

GREENLEE



TOOLS

FOR MORTISING, BORING AND ROUTING



Catalog No. 32

**GREENLEE BROS. & CO.
ROCKFORD, ILL., U.S.A.**

Greenlee

**MORTISING AND BORING
TOOLS**

HOLLOW CHISELS, HOLLOW CHISEL BITS, MULTI-SPUR
MACHINE BITS, ROUTING BITS, WOOD BORING
DRILLS, COUNTERSINKS, PLUG CUTTERS
CENTER BITS AND OTHER TYPES
FOR MACHINE USE

Catalog No. 32

1940 - 1941

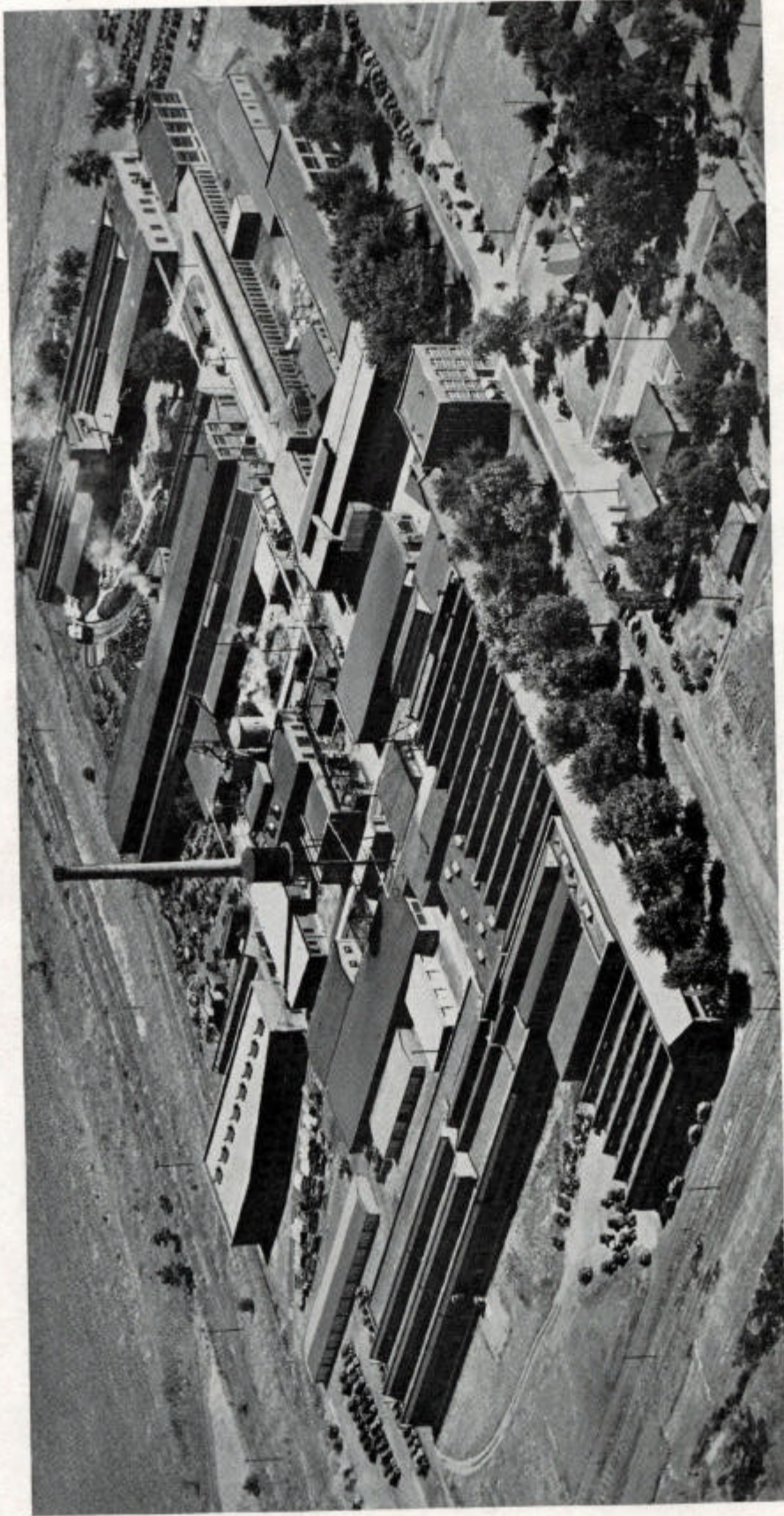


GREENLEE BROS. & CO.

ROCKFORD, ILLINOIS, U. S. A.

Cable Address: Greenlee

Printed in U. S. A.



THE GREENLEE PLANT AT ROCKFORD, ILLINOIS

Above is shown an airplane photograph of the Greenlee Plant, which is located on twenty-five acres of land in the industrial section of Rockford. The buildings, which are of modern construction and largely fireproof, occupy a space having a frontage of about 1200 feet and a depth of about 700 feet.



To the Customer

This Catalog shows all of the essential items in our line of Boring, Mortising and Routing Tools for machine use. We make almost every form of tool for such work, and if you have any requirements not covered by the standard line here shown, please write us, as our experience and equipment is such that we can produce the necessary tools to meet your needs.

For more than sixty years we have been building machines for boring and mortising wood, and during this period we have developed and produced Mortising and Boring Tools which are known by users to be of the highest quality possible. We have an experimental department in connection with the manufacture of our tools and machinery for solving difficult woodworking problems. This department is at your service as is also our engineering force.

We endeavor to describe and list our tools so that customers can easily refer to type numbers, sizes or code words when ordering. We urge customers to make their orders very definite, because, while we use care in executing each, our business involves making several thousand tools daily in hundreds of sizes and types, and specifications clearly written insure prompt handling.

Prices and discounts are subject to change without notice, although we try to notify all regular customers if such change should be an advance. Terms are net cash, thirty days from date of invoice, or 20% cash discount for payment in ten days, to customers with adequate rating or with suitable references. If parties are unknown or without rating, we must ask for remittance in advance or ship on the basis of cash against documents.

All orders are formally acknowledged, and a detailed packing list is enclosed with shipment. Any shortage or error must be reported on receipt of goods. We are not responsible for loss or damage in transit, but will prosecute claims in behalf of our customers. On parcel post shipments we insure and add charges to invoice unless we are advised definitely that purchaser will assume all risk of loss in the mails.



No. 102-B Regular Hollow Chisel

2 $\frac{3}{4}$ -inch Blade

No. 101-B Regular Hollow Chisel

4-inch Blade

No. 103-B Regular Hollow Chisel

5-inch Blade

All of the above Hollow Chisels have the single opening in the blade for clearance of chips, and ordinary mortising, such as in the manufacture of sash, doors, furniture, etc., can be handled by this pattern.

The No. 102-B and No. 103-B Hollow Chisels are all straight-blade as illustrated. The $\frac{1}{4}$ -inch and $\frac{5}{16}$ -inch sizes of the No. 101-B Hollow Chisels are always supplied with reenforced blade, and the $\frac{3}{8}$ -inch size is available in either style.

Oblong Hollow Chisels, No. 101-B, as used in sash and door work are stocked with 4-inch blade. See page 12 for available sizes. Bar-type Hollow Chisels and Multi-Bore Hollow Chisels for extremely oblong mortises are referred to on pages 9 and 16.

Hollow Chisels on this page require Hollow Chisel Bits as follows:

No. 102-B Chisel—No. 121-B, No. 121-H or No. 121-T.

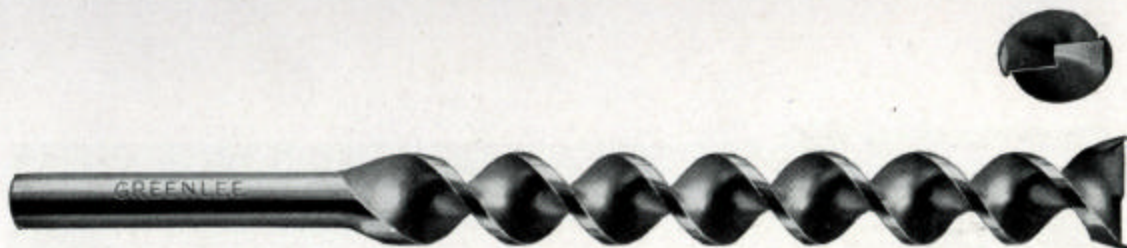
No. 101-B Chisel—No. 120-B, No. 120-H or No. 120-T.

No. 103-B Chisel—No. 122-B or No. 122-H.

See pages 5, 7 and 8.

Stock assortments, specifications, list prices and codes are given on pages 12 and 13.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 121-B Regular Hollow Chisel Bit

4 $\frac{3}{4}$ -inch Twist, 8-inch Over-all

No. 120-B Regular Hollow Chisel Bit

3 $\frac{1}{4}$ and 6-inch Twist, 9-inch Over-all

No. 122-B Regular Hollow Chisel Bit

7-inch Twist, 10-inch Over-all

Hollow Chisel Bits of above numbers have the knife-edged spurs, are without point, and are recommended for use in the softer woods and those easily machined. For difficult work in the hard woods the use of the Hard-Wear or Single-Twist Hollow Chisel Bits referred to on pages 7 and 8 are suggested.

The $\frac{1}{4}$ -inch and $\frac{5}{16}$ -inch sizes of the No. 120-B Hollow Chisel Bits have a twist length of only 3 $\frac{1}{4}$ inches. The twist for these two sizes is purposely made this way to terminate at the center of the opening in the reenforced section of the blade of the chisels, ejecting all chips at that point. The shorter twist strengthens these two small sizes.

It is important that Greenlee Hollow Chisel Bits be specified for use with Greenlee Hollow Chisels to insure proper fit, which is essential for best results. The Hollow Chisel Bits referred to above are for use with Hollow Chisels listed on the opposite page, or with Hard-Wear Hollow Chisels referred to on page 6.

Stock assortment, specifications, list prices and codes are given on page 14.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 102-H Hard-Wear Hollow Chisel

2 $\frac{3}{4}$ -inch Blade

No. 101-H Hard-Wear Hollow Chisel

4-inch Blade

No. 103-H Hard-Wear Hollow Chisel

5-inch Blade

Hollow Chisels of this type have two openings in the blade. One is located close to the cutting edge to give quick relief of chips; the second on the opposite side of the blade, toward the shank, each slightly overlapping the other. This construction eliminates burning and clogging, and for this reason the Hard-Wear type is recommended for all difficult mortising and for work in extremely hard woods.

All Hard-Wear Hollow Chisels of the above numbers have a straight blade, with the exception of the $\frac{1}{4}$ -inch and $\frac{5}{16}$ -inch sizes of the No. 101-H. These two sizes are reenforced.

We carry this style of Hollow Chisel only of specifications to fit machines of our make, although we can furnish special-to-order tools of this type for all makes of mortisers.

Hollow Chisels on this page require Hollow Chisel Bits as follows:

No. 102-H Chisel—No. 121-B, No. 121-H or No. 121-T.

No. 101-H Chisel—No. 120-B, No. 120-H or No. 120-T.

No. 103-H Chisel—No. 122-B or No. 122-H.

See pages 5, 7 and 8.

Stock assortments, specifications, list prices and codes are given on pages 12 and 13.

Note on orders **MAKE AND STYLE NUMBER** of machine for which tools are purchased.



No. 121-H Hard-Wear Hollow Chisel Bit

4 $\frac{3}{4}$ -inch Twist, 8-inch Over-all

No. 120-H Hard-Wear Hollow Chisel Bit

3 $\frac{1}{4}$ and 6-inch Twist, 9-inch Over-all

No. 122-H Hard-Wear Hollow Chisel Bit

7-inch Twist, 10-inch Over-all

The Hard-Wear Hollow Chisel Bits are recommended for working in extremely hard woods. The spurs are of the broad-faced chisel type, which actually remove stock rather than sever and spread the fibres. The heavy body of metal in the spurs permits friction heat to be carried off, and this eliminates loss of hardness. These bits are made with brad point to assist in centering the bit and prevent it from being crowded against one side of the hollow chisel when difficult mortising work is being handled.

To give added strength on the $\frac{1}{4}$ -inch and $\frac{5}{16}$ -inch No. 120-H Hard-Wear Hollow Chisel Bits for use with reenforced hollow chisels, the twist is made 3 $\frac{1}{4}$ inches in length. This twist terminates at the center of the openings in the reenforced section, ejecting all chips at that point.

Hard-Wear Hollow Chisel Bits are interchangeable with Regular or Hard-Wear Hollow Chisels, but are mostly used with the latter as referred to on opposite page. Stock is carried for Greenlee machines only, but special-to-order tools can be furnished for all makes of mortisers.

Stock assortment, specifications, list prices and codes are given on page 14.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 121-T Single-Twist Hollow Chisel Bit

4 $\frac{3}{4}$ -inch Twist, 8-inch Over-all

No. 120-T Single-Twist Hollow Chisel Bit

3 $\frac{1}{4}$ and 6-inch Twist, 9-inch Over-all

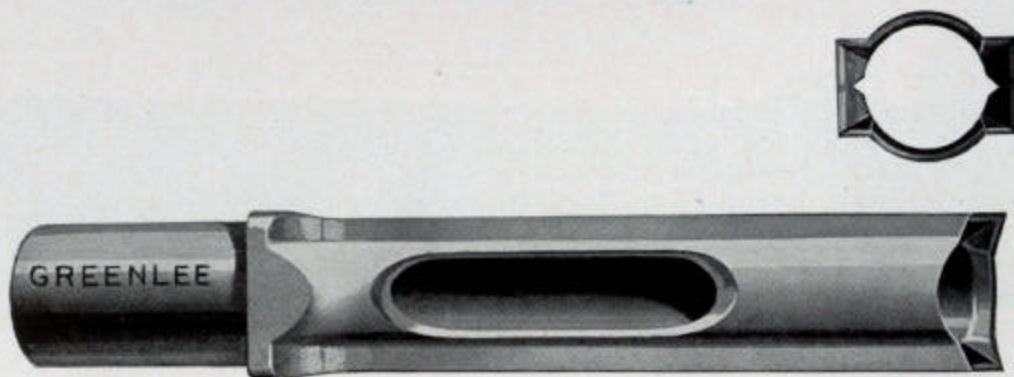
This new type of Hollow Chisel Bit is offered for use with the smaller sizes of hollow chisels for mortising all kinds of wood. The single-spiral twist will bring out chips twice as fast as the conventional double-twist tools, and this permits working at faster speeds, especially with the small sizes. The twist thickness is about twice that of other bits, and this forces the chips to be carried in the proper channel, eliminating wedging against the chisel walls.

Single-Twist Hollow Chisel Bits have a single-cutter head with one knife-edged outlining spur and brad point for centering. They are available in sizes $\frac{1}{4}$, $\frac{5}{16}$, and $\frac{3}{8}$ -inch for use with 2 $\frac{3}{4}$ -inch blade Hollow Chisels, Nos. 102-B and 102-H, and for 4-inch blade Hollow Chisels, Nos. 101-B and 101-H.

The $\frac{1}{4}$ -inch and $\frac{5}{16}$ -inch sizes of the No. 120-T, for use with reenforced blade hollow chisels, have a twist length of 3 $\frac{1}{4}$ inches. Shanks are standard for Greenlee machines but specials can be produced for all makes of mortisers.

Stock assortment, specifications, list prices and codes are given on page 14.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 100-B Oblong Bar Hollow Chisel

4-inch Blade

To meet the demand for a hollow chisel to make extremely oblong mortises, which are common in sash and door manufacture, we originated and designed the Greenlee No. 100-B Oblong Bar Hollow Chisel, illustrated above. It is the practical solution to that particular problem.

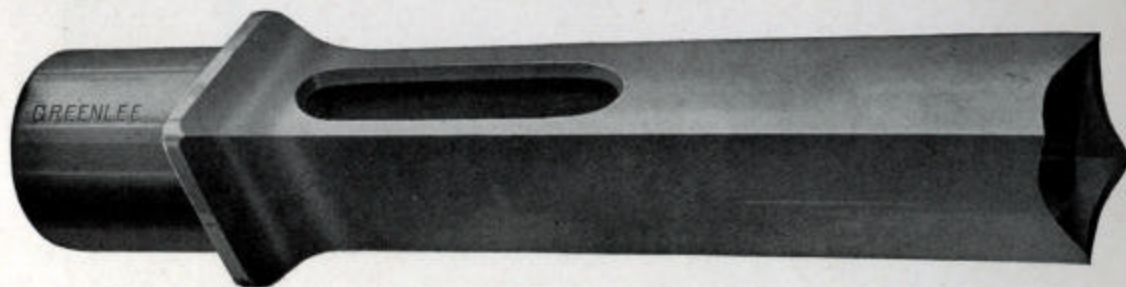
Extreme sizes of oblong hollow chisels, made with rectangular sides, are not practical, due to the small bore not permitting proper clearance of chips. With this type the wide side of the tool has an increased section, allowing a larger bore and the use of a larger bit. This construction gives ample room for clearance of chips, so necessary in successful mortising.

A hollow chisel of this shape is considerably stronger, due to the heavy walls on all sides. The fact that a hollow chisel bit the same diameter as the increased section of the wide side is used, reduces the strain and insures long life. This style of hollow chisel is economical in that it will give better service and reduce, to a large extent, layout work, as the complete mortise can be made with one stroke of the mortising machine.

The $\frac{3}{8}$ " x $\frac{9}{16}$ " and $\frac{3}{8}$ " x $\frac{5}{8}$ " sizes require a bit with $\frac{1}{2}$ -inch diameter head, and the $\frac{3}{8}$ " x $\frac{3}{4}$ " size requires a $\frac{5}{8}$ -inch bit.

Stock assortment, specifications, list prices and codes are given on page 12.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 104-B Regular Hollow Chisel

6½-inch Blade

No. 105-B Regular Hollow Chisel

8-inch Blade

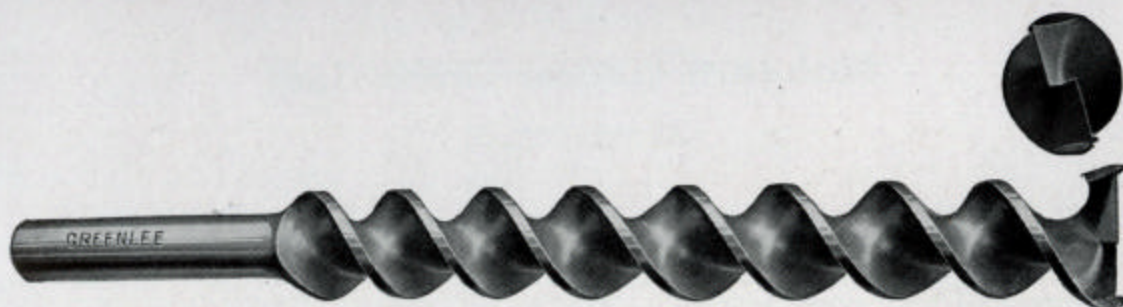
Hollow Chisels of above numbers are for use in the medium and heavy car-shop machines for timber mortising. The No. 104-B Hollow Chisels in sizes $\frac{5}{16}$ -inch and smaller have reenforced blades, while larger sizes of this number, as well as all sizes of No. 105-B Hollow Chisels, have straight blades with single openings for chip clearance.

The 6½-inch-blade Hollow Chisels, No. 104-B, in the medium machines, require No. 123-B Hollow Chisel Bits with 9-inch twist and 12-inch over-all length, and in the heavy machines No. 124-B Hollow Chisel Bits with 10-inch twist and 14-inch over-all length. The No. 105-B Hollow Chisels with 8-inch blades require No. 124-B Hollow Chisel Bits in the medium machines and No. 125-B Hollow Chisel Bits with 11-inch twist and 15-inch over-all length in the heavy machines.

The No. 105-B Hollow Chisel with 8-inch blade is the longest we carry in stock. Longer hollow chisels can be made special to order, figuring from list given on page 13, advancing 10% for each inch or fraction thereof over the 8-inch length. See page 31, explaining the quantity extra schedule applying to special hollow chisels.

Stock assortment, specifications, list prices and codes are given on page 13.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



No. 123-B Regular Hollow Chisel Bit

9-inch Twist, 12-inch Over-all

No. 124-B Regular Hollow Chisel Bit

10-inch Twist, 14-inch Over-all

No. 125-B Regular Hollow Chisel Bit

11-inch Twist, 15-inch Over-all

Hollow Chisel Bits of above numbers for use with the longer hollow chisels in timber mortising machines are carried in the regular type only, that is, knife-edged spurs and no point.

The No. 123-B Hollow Chisel Bits are for the 6½-inch-blade Hollow Chisels, our No. 104-B, in the medium machines. No. 124-B Hollow Chisel Bits are used with the No. 104-B in the large car mortisers and with the 8-inch blade, our No. 105-B, in the medium machines. The No. 125-B Hollow Chisel Bits are for use only with the 8-inch-blade No. 105-B Hollow Chisels in the large mortisers.

Special hollow chisels with extra long blades require hollow chisel bits with correspondingly longer twist. Hollow chisel bits which must be made to order take the standard machine bit list shown on page 30, increased according to quantity specified as outlined on page 31.

Stock assortment, specifications, list prices and codes are given on page 15.

Note on orders MAKE AND STYLE NUMBER of machine for which tools are purchased.



Standard Hollow Chisel List

All Sizes in Stock

Number	Size	Price Each	Shank	Mortise	Code
100-B	$\frac{3}{8}$ " x $\frac{9}{16}$ "	\$8.00	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCUS
100-B	$\frac{3}{8}$ " x $\frac{5}{8}$ "	8.00	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCOMYS
100-B	$\frac{3}{8}$ " x $\frac{3}{4}$ "	8.00	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCULE
102-B	$\frac{1}{4}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SACKAGE
102-B	$\frac{5}{16}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SACKBUT
102-B	$\frac{3}{8}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SACKFUL
102-H	$\frac{1}{4}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SAMARA
102-H	$\frac{5}{16}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SAMBAR
102-H	$\frac{3}{8}$ "	3.50	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SAMBO
101-B	$\frac{1}{4}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SABAEAN
101-B	$\frac{5}{16}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SABAOTH
101-B	$\frac{5}{16}$ " x $\frac{3}{8}$ "	4.95	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SABALO
101-B	$\frac{3}{8}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABAZIA
101-B	$\frac{3}{8}$ " x $\frac{7}{16}$ "	4.95	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCADE
101-B	$\frac{3}{8}$ " x $\frac{1}{2}$ "	5.15	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCATAE
101-B	$\frac{3}{8}$ " x $\frac{9}{16}$ "	5.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCATO
101-B	$\frac{7}{16}$ "	4.80	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABBADAY
101-B	$\frac{7}{16}$ " x $\frac{1}{2}$ "	5.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCHARIC
101-B	$\frac{1}{2}$ "	5.25	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABBATH
101-B	$\frac{1}{2}$ " x $\frac{5}{8}$ "	6.00	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCULAR
101-B	$\frac{1}{2}$ " x $\frac{3}{4}$ "	6.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SACCULUS
101-B	$\frac{9}{16}$ "	5.65	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABBATIA
101-B	$\frac{5}{8}$ "	6.05	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABBATON
101-B	$\frac{11}{16}$ "	6.50	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SABETIM
101-B	$\frac{3}{4}$ "	6.90	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	3" deep	SABELINE
101-B	$\frac{13}{16}$ "	7.35	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	3" deep	SABELLA
101-B	$\frac{7}{8}$ "	7.80	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	3" deep	SABELOR
101-B	1"	8.70	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	3" deep	SABICU
101-H	$\frac{1}{4}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SAMENESS
101-H	$\frac{5}{16}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$1\frac{7}{8}$ " deep	SAMIAN
101-H	$\frac{3}{8}$ "	4.40	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SAMIEL
101-H	$\frac{7}{16}$ "	4.80	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SAMISEN
101-H	$\frac{1}{2}$ "	5.25	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SAMITE
101-H	$\frac{9}{16}$ "	5.65	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SAMLET
101-H	$\frac{5}{8}$ "	6.05	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$3\frac{1}{4}$ " deep	SAMOVAR
101-H	$\frac{3}{4}$ "	6.90	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	3" deep	SAMPHIRE
101-H	$\frac{7}{8}$ "	7.80	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	3" deep	SAMOUN
103-B	$\frac{3}{8}$ "	5.80	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SADDENED
103-B	$\frac{7}{16}$ "	6.20	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SADDENS
103-B	$\frac{1}{2}$ "	6.60	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SADDLED
103-B	$\frac{9}{16}$ "	7.05	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SADDLERY
103-B	$\frac{5}{8}$ "	7.45	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SADDUCEE
103-B	$\frac{3}{4}$ "	8.25	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SADDUCIZE



Standard Hollow Chisel List

All Sizes in Stock

Number	Size	Price Each	Shank	Mortise	Code
103-B	$\frac{7}{8}$ "	\$9.10	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SADNESS
103-B	1"	9.90	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAFFIRE
103-B	$1\frac{1}{8}$ "	10.75	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAGGER
103-B	$1\frac{1}{4}$ "	11.60	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAFFRON
103-H	$\frac{3}{8}$ "	5.80	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SAMARITE
103-H	$\frac{7}{16}$ "	6.20	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SAMARIUM
103-H	$\frac{1}{2}$ "	6.60	$\frac{5}{8}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SAMARKAND
103-H	$\frac{5}{8}$ "	7.45	$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$4\frac{1}{4}$ " deep	SAMAROPSIS
103-H	$\frac{3}{4}$ "	8.25	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAMASAMA
103-H	$\frac{7}{8}$ "	9.10	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAMATUS
103-H	1"	9.90	$1\frac{3}{8}$ " x $1\frac{1}{2}$ "	$3\frac{3}{4}$ " deep	SAMAVEDA
104-B	$\frac{3}{8}$ "	7.20	$1\frac{1}{8}$ " x 2"	$3\frac{1}{4}$ " deep	SAIGINAE
104-B	$\frac{7}{16}$ "	7.60	$1\frac{1}{8}$ " x 2"	$3\frac{1}{2}$ " deep	SAIKLESS
104-B	$\frac{1}{2}$ "	8.00	$1\frac{1}{8}$ " x 2"	$3\frac{1}{2}$ " deep	SAILABLE
104-B	$\frac{9}{16}$ "	8.40	$1\frac{1}{8}$ " x 2"	$3\frac{1}{2}$ " deep	SAILBOAT
104-B	$\frac{5}{8}$ "	8.80	$1\frac{1}{8}$ " x 2"	$5\frac{1}{8}$ " deep	SAILCLOTH
104-B	$1\frac{1}{16}$ "	9.20	$1\frac{1}{8}$ " x 2"	$5\frac{1}{8}$ " deep	SAILERS
104-B	$\frac{3}{4}$ "	9.60	$1\frac{1}{8}$ " x 2"	$5\frac{1}{8}$ " deep	SAILFISH
104-B	$1\frac{3}{16}$ "	10.05	$1\frac{1}{8}$ " x 2"	$5\frac{1}{8}$ " deep	SAILGANG
104-B	$\frac{7}{8}$ "	10.45	$1\frac{3}{8}$ " x 2"	$5\frac{1}{8}$ " deep	SAILHOOK
104-B	1"	11.30	$1\frac{3}{8}$ " x 2"	$5\frac{1}{2}$ " deep	SAILLANT
104-B	$1\frac{1}{8}$ "	12.40	$1\frac{3}{8}$ " x 2"	$5\frac{1}{2}$ " deep	SAILLOFT
104-B	$1\frac{1}{4}$ "	13.40	$1\frac{3}{4}$ " x 2"	5" deep	SAILMAKE
104-B	$1\frac{3}{8}$ "	14.60	$1\frac{3}{4}$ " x 2"	$5\frac{1}{4}$ " deep	SAILROOM
104-B	$1\frac{1}{2}$ "	15.80	$1\frac{3}{4}$ " x 2"	$5\frac{1}{4}$ " deep	SAIMIRI
104-B	$1\frac{5}{8}$ "	17.30	$2\frac{1}{4}$ " x 2"	5" deep	SAINFOIN
104-B	$1\frac{3}{4}$ "	18.70	$2\frac{1}{4}$ " x 2"	5" deep	SAINTDOM
104-B	$1\frac{7}{8}$ "	20.40	$2\frac{1}{4}$ " x 2"	5" deep	SAINTED
104-B	2"	22.00	$2\frac{1}{4}$ " x 2"	5" deep	SAINESS
104-B	$2\frac{1}{4}$ "	26.20	$2\frac{3}{4}$ " x 2"	$5\frac{1}{2}$ " deep	SAIRING
104-B	$2\frac{1}{2}$ "	31.10	$2\frac{3}{4}$ " x 2"	$5\frac{1}{2}$ " deep	SAIVISM
105-B	$\frac{3}{4}$ "	10.35	$1\frac{1}{8}$ " x 2"	$6\frac{3}{4}$ " deep	SALTABLE
105-B	$\frac{7}{8}$ "	11.30	$1\frac{3}{8}$ " x 2"	$6\frac{3}{4}$ " deep	SALTANT
105-B	1"	12.25	$1\frac{3}{8}$ " x 2"	$6\frac{3}{4}$ " deep	SALTBUSH
105-B	$1\frac{1}{8}$ "	13.50	$1\frac{3}{8}$ " x 2"	$6\frac{3}{4}$ " deep	SALTCAKE
105-B	$1\frac{1}{4}$ "	14.60	$1\frac{3}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTCAT
105-B	$1\frac{3}{8}$ "	16.00	$1\frac{3}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTCOTE
105-B	$1\frac{1}{2}$ "	17.40	$1\frac{3}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTDUTY
105-B	$1\frac{5}{8}$ "	19.00	$2\frac{1}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTERN
105-B	$1\frac{3}{4}$ "	20.50	$2\frac{1}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTFOOT
105-B	2"	24.00	$2\frac{1}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTIRE
105-B	$2\frac{1}{4}$ "	28.50	$2\frac{3}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTNESS
105-B	$2\frac{1}{2}$ "	33.75	$2\frac{3}{4}$ " x 2"	$6\frac{3}{4}$ " deep	SALTICK



Standard Hollow Chisel Bit List

All Sizes in Stock

Number	Size	Price Each	Shank	Code
121-B	$\frac{1}{4}$ "	\$1.20	$\frac{3}{16}$ " x $3\frac{1}{4}$ "	SACKING
121-B	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $3\frac{1}{4}$ "	SACKLESS
121-B	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x $3\frac{1}{4}$ "	SACKRACE
121-H	$\frac{1}{4}$ "	1.20	$\frac{3}{16}$ " x $3\frac{1}{4}$ "	SAMBUCENE
121-H	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $3\frac{1}{4}$ "	SAMBUCUS
121-H	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x $3\frac{1}{4}$ "	SAMBUK
121-T	$\frac{1}{4}$ "	1.20	$\frac{3}{16}$ " x $3\frac{1}{4}$ "	SAMBUL
121-T	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $3\frac{1}{4}$ "	SAMBUR
121-T	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x $3\frac{1}{4}$ "	SAMCLOTH
120-B	$\frac{1}{4}$ "	1.20	$\frac{3}{16}$ " x $5\frac{3}{4}$ "	SABERED
120-B	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $5\frac{3}{4}$ "	SABINES
120-B	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x 3"	SABLEIZE
120-B	$\frac{7}{16}$ "	1.20	$\frac{19}{64}$ " x 3"	SABLIERE
120-B	$\frac{1}{2}$ "	1.20	$\frac{19}{64}$ " x 3"	SABOTIER
120-B	$\frac{9}{16}$ "	1.35	$\frac{19}{64}$ " x 3"	SABRINA
120-B	$\frac{5}{8}$ "	1.50	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SABULOSE
120-B	$\frac{11}{16}$ "	1.70	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SABULOUS
120-B	$\frac{3}{4}$ "	1.80	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SABULIN
120-B	$\frac{13}{16}$ "	1.95	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SABURRA
120-B	$\frac{7}{8}$ "	2.20	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SABURTO
120-B	1"	2.50	$\frac{1}{2}$ " x 3"	SABURRATE
120-H	$\frac{1}{4}$ "	1.20	$\frac{3}{16}$ " x $5\frac{3}{4}$ "	SAMACHIAS
120-H	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $5\frac{3}{4}$ "	SAMADH
120-H	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x 3"	SAMAJ
120-H	$\frac{7}{16}$ "	1.20	$\frac{19}{64}$ " x 3"	SAMAIAS
120-H	$\frac{1}{2}$ "	1.20	$\frac{19}{64}$ " x 3"	SAMANA
120-H	$\frac{9}{16}$ "	1.35	$\frac{19}{64}$ " x 3"	SAMANCO
120-H	$\frac{5}{8}$ "	1.50	$\frac{1}{2}$ " x 3"	SAMAOOTH
120-H	$\frac{3}{4}$ "	1.80	$\frac{1}{2}$ " x 3"	SAMARANG
120-H	$\frac{7}{8}$ "	2.20	$\frac{1}{2}$ " x 3"	SAMARATH
120-T	$\frac{1}{4}$ "	1.20	$\frac{3}{16}$ " x $5\frac{3}{4}$ "	SAMFAYL
120-T	$\frac{5}{16}$ "	1.20	$\frac{1}{4}$ " x $5\frac{3}{4}$ "	SAMFIRE
120-T	$\frac{3}{8}$ "	1.20	$\frac{19}{64}$ " x 3"	SAMHALE
122-B	$\frac{3}{8}$ "	1.35	$\frac{19}{64}$ " x 3"	SAFENESS
122-B	$\frac{7}{16}$ "	1.35	$\frac{19}{64}$ " x 3"	SAFETYCAR
122-B	$\frac{1}{2}$ "	1.35	$\frac{19}{64}$ " x 3"	SAFETYINK
122-B	$\frac{9}{16}$ "	1.45	$\frac{19}{64}$ " x 3"	SAFETYNUT
122-B	$\frac{5}{8}$ "	1.60	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SAFFIAN
122-B	$\frac{3}{4}$ "	1.90	$\frac{19}{64}$ " or $\frac{1}{2}$ " x 3"	SAFFRAN
122-B	$\frac{7}{8}$ "	2.30	$\frac{1}{2}$ " x 3"	SAGENITE
122-B	1"	2.60	$\frac{1}{2}$ " x 3"	SAGITAL
122-B	$1\frac{1}{8}$ "	2.85	$\frac{1}{2}$ " x 3"	SAGITO
122-B	$1\frac{1}{4}$ "	3.10	$\frac{1}{2}$ " x 3"	SAGIWA
122-H	$\frac{3}{8}$ "	1.35	$\frac{19}{64}$ " x 3"	SAMBAL
122-H	$\frac{7}{16}$ "	1.35	$\frac{19}{64}$ " x 3"	SAMBAQU
122-H	$\frac{1}{2}$ "	1.35	$\frac{19}{64}$ " x 3"	SAMBONG
122-H	$\frac{5}{8}$ "	1.60	$\frac{1}{2}$ " x 3"	SAMBOR
122-H	$\frac{3}{4}$ "	1.90	$\frac{1}{2}$ " x 3"	SAMBOURNE
122-H	$\frac{7}{8}$ "	2.30	$\frac{1}{2}$ " x 3"	SAMBRE
122-H	1"	2.60	$\frac{1}{2}$ " x 3"	SAMBUCA



Standard Hollow Chisel Bit List

All Sizes in Stock

Number	Size	Price Each	Shank	Code
123-B	$\frac{3}{8}$ "	\$1.50	$\frac{19}{64}$ " x 3"	SALAMEE
123-B	$\frac{7}{16}$ "	1.50	$\frac{19}{64}$ " x 3"	SALABLE
123-B	$\frac{1}{2}$ "	1.50	$\frac{19}{64}$ " x 3"	SALACITY
123-B	$\frac{9}{16}$ "	1.60	$\frac{19}{64}$ " x 3"	SALADING
123-B	$\frac{5}{8}$ "	1.75	$\frac{1}{2}$ " x 3"	SALAGANE
123-B	$\frac{11}{16}$ "	1.85	$\frac{1}{2}$ " x 3"	SALAMBA
123-B	$\frac{3}{4}$ "	2.00	$\frac{5}{8}$ " x 3"	SALANGID
123-B	$\frac{13}{16}$ "	2.20	$\frac{5}{8}$ " x 3"	SALARIED
123-B	$\frac{7}{8}$ "	2.40	$\frac{5}{8}$ " x 3"	SALIDAE
123-B	1"	2.75	$\frac{5}{8}$ " x 3"	SALENIA
123-B	$1\frac{1}{8}$ "	3.00	$\frac{5}{8}$ " x 3"	SALESIAN
123-B	$1\frac{1}{4}$ "	3.30	$\frac{5}{8}$ " x 3"	SALESMAN
123-B	$1\frac{3}{8}$ "	3.65	$\frac{5}{8}$ " x 3"	SALEWORK
123-B	$1\frac{1}{2}$ "	3.90	$\frac{5}{8}$ " x 3"	SALGRAM
123-B	$1\frac{3}{4}$ "	4.70	$\frac{5}{8}$ " x 3"	SALICIN
123-B	2"	5.30	$\frac{5}{8}$ " x 3"	SALIENT
124-B	$\frac{3}{8}$ "	1.75	$\frac{19}{64}$ " x 4"	SALINAS
124-B	$\frac{7}{16}$ "	1.75	$\frac{19}{64}$ " x 4"	SALINOUS
124-B	$\frac{1}{2}$ "	1.75	$\frac{19}{64}$ " x 4"	SALINITY
124-B	$\frac{9}{16}$ "	1.90	$\frac{19}{64}$ " x 4"	SALIQUE
124-B	$\frac{5}{8}$ "	2.00	$\frac{1}{2}$ " x 4"	SALISHAN
124-B	$\frac{11}{16}$ "	2.20	$\frac{1}{2}$ " x 4"	SALITER
124-B	$\frac{3}{4}$ "	2.40	$\frac{5}{8}$ " x 4"	SALITRAL
124-B	$\frac{13}{16}$ "	2.60	$\frac{5}{8}$ " x 4"	SALIVANT
124-B	$\frac{7}{8}$ "	2.80	$\frac{5}{8}$ " x 4"	SALIVOUS
124-B	1"	3.25	$\frac{5}{8}$ " x 4"	SALLOWY
124-B	$1\frac{1}{8}$ "	3.50	$\frac{5}{8}$ " x 4"	SALMIAC
124-B	$1\frac{1}{4}$ "	3.70	$\frac{5}{8}$ " x 4"	SALMOID
124-B	$1\frac{3}{8}$ "	3.90	$\frac{5}{8}$ " x 4"	SALMONET
124-B	$1\frac{1}{2}$ "	4.25	$\frac{5}{8}$ " x 4"	SALOPIAN
124-B	$1\frac{5}{8}$ "	4.50	$\frac{5}{8}$ " x 4"	SALPACEA
124-B	$1\frac{3}{4}$ "	4.80	$\frac{5}{8}$ " x 4"	SALPICON
124-B	$1\frac{7}{8}$ "	5.25	$\frac{5}{8}$ " x 4"	SALPIDAE
124-B	2"	5.70	$\frac{5}{8}$ " x 4"	SALPINK
124-B	$2\frac{1}{4}$ "	7.25	$\frac{5}{8}$ " x 4"	SALSIFY
124-B	$2\frac{1}{2}$ "	8.50	$\frac{5}{8}$ " x 4"	SALSODA
125-B	$\frac{3}{4}$ "	2.50	$\frac{5}{8}$ " x 4"	SALTMINE
125-B	$\frac{7}{8}$ "	2.90	$\frac{5}{8}$ " x 4"	SALTPAN
125-B	1"	3.50	$\frac{5}{8}$ " x 4"	SALTTREE
125-B	$1\frac{1}{8}$ "	3.75	$\frac{5}{8}$ " x 4"	SALTWELL
125-B	$1\frac{1}{4}$ "	4.00	$\frac{5}{8}$ " x 4"	SALTWORT
125-B	$1\frac{3}{8}$ "	4.25	$\frac{5}{8}$ " x 4"	SALUTARY
125-B	$1\frac{1}{2}$ "	4.65	$\frac{5}{8}$ " x 4"	SALUTER
125-B	$1\frac{5}{8}$ "	5.00	$\frac{5}{8}$ " x 4"	SALVABLE
125-B	$1\frac{3}{4}$ "	5.50	$\frac{5}{8}$ " x 4"	SALVAGE
125-B	2"	6.75	$\frac{5}{8}$ " x 4"	SALVELINE
125-B	$2\frac{1}{4}$ "	9.00	$\frac{5}{8}$ " x 4"	SALVING
125-B	$2\frac{1}{2}$ "	10.00	$\frac{5}{8}$ " x 4"	SALVORS



Greenlee Multi-Bore Hollow Chisels With Bits

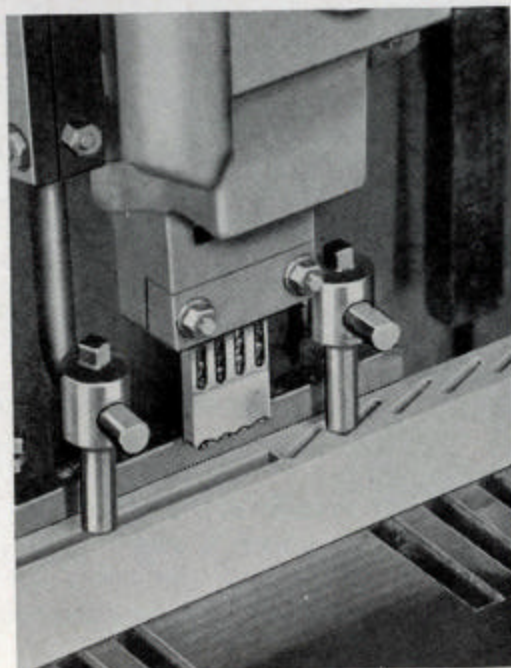
The newest addition to the Greenlee line of woodworking tools is the Multi-Bore Hollow Chisels and Bits, illustrated above. Single-bore Hollow Chisels for cutting square and oblong mortises have been manufactured for many years, but nothing has been available in the way of tools and equipment for producing extremely oblong mortises in one stroke of a hollow chisel type of machine.

In recent years the increased use of blind rectangular mortises in the sash and door industry developed a demand for these tools, not only to speed up production, but to permit the cutting of mortises with square ends and with sides parallel to each other for the entire depth of the mortise, allowing better fit with tenons and resulting in stronger construction.

Hollow Chisels of this new style are made with a blade length of 3 inches, permitting mortising to a depth of $2\frac{3}{4}$ inches. Each bore has two openings, one overlapping the other for quick chip relief, the first one starting $\frac{3}{4}$ -inch from the cutting edge. Tough alloy steel as regularly used in all Greenlee Hollow Chisels is employed, and tools are heat-treated all over and ground. The shanks are oblong in shape and have the same dimensions as the cutting parts to fit the socket and adapters of the cluster-head driving unit.



The Hollow Chisel Bits are of the ordinary type as far as cutting head and style of twist are concerned. The shank, however, has a threaded section $\frac{3}{4}$ -inch in length to provide adjustment for clearance between the bit head and the chisel cutting edge. The shaft between the twist and shank has a keyway, which engages a key in the driving clutch. The bits are also made of tough alloy steel, completely heat-treated and accurately ground.



Equipment for operating these hollow chisels and bits consists of a cluster head designed to fit only the Greenlee No. 227 and No. 228 Power Feed Mortisers. This attachment is totally enclosed to retain lubricants and to exclude dust and dirt from the working parts. The bits are driven at 6,000 revolutions per minute on $\frac{1}{2}$ -inch centers by spiral-cut alloy steel gears and spindles, and bronze bearings are employed. All bits revolve right-hand, and they are locked and driven by a clutch keyed to the shaft of the bit and interlocked with clutch teeth on the bottom end of each spindle. On this page we show a close-up view of the cluster head attached to a Greenlee No. 227-BM Mortiser and driving a 4-bore hollow chisel with four bits.

Stock Multi-Bore Hollow Chisels are carried in three sizes as listed below, the $\frac{3}{8}$ x1-inch with two bores, the $\frac{3}{8}$ x1 $\frac{1}{2}$ -inch with three bores, and the $\frac{3}{8}$ x2-inch with four bores, all requiring $\frac{3}{8}$ -inch hollow chisel bits. Special sizes for operating on other than $\frac{1}{2}$ -inch centers can be made to order.

LIST PRICE FOR EACH

			Price	Code
No. 110	$\frac{3}{8}$ " x 1"	2-bore Hollow Chisels.	\$18.25	SAGAMORE
No. 110	$\frac{3}{8}$ " x 1 $\frac{1}{2}$ "	3-bore Hollow Chisels.	22.50	SAGECOCK
No. 110	$\frac{3}{8}$ " x 2"	4-bore Hollow Chisels.	26.75	SAGEROSE
No. 129	$\frac{3}{8}$ "	Hollow Chisel Bits to fit above.	1.85	SAMMIER

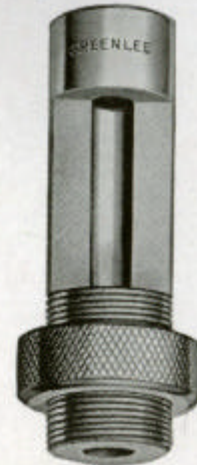
Cluster Head Attachment. Price on Application.



No. 115 Split
Bit Bushing



No. 116 Split
Chisel Bushing



No. 117 Adjustable
Bit Bushing

Hollow Chisel and Bit Bushings

Split Bit Bushings, our No. 115, are carried in the following specifications:

$\frac{19}{64}$ " outside diameter	$\frac{3}{16}$ " and $\frac{1}{4}$ " bore
$\frac{1}{2}$ " outside diameter	$\frac{3}{16}$ ", $\frac{1}{4}$ " and $\frac{19}{64}$ " bore
$\frac{5}{8}$ " outside diameter	$\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{19}{64}$ " and $\frac{1}{2}$ " bore
$\frac{3}{4}$ " outside diameter	$\frac{1}{2}$ " and $\frac{5}{8}$ " bore

No. 116 Split Chisel Bushings are carried in stock in following specifications:

$\frac{7}{8}$ " outside diameter	$\frac{5}{8}$ " and $\frac{3}{4}$ " bore
$1\frac{1}{8}$ " outside diameter	$\frac{5}{8}$ " and $\frac{3}{4}$ " bore
$1\frac{3}{8}$ " outside diameter	$\frac{5}{8}$ ", $\frac{3}{4}$ " and $1\frac{1}{8}$ " bore
$1\frac{3}{4}$ " outside diameter	$\frac{5}{8}$ ", $\frac{3}{4}$ ", $1\frac{1}{8}$ " and $1\frac{3}{8}$ " bore
2" outside diameter	$\frac{5}{8}$ ", $\frac{3}{4}$ ", $1\frac{1}{8}$ ", $1\frac{3}{8}$ " and $1\frac{3}{4}$ " bore
$2\frac{1}{4}$ " outside diameter	$\frac{5}{8}$ ", $\frac{3}{4}$ ", $1\frac{1}{8}$ ", $1\frac{3}{8}$ " and $1\frac{3}{4}$ " bore
$2\frac{3}{4}$ " outside diameter	$1\frac{1}{8}$ ", $1\frac{3}{8}$ ", $1\frac{3}{4}$ " and $2\frac{1}{4}$ " bore

The No. 117 Adjustable Bit Bushing is carried only with $\frac{3}{4}$ -inch outside diameter, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{19}{64}$, $\frac{1}{2}$ and $\frac{5}{8}$ -inch bore.

Bushings of special dimensions can be made to order. Prices on stock and special bushings quoted on application.



Hollow Chisel Mortising Tools

The Hollow Chisel Mortiser is absolutely an economical type of machine, but results depend first on the type, mechanism, and condition of the machine and then on both the chisel and bit used. Hollow Chisels and Bits will not give good service if the machine is not in first-class condition. Hollow Chisels and Bits of Greenlee make will give greatest economy if used together, either in a Greenlee or in any other make of mortising machine.

To get results it is first necessary to have the right type of machine and keep it in condition. Next, the chisel must be sharp and have proper form of cutting edges. We recommend the filing method of sharpening to the small user, and equipment should consist of half-round and square files, No. 0 or No. 1 cut. A new tool should be used as a guide, and the filer should be cautioned to preserve the curved edges as well as the double inner angles of the edges. A machine is now available for sharpening Hollow Chisels, and this is recommended to the large user. The following two pages illustrate and describe the machine and necessary cutter equipment.

A Hollow Chisel Bit should produce a fine, well broken chip that can be readily cleared through the chisel. It can only do this when its edges are sharp and shaped as found on a new tool. Always file the cutting edges of a bit from below, with the file working in the throat through which the chips pass. The spurs and side lips should be sharp and lined up evenly with the cutting edges. Filing should be done on the inside only. Half-round and taper warding files are best suited to bit sharpening.

Correct adjustment between bit and chisel when placed in the machine is of prime importance. A common method is to place the chisel in the socket with a slight clearance between its shoulder and face of chisel socket, fastening lightly. This clearance should be $\frac{1}{64}$ -inch on the small sizes, $\frac{1}{32}$ -inch on the medium sizes, and $\frac{1}{16}$ -inch on the large sizes. The bit is then inserted until its head rests against the cutting edges of the chisel and is securely fastened in this position. When the chisel is pushed back so that its shoulder rests against the face of the chisel socket, the proper clearance will be allowed.

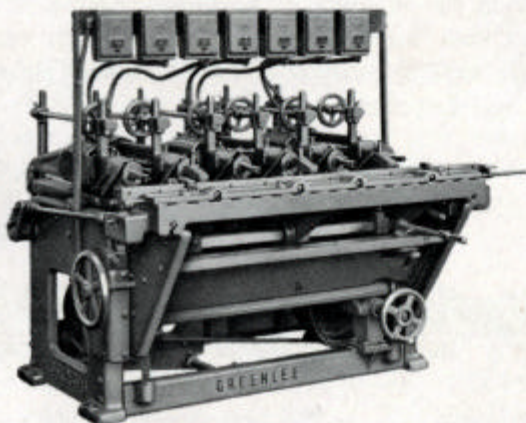
The Hollow Chisel is by far the more expensive of the two tools, costing three or four times as much as the bit. It is not economy to use bits that are not in first-class condition, as by so doing a greater strain is thrown on the chisel, and breakage is likely to result. Bits are made to overcut the chisel to some extent, and when there is any question whatever of their doing their full share of the work, they should be replaced.

Hollow Chisels and Bits listed in this catalog have proper specifications to fit Greenlee Machines. We can, however, supply proper Hollow Chisels and Bits of Regular Types for all makes of mortisers. In ordering, MAKE AND STYLE NUMBER should be carefully noted.

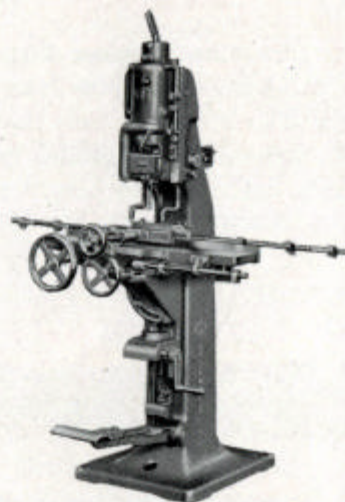


Greenlee Woodworking Machinery

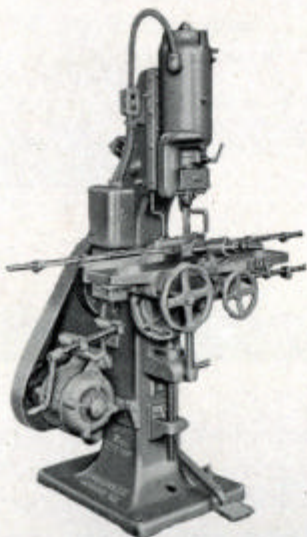
We have always placed great emphasis on machines for mortising and boring, as well as on their tools, with the result that our line is not only modern in every respect, but most complete. Some of these machines, together with illustrations of others for tenoning, planing, shaping and sawing, are shown on this and the next three pages. These illustrations serve only as a suggestion of our line, and anyone interested in machines for any of the purposes indicated here should write for our complete Woodworking Machinery Catalog.



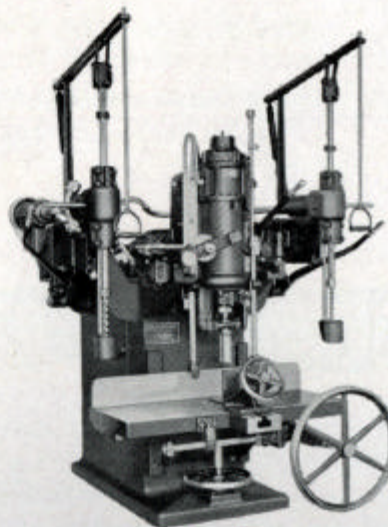
No. 212-M Multiple-Spindle Mortiser with Built-in Spindle Motors. Furnished with from 3 to 6 Mortising Heads.



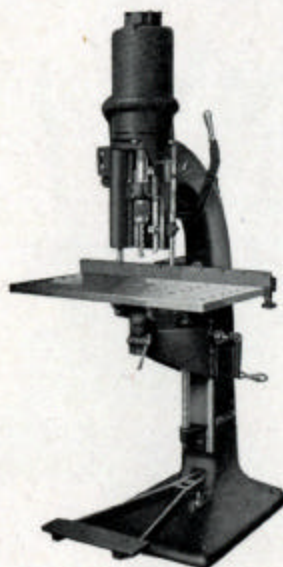
No. 225-BM Foot-Feed Mortiser with Built-in Spindle Motor and Compound Table. Chisel Capacity up to $\frac{3}{4}$ ".



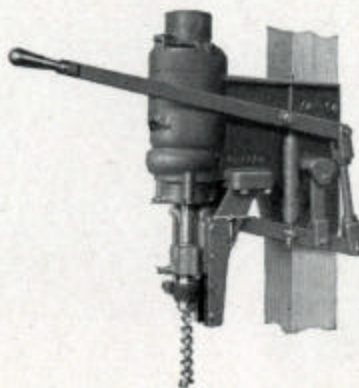
No. 227-BM Power-Feed Mortiser with Built-in Spindle Motor and Compound Table. Chisel Capacity up to 1".



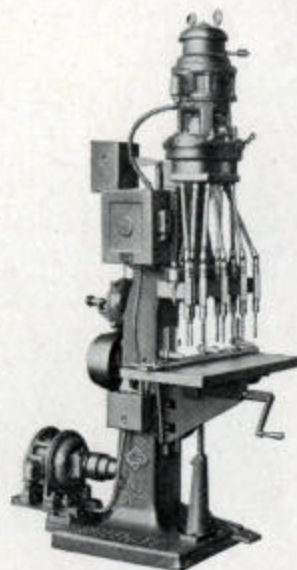
No. 232-MC Car Mortiser with Built-in Spindle Motor and Boring Attachments. Chisel Capacity up to 2".



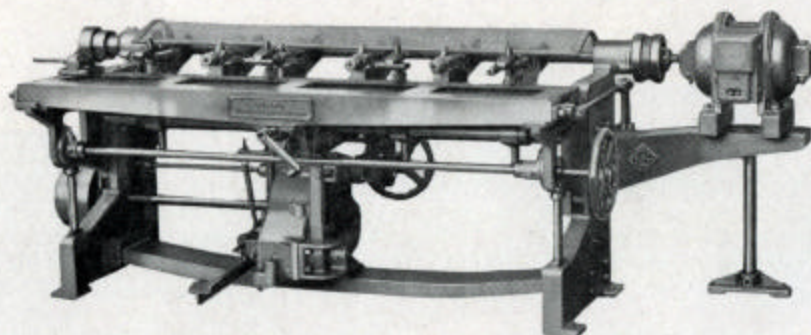
No. 356 Single-Spindle Borer
with Built in Motor.



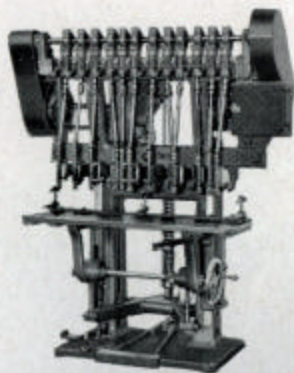
No. 357-A Post Borer
with Built-in Motor.



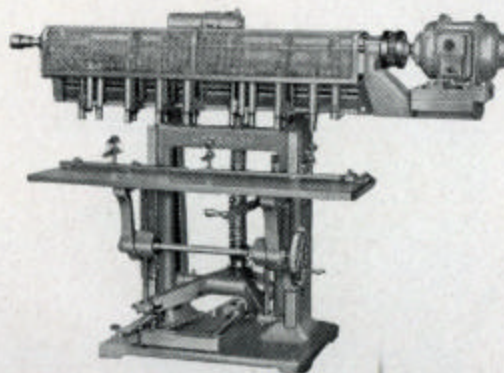
No. 363-M Gang Borer
with Built-in Motor.



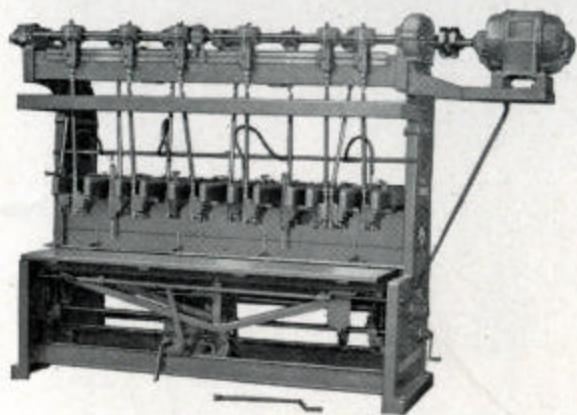
No. 370 Horizontal Gang Borer, Built in Lengths from 4 to 8 Feet.



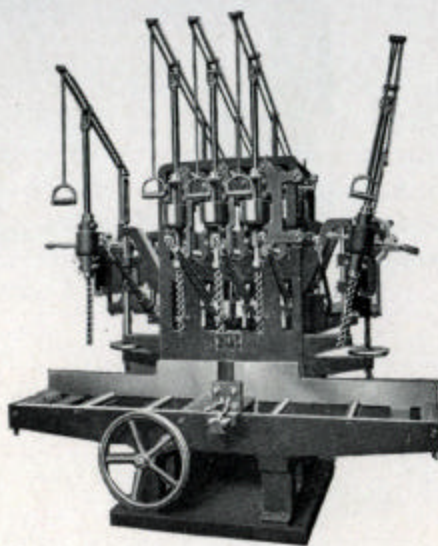
No. 366-D Universal-Spindle
Gang Borer, Built in lengths
from 3 to 6 Feet.



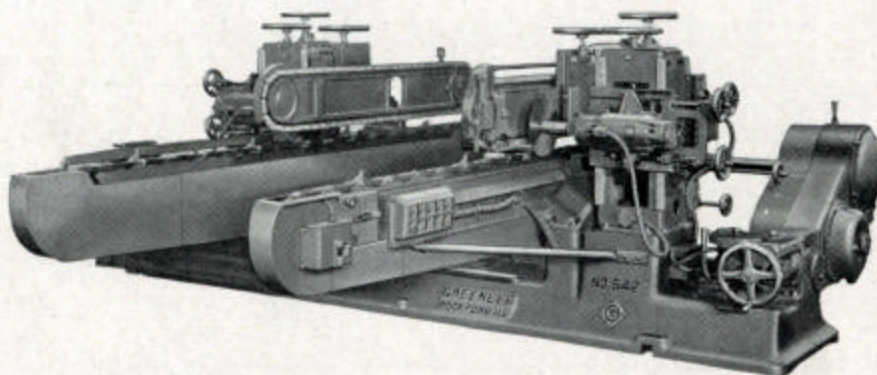
No. 369-D Gang Borer, Built in Lengths from
3 to 6 Feet and with Spindle Heads as required.



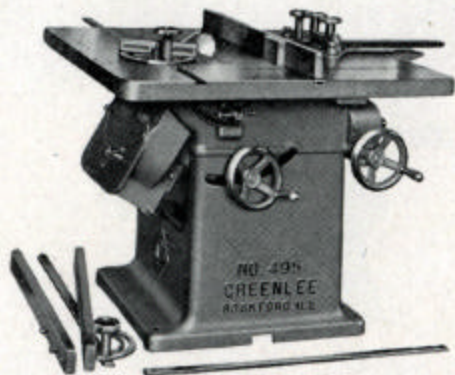
No. 386-C Universal-Spindle Gang Borer
Built in Lengths from 4 to 12 Feet.



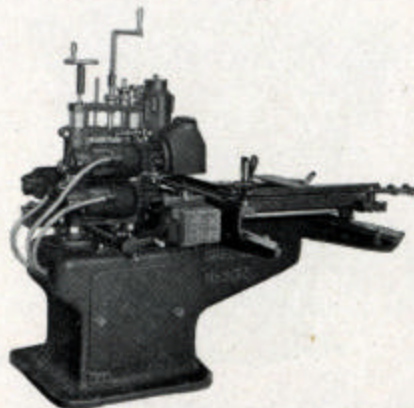
No. 327 Vertical Car Borer. One of
a Complete Line of Car Borers.



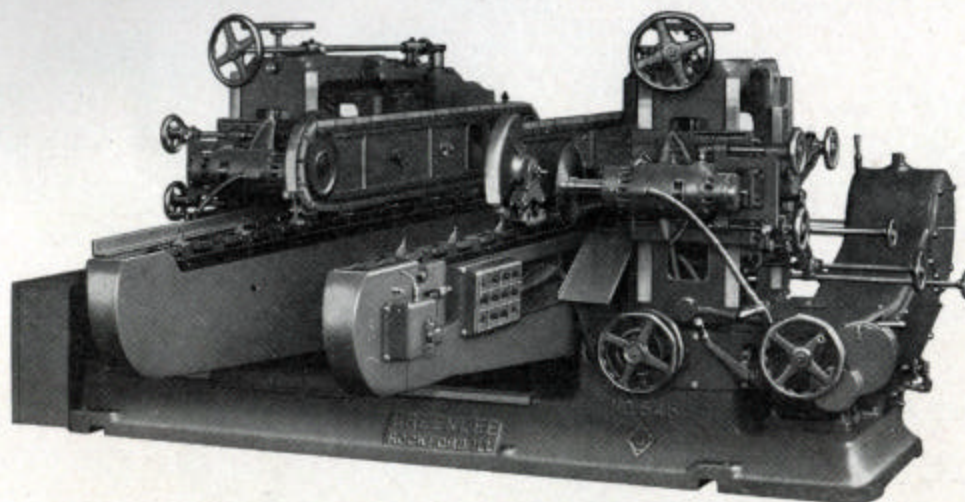
No. 542 Electric Double Cut-off Saw.



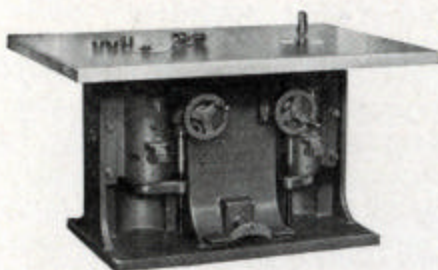
No. 495 Tilting-Arbor Saw with
Built-in Motor.



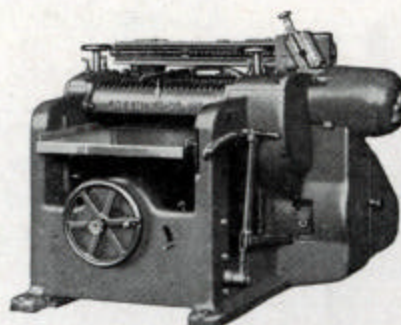
No. 532 Single-End Tenoner with
Built-in Motors.



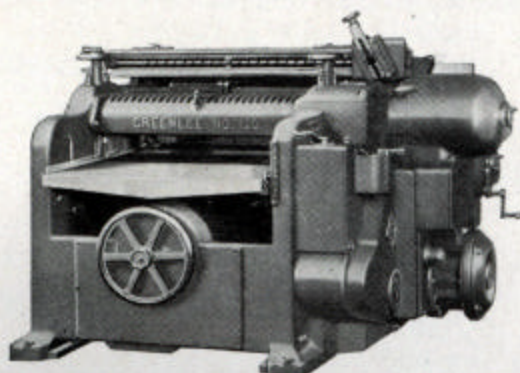
No. 545 Double-End Tenoner, Built in Various Lengths and Arranged for Numerous Attachments to do a Wide Variety of Operations.



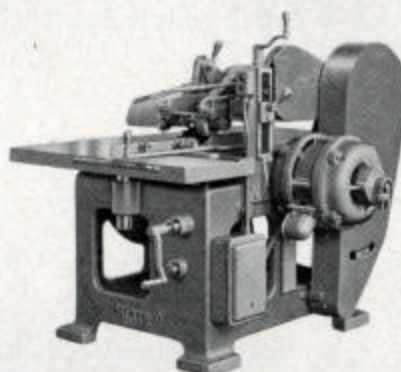
No. 180 Electric Shaper.



No. 110 Single Electric Planer.



No. 120 Double Electric Planer.



No. 426-M Self-Feed Rip Saw.