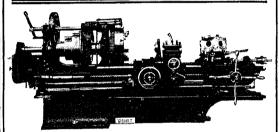


# ONE GISHOLT



## Will Do the Work of

boring, turning and facing, on chucked work—also threading when required—in faster time and with greater average accuracy than you can do the same work on from

## Three to Four Engine Lathes

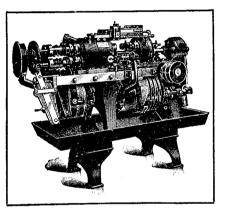
This is a statement we have proven time and time again, and we should like to prove it to you. Won't you tell us about your work and let us give you the Gisholt time for the job?

May we send you our complete catalogs of Gisholt Lathes, Boring Mills and Tool Grinders?

# Gisholt Machine Co. 1318 Washington Ave.

Madison, : : Wis., U. S. A.

## "Acme Automatic"



## The Wholesale Screw Machine

For quick, accurate work it has no equal. One set of tools only. Four bars simultaneously operated upon.

# The National-Acme Mfg. Co. Cleveland, Ohio, U. S. A.

Branch Offices: New York, Boston, Chicago

FOREIGN REPRESENTATIVES:

Alfred H. Schutte

Schuchardt & Schutte

## Sixteen Inch Heavy Duty Cincinnati" Geared Crank Shaper

The gearing is designed to make this

## The Most Powerful Shaper

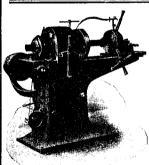
of its stroke on the market. The of its stoke on the market. The powerful design, with strength and accuracy in every detail, the careful selection of the material best adapted to each part, and the various tests during construction, as well as of the finished machine, produce a shaper of the very highest type in power, strength, accuracy and general efficiency.

Ask for Circular No. 1610 for full description of this modern tool.

## The Cincinnati Shaper Co.

Colerain Ave. & Elam St., CINCINNATI, O.

## Quick-Opening, Adjustable Pipe Threading Machines



Cutting from 1/4 to 12 inches

These are new, modern machines, designed to give the highest speed and most satisfactory service. Have six changes of speed without removing or replacing a gear; cuts either right or left hand threads. They will interest any one using such tools who studies close economy in the cost of his work. work.

Write for a large cut and more particulars

comparison with other machines will be good for you and for us.

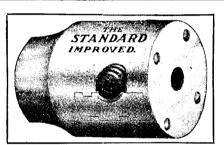
Williams Tool Co.

No. 11/2, Cutting 1/2 to 3 Inches.

:: Erie, Pa.

## DO YOU USE

## **Drill Chucks?**



## If so, you want the BEST.

WE HAVE THEM

This is no new, untried chuck, but one that has stood the test of time and is

The Highest Type of Drill Chuck Known

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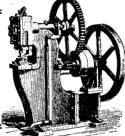
## The Standard Tool Co.

General office and factory Cleveland, Ohio

## The "Cincinnati" Punch



Multiple



SHEARS:

Gate Pack & Universal

ROLLS for Bending and Straightening Engine, Motor or Belt Drive New Types . . Patented Features

The Cincinnati Punch & Shear Co., Cincinnati, O.

## FIUE TIMES THE SERUICE

## AT ONE-HALF THE COST

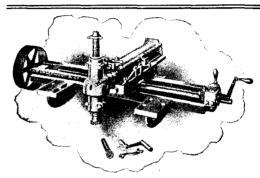
Matthews High-Speed Reamers and Core Drills Give These Results



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THREE RIVERS TOOL CO. : Three Rivers, Mich.

## PORTABLE TOOLS



### Portable Milling Machine

OUR portable millers and boring machines are adapted to a wide range of work, and are especially economical and convenient in handling repair jobs, such as engine cylinders, valve seats, etc., which cannot easily be moved to the shop. They are great time and labor savers, and their cost is so small in proportion to what they do that no machinist who does any repair work can afford not to have them. We make a specialty of port= able machines for boring locomotive cylinders and facing valve seats, cylinder head joints, etc.

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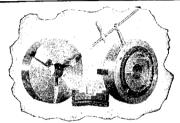
L. B. Flanders Machine Works
ESTABLISHED 1870.

H. B. UNDERWOOD & CO., PROPRIETORS

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## Chucks for Heavy Work



Heavy Chucks for severe duty, proportioned for use on modern turnet lathes, and for all requirements where **weight**, **power and durability** are essential. Also a complete line of

CHUCKS FOR ALL USUAL REQUIREMENTS

THE D. E. WHITON MACHINE CO., New London, Conn.

## **KEY SEATING**

Your Drill Press Will Do It and Save You 50 Per Cent

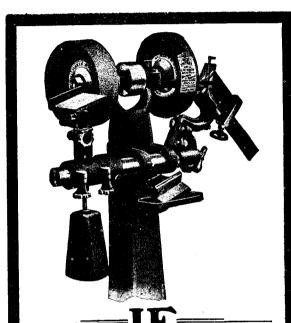


Users say that with our key seating tools an inexperienced drill press hand will cut key ways in about one-third the time required for an expert man to do as good work on a planer or shaper. They are simple, durable, easily handled, and they save both time and money. Make every seat exactly alike, so that no filing is needed to fit the key.

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National Machine Tool Co.

208-210 Lawrence St., CINCINNATI, OHIO



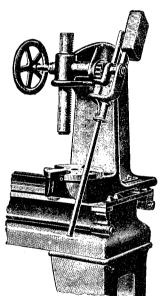
you knew the multitude of different jobs (besides drill grinding) others are using this particular

## **New Yankee Drill Grinder**

for you'd be interested yourself. But, anyway, let us tell you about it and send you catalog with 46 styles.

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# Are You in the Habit of Using a Hammer or Sledge and a Pounding Block for Driving Arbors?



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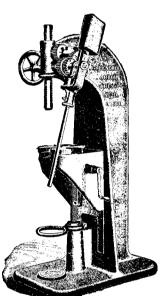
If you are, you are altogether wrong; 'tisn't the right way; never was, never will be. It is not only a time-wasting way, but it is a destructive way.

Brute force is hardly ever as effective as persuasion.

## GREENERD ARBOR PRESS

is used for forcing arbors into and out of work. It saves time, does not mar the work, saves springing, saves splitting the work, saves in every direction. A full detailed desgription on request.

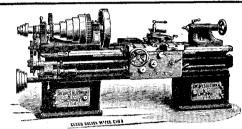
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THE GREENERD ARBOR PRESS IS SENT ON TRIAL FOR THIRTY DAYS. YOU HAVE AN OPPORTUNITY TO DEMONSTRATE ITS VALUE TO YOU ON YOUR OWN WORK IN YOUR OWN SHOP.



# Standard Engine Lathes 16 to 24 Inch Swing BUILT BY

## Greaves, Klusman @ Co.

N. E. Cor. Cook & Alfred Sts., Cincinnati, O., U. S. A. ALSO BUILDERS OF

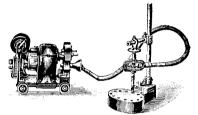
Pattern Makers' Lathes and Machinery and Metal Spinners' Lathes

## Woodworking Machinery

If you are in search of machinery for working wood, write to the publisher for a copy of **The Machinery List**, containing the advertisements of all the leading manufacturers of woodworking tools, as well as complete lists of second-hand machinery in market. Mailed free, on receipt of request, to anybody, anywhere on earth.

A. H. HITCHCOCK, : Publisher 626-627 Monadnock Block, CHICAGO, ILL.

## FOR Drilling, Reaming, Tapping or Grinding



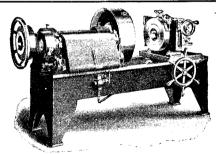
There isn't a better combination made than the

## STOW FLEXIBLE SHAFT

Run by General Electric Co.'s Motor

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Stow Flexible Shaft Co. Callowhill & Philadelphia

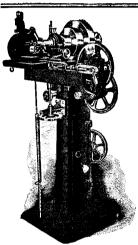


## Pipe Threading Machines

We build the most thoroughly modernized line, to cut all sizes of pipe, from ¼ inch to 12 inches. .. .. Send for booklet.

The Stoever Foundry & Mfg. Co. Myerstown, Pa.

## **Automatic Gear Cutters**



We build:

#### No. 1 Size

Capacity 1/8 to 5 inch diameter, 16 pitch and finer.

#### No. 2 Size

Capacity 1/8 to 8 inch diameter, 12 pitch and finer.

#### Semi-Automatic

Capacity 1/8 to 3 inch, 24 pitch and finer.

#### No. 11 Universal

For both bevel and spur gears.

THESE machines are used to cut tool steel reamers, milling cutters, needle and screw slotting saws; on machine steel and brass, for cutting variety of spur gears, pinions, segments, lock parts, typewriter feed and escape wheels, scale pinions, gearings in phonographs, graphophones, gas and water meters, time clocks, fish reels, etc. We claim that for work within range, we can turn out more in quantity and better work than on any other machine on the market.

We also contract to furnish gears cut in lots of 1,000 or more.

Send for New Catalogue G 6

Dwight Slate Machine Co. Hartford, Connecticut

## Second-Hand Machinery.

Lists of second-hand machinery, either for sale or wanted, will be published under this heading at the rate of 40 cents a line, agate measure, each issue, with a minimum charge of \$4.00. Name and address of advertiser are not counted in the space charged. Prices and full descriptions of the machines listed will be furnished by the parties offering them for sale. If you do not find what you require, use the slip enclosed with each book to make known your wants to the publisher.

FOR SALE BY The W. M. Pattison Supply Co., Cleveland, Ohio. DRILLS. ILLS.
| Style "M," Baker Bros.
| 4 ft. arm, universal radial. 20 in., Prentice Bros. 25 in., Barnes. H. a.u., ....
ENGINES.
10x16 side crank, Atlas.
12x16 automatic, Ball.
14x18, Prescott. 8x8 vertical, O. & S. 8x12 center crank, Erie. 10x12 center crank, Brownell. 10x12 automatic, Ball. LATHES.

| lax6 elevating rest, Porter.
| l6x6 elevating rest, Blaisdell.
| l6x12comp. rest, Bradford, with taper and coarse screw-cuting attachmt.
| Turret, Brown & Sharpe No. 6.

Ilk4 compound rest, Sebastian. 13x5 elevating rest, Ames. 14x6 comp. rest, Lodge & Shipley. 14x6 elevating rest, Blaisdell. 14x6 elevating rest, Flather.

Hx6 elevating rest, Flather.

22x22x5, Gray.

MISCELLANEOUS.

Boring machine, Niles, vertical, 60 in. Hammer, helve, Bradley, 25 lbs.

Turret, Brown & Sharpe No. 6.

PLANERS.

24x24x6, Pease.

MISCELLANEOUS.

2 Shapers, Pratt & W., 10 and 14 in.

#### FOR SALE BY

#### Cincinnati, Ohio.

FOR SALE BY

Louis E. Rechtin & Bro.,

Air compressor, Blake, 15 lbs, pressure. \$125.

Blower, Sturtevant No. 5, 8\frac{2}{3} in. outlet. \$37.50.

Blower, cupola, Root, 6 in. \$50.

Drill press, post, 14\frac{1}{3} in. \$50.

Drill press, post, 14\frac{1}{3} in. \$50.

Drill press, post, 21 in., belt power. \$13.50.

Drill press, Lodge-Davis, square base, 24 in. \$85.

Forge, with lever, 29x86 in. hearth, 15 in. fan. \$15.

Gear cutter, Steptoe, for gears up to 12 in. \$75.

Lathe, engine, with large chuck and other fixtures, 21 in. x 8 ft. \$175.

Lathes, speed, all iron, with countershaft, 14 in. \$45.

Lathe, turret, Williamson, 4 hole turret, fair order. \$75.

Planer, metal, Bogart, 28x24 in. x \(\frac{3}{2}\) ft., fine order. \$350.

Shafting, pulleys, hangers, all sizes.

### FOR SALE BY

## Norton Machinery Co.,

Cincinnati, Ohio.

Norton Machinery Co.,

Bending rolls, 1 set, power, 42 in.
Boring mill, 12 ft., with extension to 25 ft.
Lathe, locomotive tire, single head, 84 in.
Lathe, locomotive tire, double head, 80 in.
Planer, 24x24 in. x 6 ft.
Planer, 30x30 in. x 10 ft.
Planer, 54x54 in. x 20 ft.
Plunch, boiler makers' alligator.
Shears, boiler makers' eveling.
Shears, boiler makers' very heavy, 26 in. depth of throat.
Several small lathes, drill presses, etc.
Let us know what you want.

#### SECOND-HAND MACHINERY

### FOR SALE BY

### SECOND-HAND MACHINERY C. C. Wormer Machinery Co.-Continued.

SECOND-HAND MACHINERY

C. C. Wormer Machinery Co.—Continued.

Lathe, special, 39½ in, x 16 ft., for facing columns, A 17.

pi, with 84 in, face place, 8 ft., bef., 114.

Lathe, speed, Barnes, 7 in, hand screw feed, 7c, account of the columns of t

#### SECOND-HAND MACHINERY

## FOR SALE BY

### Wm. A. Reade & Co., 402 Chamber of Commerce Bldg., Cleveland, O.

Wm.A.Reade & Co., 402 Chamber of Commerce Bldg., Cleveland, O.

MACHINE SHOP.

Located in central New York. Has modern and good buildings, adapted for automobile or similar work. Machinery consists of a large number of nachine tools, all in fine condition. This plant and business cost more than 851,000. To a quick buyer we will sell this entire property, including land, buildings and machinery, for \$10,000.

MANUFACTURING PLANTS.

We also have the following plants to offer at exceptionally low prices: Bridge and iron works in Indiana; land and buildings only.

Large foundry and machine shop in Indiana; fully equipped.

Large foundry and machine shop in Indiana; fully equipped. Rolling mill in New York state; running full and showing profit.

Large foundry and machine shop in Ohio; foundry fully equipped.

Architectural iron works in Ohio; good buildings and well equipped. Valve manufacturing factory in Ohio; new buildings and well equipped. Chain manufacturing factory in Ohio; new buildings and well equipped. Chain manufacturing factory in Ohio; new buildings and well equipped.

## FOR SALE BY

#### Jas. T. Cochran, 949 W. 7th St., Cincinnati, Ohio.

LATHES.

Extra 20x8 screw-cutting engine, Lathe & Morse.

dell. 24x24x20 shafting, Wright, veryheavy.

12x52 speed, Lathe & Morse.

18x6 turret boring, Lodge & Barker.

19x6 turret boring, Pratt & Whitney. 26x14 engine, Ind. Iron Wks., extra heavy.

19x8 screw-cutting engine, Blaisdell.
20x9 screw-cutting engine, Steptoe &
McFarland.
18x10 screw-cutting engine, Lathe &
Morse.

Morse.

PLANERS.

27x27x7, J. H. Kerrick, iron, single head and belt, power cross, double feed, countershift.

Write for complete list of other tools.

## FOR SALE BY

#### O. L. Packard Machinery Co., - Chicago, Ill., and Milwaukee, Wis.

PLANERS.
| 24x24 in. x 5 ft,
LATHES.
| 26 in. x 13 ft,
26 in. x 16 ft,
14 in. x 16 ft,
12 in. x 4 ft, Monitor.
| 12 in. x 4 ft, Turret. 60x60 in. x 14 ft. 14 in. x 4 ft, 14 in. x 6 ft, 18 in. x 7 ft, 18 in. x 8 ft, 18 in. x 10 ft, 20 in. x 10 ft,

MISCELLANEOUS.
Pipe machine, Jarecki No. 7.
Shear, slitting, Niagara. Drill grinder, Washburn. Miller, Lincoln.

### WANTED BY

#### The Philip Smith Co., Sidney, Ohio.

The Philip Smith Co.,

We are in the market for the following tools:
Bolt cutter, that will cut from \(^1\_2\) to 2 in., with hollow spindle.
Boring mill, 2 or 3 heads, 48 or 50 in.
Drill, radial, reverse gear, 4 ft.
Grinder, twist drill.
Hammer, Bradley, 66 lbs.
Key seater, that will key-seat from \(^1\_2\) to \(^3\_4\) in., pulleys 36 in. diam., 18 in. face.
Lathe, turret, power feed, hollow spindle, 18 to 20 in., for boring and facing.
Planer, 2 heads, 8 to 12 ft. bed, 36x36 in.

#### SECOND-HAND MACHINERY

SECOND HAND MACHINERY	
FOR SALE BY	
Marshall & Huschart Machinery	
BOLT C	UTTERS.
in., National, two spindle, rapid. I in., National, single head, rapid.	11 in., Acme, single head.
BORING MILLS.	
Lucas & Gleim, horizontal. Fitchburg, horizontal.	Betts, hor., 8 ft. table, 3 15-16 in. bar. 72 in., Michael, 2 swivel heads.
32 in., Newton, wheel.	76 in., Bullard, 2 heads, pract, new.
DRILL PRESSES.	
Bickford No. 0, radial, tapping attch. Bickford No. 2, plain radial. 18 in., Grant, semi-radial.	28 in., Bickford, b. g., power feed. 30, 36 & 48 in., Roos & Mill, new. 42 in., Bickford, plain radial.
22 in., Pratt & Whitney, power feed.	, , , , , , , , , , , , , , , , , , , ,
GEAR CUTTERS.	
30 in., Gould & E., spurs and bevels. 36 in., Becker-Brainerd, spurs only.	60 in., Gould & Eberhardt
GRINDERS.	
Landis, plain, 20x96 in., 10 ft. table. Ransom No. 5.	20 in Whitney, water tool. Sellers, tool.
HAMMERS.	
Bradley, 100 lbs., helve.	Morgan, 600 lbs . single frame, steam.
Williams & White, 500 lbs., drop.	Bell, 15% bs. single frame, grice ess.
with lift.	Morgan, 6000 lbs. doub frame.steam
LATHES	
13x5 Robbins, r. & f. rest. h. spindle	26x12 Draper, new.
14x52 Reed, r. & f. rest, h. spindle.	26x25 Blaisdell, compound rest.
16x4 Grant stud, taper attachment.	28x16 Draper, triple gear, new.
18x8 New Haven, r. & f. rest, s. sndle	30x16 Fifield, comp. rest. so.id spoke.
19x10 Blaisdell, comp. rest, s. spdle.	32x18 Draper, triple gear, new.
20x8 Flather, comp. rest. h. spdle.	40x16 Gleason, triple geared
22x10 Draper, new.	42x20 Draper, triple gear, new
24x8 Flather comp. rest and chuck.	60 in., faceplate.

PULLEY
26 in., Stevens.
36 in., Niles.

MILLING MACHINES.
Brown & Sharpe No. 1, universal. Keystone No. 2, Lincoln type.
Grant No. 2, Lincoln type.
Aurora No. 2, plain, new.

MILLING MACHINES.

Aurora No. 3, plain.
Grant No. 6, Lincoln type.
Brown & Sharpe No. 2, plain, new.

MILLING MACHINES.

Aurora No. 3, plain.
Grant No. 6, Lincoln type.
Brown & Sharpe No. 24, plain.

Grant No. 2, plain, new.

Aurora No. 2, plain, new.

24x24 in. x 5 ft., Pond, one head.
24x24 in. x 5 ft., Whitcomb, one head.
24x24 in. x 6 ft., Powell, one head.
25x27 in. x 6 in., 10 ft., Atlas.
36x36 in. x 10 ft., Whitcomb, 2 heads.

PRESSES.
Bliss No. 21, inclinable, not geared.
Toledo No. 75, upright, not geared. PLANERS.

| 27x27 in. x 8 ft., New Haven, 1 head.
| 36x36 in. x 10 ft., Atlas.
| 36x36 in. x 10 ft., Whitcomb, 2 heads,

24x24 in, x 6 ft., Powell, one head.

Stevenson No. 3, foot.
Ferracute, P 2.

Alligator, hand, shear.
Pels No. 1, portable, new.
Pels No. 1, portable, new.
Pels No. 1, portable, new.

2 in., Bardons & Oliver.
Pearson No. 4.
Garvin, turret lathe.

14 in., Juengst, crank.
22 in., Walcott, geared.

Cranes, post and electric jib.
Gas furnace, No. 23.
Gas cyanide, No. 3.
Nut mche. & furnace, Blakeslee, 1 in.

Stevenson No. 1, portable, new.
Pels No. 21, inclinable, not geared.
Toledo No. 75, upright, not ges
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