NOTICE.

Customers receiving this Catalogue are requested to destroy all previous ones received from us, which are hereby made void, that there may be no confusion in orders.

In making up orders you will confer a great favor to us by using the same descriptions and numbers as given in this Catalogue.

We kindly ask for a liberal share of your patronage, and trust that our efforts to please the trade will, as formerly, be rewarded by a continued and increasing business with our customers, whose orders will always receive our prompt and careful attention.

Prices subject to change without notice.

---

TERMS.

All sales will be for Cash. Payable within sixty days, or 2% cash discount if paid ten days from date of invoice, and subject to draft at sight after that time.

Remittances must be made in par funds in Chicago or New York.

Very respectfully,

VAUGHAN & BUSHNELL MFG. CO.,

869 to 889 Carroll Avenue, CHICAGO, ILL.

January, 1903.

TERMS OF WARRANTY.

If any of our tools, stamped V. & B., prove to be too soft or too hard, or are defective in the steel, if returned to us, we will gladly replace without charge.

All the goods we manufacture are closely inspected and severely tested to detect any flaws that may exist.

The Steel these goods are manufactured from (which is equal to any in the market) is made expressly for the class of goods for which we use it, so that every tool is perfect in material, construction, workmanship and finish.
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BURNER PLIERS.

SOLID CAST STEEL OF SUPERIOR QUALITY, OIL TEMPERED.

Fig. 400.

5 inch. Polished and Blued per doz., $6.00
6 " " " 8.00

Half dozen in a box.

GAS PLIERS.

SOLID CAST STEEL OF SUPERIOR QUALITY, OIL TEMPERED.

Fig. 401.

7 inch. Polished and Blued per doz., $7.40
8 " " " 8.25
9 " " " 9.25
10 " " " 10.70
12 " " " 13.00
14 " " " 17.00

Half dozen in a box.
BUTTON'S PATTERN PLIERS.
V. & B. BRAND.

Fig. 402.

When ordering BUTTON'S PATTERN PLIERS be sure to state which brand you desire.

Our V. & B. Pliers are guaranteed equal to any made. Are drop forged from tool steel. Nicely polished and blued. Warranted.

<table>
<thead>
<tr>
<th>4½</th>
<th>6</th>
<th>8</th>
<th>10 inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10.00</td>
<td>12.00</td>
<td>15.00</td>
<td>20.00 per dozen.</td>
</tr>
</tbody>
</table>

Half dozen in a box.

BUTTON'S PATTERN PLIERS.
GARDEN CITY BRAND.

Fig. 403.

When ordering BUTTON'S PATTERN PLIERS be sure to state which brand you desire.

Our Garden City brand is of good quality and equal in quality and finish to any low priced plier made.

<table>
<thead>
<tr>
<th>4½</th>
<th>6</th>
<th>8</th>
<th>10 inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10.00</td>
<td>12.00</td>
<td>15.00</td>
<td>20.00 per dozen.</td>
</tr>
</tbody>
</table>

Half dozen in a box.
CARPENTERS' PINCHERS.
OF SUPERIOR QUALITY.

Fig. 404.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Description</th>
<th>Per Doz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6 in</td>
<td>Solid Steel, 6 inch Straight Handles</td>
<td>$2.88</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>&quot; 6 &quot; Claw &amp; Screw Driver</td>
<td>$3.10</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>&quot; 7 &quot;</td>
<td>$3.78</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>&quot; 8 &quot;</td>
<td>$4.00</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>&quot; 9 &quot;</td>
<td>$5.00</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>&quot; 10 &quot;</td>
<td>$5.56</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>&quot; 12 &quot;</td>
<td>$6.40</td>
</tr>
</tbody>
</table>

Half dozen in a box.

For No. 6 Carpenters' Pinchers the 6 inch Straight Handles will be sent unless 6 inch with Claw and Screw Driver is specified.

BLACKSMITHS' PINCHERS.

Fig. 405.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Description</th>
<th>Per Doz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10 in</td>
<td>Solid Steel</td>
<td>$9.00</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>&quot; 12 &quot;</td>
<td>$10.00</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>&quot; 14 &quot;</td>
<td>$12.00</td>
</tr>
</tbody>
</table>

Half dozen in a box.
FARRIER'S SHOEING PINCHERS.

Fig. 406.

OIL FINISHED, POLISHED JAW.

Extra Heavy.

No. 13, Solid Steel, 13 inch. per doz., $13.00
No. 14, " 14 " 15.00

Half dozen in a box.

HORSESHOERS' NAIL CUTTING NIPPERS.

Fig. 407.

OIL FINISHED, POLISHED JAWS.

No. 30, Solid Steel, 13 inch. per doz., $15.00
No. 32, " 14 " 16.00

Half dozen in a box.
HORSESHOERS' NAIL CUTTING NIPPERS.

Fig. 408.

OIL FINISHED, POLISHED JAW.

No. 40, Solid Steel, 10 inch. .............. per doz., $14.50
No. 42, " 12 " ........................ " 15.50

Half dozen in a box.

MACHINISTS' BALL PEIN HAMMERS.

Fig. 409.

These hammers are drop forged from crucible bar steel, not pressed. The steel is thereby closely hammered, leaving the grain more compact. Carefully hardened and drawn. Second growth hickory handles.

WEIGHT DOES NOT INCLUDE HANDLE.

<table>
<thead>
<tr>
<th>Weight</th>
<th>4 oz</th>
<th>6 oz</th>
<th>8 oz</th>
<th>12 oz</th>
<th>1 lb</th>
<th>1½ lb</th>
<th>1¾ lb</th>
<th>2 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>5/0</td>
<td>4/0</td>
<td>3/0</td>
<td>2/0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Per Dozen</td>
<td>$12.00</td>
<td>$12.00</td>
<td>$12.00</td>
<td>$12.00</td>
<td>$12.00</td>
<td>$13.50</td>
<td>$14.50</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>1¾ lb</th>
<th>2 lb</th>
<th>2½ lb</th>
<th>2¾ lb</th>
<th>3 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Per Dozen</td>
<td>$15.50</td>
<td>$16.50</td>
<td>$17.50</td>
<td>$19.00</td>
<td>$20.50</td>
</tr>
</tbody>
</table>

Half dozen in a box. Nos. 6, 7, 8 one-third dozen in a box.
MACHINISTS' STRAIGHT PEIN HAMMERS.
Fig. 410.

These hammers are drop forged from crucible bar steel, not pressed. The steel is thereby closely hammered, leaving the grain more compact. Carefully hardened and drawn. Second growth hickory handles.

WEIGHT DOES NOT INCLUDE HANDLE.

<table>
<thead>
<tr>
<th>Weight</th>
<th>4 oz.</th>
<th>6 oz.</th>
<th>8 oz.</th>
<th>12 oz.</th>
<th>1 lb.</th>
<th>1½ lb.</th>
<th>1¼ lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Per Doz.</td>
<td>$12.00</td>
<td>12.00</td>
<td>12.00</td>
<td>12.00</td>
<td>12.50</td>
<td>13.50</td>
<td>14.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>1½ lb.</th>
<th>2 lb.</th>
<th>2½ lb.</th>
<th>3 lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Per Doz.</td>
<td>$15.50</td>
<td>16.50</td>
<td>17.50</td>
<td>19.00</td>
</tr>
</tbody>
</table>

Half dozen in a box. Nos. 6, 7, 8 one-third dozen in a box.

MACHINISTS' CROSS PEIN HAMMERS.
Fig. 411.

These hammers are drop forged from crucible bar steel, not pressed. The steel is thereby closely hammered, leaving the grain more compact. Carefully hardened and drawn. Second growth hickory handles.

WEIGHT DOES NOT INCLUDE HANDLE.

<table>
<thead>
<tr>
<th>Weight</th>
<th>4 oz.</th>
<th>6 oz.</th>
<th>8 oz.</th>
<th>12 oz.</th>
<th>1 lb.</th>
<th>1½ lb.</th>
<th>1¼ lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Per Doz.</td>
<td>$12.00</td>
<td>12.00</td>
<td>12.00</td>
<td>12.00</td>
<td>12.50</td>
<td>13.50</td>
<td>14.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>1½ lb.</th>
<th>2 lb.</th>
<th>2½ lb.</th>
<th>3 lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Per Doz.</td>
<td>$15.50</td>
<td>16.50</td>
<td>17.50</td>
<td>19.00</td>
</tr>
</tbody>
</table>
HORSESHOERS' TONGS.
RECESSED JAWS.

Fig. 412.
Drop Forged. Solid Steel.

BLACKSMITHS' PICK TONGS.

Fig. 413.

OIL FINISHED.

For holding Miners' Picks while being sharpened.

Price.............. per pound, 25 cts.

Length, 24 inches. Weight, 4 pounds.

OIL FINISHED.

No. 0, 12 inch, weight per pair 1½ lbs. Per dozen... $5 00
No. 00, 14 " " 1½ " " " " 5 50
BLACKSMITHS' PICKUP TONGS.

Fig. 414.
Drop Forged. Solid Steel.

OIL FINISHED.
For picking up hot irons. Price........ per pound, 25 cts.
Length, 22 inches. Weight, 2½ pounds.

BLACKSMITHS' GAD TONGS.

Fig. 415.
Drop Forged. Solid Steel.

OIL FINISHED.
Length, 18 inches. Weight, per pair, 2 lbs.
" 20 "  " "  " 2½ "
" 22 "  " "  " 3 "
" 24 "  " "  " 3½ "
Price........................ per pound, 20 cts.
BLACKSMITHS' BOLT TONGS.
Fig. 416.
Drop Forged. Solid Steel.

OIL FINISHED.
For holding Bolts and Round Iron.
When ordering give size of iron to be held, not length of tong.
For holding round iron... 1/4 3/8 3/4 1 1 1/4 1 1/8
Length........... 18 18 20 20 22 22 24 24 24 24
Weight, per pair... 1 1/4 2 1/4 2 3/4 3 3/4 3 3/8 4 4 1/8
Price................ per pound, 25 cts.

BLACKSMITHS' STRAIGHT LIP TONGS.
Fig. 417.
Drop Forged. Solid Steel.

OIL FINISHED.
Length, 16 inches. Weight, per pair, 1 1/2 lbs.
18 " 18 " 2 "
20 " 20 " 2 1/2 "
22 " 22 " 3 "
24 " 24 " 3 1/2 "
26 " 26 " 3 1/2 "
28 " 28 " 4 1/2 "
30 " 30 " 4 1/2 "
Price................ per pound, 15 cts.
If adjusted the extra labor will be charged.
HORSESHOERS' TOE KNIVES.

Fig. 418.

Solid Cast Steel. Price per dozen, $9.00
Half dozen in a package.

HORSESHOERS' BUFFERS.

Fig. 419.

Solid Cast Steel. Price per dozen, $9.00
Half dozen in a package.
HORSESHOERS' NAIL PUNCHES.

Fig. 420.

No. 15, ½ in. Square Cast Steel. Per dozen $4.00
No. 16, 1 in. “ “ “ “ 5.00

HORSESHOERS' CREASING TOOLS.

Fig. 421.

No. 17, ⅜ in. Square Cast Steel. Per dozen $4.00
No. 18, 1 in. “ “ “ “ 5.00

OIL FINISHED.
BLACKSMITHS' TOP CHANNEL SWAGES.

FOR WELDING CHANNEL IRONS FOR RUBBER TIRES.

Fig. 422.

Solid Cast Steel.

OIL FINISHED.

Made for the following standard round edge Channel Irons.

Sizes—\( \frac{2}{3} \), \( \frac{3}{4} \), 1, 1\( \frac{1}{2} \), 1\( \frac{3}{4} \), 1\( \frac{5}{8} \), 1\( \frac{7}{8} \), 1\( \frac{5}{8} \), 2, 2\( \frac{1}{2} \), 3 inch.

\$1.40 1.40 1.40 1.55 1.55 1.80 1.80 2.05 2.05 2.05 2.40 4.00 each.

BLACKSMITHS' BOTTOM CHANNEL SWAGES.

FOR WELDING CHANNEL IRONS FOR RUBBER TIRES.

Fig. 423.

Solid Cast Steel.

OIL FINISHED.

Made for the following standard round edge Channel Irons.

Sizes—\( \frac{2}{3} \), \( \frac{3}{4} \), 1, 1\( \frac{1}{2} \), 1\( \frac{3}{4} \), 1\( \frac{5}{8} \), 1\( \frac{7}{8} \), 1\( \frac{5}{8} \), 2, 2\( \frac{1}{2} \), 3 inch.

\$1.40 1.40 1.40 1.55 1.55 1.80 1.80 2.05 2.05 2.05 2.40 4.00 each.
HORSESHOERS' PRITCHELS.

Fig. 424.

OIL FINISHED.

Made of 8 Octagon Cast Steel, 10 in. long.

Price, per lb., 40 cts.

Half dozen in a package.

BLACKSMITHS' ROUND HAND PUNCHES.

Fig. 425.

OIL FINISHED.

Sizes of point: $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{7}{8}$, $1$

Size Steel, Octagon: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{7}{8}$, $1$

Length, 10 inches.

When ordering always give size of point.

Half dozen in a package.
BLACKSMITHS' ROUND EYE PUNCHES.

Fig. 426.

Oil finished.

Sizes of point: $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, 1 inch.

Solid Cast Steel. Price: per lb., 40 cts.

BLACKSMITHS' SQUARE EYE PUNCHES.

Fig. 427.

Oil finished.

Sizes of point: $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, 1 inch.

Solid Cast Steel. Price: per lb., 40 cts.
BLACKSMITHS' CENTER PUNCHES.

Fig. 428.

OIL FINISHED.

Solid Cast Steel. Price ......................... per lb., 40 cts.

BLACKSMITHS' COUNTER SINKS.

Fig. 429.

OIL FINISHED.

Solid Cast Steel. Price ......................... per lb., 40 cts.
BLACKSMITHS' HEADING TOOLS.

Fig. 430.

OIL FINISHED.

Sizes of Hole: $\frac{1}{4}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{8}$, $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{7}{8}$, 1 inch.

Solid Cast Steel. Price: per lb., 40 cts.

BLACKSMITHS' ANVIL HARDIES.

Fig. 431.

OIL FINISHED.

Sizes of Shank: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$, 1, 1$\frac{1}{4}$, 1$\frac{1}{2}$ inch.

Solid Cast Steel. Price: per lb., 40 cts.
BLACKSMITHS' COLD CUTTERS.

Fig. 432.

OIL FINISHED.

Sizes of Square .......... 1 1\(\frac{1}{8}\) 1\(\frac{3}{8}\) 1\(\frac{5}{8}\) 1\(\frac{1}{4}\) 2 inch.
Weight each .......... 1\(\frac{1}{4}\) 1\(\frac{1}{2}\) 2 2\(\frac{1}{2}\) 3 4\(\frac{1}{2}\) 5\(\frac{1}{2}\) lbs.
Price, American Tool Steel .......... per lb., 40 cts.

Chisels made of Jessop's English Steel to order.

BLACKSMITHS' HOT CUTTERS.

Fig. 433.

OIL FINISHED.

Sizes of Square .......... 1 1\(\frac{1}{8}\) 1\(\frac{3}{8}\) 1\(\frac{1}{4}\) 1\(\frac{1}{2}\) 2 inch.
Weight each .......... 1\(\frac{1}{4}\) 1\(\frac{1}{2}\) 2 2\(\frac{1}{4}\) 3\(\frac{1}{4}\) 3\(\frac{1}{2}\) 5 lbs.

BLACKSMITHS' FLATTERS.

Fig. 434.

OIL FINISHED.

Sizes of Square Face . . . . 2 2½ 2 3 3½ 3½ 4 inch.

Solid Cast Steel. Price . . . . . . . . . . . . . per lb., 40 cts.

BLACKSMITHS' SET HAMMERS.

Fig. 435.

OIL FINISHED.

Sizes of Square Face . . . . 1 1½ 1½ 1½ 1½ 2 inch.

Solid Cast Steel. Price . . . . . . . . . . . . . per lb., 40 cts.
BLACKSMITHS’ TOP SWAGES.

Fig. 436.

OIL FINISHED.

Sizes.............. $\frac{1}{8}$ $\frac{1}{16}$ $\frac{5}{32}$ $\frac{1}{8}$ $\frac{1}{4}$ $\frac{1}{16}$ $\frac{1}{8}$ $\frac{5}{16}$ $\frac{1}{8}$ $1\frac{1}{4}$ $1\frac{1}{8}$ $1\frac{1}{16}$

Solid Cast Steel. Price.........................per lb., 40 cts.

Oval Top Swages at same price.

BLACKSMITHS’ BOTTOM SWAGES.

Fig. 437.

OIL FINISHED.

Shanks for 1 inch hole in anvil.

Sizes.............. $\frac{1}{8}$ $\frac{1}{16}$ $\frac{5}{32}$ $\frac{1}{8}$ $\frac{1}{16}$ $\frac{1}{8}$ $8$ $\frac{1}{8}$ $\frac{5}{16}$ $\frac{1}{8}$ $1\frac{1}{4}$ $1\frac{1}{8}$ $1\frac{1}{16}$

Solid Cast Steel. Price.........................per lb., 40 cts.

Oval Bottom Swages at same price.
BLACKSMITHS' TOP FULLERS.

Fig. 438.

OIL FINISHED.

Sizes: \( \frac{1}{2} \), \( \frac{1}{6} \), \( \frac{8}{10} \), \( \frac{1}{5} \), \( \frac{1}{16} \), \( \frac{1}{8} \), \( \frac{5}{16} \), \( \frac{3}{8} \), \( \frac{1}{2} \), \( 1 \frac{1}{2} \), \( 2 \), \( 2 \frac{1}{2} \), \( 3 \) inch.

Solid Cast Steel. Price: \( \ldots \ldots \ldots \ldots \) per lb., 40 cts.

BLACKSMITHS' BOTTOM FULLERS.

Fig. 439.

OIL FINISHED.

Sizes: \( \frac{1}{4} \), \( \frac{1}{8} \), \( \frac{3}{16} \), \( \frac{1}{5} \), \( \frac{3}{16} \), \( \frac{5}{32} \), \( \frac{1}{8} \), \( \frac{5}{32} \), \( \frac{7}{32} \), \( \frac{1}{4} \), \( 1 \frac{1}{4} \), \( 1 \frac{1}{2} \), \( 1 \frac{1}{2} \), \( 2 \frac{1}{2} \), \( 3 \) inch.

Solid Cast Steel. Price: \( \ldots \ldots \ldots \ldots \) per lb., 40 cts.

Shanks for 1 inch hole in anvil.
TRACK CHISELS.

Fig. 440.

OIL FINISHED.

4½ lbs. each.

Made of American Tool Steel 1½ inch Square.

Price ........................................ per lb., 40 cts.

TRACK PUNCHES.

Fig. 441.

OIL FINISHED.

Made of American Tool Steel 1½ inch Square.

Price ........................................ per lb., 40 cts.
R. R. TRACK WRENCHES.

Drop Forged.

Fig. 442.

OIL FINISHED.

Solid Steel, full length 24 inches.
Sizes of opening .............. 1\(\frac{1}{4}\) 1\(\frac{1}{8}\) 1\(\frac{1}{2}\) 1\(\frac{3}{4}\) inch.
Weight 4\(\frac{1}{2}\) lbs. .............. Price per lb., 20 cts.
Double End Wrenches, weight each, 6 lbs.

R. R. TRACK TONGS.

Drop Forged.

Fig. 443.

OIL FINISHED.

ROUND CRACK HAMMERS.

Fig. 444.

OIL FINISHED.

Sizes... 1, 1\(\frac{1}{4}\), 1\(\frac{1}{2}\), 1\(\frac{3}{4}\), 2 lbs.

Solid Cast Steel... per lb., 40 cts.

FARMERS' PLOW ANVILS.

Fig. 445.

OIL FINISHED.

Solid Cast Steel, Weight 4 lbs.

Price... per lb., 30 cts.
COOPERS' PUNCHES.

Fig. 446.

Nos. 3  4  5  6
Fits 6 lb.  5 lb.  4 lb.  3 lb. Iron Rivets.

Made of 4 Octagon Cast Steel, 7½ inches long.

Weight per doz., 10½ lbs. per lb., 30 cts.
Half dozen in a box.

COOPERS' HOOP DRIVERS.

Fig. 447.

OIL FINISHED.

Sizes... 1½, 1¼, 1¾, 2½, 3 lbs.

Solid Cast Steel per lb., 50 cts.
ENGINEERS' PACKING TOOLS.

STRAIGHT PATTERN.

Fig. 448.

Handle made from $\frac{1}{4}$ inch Steel.

Length under Eye: 8, 10, 12 inch.

Per dozen: $3.60$  $3.60$  $3.60$

ENGINEERS' PACKING TOOLS.

HOOK PATTERN.

Fig. 449.

Handle made from $\frac{1}{4}$ inch Steel.

Length under Eye: 8, 10, 12 inch.

Per dozen: $3.60$  $3.60$  $3.60$
ENGINEERS' PACKING TOOLS.

SCREW PATTERN.

Fig. 450.

Handle made from ½ inch Steel.

Length under Eye.......... 8 8 8 10 12 inch.
Outside diameter of Screw ½ ⅜ ⅝ ⅞ ⅞
Per dozen .............. $7.20 7.20 7.20 7.20 7.20

WROUGHT GOODS.
WROUGHT NAIL GRIPS.

Fig. 451.

PAINED.

No. 1, Eight Steel Fingers per dozen, $24.00

WROUGHT NAIL CLAWS.

Fig. 452.

PAINED.

No. 2, Five Steel Fingers per dozen, $9.00

Half dozen in a box.
WROUGHT EYE BOLTS.
Drop Forged.
Fig. 453.

MILLED BRIGHT.

No. 3, size of steel, \( \frac{3}{8} \text{ in.} \), full length, \( 4\frac{1}{2} \text{ in.} \) per doz., $0.75

No. 4, " " \( \frac{5}{8} \text{ in.} \), " " \( 4\frac{1}{2} \text{ in.} \) " " 1.00

No. 5, " " \( \frac{7}{8} \text{ in.} \), " " \( 5\frac{1}{2} \text{ in.} \) " " 1.25

No. 6, " " \( \frac{1}{2} \text{ in.} \), " " \( 6 \text{ in.} \) " " 1.75

No. 7, " " \( \frac{3}{4} \text{ in.} \), " " \( 6\frac{1}{2} \text{ in.} \) " " 2.25

WROUGHT EYE BOLTS, NOT WELDED.
Fig. 454.

FULL SIZE CUT OF NO. 8.

MILLED BRIGHT.

No. 8, size of steel, \( \frac{3}{8} \text{ in.} \), full length, \( 4 \text{ in.} \) per doz., $0.65

No. 9, " " \( \frac{1}{2} \text{ in.} \), " " \( 4\frac{1}{2} \text{ in.} \) " " 0.85

No. 10, " " \( \frac{3}{4} \text{ in.} \), " " 5 \text{ in.} " " 1.00

No. 11, " " \( \frac{5}{8} \text{ in.} \), " " \( 5\frac{1}{2} \text{ in.} \) " " 1.40

No. 12, " " \( \frac{7}{8} \text{ in.} \), " " \( 6 \text{ in.} \) " " 1.75
WROUGHT FLOOR HOOKS.

Fig. 455.

MILLED BRIGHT.

No. 3, size of steel, ½ in., full length, 5½ in... per doz., $0.90
No. 4, " ½ in., " 6½ in... " 1.00
No. 5, " ¾ in., " 7 in... " 1.25

WROUGHT SWING BOLTS AND RINGS.

Fig. 456.

MILLED BRIGHT.

No. 1, size of steel, ½ in., full length, 9 in... per doz., $1.50

One dozen in a box.
WROUGHT WELL WHEEL HOOKS.

Fig. 457.

MILLED BRIGHT.

No. 1, size of steel, \( \frac{3}{8} \) in., full length, 8 in... per gross, $12.00
No. 2, " " \( \frac{1}{2} \) in., " 8 in... " 15.00

Three dozen in a box.

WROUGHT BAR STAPLES.

Fig. 458.

MILLED BRIGHT.

No. 1, size of steel, \( 1\frac{1}{2} \times \frac{1}{4} \); wooden bar, 2x4 in... per set, $0.80
No. 2, " " \( 1\frac{1}{2} \times \frac{3}{8} \); " " 2x4 in... " 1.00
HEAVY WROUGHT HASPS.

FOR STORE AND WAREHOUSE DOORS.

Fig. 459.

PAINTED.

No. 1, Removable Hasp .................. per doz., $12.00

Size of steel, $\frac{3}{4} \times \frac{3}{8}$; length, 6 inches.

The staples go through the door with the flange on outside and nut on the inside.

The best Hasp in the market.

Half dozen in a box.

PAINTED.

No. 2, Stationary Hasp .................. per doz., $12.00

Size of steel, $\frac{3}{4} \times \frac{3}{8}$; length, 6 inches.

Half dozen in a box.
WROUGHT ICE TONGS.

Fig. 461.

Drop Forged. Solid Steel. No Weld. Swell Handle.

PAINTED RED.

No. 1, Opens 15 inches .................. per doz., $16.00
No. 2, " 17 " .......................... " 18.00
No. 3, " 24 " .......................... " 21.00

WROUGHT FAMILY ICE TONGS.

Fig. 462.

PAINTED.

No. 6, Solid Steel, opens 14 inches ............ per doz., $10.80
WROUGHT CLOTHES LINE HOOKS.

TO SCREW.

Fig. 463.

TINNED.

No. 1, size of steel 9/16 in., full length 4 1/2 in. per doz., $1.00
No. 2, " 7/16 in., " 5 in... " 1.25
No. 3, " 1/2 in., " 5 1/2 in... " 1.50

One dozen in a box.

Fig. 464.

WROUGHT CLOTHES LINE HOOKS.

TO DRIVE.

TINNED.

No. 4, full length, 4 1/2 in.............. per doz., $1.00

One dozen in a box.
WROUGHT HITCHING RINGS.

Fig. 465.

MILLED BRIGHT.

No. 0, size of screw \( \frac{3}{8} \), size of ring \( 2\frac{3}{4} \) in. steel, per doz., $1.50
No. 00, " " \( \frac{1}{8} \), " " \( 2\frac{3}{4} \) in. \( \frac{3}{8} \) steel, " " 1.75

One dozen in a box.

Extra, if Tinned, 10 cts. per dozen, net.

Fig. 466.

MILLED BRIGHT.

No. 1, size of screw \( \frac{1}{8} \); size of ring \( 2\frac{1}{2} \) in. \( \frac{3}{8} \) steel, per doz., $2.00

One dozen in a box.

Extra, if Tinned, 10 cts. per dozen, net.
CONDUCTOR OR LEADER HOOKS.

Fig. 467.

TINNED.

Size, inches... 2 3 4 5 6
Price, per 100 $6.00 7.50 11.00 12.00 13.00

Our Leader Hooks are very stiff and strong, being Drop Forged all in one piece, no weld, and from their peculiar shape are much stronger, drive and hold in brick walls better than any other, and are made of the best Mild steel.

LOOP HANDLE BOX HOOKS.

Fig. 468.

PAINTED.

Length under handle 6 inches.
Loop of handle 5½ inches.
No. 10, ½ inch Round steel per doz., $3.00
BOX HOOKS.

ROUND SHANK.

Fig. 469.

No. 4, \( \frac{5}{6} \), Rd. Cast Steel, 3\( \frac{1}{2} \) in. long, under hdl. per doz., $2.25
No. 6, \( \frac{5}{8} \), “ “ 5 in. “ “ 2.50

OX HOOKS.

OCTAGON SHANK.

Fig. 470.

No. 9, \( \frac{9}{10} \), Oct. Cast Steel 7 in. long under hdl. per doz. $2.75
No. 12, \( \frac{3}{4} \), “ “ 9 in. “ “ 3.00
No. 14, \( \frac{7}{8} \), “ “ 12 in. “ “ 3.50
COTTON HOOKS, WOOD HANDLE.
NEW ORLEANS PATTERN.
Fig. 471.

TINNED.

No. 8, ⅜ Cast Steel .................................................. per doz., $2.40

N. B.—In ordering Hooks, please give the number as per list, of the shaped hook you want. The Tinned Hooks are much better than the polished, as they will not rust.

---

COTTON HOOKS, WOOD HANDLE.
RED RIVER PATTERN.
Fig. 472.

TINNED.

No. 7, ¼ Cast Steel .................................................. per doz., $2.40
COTTON HOOKS, IRON HANDLE.

Fig. 473.

TINNED.

No. 5, Cast Steel........................................ per doz., $4.00

N. B.—Iron handles will be put on either pattern of Hook, as ordered.

COTTON HOOKS, IRON HANDLE.

Fig. 474.

TINNED.

No. 4, ½ Cast Steel................................. per doz., $4.00
HAY HOOKS.

Fig. 475.

No. 1, 7/8 Cast Steel ................................................ per doz., $3.25

This page reserved for additional goods.
WROUGHT BUTCHER'S S HOOKS.

Fig. 477.

TINNED.

<table>
<thead>
<tr>
<th>Size</th>
<th>Width</th>
<th>Price per doz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 inch</td>
<td>$\frac{1}{6}$ Steel</td>
<td>$0.42$</td>
</tr>
<tr>
<td>4 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$0.50$</td>
</tr>
<tr>
<td>5 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$0.60$</td>
</tr>
<tr>
<td>6 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$0.75$</td>
</tr>
<tr>
<td>7 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$1.00$</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$1.20$</td>
</tr>
<tr>
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<td>$\frac{1}{6}$ &quot;</td>
<td>$1.40$</td>
</tr>
<tr>
<td>10 &quot;</td>
<td>$\frac{1}{6}$ &quot;</td>
<td>$1.60$</td>
</tr>
</tbody>
</table>

Three dozen in a box.
HOG HOOKS.

Fig. 478.

No. 2, ½ in. Steel ........................................ per doz., $12.00

Length of Hook, 9 inches; length of Handle, 14 inches.

Fig. 479.

No. 3, ¼ Steel ........................................ per doz., $4.00

Length of Hook, 7 inches; length of Handle, 9 inches.
WROUGHT LIFTING HOOKS.

Fig. 480.

No. 3, \( \frac{3}{8} \) in. Steel

TINNED.

per doz., $4.00

One dozen in a box.

WROUGHT LIFTING HOOKS.

Fig. 481.

No. 4, \( \frac{3}{8} \) in. Steel

TINNED.

per doz., $5.50

One dozen in a box.
SELECTING HOOKS.

WOODEN HANDLE.

Fig. 482.

TINNED.

The numbers indicate the full length.

No. 9, 7/8 in. Solid Steel ...................... per doz., $3.00
No. 10, 5/8 in. " " ...................... " 3.00
No. 12, ¾ in. " " ...................... " 3.25
No. 13, 1/2 in. " " ...................... " 3.25

Half dozen in a box.

SELECTING HOOKS.

LOOP HANDLE.

Fig. 483.

TINNED.

The numbers indicate length under handle.

No. 14, 5/8 in. Solid Steel ...................... per doz., $3.50
No. 16, ¾ in. " " ...................... " 3.60
No. 18, 1/2 in. " " ...................... " 3.75
No. 20, 3/4 in. " " ...................... " 4.00
WROUGHT MEAT HOOKS.
TO SCREW ON.
Fig. 484.

TINNED.

Full size cut of No. 8.

<table>
<thead>
<tr>
<th>Nos.</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Gross</td>
<td>$3.90</td>
<td>5.10</td>
<td>6.20</td>
</tr>
<tr>
<td>Size of Steel</td>
<td>$\frac{1}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{5}{8}$ inch.</td>
</tr>
</tbody>
</table>

One-half gross in a box.

WROUGHT MEAT HOOKS.
TO SCREW ON.
Fig. 485.

TINNED.

Extra heavy.

No. 20, Size of Steel $\frac{7}{8}$ inch. per gro., $16.00$

Three dozen in a box.
WROUGHT QUARTER HOOKS.
TO SCREW ON.

Fig. 486.

TINNED.

Nos. .......................... 35 36 37 38 39
Per gross ..................... $4.50 5.50 7.00 9.00 11.00
Size of Steel ..................... $\frac{1}{4}$ \(\frac{1}{2}\) \(\frac{3}{4}\) inch.

One-quarter gross in a box.

WROUGHT QUARTER HOOKS.
TO SCREW ON.

Fig. 487.

TINNED.

Nos. .......................... 40 41 42 43 44
Per gross ..................... $5.00 6.00 8.00 10.00 12.00
Size of Steel ..................... $\frac{1}{4}$ \(\frac{1}{6}\) \(\frac{1}{8}\) \(\frac{1}{16}\) \(\frac{1}{32}\) inch.

One-quarter gross in a box.
WROUGHT STEEL TONGUE HOOKS.

Fig. 488.

Full size cut.

No. 5, Length 1½ in. Price $1.60 per 100
Extra, if Tinned, 4 cts. per 100, net.

500 in a box.

WROUGHT STEEL HAM HOOKS.

Fig. 489.

Full size cuts.

No. 1, length 2½ in. Price $2.50 per 100
No. 2, " 3 in. " 2.75 per 100

500 in a box.

Extra, if Tinned, 8 cts. per 100, net.
WROUGHT MEAT HOOKS, TO DRIVE.
SOLID STEEL.

Fig. 490.

Full size cuts.

TINNED.

Nos. .................................. 0  1  2  3  4  5
Per gross .............................. $3.00 3.64 3.94 5.20 6.85 7.46
Size of Steel ......................... 7/64 1/4 1/4 7/32 1/8 3/32 in.

One-half gross in a box.

WROUGHT MEAT HOOKS, TO SCREW IN.
SOLID STEEL.

Fig. 491.

Full size cuts.

TINNED.

Nos ..................................... 1  2  3  4  5
Per gross .............................. $3.64 3.94 5.20 6.85 7.46
Size of Steel ......................... 1/4 1/4 7/32 1/8 3/32 in.

One-half gross in a box.
WROUGHT BAR MUTTON HOOKS.

Fig. 492.

TINNED.

Made from 3/8 in square steel.

No. 24. For 2 inch bar.................. per gross, $12.00

Made also for the following odd size bars:

1/2 1 1 1/2 2 1/2 inch............. per gross, $12.00

One dozen in a box.

WROUGHT BAR MUTTON HOOKS.

Fig. 493.

TINNED.

Made from 5/8 in square steel.

No. 26. For 2 inch bar................. per gross, $15.00

Made for 2 inch bar only.

One dozen in a box.
HEAVY WROUGHT BAR HOOKS.

Fig. 494.

TINNED.

Made from \( \frac{7}{8} \) in. square steel.

No. 22, For 2 inch bar.......................... per gross, $18.00

Made also for the following odd size bars:

\[
\frac{1}{4} \quad 1\frac{1}{2} \quad 1\frac{3}{4} \quad 2\frac{1}{4} \quad 2\frac{1}{2} \quad 3 \text{ inch} \quad \text{per gross, } \$18.00
\]

One dozen in a box.

EXTRA HEAVY WROUGHT BAR HOOKS.

Fig. 495.

TINNED.

Made from \( \frac{1}{2} \) in. square steel.

No. 28, For 2 inch bar.......................... per gross, $21.00

Made also for the following odd size bars:

\[
\frac{1}{4} \quad 1\frac{1}{2} \quad 1\frac{3}{4} \quad 2\frac{1}{4} \quad 2\frac{1}{2} \quad 3 \text{ inch} \quad \text{per gross, } \$21.00
\]

One dozen in a box.
BUTCHERS' BLOCK PINS.

**Fig. 496.**

No. 1, ½ in. Solid Steel, 18 in. long, Polished, per doz., $10.00
No. 2, ¾ in. " " 18 in. " Tinned, " 8.00

Half dozen in a package.

BUTCHERS' BLOCK PINS.

**Fig. 497.**

No. 3, ½ in. Solid Steel, 17 in. long, Tinned, per doz., $5.50
No. 4, ¾ in. " " 16 in. " " 4.00

Half dozen in a package.
ROAST BEEF TIERS.

SOLID TOOL STEEL.

Fig. 498.

POLISHED.

No. 200, Full length 15 ins. per doz., $12.00
Half dozen in a box.

HAM STRINGERS.

Fig. 499.

BLUED AND POLISHED.

No. 1, Cast Steel per doz., $6.00
Half dozen in a box.
HAM STRINGERS.

Fig. 500.

BLUED AND POLISHED.

No. 2, Cast Steel .................. per doz., $6.00

Half dozen in a box.

HAM STRINGERS.

Fig 501.

BLUED AND POLISHED.

No. 3, Cast Steel .................. per doz., $6.00

Half dozen in a box.
HAM TRIERS.
WESTERN PATTERN.
Fig. 502.

OIL TEMPERED. POLISHED.

No. 1, Cast Steel, full length 12 ins........ per doz., $4.50
No. 2, " " " 13½ ins...... " 6.50

Half dozen in a box.

HAM TRIERS.
EASTERN PATTERN.
Fig. 503.

OIL TEMPERED. POLISHED.

No. 3, Cast Steel, full length 12 ins.......... per doz., $4.50
No. 4, " " " 13½ ins........ " 6.50

Half dozen in a box.
SHIP SCRAPERS.
FIVE INCH CUT.

Fig. 504.

Length of handle 16 inches.

No. 8, Cast Steel Blades, No. 14 Steel per doz., $5.00

BUTCHERS' BLOCK SCRAPERS.

Fig. 505.

OIL TEMPERED.

No. 28, Cast Steel Blades per doz., $6.00

Half dozen in a box.
FLOOR SCRAPERS.

Fig. 506.

For Packers and Warehouse Use.

No. 1, Steel Blades, 7 inches long ........ per doz., $9.00
Half dozen in a box.

IRON HOG SCRAPERS.

Fig. 507.

4 INCH DIAMETER.

For Farmers use. Bolt through handle.

No. 8, Made of No. 20 Sheet Iron .......... per doz., $1.50
Half dozen in a box.
A good scraper for a cheap one.
CAST STEEL HOG SCRAPERS.

Fig. 508.

4 INCH DIAMETER.

No. 4, Made of No. 18 Sheet Steel............ per doz., $4.00

Half dozen in a box.

Our Hog Scrapers are made from a good quality of sheet steel and ground on edge, bolted together, solid and strong. They are without doubt the best in the market.

Fig. 509.

4½ INCH DIAMETER.

No. 6, Made of No. 18 Sheet Steel............ per doz., $5.00

Half dozen in a box.

This is the size and kind used in the large packing houses in Chicago.
BOX SCRAPERS.

Fig. 510.

WARRANTED BEST TOOL STEEL.

No. 2.......................... per doz., $6.00

Half dozen in a box.

The best Scraper made; it will work anywhere, on Boxes, Barrels or Kegs.

2½ INCH CUT.

Wrought Steel Shanks.

No. 6, Cast Steel Blades.............. per doz., $6.00

Half dozen in a box.
BOX SCRAPERS.

Fig. 512.

4½ INCH CUT.

Blade warranted best tool steel.

No. 7 .................................................. per doz., $18.00

Half dozen in a box.

MISCELLANEOUS TOOLS.
BOX CHISELS.

Fig. 513.

SOLID CAST STEEL.

No. 1, 12 inch Full Polish per doz., $8.00
No. 2, 14 inch " " 8.75
No. 3, 12 inch Half " " 7.00
No. 4, 14 inch " " 7.75

Half dozen in a box.

No. 9, Polished Face, Handle ½ iron, 18 inches long per doz., $12.00

Half dozen in a package.
CRATE OPENERS.

Fig. 517.

SOLID CAST STEEL OF SUPERIOR QUALITY.

Drop Forged complete in one piece, therefore the heads will not become loose.

Length 9 inches.

No. 13, Octagon Head, Full Polished......per doz., $9.00
No. 14, " " Nickel Plated...... " 10.00

One dozen in a box.

CRATE OPENERS.

Fig. 518.

SOLID CAST STEEL OF SUPERIOR QUALITY.

Drop Forged complete in one piece, therefore the heads will not become loose.

Length 9 inches.

No. 15, Round Head, Full Polished.........per doz., $10.00
No. 16, " " Nickel Plated...... " 11.00

One dozen in a box.
BENCH STOPS.

GERMAN PATTERN.

Fig. 519.

Designed for Carvers and Cabinet Makers.

No. 1, Polished .................. per dozen pairs, $15.00
No. 2, Painted .................. "  " 13.00

Half dozen pairs in a box.

CAST STEEL SCREW DRIVER BITS.

EXTRA QUALITY AND FINISH.

Fig. 520.

BLUED AND POLISHED.

We guarantee this Bit equal to any in the market.

No. 20, Beveled point ............... per doz., $1.50

One dozen in a box.
CAST STEEL SCREW DRIVER BITS.

Fig. 521.

No. 1, Full polished per doz., $1.00

One dozen in a box.

Fig. 522.

No. 2, Full polished per doz., $1.00

One dozen in a box.
COUNTERSINK BITS.
FOR IRON.

Fig. 523.

BLUED AND POLISHED.

No. 3, Flat. Cast Steel.................. per doz., $1.25

One dozen in a box.

COUNTERSINK BITS.
FOR BRASS.

Fig. 524.

BLUED AND POLISHED.

No. 4, Rose. Cast Steel.................. per doz., $1.25

One dozen in a box.
COUNTERSINK BITS.

FOR WOOD.

Fig. 525.

BLUED AND POLISHED.

No. 5, Snail. Cast Steel.................. per doz., $1.25

One dozen in a box.

REAMER BITS.

Fig. 526.

BEST TOOL STEEL.

No. 8, Square. Full polished.............. per doz., $1.50

One dozen in a box.
REAMER BITS.

Fig. 527.

BEST TOOL STEEL.

No. 9, Half Round. Full polished...........per doz., $1.80

One dozen in a box.

Fig. 528.

BEST TOOL STEEL.

No. 10, Octagon. Full polished..............per doz., $2.00

One dozen in a box.
V. & B. HANDY WRENCHES.

SOLID CAST STEEL OF SUPERIOR QUALITY,
OIL TEMPERED.

Fig. 529.

No. 0.
BLUED AND POLISHED.

Fig. 530.

No. 1.
BLUED AND POLISHED.

Nos. ................................. 0  1
Holds Pipe, inches .............. ½ to ¾  ¾ to 2
Holds Round Iron, inches ...... ½ to ¾  ¾ to 2
Length, inches ................ 4  5½
Per dozen ........................... $3.00  $4.00

One dozen in a box.

V. & B. HANDY WRENCHES.

SOLID STEEL OF SUPERIOR QUALITY,
OIL TEMPERED.

Fig. 531.

No. 12.
Drop Forged. Patented July 26, 1898.

Fig. 532.

No. 13.
Drop Forged. Patented July 26, 1898.

Nos. .................................  12  13
Holds Pipe, inches .............. ½ to ¾  ¾ to 1
Holds Round Iron, inches ...... ½ to ¾  ¾ to 2¼
Length, inches ................  5½  7
Per dozen ........................... $4.50  $8.00

No. 12 one dozen in a box.
No. 13 half dozen in a box.
V. & B. HANDY WRENCHES.

SOLID CAST STEEL OF SUPERIOR QUALITY, DROP FORGED. OIL TEMPERED.

Fig. 533.

Nos. 2, 3, 4, 5
Holds Pipe, inches  2  3  4  5
Holds Round Iron, inches  9  15  22  27
Length, inches  8  11  14  16
Per dozen  $12.00  24.00  36.00  54.00

No. 2, one dozen in a box.
Nos. 3, 4, 5, packed loose.

V. & B. HANDY WRENCHES.

SOLID CAST STEEL OF SUPERIOR QUALITY, DROP FORGED. OIL TEMPERED.

Fig. 534.

TWIN PATTERN.

Holds Pipe  1/2 to 3/4 ins.
Holds Round Iron  1/4 to 1 ins.
Length  10 ins.
Per dozen  $18.00

Half dozen in a box.
ALWAYS READY WRENCHES.

SOLID CAST STEEL OF SUPERIOR QUALITY, DROP FORGED. OIL TEMPERED.

Fig. 535.

NICKEL PLATED.

<table>
<thead>
<tr>
<th>Nos.</th>
<th>1</th>
<th>2</th>
<th>2½</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Holds Nuts or Pipe</td>
<td>1/4 to 3/8</td>
<td>1/2 to 1</td>
<td>1/2 to 1 1/2</td>
<td>3/8 to 1 1/2</td>
</tr>
<tr>
<td>Per dozen</td>
<td>$5.00</td>
<td>6.75</td>
<td>10.50</td>
<td>16.00</td>
</tr>
</tbody>
</table>

Fig. 536.

CHASED BODY. POLISHED RIBS.

<table>
<thead>
<tr>
<th>Nos.</th>
<th>101</th>
<th>102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Holds Nuts or Pipe</td>
<td>1/4 to 3/8</td>
<td>1/2 to 1</td>
</tr>
<tr>
<td>Per dozen</td>
<td>$4.60</td>
<td>6.30</td>
</tr>
</tbody>
</table>
THE V. & B. PIPE WRENCHES.

Patented December 6, 1898.

Fig. 537.

Cut showing position when working on 1½ inch Pipe and guaranteed not to crush nor lock on any size pipe within its range.

Cut showing position when used on Hexagon Nuts. It will not mar the nut as its positive grip never slips.

Cut showing position when in use on Square Nuts. It will be seen that the harder the pull the tighter the nut is gripped, and no matter how greasy the nut may be the grip will never slip.

Made in four sizes, 10, 14, 18, 24 inches.

For description and prices see next page.

THE V. & B. PIPE WRENCH.

Patented December 6, 1898.

As will be seen from the cuts on opposite page, this Wrench consists of only two pieces, which are drop forged from cast steel; there is no malleable or wrought iron used in its construction. It is solid cast steel from end to end; it has no threads to rust and wear out, nor springs to break; it cannot lock nor wedge on the pipe, and will release its grip instantly when the pressure on the handle is removed. The teeth are in line tangent to the circumference of the pipe, which, combined with the oscillating angular toothed jaw, absolutely prevents crushing or slipping on the pipe. The jaws are oil tempered and the teeth can be readily sharpened with a file when dull.

We claim for the V. & B. Pipe Wrench, simplicity of construction, combined with lightness and strength, and its positive rigidity when under a strain; there is no wrench that excels it. Every wrench is warranted to do all we claim for it.

<table>
<thead>
<tr>
<th>No.</th>
<th>Takes Pipe</th>
<th>Length</th>
<th>Weight</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1 1/8 to 1</td>
<td>10 in.</td>
<td>1 1/2 lbs.</td>
<td>$2.25 each</td>
</tr>
<tr>
<td>14</td>
<td>1 1/2 to 1 3/4</td>
<td>14 in.</td>
<td>2 1/2 lbs.</td>
<td>3.00 &quot;</td>
</tr>
<tr>
<td>18</td>
<td>1 3/4 to 2</td>
<td>18 in.</td>
<td>4 3/4 lbs.</td>
<td>4.00 &quot;</td>
</tr>
<tr>
<td>24</td>
<td>2 to 2 1/4</td>
<td>24 in.</td>
<td>7 lbs.</td>
<td>6.00 &quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Extra Jaws</th>
<th>Extra Handles</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>$0.75 each</td>
<td>$1.50 each</td>
</tr>
<tr>
<td>14</td>
<td>1.00 &quot; &quot;</td>
<td>2.00 &quot; &quot;</td>
</tr>
<tr>
<td>18</td>
<td>1.33 &quot; &quot;</td>
<td>2.67 &quot; &quot;</td>
</tr>
<tr>
<td>24</td>
<td>2.00 &quot; &quot;</td>
<td>4.00 &quot; &quot;</td>
</tr>
</tbody>
</table>

Nos. 10 and 14, half dozen in a box.
Nos. 18 and 24, packed loose.
POST HOLE DIGGERS.

Fig. 538.

Price per dozen $15.00
Extra Handles, per dozen pieces 3.00

Quarter dozen in a bundle.

TELEGRAPH AUGERS.
(FOR POST AUGERS SEE PAGE 148.)

Fig. 539.

These Augers are hand made and contain from three to four times the material of the ordinary post hole augers for fence holes, and the price is based upon this extra cost. They are designed for heavy work.

<table>
<thead>
<tr>
<th>Size</th>
<th>Complete with 2 foot handle</th>
<th>Points only</th>
<th>Blades only</th>
<th>Bottoms only</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>$7.00</td>
<td>$1.00</td>
<td>$1.00</td>
<td>$3.00</td>
</tr>
<tr>
<td>12</td>
<td>8.00</td>
<td>1.00</td>
<td>1.50</td>
<td>4.00</td>
</tr>
<tr>
<td>14</td>
<td>9.00</td>
<td>1.00</td>
<td>2.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Extra price for 8 foot handles, 25 cents each net.
POST HOLE AUGERS.

(FOR TELEGRAPH AUGERS SEE PAGE 147.)

Fig. 540.

Vaughan's Post Hole Augers are the most popular in the market.

Sizes 4, 5, 6, 7, 8, 9, 10 inch per doz., $18.00

Part No. 1.

Top Casting and Hollow Tube Price each, 50 cts.

Fig. 542.

No. 2.

Auger Point each, 28 cts.

Fig. 543.

No. 3, BLADES.

4, 5, 6, 7, 8, 9, 10 inch each, 36 cts.

Fig. 544.

No. 4, AUGER BOTTOM.

Part No. 4 is the point and blades riveted together.

4, 5, 6, 7, 8, 9, 10 inch Bottoms each, $1.00
HAND COLD CHISELS.

Fig. 545.

OIL FINISHED.

No. 40 made of American Cast Steel.

Sizes of Octagon Steel............. \( \frac{4}{8} \) \( \frac{1}{2} \) \( \frac{5}{8} \) \( \frac{3}{4} \) \( \frac{7}{8} \) 1 inch
Full Length......................5\( \frac{1}{2} \) 6 6\( \frac{1}{2} \) 7\( \frac{1}{2} \) 8 8 inch
Average weight per dozen......2\( \frac{1}{2} \) 4 7 11 15 20 lbs.
No. 40, made of American Solid Cast Steel...per lb., 30 cts.
No. 45, " Extra Quality " " " 40 cts.
No. 60, " Jessop's English " " " 50 cts.

Half dozen in a box.

MACHINISTS' CAPE CHISELS.

Fig. 546.

OIL FINISHED.

No. 50 made of American Cast Steel.

Sizes of Cutting Edge............. \( \frac{4}{8} \) \( \frac{1}{2} \) \( \frac{5}{8} \) \( \frac{3}{4} \) \( \frac{7}{8} \) \( \frac{9}{16} \) \( \frac{5}{32} \) \( \frac{7}{32} \) \( \frac{9}{32} \) \( \frac{11}{32} \) \( \frac{13}{32} \) \( \frac{15}{32} \) \( \frac{17}{32} \) inch
Sizes of Octagon Steel............. \( \frac{4}{8} \) \( \frac{1}{2} \) \( \frac{5}{8} \) \( \frac{3}{4} \) \( \frac{7}{8} \) \( \frac{9}{16} \) \( \frac{5}{32} \) \( \frac{7}{32} \) \( \frac{9}{32} \) \( \frac{11}{32} \) \( \frac{13}{32} \) \( \frac{15}{32} \) \( \frac{17}{32} \) inch

When ordering give size of Cutting Edge wanted.

No. 50 made of American Solid Cast Steel...per lb., 40 cts.
No. 70 " Jessop's English " " " 60 cts.

Half dozen in a box.
MACHINISTS' DIAMOND POINT CHISELS.

Fig. 547.

OIL FINISHED.

No. 55 made of American Cast Steel.

Sizes of Point: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{5}{32}$, $\frac{1}{4}$, $\frac{5}{16}$ inch

Sizes of Octagon Steel: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{5}{32}$, $\frac{1}{4}$, $\frac{5}{16}$ inch

When ordering give size of POINT wanted.

No. 55, made of American Solid Cast Steel, per lb., 45 cts.

No. 75, "Jessop’s English" 65 cts.

Half dozen in a box.

MACHINISTS' ROUND NOSE CHISELS.

Fig. 548.

OIL FINISHED.

No. 65 made of American Cast Steel.

Sizes of Point: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{5}{32}$, $\frac{1}{4}$, $\frac{5}{16}$ inch

Sizes of Octagon Steel: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{5}{32}$, $\frac{1}{4}$, $\frac{5}{16}$ inch

When ordering give size of POINT wanted.

No. 65, made of American Solid Cast Steel, per lb., 45 cts.

No. 85, "Jessop’s English" 65 cts.

Half dozen in a box.
LONG BRICK CHISELS.
FOR DIGGING THROUGH BRICK WALLS.
Fig. 549.

OIL FINISHED.

Size of Octagon Steel, \( \frac{3}{4} \), \( \frac{5}{8} \), Length 16 inches.

\( \frac{3}{4} \) 18 "
\( \frac{5}{8} \) 20 "

Price -------------------------------- per lb., 30 cts.

BRICK LAYERS' CHISELS.

Fig. 550.

OIL FINISHED.

Solid Cast Steel, 3\( \frac{1}{2} \), 4, 4\( \frac{1}{2} \) in wide per lb., 70 cts.
BELT PUNCHES, TO DRIVE.
Fig. 551.

SOLID STEEL, DRILLED AND REAMED.
Full Polished or Polished Pipe with Oil Finish Shank.
Nos. 1, 2, 3, 4, 5, 6 .................. per doz., $2.00
Nos. 7, 8, 9 .............................. 2.25
Nos. 10, 11, 12 ......................... 2.50
Nos. 13, 14 .............................. 5.00
No. 14 Special ............................ 5.25

One dozen in a box.

FARMERS' MACHINE PUNCHES.
Fig. 552.

NOS. ................. 00 0 1 2 3 4 5 6
SIZE ................... \[\frac{1}{8}\] \[\frac{5}{32}\] \[\frac{7}{32}\] \[\frac{1}{4}\] \[\frac{5}{32}\] \[\frac{1}{8}\] \[\frac{3}{32}\] \[\frac{1}{8}\]

Made of \(\frac{1}{2}\) inch Octagon Cast Steel.
Length 6 inches, average weight per doz., 3\(\frac{1}{2}\) lbs.
Price .................................................. per lb., 30 cts.

Half dozen in a box.
CAST STEEL NAIL SETS.

Fig. 553.

HALF POLISHED.

No. 5, Octagon Steel .......................... per gross, $6.00

One quarter gross in a box.

CAST STEEL NAIL SETS.

EXTRA QUALITY. FINELY TEMPERED.

Fig. 554.

Chased Point.
Chased Body. Full Polished.

No. 10, Assorted ½ ⅛, ⅛ points .............. per gross, $12.00

One dozen in a box.
FARMERS' RIVET SETS AND HEADERS.

(FOR TINNERS' RIVET SETS SEE PAGE 165.)

Made for and Numbered the same as Copper Rivets.

Fig. 555.

SOLID STEEL.

No. 7 fits No. 7 Copper Rivet, Half Polish...per doz., $5.00
No. 8 " 8 " " " " " " 5.00
No. 9 " 9 " " " " " " 5.00
No. 10 " 10 " " " " " " 5.00

Half dozen in a box.

OYSTERS KNIVES.

NEW ORLEANS PATTERN.

Fig. 556.

Blade made of Best Tool Steel.
Polished Applewood Handle.

No. 50.......................................................... per doz., $5.00
TINNERS' HOLLOW PUNCHES.

Fig. 557.

All Sizes are made of Solid Cast Steel.

Sizes: $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $1$ $1\frac{1}{8}$ $1\frac{1}{4}$ $1\frac{7}{8}$ $1\frac{1}{2}$ $1\frac{3}{4}$ $2$ $2\frac{1}{4}$ $2\frac{1}{8}$ $2\frac{1}{2}$ $2\frac{3}{4}$ $3$ inch... per inch $1.00$
TINNERS' HAND GROOVERS.

Fig. 558.

SOLID CAST STEEL.

No. 00, Width of Groove, 1/8 inch per doz., $9.00
No. 0, " 1/16 " 7.50
No. 1, " 3/32 " 7.50
No. 2, " 1/8 " 7.50
No. 3, " 5/32 " 6.00
No. 4, " 3/16 " 6.00
No. 5, " 7/32 " 4.44
No. 6, " 1/4 " 4.44

Half dozen in a box.

TINNERS' RIVET SETS AND HEADERS.

(For Farmers' Rivet Sets see Page 160.)

Fig. 559.

Best Cast Steel, Nos. 00 and 0 per doz., $9.00
" 1 " 2 " 7.50
" 3 " 4 " 6.00
" 5 " 6 " 4.44
" 7 " 8 " 3.84

Size of iron and copper rivets each number fits:
No. 00 fits 12 lb. Iron Rivets.
No. 0 " 10 " " "
No. 1 " 8 " " "
No. 2 " 6 " " "
No. 3 " 5 " " " and No. 7 Copper Rivets.
No. 4 " 3 " " "
No. 5 " 2 " " "
No. 6 " 1 " " "
No. 7 " 1 " " "
No. 8 " 1/2 " Half dozen in a box.
TINNERS' MARKING AWLS.

Fig. 560.

Cast Steel and Oil Tempered............. per doz., $1.00

One dozen in a box.

SET TINNERS' SOLID PUNCHES.

Fig. 561.

CAST STEEL.

1 Prick Punch.
1 Solid Punch each, No. 3, 4, 5.
1 Wire Chisel, ¼ inch.
1 Lantern Chisel.

Price per set.................................. 75 cents.

One set in a box.
TINNERS’ WIRE CHISELS.

Fig. 562.

MADE OF BEST CAST STEEL.

Size.................... 1/4 5/32 5/16 1/8 1 1 1/2 inch
Per doz.................. $1.15 1.25 1.33 1.40 1.50 1.75

One dozen in a box.

TINNERS’ SOLID ROUND PUNCHES.

Fig. 563.

Made of 1/8, 1/16 and 9/64 inch Square Cast Steel.

No. 00, 0, 1, 2, 3, 4, 5, 6, 7, 8... per doz., $1.00

Size, 1/8, 5/32, 5/16, 1/8, 1/4, 1/8, 1/4, 3/8, 5/8...

Size of iron rivets each number fits:

No. 0, 1, 2, 3, 4, 5, 6, 7, 8

Rivets, 12 lb, 10 lb, 8 lb, 6 lb, 4 lb, 2 lb, 1 lb, 12 oz, 8 oz

One dozen in a box.
TINNERS' PRICK PUNCHES.

Fig. 564.

Made of $\frac{3}{4}$ Octagon Cast Steel per doz., $1.25$

One dozen in a box.

---

TINNERS' CENTER PUNCHES.

Fig. 565.

Made of $\frac{3}{8}$ Octagon Cast Steel per doz., $1.25$

One dozen in a box.