and Drag Saw list, using the average width as the basis.

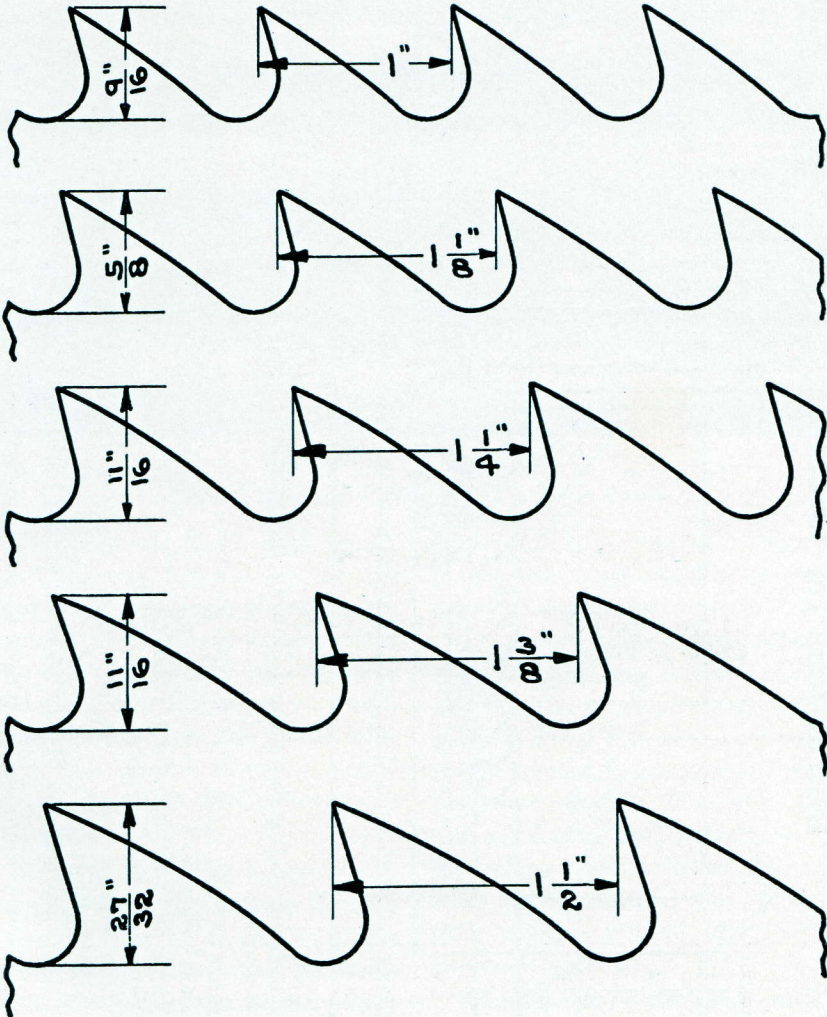
Drag Saws taper ground, add 5 per cent to the list for each gauge taper grinding.

Write for Discounts

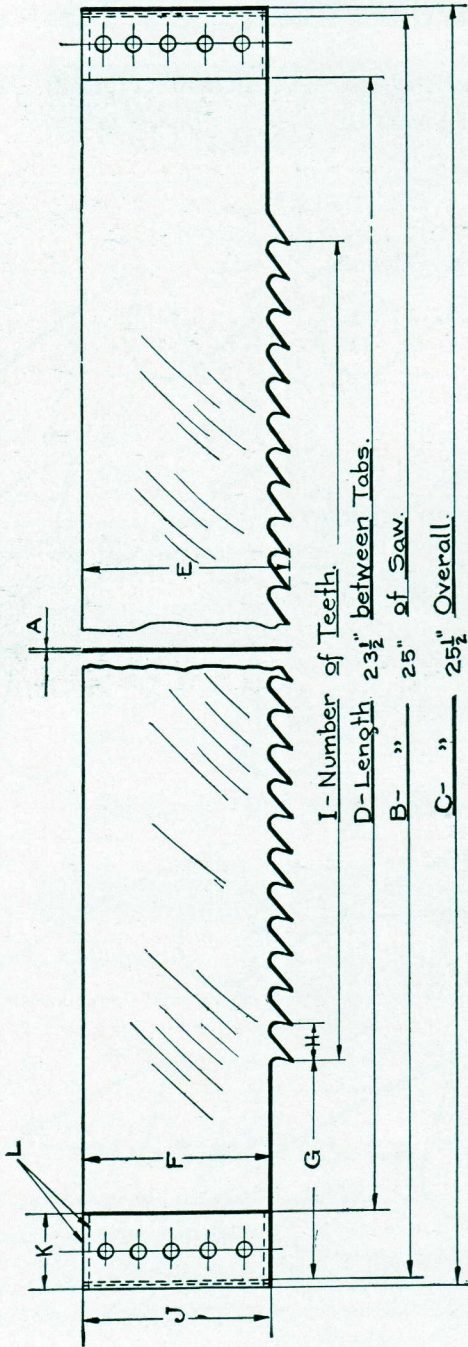


Simonds Standard Gang Saw Die

The illustrations herewith show spacing and depth of teeth. When ordering please refer to spacing wanted.



Instructions for Ordering Simonds Gang Saws



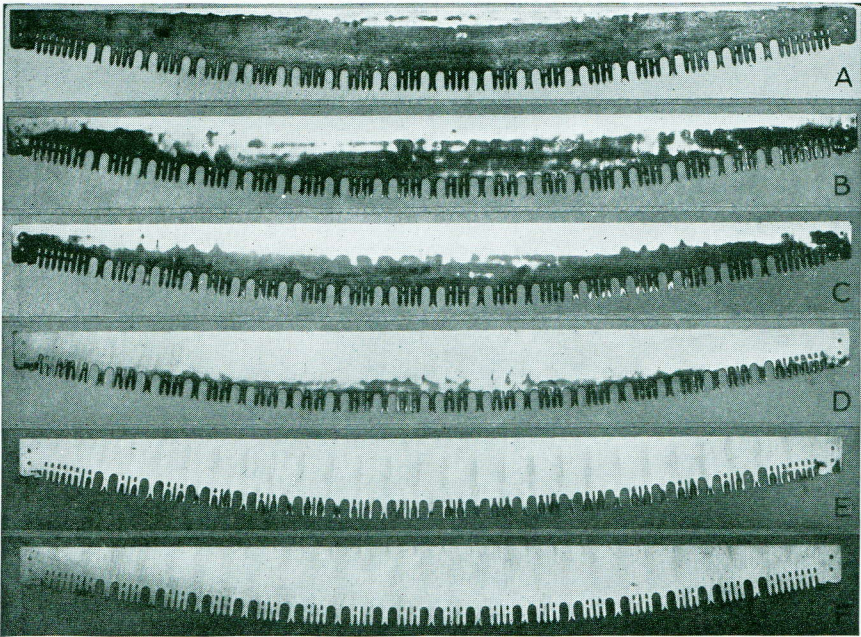
When ordering Gang Saws the following information should be given as completely as possible (letters refer to sketch above):

- A—Gauge of Saw.
- B—Length of Saw.
- C—Length over all, including Tabs.
- D—Distance between Tabs.
- E—Width of Saw.
- F—Width at Ends.
- G—Distance bottom end of Saw to point of first tooth.

- H—Space of Teeth.
- I—Number of Teeth.
- J—Length of Tabs.
- K—Width of Tabs.
- L—Location of Tabs. (Flush with back or equally divided?)

We want every Simonds Gang Saw to work perfectly and when we are given definite specifications by which to manufacture them they are covered by the broadest Simonds warranty.

Simonds Crescent Ground Cross-cut Saws



How Crescent Cross-cuts are Ground

The Simonds Method of Grinding Cross-cut Saws is by far the most perfect example of grinding in use today. It insures an absolutely true taper from tooth edge to back, and a uniform thickness, no variation whatever, on the tooth edge from end to end, a very decided advantage, as it doubly insures a uniform kerf or cut.

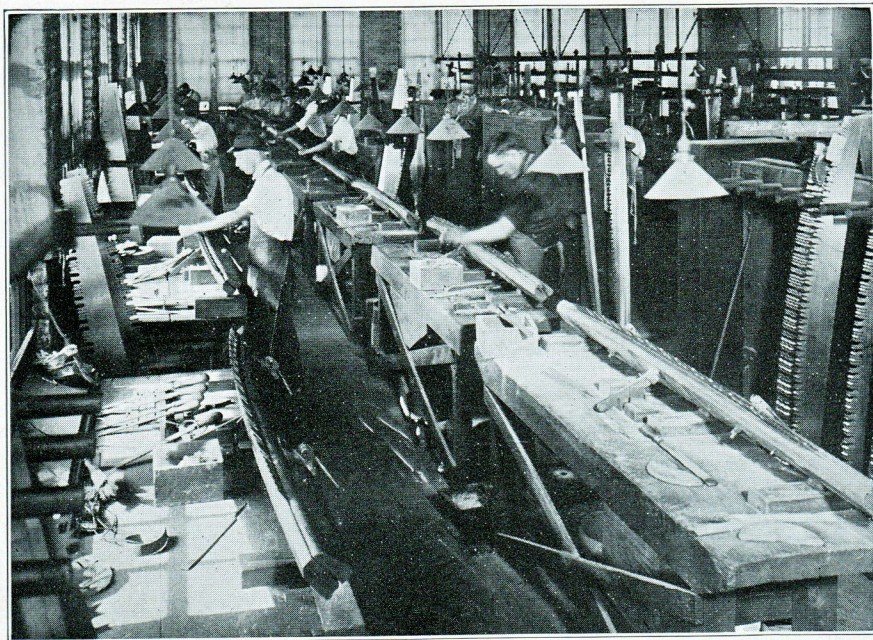
You will never find lumps or hollows in a Simonds Crescent Ground Cross-cut Saw. You find no bright spots or lines on these Simonds Saws when they are in use which always show up in a poorly ground saw. With perfect taper and uni-

form tooth edge, less set is required in the saw, thus insuring an easier running and faster cutting saw.

These six pictures show different stages in grinding a saw. At the top (A), the process begins. Each picture down the line shows more bright surface, indicating the grinding stone action. The high spots are gradually and uniformly removed from the hardened plate and with each pass over the stones a little more is ground off, clear to the back edge.

Thus the taper increases until it extends to the cutting edges, which remain the thickest part of the plate.

Simonds Cross-cut Saw Steel



As a result of the Simonds Grinding Process:

- the teeth and rakers have clean sharp edges.
- the teeth need be set only slightly.
- the kerf is less.
- the power required for pulling is less.
- there is less resistance and therefore more cutting can be done with less work.

All of our Cross-cut Saw Steel is made in our own Steel Mill exclusively for Simonds Saws. Only in this way have we been able to get the quality and uniformity we demand for the Simonds Crescent Ground Cross-cut Saws. It is the only steel that we are sure will take the temper that will hold a cutting

edge longer than the ordinary saw.

This steel, held to standard by the closest chemical tests, thousandth-of-an-inch accuracy in our exclusive process of grinding, and careful methods in every manufacturing process permit us to offer you an absolute guaranty.

Superiority Guaranteed

The Simonds Saw, Crescent Ground, will cut ten per cent more timber, same time and labor being used, than any other brand of saw made.

The Simonds Cross-cut Saw, Crescent Ground, is now universally known. For many years in use, no saw has ever been returned because our warranty, as above printed, was not fulfilled.

Simonds Crescent Ground Cross-cut Saws



No. 12. Two Cutting Teeth to each Raker.

5 5½

Length, feet



No. 13. Two Cutting Teeth to each Raker. Like No. 12 Saw, except that Teeth are Coarser.

5 5½

Length, feet



No. 22. Lance Tooth. Four Cutters to each Raker.

5 5½

Length, feet

6½

7

See Discount Sheet for Prices



Simonds Crescent Ground Cross-cut Saws Cottonwood Patterns

Slightly narrower than regular wide saws



No. 316. Two Cutting Teeth to each Raker.

Length, feet	5½	6
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No. 324. Lance Tooth. Four Cutting Teeth to each Raker.

Length, feet	5	5½	6	6½	7	7½
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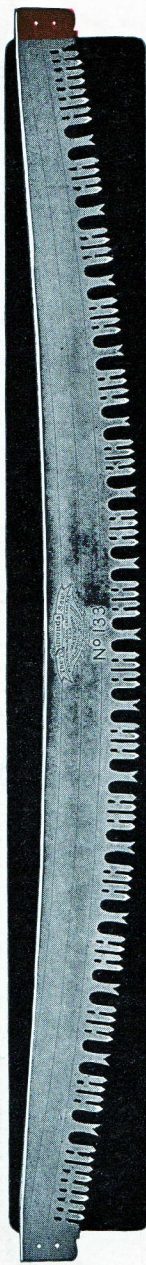
See Discount Sheet for Prices

Simonds Crescent Ground Cross-cut Saws



No. 113. Two Cutting Teeth to each Raker.

Length, feet 5 5½ 6



No. 133. Four Perforated Lance Teeth to each Raker.

Length, feet 5 5½ 6 6½ 7

See Discount Sheet for Prices



Simonds Crescent Ground Felling Saws



No. 315. Two Coarse Cutting Teeth to each Raker.

Length, feet 5 5½ 6



No. 325. Lance Tooth. Four Cutting Teeth to each Raker.

Length, feet 4½ 5 5½ 6 6½

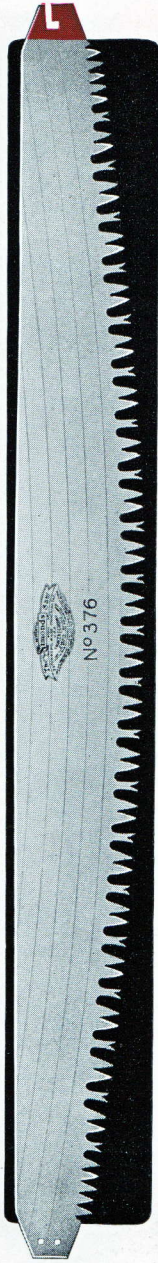
See Discount Sheet for Prices



Simonds Crescent Ground Cross-cut Saws

Made Especially for the Australian Trade

When ordering please state whether you desire holes in both ends of the saw or holes in one end and a slot in the other



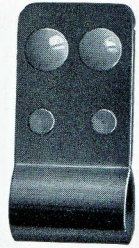
No. 376. Australian Diamond Point Saw. Made in all lengths 5 to 8 feet.



No. 378. "M" Tooth. Made in all lengths 5½ to 8 feet.
Bay State Cross-cut Saw—"Australian Pattern"



No. 248. "M" Tooth. Made in all lengths 5 to 7 feet.



The Simonds Saw tang is strong and durable, made to meet the special requirements of expert sawyers. A pair of tangs furnished without extra charge on all Australian Cross-cut Saws.

See Discount Sheet for Prices



Simonds Cross-cut Saws



No. 200. 5 gauges taper. Length, feet 5½ 6 6½



No. 202. 5 gauges taper. Length, feet 5 5½ 6 6½



No. 205. 4 gauges taper. Length, feet 5 5½ 6
 No. 205A. 2 gauges taper. Length, feet 5½ 6

See Discount Sheet for Prices



Simonds Cross-cut Saws



No. 206. 4 gauges taper. Length, feet 6



No. 207. 4 gauges taper. Length, feet 5
 No. 207A. 2 gauges taper. Length, feet 5



No. 214. Length, feet 6
 No. 0214. 2 gauges taper. Length, feet 5 1/2 6

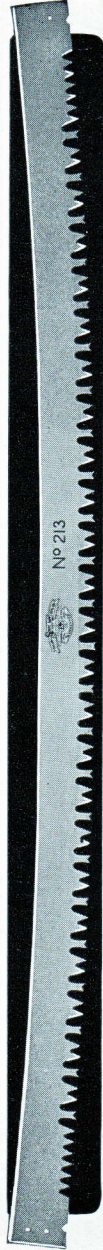
See Discount Sheet for Prices



Bay State Cross-cut Saws—Hollow Back

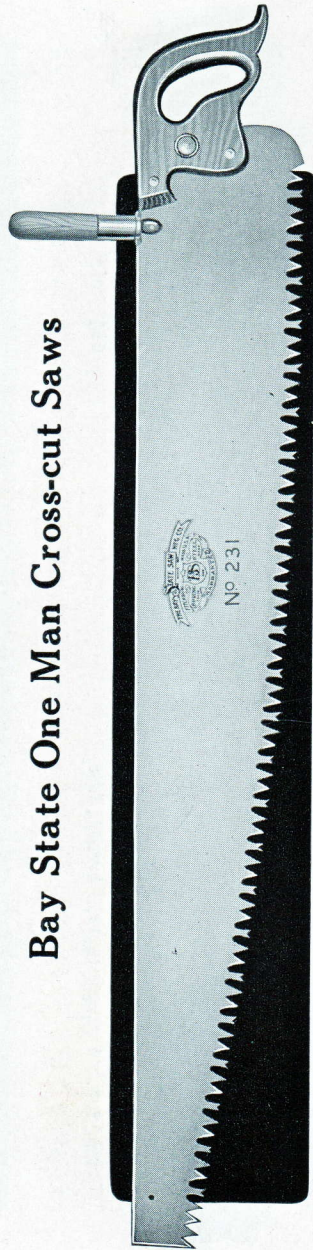


No. 210. Length, feet 4½ 5 5½ 6



No. 213. Length, feet 5 5½

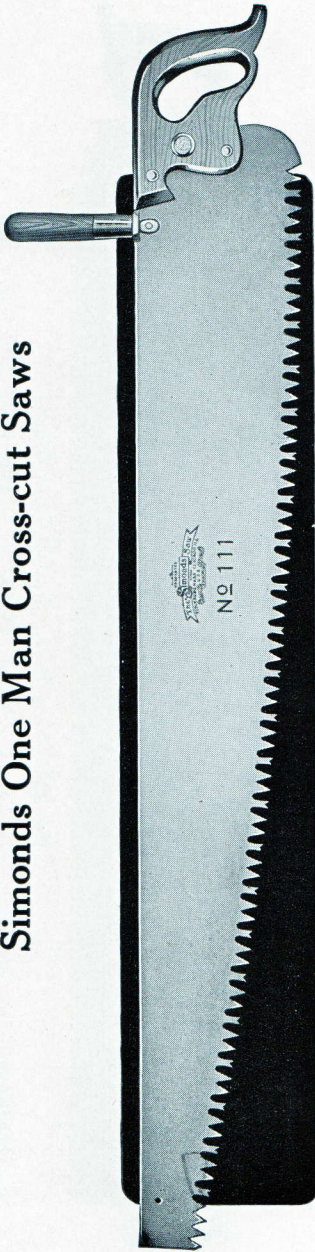
Bay State One Man Cross-cut Saws



No. 231. Length, feet 3 3½ 4 4½

See Discount Sheet for Prices

Simonds One Man Cross-cut Saws



No. 111. Straight Taper Ground Tuttle Tooth

Length, feet	3	3½	4	4½
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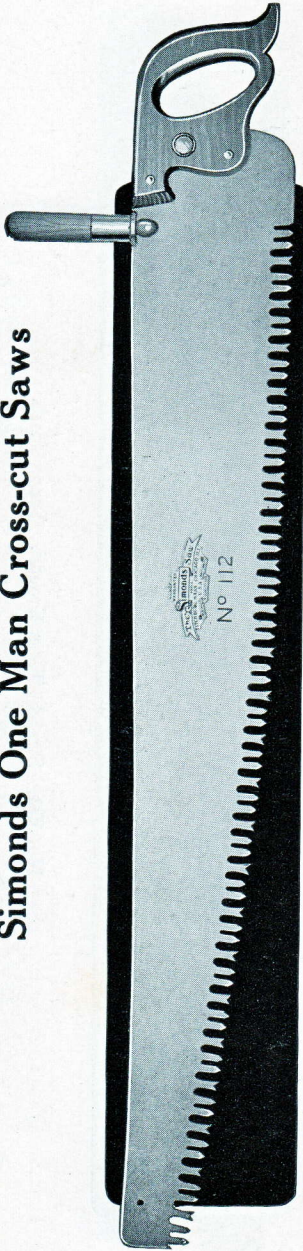
No. 222. Straight Taper Ground. Lance Tooth.

Length, feet	3	3½	4	4½	5
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See Discount Sheet for Prices



Simonds One Man Cross-cut Saws

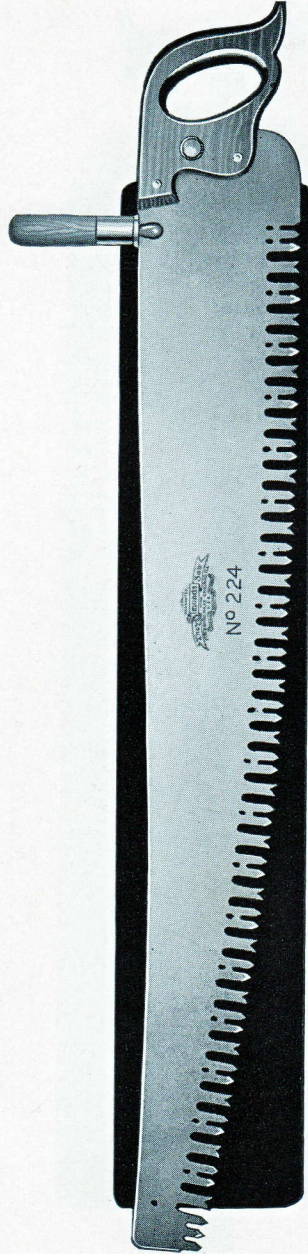


No. 112. Two slim cutting Teeth and Raker. Sway Back. Straight Taper Ground.

Length, feet

3½

4



No. 224. Sway Back. Straight Taper Ground.

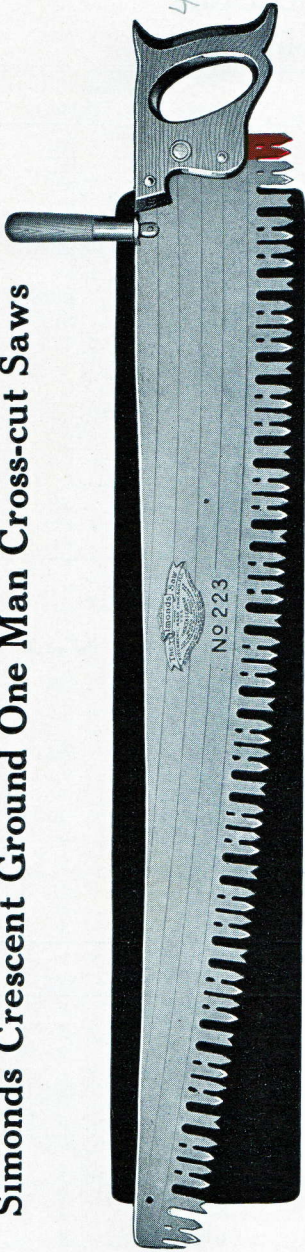
Length, feet

3½

4

See Discount Sheet for Prices

Simonds Crescent Ground One Man Cross-cut Saws



No. 223. Crescent Ground.

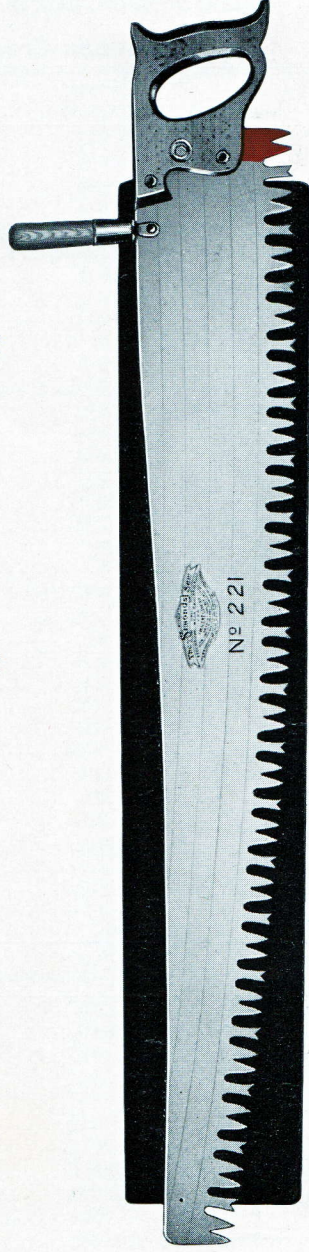
"Crescent Ground" Lance Tooth One Man Saw. Accurately tapered from cutting edge to back. An even gauge all along the tooth edge. It cuts easy and saws fast. Double-horn handle with large opening, enabling operator to use mitten or glove in winter. Fully warranted.

Length, feet

3½

4

4½



No. 221. Crescent Ground.

Made with tooth best for cutting hard timber. Supplementary handle makes pushing and pulling easier and does not tire the sawyer's wrists. (The No. 221 Saw is equipped with double-horn handle.) An even gauge all along the circle of the cutting edge. Every tooth and raker works right. Fully warranted.

Length, feet

3½

4

4½

See Discount Sheet for Prices



Cross-cut Saw Specifications

Simonds Crescent Ground

Number	Length	Width at Center	Width at Ends	Weight	Number Gauges Taper
12	5	6 $\frac{1}{8}$	3 $\frac{1}{4}$	4 $\frac{1}{2}$	5
	5 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{1}{4}$	5 $\frac{3}{4}$	6
13	4 $\frac{1}{2}$	5 $\frac{5}{8}$	3 $\frac{1}{4}$	3 $\frac{5}{8}$	5
	5	6 $\frac{1}{8}$	3 $\frac{1}{4}$	4 $\frac{3}{8}$	5
	5 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{1}{4}$	5 $\frac{3}{4}$	6
	6	7	3 $\frac{1}{4}$	6 $\frac{3}{8}$	6
	6 $\frac{1}{2}$	7 $\frac{9}{16}$	3 $\frac{1}{4}$	7 $\frac{7}{8}$	6
22	5	6 $\frac{1}{8}$	3 $\frac{1}{4}$	4 $\frac{1}{8}$	5
	5 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{1}{4}$	5 $\frac{3}{4}$	6
	6	7	3 $\frac{1}{4}$	6 $\frac{3}{8}$	6
	6 $\frac{1}{2}$	7 $\frac{9}{16}$	3 $\frac{1}{4}$	7 $\frac{1}{2}$	6
	7	7 $\frac{1}{2}$	3 $\frac{1}{2}$	8	6
113	5	5 $\frac{1}{4}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	5
	5 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{4}$	5
	6	5 $\frac{3}{4}$	3 $\frac{3}{8}$	5 $\frac{5}{8}$	5
133	5	5 $\frac{1}{4}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	5
	5 $\frac{1}{2}$	5 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{4}$	5
	6	5 $\frac{3}{4}$	3 $\frac{3}{8}$	5 $\frac{1}{2}$	5
	6 $\frac{1}{2}$	6	3 $\frac{3}{8}$	6 $\frac{1}{8}$	5
	7	6 $\frac{1}{8}$	3 $\frac{3}{8}$	6 $\frac{5}{8}$	5
315	5	4 $\frac{3}{8}$	3 $\frac{1}{4}$	4 $\frac{1}{8}$	3
	5 $\frac{1}{2}$	4 $\frac{5}{8}$	3 $\frac{1}{4}$	4 $\frac{3}{4}$	3
	6	4 $\frac{1}{2}$	3 $\frac{1}{4}$	5 $\frac{1}{4}$	3
325	4 $\frac{1}{2}$	4 $\frac{1}{8}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	3
	5	4 $\frac{3}{8}$	3 $\frac{1}{4}$	3 $\frac{1}{2}$	3
	5 $\frac{1}{2}$	4 $\frac{5}{8}$	3 $\frac{1}{4}$	4	3
	6	4 $\frac{1}{2}$	3 $\frac{1}{4}$	4 $\frac{5}{8}$	3
	6 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{4}$	5 $\frac{1}{8}$	3
316	5 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{1}{4}$	5 $\frac{1}{8}$	6
	6	5 $\frac{7}{8}$	3 $\frac{1}{4}$	5 $\frac{7}{8}$	5
324	5	5 $\frac{3}{8}$	3 $\frac{1}{4}$	3 $\frac{3}{4}$	5
	5 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{1}{4}$	5 $\frac{1}{8}$	6
	6	5 $\frac{7}{8}$	3 $\frac{1}{4}$	5 $\frac{3}{4}$	5
	6 $\frac{1}{2}$	6 $\frac{1}{4}$	3 $\frac{1}{4}$	6 $\frac{5}{8}$	5
	7	6 $\frac{5}{8}$	3 $\frac{1}{4}$	7 $\frac{5}{8}$	5
7 $\frac{1}{8}$	7	3 $\frac{1}{4}$	8 $\frac{3}{8}$	5	

Simonds Brand

200	5 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{1}{4}$	4 $\frac{3}{4}$	5
	6	5 $\frac{7}{8}$	3 $\frac{1}{4}$	6 $\frac{1}{8}$	5
	6 $\frac{1}{2}$	6 $\frac{1}{4}$	3 $\frac{1}{4}$	7	5
202	5	5 $\frac{3}{8}$	3 $\frac{1}{4}$	4	5
	5 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{1}{4}$	5	5
	6	5 $\frac{7}{8}$	3 $\frac{1}{4}$	6	5
6 $\frac{1}{2}$	6 $\frac{1}{4}$	3 $\frac{1}{4}$	7	5	
	205	5	6 $\frac{1}{8}$	3 $\frac{3}{8}$	4 $\frac{7}{8}$	4
5 $\frac{1}{2}$	5 $\frac{5}{8}$	3 $\frac{3}{8}$	5 $\frac{7}{8}$	4	
	6	7 $\frac{1}{8}$	3 $\frac{3}{8}$	7 $\frac{3}{4}$	4
205A	5 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{3}{8}$	6 $\frac{1}{2}$	2
	6	7 $\frac{1}{8}$	3 $\frac{3}{8}$	7 $\frac{1}{8}$	2
206	5 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{3}{8}$	5 $\frac{3}{4}$	4
	6	7 $\frac{1}{8}$	3 $\frac{3}{8}$	7 $\frac{3}{8}$	4



Cross-cut Saw Specifications

Simonds Brand

Number	Length	Width at Center	Width at Ends	Weight	Number Gauges Taper
207	5	6 $\frac{1}{8}$	3 $\frac{3}{8}$	5 $\frac{3}{8}$	5
207A	4	5 $\frac{1}{2}$	3 $\frac{3}{8}$	3 $\frac{7}{8}$	2
	5	6 $\frac{1}{8}$	3 $\frac{3}{8}$	5 $\frac{3}{4}$	2
214	5	3 $\frac{3}{4}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	None
	5 $\frac{1}{2}$	3 $\frac{3}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	None
	6	3 $\frac{3}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	None
0214	5	3 $\frac{3}{4}$	2 $\frac{1}{16}$	3 $\frac{3}{8}$	2
	5 $\frac{1}{2}$	3 $\frac{3}{4}$	2 $\frac{1}{16}$	3 $\frac{7}{8}$	2
	6	3 $\frac{3}{4}$	2 $\frac{1}{16}$	4 $\frac{1}{4}$	2

Bay State Brand

210	4 $\frac{1}{2}$	3 $\frac{3}{16}$	3 $\frac{3}{16}$	2 $\frac{7}{8}$	None
	5	3 $\frac{3}{16}$	3 $\frac{3}{16}$	3 $\frac{1}{4}$	None
	5 $\frac{1}{2}$	3 $\frac{3}{16}$	3 $\frac{3}{16}$	4	None
	6	3 $\frac{3}{16}$	3 $\frac{3}{16}$	4 $\frac{1}{2}$	None
213	5	3 $\frac{3}{16}$	3 $\frac{3}{16}$	3 $\frac{1}{2}$	None
	5 $\frac{1}{2}$	3 $\frac{3}{16}$	3 $\frac{3}{16}$	4 $\frac{1}{4}$	None

Simonds Crescent Ground (One Man)

Number	Length	Width at Butt End	Width at End	Weight	Number Gauges Taper
223	3 $\frac{1}{2}$	6 $\frac{7}{8}$	2 $\frac{7}{8}$	4 $\frac{1}{2}$	3
	4	6 $\frac{7}{8}$	2 $\frac{7}{8}$	5	3
	4 $\frac{1}{2}$	6 $\frac{7}{8}$	2 $\frac{7}{8}$	6	3
221	3 $\frac{1}{2}$	6 $\frac{7}{8}$	2 $\frac{7}{8}$	4 $\frac{1}{2}$	3
	4	6 $\frac{7}{8}$	2 $\frac{7}{8}$	5	3
	4 $\frac{1}{2}$	6 $\frac{7}{8}$	2 $\frac{7}{8}$	6	3

Simonds Brand (One Man)

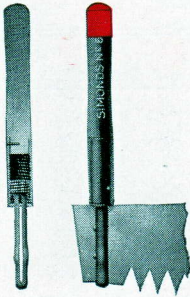
111	3	6 $\frac{3}{4}$	2 $\frac{1}{2}$	3 $\frac{3}{4}$	Slight
	3 $\frac{1}{2}$	7	2 $\frac{1}{2}$	4 $\frac{5}{8}$	Slight
	4	7	2 $\frac{1}{2}$	5 $\frac{3}{8}$	Slight
	4 $\frac{1}{2}$	7	2 $\frac{1}{2}$	6	Slight
222	3	6 $\frac{3}{4}$	2 $\frac{1}{2}$	3 $\frac{3}{4}$	Slight
	3 $\frac{1}{2}$	7	2 $\frac{1}{2}$	4 $\frac{3}{8}$	Slight
	4	7	2 $\frac{1}{2}$	5	Slight
	4 $\frac{1}{2}$	7	2 $\frac{1}{2}$	5 $\frac{5}{8}$	Slight
	5	7	2 $\frac{1}{2}$	6 $\frac{7}{8}$	Slight
112	3 $\frac{1}{2}$	7	2 $\frac{3}{4}$	4 $\frac{1}{2}$	Slight
	4	7 $\frac{1}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{8}$	Slight
224	3 $\frac{1}{2}$	7	2 $\frac{3}{4}$	4 $\frac{1}{2}$	Slight
	4	7 $\frac{1}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{8}$	Slight

Bay State Brand

231	3	6 $\frac{3}{4}$	2 $\frac{1}{2}$	3 $\frac{3}{4}$	Slight
	3 $\frac{1}{2}$	7	2 $\frac{1}{2}$	4 $\frac{5}{8}$	Slight
	4	7	2 $\frac{1}{2}$	5 $\frac{3}{8}$	Slight
	4 $\frac{1}{2}$	7	2 $\frac{1}{2}$	6	Slight



Simonds Cross-cut Saw Handles



No. 6. Handle

Made with malleable iron loop casting, the loop screwing up into a threaded ferrule at the bottom of the handle.

Ferrule made exceptionally strong, bringing liability of breakage down to a minimum.

Weight per case of 100 pairs, 184 lbs.

No. 66. Handle

Handle same style as No. 6, but with heavier handle and castings.

Weight per case of 50 pairs, 117 lbs.



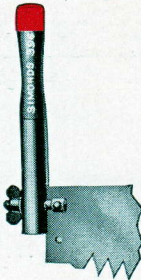
No. 111B. Handle

Easily adjusted reversible handle. Good quality heavy malleable castings. Strong steel bolt with extra large wing nut which holds castings solidly in place.

No. 111. Handle

Same style handle as No. 111B, with lighter weight castings.

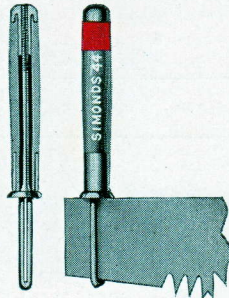
Weight per case of 100 pairs, 173 lbs.



No. 396. Handle

A handle that will stand hard service owing to the heavy malleable iron ferrule with milled steel pin and wing nut, which holds the handle firmly in place on the end of the saw.

Weight per case of 50 pairs, 140 lbs.



No. 44. Handle

This Cross-cut Saw Handle is the strongest handle made. Steel loop running the full length of handle and screwing into malleable cap and nut combined on end of handle as illustrated.

Steel swivel attached to ferrule.

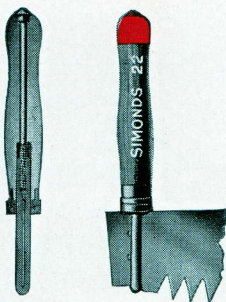
Length of handle, 7 inches.

Shipping weight 200 lbs. per 100 pairs.

Packed 100 pairs in case.

See Discount Sheet for Prices

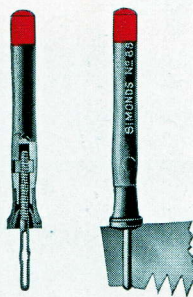
Simonds Cross-cut Saw Handles



No. 22. Handle

Seasoned hardwood handle with extra steel bolt running down from top of handle to screw into ferrule of heavy steel loop.

Weight per case of 100 pairs, 199 lbs.



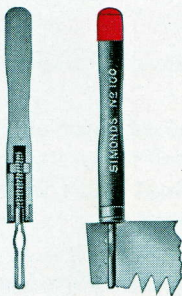
No. 88. Handle

Loop Handle. Strong and serviceable with very strong steel loop, screwing into malleable nut.

Weight per case of 100 pairs, 204 lbs.

No. 88. Short

This handle is 1½" shorter than regular No. 88.



No. 100. Handle

A sturdy loop handle with strong steel loop screwing into a malleable nut.

Weight per barrel of 100 pairs, 100 lbs.

No. 100. Short

1½" shorter than regular No. 100 handle.



No. 390. Regular One-man Handle with large hand hole.

No. 391. Regular One-man Handle with small hand hole.

No. 393. Two-horn One-man Handle, same as used on Saw No. 223.

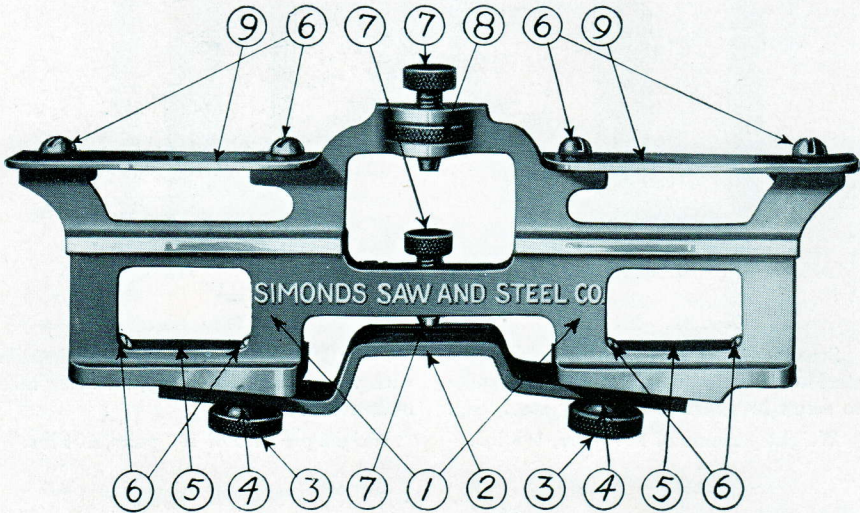
No. 392. One-man Supplementary Handle.



See Discount Sheet for Prices



Simonds Precision Saw Tools, No. 342



Advantages of the Simonds Precision Saw Tool

Quick, accurate, and rigid adjustment of Raker Gauge.

No chance to dislocate slide when once set in position,—**a feature not to be found in any other saw tool on the market.**

Easy and rigid adjustment of jointing file. File is held square with the body of the saw.

Depth of raker tooth can be easily and accurately varied from 1-16 of an inch to 1-1000 of an inch, **the slide being held firmly in all positions.**

Notch on filing rack when lined up with scale on side of tool governs height of rakers. Each division on scale is four thousandths. This makes a simple and accurate means of determining exact amount that rakers are below cutting teeth.

Hardened steel plates and screws are furnished throughout on all wearing surfaces. This prevents the fine adjustment of the tool becoming altered owing to wear when in use.

All parts of this tool are interchangeable, and may be replaced.

Instructions for operating and complete list of all parts enclosed with each tool.

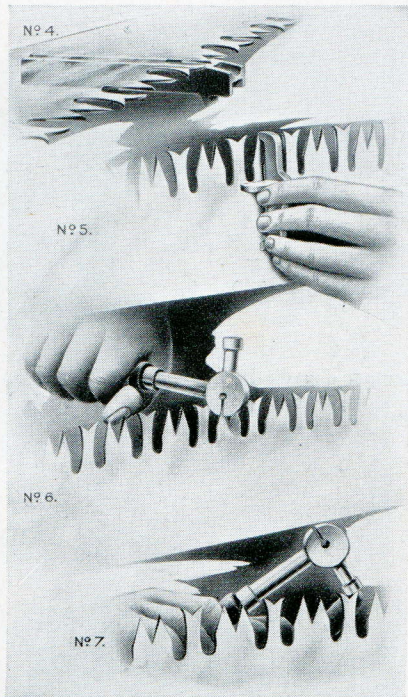
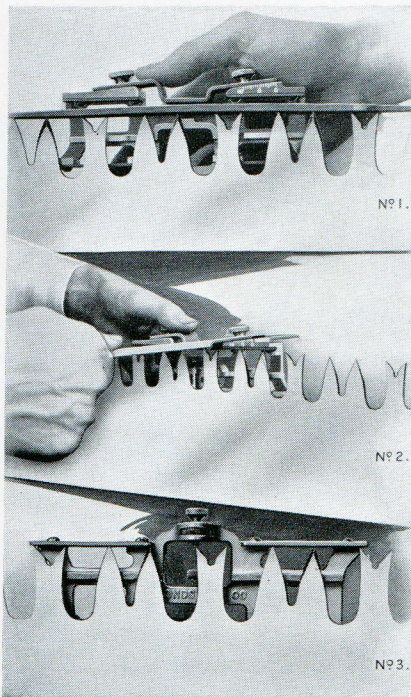
List Prices

Set complete, including tool, set gauge, and block, but without hammer	per doz.
Drop-forged Tool Steel Hammer, No. 346.....	per doz.

See Discount Sheet for Prices



Simonds Precision Saw Tools, No. 342



- No. 1. Jointing the Saw
- No. 2. Filing Raker or Cleaner Teeth
- No. 3. Gauging length of Raker or Cleaner Teeth

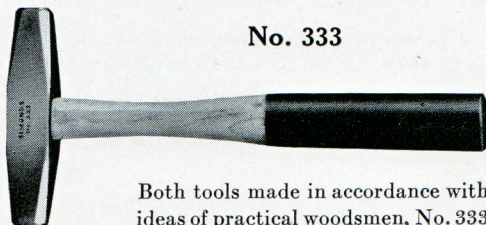
- No. 4. Setting Stake
- No. 5. Set Gauge
- No. 6. Spring Setting
- No. 7. Swaging Raker Teeth

Setting Block and Hammer



No. 344

Made of Solid Tool Steel, properly heat treated, the No.344 Setting Block will stand up under constant use for many years.



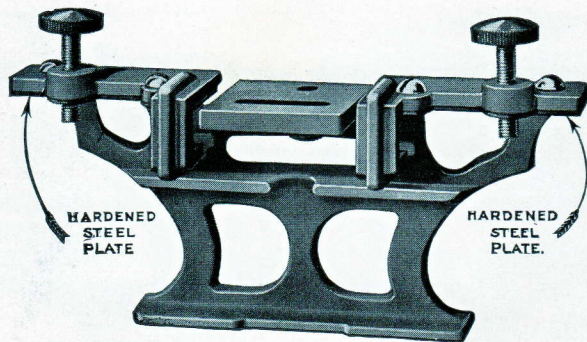
No. 333

Both tools made in accordance with ideas of practical woodsmen, No. 333 Setting Hammer is well balanced, properly heat treated, and the weight best suited for swaging and setting of Cross-cut Saws.

See Discount Sheet for Prices

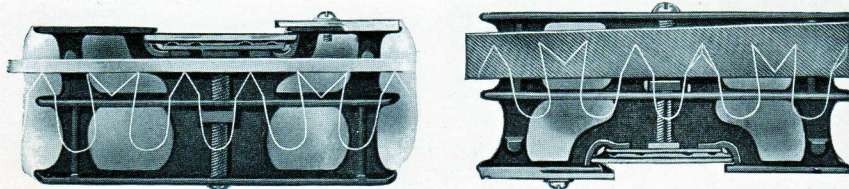


The Simonds Crescent Saw Tool No. 340



Price per dozen sets, including Tool, Set Gauge and Block without Hammer
 No. 346 Drop-forged Tool Steel Hammers, per dozen,.....

Saw Tool No. B2



This tool was designed for the use of lumbermen and is appreciated by all users of cross-cut saws. It is light and convenient to carry in the pocket or to use in the woods. Packed one set in a box. Set includes Tool, Set Gauge and Block without Hammer.



No. 346
Setting Hammer



No. 337
Setting Hammer

See Discount Sheet for Prices



Simonds Docking or Framing Saw



No. 348. For Heavy Work

An easy-cutting handy saw for lumbermen to use around docks and yards where rough ends of boards or planks need to be sawed off. Also for bridge builders, scale builders, carpenters, house framing, and for the farm woodyard. Full-breasted blade with bevel filed teeth, 4½ points to the inch, 18-gauge on cutting edge, taper ground for clearance. Malleable iron handle, firmly riveted to blade.

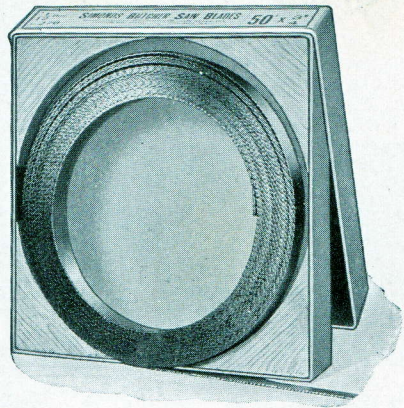
Made in two lengths: 24-inch and 30-inch.

No. 347. Same as No. 348, except furnished with Wood Handle having large, roomy hand hole.

Docking Saws are packed ⅓ dozen in a box

No. 270. Butcher Saw Blades in Coils

Owing to the disadvantage of carrying several dozen of different lengths of Butcher Saw Blades in stock, we are now furnishing these Blades in coils of 25 or 50 ft. You are thus enabled to furnish, at any time, the right length. These Blades are made of the finest quality of steel, tempered, ground and polished, filed and set, with the proper tooth, ready for immediate use.



Width, inches ⅜ ½ ⅝ ¾ 1 1¼ 1½

These blades 23 gauges thick, 11 points to inch.

See Discount Sheet for Prices



Simonds Improved Pulp Wood Saw Blades

SIMONDS SAW AND STEEL CO.
FITCHBURG, MASS., U. S. A.
No. 408

No. 408. Two cutting teeth to each raker.
Furnished in 32, 36, and 42 inch lengths.

SIMONDS SAW AND STEEL CO.
FITCHBURG, MASS., U. S. A.
No. 409

No. 409. Four cutting teeth to each raker.
Furnished in 32, 36 and 42 inch lengths.

SIMONDS SAW AND STEEL CO.
FITCHBURG, MASS., U. S. A.
No. 410

No. 410. Peg Tooth.
Furnished in 32 and 42 inch lengths.

SIMONDS SAW AND STEEL CO.
FITCHBURG, MASS., U. S. A.
No. 411

No. 411. Four cutting teeth to each raker.
Furnished in 32, 36 and 42 inch lengths.

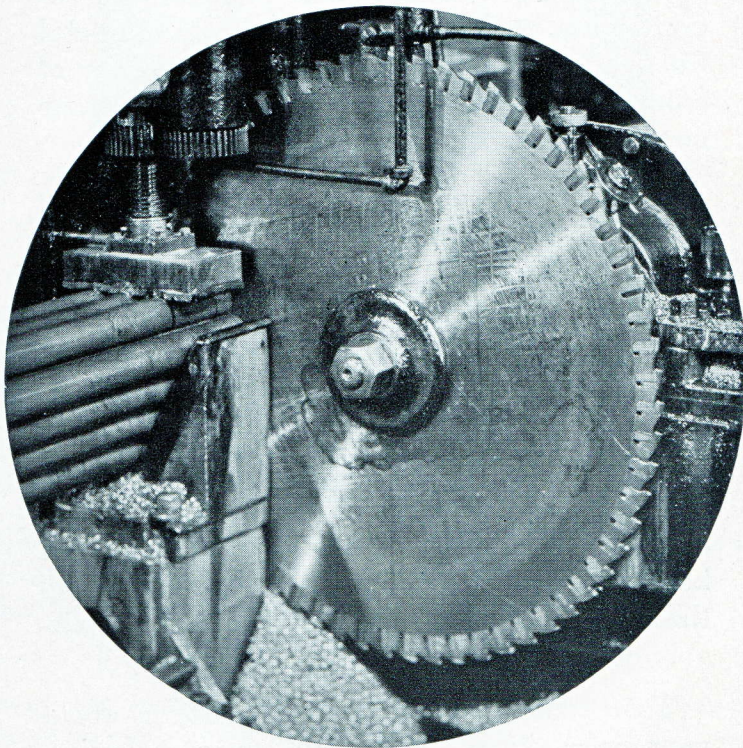
Made from Simonds own cross-cut saw steel, exactly finished, carefully hardened and tempered, the Simonds Pulp Wood Saw holds its edge in any wood. The set and filed saws are furnished with cutting teeth filed to sharp points.

The carefully fitted rakers are uniform in height.

See Discount Sheet for Prices

SIMONDS

METAL CUTTING SAWS AND FILES



SOLID AND INSERTED TOOTH
METAL CUTTING CIRCULAR SAWS,
HARD EDGE AND SPRING TEMPER METAL
BAND SAWS, HACK SAW BLADES,
FILES, TOOL BITS, FLAT GROUND STOCK

The Simonds Saw and Steel Company's position of leadership in the manufacture of Metal Cutters is based on the unquestioned quality of Simonds Products plus their ability to do your metal cutting with economy and satisfaction.

To insure the quality of Simonds Metal Cutting Circular and Band Saws, Hack Saws, Files and Tool Bits, Simonds make their own steel in a modern electric furnace steel mill at Lockport, N. Y.

Over a century's experience in the manufacture of tempered steel cutting edges guarantees proper heat treatment for the particular kind of work each cutter has to do. Year after year, knowledge accumulates, resulting in better methods, better machines, and better products. This accumulated knowledge is available to our customers to help them decide on the right method of most profitably doing their particular cutting.

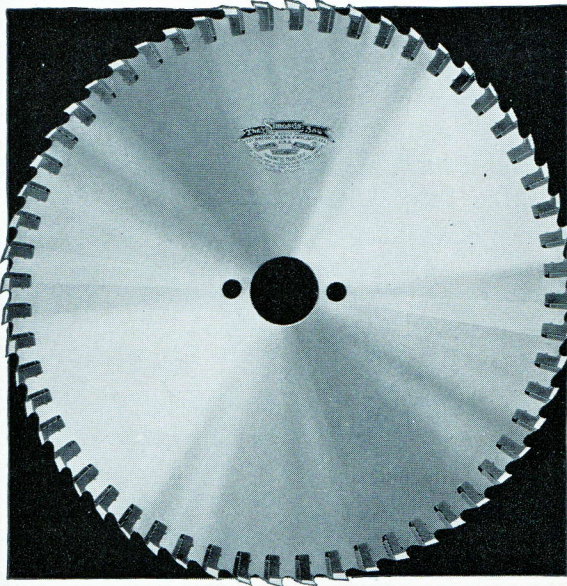
Your questions are welcome. Write us about your own problem. We believe we can help you.

SIMONDS SAW AND STEEL CO.

SIMONDS "THE SAW MAKERS"

SIMONDS **RED STREAK**

Inserted Tooth Metal Cutting Saws



Give greater cutting efficiency than has ever before been obtained from any metal cutting saw.

This Curved Inserted Tooth—

**CUTS EASIER
CLEARS CHIPS FASTER**

Every other tooth in a Simonds Inserted Tooth Metal Cutting Saw is narrow on the cutting edge, from .012 inch in the smaller teeth to as much as .040 inch on the larger sizes. This narrow tooth cuts a groove in the work approximately one-third the total width of the kerf of just sufficient depth so that the full width teeth following cut the remaining one-third on either side. This breaks the chips into three pieces allowing them to drop free and not drag on the side of the kerf.

The curved Simonds Tooth eliminates danger of the chips sticking in the gullets with the consequent chance of breaking the saw.

One nationally known machine manufacturer reports that the Simonds Red Streak Inserted Tooth Saw does twice the cutting per grinding as another make on easy cutting material. On harder and tougher material the Simonds Blade does four or five times the cutting per grinding. The harder and tougher the material cuts, the better the Simonds Red Streak Blade shows up in comparison.



At the same time it requires less than one-third the amount of time to sharpen the Simonds Saws as the other make.

Here then are two facts that clearly prove that it pays to use Simonds Red Streak Inserted Tooth Metal Saws on your metal cutting.

1. The Simonds Saw does at least twice the cutting.
2. Requires only one-third the time to keep sharp.

Other Advantages of Simonds Inserted Tooth Metal Cutting Saw

1. The teeth are made of full High Speed Steel. The use of High Speed Steel makes possible much greater cutting speed, feed, and depth of cut and nearly doubles the production over that which can be obtained from a Solid Tooth Saw. This is due to the ability of High Speed Steel to maintain a sharp cutting edge at working temperatures considerably above those that ruin carbon steel teeth.

2. The Saw Plate is made of a tough alloy steel that will stand up under double the feed that can be given a solid all hard blade. To do the cutting a solid saw must be hardened sufficiently to cut well. This necessarily makes the saw plate more brittle than when the teeth only are hardened to cut.

3. The kerf is as narrow as the usual kerf of a solid saw. No more material is wasted.

4. The teeth of Simonds Inserted Tooth Saws are not removed for sharpening—they can be sharpened in the plate. When worn out, they can be replaced by a mechanic in your plant.

5. Inserted Tooth Metal Saws give perfect clearance. This is a distinct advantage over the solid saws as the clearance is secured without weakening the strength of the plate. The teeth of Inserted Tooth Saws have a clearance on top, a clearance backward on the periphery, and a clearance downward toward the center, thus doing away with all friction on the sides of the teeth and on the saw plate.

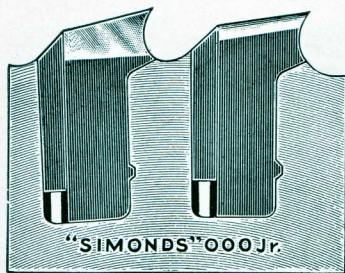
It will pay any shop to use these saws. They cut faster, easier, and reduce metal cutting costs, which means a greater net profit.

The following pages illustrate the different styles and sizes of Simonds Curved Teeth for Inserted Tooth Metal Cutting Saws. There's a style for each kind of cutting from the lightest to the heaviest material and for both light and heavy machines.

Write our nearest branch about your metal cutting. We will gladly give you the benefit of our broad experience and knowledge of special requirements and will give full details about the Saws recommended for your particular work.



Simonds Inserted Tooth Metal Saws



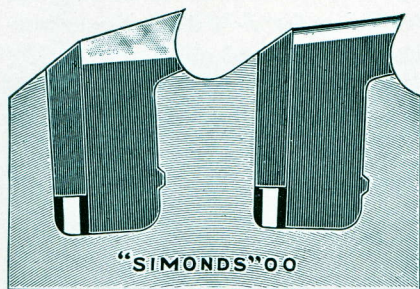
No. 000 Jr.

$\frac{9}{64}$ inch Plate, $\frac{3}{16}$ inch Kerf, 10 to 18 inch Diameter

The Simonds No. 000 Junior fills the need for a thin saw in the smaller sizes, and has proven to be just the saw to obtain production from the smaller, lighter machines when cutting thin walls such as angles, small I-Beams, etc.

Diameter Inches	Thickness of Plate	Kerf	No. of Teeth	List Price
10	$\frac{9}{64}$	$\frac{3}{16}$	32	\$95.00
12	$\frac{9}{64}$	$\frac{3}{16}$	44	105.00
14	$\frac{9}{64}$	$\frac{3}{16}$	52	120.00
16	$\frac{9}{64}$	$\frac{3}{16}$	60	140.00
18	$\frac{9}{64}$	$\frac{3}{16}$	68	165.00

Extra teeth \$0.65. Extra wedges \$0.35.



No. 00

$\frac{9}{64}$ inch Plate $\frac{3}{16}$ inch Kerf, 10 to 18 inch Diameter

This saw is designed for those wanting a narrow kerf. The No. 00 cuts the same kerf as the No. 000 Jr. having a coarser tooth spacing with more gullet room to care for the chips when cutting thicker material. In other words, when maximum production is wanted use the 000 Jr. for thin walls. Use the 00 for the thicker, heavier material.

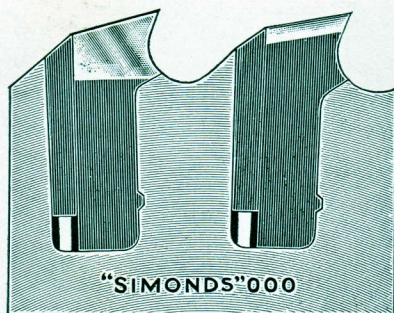
Diameter Inches	Thickness of Plate	Kerf	No. of Teeth	List Price
10	$\frac{9}{64}$	$\frac{3}{16}$	22	\$90.00
12	$\frac{9}{64}$	$\frac{3}{16}$	26	100.00
12 $\frac{1}{2}$	$\frac{9}{64}$	$\frac{3}{16}$	28	110.00
13 $\frac{1}{2}$	$\frac{9}{64}$	$\frac{3}{16}$	30	110.00
14	$\frac{9}{64}$	$\frac{3}{16}$	38	110.00
15	$\frac{9}{64}$	$\frac{3}{16}$	40	125.00
16	$\frac{9}{64}$	$\frac{3}{16}$	44	125.00
18	$\frac{9}{64}$	$\frac{3}{16}$	50	150.00

NOTE—All Saws of odd diameters not listed take list of next larger size.

Write for Discounts



Simonds Inserted Tooth Metal Saws



No. 000

$\frac{3}{16}$ inch Plate, $\frac{1}{4}$ to $\frac{7}{16}$ inch Kerf, 10 to 50 inch Diameter

The Simonds No. 000 is a fast cutting saw in which the teeth are inserted closely together. This greater number of teeth eliminates chatter caused by the work jumping from one tooth to another in cutting the thin walls in I-Beams, Channels, and other material of similar construction. Consequently there is less wear on the saw and machine.

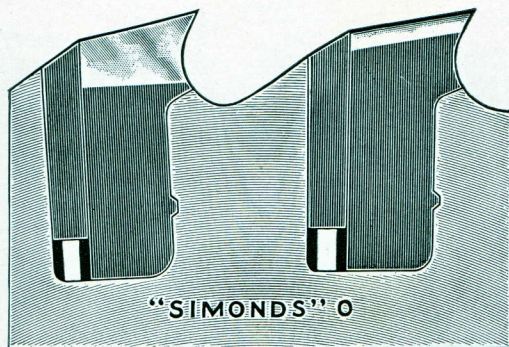
Diam. Inches	Thickness of Plate	Kerf	No. of Teeth	List Price	Diam. Inches	Thickness of Plate	Kerf	No. of Teeth	List Price
10	$\frac{3}{16}$	$\frac{1}{4}$	32	\$95.00	28	$\frac{3}{16}$	$\frac{1}{4}$	88	\$245.00
12	$\frac{3}{16}$	$\frac{1}{4}$	44	110.00	28	$\frac{1}{8}$	$\frac{3}{8}$	88	245.00
14	$\frac{3}{16}$	$\frac{1}{4}$	52	120.00	28	$\frac{3}{16}$	$\frac{3}{8}$	88	255.00
16	$\frac{3}{16}$	$\frac{1}{4}$	60	145.00	29	$\frac{1}{8}$	$\frac{1}{4}$	92	265.00
18	$\frac{3}{16}$	$\frac{1}{4}$	68	170.00	30	$\frac{1}{4}$	$\frac{3}{8}$	94	265.00
20	.160	$\frac{1}{8}$	62	170.00	30	$\frac{1}{8}$	$\frac{3}{8}$	94	290.00
20	$\frac{3}{16}$	$\frac{1}{4}$	62	170.00	32	$\frac{1}{4}$	$\frac{3}{8}$	100	305.00
20	$\frac{1}{4}$	$\frac{3}{8}$	62	175.00	32	$\frac{1}{8}$	$\frac{3}{8}$	100	305.00
20	$\frac{3}{16}$	$\frac{3}{8}$	62	180.00	34	$\frac{1}{4}$	$\frac{1}{8}$	106	320.00
21	.160	$\frac{3}{8}$	66	180.00	34	$\frac{1}{8}$	$\frac{3}{8}$	106	320.00
22	.160	$\frac{1}{8}$	70	180.00	36	$\frac{1}{4}$	$\frac{3}{8}$	114	365.00
22	$\frac{3}{16}$	$\frac{1}{4}$	70	180.00	36	$\frac{1}{8}$	$\frac{3}{8}$	114	365.00
22	$\frac{1}{4}$	$\frac{1}{4}$	70	190.00	37	$\frac{1}{4}$	$\frac{3}{8}$	116	380.00
22	$\frac{3}{16}$	$\frac{3}{8}$	70	200.00	38	$\frac{1}{8}$	$\frac{3}{8}$	120	380.00
24	.160	$\frac{3}{8}$	76	215.00	40	$\frac{1}{8}$	$\frac{3}{8}$	126	410.00
24	$\frac{3}{16}$	$\frac{1}{4}$	76	215.00	42	$\frac{3}{16}$	$\frac{3}{8}$	132	465.00
24	$\frac{1}{4}$	$\frac{3}{8}$	76	215.00	44	$\frac{3}{16}$	$\frac{3}{8}$	138	500.00
24	$\frac{3}{16}$	$\frac{3}{8}$	76	225.00	44	$\frac{1}{8}$	$\frac{3}{8}$	138	500.00
26	$\frac{3}{16}$	$\frac{1}{4}$	82	230.00	46	$\frac{1}{8}$	$\frac{3}{8}$	144	525.00
26	$\frac{1}{4}$	$\frac{3}{8}$	82	230.00	48	$\frac{3}{16}$	$\frac{3}{8}$	150	560.00
26	$\frac{3}{16}$	$\frac{3}{8}$	82	240.00	50	$\frac{1}{8}$	$\frac{3}{8}$	158	595.00

NOTE—All Saws of odd diameters not listed take list of next larger size.

Write for Discounts



Simonds Inserted Tooth Metal Saws



No. 0

$\frac{3}{16}$ inch Plate, $\frac{1}{4}$ inch Kerf, 14 to 32 inch Diameter
 $\frac{1}{4}$ inch Plate, $\frac{5}{16}$ inch Kerf, 16 to 42 inch Diameter

This saw is made for use where the amount of kerf cut is not as important as it is to have a saw that will stand rough usage without trouble and at the same time work well on the lighter powered machines.

The No. 0 cuts the same kerf as the No. 000 but it has a coarser tooth spacing with more gullet room to care for the chips when cutting thicker material. For maximum production use the No. 000 for thin walls, the No. 0 for heavier material.

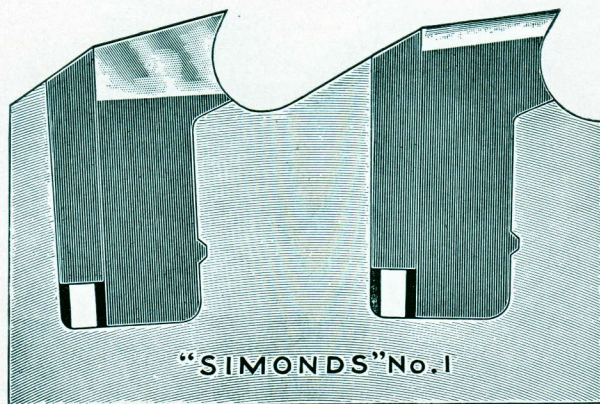
Diam. Inches	Thick-ness of Plate	Kerf	No. of Teeth	List Price	Diam. Inches	Thick-ness of Plate	Kerf	No. of Teeth	List Price
14	$\frac{3}{16}$	$\frac{1}{4}$	32	\$110.00	26	$\frac{1}{4}$	$\frac{5}{16}$	60	\$210.00
15	$\frac{3}{16}$	$\frac{1}{4}$	34	130.00	28	$\frac{3}{16}$	$\frac{1}{4}$	64	220.00
16	$\frac{3}{16}$	$\frac{1}{4}$	36	130.00	28	$\frac{1}{4}$	$\frac{5}{16}$	64	220.00
16	$\frac{1}{4}$	$\frac{5}{16}$	36	135.00	29	$\frac{3}{16}$	$\frac{1}{4}$	64	240.00
18	$\frac{3}{16}$	$\frac{1}{4}$	42	150.00	30	$\frac{3}{16}$	$\frac{1}{4}$	66	240.00
18	$\frac{1}{4}$	$\frac{5}{16}$	42	155.00	30	$\frac{1}{4}$	$\frac{5}{16}$	66	240.00
20	$\frac{3}{16}$	$\frac{1}{4}$	46	150.00	31	$\frac{1}{4}$	$\frac{3}{16}$	68	275.00
20	$\frac{1}{4}$	$\frac{5}{16}$	46	160.00	32	$\frac{1}{4}$	$\frac{5}{16}$	70	275.00
21	$\frac{3}{16}$	$\frac{1}{4}$	48	165.00	33	$\frac{1}{4}$	$\frac{5}{16}$	72	290.00
21	$\frac{1}{4}$	$\frac{5}{16}$	48	170.00	34	$\frac{1}{4}$	$\frac{5}{16}$	74	290.00
22	$\frac{3}{16}$	$\frac{1}{4}$	50	165.00	36	$\frac{1}{4}$	$\frac{5}{16}$	78	330.00
22	$\frac{1}{4}$	$\frac{5}{16}$	50	170.00	37	$\frac{1}{4}$	$\frac{5}{16}$	82	345.00
24	$\frac{3}{16}$	$\frac{1}{4}$	54	190.00	38	$\frac{1}{4}$	$\frac{5}{16}$	84	345.00
24	$\frac{1}{4}$	$\frac{5}{16}$	54	190.00	40	$\frac{1}{4}$	$\frac{5}{16}$	88	370.00
26	$\frac{3}{16}$	$\frac{1}{4}$	60	210.00	42	$\frac{1}{4}$	$\frac{5}{16}$	92	420.00

NOTE—All Saws of odd diameters not listed take list of next larger size.

Write for Discounts



Simonds Inserted Tooth Metal Saws



No. 1

$\frac{5}{16}$ inch Plate, $\frac{3}{8}$ inch Kerf, 18 to 50 inch Diameter

This gives you a saw that can be made from 18 inches to 50 inches inclusive, but there would seem to be no necessity to go smaller in diameter than 24 inches, this being as small a saw as the heavier machines would ordinarily use.

No. 1

(Size shown in illustration)

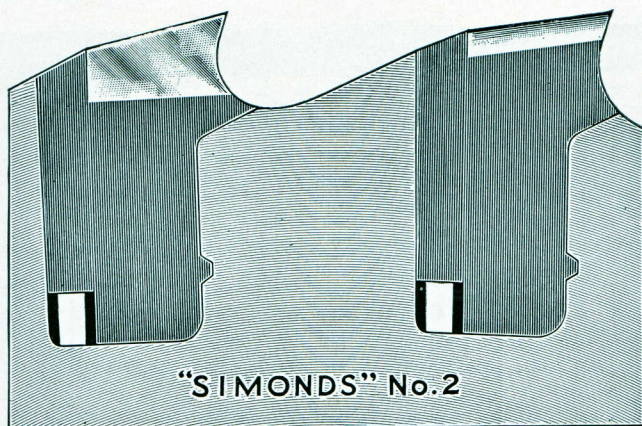
Diam. Inches	Thick-ness of Plate	Kerf	No. of Teeth	List Price	Diam. Inches	Thick-ness of Plate	Kerf	No. of Teeth	List Price
18	$\frac{5}{16}$	$\frac{3}{8}$	34	\$150.00	32	$\frac{5}{16}$	$\frac{3}{8}$	56	\$275.00
20	$\frac{5}{16}$	$\frac{3}{8}$	38	165.00	34	$\frac{5}{16}$	$\frac{3}{8}$	58	290.00
21	$\frac{5}{16}$	$\frac{3}{8}$	40	180.00	36	$\frac{5}{16}$	$\frac{3}{8}$	60	330.00
22	$\frac{5}{16}$	$\frac{3}{8}$	42	180.00	38	$\frac{5}{16}$	$\frac{3}{8}$	62	345.00
24	$\frac{5}{16}$	$\frac{3}{8}$	46	205.00	40	$\frac{5}{16}$	$\frac{3}{8}$	66	370.00
26	$\frac{5}{16}$	$\frac{3}{8}$	50	220.00	42	$\frac{5}{16}$	$\frac{3}{8}$	68	420.00
28	$\frac{5}{16}$	$\frac{3}{8}$	50	230.00	44	$\frac{5}{16}$	$\frac{3}{8}$	70	450.00
30	$\frac{5}{16}$	$\frac{3}{8}$	54	265.00	46	$\frac{5}{16}$	$\frac{3}{8}$	74	475.00
31	$\frac{5}{16}$	$\frac{3}{8}$	56	275.00	48	$\frac{5}{16}$	$\frac{3}{8}$	78	500.00
					50	$\frac{5}{16}$	$\frac{3}{8}$	80	535.00

No. 1. This style should be made in $\frac{5}{16}$ plate \times $\frac{3}{8}$ kerf only, which shall give you a saw that can be made from 18" to 50" inclusive, but there would seem to be no necessity to go smaller in diameter than 24", this being as small a saw as the heavier machines would ordinarily use.

NOTE—All Saws of odd diameters not listed take list of next larger size.

Write for Discounts

Simonds Inserted Tooth Metal Saws



No. 2

$\frac{3}{8}$ inch Plate, $\frac{7}{16}$ inch or $\frac{15}{32}$ inch Kerf, 26 to 64 inch Diameter

The Simonds No. 2 is made to stand up to the heaviest feeds of which the larger machines are capable.

Diameter Inches	Thickness of Plate	Kerf	Number of Teeth	List Price
26	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	46	\$220.00
28	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	46	230.00
30	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	48	265.00
32	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	50	275.00
34	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	52	290.00
36	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	56	330.00
38	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	60	345.00
40	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	62	370.00
42	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	64	420.00
44	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	68	450.00
46	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	72	475.00
48	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	74	500.00
50	$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$	76	535.00

NOTE—All saws of odd diameters not listed take list of next larger size.
(Saws larger than 50 inch, prices on application.)

We also make a No. 3 Saw for heaviest duty machines, taking large diameter saws.
Prices on application.

Write for Discounts



Simonds Inserted Tooth Metal Saws



Our Inserted Tooth Metal Saws are simple in design and built on correct mechanical lines for heavy duty. They will give excellent satisfaction. Let us know the make of your machine, size of saw wanted and the dimensions, kind and carbon of stock you desire to cut, and we will furnish you a saw that will not only cut the stock but will also cut the time ordinarily required to do it. Plate made in our own Steel Mill of high-grade carbon steel scientifically heat treated and flattened without hammering. Teeth made of High Speed Steel.

Made to fit any type of arbor driven machine.

The projection on the front holds the bottom of the tooth firmly on the plate so the tooth cannot work up or down. This makes it unnecessary to drive the wedge hard enough to disturb the tension or distort the plate in any way.

The oval teeth are slightly higher, cutting a channel in front of the square teeth which breaks the chip in three pieces, allowing it to clear and come out freely, thereby avoiding the troubles of the material becoming welded on the face of the tooth and the side of the saw.

Extra Teeth, High Speed Steel

Plate	Kerf	000 Jr.	No. 000	No. 00	No. 0	No. 1	No. 2
$\frac{9}{64}$	$\frac{3}{16}$	\$0.65		\$0.70			
$\frac{3}{16}$	$\frac{1}{4}$		\$0.65		\$0.80		
$\frac{1}{4}$	$\frac{5}{16}$		.70		.90		
$\frac{5}{16}$	$\frac{3}{8}$		.75			\$1.35	
$\frac{3}{8}$	$\frac{7}{16}$ or $\frac{15}{32}$		.80				\$1.75

Extra Wedges: No. 000 Jr., $\frac{3}{16}$, \$0.35. No. 000, $\frac{3}{16}$ to $\frac{5}{16}$, \$0.35; $\frac{3}{8}$, \$0.40.
 No. 00, \$0.35. No. 0, \$0.35. No. 1, \$0.40. No. 2, \$0.50.

Saws any diameter can be furnished the thickness of plate shown in the list or any increased thickness of plate up to the maximum listed for any larger diameter saw in the same list. Prices for saws extra thick quoted on application.

Write for Discounts



Treatment of Inserted Tooth Metal Saws

Always Keep Saws Sharp. A dull saw is liable to break, and there is no guaranty on metal saws against breakage.

Sharpening the Teeth. Do not remove the teeth. Sharpen them in the plate. Grind the face of the tooth only, on any metal saw sharpener, or it can be done by index the same as a solid saw. Maintain not under 10° nor over 15° hook line and the saw will clear the cut properly.

Never remove the teeth in a Simonds Metal Saw until they are worn out. In other Inserted Tooth Metal Saws it is the practice to remove the teeth to sharpen them. This is a long, tedious process and lessens the life of the saw by the wear of continually removing and inserting the wedges.

Simonds teeth are accurate to length. The angles on top of the teeth are uniform. There is plenty of clearance and all that is necessary is to grind the face of the tooth which can be done more accurately and quickly in the plate than out of it.

Take care not to blue or change the color of the points of the teeth when sharpening as this is likely to draw the temper, which will cause the saw to dull rapidly and may give the impression that the teeth were not properly tempered. You can tell if the temper has been drawn by passing a sharp file lightly over the extreme cutting points.

Emery Wheels must not be allowed to become glazed, as they will then draw temper of saw.

New Saws are carefully sharpened and inspected to run straight and true. If they do not run straight and true when put on your machine it would be well to check up on the collars and the fit of the saw on the arbor. It is always best to make the first cut with a new or freshly sharpened saw on low feed.

Gears and Bearings should all be tight fitting, so that there can be no false motion to the saw arbor.

Cutting Compound or a continuous stream of oil should be played on the teeth of the saw when cutting steel, just before it enters the cut, in the same manner as you treat your milling cutters.



Inserted Tooth Metal Saw Standards

The following list shows what is standard for the different types of machines and is made up with particular reference to the capacity of the machine—(what the machine will stand without breaking). The saw is selected that is strong enough to stand the heaviest strain of the machine when running to capacity.

Guard against buying a saw so heavy that the machine will not force it through the cut at a normal rate of feed. This causes loss of production. On the other hand, do not buy a light saw for a heavy powered machine that is easily capable of wrecking the saw. To illustrate—under "Newton Machine" list, machine No. 507—35 H. P. standard saw is 62 inches—our No. 2 is recommended. A 62-inch saw is not always used on this machine but owing to the size of material cut a 28-inch saw may be ordered. No matter what diameter saw is ordered a No. 2 saw should be furnished. In other words, always specify the same style and thickness saw to this list no matter what diameter is needed, if maximum performance is desired.

Where different machine numbers are given and one saw specification the same saw will fit them all.

HIGLEY MACHINE Swing Carriage Type Machines

Modern Style Capacity in inches	Obsolete Style Machine No.	Style	Specifications
6	11½ B	000 Jr.	11 7/8" x 9/64" x 3/16" x 42
		00	12" x 9/64" x 3/16" x 30
	10	000 Jr.	13 1/2" x 9/64" x 3/16" x 50
		00	13 5/8" x 9/64" x 3/16" x 36
	11	000 Jr.	15 5/8" x 9/64" x 3/16" x 54
		00	14 3/4" x 9/64" x 3/16" x 38
	11½ & 12 B	000 Jr.	14 7/8" x 9/64" x 3/16" x 54
		00	15" x 9/64" x 3/16" x 40
	12	000 Jr.	15 5/8" x 9/64" x 3/16" x 56
		00	15 3/4" x 9/64" x 3/16" x 42
	14	000 Jr.	18" x 9/64" x 3/16" x 68
		00	18 1/16" x 9/64" x 3/16" x 50
8	16	000	18 7/16" x 3/16" x 1/4" x 68
		0	18 11/16" x 3/16" x 1/4" x 42
9½	17	000	20" x 3/16" x 1/4" x 62
		0	20" x 3/16" x 1/4" x 46
10½	17	000	21" x 3/16" x 1/4" x 66
		0	21" x 3/16" x 1/4" x 48
0	17	000	22" x 3/16" x 1/4" x 70
		0	22" x 3/16" x 1/4" x 50
0	17	000	24" x 3/16" x 1/4" x 76
		0	24" x 3/16" x 1/4" x 54

Table Type Machines

Modern Style Machine No.	Obsolete Style Machine No.	Style	Specifications
21	19	000	26" x 3/16" x 1/4" x 82
	25	000	28" x 3/16" x 1/4" x 88
26	18 & 20	0	31" x 1/4" x 5/16" x 68
		0	33" x 1/4" x 5/16" x 72
22	20½ & 21½	0	36" x 1/4" x 5/16" x 78
		1	40" x 5/16" x 3/8" x 66

NUTTER-BARNES MACHINE

Machine No.	Style	Specifications
4	000 Jr.	14" x 9/64" x 3/16" x 52
4	00	14" x 9/64" x 3/16" x 38
6	000 Jr.	16" x 9/64" x 3/16" x 60
6	00	16" x 9/64" x 3/16" x 44
8	000	22" x 3/16" x 1/4" x 70
8	0	22" x 3/16" x 1/4" x 50
10	000	26" x 3/16" x 1/4" x 82
10	0	26" x 3/16" x 1/4" x 60



SIMONDS "THE SAW MAKERS"

COCHRANE-BLY MACHINES

Machine No.	Style	Specifications
1	000 Jr.	14" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 52
	00	14" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 38
2 B	000 Jr.	15" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 56
	00	15" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 40
21-21A & 31	000 Jr.	16" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 60
	00	16" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 44
4 C	000 Jr.	18" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 68
	00	18" x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 50
	000	18" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 68
	0	18" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 42
5	000	22" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 70
	0	22" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 50
6	000	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 76
	0	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 54
55	000	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 76
	0	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 54
55 B	000	26" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 82
	0	26" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 60
66	000	29" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 92
	0	29" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 64
	000	29" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 92
	0	29" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 64
7-77	000	37" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 116
	0	37" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 82

GEBR HELLER MACHINE WORKS

Machine No.	Diam. Saw	Thickness	Pin Holes	No. 000	No. 0	No. of Teeth	No. 1	No. 2
SS1	20	$\frac{3}{16}$	2- .847- 4.331	62	46			
SS1	22	$\frac{3}{16}$	2- .847- 4.331	70	50			
SS2	26	$\frac{1}{4}$	2- .925- 4.724	82	60			
SS2	28	$\frac{1}{4}$	2- .925- 4.724	88	64			
SS3	32	$\frac{1}{4}$	4-1.044- 7.284	100	70			
SS3	36	$\frac{1}{4}$	4-1.044- 7.284	114	78			
SS4	40	$\frac{5}{16}$	4-1.044- 8.858	126	88	66		
			4-1.044- 7.284					
SS4	44	$\frac{3}{8}$	4-1.044- 8.858	138	96	70	68	
			4-1.044- 7.284					
SS5	52	$\frac{3}{8}$	4-1.044- 8.858					78
	56		82					
	60		90					

KNOWLTON MACHINE

Machine No.	Style	Specifications
000 Jr.	18"	x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 68
	00	x $\frac{9}{64}$ " x $\frac{3}{16}$ " x 50
000	20"	x .160" x $\frac{1}{32}$ " x 62
	0	x .160" x $\frac{3}{32}$ " x 46
000	22"	x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 70
	0	x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 50
000	24"	x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 76
	0	x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 54
0	24"	x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 54

LEA SIMPLEX MACHINE

Machine No.	Style	Specifications
15	000 Jr.	15 $\frac{5}{8}$ " x .140" x $\frac{3}{16}$ " x 56
	00	Same as No. 12 Higley
15	00	15 $\frac{3}{4}$ " x .140" x $\frac{3}{16}$ " x 42
	000 Jr.	Same as No. 12 Higley
18	000 Jr.	18" x .140" x $\frac{3}{16}$ " x 68
	00	Same as Higley No. 14
18	00	18 $\frac{1}{8}$ " x .140" x $\frac{3}{16}$ " x 50
	000	Same as Higley No. 14
21	000	21" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 66
21	0	21" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 48
24	000	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 76
24	0	24" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 54



SIMONDS "THE SAW MAKERS"

NEWTON MACHINE

Bar Type	Mch. Nos. Combination Type	"U" Nos.	Power	Style	Specifications
197	216 224	U-1	5 H. P.	000	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 62
				0	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 46
198	217 225	U-2	10 H. P.	000	26" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 82
				0	26" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 60
199	218 226	U-3	15 H. P.	000	32" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 100
				0	32" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 70
200	219 227	U-4	20 H. P.	1	36" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 60
				000	36" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 114
504	... 585 586	....	25 H. P.	2	42" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 64
			20 H. P.	2	44" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 68
505	... 587 588	....	25 H. P.	2	48" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 74
506	...	....	30 H. P.	2	56" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 82
507	...	....	35 H. P.	2	62" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 94
508	...	....	40 H. P.	2	{ Can furnish No. 2 saws 64 or less (64" x $\frac{3}{8}$ " x $\frac{7}{16}$ " x 98) for these machines.
509	...	....	50 H. P.	2	

ESPEN LUCAS MACHINE

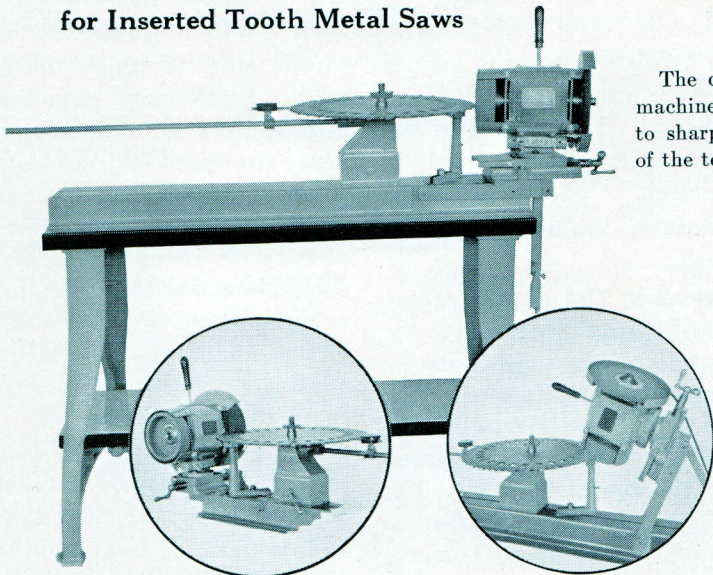
Bar	Girder	Capacity Diam.	Power	Style	Specifications
237		7"	5 H. P.	000	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 62
				0	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 46
157		10"	....	000	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 94
				0	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 66
138		9"	15 H. P.	1	30" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 54
138		12"	15 H. P.	1	36" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 66
142		12"	25 H. P.	2	40" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 62
142		17"	25 H. P.	2	50" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 76
165		15"	35 H. P.	2	50" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 76
165		20"	35 H. P.	2	60" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 90
	210	12"		000	30"
7				000	22" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 70
				0	22" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 50
159		10"		1	30" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 54
	8	12"		2	38" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 62
200					
199					
108		8"	5 H. P.	000	26" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 82
				0	26" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 56
101		10 $\frac{1}{2}$ "	10 H. P.	1	32" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 56
164		9"	15 H. P.	2	30" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 48
164		12"	15 H. P.	2	36" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 56
150		12"	25 H. P.	2	40" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 62
150		17"	25 H. P.	2	50" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 76
167		15"	35 H. P.	2	50" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 76
167		20"	35 H. P.	2	60" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 90
174		20"	50 H. P.	2	64" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 98
174		24"	50 H. P.	3	72"
236		30"	75 H. P.	3	{ Do not make. Can furnish saws for these up to 72
			75 H. P.	3		120"
193		10"		000	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 94
				0	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 66
240		7"	4 H. P.	000	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 62
				0	20" x $\frac{3}{16}$ " x $\frac{1}{4}$ " x 46
156		10"	7 $\frac{1}{2}$ H. P.	000	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 94
				0	30" x $\frac{1}{4}$ " x $\frac{5}{16}$ " x 66
148		13"	13 $\frac{1}{2}$ H. P.	1	40" x $\frac{5}{16}$ " x $\frac{3}{8}$ " x 66
				2	40" x $\frac{3}{8}$ " x $\frac{7}{16}$ " x 62
149		17"	15 H. P.	2	50" x $\frac{3}{8}$ " x $\frac{1}{16}$ " x 76



Simonds *RED STREAK* Metal Saw Grinder

for Inserted Tooth Metal Saws

The complete machine set-up to sharpen tops of the teeth.



In position to sharpen face of teeth.

The set-up for beveling the oval teeth.

Portable - Economical - Efficient

A carefully and sturdily built motor-driven machine that is light, yet with it you can keep your saws in perfect cutting condition, doing the work quickly and accurately.

A bevel wheel and a cup wheel are mounted on opposite ends of a ¼ h. p. motor unit which runs at a constant speed of 3400 R. P. M., the correct cutting speed for these wheels.

The motor is adapted to run on regular lighting circuits 110-volt alternating current. The wheels, carefully balanced, provide a fly wheel effect essential to smooth, accurate grinding. The motor unit is mounted on a dovetailed slide, operated by worm and screw, which permits rapid set-up and wheel adjustment.

The standard unit consists of 110-volt A. C. double head motor unit, index pawl stand, work stand, base, wrenches, two Abrasive wheels, one 10 x ½-inch bevel wheel (dished type) and one 5½-inch cup wheel.

Net Price . . . \$175.00

Optional Equipment

Grinding Floor Stand . . .	\$25.00	Dial Indicator Attachment . . .	\$25.00
Beveling Attachment . . .	\$15.00	Non Standard Motors, extra . . .	

Write for Discounts



Simonds Solid Tooth Circular Saws for Cutting Metal

Size. Saws 9 inches and over in diameter are usually termed "Cold Metal Saws." Saws 8 inches and less are occasionally called "Metal Slitting Saws."

Thickness. Varies from $\frac{1}{32}$ -inch to $\frac{1}{2}$ -inch.

Material in the Plate. There are three different steels used in the manufacture of metal saws, namely: carbon steel, semi-high speed steel, and full high speed steel. At the present time the semi-high speed steel is the most popular. The reason for this is that the additional amount of alloy necessary to make a semi-high speed steel saw does not increase the cost of the saw nearly as much as it increases the efficiency of the semi-high speed saw over the carbon saw. On the other hand, the material and labor necessary to produce a full high speed steel saw does not give this saw the increased advantage over the semi-high speed saw that the latter has over the carbon saw. There are some extremely hard materials that require the full high speed steel saw, but for general work the semi-high speed steel saw will prove the most economical.

The use of the term High Speed Steel we find is sometimes misleading when applied to metal saws, as we have found men who believe that these saws were intended to run at a high rate of speed, whereas, in reality, the term merely applies

to the steel of which the saw is made. Small metal saws made of high speed steel can be run 25% faster rim speed and, consequently, faster feed. Cold metal or milling saws made of high speed steel in the vicinity of 16 inches in diameter should be run at the same rim speed as saws made of other steels (40 feet per minute). The high speed steel saws give more service between the sharpenings.

The steel used in the manufacture of the Simonds Metal Saw is an alloy steel especially developed by the Simonds Company for this purpose and is commonly referred to as a semi-high speed steel. In explanation of this, we might say that this steel is neither a regular carbon steel nor is it a full high speed steel, but it has as many of the properties of a full high speed steel as can be put into it and still allow this steel to be made and handled economically and in a manner somewhat similar to the carbon steel.

Plate, Construction of. The heat treatment of Simonds Metal Saws is another very important point. Simonds Metal Saws are scientifically hardened to give greatest service.

The material of which these saws are made is expensive. The saws are very hard, which means a greater chance taken in hardening. Hammer marks are not visible on



the Simonds Metal Saw. This is in marked contrast to many other saws that are considerably cut by sharp hammers. The arbor holes are ground to size, and the saw then carefully sharpened and rounded before shipping.

These saws are designed to meet the present demand for a saw that has a range of work from mild steel and cold rolled shafting to annealed high speed and chrome-nickel steels. They appeal to the buyer who needs something better than the old carbon saw, and yet who does not wish to pay the price of full high speed steel saws and take equal chances of breakage.

Simonds Metal Saws will admit of a longer run, or of a faster feed, and frequently both, over what the old style carbon saw will do.

Clearance. Side Clearance in Simonds Metal Saws is ground in a distinctive manner. The Simonds method is to grind a proper amount of clearance only as far as the saw will eventually be worn down, and then grind the saw this thickness straight to edge of collar, where full thickness is again required. In grinding this clearance a new method is used.

This is concentric grinding the depth of the clearance. By this we mean that the cutting wheel is traveling in a direction from the teeth toward the eye and not in parallel lines with the rim. By this method we get a saw of almost absolute accuracy, as far as the uniform thickness of the rim is concerned. This also means that

the clearance is absolutely uniform. These saws are not polished near the rim, that there may be no chances taken of destroying the perfect clearance obtained by this method.

The above refers to saws ground for clearance and does not apply to saws having teeth either set or swaged.

Teeth, Number of. The question of the proper tooth for general work is not always raised as several of the standard machines use one style and spacing of tooth for all classes of work.

The best practice is to have two teeth in the cut at all times. This helps to relieve the chatter caused by one tooth cutting through the material before the next tooth comes in contact: for example, if the saw is cutting flat stock $\frac{1}{2}$ -inch thick, or bars $\frac{1}{2}$ -inch round, the tooth space should not be greater than $\frac{1}{2}$ -inch from point to point, unless the stock can be nested and several pieces cut at the same time, in which case, if properly clamped, they can be treated the same as larger stock, and cut with coarser tooth.

If the saw is for general use, where all sizes from $\frac{1}{2}$ -inch up to capacity of saw, and all kinds of stock soft or hard, are being cut, the finer tooth being necessary for the small stock, it will not be possible to run the saw on the larger stock at a maximum rate of efficiency.

The best practice is to have two saws, a fine tooth saw for small work, a coarse tooth saw for larger work.



The standard number of teeth in small metal saws ranges as follows:

2½"—28 teeth	5"—40 teeth
3"—30 teeth	6"—42 teeth
4"—36 teeth	8"—46 teeth

The number of teeth in many cases is definitely specified by the customer and this may vary from the above figures.

Warranty. In view of the fact that so many machines are allowed to get into poor running condition and that unskilled help is used to operate them, it will be seen that there are a great many conditions in the operating and working of metal saws over which the manufacturer of the saw blade has absolutely no control. Under these conditions to guarantee these blades is absolutely impossible.

Metal Saws are warranted to be of good workmanship and free from flaws. There is absolutely no guarantee against breakage. This must always be kept in mind. This is not an arbitrary position assumed by the Simonds Saw and Steel Company. It is the rule of all metal saw manufacturers. To guarantee metal saws would require an advance of at least 50% in price.

Instructions for Ordering Circular Cold Saws

In ordering Simonds Metal Cutting Saws, care should be taken to see that the following information

is furnished, thereby eliminating cause for misunderstanding, delays, etc.:

- Material to be Cut
- No. and Make of Machine
- Diameter of Saw
- Thickness
- Size of Collar
- Number of Teeth
- Pitch of Teeth
- Size of Center Hole
- Circle of Pin Holes
- Number of Pin Holes
- Size of Pin Holes
- Size of Keyways

A rubbing of center hole and pin holes is usually best. If pin holes are to be countersunk, give size, and whether on right or left-hand side with top of saw running toward you.

When ordering metal saws please state thickness in fractions of an inch and not in saw gauges, as all metal saws are gauged in this manner. The reason why this is so is possibly the fact that these saws are sold to men who are not familiar with wood saw gauges.

We recommend the use of Inserted Tooth Metal Saws in all cases instead of High Speed Steel Saws over 5/32-inch kerf or 16 inches and over diameter; also, instead of Carbon Steel Saws over 7/32-inch kerf or over 26-inch diameter.



Standard Metal Saws

For Cutting Hard Metals Only

Diameter	Thickness	Hole	Carbon Steel	High Speed Steel
2½	1/32	7/8	\$1.40	\$2.80
	3/64	7/8	1.40	2.80
	1/16	7/8	1.40	2.80
	3/32	7/8	1.40	2.80
	1/8	7/8	1.50	2.90
3	1/32	1	1.70	3.30
	3/64	1	1.70	3.30
	1/16	1	1.70	3.40
	3/32	1	1.70	3.40
	1/8	1	1.80	3.50
	5/32	1	1.90	3.70
4	1/32	1	2.20	4.30
	3/64	1	2.20	4.40
	1/16	1	2.30	4.50
	3/32	1	2.40	4.70
	1/8	1	2.50	5.00
	5/32	1	2.60	5.20
	3/16	1	2.80	5.50
	5	1/16	1	2.90	5.80
3/32		1	3.20	6.30
1/8		1	3.30	6.60
1/8		1¼	3.30	6.60
5/32		1	3.50	7.00
3/16		1	3.70	7.40
6	1/16	1	3.70	7.30
	3/32	1	4.20	8.40
	1/8	1	4.30	8.60
	1/8	1¼	4.30	8.60
	3/16	1	5.20	10.40
	3/16	1¼	5.20	10.40
8	1/8	1	8.80	17.50
	1/8	1¼	8.80	17.50
	3/16	1¼	9.90	19.80

Any saws that differ from above in any specification are Special. Special saws, prices upon application.

Write for Discounts



Simonds Metal Saws

These saws are made in three grades:

Carbon Steel Semi-High Speed Steel
High Speed Steel

We especially recommend the semi-high speed steel saw because it represents a steel vastly superior in cutting quality to the ordinary steels formerly used. This steel has been developed by exhaustive research and experiment in our own modern steel mill. The advantage gained from using Simonds Saw Steel is a cutting power which allows of longer runs or of a faster feed—frequently both.

When Ordering Metal Saws

Please state material to be cut, make of machine, maker's catalog number, diameter and thickness of blade, centre hole, pin holes and size of collars, also either the number of teeth in saw or the space from point to point. Give exact diameter of centre hole and a rubbing of pin holes. If your sharpener uses an index plate the number of teeth should be stated in place of the distance point to point.

Number of Teeth in Metal Saws

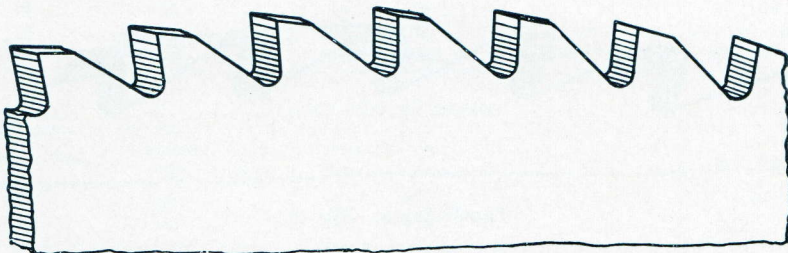
Standard Thickness	Diameter Inches	NUMBER AND PITCH OF TEETH											
		$\frac{1}{8}$	$\frac{9}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$		
$\frac{1}{16}$	8	200	134	100									
	9	224	150	112									
$\frac{3}{32}$	10	250	168	124	100	84							
	12		200	150	120								
$\frac{1}{8}$	13			162	130	108							
	14			174	140	116	100	88					
$\frac{5}{32}$	15				150	124	108						
	16				160	134	114	100					
$\frac{3}{16}$	18					150	130	112					
	20					168	144	124	112				
$\frac{7}{32}$	22					184	158	138	122	110			
	24					200	172	150	134	120			
$\frac{1}{4}$	26					218	186	162	144	130			
	28					234	200	176	156	140			
$\frac{9}{32}$	30					250	214	188	168	150			
	32					268	230	200	178	160			
$\frac{1}{2}$	34						244	212	170	140			
	36						258	226	180	150			

When possible give the factory the privilege of substituting the next larger or smaller number of teeth. This may permit shipping from stock.



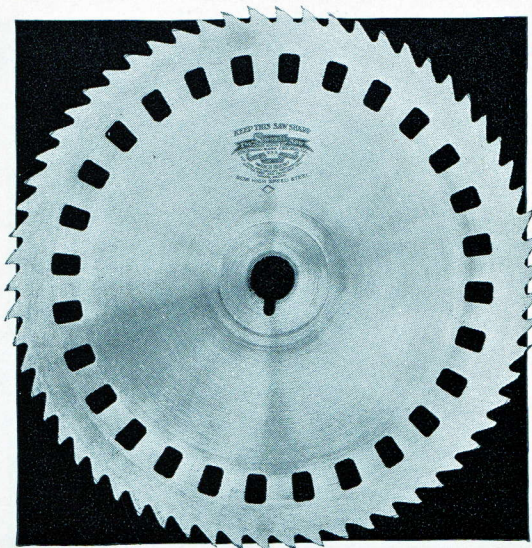
Simonds Metal Cutting Circular Saws

For Higley Machines



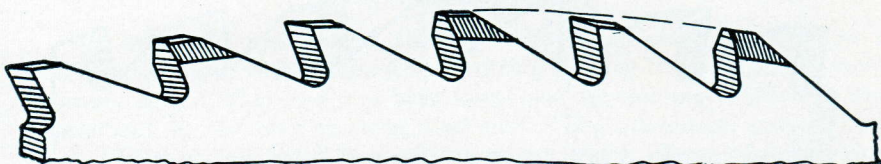
Tooth Style. Fig. 1

Great care is used to grind saws to exact micrometer measurements for clearance, and to properly form all teeth, slots, pin holes, and arbor holes.

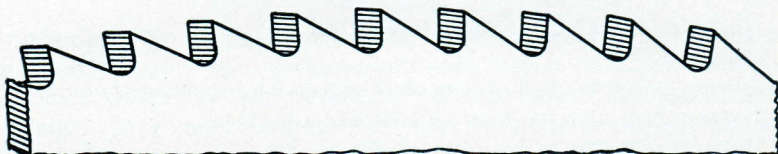


Simonds Metal Cutting Circular Saws

For Various Makes of Machines, and Different Styles of Teeth Carried in Stock

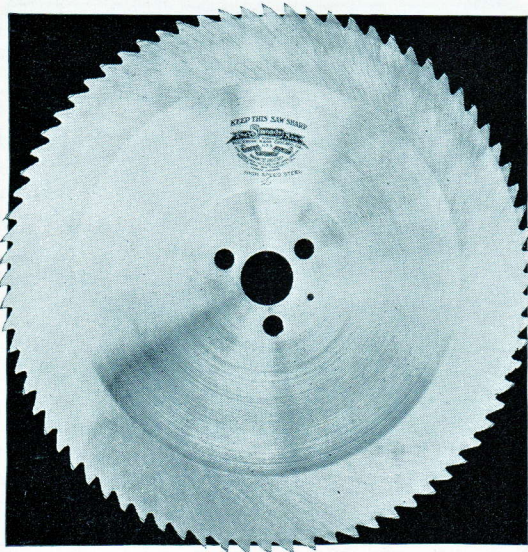


Tooth Style. Fig. 3



Tooth Style. Fig. 4

To any one interested in Metal Cutting Saws we will be glad to mail on request a copy of our special catalog, entitled "Methods of Cutting Metal," giving detailed information.



Metal Saw Specifications

Burr Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
1	10	$\frac{3}{32}$	$\frac{7}{8}$	3	$3-\frac{13}{32}, 1\frac{3}{4}$	80, 160
2	14	$\frac{5}{32}$	$1\frac{1}{4}$	4	$3-\frac{17}{32}, 2\frac{3}{8}$	88, 100, 120
3	16	$\frac{3}{16}$	$1\frac{1}{2}$	$4\frac{1}{2}$	$4-\frac{17}{32}, 2\frac{3}{4}$	80, 100

Burke Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
	18		3	$7\frac{1}{2}$	$6-\frac{9}{16}, 5\frac{7}{8}$	120
	20		3	$7\frac{1}{2}$	$6-\frac{9}{16}, 5\frac{7}{8}$	120

Cochrane-Bly Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
1, 60	14	$\frac{1}{8}$	$1\frac{1}{2}$	5	$3-\frac{9}{16}, 2\frac{5}{8}$	76
2B	15	$\frac{5}{32}$	$1\frac{1}{2}$	5	$1-\frac{3}{16}, 2\frac{11}{16}$	
21, 21A, 31	16	$\frac{1}{8}$	$1\frac{1}{2}$	6	$3-\frac{9}{16}, 2\frac{5}{8}$	76
4B	18	$\frac{3}{16}$	$1\frac{1}{2}$	5	$1-\frac{3}{16}, 2\frac{11}{16}$	
5	22	$\frac{3}{16}$	$1\frac{1}{2}$	6	$3-\frac{9}{16}, 2\frac{5}{8}$	76
6	24	$\frac{7}{32}$	$1\frac{1}{2}$	6	$1-\frac{3}{16}, 2\frac{11}{16}$	
55	24		2	7	$3-\frac{11}{16}, 3$	76
55B	26		2	7	$1-\frac{3}{16}, 2\frac{11}{16}$	
66	29		2	7	$5-\frac{13}{16}, 5\frac{1}{2}$	84
7	37		$2\frac{1}{4}$		$1-\frac{3}{16}, 2\frac{11}{16}$	
77	$37\frac{1}{2}$		$2\frac{1}{4}$		$5-\frac{13}{16}, 6\frac{3}{4}$	84
	42		$2\frac{1}{4}$		$1-\frac{3}{16}, 5$	
					$5-\frac{15}{16}, 8$	

Eспен-Lucas Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
11	18	$\frac{5}{32}$	$1\frac{1}{2}$	5	$3-\frac{9}{16}, 3\frac{1}{2}$	76
23	20	$\frac{7}{32}$	2	5	$3-\frac{11}{16}, 3\frac{1}{2}$	84, 100, 124
22	22, 24	$\frac{7}{32}$	$2\frac{1}{2}$	7	$3-\frac{11}{16}, 5$	
300	27, 28					108
	30	$\frac{1}{4}$	$2\frac{1}{2}$	9	$6-\frac{13}{16}, 7$	124
262	32	$\frac{1}{4}$	$2\frac{1}{2}$		$6-\frac{13}{16}, 7$	
308	22		2	7	$3-\frac{11}{16}, 3\frac{1}{2}$	

Prices on Application



Metal Saw Specifications

Garvin Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
	13 $\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{1}{4}$	4	3- $\frac{1}{32}$, 2 $\frac{3}{8}$	100

Heller Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
SS1	20, 22		2.756		2- .847, 4.331	
SS2	26, 28		3.150		2- .925, 4.724	
SS3	32, 36		4.724		4-1.044, 7.284	
SS4	40, 44		4.724		4-1.004, 7.284	
SS5	52, 56, 60		4.724		4-1.044, 8.858 4-1.044, 8.858 4-1.044, 11.811	

Higley Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Slots	Number Teeth
11 $\frac{1}{2}$ B	11	$\frac{1}{8}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	21	
10	12 $\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	32	
11	13 $\frac{1}{2}$	$\frac{5}{32}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	32	
11 $\frac{1}{2}$, 12B	14	$\frac{3}{16}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	28	
6"	14, 15 $\frac{1}{2}$	$\frac{5}{32}$	1 $\frac{1}{4}$	2 $\frac{1}{2}$	28	
12	15	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{4}$	28	
14	18	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	28	
15	20	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	28	
16	20	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	28	
8"	18, 20	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	28	
17	21	$\frac{3}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	25	
9 $\frac{1}{2}$ "	21, 22		1 $\frac{1}{4}$	3 $\frac{1}{2}$	25	
10 $\frac{1}{2}$ "	21, 24		1 $\frac{1}{4}$	3 $\frac{1}{2}$	25	
19	26	$\frac{1}{4}$	1 $\frac{1}{2}$	3 $\frac{1}{2}$	36	
18, 20	31	$\frac{1}{4}$	1 $\frac{1}{2}$	3 $\frac{1}{2}$	38	
20 $\frac{1}{2}$, 21						
21 $\frac{1}{2}$	36	$\frac{5}{16}$	1 $\frac{1}{2}$	3 $\frac{1}{2}$	36	
22	40		1 $\frac{1}{2}$	3 $\frac{1}{2}$	46	
25	28		1 $\frac{1}{2}$	3 $\frac{1}{2}$	36	
26	33	$\frac{1}{4}$	1 $\frac{1}{2}$	3 $\frac{1}{2}$	38	

Key Seat for above Saws $\frac{5}{16} \times \frac{7}{16}$

Knowlton Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
	18	$\frac{3}{16}$	2	6	3- $\frac{9}{16}$, 3 $\frac{1}{2}$	112
	20	$\frac{3}{16}$	2	6	3- $\frac{9}{16}$, 3 $\frac{1}{2}$	124
	22	$\frac{7}{32}$	2	6	3- $\frac{9}{16}$, 3 $\frac{1}{2}$	138
	24	$\frac{7}{32}$	2	6	3- $\frac{9}{16}$, 3 $\frac{1}{2}$	100

Prices on Application



Metal Saw Specifications

Lea-Simplex Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Slots	Number Teeth
	15	$\frac{3}{16}$	$1\frac{1}{4}$		28	76
	18	$\frac{3}{16}$	$1\frac{1}{4}$		28	76
	21	$\frac{3}{16}$	$1\frac{1}{4}$		28	76
	24	$\frac{7}{32}$	$1\frac{1}{4}$		28	86

Key Seat for above Saws $\frac{5}{16} \times \frac{7}{16}$

Newton Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
U0	$12\frac{1}{2}$	$\frac{5}{32}$	$1\frac{1}{2}$	5	$6\frac{1}{2}$, 4	
U1	18, $18\frac{3}{4}$					
	20	$\frac{3}{16}$	$1\frac{1}{4}$	$6\frac{1}{2}$	$6\frac{9}{16}$, 5	
U2	24, 26	$\frac{7}{32}$	$2\frac{1}{2}$	$8\frac{1}{2}$	$6\frac{5}{8}$, $7\frac{3}{8}$	
U3	30, 32	$\frac{1}{4}$	$2\frac{1}{2}$	$10\frac{1}{2}$	$6\frac{5}{8}$, $8\frac{7}{8}$	
U4	36	$\frac{1}{4}$	$3\frac{1}{2}$	$11\frac{1}{4}$	$6\frac{7}{8}$, 10	
U82	40, 42					
	44		$3\frac{1}{2}$	$11\frac{1}{4}$	$6\frac{7}{8}$, 10	

Nutter-Barnes Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
3, 4	14	$\frac{1}{8}$	$1\frac{3}{8}$	$3\frac{3}{4}$	$3\frac{17}{32}$, $2\frac{13}{16}$	
					$1\frac{3}{16}$, $3\frac{3}{32}$	78, 104
6	16	$\frac{5}{32}$	$1\frac{3}{8}$	$3\frac{3}{4}$	$3\frac{17}{32}$, $2\frac{13}{16}$	
					$1\frac{3}{16}$, $3\frac{3}{32}$	90, 126
$5\frac{1}{2}$	18, 20		$1\frac{3}{8}$	$4\frac{1}{4}$	$3\frac{17}{32}$, $2\frac{13}{16}$	
					$1\frac{3}{16}$, $3\frac{3}{32}$	
8	22	$\frac{3}{16}$	$1\frac{3}{8}$	$4\frac{3}{4}$	$4\frac{17}{32}$, $3\frac{13}{16}$	
					$1\frac{3}{16}$, $3\frac{3}{32}$	90, 126
10	26	$\frac{7}{32}$	2	$5\frac{5}{8}$	$4\frac{19}{32}$, $4\frac{1}{4}$	
					$1\frac{1}{4}$, $4\frac{1}{4}$	148

Q. M. S. Arbor Driven Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
1A Universal	21	$\frac{1}{4}$				
2A Universal	27	$\frac{1}{4}$				
3A Universal	33	$\frac{1}{4}$				
1A Cut-off	21	$\frac{1}{4}$				
2A Cut-off	27	$\frac{1}{4}$				
3A Cut-off	33	$\frac{1}{4}$				

Prices on Application



Metal Saw Specifications

Q & C Bryant Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
5, 5A	16	$\frac{9}{64}, \frac{3}{16}$	$\frac{7}{8}$	$2\frac{1}{8}$		31
1M	18	$\frac{7}{32}$	$1\frac{3}{4}$	$3\frac{5}{8}$		44
6, 6A	$20\frac{1}{2}$	$\frac{1}{4}$	$1\frac{1}{4}$	4		38
2B	$23\frac{1}{2}$	$\frac{1}{4}$	$1\frac{3}{4}$	$5\frac{1}{8}$	3- $\frac{13}{16}$, 3 3- $\frac{23}{32}$, $3\frac{7}{8}$ Ctsk.R.H.	44
15	25			$5\frac{1}{8}$		46
3B	28	$\frac{1}{4}, \frac{17}{64}$	$1\frac{3}{4}$	$5\frac{3}{8}$	3- $\frac{13}{16}$, 3 3- $\frac{23}{32}$, $3\frac{7}{8}$ Ctsk.R.H.	52
20	30			$5\frac{3}{8}$		40
4B	$31\frac{1}{4}$	$\frac{1}{4}, \frac{17}{64}$	$1\frac{3}{4}$	$5\frac{3}{8}$	3- $\frac{13}{16}$, 3 3- $\frac{23}{32}$, $3\frac{7}{8}$ Ctsk.R.H.	58
50	36	$\frac{1}{4}, \frac{17}{64}$		$5\frac{3}{8}$		67

Smith & Post Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
	13	$\frac{1}{8}$	2	5	4- $\frac{9}{16}$, $3\frac{1}{8}$	90
	14	$\frac{1}{8}$	2	5	4- $\frac{9}{16}$, $3\frac{1}{8}$	90

Wagner Metal Saws

Machine No.	Diameter Saw	Thick-ness	Center Hole	Collar Diameter	Pin Holes	Number Teeth
Hydraulic Feed	10, 12		$1\frac{3}{8}$	$3\frac{1}{2}$	2- $\frac{1}{2}$, $2\frac{3}{8}$	
Hydraulic Feed	14, 16		3.149	$4\frac{7}{8}$	2- $\frac{1}{2}$, 3	
Mechanical or Hydraulic Feed	18		3.149	$5\frac{15}{16}$	2- $\frac{3}{4}$, $4\frac{3}{4}$	
Mechanical or Hydraulic Feed	22, 24		3.149	$6\frac{11}{16}$	2- $\frac{3}{4}$, $4\frac{3}{4}$	
Mechanical or Hydraulic Feed	28, 30		3.149	$8\frac{5}{16}$	4- $\frac{3}{4}$, $4\frac{3}{4}$	
Mechanical or Hydraulic Feed	36, 38		3.937	$9\frac{7}{8}$	4- $1\frac{1}{16}$, $7\frac{1}{2}$	
Hydraulic Feed	40, 44		3.937	$12\frac{3}{8}$	4- $1\frac{1}{16}$, $7\frac{1}{2}$	
Hydraulic Feed	44, 48		3.937	$12\frac{3}{8}$	4- $1\frac{1}{16}$, $7\frac{1}{2}$	
Mechanical Feed	51, 56		3.937	$15\frac{3}{4}$	8- $1\frac{1}{16}$, $9\frac{7}{8}$	
Hydraulic Feed	56, 63		3.937	$15\frac{3}{8}$	4- $1\frac{1}{16}$, $7\frac{1}{2}$	
Mechanical Feed	63, 71		3.937	$19\frac{11}{16}$	8- $1\frac{1}{16}$, $13\frac{3}{4}$	

Prices on Application



Simonds Screw Slotters



Screw Slotters are used mostly for cutting slots in screw heads, and are made with fine teeth for the reason that the heads on screws vary from $\frac{1}{16}$ inch to 1 inch in diameter. They are made with fine teeth to prevent shelling of teeth which might occur if the space between the teeth was more than the diameter of small screw heads, such as $\frac{1}{16}$ inch.

Teeth are milled to the center and brought up to a sharp cutting edge. All teeth have the same shape, about 62 degrees.

Carbon Steel Screw Slotters are not ground for clearance on the sides, but are left flat because they do not cut any deeper than $\frac{1}{16}$ inch below the bottom of the tooth. They should not be used under any circumstances as a Slitter.

High Speed Screw Slotters are ground flat on the sides.

What information should be given when sending in an order for Screw Slotters? Quantity, diameter, thickness in thousandths, size of hole, and number of teeth. Unless number of teeth is specified we would furnish the number shown in the schedule. State whether High Speed Steel or Carbon Steel is wanted. We put a standard keyway in every Screw Slotter.

Simonds Carbon Steel Screw Slotting Cutters

Thickness	Center Hole	2 3/4" Dia. 72 Teeth	Center Hole	2 1/4" Dia. 60 Teeth	Center Hole	1 3/4" Dia. 90 Teeth
.182	1	PRICES ON APPLICATION	5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8	PRICES ON APPLICATION	5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8	PRICES ON APPLICATION
.162	1					
.144	1					
.128	3/4, 1					
.114	3/4, 1					
.102	3/4, 1					
.091	3/4, 1					
.081	3/4, 1					
.072	3/4, 1					
.064	1/2, 5/8, 3/4, 1					
.057	1/2, 5/8, 3/4, 1					
.051	1/2, 5/8, 3/4, 1					
.045	1/2, 5/8, 3/4, 1					
.040	1/2, 5/8, 3/4, 1					
.036	1/2, 5/8, 3/4, 1					
.032	1/2, 5/8, 3/4, 1					
.028	1/2, 5/8, 3/4, 1					
.025	1/2, 5/8, 3/4, 1					
.023	1/2, 5/8, 3/4, 1					
.020	1/2, 5/8, 3/4, 1					
.018	1/2, 5/8, 3/4, 1					
.016	3/4, 1					
.014	3/4, 1					
.013	3/4, 1					
.010	3/4, 1					
.008	3/4, 1					
.006	3/4, 1					

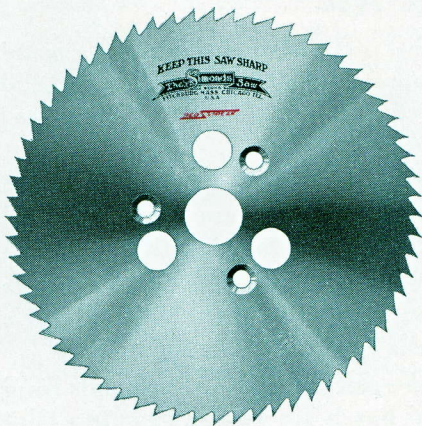
Simonds High Speed Steel Screw Slotting Cutters

Thickness	Center Hole	2 3/4" Dia. 72 Teeth	Center Hole	2 1/4" Dia. 60 Teeth	Center Hole	1 3/4" Dia. 90 Teeth
.162	1	PRICES ON APPLICATION	5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8	PRICES ON APPLICATION	5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8 5/8	PRICES ON APPLICATION
.144	1					
.128	3/4, 1					
.114	3/4, 1					
.102	3/4, 1					
.091	3/4, 1					
.081	3/4, 1					
.072	3/4, 1					
.064	3/4, 1					
.057	3/4, 1					
.051	3/4, 1					
.045	3/4, 1					
.040	3/4, 1					
.036	3/4, 1					
.032	3/4, 1					
.028	3/4, 1					
.025	3/4, 1					
.023	3/4, 1					
.020	3/4, 1					

Any saws that differ from above in any specification are Special.
Special saws, prices upon application.



Simonds "Red Streak" Electrotypes Saws



Simonds Electrotypes Saws are made in sizes from 5 to 10 inches in diameter to fit any type of trimmer machine. The teeth are set and filed or swaged or the saws are concave ground for clearance. Electrotypes Saws are made with pitched to center teeth, $\frac{1}{4}$ to $\frac{1}{2}$ inch space. Formed teeth are also furnished.

Circular Saws for Cutting Brass or Copper

Saws for cutting brass, copper, aluminum and other soft metals in the form of sheets, tubing and light cuts are made from carbon and semi-high speed steel, concave ground on the sides for clearance, and tempered to be sharpened with a file. Also made flat ground with teeth set and filed.

Diam. of Saw	Thickness				Holes	Teeth per Saw	Teeth per Inch
	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$				
4	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$		$\frac{1}{2}$ " and larger	100 120	8 10
5	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$		$\frac{3}{4}$ " and larger	130 150 190	8 10 12
6	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$		$\frac{3}{4}$ " and larger	70 110 150 190	4 6 8 10
8	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$		$\frac{3}{4}$ " and larger	100 150 200	4 6 8
10		$\frac{3}{64}$	$\frac{1}{16}$	$\frac{5}{64}$ $\frac{3}{32}$	$\frac{3}{4}$ " and larger	130 190 250	4 6 8
12				$\frac{5}{64}$ $\frac{3}{32}$	1" and larger	150 220	4 6

Speeds for above saws figured on a rim speed of 4000 feet per minute. On extremely light cuts this speed can be slightly increased. On heavier cuts this speed should be reduced.

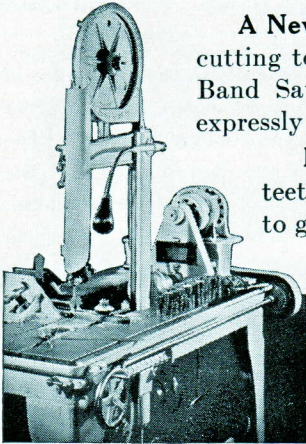
Diameter	R. P. M.	Diameter	R. P. M.	Diameter	R. P. M.
3	5090	6	2545	12	1272
4	3820	8	1910	14	1090
5	3055	10	1528	16	955

These saws may be furnished in high-speed steel, concave ground for clearance, tempered to file or to grind.

Prices on application



Simonds Metal Cutting Band Saw Blades Hard Edge Type



A New Steel—Steel is the basis of quality in a metal cutting tool. The improved Simonds Hard Edge Metal Band Saw is made of a tough alloy steel developed expressly for the purpose.

Milled Teeth—The sharp, perfectly milled teeth in a Simonds Metal Band are carefully shaped to give longer life and a lot more cutting service.

Uniform Set—Teeth are set with absolute evenness on both sides of the blade, giving a smooth, clean cut and an easy running saw.

Welded—not Brazed—All Simonds Hard Edge Metal Bands are welded, making a joint so strong that it will stand all the rough usage that any other part of the saw will bear.

Heat Treatment—Simonds equipment for hardening and tempering guarantees heat treatment that will bring out in every saw the utmost in cutting properties and durability.

We know this Saw is Better—Test this new saw in your own shop. It will demonstrate to you as it already has to many others that it can lower metal cutting costs by cutting faster and staying on the machine longer.

Do not expect to cut all materials with the same saw if you want results. The following table should be used for reference when there is any doubt as to the proper number of teeth to use.

Metal	Teeth	Set
Cast Iron, Annealed Tool Steel, High Speed Steel	14	Reg.
Cold Rolled Steel, Carbon Steel, Steel Billets		
Rails and Malleable Iron	10	Reg.
Machinery Steel		
I-Beams	10	Reg.
Sheet Steel	24	Wavy
Wrought Iron and Steel Pipe	18	Wavy
Drill Rod and Light Tool Steel Bars	18-24	Wavy
Sheet Iron	18	Wavy
Steel Tubing	18-24	Wavy
Copper	10-12	E.T.S.
Cast Aluminum, Aluminum Gates	8-10	E.T.S.
Gates on Aluminum Alloys	12-14	Reg.
Manganese Bronze	14	Reg.
Hard Brass	14	Reg.
Soft Brass, Sheet Brass, Brass and Bronze	14	Reg.
Castings, Fibre and Builders' Board		

NOTE: All 18 and 24 teeth saws are set with a wavy set and are suitable for cutting any material requiring a fine tooth saw.

REG. Teeth set Right, Left, and Raker.

E.T.S. Teeth set alternately Right and Left.

Wavy Teeth set two Right, two Left and a Raker.



The recommendations shown in above table are for general use only and do not, for example, apply to saws for use on the Thompson "Milband" Machine. For this machine we recommend our 6-tooth Blade with every tooth set. Because of the "Milband's" uniform and pre-determined feed our 6-tooth blade will give excellent results on all materials.

This is also true to a certain extent of the Houghton & Richards', and the Stockbridge H. & R. Machines. On these machines an 8-tooth saw is recommended for cutting most materials.

The harder the material to be cut the slower the saw speed should be.

It is important to have the blade tight enough to hold a straight cut. However, the strain should be only sufficient to keep blade from slipping on the wheels. More strain than this is useless and often causes the blade to break. Strain should be released from blade when not in use.

Standard Specifications and List Prices

Width	Thick-ness	Teeth and Set				Price Per Foot	Welding Per Saw
		*E.T.S.	†Reg.	‡Wavy	Not Set		
1/4"	.025	10-12-14		18-24		\$.10	\$.40
3/8"	.025	10-12-14		18-24		.10	.40
1/2"	.025	8-10-12-14	10-12-14-18	18-24	32	.11	.40
5/8"	.032	6-8-10-12-14	8-10-12-14	18-24		.14	.50
3/4"	.032	8-10-12-14	6-8-10-12-14	18-24		.16	.50
1"	.035		6-8-10-12-14	18		.20	.50

*E.T.S. — Teeth set alternately Right and Left.

†Reg. — Teeth set Right, Left and Raker.

‡Wavy — Teeth set two Right, two Left and a Raker.

Six inches, or more, over the even foot on welded saws will be charged for as an additional foot. No charge will be made for less than six inches.

Care of Machine

Much has been said in the preceding paragraphs about selection and care of "Hard Edge" Metal Band Saw Blades. In justice to good blades, care should be taken to see that the band saw machine itself is in good working order. Guides should be properly adjusted so that the blade will run perfectly straight and not bind.

The material to be cut should be held tightly, and if several pieces are to be "ganged" or cut at one time they should be clamped securely together so that there will be no "weaving" in the cut.



Simonds Metal Cutting Band Saw Blades

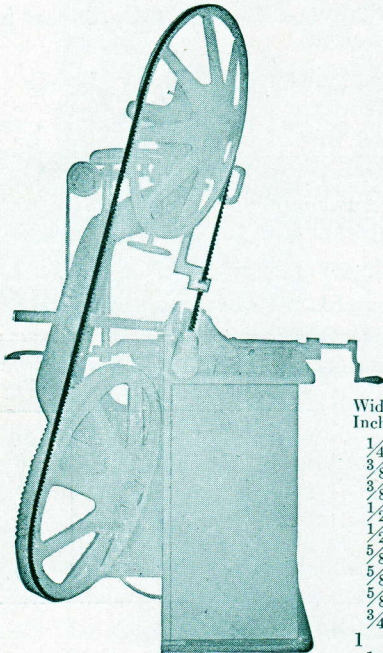
Spring Temper Type for High Speed Machines

For Sawing Brass, Aluminum, and Thin Sheet Steel

Band Saw operators know the great economical value of a blade that can be refiled and set when dull. This type of blade will do a remarkable amount of cutting of the softer metals, such as brass and aluminum before dulling the points of the teeth and can then be resharpener at a nominal cost.

We especially recommend this blade for cutting such materials as thin sheet steel as used on automobile bodies and fenders, light structural shapes, fibre, bakelite, brass tubing, etc.

When ordering specify the width, length, number of teeth to the inch, character of material to be cut; its size and shape; also make and speed of machine on which the blade is to operate.



List Prices—Spring Temper

Width Inches	Thickness	Teeth per inch	Price per foot	Price Brazing
1/4	23 ga. (.025)	8-10	\$.14	\$.50
3/8	23 ga. (.025)	8-10	.15	.50
3/8	21 ga. (.032)	8-10	.16	.50
1/2	23 ga. (.025)	6-8-10	.17	.50
1/2	21 ga. (.032)	6-8-10	.18	.50
5/8	23 ga. (.025)	4-6-8-10	.18	.60
5/8	21 ga. (.032)	4-6-8-10	.20	.60
3/4	20 ga. (.035)	4-6-8-10	.21	.60
3/4	20 ga. (.035)	4-6-8	.23	.60
1	20 ga. (.035)	4-6-8	.28	.60
1 1/4	19 ga. (.042)	3-4	.35	.70

Standard number of teeth per inch, 3 to 10.

Saw Blades of different widths, heavier gauge, or with finer teeth than listed are special. Prices quoted on application.

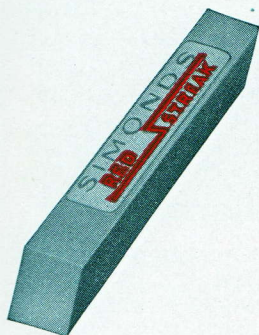
For the convenience of customers desiring to braze or join their own saws we supply them in coils of 250 feet.

Size of saws required for various Metal Cutting Band Saw Machines

Machine	Length	Width	Machine	Length	Width
Armstrong Blum	14' 8"	5/8" or 3/4"	Milband (Avey)	14' 9"	1"
Atkins No. 3	15' 3"	5/8", 3/4" or 1"	Milclark	10' 10"	1/4" to 3/4"
Atkins No. 4	14' 1"	5/8", 3/4" or 1"	Napier	12' 3"	1"
Houghton	12' 6"	5/8" or 3/4"	Napier, Jr.	8' 4"	3/4"
Klemm No. 1	11' 2"	5/8" or 3/4"	Racine	7' 8"	1/8" to 5/8"
Klemm No. 2	15' 8"	5/8" or 3/4"	Stockbridge 6"	12' 5 1/2"	5/8"
Laidlaw CM and CMT	15' 8"	1"	Stockbridge 9"	13'	5/8"
Laidlaw JM-30 and SM-30	16'	1"	Stockbridge 12"	15' 5 1/2"	3/4"
Laidlaw JM-20 and SM-20	11'	5/8"	Thompson	15' 8"	5/8" or 3/4"
Milband(Thompson)	12' 11"	3/4"	Wells No. 5	8' 2 1/2"	1 1/2"
			Wells No. 7 and 8	11' 5"	3/4"
			Williamson	20' 9"	5/8"
			Wright	15' 8"	5/8" or 3/4"



Simonds **RED STREAK** High Speed Steel Tool Holder Bits



Simonds Red Streak High Speed Steel Tool Holder Bits cut faster and last longer than others, because they are made of Electric Steel in which the full percentage of Tungsten, Chrome, and Vanadium is used, bringing a tool of this character to the highest efficiency. Great care is used, not only in the manufacture of the Electric Steel, but also in the rolling temperatures and the heat treatment. Each piece is heat treated with particular care to bring out the utmost cutting properties.

These bits are cut to standard tool holder lengths with 30 degree bevel on each end. Finished straight and true to size, ready to be ground and put to work. Carried in stock in 5 lb. and 10 lb. boxes, one size or assorted sizes in each box. Prices on application.

$\frac{1}{4}$ inch square x $2\frac{1}{2}$ inches long

$\frac{3}{16}$ inch square x $2\frac{1}{2}$ inches long

$\frac{5}{16}$ inch square x $2\frac{1}{2}$ inches long

$\frac{3}{8}$ inch square x 3 inches long

$\frac{7}{16}$ inch square x $3\frac{1}{2}$ inches long

$\frac{1}{2}$ inch square x 4 inches long

$\frac{5}{8}$ inch square x $4\frac{1}{2}$ inches long

$\frac{3}{4}$ inch square x $4\frac{1}{2}$ inches long

$\frac{7}{8}$ inch square x 6 inches long

1 inch square x 6 inches long

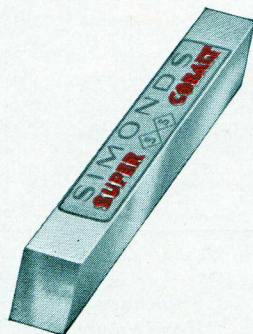
For Heavy Work on Hard, Tough Metals Simonds Super Cobalt High Speed Tool Bits

For extremely heavy cuts such as removing heavy scale and doing roughing cuts, we recommend that Simonds Super Cobalt Bits be used.

If you are cutting very tough material such as bronze, which often spoils a high speed tool, the Super Cobalt Bits last longer. It will also cut material which is too hard for High Speed Steel Bits.

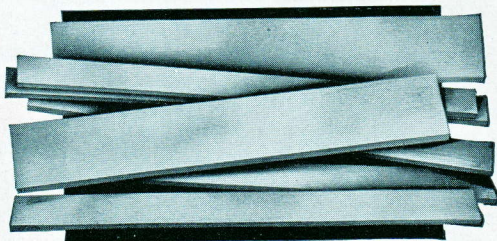
Simonds Super Cobalt Bits do this work economically. They have a longer life, requiring less regrinding. Each Bit is stamped with a double diamond S following the name "Simonds."

Prices on application



Simonds *RED STREAK* Flat Ground Stock

Red Streak Flat Ground Stock is made of Simonds High Carbon Tool Steel, uniformly annealed, cut to the proper length and ground to width and thickness by the new Simonds methods. This new equipment grinds Flat Stock with great accuracy which, coupled with the excellent quality of Simonds Steel, makes it possible to produce parts with unexcelled economy and efficiency.



Simonds Red Streak Flat Ground Stock is furnished in all standard thicknesses as shown in the following list. Each piece is packed in an envelope which is clearly marked with the width and thickness—easy to identify. The Red Streak trade-mark is a guarantee of Simonds Quality Stock and Workmanship. Use Red Streak Flat Ground Stock. It pays.

Simonds Flat Ground Stock

Length of Bars, 18 inches—Price per Bar

Thickness Inches	Width Inches											
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"
1/64			.85		1.05	1.25	1.55	1.85		2.50		
3/32		.60	.60		.80	1.00	1.25	1.50	1.75	2.00	3.00	4.00
1/16			.55		.75	.95	1.15	1.40		1.90	2.75	3.75
3/64												
1/16	.40	.45	.50	.65	.70	.90	1.10	1.35	1.60	1.85	2.50	3.50
3/32	.55	.65	.70		.85	1.00	1.20	1.40	1.65	1.90	2.75	3.75
1/8	.60	.70	.75	.85	.90	1.05	1.30	1.50	1.75	2.00	2.85	4.00
5/32		.75	.85		1.10	1.40	1.60	1.80		2.30		
3/16	.75	.90	.95	1.15	1.20	1.50	1.70	2.00	2.30	2.60	3.50	4.50
1/2			1.05		1.35	1.60	1.90	2.20		3.00		
3/32					1.45	1.80	2.20	2.60	3.05	3.50	4.50	5.50
1/4	.95		1.15		1.80	2.15	2.60	3.05	3.50	4.00		
5/16	1.20		1.50		2.05	2.40	2.95	3.50		4.50		
3/8	1.50	1.65	1.75		2.40	2.95	3.50	4.40		5.40		
1/2		2.15	2.65			3.30						

Square sizes 1/4—\$1.00; 5/16—\$1.25; 3/8—\$1.50; 1/2—\$1.75; 3/4—\$2.50; 1—\$3.25.

Made from Tool Steel, annealed and ground within limits of plus or minus .001" of stated thickness.

All flat ground stock is ground square on both edges; ends are also squared.

Sizes not listed are Special.

Special Flat Ground Stock prices on application.



Simonds "Tungsweld" Shear Blades with a High Speed Steel Cutting Edge for Thin Metals

**Cut Clean
Increase Production
Reduce Sharpening Costs**

"Tungsweld" Shear Blades with the welded high speed steel cutting edge are recommended for cutting thin metals only. They show a remarkable saving cutting unannealed sheets up to 16-gauge in thickness and annealed sheets up to $\frac{3}{16}$ " thick.

"Tungsweld" Shears are successfully cutting sheet steel such as silicon, monel metal, allegheny metal, ascology and other so-called stainless iron and steels. They are made with one cutting edge only and in one piece up to 34" long. Longer lengths are furnished in two or three pieces welded together.

Ordinary shears have to be changed at least every two weeks. Simonds "Tungsweld" Shears with the high speed steel cutting edge are changed once in several months. They stay sharp, increase production and reduce sharpening costs. Prices on application.



Simonds "Forged" Rotary Shears For Slitting or Stripping Thin Metals

Simonds "Forged" Rotary Shears are made of High Carbon High Chrome Steel, strongly recommended for all types of metals, especially stainless steel, and of High Speed and Special Alloy Steel, both of which are adapted for slitting all types of metals.

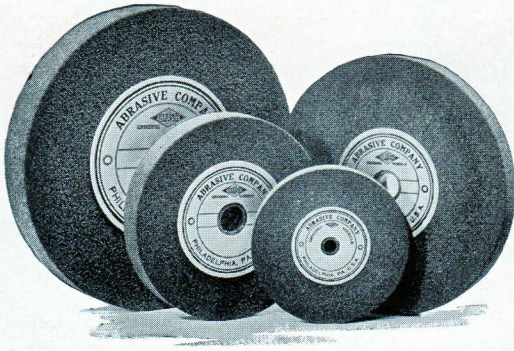
We make our own steel at Lockport, N.Y.

The forging of Simonds Shears results in much longer life, more production between grindings, and less set-ups.

Simonds Shears are perfectly flat, ground to a tolerance of plus or minus .00025 in thickness, so that metal cut is exact and uniform in width. Prices on application.



Abrasive Company's Grinding Wheels for Machine Shops



Simonds Abrasive grinding wheels do a variety of work in the machine shop. Sharpening tools such as twist drills, milling cutters, reamers and lathe tools are some of the important jobs where a medium grained wheel is generally used. Fine grain wheels adapt themselves to the sharpening of delicate edged tools and in places where a good finish is desired. Cleaning

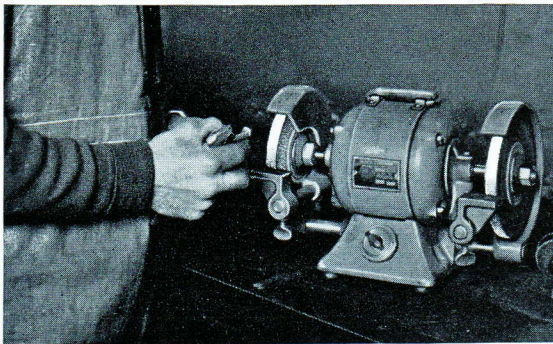
and surfacing small castings, removing excess metal and burrs from parts require coarse wheels for economical grinding.

To get the most value from Simonds Abrasive wheels use the work rest wherever possible. The rest should be within $\frac{1}{32}$ of an inch from the face of the wheel, both for steadiness and safety. If there is too much space the work is apt to slip between the wheel and rest, causing serious damage.

Hard stock generally can be removed most efficiently with a soft wheel and vice versa. Coarse grained wheels should be used where rapid removal of stock is necessary.

In the Garage

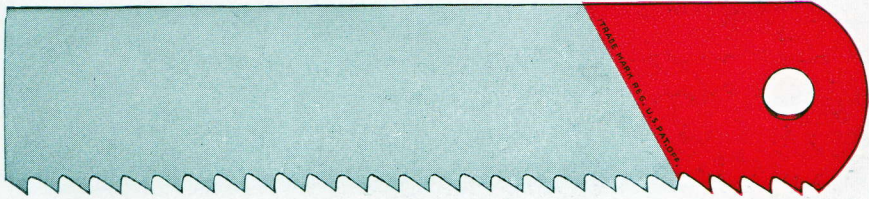
The grinding wheel does a wide range of work in the garage. Under such conditions it pays to have a medium or fine grain Simonds Abrasive wheel for grinding tools and a coarse grinding wheel for cutting or removing excess metal. When one wheel is used for both rough and precision work you cannot expect the results to be as good as having one grinding wheel for roughing and another for finishing.



A fast cool cutting grinding wheel is just as important for quality work to the garage as it is to the automobile manufacturer for production. To secure Simonds Abrasive wheels, best suited for your work, specify the make of machine on which they are used and the material usually ground.

SIMONDS

"RED END" Hack Saw Blades



High Speed Steel — "The Bright Blade"

Hand Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
10" x $\frac{9}{16}$ "	x 23 = 025	18-24-32	\$40.32	$\frac{1}{2}$ gross	6 $\frac{1}{4}$ lbs.
12" x $\frac{9}{16}$ "	x 23 = 025	14-18-24-32	48.96	$\frac{1}{2}$ gross	7 lbs.
10" x $\frac{5}{8}$ "	x 21 = 032	18	90.00	$\frac{1}{2}$ gross	8 lbs.
12" x $\frac{5}{8}$ "	x 21 = 032	18	108.00	$\frac{1}{2}$ gross	10 lbs.

Power Machine Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
12"	x 1" x 18 = 049	14	\$172.80	1 dozen	26 $\frac{1}{2}$ lbs.
	x 1" x 16 = 065	6-10	172.80	1 dozen	35 lbs.
14"	x 1" x 18 = 049	14	201.60	1 dozen	30 $\frac{1}{2}$ lbs.
	x 1" x 16 = 065	6-10	201.60	1 dozen	40 $\frac{1}{2}$ lbs.
	x 1 $\frac{1}{4}$ " x 16 = 065	4-6-10	252.00	1 dozen	50 lbs.
17"	x 1" x 18 = 049	14	244.80	1 dozen	37 lbs.
	x 1" x 16 = 065	6-10	244.80	1 dozen	48 lbs.
	x 1 $\frac{1}{4}$ " x 16 = 065	4-6-10	306.00	1 dozen	61 $\frac{1}{2}$ lbs.
18"	x 1" x 16 = 065	10	259.20	1 dozen	50 $\frac{1}{2}$ lbs.
	x 1 $\frac{1}{4}$ " x 16 = 065	4-6-10	324.00	1 dozen	64 lbs.
	x 1 $\frac{1}{2}$ " x 15 = 072	4-6	427.68	1 dozen	85 lbs.
21"	x 1 $\frac{1}{2}$ " x 16 = 065	4-6-10	453.60	1 dozen	90 lbs.
	x 2" x 15 = 072	4-6	665.28	1 dozen	134 lbs.
24"	x 1 $\frac{1}{2}$ " x 16 = 065	6-10	518.40	1 dozen	106 lbs.
	x 2" x 15 = 072	4-6	760.32	1 dozen	159 lbs.

14-inch, 17-inch and 18-inch Power Blades measure 13 $\frac{1}{2}$ inches, 16 $\frac{1}{2}$ inches and 17 $\frac{1}{2}$ inches between centers of holes respectively. All other power blades measure from center to center of holes.

Write for Discounts



SIMONDS

"RED END" Hack Saw Blades



Special Alloy Steel—"The Red Blade"

Hand Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
10" x 1/2" x 23 = 025		18-24-32	\$40.00	1/2 gross	5 lbs.
12" x 1/2" x 23 = 025		14-18-24-32	48.00	1/2 gross	6 1/2 lbs.
10" x 5/8" x 21 = 032		18	67.50	1/2 gross	7 3/4 lbs.
12" x 5/8" x 21 = 032		18	81.00	1/2 gross	9 3/4 lbs.

Power Machine Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
12"	x 1" x 18 = 049	14	\$120.96	1 dozen	25 lbs.
	x 1" x 16 = 065	6-10	120.96	1 dozen	31 3/4 lbs.
14"	x 1" x 18 = 049	14	141.12	1 dozen	27 1/2 lbs.
	x 1" x 16 = 065	6-10	141.12	1 dozen	35 1/2 lbs.
	x 1 1/4" x 16 = 065	4-6-10	176.40	1 dozen	47 lbs.
17"	x 1" x 18 = 049	14	171.36	1 dozen	35 lbs.
	x 1" x 16 = 065	6-10	171.36	1 dozen	44 1/2 lbs.
	x 1 1/4" x 16 = 065	4-6-10	214.20	1 dozen	56 lbs.
18"	x 1" x 16 = 065	10	181.44	1 dozen	47 lbs.
	x 1 1/4" x 16 = 065	4-6-10	226.80	1 dozen	61 lbs.
	x 1 1/2" x 15 = 072	4-6	298.08	1 dozen	78 lbs.
21"	x 1 1/2" x 16 = 065	4-6-10	317.52	1 dozen	85 lbs.
	x 2" x 15 = 072	4-6	463.68	1 dozen	120 lbs.
24"	x 1 1/2" x 16 = 065	6-10	362.88	1 dozen	97 1/2 lbs.
	x 2" x 15 = 072	4-6	529.92	1 dozen	146 lbs.

14-inch, 17-inch and 18-inch Power Blades measure 13 1/2 inches, 16 1/2 inches and 17 1/2 inches between centers of holes respectively. All other power blades measure from center to center of holes.

Write for Discounts



SIMONDS

"RED END" Hack Saw Blades

Hard Edge . . . Non-breaking



14 Teeth to the Inch



24 Teeth to the Inch



18 Teeth to the Inch



32 Teeth to the Inch

Tungsten Steel—"The Black Blade"

Corrected to June 14, 1934

Hard Edge and All Hard Hand Hack Saw Blades

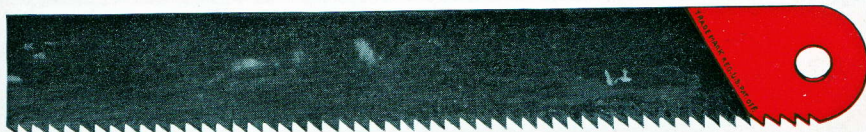
Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
8" x $\frac{7}{16}$ "	x 23 = 025	-18-24-32	\$8.00	$\frac{1}{2}$ gross	3 $\frac{3}{4}$ lbs.
10" x $\frac{1}{2}$ "	x 23 = 025	14 18-24-32	10.00	$\frac{1}{2}$ gross	4 $\frac{3}{4}$ lbs.
12" x $\frac{1}{2}$ "	x 23 = 025	14-18-24-32	12.00	$\frac{1}{2}$ gross	5 $\frac{3}{4}$ lbs.
12" x $\frac{9}{16}$ "	x 23 = 025	14-18-24	13.50	$\frac{1}{2}$ gross	6 $\frac{3}{4}$ lbs.

14 Teeth—for cutting soft steel, iron solids, and rails.

18 Teeth—for cutting tool steel, iron pipe, hard metals, and light angle iron.

24 Teeth—for cutting brass, copper, drill rod, medium tubing, and sheet metals.

32 Teeth—for cutting thin tubing and thin sheet metals.



All Hard Blades for Hand Use

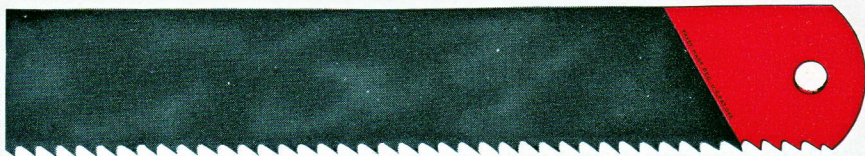
All hard Tungsten Steel Blades for hand use. Same price as hard edge.

Write for Discounts



SIMONDS

"RED END" Hack Saw Blades



Tungsten Steel—"The Black Blade"

Corrected to June 14, 1934

All Hard Light Power Hack Saw Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
12" x 5/8" x 21 = 032		14-18	\$16.20	1/2 gross	9 1/2 lbs.
12" x 3/4" x 21 = 032		14-18	19.44	1/2 gross	11 lbs.
*14" x 3/4" x 21 = 032		14	22.68	1/2 gross	12 1/2 lbs.

14 Teeth—for cutting solids in iron or steel, and for general shop saw work.

18 Teeth—for cutting brass, castings, iron pipe, heavy tubing, etc.

*Also for Rail Frames.

All Hard Heavy Power Hack Saw Blades

Length and Width	Gauge Thickness	Teeth per Inch	Price per Gross	No. in Box	Weight per Gross
12" x 3/4" x 18 = 049		10-14	\$24.48	1/3 gross	17 1/2 lbs.
	x 1" x 18 = 049	10-14	32.64	1/3 gross	23 lbs.
14" x 3/4" x 18 = 049		10-14	28.56	1/3 gross	20 1/4 lbs.
	x 1" x 18 = 049	10-14	38.08	1/3 gross	27 lbs.
	x 1 1/4" x 16 = 065	10	58.80	1/4 gross	46 lbs.
17" x 1" x 18 = 049		10-14	46.24	1/3 gross	33 lbs.
	x 1 1/4" x 16 = 065	10	71.40	1/4 gross	54 lbs.
18" x 1 1/4" x 16 = 065		10	75.60	1/4 gross	59 lbs.
21" x 1 1/2" x 16 = 065		10	105.84	1/4 gross	82 1/2 lbs.
24" x 1 1/2" x 16 = 065		10	120.96	1/4 gross	95 lbs.

14-inch, 17-inch and 18-inch Power Blades measure 13 1/2 inches, 16 1/2 inches and 17 1/2 inches between centers of holes respectively. All other power blades measure from center to center of holes.

Write for Discounts



**the most used . . .
the most abused..
the least understood
of all common tools**

greatly improved for
easier cutting . . . more
depth of cutting . . . better
cutting and marked to
distinguish quality

SIMONDS RED TANG FILES
are marked for mechanics to know
quickly and easily the most out-
standing file produced in a century

ASK FOR THE RED TANG FILE

SIMONDS SAW AND STEEL CO
Fitchburg, Mass.

COLOR ON THE TANG TRADE MARK REG. U.S. PAT. O

RED



**TANG
FILES**

MADE BY SIMONDS METAL SAW MAKERS

SIMONDS "THE SAW MAKERS"

Files and Rasps

Manufactured by

SIMONDS FILE COMPANY, FITCHBURG, MASS., U. S. A.

Revised April 2, 1923.

LIST PRICE PER DOZEN

INCH	MILL			MILL 1 R. E.		MILL 2 R. E.		MILL BLUNT		Square Blunt Bast.	Round Blunt Bast.
	Bast.	2d Cut	Smooth	Bast.	2d Cut	Bast.	2d Cut	Bast.	2d Cut		
4	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	3.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	3.50	4.00	4.50	3.90	4.50	4.40	5.00	3.90	4.60	.....	.....
7	3.90	4.60	.....	4.40	5.20	4.90	.....	4.30	4.90	.....	.....
8	4.30	4.90	5.40	4.80	5.50	5.40	6.10	4.90	5.80	7.40	5.60
9	4.90	5.80	.....	5.50	6.50	6.10	.....	.....	.....	.....	.....
10	5.60	6.40	7.00	6.30	7.20	7.00	8.00	6.70	7.80	10.20	7.50
12	7.50	8.60	9.40	8.40	9.70	9.40	10.80	.....	.....	13.90	10.70
14	10.70	12.20	13.10	12.00	.....	.....	.....	.....	.....	18.70	14.70
16	14.70	16.80	17.90	.....	.....	.....	.....	.....	.....	25.10	.....
18	20.20	.....	.....	.....	.....	.....	.....	.....	.....	32.80	.....

INCH	FLAT			HAND			PILLAR			HAND FINISHING	
	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth	2d Cut	Smooth
4	3.70	4.30	4.70	3.70	4.30	4.80	.....	.....	.....	.....	.....
5	3.90	4.60	4.90	3.90	4.70	5.30	.....	.....	.....	.....	.....
6	4.30	4.80	5.30	4.30	5.10	5.60	4.30	5.10	5.60	.....	.....
7	4.80	5.50	6.10	4.90	5.80	6.30	.....	.....	.....	.....	.....
8	5.30	6.10	6.60	5.40	6.30	6.70	5.40	6.30	6.70	.....	.....
9	6.30	7.20	7.90	6.70	7.80	8.30	.....	.....	.....	.....	.....
10	7.00	8.10	8.70	7.50	8.70	9.40	7.50	8.70	9.40	.....	.....
12	9.70	11.00	12.10	10.70	12.30	13.50	10.70	12.30	13.50	15.20	16.20
14	13.30	15.30	16.70	15.00	17.00	18.20	15.00	.....	.....	20.60	21.70
16	17.80	20.10	22.30	20.10	22.80	24.20	20.10	.....	.....	.....	.....
18	23.90	26.80	29.20	26.80	29.90	31.50	.....	.....	.....	.....	.....

INCH	ROUND			SQUARE			HALF ROUND			THREE SQUARE		
	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth
4	3.00	3.50	3.90	3.80	4.60	4.90	4.80	5.60	6.10	4.80	5.60	6.10
5	3.20	3.80	4.10	4.10	4.80	5.30	5.40	6.10	6.40	5.40	6.10	6.40
6	3.50	4.00	4.50	4.60	5.10	5.50	6.10	6.70	7.10	6.10	6.70	7.10
7	3.90	4.60	4.90	5.10	5.80	6.30	7.00	7.70	8.20	7.00	7.70	8.20
8	4.30	4.90	5.40	5.50	6.30	7.00	7.50	8.30	8.90	7.50	8.30	8.90
9	4.90	5.80	6.30	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	5.60	6.40	7.00	7.40	8.50	9.10	9.10	10.10	10.70	9.10	10.10	10.70
12	7.50	8.60	9.40	10.20	11.50	12.80	11.80	13.00	13.90	11.80	13.00	13.90
14	10.70	12.20	13.10	13.90	16.10	17.50	15.50	17.00	18.30	15.50	17.00	18.30
16	14.70	16.80	17.90	18.70	21.20	23.30	20.60	22.50	24.20	20.60	22.50	24.20
18	20.20	22.70	24.30	25.10	28.20	30.40	27.50	29.90	32.00	27.50	29.90	32.00

Write for Discounts



SIMONDS "THE SAW MAKERS"

Files and Rasps

Manufactured by

SIMONDS FILE COMPANY, FITCHBURG, MASS., U. S. A.

Revised April 2, 1923

LIST PRICE PER DOZEN

INCH	TAPERS		Slim Taper	Extra Slim Taper	BANDSAW BLUNT & TAPER		Double Ender	Pit Saw	Special Cross Cut	Special Hand Saw	HAND SAW	
	Sgl. Cut	Dbl. Cut			Regular	Slim					Blunt	Blunt Slim
3	2.10	....	2.10	....	....	....	....	....	....	....	....	....
3½	2.10	....	2.10	....	....	....	....	....	....	....	....	....
4	2.20	2.90	2.20	2.20	2.90	....	....	4.80	....	....	2.60	2.50
4½	2.40	3.10	2.30	2.30	3.10	....	....	5.40	....	....	3.00	....
5	2.60	3.50	2.50	2.50	3.50	....	....	5.40	....	....	3.40	3.10
5½	3.00	....	2.90	2.90	....	....	....	6.10	....	3.80	....	....
6	3.40	4.70	3.10	3.10	4.70	3.90	....	6.10	3.90	4.50	4.30	3.80
7	4.30	5.60	3.80	3.80	5.60	....	3.50	7.00	4.30	5.40	5.40	....
8	5.40	6.70	4.50	4.50	6.70	5.30	3.90	7.50	4.90	....	6.60	5.40
9	....	....	....	....	....	....	4.40	....	....	....	....	....
10	8.10	....	6.40	....	9.70	....	4.90	....	6.70	....	....	....
12	12.50	....	9.50	....	....	....	....	....	....	....	....	....

INCH	WARDING			KNIFE			Planer Knife	Cant Saw	Gt. Am. Cross Cut	Cabinet Files	LEAD FLOAT AND WOOD FILES	
	Bast.	2d Cut	Smooth	Bast.	2d Cut	Smooth					Flat	Hf. Rd.
4	4.00	4.80	5.40	5.40	6.10	6.40	....	....	....	....	....	....
5	4.50	5.30	5.80	6.10	6.70	7.10	....	....	....	....	....	....
6	4.90	5.90	6.40	6.90	7.50	7.90	....	5.40	....	8.10	4.80	7.00
8	6.40	7.50	8.20	8.50	9.10	9.50	6.40	6.40	7.50	10.10	6.30	8.50
10	8.70	10.10	11.00	10.10	11.50	12.30	8.60	8.70	9.10	13.70	8.60	10.70
12	....	....	....	13.70	15.20	16.10	....	....	....	18.70	11.80	14.10
14	....	....	....	....	....	....	....	....	....	24.80	16.00	18.50
16	....	....	....	....	....	....	....	....	....	....	21.50	24.70

INCH	FLAT WOOD RASPS		HALF ROUND WOOD RASPS		CABINET RASPS		SHOE RASPS		HORSE RASPS	
	Bast.	Smooth	Bast.	Smooth	2d Cut	Smooth	Flat	Hf. Rd.	Plain ½ File	Tanged
6	....	....	8.10	10.10	10.10	11.70	....	....	....	....
8	9.40	12.80	10.10	13.70	12.80	15.50	10.10	10.10	....	....
9	....	....	....	....	....	....	12.20	12.20	....	....
10	12.80	17.50	13.70	18.70	17.50	20.70	13.70	13.70	....	....
12	17.50	23.20	18.70	24.80	22.80	26.80	....	....	12.80	16.80
13	....	....	....	....	....	....	....	....	....	19.60
14	23.20	30.80	24.80	32.90	29.60	33.90	....	....	17.80	23.10
15	....	....	....	....	....	....	....	....	20.90	....
16	30.80	40.90	32.90	43.60	....	....	....	....	24.40	32.20
18	....	....	....	....	....	....	....	....	32.90	....

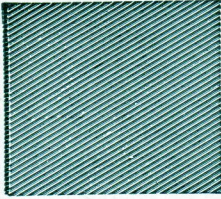
The above list comprises all of the kinds, sizes, and cuts of files that will be regularly carried in stock. Anything differing from these files will be considered as special and will not be manufactured except in cases of urgent necessity; and when manufactured, price will be based strictly upon cost of material and cost of manufacture at time goods are made.

Write for Discounts



File Information

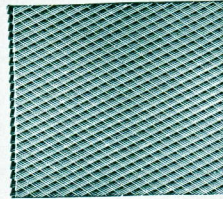
There are three classifications by which files are generally known. These refer to the teeth and are known as Single-cut, Double-cut, and Rasp-cut.



A Single-cut File has single rows of parallel teeth extending the length of the file at an angle across its face. This is clearly shown in the illustration.

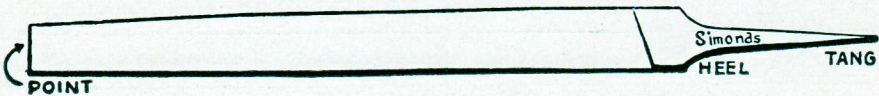
Single and Double-cut Files in general use are further classified according to the distance between the rows of teeth: Bastard, Second-cut, and Smooth. Those having the

A Double-cut File has two parallel rows of teeth crossing each



other. The first row is usually coarser and deeper than the second row. The first row of teeth is known as the "over cut" the second is the "up cut." The teeth of a double-cut file are sharp points as shown here. For this reason they cut faster but not so smoothly as the single-cut. Most of the files used by machinists are double-cut.

greatest space between the teeth are known as "Bastard," and the least as "Smooth." Most files in general use are "Bastard," "Second-cut," and "Smooth."



The following are the descriptive terms which are most commonly used:

Length. The length of a file is the distance between the point and the heel. The tang is not included in the length.

Heel. The heel is that end of the file that comes next to the handle.

Point. The point is the end of the file opposite the tang.

Tang. The tang is the pointed part that is inserted into the wooden file handle.

Back. The rounded side of the Half-Round, Cabinet, Pit Saw, and similar shaped files is known as the back.

Set means that the side, back, or edge, to whichever it refers, is smooth with no teeth.

Blunt File. A file that has the same width and thickness from heel to point.

Taper. This term is applied to a file having tapering sides, to distinguish it from the blunt file.

Set. Blunting the sharp edges or corners of file blanks before and after the over cut to prevent weakness of the teeth.

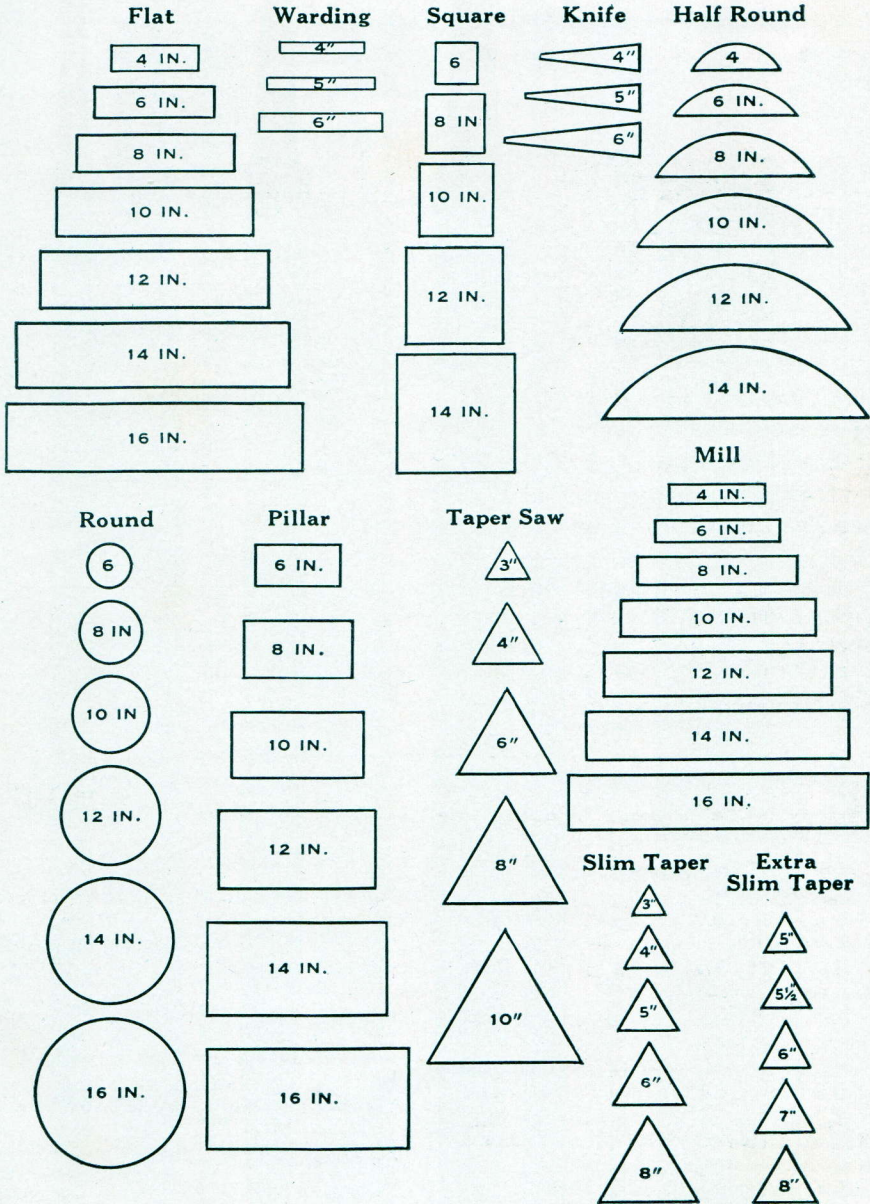
Packing. All Simonds Files 10 inches length and under are wrapped and packed one dozen in a box.

All over 10 inches are packed one-half dozen in a box.

Exceptions—9 inch and 10 inch Flat and Hand, 10 inch Half Round and Cabinet Files are packed one-half dozen in a box

SIMONDS FILES

Cross Sectional Views of Commonly Used Files



Simonds Red Tang Files



The **MILL FILE** is single cut. It is used for sharpening Mill Saws, Planer Knives, Mowing and Reaping Machine Knives, and for lathe work and draw filing in machine shops.



The **TAPER SAW FILE** is used for filing Hand Saws. The Slim Taper File is more popular for this work because of its longer stroke.



The **SLIM TAPER FILE** is very popular for filing Hand Saws. The edges are rounded to eliminate sharp angles between saw teeth. It is triangular in shape.



The **EXTRA SLIM TAPER FILE** is similar to the Slim Taper but with a smaller cross-section. It is used for filing fine-tooth Hand Saws.

Simonds Red Tang Files



The **TAPER BAND SAW FILE** is triangular in shape. The edges are rounded and cut with two rows of teeth to make bottom of gullets between saw teeth round. Used for sharpening Band Saws.



The **SPECIAL CROSS CUT SAW FILE** is especially made for filing Cross-cut Saws. Since it is the same width from point to heel, the same amount of perfect work is secured from each half of each side of the file.



The **SPECIAL HAND SAW FILE** is triangular in shape. It is made from same size stock as Extra Slim Taper File but is same cross-section from heel to point. Especially designed and widely used for Hand Saw filing.



The **CANT SAW FILE** is single cut and used for filing Cross-cut Saws with "M" style teeth, Buck Saw and Pulp Wood Saw Blades and the Simonds Planer Saw.

Simonds Red Tang Files



The **FLAT FILE** is double cut, mostly bastard. May be had in second cut and smooth. It is used by mechanics for all kinds of work.



The **HALF ROUND FILE** is double cut and mostly used in the bastard. Can be furnished in second cut and smooth. Used by mechanics on curved surfaces.

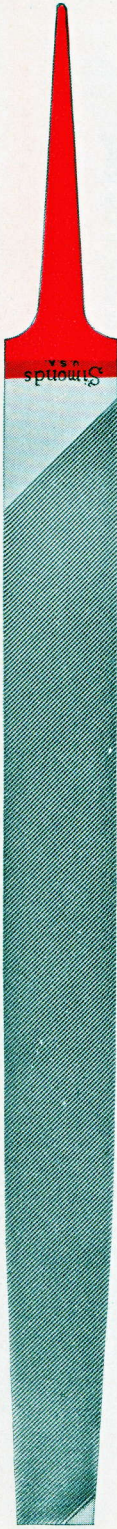


The **ROUND FILE** or **Rat-Tail** is made in bastard, second cut and smooth. It is double cut and used by mechanics for enlarging round holes and on curved surfaces. The bastard is the most popular cut.



The **SQUARE FILE** is double cut, mostly bastard. Can be furnished in second cut and smooth. Used by mechanics for enlarging rectangular holes.

Simonds Red Tang Files



LONG ANGLE LATHE FILE is single cut. Used mostly, as name indicates, for lathe work.

LIST PRICES

10-inch, per dozen	\$ 8.60	14-inch, per dozen	\$16.80
12-inch, per dozen	12.20	16-inch, per dozen	22.70



The **WARDING FILE** is a double cut file. Used largely by locksmiths for filing notches in keys. May be had in second cut and smooth but mostly used in the bastard.



The **PILLAR FILE**, equal in width and tapered in thickness, is a double cut file with one uncut edge. Used by mechanics in narrow work such as slots and keyways. May be had in second cut and smooth, although mostly used in bastard.

SIMONDS Red Tang Files

For Aluminum Castings



A free, easy cutting file which, on aluminum and aluminum alloy, does excellent cutting, without clogging.



For Brass

Especially adapted for smooth, fast cutting on this type of material. Teeth do not fill up with chips or scratch the work.

LIST PRICES—Covering both Aluminum and Brass Files

	Flat	Half Round
10-inch, per dozen	\$8.50	\$13.50
12-inch, per dozen	11.00	16.00
14-inch, per dozen	14.50	20.00
16-inch, per dozen	19.50	25.00

Write for Discounts

**A New
RED TANG
File**

*Especially designed to
keep gullets round in
Narrow Band Saws*

**SIMONDS
Special
Narrow Band Saw
FILES**

are furnished in 6 and 7 inch
lengths.

Order the No. 456 File for 4, 5 and 6 tooth
saws; the No. 3 File for 3 tooth saws.

You'll get at
least 25% longer
life from
this File

LIST PRICES

	No. 3	No. 456
6-inch	\$4.70	\$3.90
7-inch	5.60	4.50

Write for Discounts

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