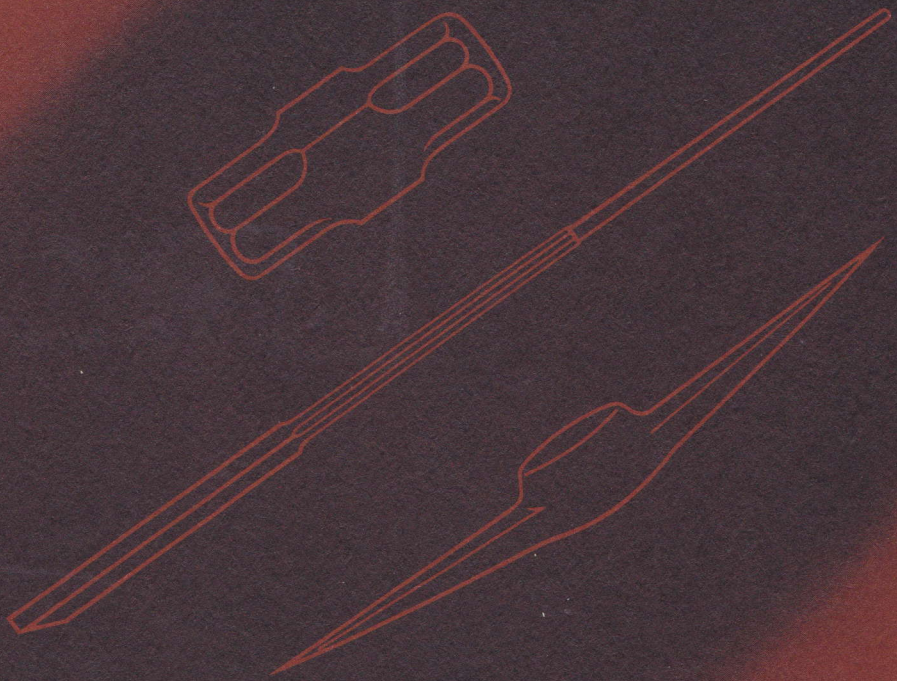


# The Klein-Logan Co.

PITTSBURGH, PA.

CATALOGUE 27
1944

# The Klein-Logan Co.

*Manufacturers of*

PICKS . . . MATTOCKS . . . HOES
HAMMERS . . . SLEDGES . . .
BARS . . . WEDGES; AND OF
BLACKSMITHS . . . MINING
AND RAILROAD TRACK TOOLS

ESTABLISHED 1856

OFFICE AND FACTORY
South Thirteenth and Breed Streets
PITTSBURGH 3, PA.

SALES REPRESENTATIVES

New York, N. Y.
SURPLESS, DUNN & CO.
76 Murray Street

Chicago, Ill.
SURPLESS, DUNN & CO.
34 North Clinton Street

Nashville, Tenn.
LOUIS WILLIAMS & CO.
Exchange Building

San Francisco, Calif.
E. R. PALMTAG CO.
1355 Market Street

Los Angeles, Calif.
E. R. PALMTAG CO.
407 East 2nd Street

Portland, Ore.
E. R. PALMTAG CO.
907 N.W. Irving Street

Salt Lake City
E. R. PALMTAG CO.
522 McIntyre Building

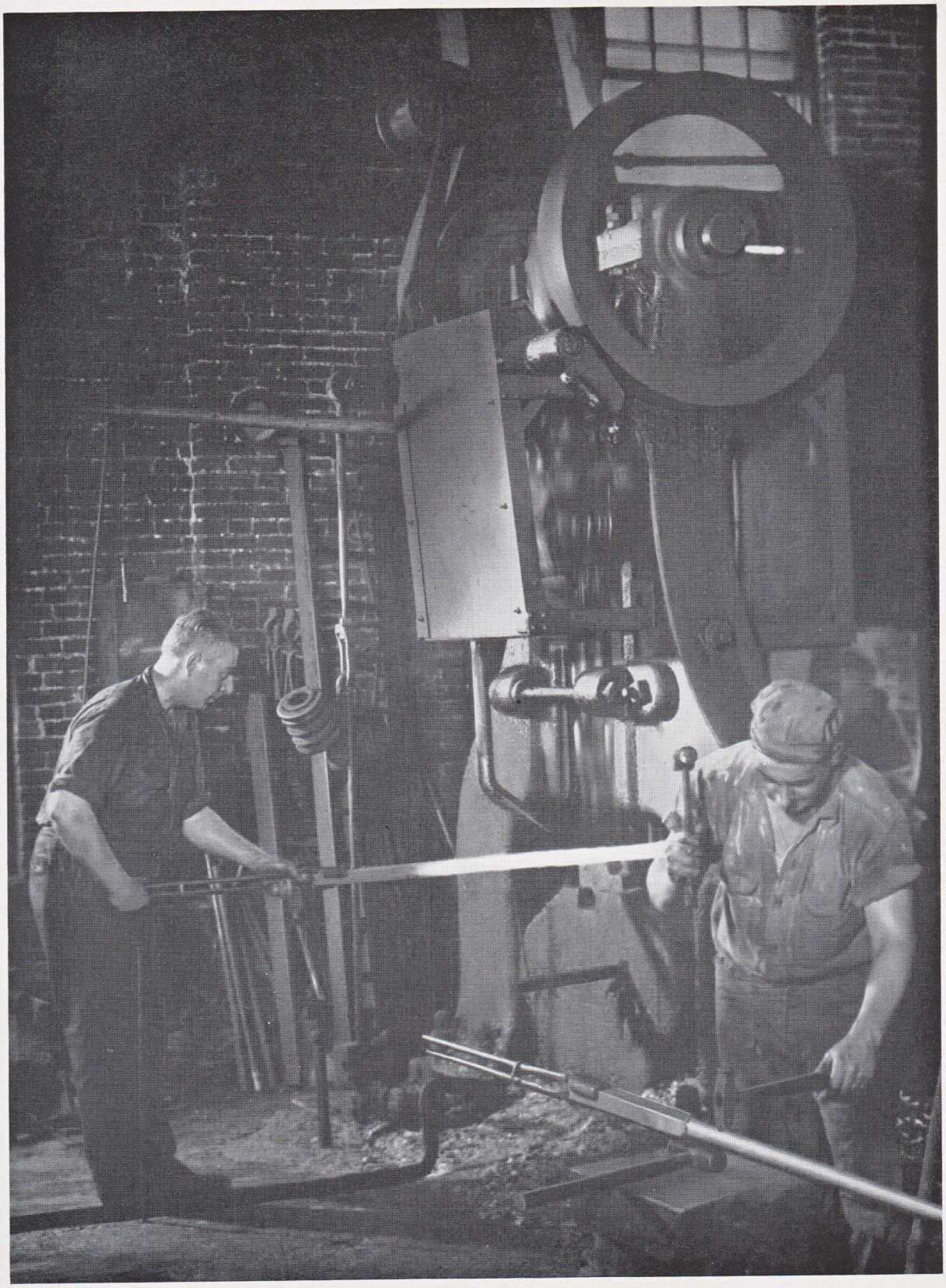
FOREIGN REPRESENTATIVES

Philippine Islands — Union of South Africa — Brazil
DAYTON PRICE & CO., 1 Park Avenue, New York, N. Y.

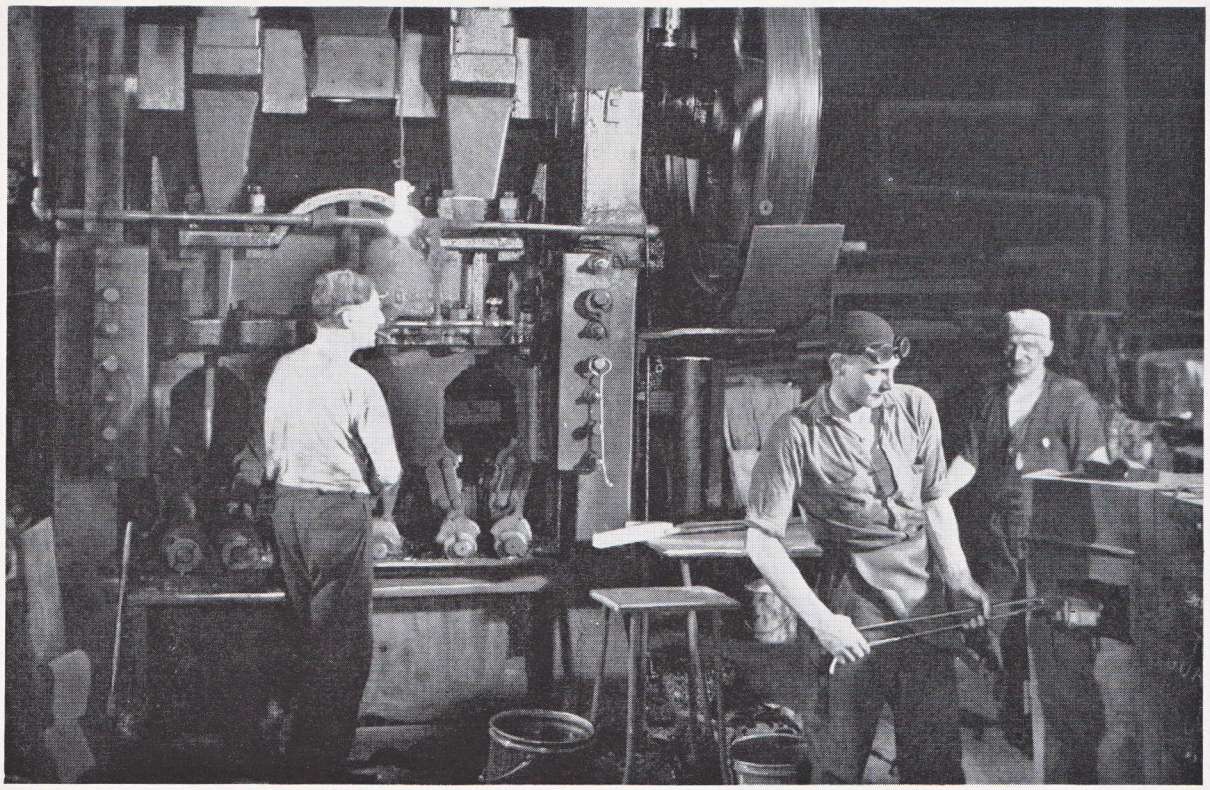
Colombia
THOS. LOPEZ
Bogota

Mexico
THE GENERAL COMMISSION CO.
Mexico City

Peru
BRITAIN PALLISER
Lima



Forging Crow Bars



Forging Pick Eyes

Forging Picks on Bradley Hammers

# A Brief History

## OF THE KLEIN-LOGAN COMPANY

**Origin** On July 1st 1868, John C. Klein and Frederick C. Klein, brothers engaged in the manufacture of coal picks, hand shovels, pokers and other small iron items since 1856, took as a third partner Edward P. Logan and continued business under the firm name of Klein, Logan & Co. Because the business was located in Birmingham, at that time a suburb but now that part of Pittsburgh lying along the south bank of the Monongahela River, the Birmingham Tool Works was selected as a descriptive sub-title.

**Development** Pittsburgh was not only a railroad center but also the outlet of the product of the western Pennsylvania coal fields, and picks soon became a major item of the new company's products. John C. Klein, the older of the brothers, had an active, inventive mind which he directed to the then most difficult problem in the manufacture of picks—the eye. In 1874 he was granted a patent on a machine for the forging of pick eyes which, while crude and complicated if judged by modern presses, was a definite step forward.

Although soon involved in law suits with local competitors in connection with the eye machine the new firm prospered. John C. Klein, the president, was in charge of operation; F. C. Klein, vice president, in charge of sales; and Edward P. Logan, treasurer, looked after finances. Progress, if slow, was uneventful except for a fire in 1884 which destroyed the plant. Rebuilding and resumption of operations was made possible by a fortunate banking connection, Mr. Logan having been elected a director and vice president of the Iron & Glass Dollar Savings Bank, founded in 1871 to serve the community of Birmingham. At that time it was customary for business men to serve as senior bank officers, giving some time each day to advising and supervising the whole time officers. Mr. Logan served more than fifty years as vice president, president and chairman of the board of the bank. This connection continued after Mr. Logan's death in 1930, a member of the firm replacing him on the board of the bank and the president of the bank serving on the board of the present company.

**A Landmark** Sledges, wedges, crow bars, railroad track tools, mining tools and blacksmith anvil tools were early added to the list of products while shovels were dropped shortly after the introduction of natural gas. In 1876 the firm showed its complete line at the Centennial Exhibition at Philadelphia, the sledges and hammers displayed being polished over all instead of on the faces only, the usual commercial practice. The highest award was given when it was shown that the mirror-like finish was not a plating but

only highly polished iron and steel. Several of these tools remain today in as perfect condition as when shown 68 years ago.

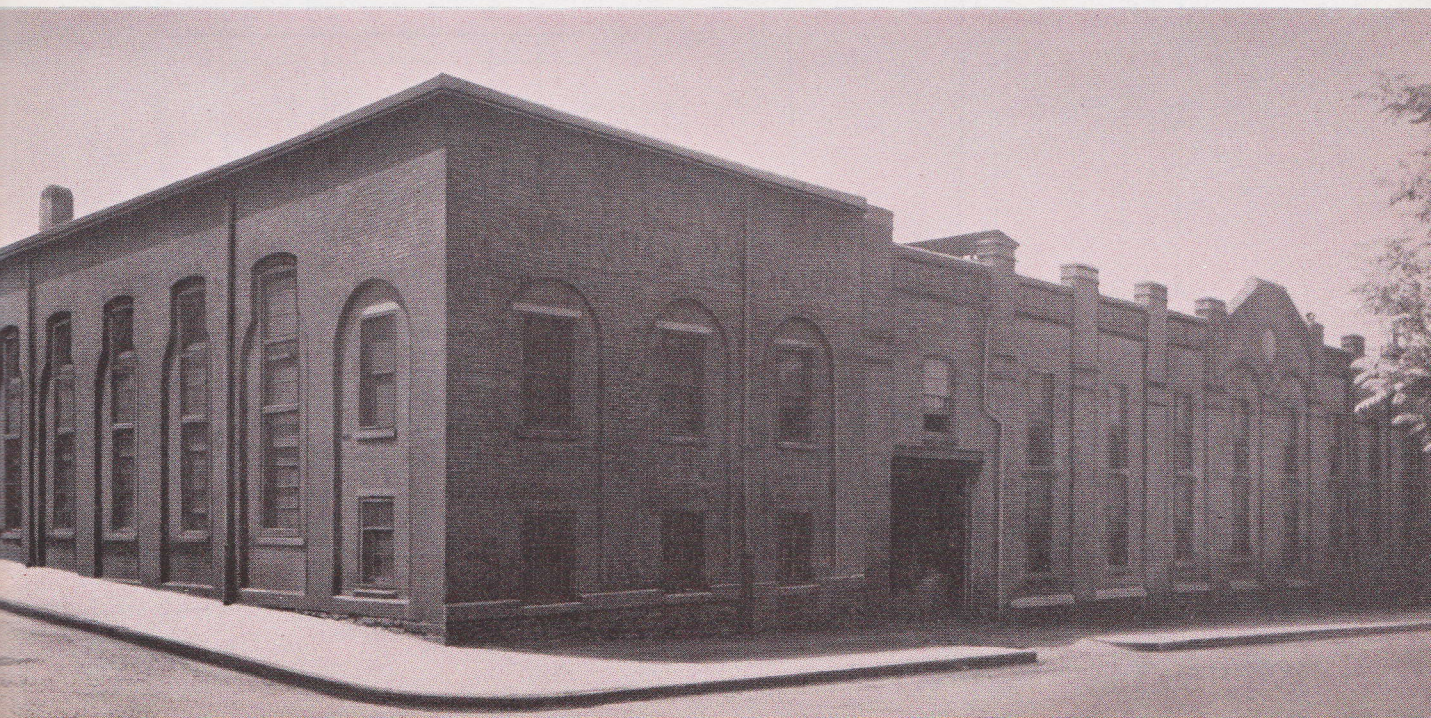
## Incorporation

In 1891, J. C. Klein having retired from active business and wishing to be able to transfer his interest to his children, the firm was incorporated as The Klein-Logan Company. Up to this time a son of F. C. Klein had traveled for the company, covering the entire United States and selling to hardware wholesalers in the larger cities. The appearance of distributors in smaller cities made this no longer practicable and arrangements were made with Surpless, Dunn & Co. of New York, manufacturers' agents handling many non-competitive lines, to sell in the east and middle west. Later Louis Williams & Co. of Nashville took over sales in the south and much later the E. R. Palmtag Co. of San Francisco looked after the territory west of the Rocky Mountains. Dayton, Price & Co. of New York, handled most of the exports, especially in the Far East.

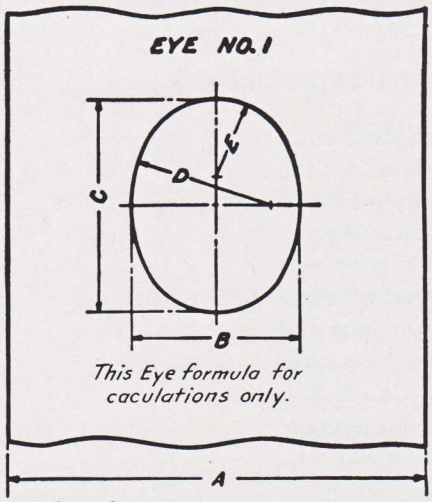
## The Future

Throughout the years the company has remained in the hands of the original families, management and more than 99% of the stock being controlled by direct descendants of the founders. The youngest son of John C. Klein, the only son and a grandson of Edward P. Logan now manage the business; another grandson and namesake expects to rejoin when he returns from over-seas service. A granddaughter of F. C. Klein is assistant treasurer, one grandson is shipper and three others hold key positions in production. The policy established by the partners of concentrating on the making of a few tools of the highest quality is the policy of the present management. Although the outside of the building, as shown by the photograph, remains unchanged, constant changes are taking place inside. The tools themselves have changed little in appearance; better methods of manufacture to produce tools of higher quality is and will be our constant aim.

Building Erected 1884



# SHAPE OF EYES

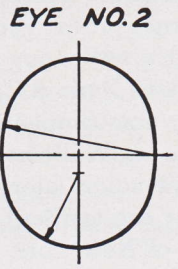



Eye formula:

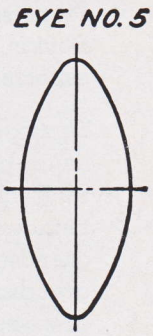
A — Size of Stock
B — 40 per cent of A
C — 125 per cent of B (approximate)
D — 5/6 of B
E — To suit dimensions B, C, and D

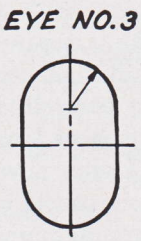
NOTE — Manufacturers have a tolerance limit of $\frac{1}{16}$ inch above and $\frac{1}{32}$ inch under all eyes to allow for punch wear.

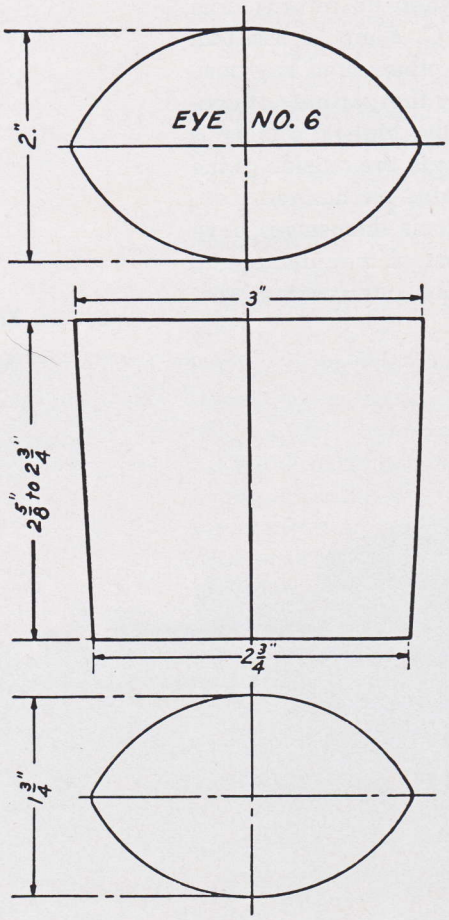
The Shapes of the Eyes of the different tools listed and described in the following pages are designated by numbers corresponding to those of the U. S. Dept. of Commerce. Forged Tools Simplified Practice Recommendation — R 17-43. Effective February 25, 1943. We illustrate below these different eyes.

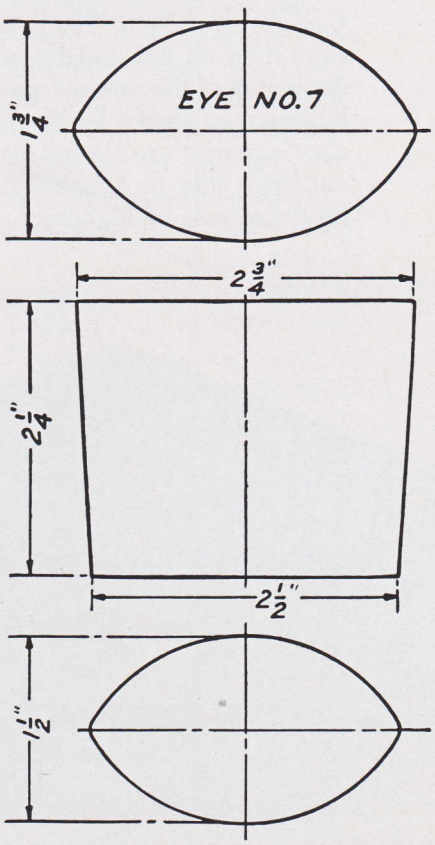


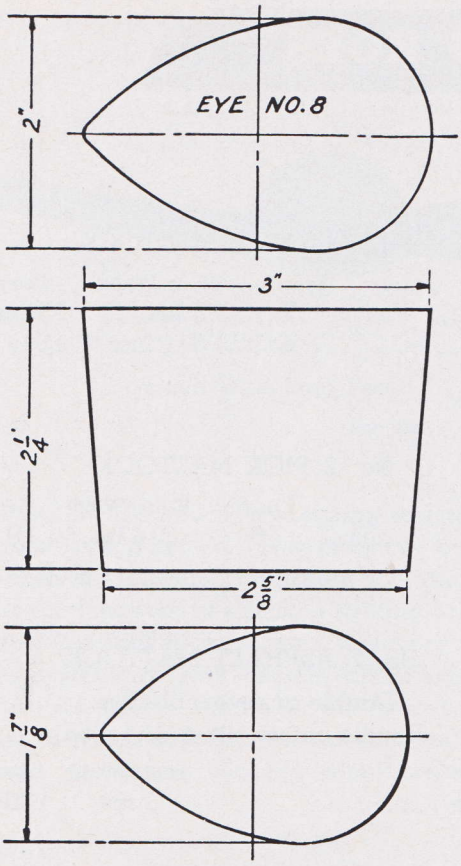


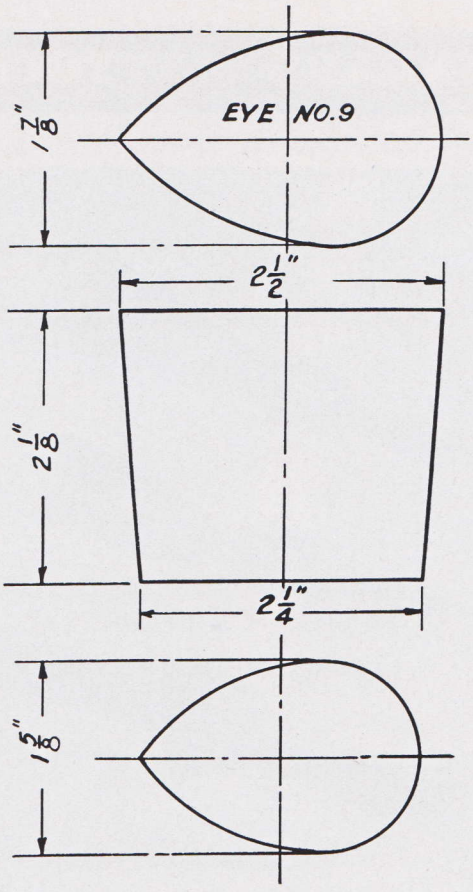


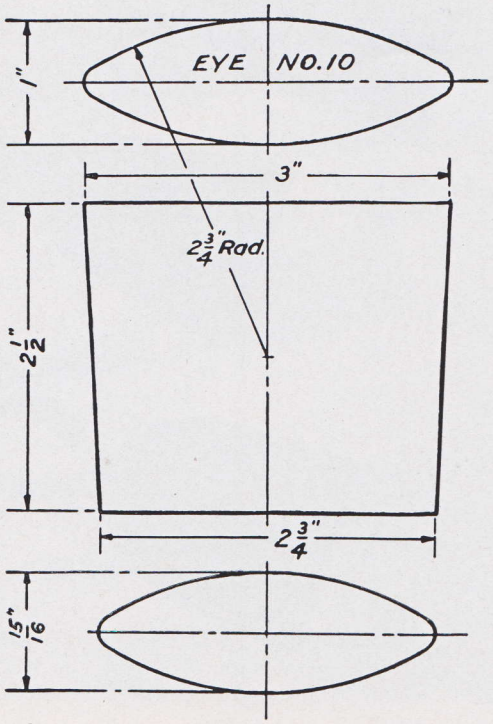



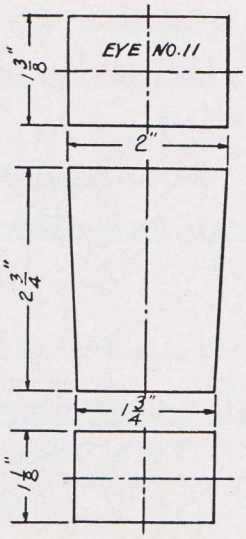



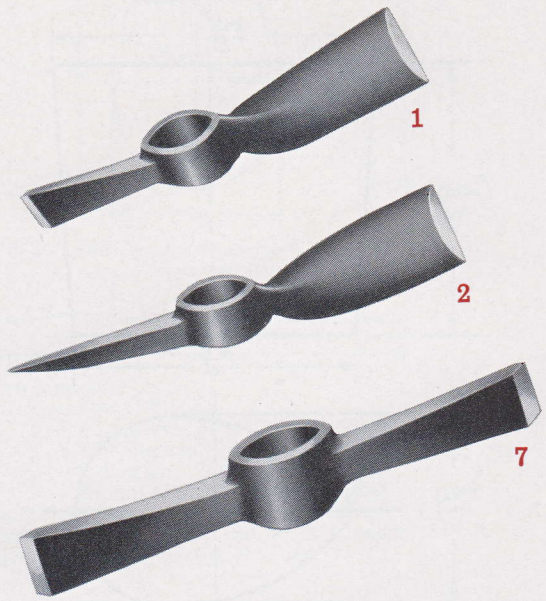

EYE NO.8
2"
3"
2 1/4"
2 5/8"
1 7/8"


EYE NO.9
1 7/8"
2 1/2"
2 1/8"
2 1/4"
1 5/8"


EYE NO.10
1"
3"
2 3/4" Rad.
2 1/2"
2 3/4"
15/16"


EYE NO.11
1 3/8"
2"
2 3/4"
1 3/4"
1 1/8"

# STANDARD MATTOCKS AND HOES




## No. 1 CUTTER MATTOCK

| Weight | Eye No. | Blade Width | Length |
|---|---|---|---|
| 3 lbs. | 7 | 3 ins. | 13 ins. |
| 5 lbs. | 6 | 3½ ins. | 15¾ ins. |

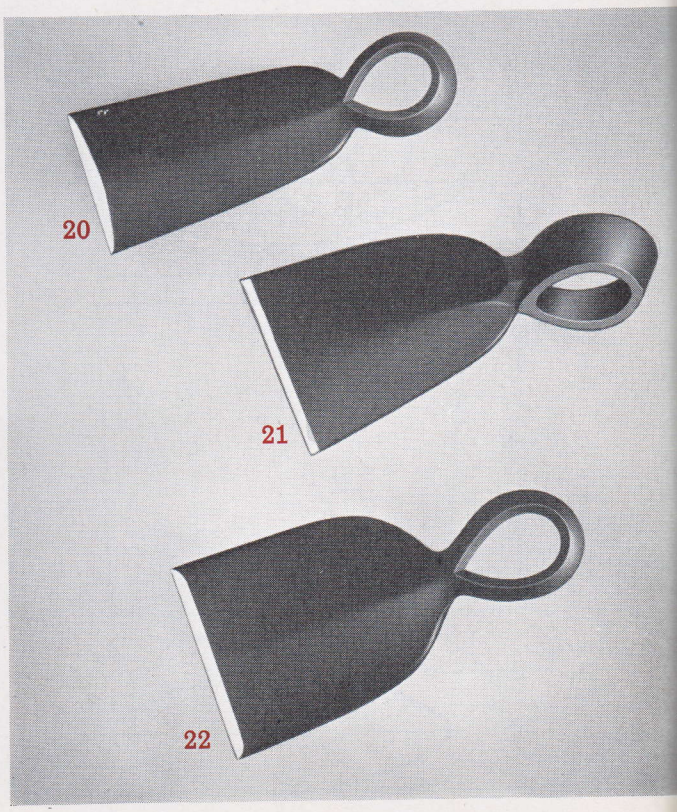
## No. 2 PICK MATTOCK

| Weight | Eye No. | Blade Width | Length |
|---|---|---|---|
| 5 lbs. | 6 | 3½ ins. | 19 ins. |

## No. 7 ASPHALT MATTOCK

Double or reversible Eye.
Handle enters either direction.

| Weight | Blade Width | Length |
|---|---|---|
| 10 lbs. | 3 ins. | 20 ins. |




## No. 20 GRUB HOE

| Weight | Eye No. | Blade Width | Length |
|---|---|---|---|
| 3½ lbs. | 8 | 3¾ ins. | 10¾ ins. |

## *No. 21 HAZEL HOE

| Weight | Eye No. | Blade Width | Length |
|---|---|---|---|
| 3 lbs. | 9 | 6 ins. | 10¼ ins. |

## No. 22 ACCOMAC HOE

| Weight | Eye No. | Blade Width | Length |
|---|---|---|---|
| 5 lbs. | 8 | 6¼ ins. | 11¼ ins. |

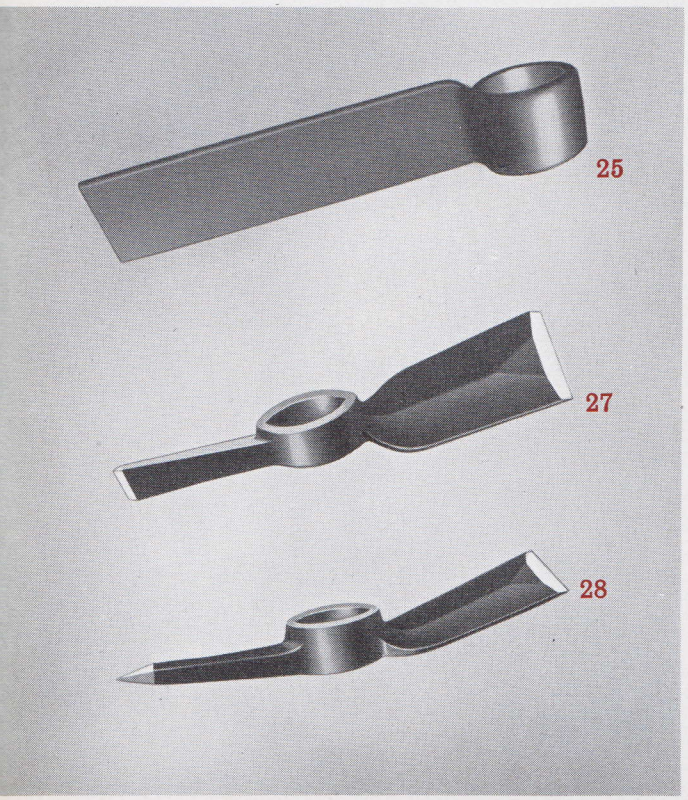
*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production may be resumed as soon as this restriction is removed.

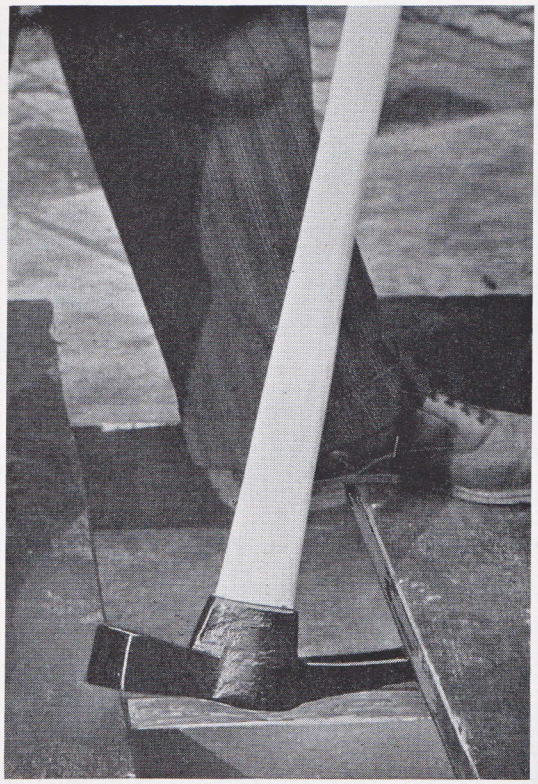
*No. 26 WRECKING TOOL

Go-Devil Wrecking Tool

| Weight | Eye No. | Length |
|---|---|---|
| 4 lbs. | 6 | 15 ins. |

The GO-DEVIL building wrecking tool was developed and patented by a practical building wrecker. It is a general-purpose tool that combines the functions of a pick, a striking hammer, a crow bar and a carpenter's wrecking bar. It takes a standard pick handle, obtainable anywhere. Its salient feature is the groove — the edges of which sink into the fulcrum, on which it rests, preventing slipping when pressure is applied.



No. 25 COOPER FROE

Eye No. 4 tapered 2" diam. to 1¾" diam.

| Weight | Eye No. | Blade Length |
|---|---|---|
| 5 lbs. | 4 | 14 ins. |

*No. 27 HOE and CUTTER GARDEN MATTOCK

| Weight | Eye Size | Length |
|---|---|---|
| 2½ lbs. | 2¾x13/16 | 14½ ins. |

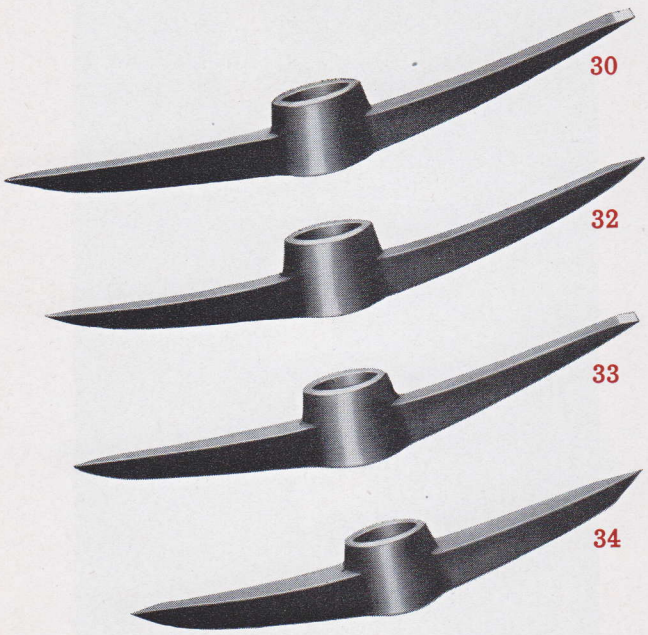
*No. 28 GARDEN PICK MATTOCK

| Weight | Eye Size | Length |
|---|---|---|
| 2½ lbs. | 2¾x13/16 | 14½ ins. |

These tools are manufactured to take a standard double bit axe handle. They are furnished in either a black finish, or blue with 1" polished ends. They have proved to be a very useful tool around the home to cultivate shrubs and flowers; a favorite with women gardeners.

*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production will be resumed as soon as this restriction is removed.

# STANDARD PICKS




## No. 30 RAILROAD OR CLAY PICK

| Weight | Eye No. | Length |
|---|---|---|
| 6 lbs. | 6 | 23 ins. |
| 7 lbs. | 6 | 25 ins. |
| 9 lbs. | 6 | 27 ins. |

## No. 32 RAILROAD PICK, DOUBLE POINT

| Weight | Eye No. | Length |
|---|---|---|
| 7 lbs. | 6 | 25 ins. |
| 8 lbs. | 6 | 26 ins. |

## No. 33 ORE PICK

| Weight | Eye No. | Length |
|---|---|---|
| 7 lbs. | 6 | 22 ins. |

## No. 34 ORE PICK, DOUBLE POINT

Known also as Rock Pick

| Weight | Eye No. | Length |
|---|---|---|
| 7 lbs. | 6 | 22 ins. |

## No. 40 CONTRACTORS' PICK

Round tapered points

| Weight | Eye No. | Length |
|---|---|---|
| 8 lbs. | 6 | 30 ins. |

## No. 42 CONTRACTORS' PICK

Point and Chisel Ends

| Weight | Eye No. | Length |
|---|---|---|
| 9 lbs. | 6 | 30 ins. |

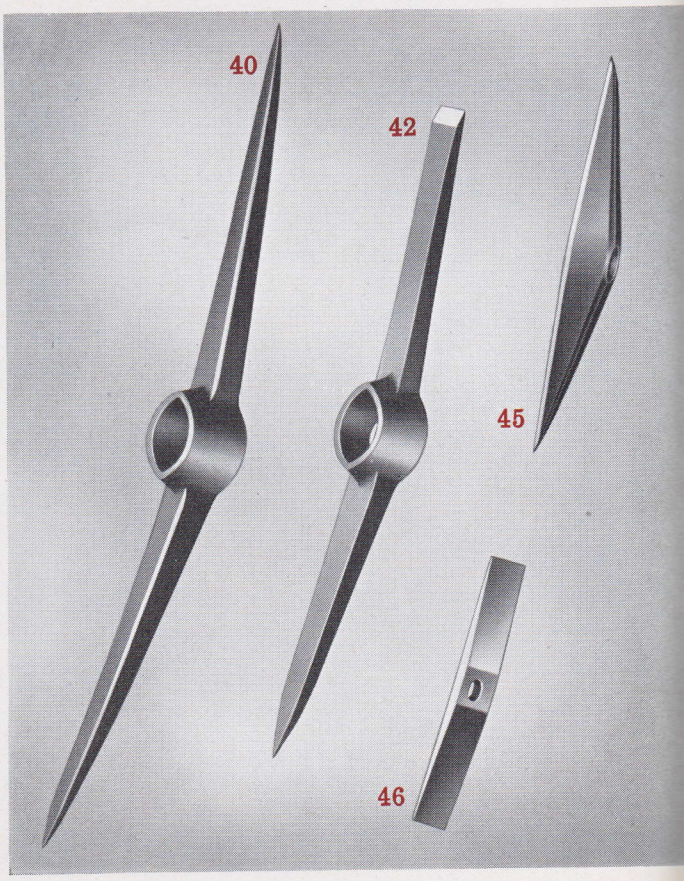
## *No. 45 STONE PICK

| Weight | Eye No. | Length |
|---|---|---|
| 7 lbs. | 3 | 16 ins. |
| 8 lbs. | 3 | 16½ ins. |

## No. 46 MILL PICK

| Weight | Eye No. | Length |
|---|---|---|
| 2 lbs. | 3 | 9½ ins. |

*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production may be resumed as soon as this restriction is removed.



## No. 49 DRIFTING PICK

Washoe Pattern

Eye No. 10

| Weight | Length |
|---|---|
| 4 lbs. | 21 ins. |
| 5 lbs. | 25 ins. |
| 6 lbs. | 26 ins. |

## No. 50 MINING OR POLL PICK

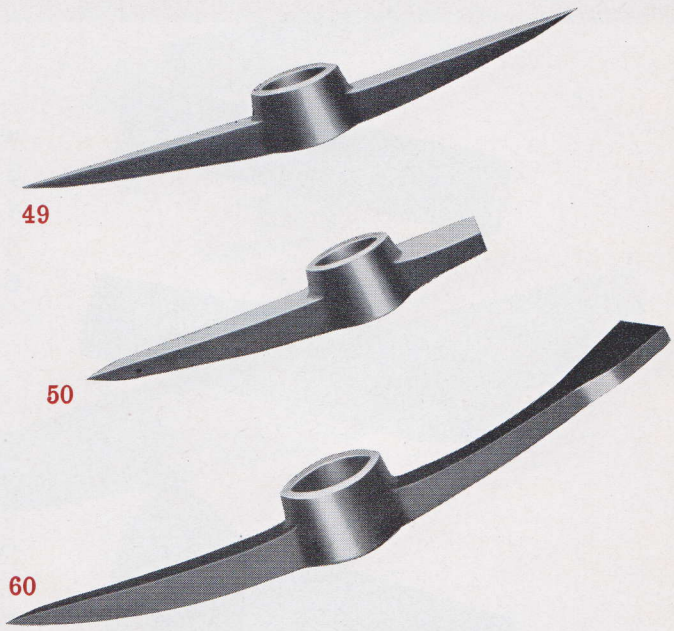
Eye No. 10

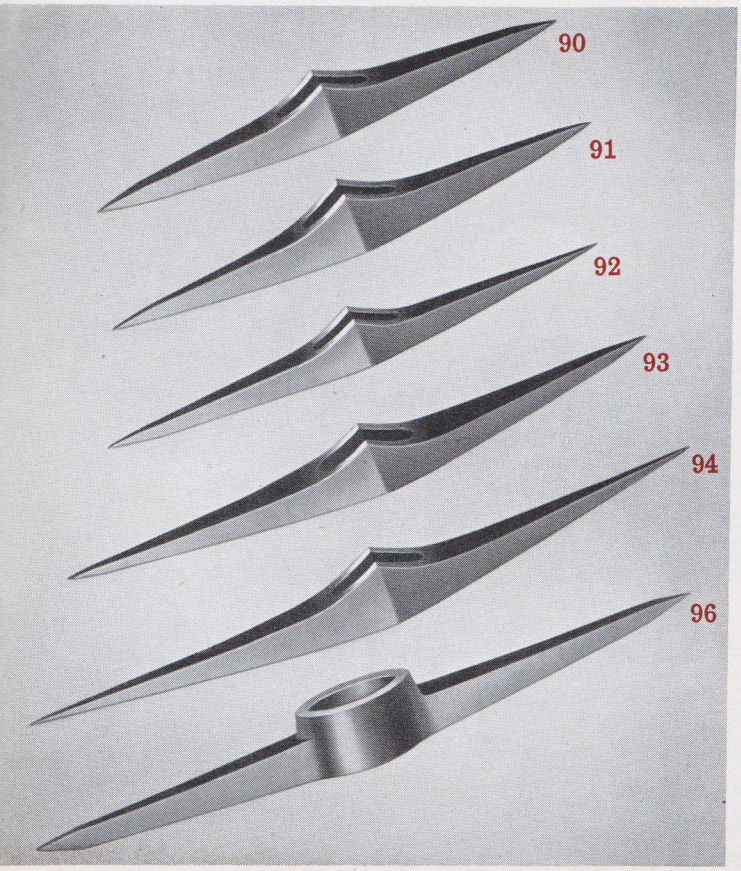
| Weight | Length |
|---|---|
| 5 lbs. | 16 ins. |

## No. 60 RAILROAD TAMPING PICK

A.R.E.A. Plan No. 2

| Weight | Eye No. | Length | Tamper Width |
|---|---|---|---|
| 8 lbs. (approx.) | 6 | 24½ ins. | 2½ ins. |




# COAL PICKS

BITUMINOUS PATTERN

Eye similar to No. 10, with larger opening.

No. 90 — A PATTERN

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

No. 91 — B FLAT PATTERN

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

No. 92 — LEWIS LONG PATTERN

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

No. 93 — BRENNAN PATTERN

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

No. 94 — CLEARFIELD PATTERN

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

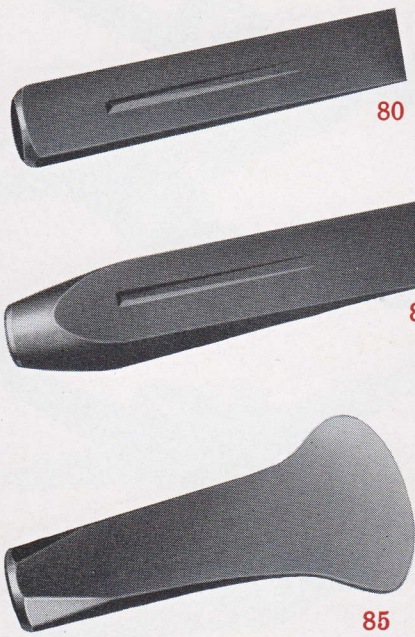
*ANTHRACITE COAL PICKS

Adze Eye Pattern — Eye No. 10

Weights . . . . . 2, 2½, 3, 3½, 4, 5 lbs.

*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production will be resumed as soon as this restriction is removed.

# SPLITTING WEDGES




## No. 80 STANDARD OR SQUARE HEAD

| Weight | Length | Head | Bit |
|---|---|---|---|
| 3 lbs. | 8 ins. | 1½ ins. | 1¾ ins. |
| 4 lbs. | 9 ins. | 1⅝ ins. | 1⅞ ins. |
| 5 lbs. | 9½ ins. | 1¾ ins. | 2 ins. |
| 6 lbs. | 10 ins. | 1⅞ ins. | 2⅛ ins. |

## No. 82 TRUCKEE PATTERN

| Weight | Length | Head | Bit |
|---|---|---|---|
| 4 lbs. | 9½ ins. | 1⅛ ins. | 1⅞ ins. |
| 5 lbs. | 10 ins. | 1¼ ins. | 2 ins. |
| 6 lbs. | 10½ ins. | 1⅜ ins. | 2⅛ ins. |

## No. 85 OREGON SPLITTING

| Weight | Length | Head | Bit |
|---|---|---|---|
| 6 lbs. | 8¾ ins. | 1⅞ ins. | 4 ins. |

## No. 100 PACIFIC COAST FALLING

| Weight | Length | Head | Bit |
|---|---|---|---|
| 5 lbs. | 12 ins. | 2⅝ x ⅞ ins. | 3½ ins. |
| 8 lbs. | 14 ins. | 3⅛ x 1⅛ ins. | 4⅛ ins. |

## No. 103 PACIFIC COAST BUCKING

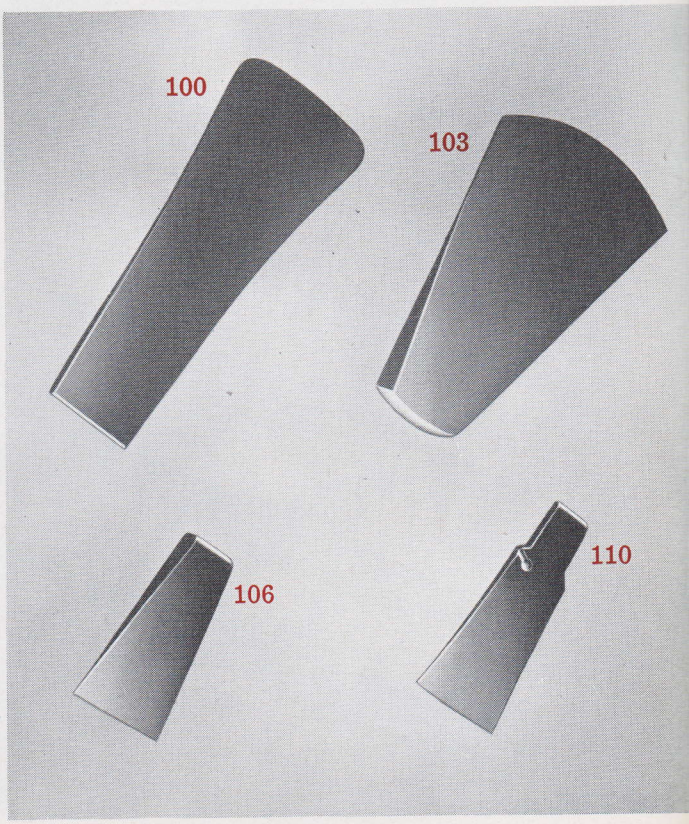
| Weight | Length | Head | Bit |
|---|---|---|---|
| 6 lbs. | 9¼ ins. | 2⅜ x 1⅛ ins. | 5½ ins. |

## No. 106 STAVE

| Weight | Length | Head | Bit |
|---|---|---|---|
| 3 lbs. | 7 ins. | 1¾ x 1⅛ ins. | 3⅛ ins. |
| 4 lbs. | 7½ ins. | 2 x 1¼ ins. | 3⅜ ins. |

## No. 110 SAW, IMPROVED

| Weight | Length |
|---|---|
| ½ lb. | 5 ins. |
| 1 lb. | 6 ins. |
| 2 lbs. | 7 ins. |
| 3 lbs. | 8 ins. |



## No. 111 COAL

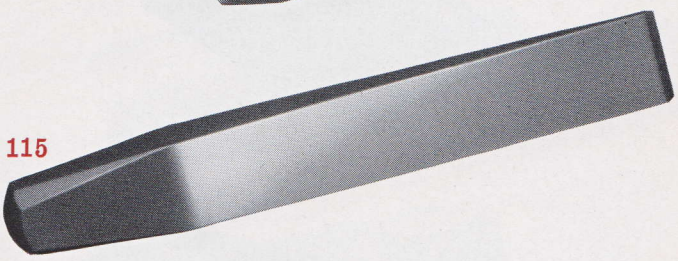
| Weight | Length |
|---|---|
| 2 lbs. | 9½ ins. |
| 2½ lbs. | 10 ins. |
| 3 lbs. | 10½ ins. |
| 3½ lbs. | 11 ins. |


## No. 112 STONE

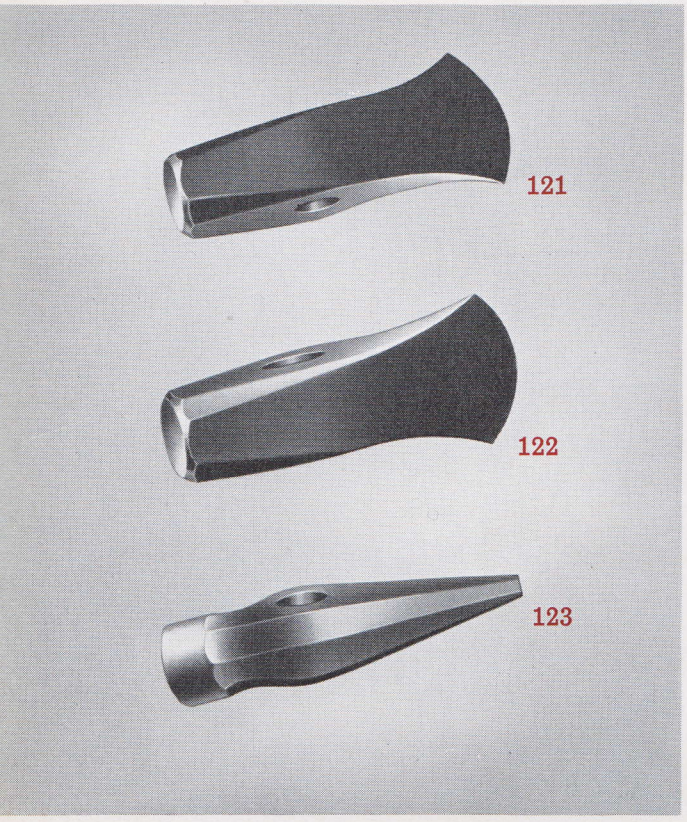
| Weight | Length | Head | Bit |
|---|---|---|---|
| 2 lbs. | 5 ins. | 1¼ ins. | 1½ ins. |
| 4 lbs. | 6½ ins. | 1½ ins. | 1⅞ ins. |


## No. 115 FROST

| Weight | Length | Head | Bit |
|---|---|---|---|
| 16 lbs. | 16 ins. | 2⅜ ins. | 2¾ ins. |




# MAULS




## No. 121 WOOD CHOPPERS, OVAL EYE

Eye No. 2 — 1x1¼ ins.

| Weight | Length | Head | Bit |
|---|---|---|---|
| 6 lbs. | 8½ ins. | 1⅞ ins. | 3½ ins. |
| 8 lbs. | 9⅛ ins. | 2⅛ ins. | 4 ins. |

## No. 122 WOOD CHOPPERS, D B AXE EYE

Eye No. 5 — ⅞x2⅛ ins.

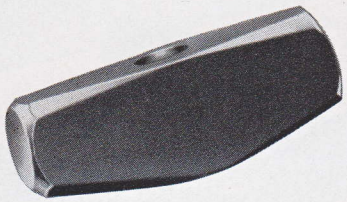
| Weight | Length | Head | Bit |
|---|---|---|---|
| 6 lbs. | 8½ ins. | 1⅞ ins. | 3½ ins. |
| 8 lbs. | 9⅛ ins. | 2⅛ ins. | 4 ins. |

## No. 123 SHIP, BOAT OR TOP

Eye No. 2 — 1x1¼ ins.

| Weight | Length | Head |
|---|---|---|
| 5 lbs. | 8¾ ins. | 1⅞ ins. |

# HAMMERS AND SLEDGES

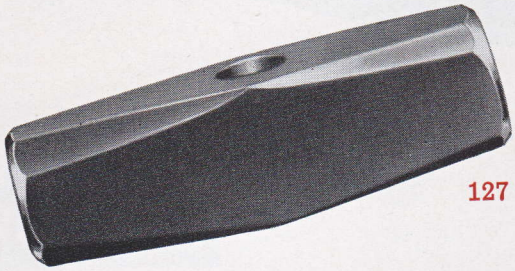


124

## No. 124 HAND DRILLING HAMMER

Short Pattern

| Weight | Eye No. | Length |
|---|---|---|
| 3 lbs. | 4 | 4 ins. |



127

## No. 127 NEVADA STRIKING HAMMER

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| *3 lbs. | ¾x1 ins. | 5¼ ins. |
| 4 lbs. | ¾x1 ins. | 5¾ ins. |
| 6 lbs. | 1 x1¼ ins. | 6½ ins. |
| 8 lbs. | 1 x1¼ ins. | 7¼ ins. |
| 10 lbs. | 1 x1⅜ ins. | 7¾ ins. |
| 12 lbs. | 1 x1⅜ ins. | 8 ins. |
| 16 lbs. | 1 x1⅜ ins. | 8½ ins. |

## *No. 128 MASON HAMMER

Eye No. 3

| Weight | Size of Eye | Length |
|---|---|---|
| 3 lbs. | ⅝x1⅛ ins. | 6 ins. |
| 4 lbs. | ⅝x1⅛ ins. | 6¾ ins. |
| 5 lbs. | ⅝x1⅛ ins. | 7¼ ins. |

## No. 129 SPALLING OR STONE HAMMER, SINGLE FACE

Eye No. 2

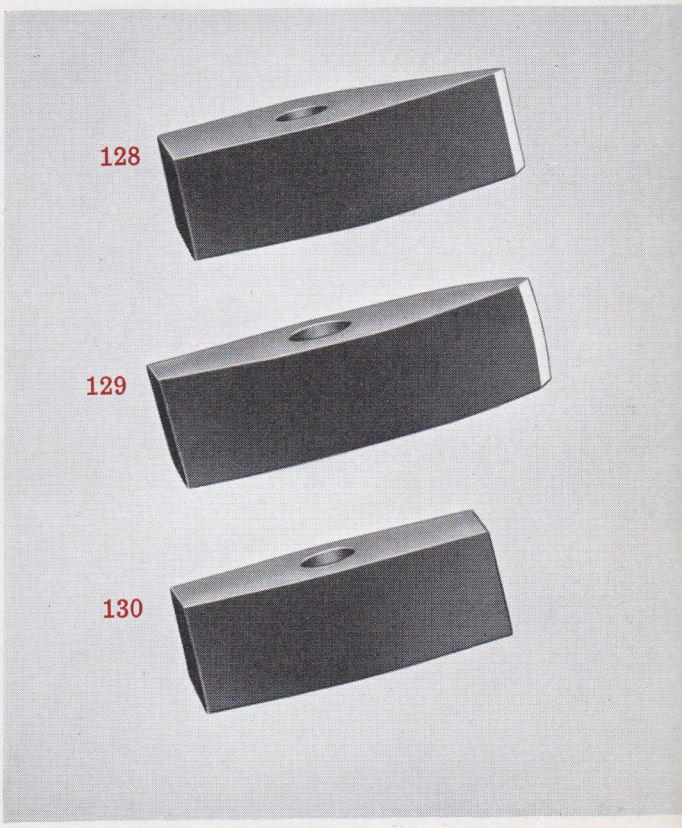
| Weight | Size of Eye | Length |
|---|---|---|
| 4 lbs. | ¾x1 ins. | 6 ins. |
| 6 lbs. | 1 x1¼ ins. | 6½ ins. |
| 8 lbs. | 1 x1¼ ins. | 7¾ ins. |
| 16 lbs. | 1 x1⅜ ins. | 9½ ins. |
| 20 lbs. | 1¼x1½ ins. | 10½ ins. |

## No. 130 SPALLING OR STONE HAMMER DOUBLE FACE

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 8 lbs. | 1x1¼ ins. | 6½ ins. |
| 12 lbs. | 1x1⅜ ins. | 7 ins. |
| 16 lbs. | 1x1⅜ ins. | 8 ins. |

*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production may be resumed as soon as this restriction is removed.



128

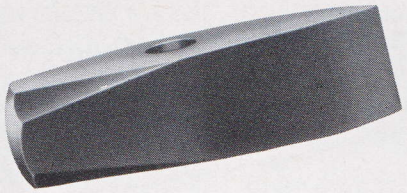
129

130

## No. 131 STONE SLEDGE, OVAL FACE

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 8 lbs. | 1 x1 1/4 ins. | 7 1/4 ins. |
| 12 lbs. | 1 x1 3/8 ins. | 8 1/4 ins. |
| 16 lbs. | 1 x1 3/8 ins. | 9 1/4 ins. |
| 20 lbs. | 1 1/4 x1 1/2 ins. | 9 3/4 ins. |

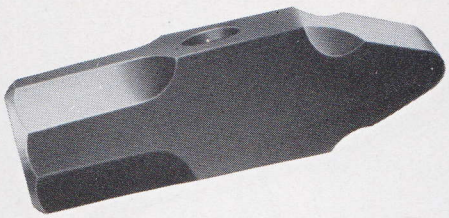


131

## No. 132 CROSS PEIN BLACKSMITH SLEDGE

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 6 lbs. | 1x1 1/4 ins. | 6 1/2 ins. |
| 8 lbs. | 1x1 1/4 ins. | 7 ins. |
| 10 lbs. | 1x1 3/8 ins. | 7 1/2 ins. |
| 12 lbs. | 1x1 3/8 ins. | 8 ins. |
| 16 lbs. | 1x1 3/8 ins. | 9 ins. |

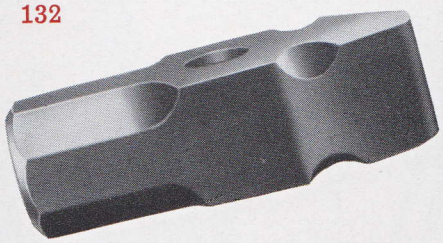


132

## No. 133 STRAIGHT PEIN BLACKSMITH SLEDGE

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 8 lbs. | 1x1 1/4 ins. | 7 ins. |
| 12 lbs. | 1x1 3/8 ins. | 8 ins. |
| 14 lbs. | 1x1 3/8 ins. | 8 1/2 ins. |



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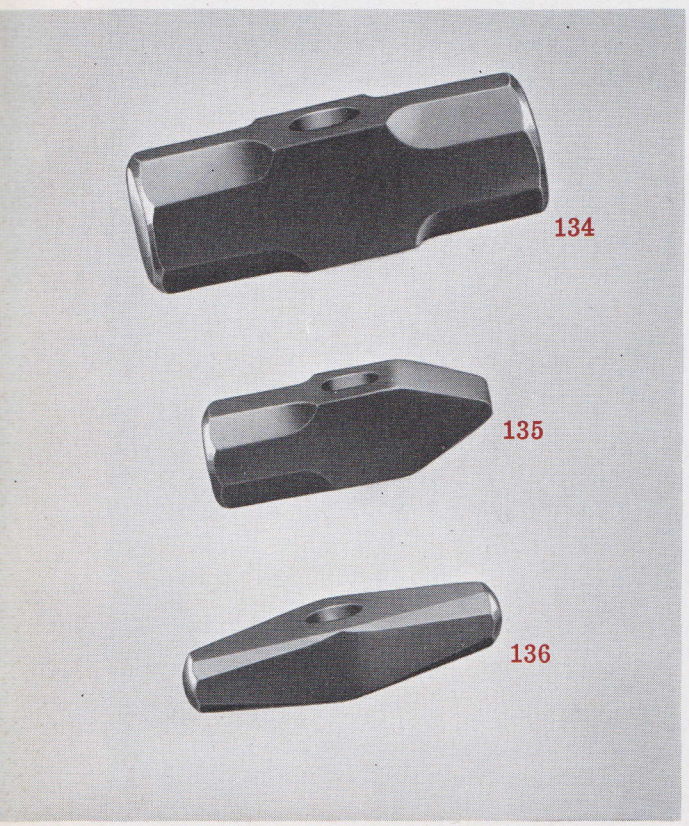

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136

## No. 134 DOUBLE FACE BLACKSMITH SLEDGE

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 2 1/2 lbs. | 5/8x7/8 ins. | 4 1/2 ins. |
| 3 lbs. | 3/4x1 ins. | 4 3/4 ins. |
| 4 lbs. | 3/4x1 ins. | 5 1/4 ins. |
| 6 lbs. | 1 x1 1/4 ins. | 6 ins. |
| 8 lbs. | 1 x1 1/4 ins. | 6 1/2 ins. |
| 10 lbs. | 1 x1 3/8 ins. | 7 ins. |
| 12 lbs. | 1 x1 3/8 ins. | 7 1/2 ins. |
| 20 lbs. | 1 1/4 x1 1/2 ins. | 8 3/4 ins. |

## No. 135 ENGINEERS OR BLACKSMITHS HAND HAMMER

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 1 1/2 lbs. | 5/8x 7/8 ins. | 4 1/4 ins. |
| 2 lbs. | 5/8x 7/8 ins. | 4 1/2 ins. |
| 2 1/2 lbs. | 5/8x 7/8 ins. | 4 3/4 ins. |
| 3 lbs. | 3/4x1 ins. | 5 ins. |
| 4 lbs. | 3/4x1 ins. | 5 1/2 ins. |

## No. 136 NAPPING HAMMER

Eye No. 2

| Weight | Size of Eye | Length |
|---|---|---|
| 4 lbs. | 3/4x1 ins. | 6 1/4 ins. |
| 6 lbs. | 1 x1 1/4 ins. | 6 3/4 ins. |

### No. 239 BULL POINT

.80-.90 Carbon Steel, Octagon

Sizes . . . . . $\frac{7}{8}$x12 1x15 1$\frac{1}{4}$x24

### No. 243 CHISEL BAR

.80-.90 Carbon Steel, Octagon

| Weights | Sizes |
|---|---|
| 1$\frac{1}{2}$ lbs. | $\frac{5}{8}$x18 |
| 3 lbs. | $\frac{3}{4}$x24 |
| 5$\frac{1}{2}$ lbs. | $\frac{7}{8}$x30 |
| 8$\frac{1}{4}$ lbs. | 1 x36 |

### No. 244 OFFSET PINCH BAR

.80-.90 Carbon Steel, Octagon

| Weight | Sizes |
|---|---|
| 3 lbs. | $\frac{3}{4}$x26 ins. |
| 5$\frac{1}{4}$ lbs. | $\frac{7}{8}$x30 ins. |
| 8 lbs. | 1 x36 ins. |

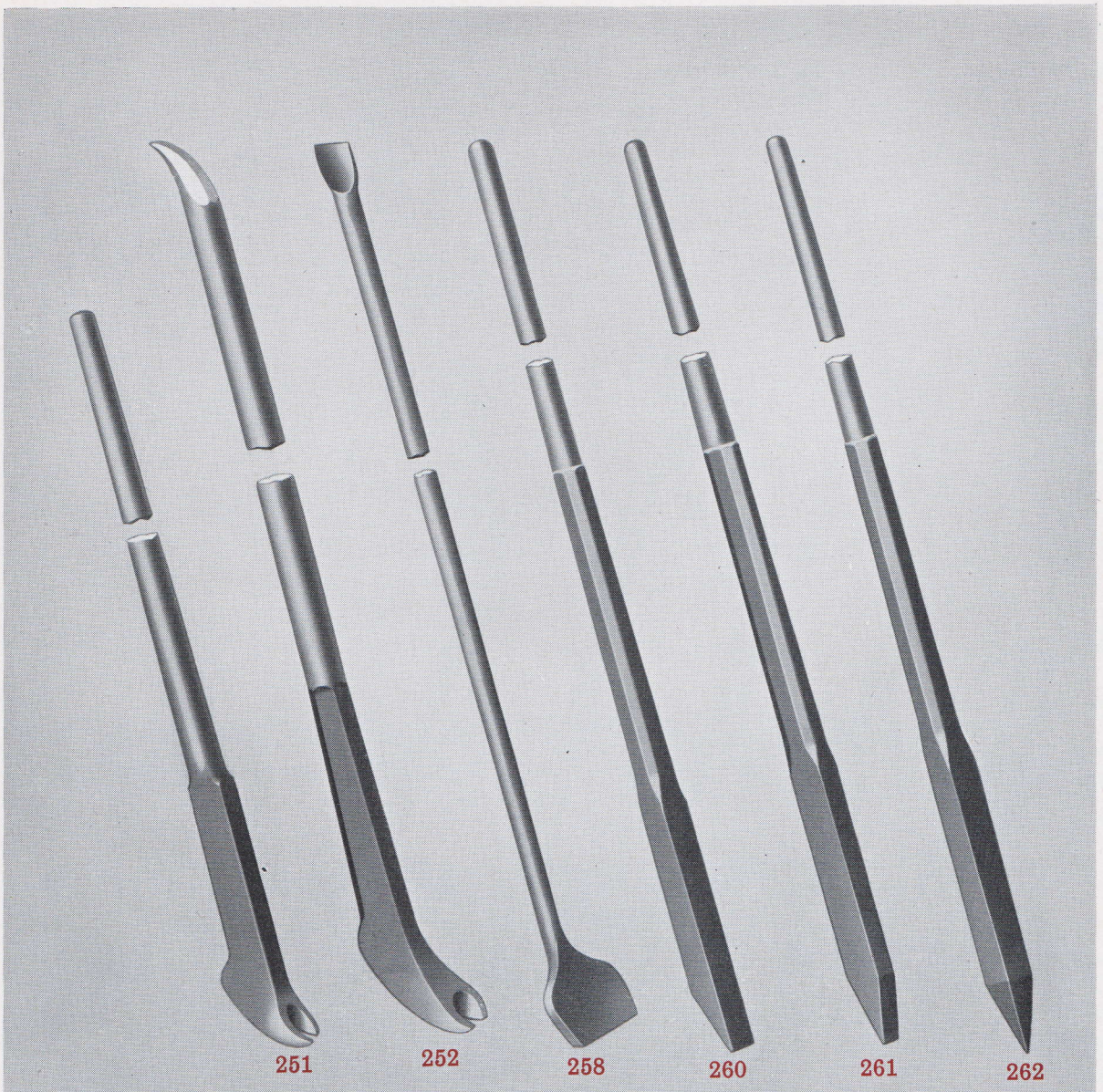
### No. 245 OCTAGON SLATE BAR

Size . . . . . 1" Octagon, 4'-6" long

### No. 246 MINERS SPIKE BAR

Without Heel for $\frac{3}{8}$ and $\frac{1}{2}$ inch Spikes

| Weight | Sizes |
|---|---|
| 6 lbs. | 30 ins. |
| 8 lbs. | 36 ins. |




No. 251 LIGHT CLAW BAR FOR ½ INCH SPIKES

| Weight | Length |
|---|---|
| 20 lbs. | 48 ins. |

No. 252 A.R.E.A. CLAW BAR WITH CHISEL

| Weight | Length |
|---|---|
| 28 lbs. (approx.) | 60 ins. |

No. 258 A.R.E.A. TAMPING BAR, WITH CHISEL

| Weight | Length |
|---|---|
| 13 lbs. (approx.) | 61 ins. |

No. 260 PINCH POINT AND No. 261 WEDGE POINT CROW BAR

| Weight | Size Square | Length |
|---|---|---|
| 12 lbs. | 1⅛ ins. | 51 ins. |
| 18 lbs. | 1¼ ins. | 60 ins. |
| 22 lbs. | 1⅜ or 1½ ins. | 63 ins. |
| 26 lbs. | 1½ ins. | 66 ins. |

No. 260A LIGHT PINCH BAR

| Weight | Size Square | Length |
|---|---|---|
| 3 lbs. | ¾ ins. | 24 ins. |
| 6 lbs. | ⅞ ins. | 36 ins. |

No. 262 DIAMOND POINT LINING BAR

| Weight | Size Square | Length |
|---|---|---|
| 18 lbs. | 1¼ ins. | 60 ins. |
| 26 lbs. | 1½ ins. | 66 ins. |

### No. 266 TELEGRAPH DIGGING BAR, OCTAGON

| Size | Length |
|---|---|
| 1⅛ in. | 8 ft. |

### No. 268 TIMBER BAR, OCTAGON

Diamond Point and Chisel, Offset

| Weight | Size | Length |
|---|---|---|
| 17 lbs. | 1⅛ ins. | 60 ins. |

### No. 269 TAMPING HEAD POST HOLE DIGGER

| Weight | Tamper Width | Blade Width | Length |
|---|---|---|---|
| 18 lbs. | 2½ ins. | 3 ins. | 72 ins. |

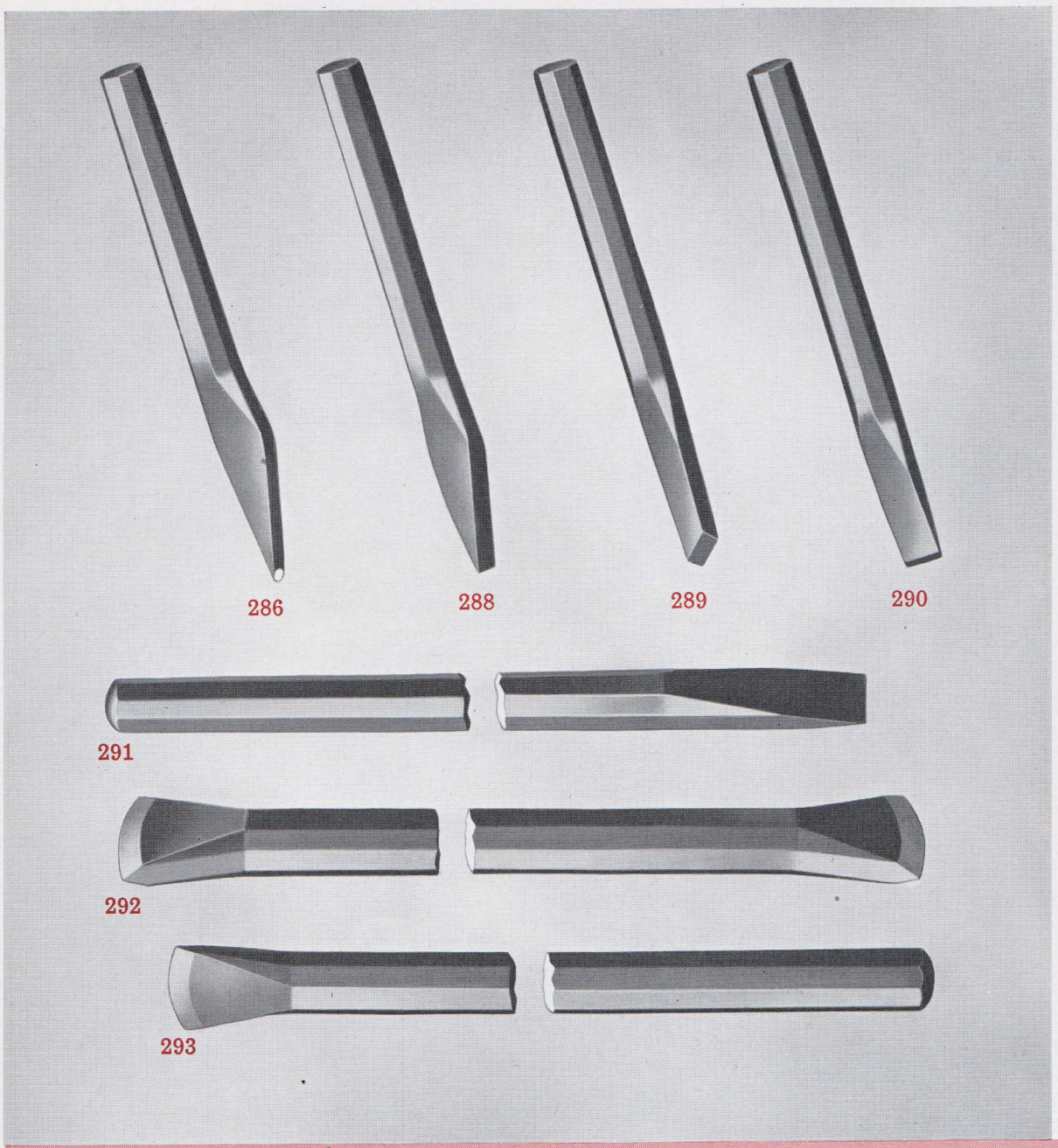
### No. 370 CARPENTERS' WRECKING BARS, STRAIGHT PATTERN & NO. 374 IMPROVED PATTERN

| Size Octagon | Length |
|---|---|
| ¾ in. | 24 ins. |
| ¾ in. | 30 ins. |
| ¾ in. | 36 ins. |

### No. 371 GOOSE NECK PATTERN

| Size Octagon | Length |
|---|---|
| ½ in. | 12 ins. |
| *⅝ in. | 18 ins. |
| ¾ in. | 24 ins. |
| ¾ in. | 30 ins. |
| ¾ in. | 36 ins. |
| *⅞ in. | 36 ins. |

*Manufacture of tools so marked is forbidden by W.P.B. Limitation Order L-157. Production may be resumed as soon as this restriction is removed.




No. 286 Round Nose Chisel . . . . . Size of Stock — ½, ⅝, ¾, ⅞ ins.
No. 288 Cape Chisel . . . . . Size of Stock — ½, ⅝, ¾, ⅞ ins.
No. 289 Diamond Point Chisel . . . . . Size of Stock — ⅝, ¾, ⅞, 1 ins.
No. 290 Hand Chipping Chisel . . . . . Size of Stock — ⅜x5½, ½x6, ⅝x6½, ¾x7½, ⅞x8, 1x8½ ins.
No. 291 Double Hand Chisel . . . . . State length desired Size — 1⅛ or 1¼ ins. octagon
No. 292 Stone Drill, Double Bit . . . . . State length desired Size — 1 or 1⅛ ins. octagon

No. 293 Stone Drill, Single Bit

| Length | Octagon | Bit |
|---|---|---|
| 18 ins. | 1 in. | 1¾ ins. |
| 30 ins. | 1 in. | 1¾ ins. |
| 48 ins. | 1 in. | 1¾ ins. |
| 72 ins. | 1⅛ in. | 1⅞ ins. |

## No. 280 TRACK CHISEL A.R.E.A.

| Weight | Size of Eye | Eye No. | Length |
|---|---|---|---|
| 5¼ lbs. | ¾x1⅜ ins. | 3 | 9¼ ins. |

## No. 281 ALLOY TRACK CHISEL A.R.E.A.

| | | | |
|---|---|---|---|
| 5½ lbs. | ¾x1⅜ ins. | 3 | 10½ ins. |

## No. 310 SPIKE OR TRACK MAULS, BELL PATTERN

A.R.E.A. Plan No. 3 — Design No. 2

| | | | |
|---|---|---|---|
| 10 lbs. | 1x1⅜ ins. | 2 | 15 ins. |

## No. 311 SPIKE OR TRACK MAULS, STANDARD PATTERN

| | | | |
|---|---|---|---|
| 8 lbs. | 1x1⅜ ins. | 2 | 12 ins. |
| 10 lbs. | 1x1⅜ ins. | 2 | 12¾ ins. |

## No. 300 SINGLE END TRACK WRENCH

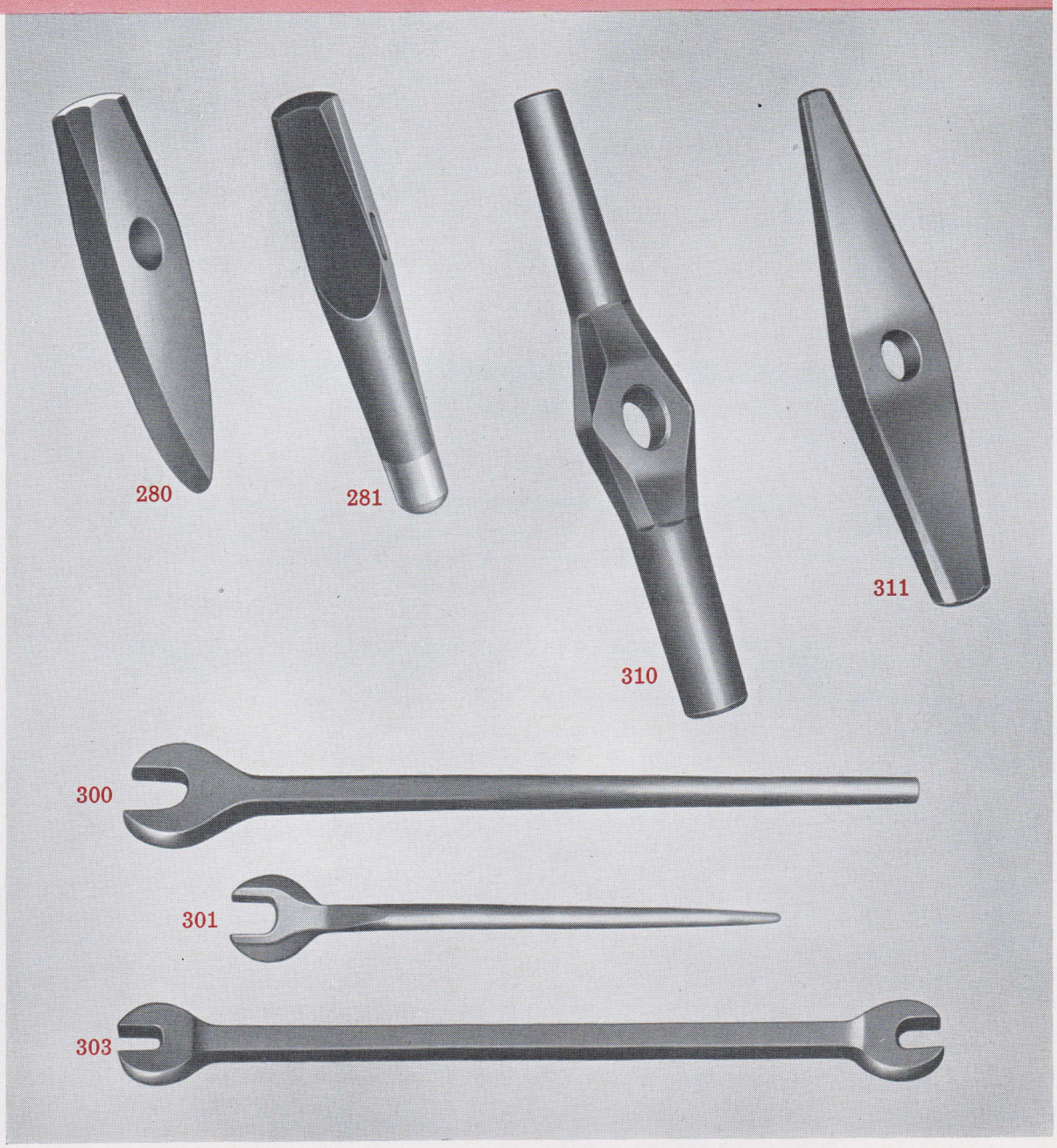
Length and size of jaw opening conform to A.R.E.A. Plan No. 4.

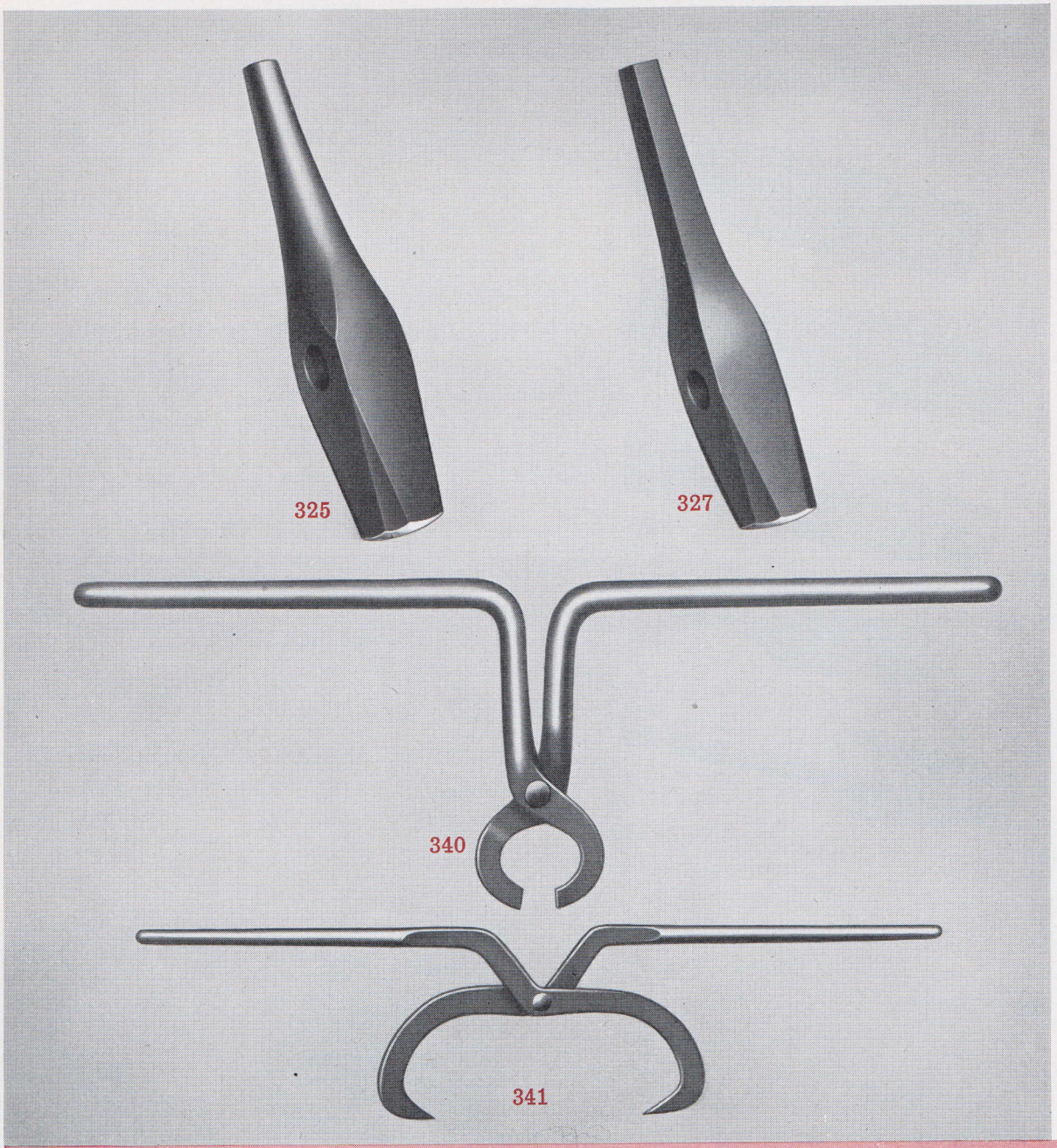
## No. 301 STRUCTURAL WRENCH

| Bolt Size | Jaw Opening | Length | Weight |
|---|---|---|---|
| ½ in. | 15/16 in. | 14 ins. | 1¼ lbs. |
| ⅝ in. | 1⅛ ins. | 16 ins. | 2 lbs. |
| ¾ in. | 1 5/16 ins. | 18 ins. | 2½ lbs. |
| ⅞ in. | 1½ ins. | 20 ins. | 3½ lbs. |
| 1 in. | 1 11/16 ins. | 23 ins. | 4¾ lbs. |

## No. 303 DOUBLE END TRACK WRENCH

Length and size of jaw opening conform to A.R.E.A. Plan No. 4.






No. 325 TRACK PUNCH (Round Point)

| Weight | Eye No. | Size of Eye |
|---|---|---|
| 5½ lbs. | 3 | ¾x1⅜ ins. |

Conforms to A.R.E.A. Plan No. 19

No. 327 TIE PLUG PUNCH

| Weight | Eye No. | Size of Eye |
|---|---|---|
| 4 lbs. | 3 | ¾x1⅜ ins. |

Conforms to A.R.E.A. Plan No. 18

No. 340 RAIL TONGS

Approximate weight . . . . . 22 lbs.

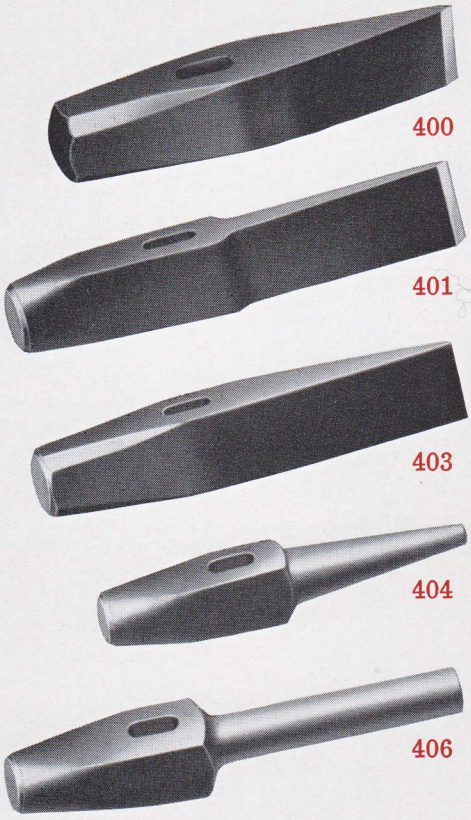
Conforms to A.R.E.A. Plan No. 6

No. 341 TIE OR TIMBER TONGS

Approximate weight . . . . . 12 lbs.

Conforms to A.R.E.A. Plan No. 8

# BLACKSMITH TOOLS




## No. 400 COLD CUTTER OR COLD CHISEL
Eye No. 3

| Weight | Stock at Eye | Bit | Length |
|---|---|---|---|
| 2 lbs. | 1¼ ins. | 1¼ ins. | 6 ins. |
| 3 lbs. | 1½ ins. | 1½ ins. | 7 ins. |
| 5 lbs. | 1¾ ins. | 1¾ ins. | 8 ins. |

## No. 401 HOT CUTTER OR HOT CHISEL
Eye No. 3

| Weight | Stock at Eye | Bit | Length |
|---|---|---|---|
| 2 lbs. | 1¼ ins. | 1½ ins. | 7⅜ ins. |
| 3 lbs. | 1½ ins. | 2 ins. | 8¼ ins. |
| 5 lbs. | 1¾ ins. | 2¼ ins. | 9¾ ins. |

## No. 403 SIDE CHISEL
Weight
5 lbs.

## No. 404 ROUND PUNCH

| Diam. at End | ¼ | ⅜ | ½ | ⅝ | ¾ | ⅞ | 1 |
|---|---|---|---|---|---|---|---|
| Stock at Eye | 1⅛ | 1⅛ | 1¼ | 1⅜ | 1⅜ | 1½ | 1½ |

## No. 406 BACKING OUT PUNCH

| Diam. of Face | ⅜ | ½ | ⅝ | ¾ | ⅞ | 1 |
|---|---|---|---|---|---|---|
| Stock at Eye | 1⅛ | 1¼ | 1⅜ | 1⅜ | 1½ | 1½ |

## No. 410 BOTTOM SWAGE
⅞ in. Shank

Size of Swage — ¼, ⅜, ½, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, 2, 2½, 3 ins.

## No. 411 TOP SWAGE

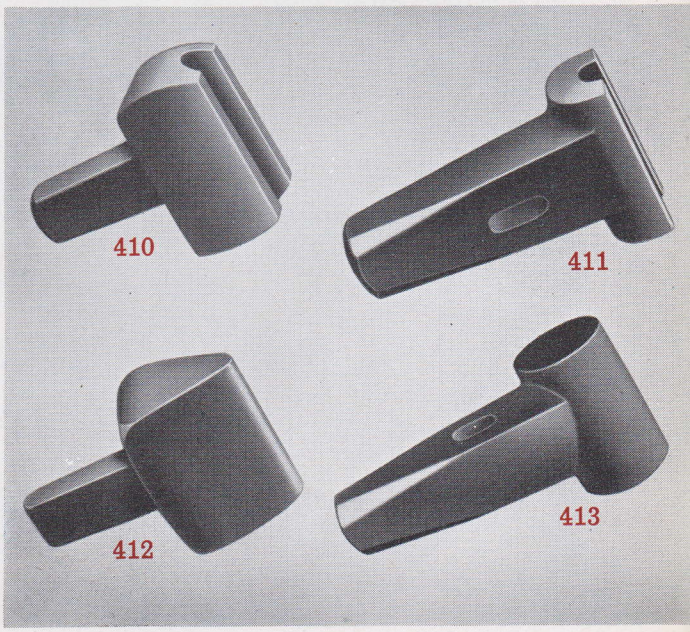
Size of Swage — ¼, ⅜, ½, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, 2, 2½, 3 ins.

## No. 412 BOTTOM FULLER
⅞ in. Shank

Size of Fuller — ¼, ⅜, ½, ¾, 1, 1¼, 1½, 1¾, 2 ins.

## No. 413 TOP FULLER

Size of Fuller — ¼, ⅜, ½, ¾, 1, 1¼, 1½, 1¾, 2 ins.



No. 414 FLATTER

Square

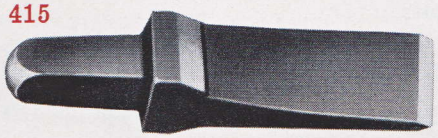
Size of Face . . . . . 2, 2½, 3, 4 ins.

414

No. 415 HARDIE

Size of Shank . . . . 5/8, 3/4, 7/8, 1, 1⅛, 1¼ ins.

415



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# HIGHLIGHTS ON *Production*

## RAW MATERIAL

The three important steps in production of high-quality forged tools are selection of raw material, forging, and heat treatment. In years gone by the requirements of the tool manufacturer were very loosely drawn, he accepted within a wide range what the steel company furnished, and in the early days of steel manufacturing the range was apt to be very wide indeed. Now, however, as the result of our many years of experience and of frequent conferences with steel company metallurgists, we specify within narrow limits the chemical composition of the steel as well as its grain structure. This insures our receiving a uniform raw material product, which is the first step in producing a high-quality tool.

## FORGING

The quality of the forging produced as a result of the second step depends on several factors, but is mainly dependent on the skill, training and experience of the pressman or hammerman in setting the dies and operating the hammer or press. Most of our men have had many years of service with us, while the newer operators are sons of present or pensioned employees.

## HEAT TREATMENT

The third step, heat treating, once the step-child of the industry, is now universally recognized as of vital importance. The quality of the heat treatment in the old days was usually dependent on the experience of the temperer; i.e., his judgment of the heat of the furnace and the color of the tempered steel. Now in a modern plant like ours, heat treating furnaces are automatically controlled by pyrometers which keep the furnaces at the exact heat desired. There is no longer any guess work to furnace temperatures. After the tools are heated above the critical or hardening range and quenched to harden them, their exact hardness is checked by a Brinell testing machine to see that the results are as they should be. Each and every heat is tested this way and after the correctness of the results is verified the tools are tempered in a liquid salt bath at a controlled temperature, which changes the steel grain structure so that it is now in the proper condition to produce a tough, durable tool. A final test in the Brinell machine tells us that we have a tool of the *proper hardness for the work it is expected to do.* Each type of tool has its own hardness range based on the use to which it is to be put, and no guarantee of quality can or should be expected to cover improper usage. Proper use is the ultimate test, and our confidence in our product is shown in our guarantee on page 26.

## TRADE CUSTOMS

Delivery promises are subject to delays from strikes, accidents or causes beyond our control.

Claims for shortage or deductions for erroneous charges must be presented promptly or they

will not be considered. Our responsibility ceases when goods are delivered in good order to the transportation company. However, in case of loss or damage we will extend our aid in assisting customers to get a proper adjustment from the transportation company. Never accept a shipment which arrives short or in bad condition until the agent makes proper notation on paid freight bill.

Special goods made to order cannot be returned for credit unless the fault is ours.

Before returning regular goods for credit take the matter up with us.

## SHIPPING INFORMATION

### MATTOCKS

Packed 2 dozen in a box

| | Size of box | Weight per box when packed |
|---|---|---|
| 3 lbs. | 21¾x10⅞x9¼" | 80 lbs. |
| 5 lbs. | 24¼x17½x8" | 135 lbs. |

### PICKS

Packed 2 dozen in a box

| | Size of box | Weight per box when packed |
|---|---|---|
| 6 lbs. | 28⅝x12⅜x12⅛" | 160 lbs. |
| 7 lbs. | 30⅝x12⅜x11⅞" | 185 lbs. |
| 8 lbs. | 31½x12¼x12" | 210 lbs. |
| 9 lbs. | 31¾x13 x13½" | 235 lbs. |

### HOES

Packed 2 dozen in a box

| | Size of box | Weight per box when packed |
|---|---|---|
| Grub | 21¾x10⅞x9¼" | 95 lbs. |
| Accomac | 27⅜x10⅝x9⅜" | 135 lbs. |

### WEDGES, MAULS AND SLEDGES

Packed in kegs

| | Size of keg | Approx. weight per keg when packed |
|---|---|---|
| Small | 12" Diam.x15" high | 200 lbs. |
| Medium | 13" Diam.x18" high | 250 lbs. |
| Large | 13½" Diam.x18" high | 300 lbs. |

### BARS

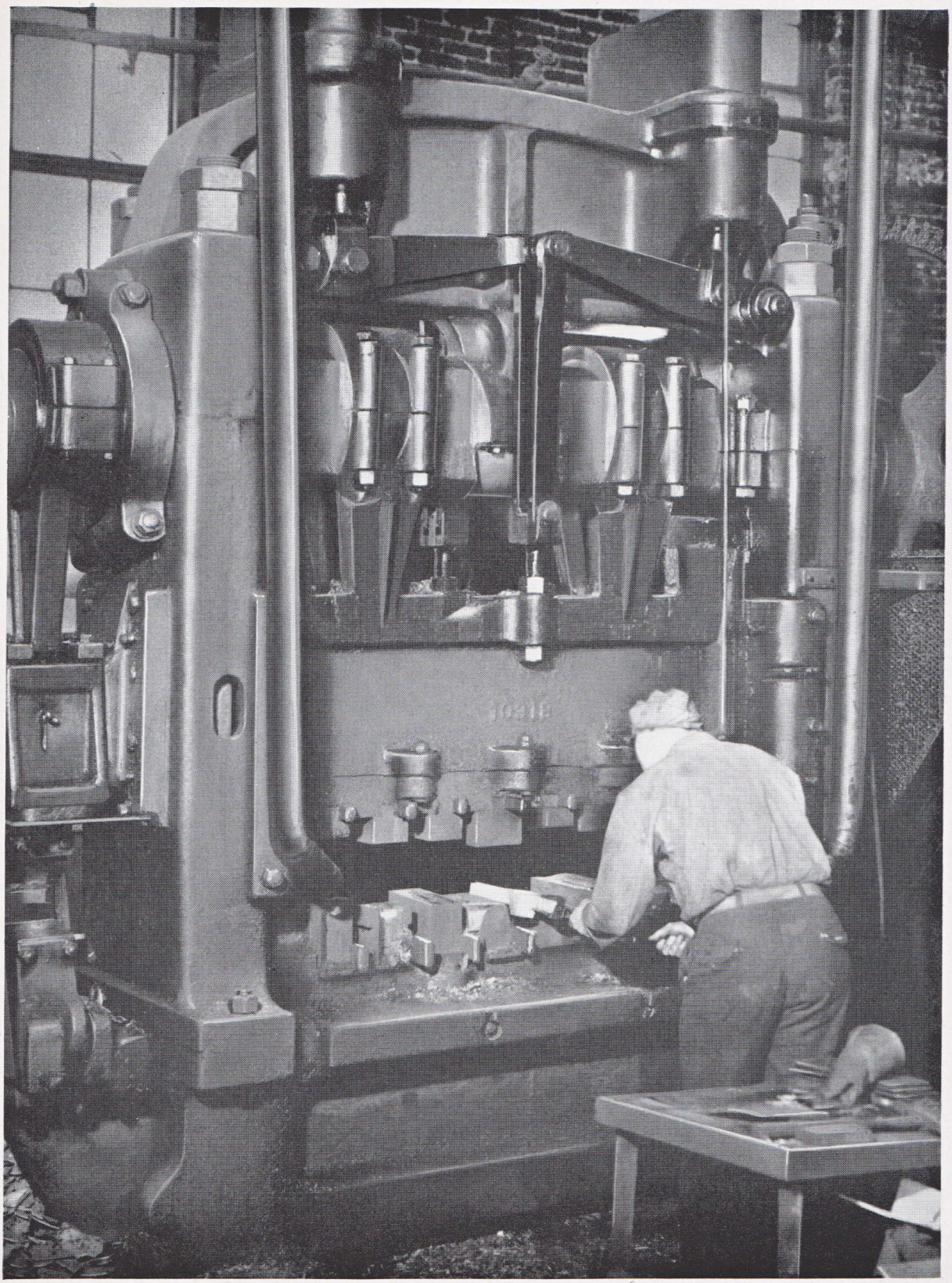
Crow and claw bars are shipped loose or in bundles of 2 or 3 and the net weights are the shipping weights.

Wrecking bars are shipped in bundles of 6 and the weights are as follows:

| | |
|---|---|
| ¾x24" | 20 lbs. per bundle |
| ¾x30" | 25 lbs. per bundle |
| ¾x36" | 30 lbs. per bundle |

## OUR GUARANTEE

We guarantee Klein-Logan tools to be as represented. We also guarantee them against flaws in material and defects in workmanship, but no replacement will be made when the tool has been reheated.



Forging Mattock Hoes

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