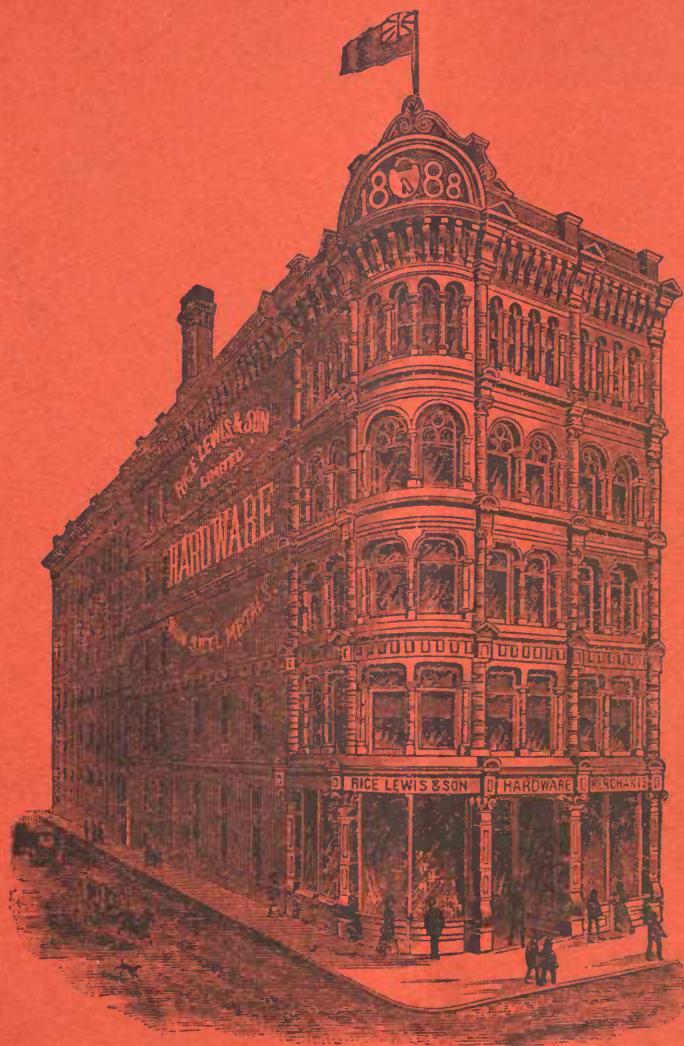


Bicycle Accessories

1900



1900

RICE LEWIS & SON

LIMITED

TORONTO,
CANADA

TO THE TRADE

In presenting this our SIXTH ANNUAL CATALOGUE of BICYCLE ACCESSORIES, COMPONENT PARTS, etc., issued for the benefit of BICYCLE DEALERS, MANUFACTURERS and REPAIR MEN, we beg to call special attention to the many new lines we are now handling, many of which we are SOLE AGENTS for.

GUARANTEED GOODS are sold only on Maker's Guarantee; we assume no personal liability.

IN ORDERING give full particulars. It will often save correspondence and delay by referring to Figures and Numbers in Catalogue. Parties not having an account will please remit with order, and if goods are to be sent by mail include sufficient for postage. GOODS OR SAMPLES ORDERED OR RETURNED BY MAIL ARE AT CUSTOMER'S RISK.

TERMS: NET CASH.

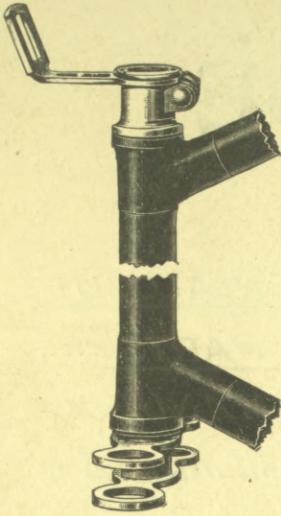
RICE LEWIS & SON,
Limited.

TORONTO, February, 1900.

AR
688.76602
R37.2
1900

B. S. A. FITTINGS

NICKEL-PLATED POINTS. FULL MACHINED.



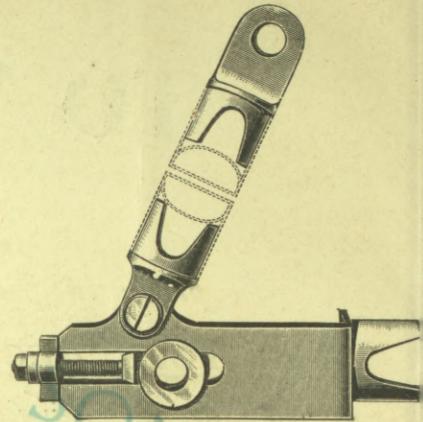
No. 1

Gents' Ball Head, $1\frac{1}{8}$ or $1\frac{1}{4}$ "
 Sizes $7\frac{1}{2}$ to $9\frac{1}{2}$ ".
 Each, \$6.30.



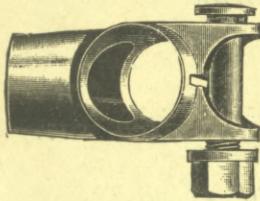
No. 2

Ladies' Ball Head, $1\frac{1}{8}$ "
 Sizes $7\frac{1}{2}$ to $9\frac{1}{2}$ ".
 Each, \$6.30.



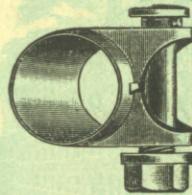
No. 9

Rear Fork and Back Stay Ends
 for D tubes, and Chain adjusters.
 Per set, \$2.15.



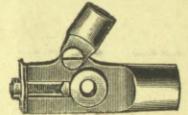
No. 3

Gents' Seat Post Lug and
 N.P. Bolt, $1\frac{1}{8}$ x 1 ".
 Each, \$1.00.



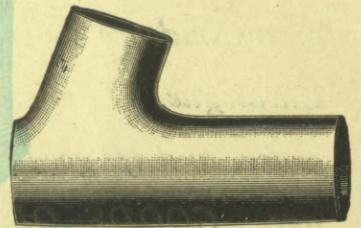
No. 4

Ladies' Seat Post Lug and
 N.P. Bolt, $1\frac{1}{8}$ ".
 Each, \$1.00.



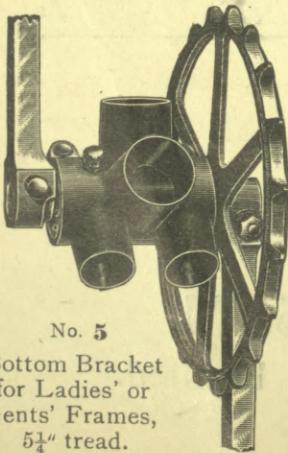
No. 10

Rear Fork and Lower Back Stay
 End and Chain Adjusters.
 Machined $\frac{7}{8}$ " and $\frac{5}{8}$ ", round tubes.
 Per pair, \$1.20.



No. 11

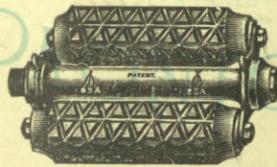
Ladies' Top Tube Lug, $1\frac{1}{8}$ x $1\frac{1}{8}$ ".
 Each, \$1.00.



No. 5

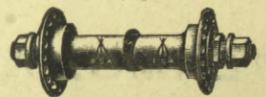
Bottom Bracket
 for Ladies' or
 Gents' Frames,
 $5\frac{1}{4}$ " tread.

16 to 20 teeth, each \$7.00 ;
 sprockets over 20 teeth,
 add 25c. tooth to list.



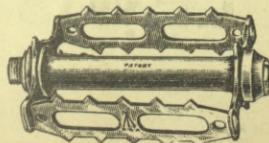
No. 6

Rubber Pedal.



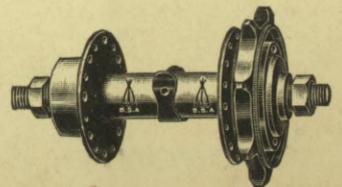
No. 12

Front Hub.



No. 7

Rat-trap Pedal.



No. 13

Rear Hub.

SETS OF B. S. A. FITTINGS

MACHINED READY FOR TUBES WITH NICKEL-PLATED POINTS

B. S. A. SET No. 1

Gents' or ladies' roadster frame, consisting of bottom bracket (No. 5), 16 to 20 teeth; ball head (No. 1), seat post lug with nickel-plated bolt (No. 3), D pattern rear fork ends with nickel-plated chain adjusters and D pattern back stay ends (No. 8), pair of hubs (Nos. 12 and 13), 7 or 8 teeth; D pattern weldless rear forks and back stay tubes (Nos. 85 and 86)PRICE PER SET, \$20.00

B. S. A. SET No. 2

Gents' or ladies' roadster, frame for round rear tubes, consisting of bottom bracket (No. 5), 16 to 20 teeth; ball head (No. 1), seat post lug with nickel-plated bolt (No. 3), rear fork ends with nickel-plated chain adjusters and lower back stay end (No. 10), pair of hubs (Nos. 12 and 13).....PRICE PER SET, \$18.00.

SIZE OF TUBING

For gents', 1" top, 1 1/8" lower and down tubes, 7/8" rear forks. For ladies', 1 1/8" top, lower and down tubes, 7/8" rear forks.

B. S. A. SUNDRY PARTS

FOR REPAIRS ONLY

Back hub cups	each, \$0 35	Fork end back stay screws	each, \$0 05
Front hub cups	" 25	Seat-lug bolt, complete with nut and washer	" 30
Back hub cones	" 40	Seat-lug nuts	" 10
Front hub cones	" 25	" washers	" 05
Back hub nuts	" 05	Ball head top lug	" 60
Front hub nuts	" 05	" bottom lug	" 75
Back hub spindle and cones complete	" 1 00	Ball head, inside rings	" 20
Front " " "	" 75	" bottom socket rings	" 30
Back hub lock nuts	" 20	Handle-bar clips complete	" 1 50
Hub chain wheel, 7 teeth	" 80	Ball head bolt, complete with nut	" 25
" " 8 "	" 80	" " nuts	" 10
" " 9 "	" 1 00	" lock nuts	" 25
" " 10 "	" 1 20	" lock washers and lamp brackets, combined	" 30
Bottom bracket wheels and cranks combined, 16 to 20 teeth	" 3 00	Chain adjusters, N.P.	per pair, 60
" " " " 21 teeth	" 3 25	" " nuts	each, 05
" " " " 22 "	" 3 50	" " caps	" 10
" " " " 23 "	" 3 80	Hub steps	" 40
" " " " 24 "	" 4 00	Bottom bracket oil cups	" 15
Plain cranks, 6 or 6 1/2 inches long	" 1 50	Pedal pins	" 60
Crank cotter pins and nuts	" 20	" centres	" 60
Crank end screws	" 10	" cones	" 30
Spindles for bottom brackets	" 90	" locking nuts	" 05
Bottom bracket body	" 1 50	" side plates	" 15
Bottom bracket locking pin and nut	" 20	" ends	" 50
Bottom bracket cups	" 45	" dust caps	" 05

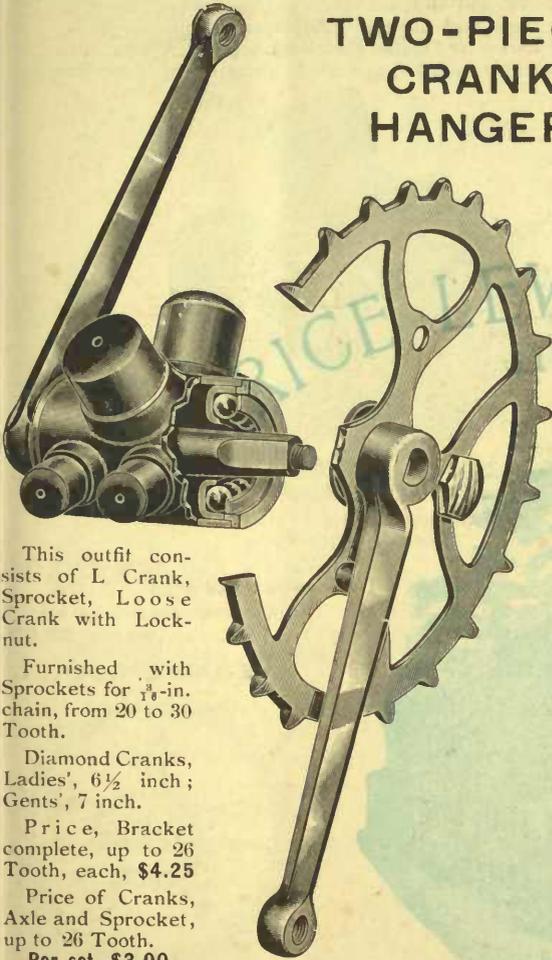


None Genuine without this Trade Mark



BRACKETS

THOMPSON No. 2 TWO-PIECE CRANK HANGER



This outfit consists of L Crank, Sprocket, Loose Crank with Locknut.

Furnished with Sprockets for $\frac{1}{8}$ -in. chain, from 20 to 30 Tooth.

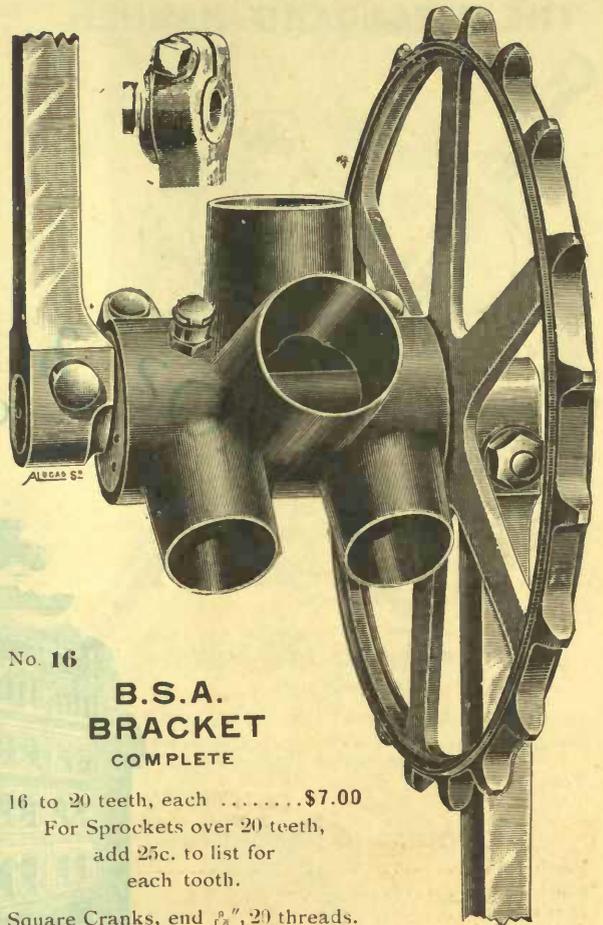
Diamond Cranks, Ladies', $6\frac{1}{2}$ inch; Gents', 7 inch.

Price, Bracket complete, up to 26 Tooth, each, \$4.25

Price of Cranks, Axle and Sprocket, up to 26 Tooth.

Per set, \$3.00.

B. S. A.



No. 16

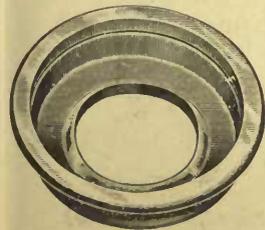
B.S.A. BRACKET COMPLETE

16 to 20 teeth, each \$7.00

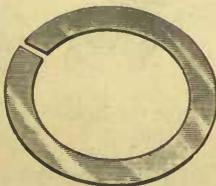
For Sprockets over 20 teeth, add 25c. to list for each tooth.

Square Cranks, end $\frac{1}{8}$ " , 20 threads.

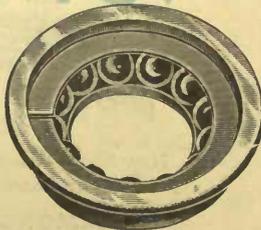
N.P. CRANK SHAFT FITTING



No. B-4 Hanger Cup for $13\frac{1}{8}$ " Balls. Each, 15c.



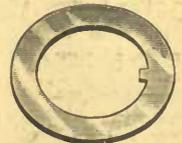
No. 04 Ball Retainer for No. B-4 Hanger Cup.



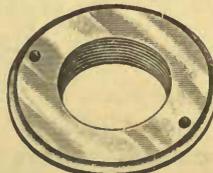
No. B-4 Hanger Cup and No. 04 Ball Retainer. Each, 15c.



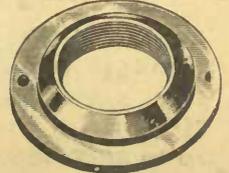
No. B-63 Locknut. Each, 6c.



No. B-84 Washer. Each, 3c.



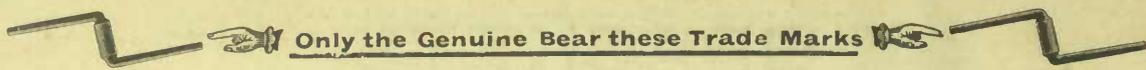
No. B-23 Adjusting Cone. Each, 25c.



No. B-44 Stationary Cone. Each, 25c.

Sets Crank Shaft Fittings, 6 pieces, N.P., as above, per set, 85c.

Adjusting Cone and Lock-nut tapped $.875''-23$ pitch (left), Stationary Cone tapped $.870''-30$ pitch (right).

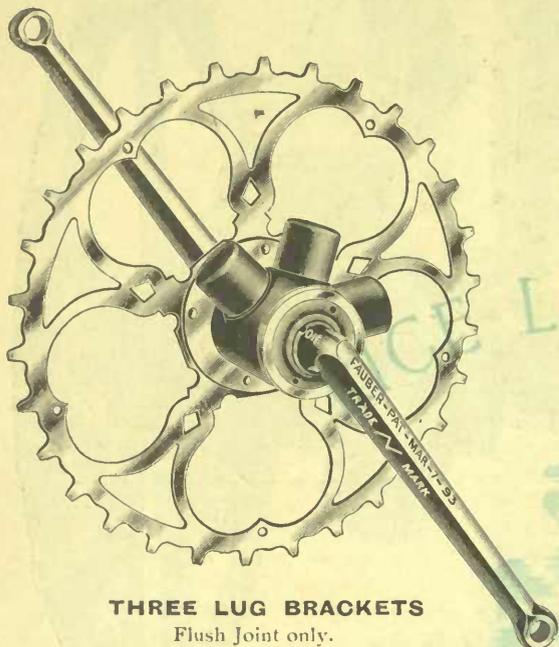


W. H. FAUBER BICYCLE HANGERS

THE STANDARD HANGER

FAUBER ECCENTRIC HANGERS

Eccentric and Bracket made of Drawn Sheet Steel.
 Light and Strong. Adjustment Simple.
 Secured by Double Positive Locking Device.
 Lugs Adjustable to any Angle or Combination of Tube Sizes.



THREE LUG BRACKETS

Flush Joint only.

Front and Middle Lugs	.....	1 1/8" and 1 1/4"
*Rear Lugs	.....	1 1/4" only.
	(Rear Lugs match Fauber Forks)	
Tread	.....	4 1/2" *Chain Line..... 1 1/2"
Tread	.....	4 7/8" Chain Line..... 1 3/8"

FOUR-LUG BRACKETS

Flush Joint	.....	1 1/4" x 7/8"
*Flush Joint	.....	1 1/8" x 3/8"
Flush Joint	.....	1" x 3/4"
Outside Joint	.....	1 1/4" x 7/8"
Outside Joint	.....	1 1/8" x 3/4"
Outside Joint	.....	1" x 3/4"

SPECIAL FOUR-LUG FLUSH BRACKET

For Ladies' Frame with Curved Lower Bar.

Flush Joint	.....	1 1/8" x 7/8"
Tread, 1 1/4" or 1 1/8"	.....	4 7/8"
Tread, 1"	.....	4 7/8" or 4 1/2"
Chain Line, 1 1/4" or 1 1/8"	.....	1 5/8"
Chain Line, 1"	.....	1 3/8" or 1 1/2"

ANGLES

Three and Four Lug Brackets.

		Front	Rear
2 1/2"	.....	Drop, 63°	63°
3"	" 61°	61°
3 1/2" to 4", 30 in. wheels	" 61°	59°

Special Ladies' Curved Lower Bar.

*2 1/2"	Drop, 110°	63°
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Up to 26-Tooth Sprockets ..each, \$5.00

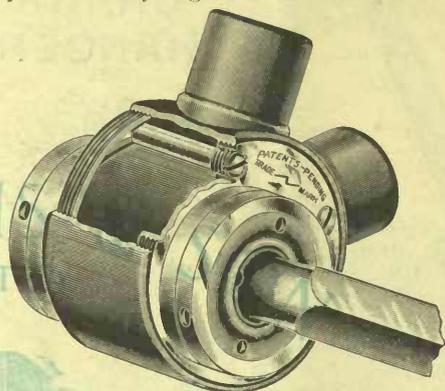
Add 15c. for every additional two teeth.

SPECIAL TAPS

For Re-Tapping Brackets after Brazing.

Right and Left Hand, in pairs, with Mandrel.

** Stock Sizes." All others to order.



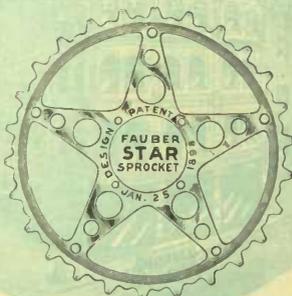
SPECIFICATIONS.

All Rear Lugs for 1 1/4"-16 Gauge Tube.
 (Match Fauber Forks).

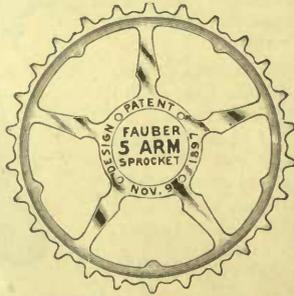
Other Lugs	.....	{ For 1 1/8", 20 or 22 Gauge Tube.
Tread	.....	" 1 1/4", 20 or 22 " Chain Line..... 1 1/2"

Up to 26-Tooth Sprockets ..each, \$8.00

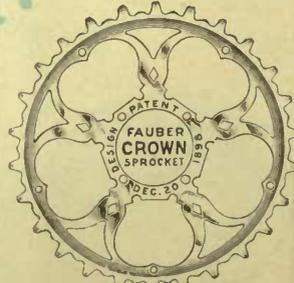
*STAR SPROCKET



FIVE-ARM SPROCKET



*CROWN SPROCKET



Sizes Sprockets—20, 22, 24, 25, 26,
 28, 30 and 32.
 Thickness—1/16".



New Spanner Lock Nut furnished
 on all Fauber hangers.

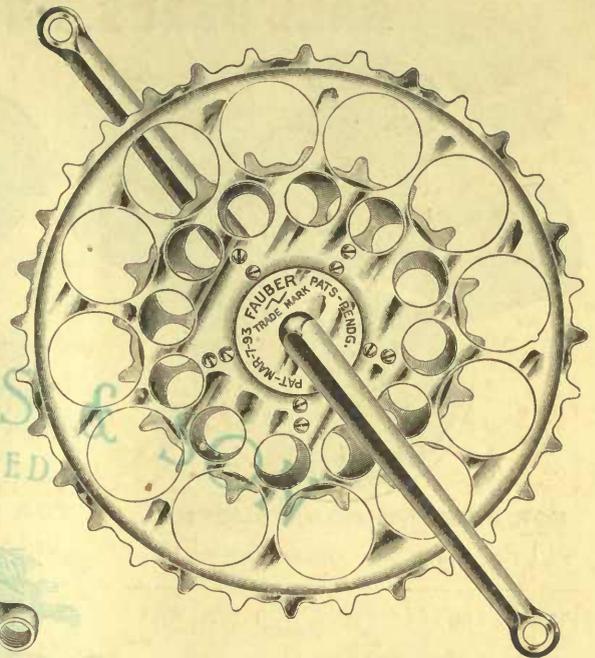
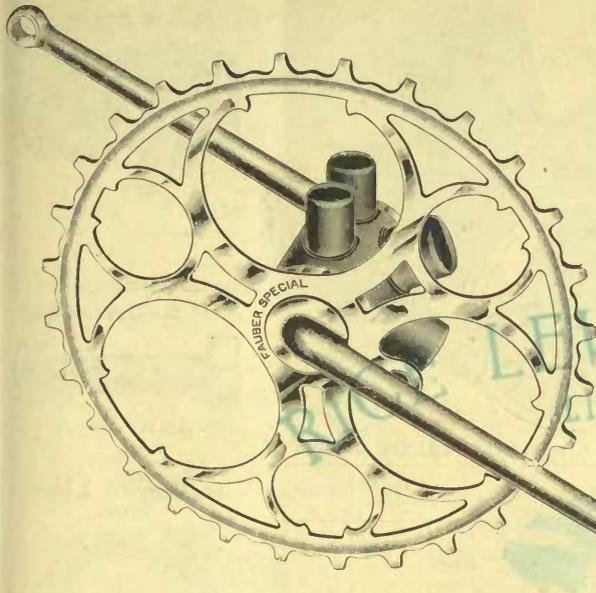
DIAMOND CRANK (as on above Brackets)



*Men's, 6 1/2", 7 and 7 1/2" *Ladies', 6 and 6 1/2" *Tread, 4 1/2" and 4 7/8"

W. H. FAUBER BICYCLE HANGERS

SPECIAL HANGER



THREE ARM

*Sizes Sprockets22, 24, 26 and 28 x $\frac{3}{8}$ "

THREE LUG BRACKETS

Flush Joint only.

Front and Middle Lugs $1\frac{1}{8}$ and $1\frac{1}{4}$ "
 Rear Lugs $1\frac{1}{4}$ " only
 (Match Fauber Forks).

Tread $4\frac{1}{2}$ " *Chain Line . . . $1\frac{1}{2}$ "
 Tread $4\frac{7}{8}$ " *Chain Line . . . $1\frac{5}{8}$ "

FOUR-LUG BRACKETS

Flush Joint $1\frac{1}{4}$ x $\frac{7}{8}$ "
 *Flush Joint $1\frac{1}{8}$ x $\frac{7}{8}$ "
 Flush Joint1 x $\frac{3}{4}$ "
 Outside Joint $1\frac{1}{4}$ x $\frac{7}{8}$ "
 Outside Joint $1\frac{1}{8}$ x $\frac{3}{4}$ "
 Outside Joint1 x $\frac{3}{4}$ "
 Tread for $1\frac{1}{4}$ and $1\frac{1}{8}$ " $4\frac{7}{8}$ "
 Chain Line for $1\frac{1}{4}$ and $1\frac{1}{8}$ " $1\frac{3}{8}$ "
 Tread for 1" $4\frac{7}{8}$ or $4\frac{1}{2}$ "
 Chain Line 1" $1\frac{3}{8}$ or $1\frac{1}{2}$ "

*SPECIAL FOUR-LUG FLUSH BRACKET

For Ladies' Frame with Curved Lower Bar.
 Flush Joint $1\frac{1}{8}$ x $\frac{7}{8}$ "

ANGLES

Three and Four-Lug Brackets.

	Front	Rear
$2\frac{1}{2}$ "	Drop, 63°	63°
3"	" 61°	61°
$3\frac{1}{2}$ to 4", 30 in. wheels	" 61°	59°
* $2\frac{1}{2}$ " , Special for Ladies' Curved Lower Bar	" 110°	63°

Up to 26-Tooth Sprockets, each, \$4.00.

Add 15c. for every additional two Teeth.

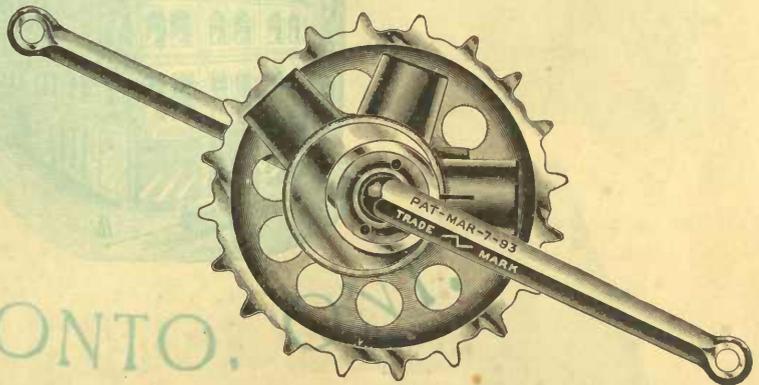
*Stock Sizes All others to order.

REAR HANGER

Tandems, Triplets and Quads.

Brackets for $1\frac{1}{4}$ " Tube. Cranks, Diamond Pattern, $6\frac{1}{2}$ and 7".
 Rear Driving Sprockets, 36 and 32 x $\frac{1}{4}$ ".

Middle Hanger for Triplets and Quads similar to Front, but fitted with two Sprockets and four Lugs on Brackets.



FRONT HANGER

TANDEM HANGERS

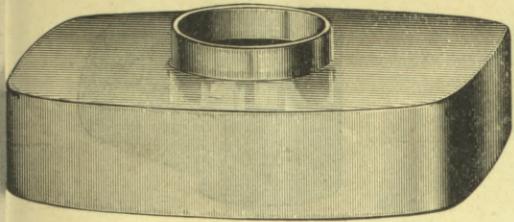
Brackets for $1\frac{1}{4}$ " Tube only. Cranks, Diamond Pattern, $6\frac{1}{2}$ and 7"
 Front Sprocket, 20 x $\frac{3}{8}$ ". Rear Driving Sprocket, 32 and 34 x $\frac{1}{4}$ ".
 Rear Driving Sprocket, Special Star, 32 x $\frac{1}{4}$ ".



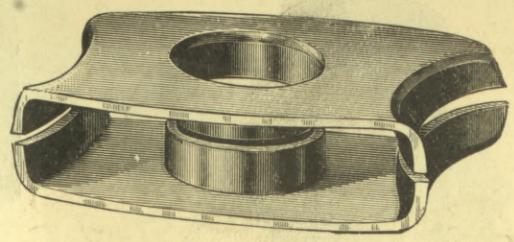
ROUND CRANK (as on Special Hanger)

*Men's— $6\frac{1}{2}$ and 7". *Ladies'—6 and $6\frac{1}{2}$ ".

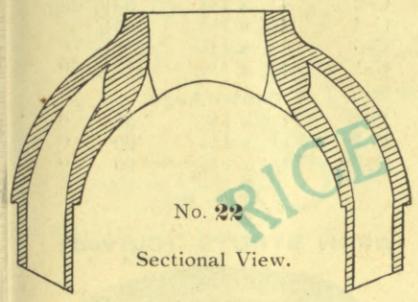
CROWNS



No. 22
BOX CROWN
Showing Construction



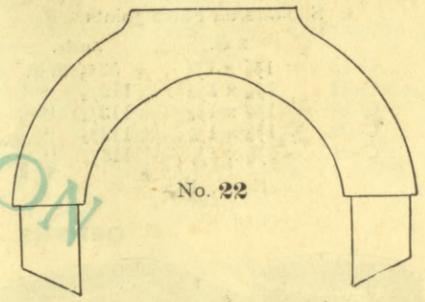
Stamping, for 1" Head Stem and Forksides.....each, 30c.
Above Crown with pair Brazed Forks to match..... " 55c.



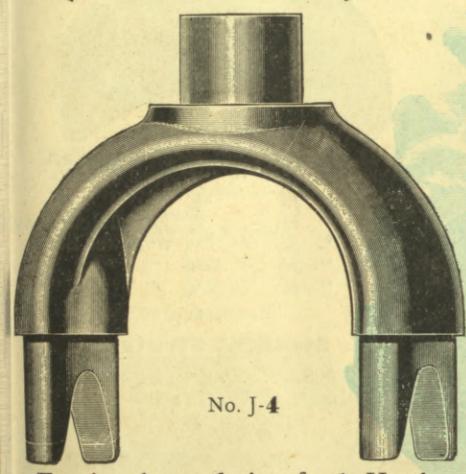
No. 22
Sectional View.

MACHINE DROP-FORGED HOLLOW-ARCHED CROWN

For 1" Stem and 1" Forksides.
Each30c.



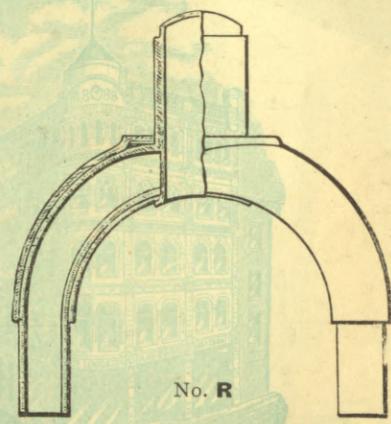
No. 22



No. J-4

Forging, latest design, for 1" Head Stem, and Forksides made of 1" tubing.
Carefully and Accurately Machined.

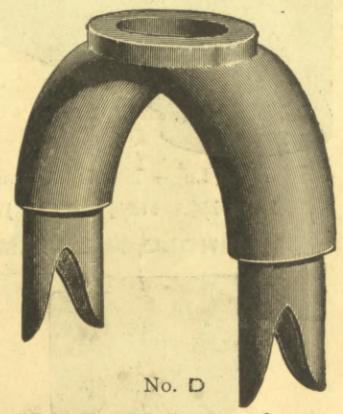
Each20c.



No. R

No. R, Stamping, for 1" Head Stem and Forksides.

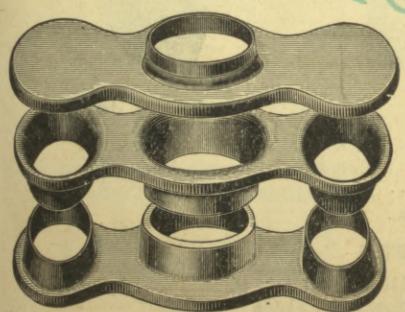
Each25c.



No. D

No. D, Malleable, for 1" Head Stem and Forksides.

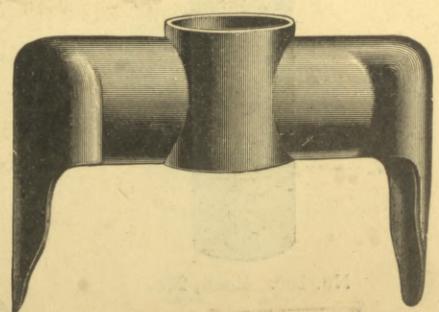
Each16c.



ALUMINUM FORK CROWN TIPS

Assorted patterns.

Per pair.....15c.

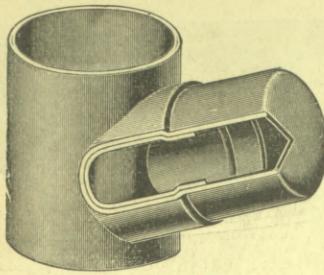


No. 45, Stamping, for 1" Head Stem and Forksides.

Each30c.

No. J-1, for 1" Stem and $\frac{7}{8}$ " Forksides.
" J-2, " 1" " " 1" "
Cupped Crown Plate.
With Crown Plate unless otherwise specified.
Each.....20c.

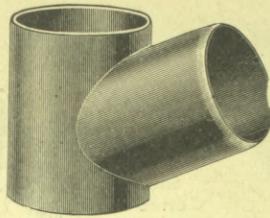
HEAD LUGS



Seamless.
Shouldered Flush Joints

	Size.	Angle.
C-15	1 3/8 x 1 1/8	53 1/3 deg.
C-12	1 3/8 x 1 1/8	112 1/2 "
C-18	1 3/8 x 1 1/8	113 1/4 "
C-22	1 3/8 x 1 1/4	112 1/2 "
C-21	1 3/8 x 1 1/4	115 1/4 "

Each, 18c.



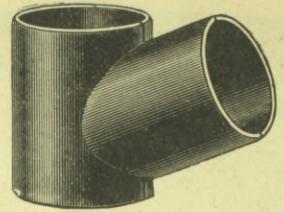
Outside—Seamless.

No.	Size.	Angle.
C-9	1 1/4 x 1 1/8	53 1/2 deg.
C-20	1 1/4 x 1 1/8	110 3/4 "
C-10	1 1/4 x 1 1/8	112 1/2 "
C-19	1 1/4 x 1 1/4	110 3/4 "
C-7	1 1/4 x 1 1/4	113 1/4 "
C-8	1 1/4 x 1 1/8	113 1/4 "

Centre Lugs

D-4	1 1/8 x 1 1/8	59 "
D-5	1 1/8 x 1 1/8	90 "

Each, 18c.



Outside—Two Seams

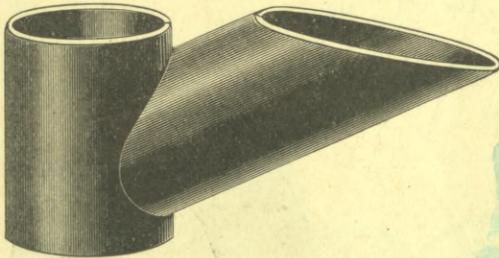
No.	Size.	Angle.
C-2	1 1/4 x 1 1/8	53 1/2 deg.
C-6	1 1/4 x 1 1/8	110 3/4 "
C-5	1 1/4 x 1 1/4	112 1/2 "
C-1	1 1/4 x 1 1/8	113 1/4 "

Centre Lugs

D-1	1 1/8 x 1 1/8	59 "
D-3	1 1/8 x 1 1/8	90 "
D-2	1 1/4 x 1 1/8	90 "

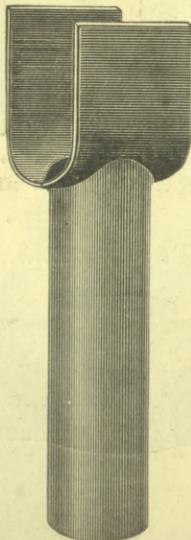
Each, 6c.

CENTRE LUGS

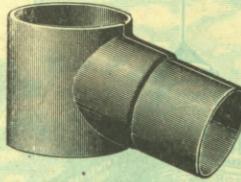


Head Lug—One Seam Long.
1 1/4 x 1 1/8. 112 1/2° Each, 12c.

HANDLE BAR STEM



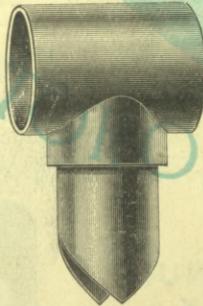
No. 100. Each, 20c.



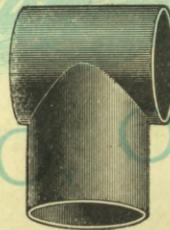
No. (Mast, Outside, ... 1 1/8"
8516 { Down Tube Flush, 1 1/8"
90°

Each, 8c.

HANDLE BAR TEES



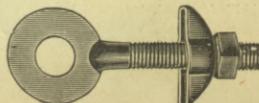
No. 110, 7/8" x 7/8"
Each, 6c.



No. 051	..... 1	x 7/8
" 052	..... 1	x 3/4
" 053	..... 7/8	x 7/8
" 054	..... 7/8	x 1 1/8
" 055	..... 3/4	x 3/4

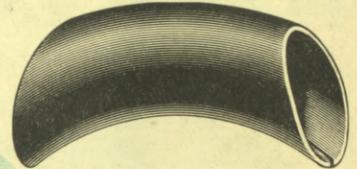
Each, 6c.

CHAIN ADJUSTERS



No. 3410, Forged N.P.
Per doz. pair, \$1.00.
Per pair, 12c.
No. 5027, Chain Adjusters for
Fork Ends. No. G-3
Per pair, 25c.

ARCH STRUTS—(Curved)



No. 5202	size 3/4"	to fit 7/8" D Rear Forks
" 5203	" 3/4"	" 7/8" Rd. " "
" 5204	" 5/8"	" 3/4" " "
" 5205	" 5/8"	" 3/4" Curved Rear Stays
" 5502	" 5/8"	" 1 1/8" wide, for Stays
" 5503	" 5/8"	" 1 7/8" " " "
" 5504	" 5/8"	" 2 1/4" " " "

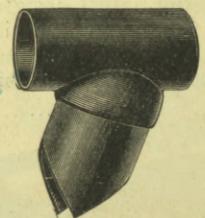
Each, 4c.

Straight Struts

No. 5007	..... 3/4" x 1 3/4" wide
" 5008	..... 7/8" x 1 1/8" "

Each, 4c.

SEAT POST TEES

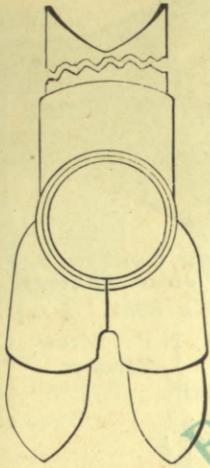


Flush Joint

No. 4401, 1 1/16" x 5/8" 70°
Each, 6c.

SEAT POST LUGS

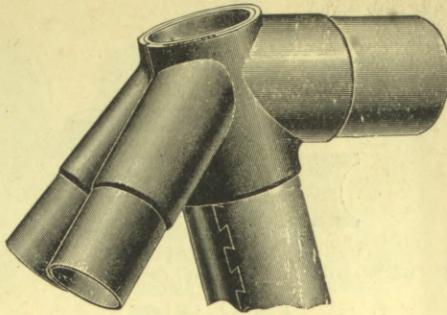
CLUSTERS



Gents' Shouldered Flush Joint.

Size. Angle.

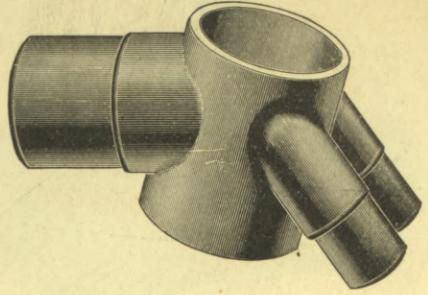
No. 254. $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{3}{4}$ $71^\circ \times 53^\circ$
Each, 26c.



Gents' Shouldered Flush Joint.

Size. Angle.

No. 8617 $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{3}{4}$ $71^\circ \times 53^\circ$
Each, 26c.



Gents' Cluster.

Shouldered Flush Joint. Outside on Mast.

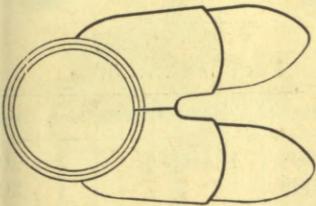
No.	Size.	Angle.	Size Frame.
E-10	$1\frac{1}{8} \times 1\frac{1}{8}$	$71 \times 53\frac{1}{4}^\circ$	22
E-11	$1\frac{1}{8} \times 1\frac{1}{8}$	$71 \times 58^\circ$	20
E-12	$1\frac{1}{8} \times 1\frac{1}{8}$	$71 \times 50\frac{1}{4}^\circ$	23 $\frac{1}{2}$

Each, 26c.

For Three-Crown Construction

No.	Size.	Angle.	Size Frame.
E-16	$1\frac{1}{4} \times 1\frac{1}{4} \times 1\frac{1}{8}$	$71 \times 53\frac{1}{2}^\circ$	23 $\frac{1}{2}$

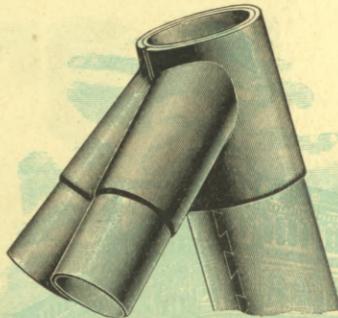
Each, 26c.



Ladies' Shouldered Flush Joint.

Size. Angle.

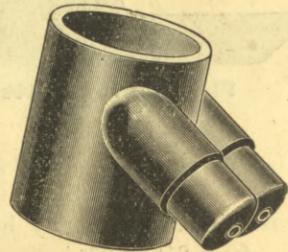
No. 221 $1\frac{1}{8} \times \frac{3}{4}$ 55°
Each, 26c.



Ladies' Cluster Shouldered Flush Joint.

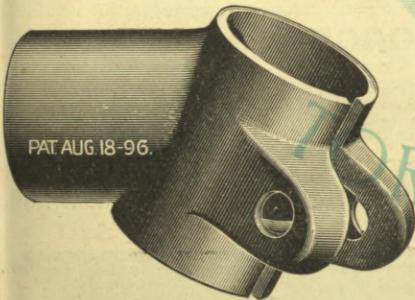
Size. Angle.

No. 8618 $1\frac{1}{8} \times \frac{3}{4}$ 55°
Each, 26c.



Ladies' Cluster Shouldered Flush Joint.

No. E-13. $1\frac{1}{8} \times 55\frac{1}{4}^\circ$ for 21" Frame.
Each, 26c.



PAT AUG 18-96.

Gents'—Outside.

No. Size. Angle.

E-3	$1\frac{1}{8} \times 1\frac{1}{8}$	71°
4800	$1\frac{1}{4} \times 1\frac{1}{8}$	71°
4850	$1\frac{1}{4} \times 1\frac{1}{4}$	71°

Each, 20c.



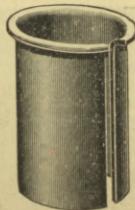
Gents' Shouldered Flush Joint.

E-7— $1\frac{1}{8} \times 1\frac{1}{8}$ — 71°

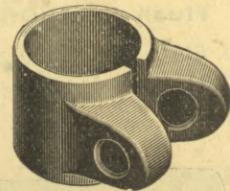
Shouldered on Top Bar, butt flush on Seat Top Mast.

Each, 20c.

"BUSHINGS" FOR OUTSIDE JOINT SEAT POST LUGS



Fits $1\frac{1}{8}$ " Tubing. Each, 5c.



Outside Ladies'

No.	Size
E-1	$1\frac{1}{8}$
4808	$1\frac{1}{4}$
4810	$1\frac{1}{8}$

Each, 15c.

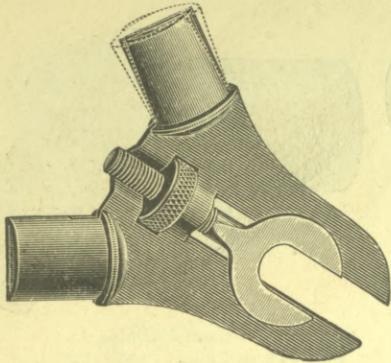
N. P. BOLT AND NUT FOR SEAT POST LUGS



Size. Doz. Each.

No. M-1	$\frac{5}{16} \times 1\frac{1}{8}$	90	8
" M-2	$\frac{5}{16} \times 1\frac{3}{4}$	90	8
Oval Head.			
" 12	$\frac{5}{16} \times 2$	60	6

REAR FORK ENDS



Flush Joint Pattern

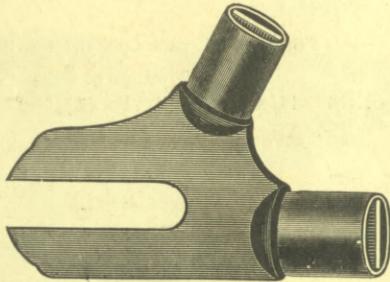
No. G-3.

$\frac{3}{4}$ "—18 ga. x $\frac{3}{4}$ "—20 ga.

With N.P. Screw Chain Adjuster.

Diagonal Slot.

Per pair.....30c.



Flush Joint Pattern

No. G-4.

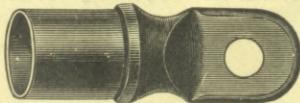
$\frac{3}{4}$ "—18 ga. x $\frac{3}{4}$ "—20 ga.

Parallel Slot.

This is adjustable to any height frame from 21" to 26" inclusive.

Per pair.....20c.

REAR STAY TIPS

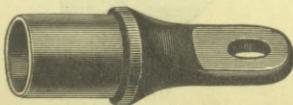


Flush Joint (Offset)

No. 5110, for $\frac{3}{4}$ " x 20 ga. Tube.

5111, for $\frac{5}{8}$ " x 20 ga. Tube.

Per pair.....10c.

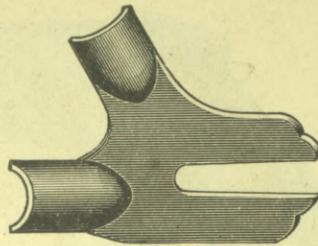


Flush Joint (Central)

No. 5112, for $\frac{3}{4}$ " x 20 ga. Tube.

5113, for $\frac{5}{8}$ " x 20 ga. Tube.

Per pair.....10c.



D Pattern

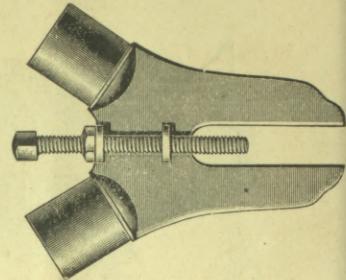
No. 53.

For D Tubes.

Per pair.....20c.

D Brace Tips.

Per pair.....10c.



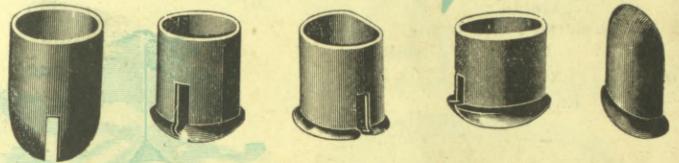
Round, Oval or D Flush Joint Pattern

No. 8634. $\frac{3}{4}$ x $\frac{3}{4}$."

With N.P. Screw Chain Adjuster.

Per pair.....30c.

THIMBLES



Per 100.....\$2 00.

Per doz.....30c.

No.	Style.	Width	Size.	Gauge	No.	Style.	Width	Size.	Gauge
5001	Oval	$\frac{3}{8}$	$\frac{3}{4}$	20	5008	Plain		$\frac{5}{8}$	20
5002	D		$\frac{3}{4}$	20	5009	"		$\frac{3}{4}$	20
5003	D		$\frac{3}{4}$	22	5010	"		$\frac{3}{4}$	22
5004	Shoulder		$\frac{3}{4}$	20	5011	"		$\frac{7}{8}$	20
5005	"		$\frac{3}{4}$	22	5012	"		$\frac{7}{8}$	22
5006	"		$\frac{7}{8}$	20	5013	Bug. B.		$\frac{3}{4}$	20
5007	"		$\frac{7}{8}$	22	5014	"		$\frac{3}{4}$	20

REINFORCEMENTS



No. 8887.

Round, for Flush Joint Connections, $1\frac{1}{8}$."

Per doz.32c.

No. 90.

Round, $3\frac{1}{2}$ " long, $\frac{3}{4}$ to $1\frac{1}{4}$ "

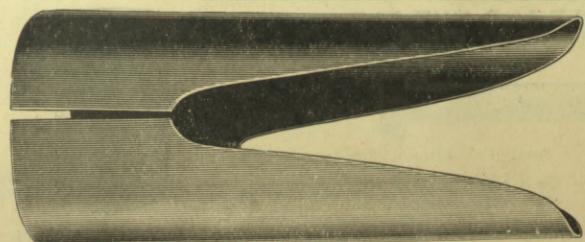
Per doz., 32c.



No. 91.

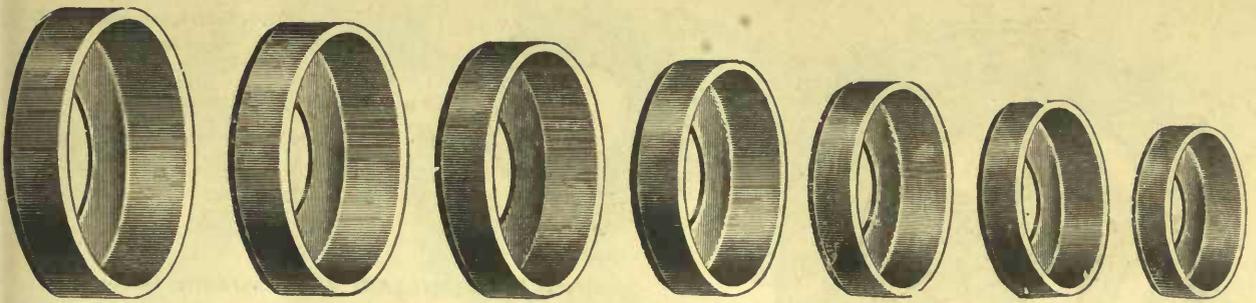
Forksides, $3\frac{1}{2}$ " long, 1".

Per doz., 32c.



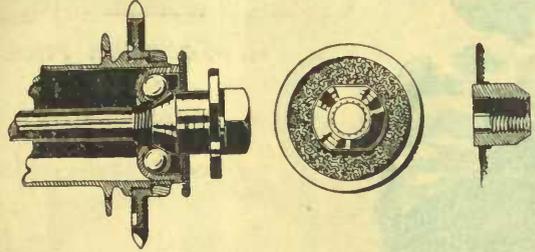
Hardened Pressed Steel Ball Bearing Cups

FULL SIZE



	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14
Number.....	1	2	3	4	5	6	7	8	9	10	11
Inside diameter...	1 1/2	1 7/8	1 3/4	1 5/8	1 1/2	1 1/4	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Inside depth.....	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2	1 3/2
Each	12c.	12c.	10c.	10c.	10c.	9c.	9c.	8c.	7c.	6c.	6c.

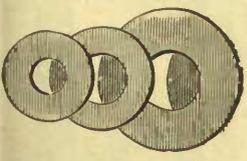
HUB
Will fit 95 outside diam. hubs.



Round Head Machine Screws for Name-plates, Mud and Chain Guards, Etc.



Size	3/8	5/16	9/32
Thread	24, 26 or 28	24, 26 or 28	30
Per doz.	\$3.50	3.50	3.50
Each	0.30	0.30	0.30

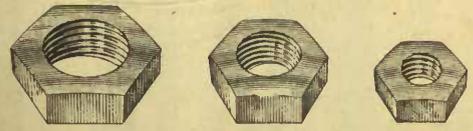


N. P. WASHERS

Size.....	1/4	5/16	3/8
Per doz.....	10c.	10c.	10c.
Per 100	75c.	75c.	75c.

NUTS

Nickel-Plated, Hexagon Forged



Size Bolt.	Threaded.	Blank, per 100	Threaded, per doz.
1/8"	32	\$2 00	30c.
3/8"	24 to 32	2 25	35c.
1/2"	24 to 32	2 50	40c.
3/4"	20 to 32	2 50	40c.
1"	20 to 32	2 75	40c.
1 1/8"	20 to 32	3 00	45c.
1 1/4"	20 to 32	3 00	45c.

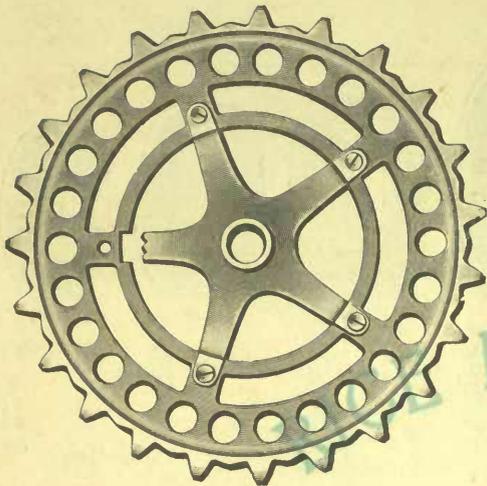
5/8", 3/4", 7/8", 1 and 1 1/8" Head or Bracket, Black...80c.

No.	2 to 4	6	8	10	12	14		
Length, 1/8 or 1/4...4c.	4c.	5c.	6c.	.....	.....	.....
" 3/8.....4c.	4c.	5c.	6c.	8c.	10c.	.....	
" 1/2.....4c.	4c.	5c.	7c.	9c.	11c.	.....	
" 5/8.....4c.	5c.	6c.	8c.	10c.	12c.	.....	
" 3/4.....5c.	6c.	7c.	9c.	11c.	14c.	.....	
" 7/8.....7c.	8c.	10c.	12c.	15c.	.....	.....
" 1.....8c.	9c.	11c.	14c.	16c.	.....	.....
No.	2	3	4	6	8	10	12	14
Size.....	3/2	7/4	7/4	9/4	11/4	3/5	7/2	1
Thread	56	48	36	32	32	24	24	20
Size Drill ...	49	45	42	35	30	25	17	6

SQUARE TAPPED NUTS
For Machine Screws

No.....	2	3	4	6	8	10	12	14
Per doz.....	10c.	7c.	7c.	7c.	7c.	8c.	9c.	10c.

MACHINED STEEL FITTINGS



No. 107



No. 40

No. 40—Rear Sprocket, teeth milled, bored $1\frac{3}{8}$ " hole, not threaded.

7, 8, 9, and 10 teeth..... each, 20c.
12 teeth " 45c.

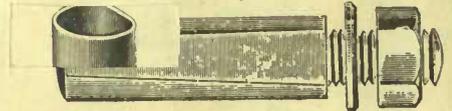
No. 60—Tempered, threaded and blued.

7 8 9 10 teeth.
50c. 60c. 70c. 80c. each.

SPROCKETS—MILLED AND BORED, $\frac{3}{8}$ " Hole

	16	17	18	19	20	21 teeth.	
No. 113..				\$1.00	1.08	1.15 each.	
" 107..				1.25	1.30	1.40 "	
" 35..	60c.	60c.	60c.	70c.		"	
	22	23	24	26	28	30	32 teeth.
No. 113..	\$1.25	1.35	1.40	1.65	1.85	2.35	2.85 each.
" 107..	1.45	1.55	1.60	1.80	2.15	2.50	3.00 "

N. P. CRANKS

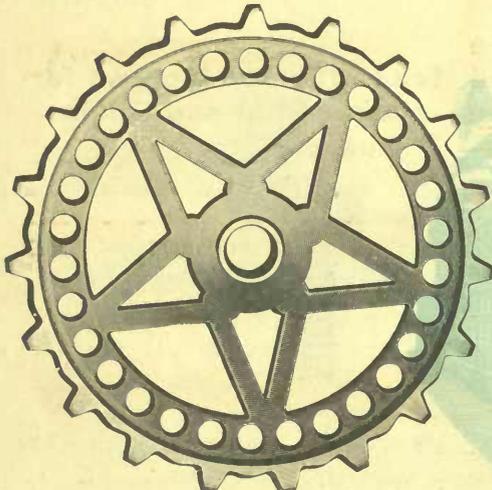


N. P. COTTER PINS

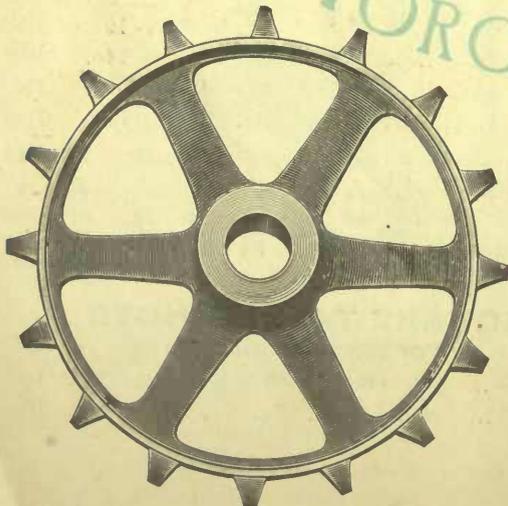
No. 140

Hardened Steel, with Nuts and Washer.

Per 100, \$3.40 ; doz., 50c.



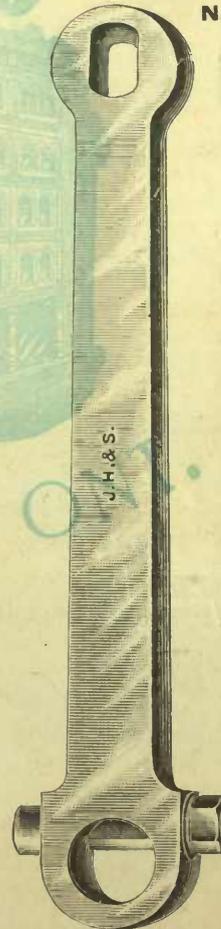
No. 113



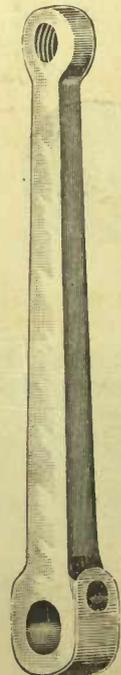
No. 35



No. 40
Threaded $\frac{1}{8}$ " x 20
\$1.50 per pair.



No. 41
Slotted.
80c. per pair.



No. 42
Threaded
 $\frac{1}{2}$ " x 20
60c. per pair.

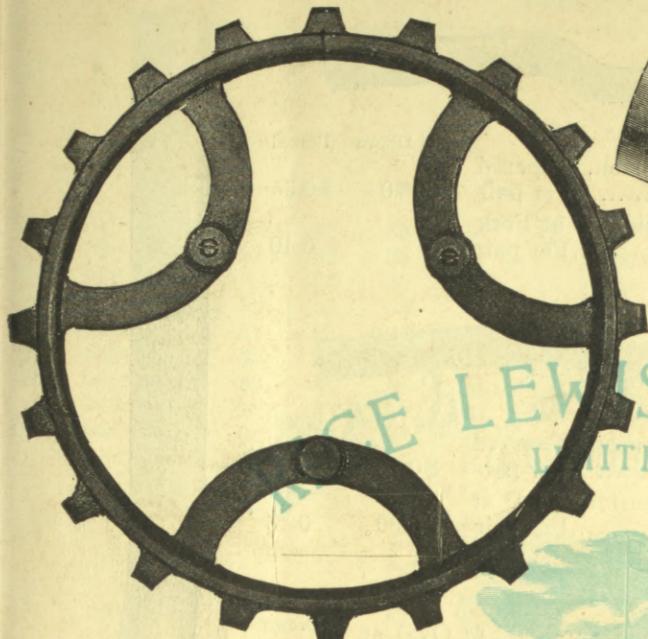


No. 43
Threaded
 $\frac{1}{2}$ " x 20
60c. per pair.

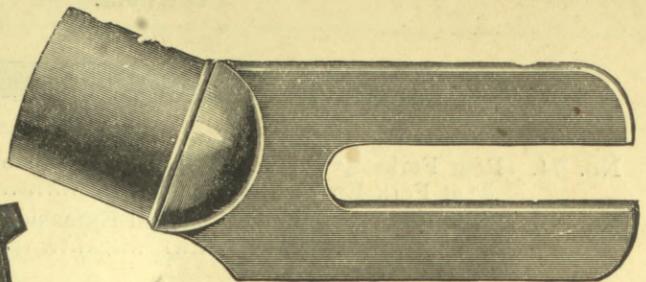
STEEL DROP FORGINGS

THREE-ARM DETACHABLE SPROCKET WHEELS

REAR FORK ENDS



No. 22



No. 60

Per Pair

- No. 60. Rear Fork Ends for $\frac{7}{8}$ in. Rear Fork 10c.
- No. 61. " " $\frac{3}{4}$ " 10c.
- No. 62. " " D pattern, same as No. 31. .20c.
- No. 63. Rear Stay Ends, $\frac{5}{8}$ or $\frac{3}{4}$ in. 10c.
- No. 64. " " D pattern, same as No. 32. .10c.

PLAIN SPROCKET WHEELS

SPIDERS

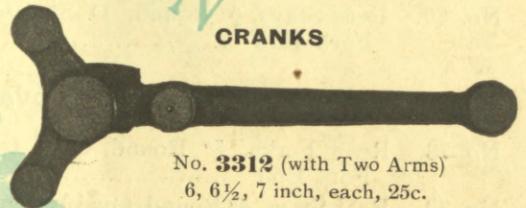
CRANKS



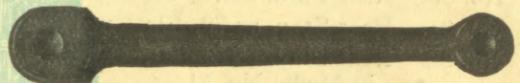
No. 21



No. 3259. Ea. 12c.



No. 3312 (with Two Arms)
6, 6 $\frac{1}{2}$, 7 inch, each, 25c.
Left hand to match, each, 12c.



No. 2163 (Round)
Williams' Round, 6, 6 $\frac{1}{2}$, 7 in., each, 12c.



No. 2850 (Flat)
Williams' Square, 6, 6 $\frac{1}{2}$, 7 in., each, 15c.

HUB SPROCKET



No. 24

ARCH CROWN

HEAD CLAMP



No. 2844
 $\frac{7}{8}$ to 1 $\frac{1}{8}$ inch.
Each, 8c.



No. 3640
King of Arch Crowns.
Each, 20c.

SEAT POST LUGS



No. 2687. Ladies'
1 $\frac{1}{8}$ in.
Each, 18c.

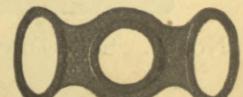


No. 2686. Gents'
1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ in., 1 $\frac{1}{8}$ x 1 in., 1 x 1 in.
Each, 18c.

DOUBLE CROWN



No. 2796
Nos. 2797, 2796, for 1 inch forkside, per pair, . 20c.
Nos. 2444, 2445, for $\frac{7}{8}$ " " " .20c.
Race for $\frac{7}{8}$ inch forkside, " " " .20c.



No. 2797

FORKS AND STAYS

D STYLE

FRONT FORKS



No. 74.	Rear Forks, $\frac{7}{8}$ " Round, D Shaped Extension, Tapered $\frac{3}{4}$ " at Fork End	Per pair	Solid Drawn \$0.70	Brazed \$0.35
No. 75.	Rear Stays, $\frac{3}{4}$ " Round, D Shaped Extension, $\frac{3}{4}$ " at Fork End	Per pair		0.40



No. 76.	Rear Forks, $\frac{7}{8}$ " Round, D Shaped Extension, Tapered $\frac{3}{4}$ " D at Fork End	Per pair	Solid Drawn \$0.70	Brazed \$0.35
No. 77.	Rear Stays, $\frac{3}{4}$ " Round, D Shaped Extension, $\frac{3}{4}$ " D at Fork End	Per pair	0.80	0.40

OVAL

No. 78.	Rear Forks, $\frac{7}{8}$ " Round, Oval Extension, Tapered, $\frac{3}{4}$ " Oval at Fork End	Per pair		Solid Drawn 70c.
No. 79.	Rear Stays, $\frac{3}{4}$ " Round, Oval Extension, $\frac{3}{4}$ " Oval at Fork End	"		80c.
No. 80.	Rear Fork, as 78, Flattened at Fork End	"		70c.
No. 81.	Rear Stay, as 79, Flattened at Fork End	"		80c.
No. 82.	Rear Stay, $\frac{3}{4}$ " Round, Oval Extension $\frac{3}{4}$ " at Fork End, Bend as in Model No. 51	Per pair		80c.

FAUBER'S PATENT REAR FORKS AND STAYS



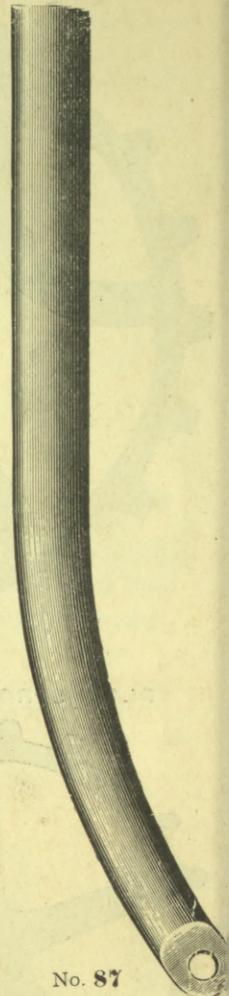
No. 00.	Rear Forks, Stem $1\frac{1}{4}$ ", 16 Ga., Sides 18 Ga., Tapered to $\frac{3}{4}$ " Round	Per set	Drawn \$2.00	Brazed \$1.35
No. 01.	Rear Stays, Stem $1\frac{1}{8}$ ", 22 Ga., Sides 20 Ga., Tapered to $\frac{3}{4}$ " Round	Per set	2.00	1.35



No. 86. Solid Drawn, $\frac{7}{8}$ " Round, Cranked, Oval



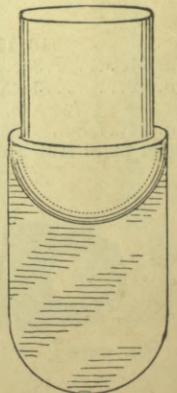
No. 85. Solid Drawn, $\frac{7}{8}$ " Round, Cranked, D Shaped.....



No. 87

Solid Drawn, $\frac{3}{4}$, $\frac{7}{8}$ or 1 " per pair60
 Brazed, $\frac{7}{8}$ or 1 ", pair 26
 Our Weldless forks are New Improved Pattern with swaged ends.

FORK END TIP



Per doz., 40c.
 Each, 5c.

WELDLESS STEEL TUBING

PRICE PER FOOT

English Standard Wire Gauge	Equivalent in Fraction of Inch	DIAMETER OF EXTERIOR IN INCHES														
		$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$1\frac{1}{16}$	$1\frac{1}{8}$	$1\frac{3}{16}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
26	.018	30	32	33	35	36	37	38	39	40	41	42	43	...	...	...
25	.020	30	32	33	35	36	37	38	39	40	41	42	43	...	...	...
24	.022	30	32	33	35	36	37	38	39	40	41	42	43	44	...	...
23	.025	30	32	33	35	36	37	38	39	40	41	42	43	44	...	...
22	.028	30	32	33	35	36	37	38	39	40	41	42	43	44	48	50
21	.032	30	32	33	35	36	37	38	39	40	41	42	43	44	48	50
20	.035	31	33	34	36	38	38	39	40	41	42	43	45	46	49	52
19	.042	31	33	35	37	38	39	40	41	42	44	45	47	48	52	55
18	.049	32	34	36	38	39	41	42	43	44	46	48	50	51	55	60
17	.058	33	35	37	39	41	43	44	46	47	49	51	53	55	60	65
16	.065	35	37	39	41	43	45	47	49	50	53	55	58	60	65	70
15	.072	37	39	41	43	45	47	49	52	54	57	59	62	64	70	75
14	.083	38	41	43	46	48	50	52	55	57	60	63	66	69	75	81
13	.095	40	43	45	48	50	53	55	59	62	65	68	72	75	81	88
12	.109	42	45	48	50	54	57	59	63	66	70	73	77	81	88	95
11	.120	45	48	51	54	57	60	63	67	70	74	78	83	87	94	102
10	.134	...	51	54	57	60	64	67	71	74	79	84	89	94	102	110

FIG. 86. D PATTERN. 7-8 x 20 G.



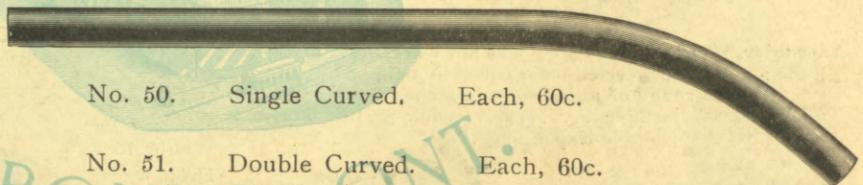
HEAD STEMS

(Machined)



1" x 16 W. G. 12" over all. Threaded 1" x 24 pitch. Each, 30c.

BENT BARS



No. 50. Single Curved. Each, 60c.

No. 51. Double Curved. Each, 60c.

(See Ladies' Frame, page 6).

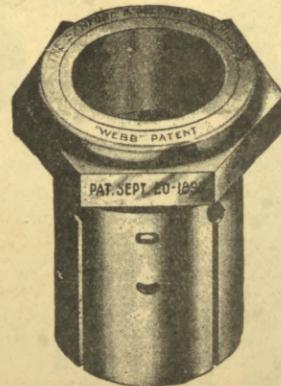


SPRING SEAT POST.

Each, \$2.00.

No. 3 Expanding Seat Post.

Sizes, $\frac{1}{16}$, 1, $\frac{15}{16}$, $\frac{7}{8}$ ". Each, 50c.

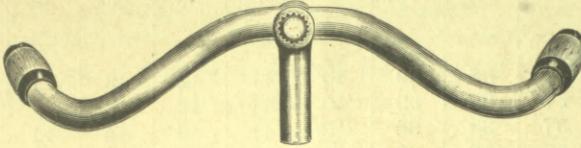


No. 4, $\frac{7}{8}$ inside, $1\frac{1}{16}$ outside for $1\frac{1}{8}$ tubing. No. 4 Expander. Each, 28c. Other sizes to order.

HANDLE BARS

HEAVILY NICKEL-PLATED ON COPPER, WITH $\frac{7}{8}$ -in. POSTS, NO GRIPS
Special Sizes of Posts to Order.

FREDRICK ADJUSTABLE

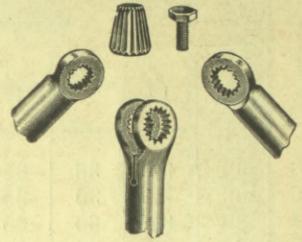


Adjustable to Every Position.

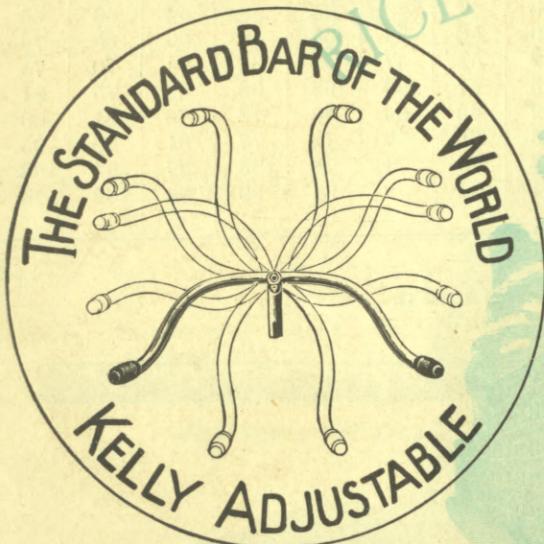
The side arms are supported both back and front. The corrugated ratchet plug works on the principle of a wedge, and should the rider fail to properly tighten up the bolt after he has made an adjustment, the corrugated plug will prevent the arms from falling down. This is not so in any other bar. The slits in the stem allow the head lugs to give a trifle, thus bringing pressure against bolt head, which absolutely prevents the bolt working loose. The expander is invisible.

No. 85—Adjustable.....each, \$2.10

No. 84—Adjustable, Expanding.....each, \$2.20



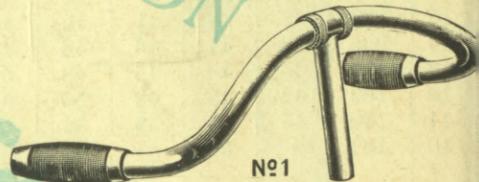
Construction of Clamp.



THE CLAUS ADJUSTABLE.

No. 1

Width, 18"
Drop, 2"
Forward, 3"

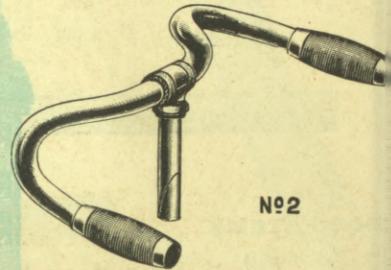


No. 1

THE CLAUS ADJUSTABLE.

No. 2

Width, 18"
Drop, 2"
Forward, 3"

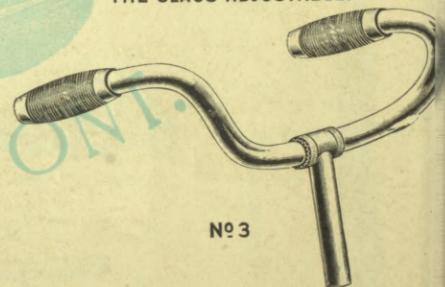


No. 2

THE CLAUS ADJUSTABLE.

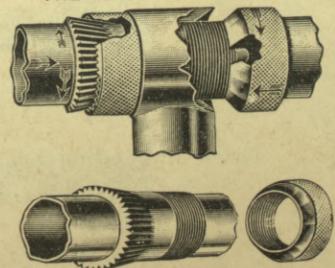
No. 3

Width, 16"
Drop, 3"
Forward, 2 1/2"



No. 3

THE CLAUS ADJUSTMENT.

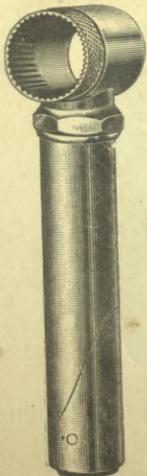


Adjustable, secure and simple; will not work or wear loose; may be converted from a drop to an upturn.

Has a range of adjustment 15 inches.

No. 87—Adjustable.....each, \$2.10
No. 86—Adjustable Expanding... " 2.20

THE CLAUS EXPANSION STEM.



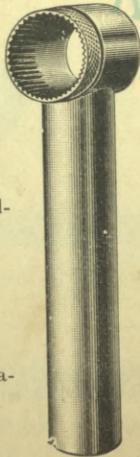
EXPANSION STEM

No. 1, 2 or 3
Bars with expanding adjustable stem.
Each, \$2.20

PLAIN STEM

No. 1, 2 or 3
Bars with adjustable stem.
Each, \$1.90

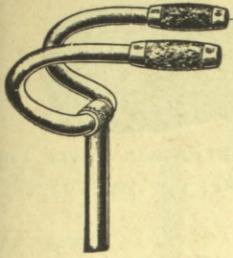
THE CLAUS PLAIN STEM



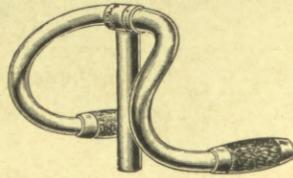
STEEL HANDLE-BARS

HEAVILY NICKEL-PLATED ON COPPER, WITH $\frac{7}{8}$ -in. POSTS, NO GRIPS

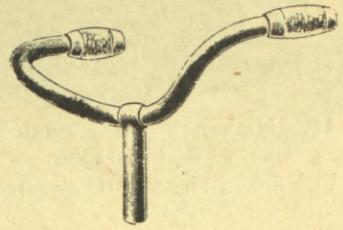
Special Sizes of Posts to Order



No. 7-A, Adjustable, 17 or 18".
Each, \$1.85.



No. 7-B, Adjustable, 16".
Each, \$1.85.

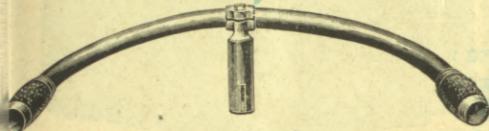


No. 7-D, Adjustable, 17 or 18"
Each, \$1.85.

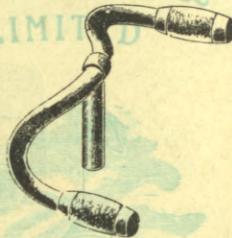
No. A, Up-turn, Stationary, 17 or 18"
Each, \$0.85.

No. B, Down-turn, Stationary, 16".
Each, \$1.05.

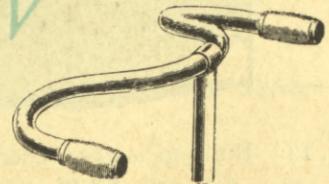
No. D, Up-turn, Stationary, 17 or 18"
Each, \$0.85.



No. 88, Perfection, Adjustable,
Expanding. Each, \$1.10.



No. D, Down-turn, Stationary, 17".
Each, \$0.85.



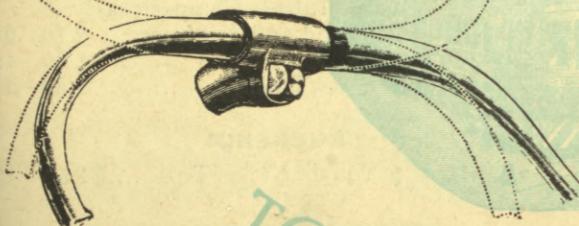
No. 7-E, Adjustable, 18".
Each, \$1.85.

No. 87, Expanding Bolt and Clamp
Black for above Bar. Each, 30c.

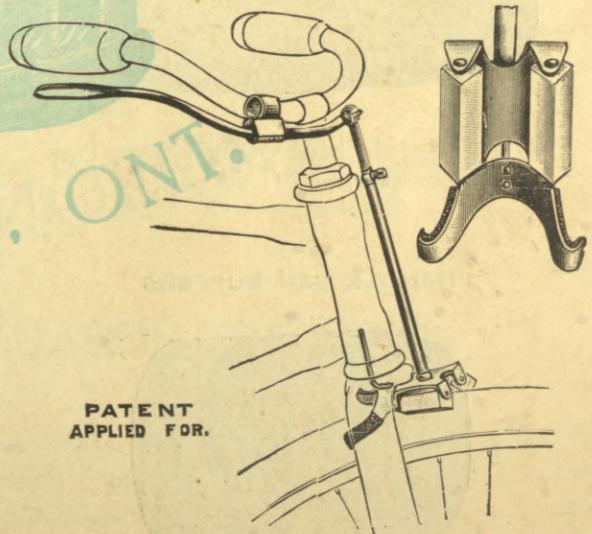
No. E, Down-turn, Stationary, 18".
Each, \$0.85.

THE "BALDWIN" BRAKE

Can be attached to any Bicycle in Two Minutes

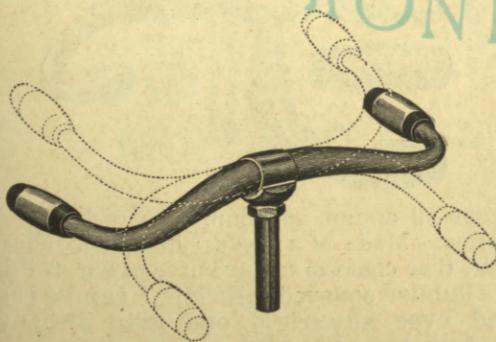


No. 89, Adjustable, Bent and Tapered, 1 to $\frac{7}{8}$ ".
Each, \$1.50.



PATENT
APPLIED FOR.

No. 3



No. 90

No. 90, Wood Bar, with Adjustable N. P. Clip with Grips.
Each, \$1.00.

No. 90½, Ditto, Mahogany Finish. Each, \$1.00.

No. 91, Ditto, Adjustable, Ram's Horn. Each, \$1.50.

Complete. Each, \$2.00.

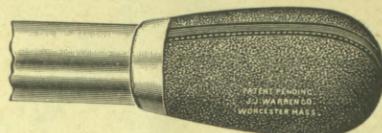
GRIPS

LEATHER



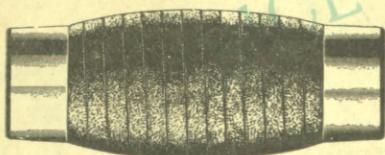
No. 11. Nickel-Plated German Silver Tips.
3½ or 3" long.
Per doz. pair, \$4.50; per pair, 40c.

LEATHER



No. 7. Nickel-Plated German Silver Tips.
Per doz. pair, \$4.80; per pair, 45c.

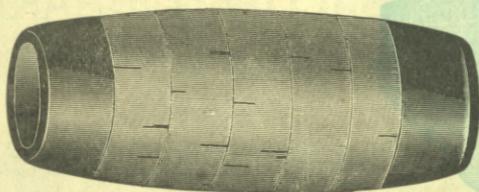
Made from selected grain leather, stitched on to wood grooved reinforcing, into which groove seam in leather is sunk, making grip perfectly smooth.



No. 12. Built-up leather, lined and reinforced, per
doz. pair, \$2.40; per pair, 25c.

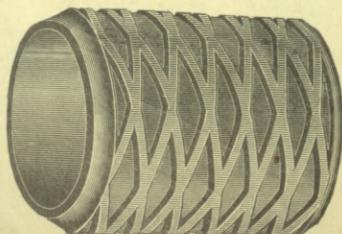
SOLID WRAPPED CORK

Selected Quality



No. 30. Nickel-Plated German Silver Tips.
Per doz. pair, \$3.20; per pair, 30c.

HANDLE BAR BUFFERS



Rubber Buffers.
Per doz., \$1.00; each, 12c.

CORKALINE

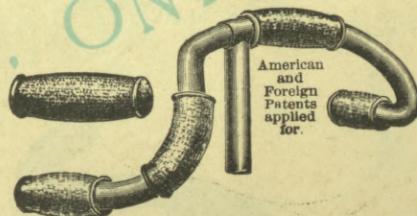


	Size.	Per doz. pair.	Per pair.
No. 14.	7/8" Square Nickered Tips.....	\$1.80	15c.
28.	1" Square Ger. Silver Nickered Tips	2.00	20c.
25.	7/8" Square Ger. Silver Nickered Tips, lined and reinforced...	2.00	20c.
26.	7/8" Square Black Composition Tips, lined and reinforced...	1.60	20c.
27.	7/8" Square Inlaid Composition Tips, lined and reinforced...	2.70	25c.
24.	Square White Celluloid	1.20	12c.
23.	Square Black Ebonite	1.20	12c.

BUCKSKIN

No. 17. 1 3/8 or 3/4" Square Nickel Tips.....\$1.50 15c.

THE PERFECTION GRIP



American
and
Foreign
Patents
applied
for.

Stops all cramp and numbness of hands, wrists and arms. Made of sponge rubber and unusually flexible, they conform to ANY curve of bar and fit ANY size. Rubber covered "Reliefs" can be readily forced over any rigid end grip already on with powered soapstone and so slid into position.

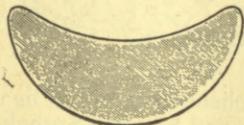
Plain Rubberper pair, 75c.
Soft leather covered " 90c.

WOOD RIMS

BOWMANVILLE



Dominion Dunlop



Single Piece Crescent



Sulky



Tandem



Crescent



Crescent, Deep Centre



G. & J.



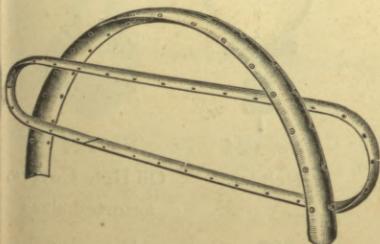
Dunlop

	Crescent Pattern		Dunlop or G. & J. Pattern		Sulky, \$2 00 per pair. Tandem, 1 50 "
	per doz.	per pair.	per doz.	per pair.	
Bowmanville, 28-in.	\$12 00	\$1 15	\$13 60	\$1 25	
Boston Laminated, 28-in.	12 80	1 20	14 50	1 35	
" Single-piece, 28-in.....	8 00	80			

80-inch Rims, 15c. per pair extra on above prices. Other sizes, special prices on application.

We carry a Stock of **SECONDS SUITABLE FOR REPAIR WORK.** Price on application.

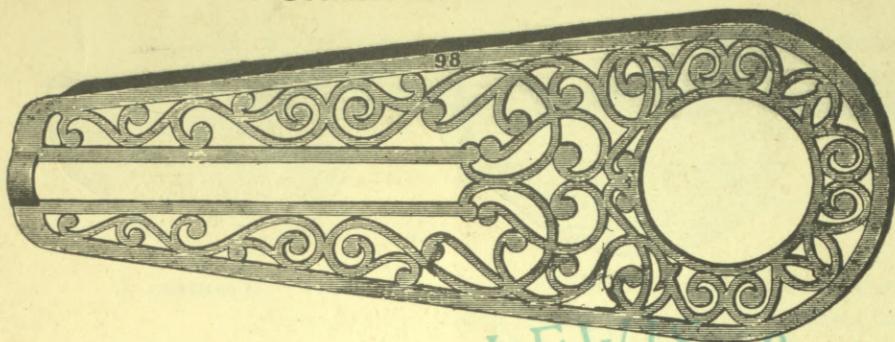
MUD AND CHAIN GUARDS (EYELETED)



Natural Finish, open, per pair	30c.
Mahogany Finish, open, per pair	30c.
Natural Finish, continuous, per pair	35c.
Birdseye Maple, continuous, per pair ...	60c.
Quarter-cut Oak continuous, per pair.....	65c.

CHAIN GUARDS

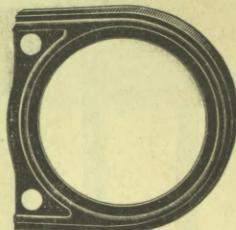
CHAIN GUARD



No. 43

Aluminum, Polished Face, standard length for wheel.....Each \$2 00

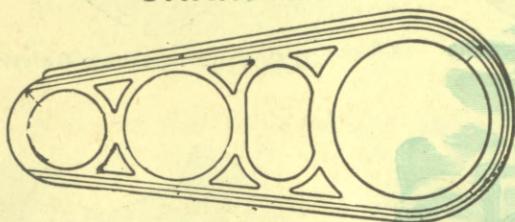
SPROCKET SHIELD



No. 42

Sheet Steel, Smooth Finish.
Can be used with 24 tooth and
Smaller Front Sprockets.
Ready for Enamelling. Ea. 25c.

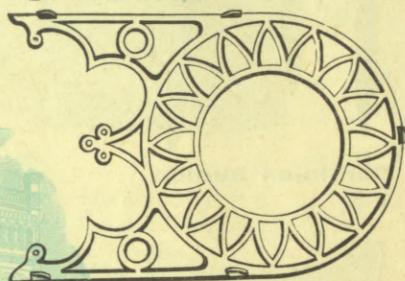
CHAIN GUARD



No. 44

Sheet Steel, Smooth Finish, for 24 tooth and Smaller Sprockets.
Ready for enamelling.....Each, 50c.

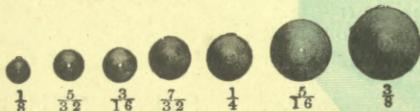
SPROCKET GUARD



No. 41

Aluminum, Polished Face, can be used
with 24 tooth and Smaller Sprockets.
Each, 60

STEEL BALLS



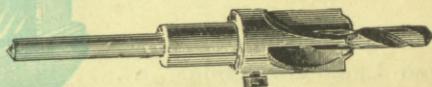
Made of the finest cast steel, best finish and most accurate;
done up in 100 lots only; less quantities at list price net.

$\frac{1}{8}$ $\frac{5}{32}$ $\frac{3}{16}$ $\frac{7}{32}$ $\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$ inch diam.
\$0.15 0.18 0.20 0.30 0.30 0.38 0.65 per 100.

Prices on application for larger sizes and quantities.

Also for 2nds suitable for agricultural and machine work.

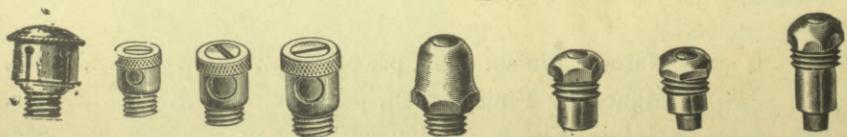
RIM COUNTERSINK AND DRILL



No. 32

This will drill holes for any style wished,
and is made of the highest grade steel.
Each, 80c.

OILERS



No. 123

No. 3

No. 2

No. 1

No. 6

No. 8

No. 10

No. 12

Spring Cap

Shanks Threaded

25c. doz.

$\frac{5}{32}$ x 40

$\frac{3}{16}$ x 32

$\frac{7}{32}$ x 28

$\frac{7}{32}$ x 28

$\frac{1}{4}$ x 26

$\frac{1}{4}$ x 26

$\frac{1}{4}$ x 26

50c.

50c.

50c.

30c.

35c.

40c.

40c.

No. 124
Helmet.

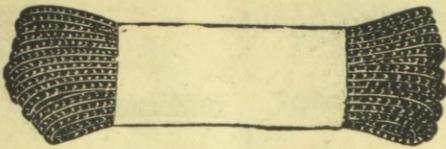
No. 121

Oil Hole Covers
assorted sizes

60c.

15c. doz.

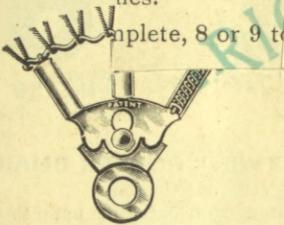
LACING CORD



Woven Mohair in Hanks, 72 yards each, black, yellow, ruby, brown, or mixed black and yellow, black and ruby, ruby and yellow.
Per Hank 40c.

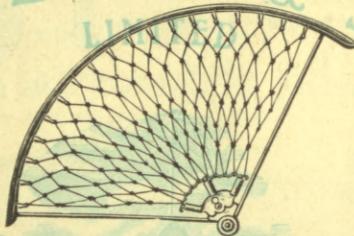
4-ply Twisted Silk in Hanks, 18 yards each, same colors... Per doz. hanks, \$2 50; per hank, 25c.

3-ply Twisted Silk in Hanks, 18 yards each, same colors... Per doz. hanks, \$1.50; per hank, 15c. **Woven Mohair** in Hanks, 18 yards each. Boxes of 12 hanks, assorted colors. Per box..... \$1.50.



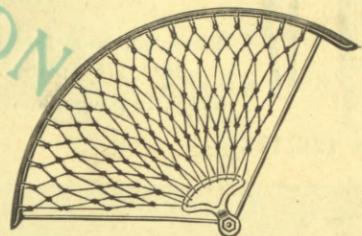
No. 1

Detachable Lacing Clip allows dress guard to be taken off without removing axle nut.
Per doz. pair \$2.25
Per pair 0.25



No. 2

Dress Guard with Hooks at top to fit into eyelets of mud guard, with detachable lacing clip
No. 1. Silk, all colors.
Per set.....70c.



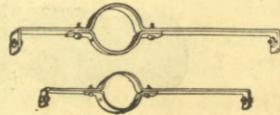
No. 3

Dress Guard with Hooks at top to fit into eyelets of mud guard with plain lacing clip. Mohair, all colors.
Per set45c.



No. 4

Separate Lacing Loops. Made from bright steel stamping, nicely nicked. Fits over a $\frac{3}{8}$ " axle.
Per pair..... 6c.



Cut shows one complete set.

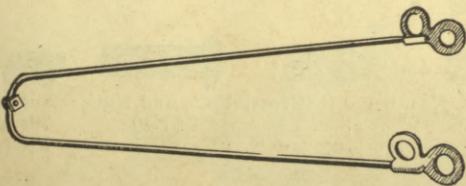
Chain Guard Braces. Bright steel, nicely nicked.

No. 11 Per set, 25c.

No. 12 " 25c.

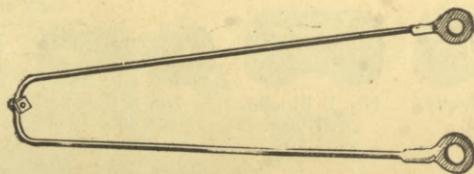
In set No. 11 the long brace is about $7\frac{3}{4}$ " long. In set No. 12 the long brace is $8\frac{1}{2}$ " long. In both sets the short, or rear brace is about $5\frac{1}{2}$ " long. Every set is wrapped in a separate paper with screws and nuts in an envelope.

MUD GUARD BRACES



No. 111

Made from bright steel, all parts well nicked. This brace has two loops, one to go over axle, one for lacing cord, both loops in one piece. Our special design, and a favorite. Correct length for 28-inch wheels.
Each25c.

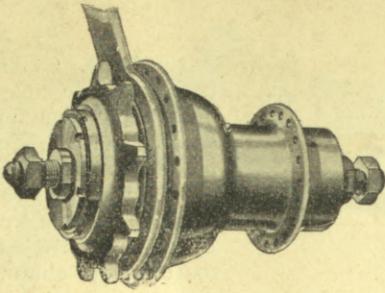


No. 112

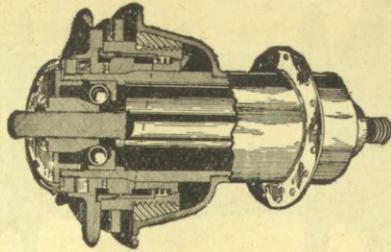
Made from bright steel, all parts nicked. The eyes of this brace can be unscrewed from the wire. Correct length for 28-inch wheels.
Each20c.

HUBS

MORROW COASTER AND BRAKE



Outside View.

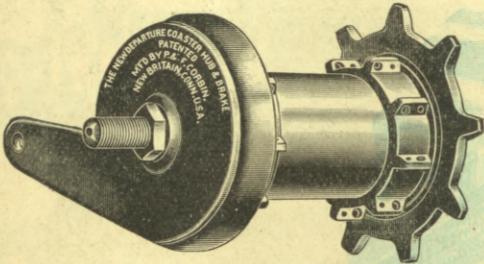


Interior View.

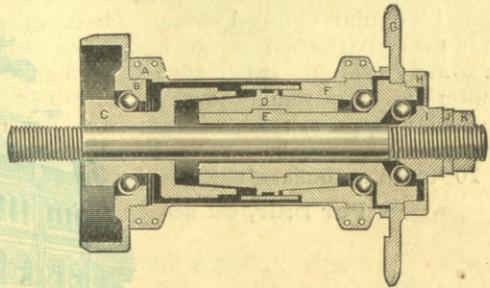
This Coaster and Brake is inside Hub, machine can be run back or forward when rider is off wheel, only light pressure is required to put on Brake, and no continuous strain after applied. Perfect control of wheel at all times.

Hub complete, 8 or 9 tooth sprocket with set spokes Each \$9.00

NEW DEPARTURE AUTOMATIC COASTER AND BRAKE



Outside View.



Interior View.

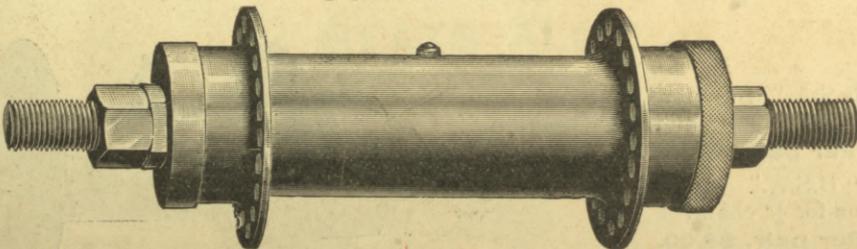
With this Coaster and Brake the rider has Perfect control of the wheel at all times—Consequent freedom from accidents—One third less pedaling—A tight pedal and a free wheel—No strain on himself or machine when braking—Sprocket, chain, and pedals at rest when coasting—No danger of losing pedals—Instant response in time of need—No trundling of wheel down any hill a horse can descend—Feet on the pedals at all times—No back-lash or lost motion.

ITS OPERATION

The driver E carries the cone D. When the rider pedals ahead, the rear sprocket G turns the driver E, which, by means of a thread, forces the cone D into contact with the driving clutch F, which forms a part of the hub, and the wheel rotates. The connection is instantaneous and positive. In coasting the rider simply holds his feet still upon the pedals, and the cone D moves back along the driver to the center, when the wheel revolves freely, the driving mechanism being released. A slight backward pressure drives the cone into the braking clutch C, which is fastened to the frame by the arm shown in figure 1, and the friction of the cone in the clutch retards or stops the wheel as the rider desires, and with a very slight pressure.

Hub complete, all sizes of Sprocket, with set Spokes Each \$9.00

SULKY HUB

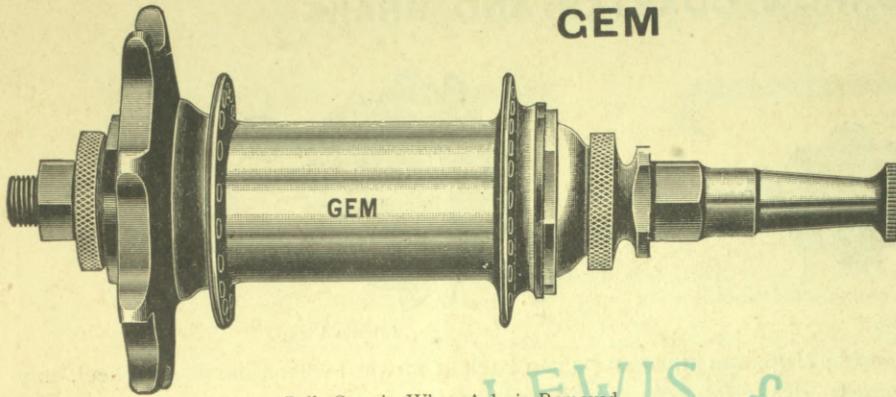


No. 1003.

Made from solid bar, cups and cones turned from best cast steel, and accurately ground. Latest improved pattern. Flanges over Bearings. Per pair, \$4.00.

HUBS

GEM



No. 999. "Gem," turned from solid bar, cups and cones dust proof and made from special cone steel, fitted with ball retainer, has a reservoir of oil, in which the balls constantly revolve, chain line $1\frac{1}{2}$ " or $1\frac{5}{8}$ ", sprockets 7 to 12 tooth for $\frac{3}{16}$ " chain.

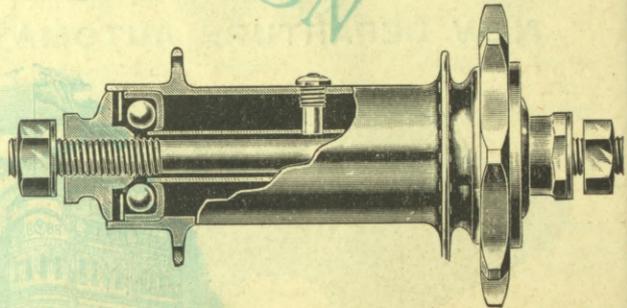
Per pair, \$3.00.

Balls Stay in When Axle is Removed.

THOMPSON'S

No. L-6. "Thompson's" fitted with Ball Retainers and Tubular Oiling Device. Thoroughly up-to-date in every particular. Cups and cones carefully and accurately ground. Shell turned from solid bar. Best material. Handsomely plated. With $9\frac{1}{4}$ " balls. Distance between Fork Ends, $4\frac{5}{8}$ "; from centre of hub to centre of sprocket, $1\frac{3}{8}$ ". Fitted with 7, 8, 9 and 10 tooth sprockets, suitable for $\frac{3}{16}$ " chain.

Per pair, \$2.00.



LEADER



No. 998. "Leader" made from bar steel, cups and cones turned from special cone steel, accurately ground, chain line $1\frac{1}{2}$ " or $1\frac{5}{8}$ ", sprockets 7 to 12 tooth for $\frac{3}{16}$ " chain.

Per pair, \$2.25.

Balls Stay in When Axle is Removed.

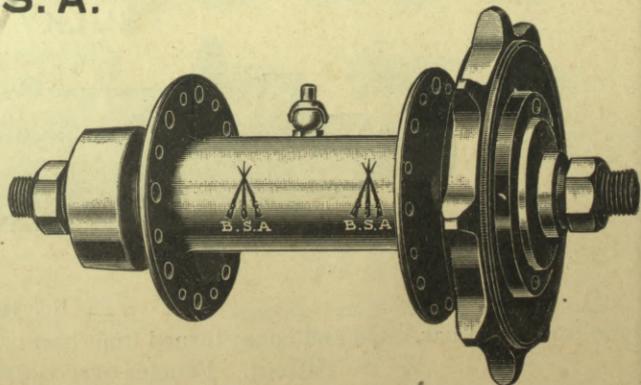
B. S. A.

No. 99. "B.S.A." Standard Pattern, road or race hubs, $1\frac{5}{8}$ " or $1\frac{1}{2}$ " chain line for $\frac{1}{4}$ " chain.

Per pair, \$4.00.

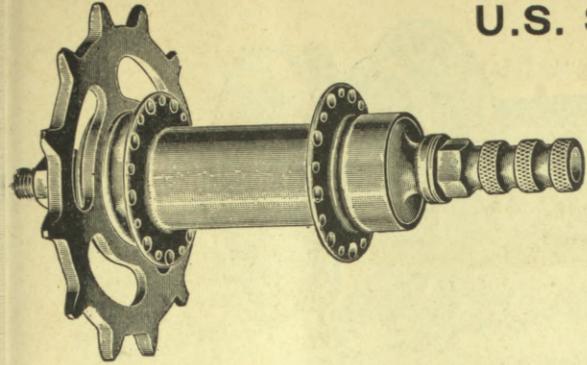
No. 100. "B.S.A." Barrel Pattern, road hubs, $1\frac{5}{8}$ " chain line for $\frac{1}{4}$ " chain.

Per pair, \$6.00.



HUBS

U.S. SPECIAL



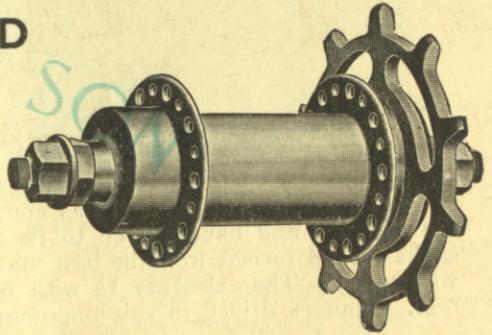
No. 996. "U.S. Standard" turned from bar, cups and cones turned, hardened and ground, dust proof bearings, finest grade nickel-plating, sprockets 7 to 12 tooth for $\frac{3}{16}$ " chain.

Per per, \$2.20.

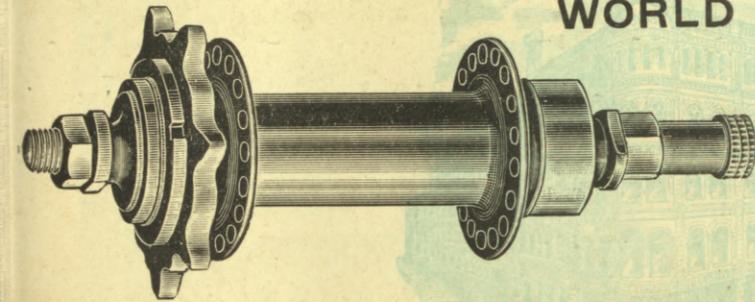
U.S. STANDARD

No. 997. "U.S. Special," steel shell, pressed cups, cones turned, dust proof bearing, sprockets 7 to 12 tooth for $\frac{3}{16}$ " chain.

Per pair, \$1.75.



WORLD



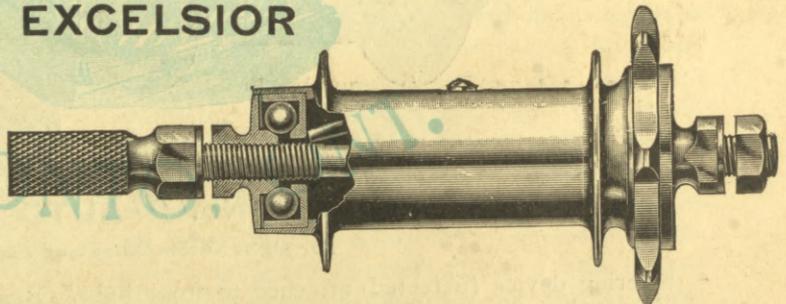
No. 1002. "World," made from solid bar. Good hub at low price.

Per pair, \$2.00.

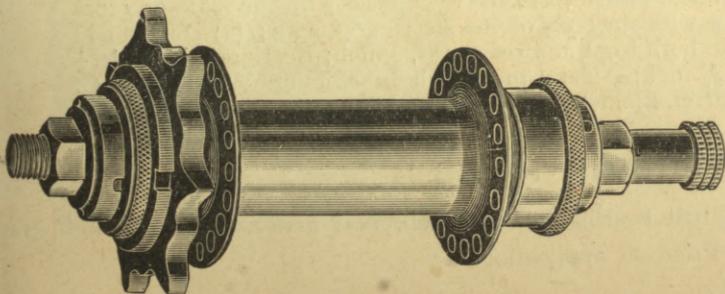
EXCELSIOR

No. 1001. "Excelsior," made from solid bar, cups and cones turned from best cast steel and accurately ground, chain line $1\frac{5}{8}$ ", sprockets 7, 8, 9 or 10 tooth for $\frac{3}{16}$ " chain.

Per pair, \$2.35.



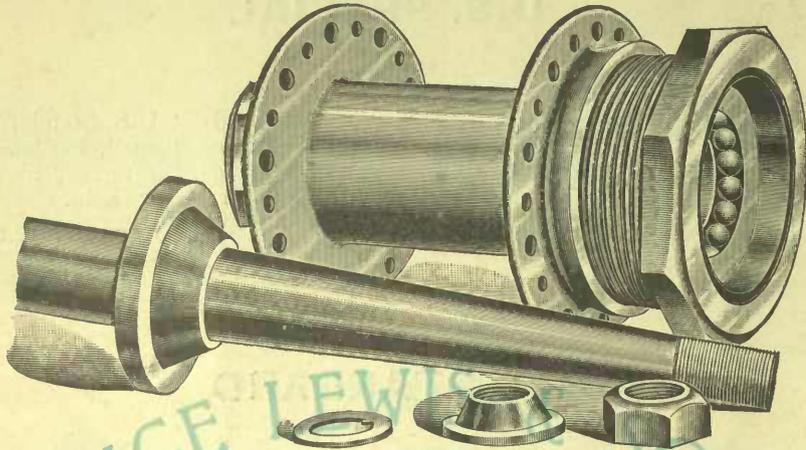
BEATS ALL



No. 1000. "Beats All," made from solid bar, cups and cones turned from best Cast Steel and accurately ground, new device for oiling hubs at both ends, chain line $1\frac{1}{2}$ " or $1\frac{5}{8}$ ", sprockets 7, 8, 9 or 10 tooth for $\frac{3}{16}$ " chain.

Per pair, \$2.65.

AUTOMOBILE HUBS

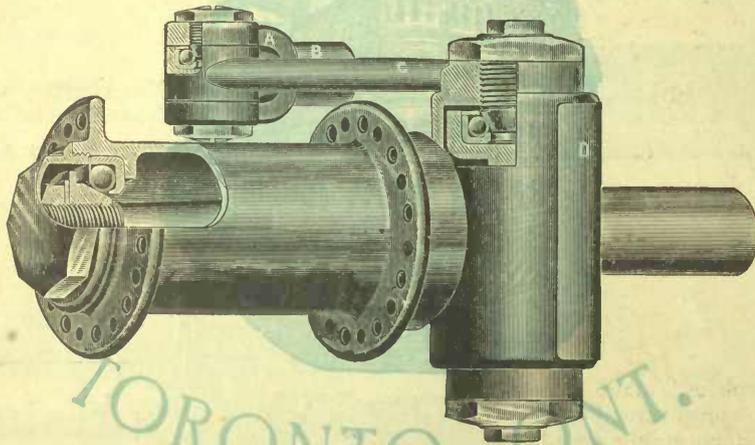


Style No. 1—AUTO HUBS

Designed for Phaetons or Light Delivery Wagons

The Wire Auto Wheel has come to stay, owing to the many advantages offered. Our Auto Hub are designed and have proven to be as easy running as any bicycle hub. The cups, cones, axles and shells are all turned from the best material obtainable. These hubs will carry a gross weight of 5,000 lbs with safety. The axles are $1\frac{3}{8}$ with 6-inch stub. Distance between flanges 4 inches for both front and rear. Flanges drilled to suit requirements. We furnish hubs, less sprockets.

Can furnish sprockets extra if desired, cast of crucible steel.



Style No. 2—AUTO HUBS

For Light Automobiles and Runabouts

Steering device (patented) attached to front hubs. Rear hubs in either ball bearing or stationary attached to axle. These hubs are somewhat smaller in diameter than our No. 1 Hub.

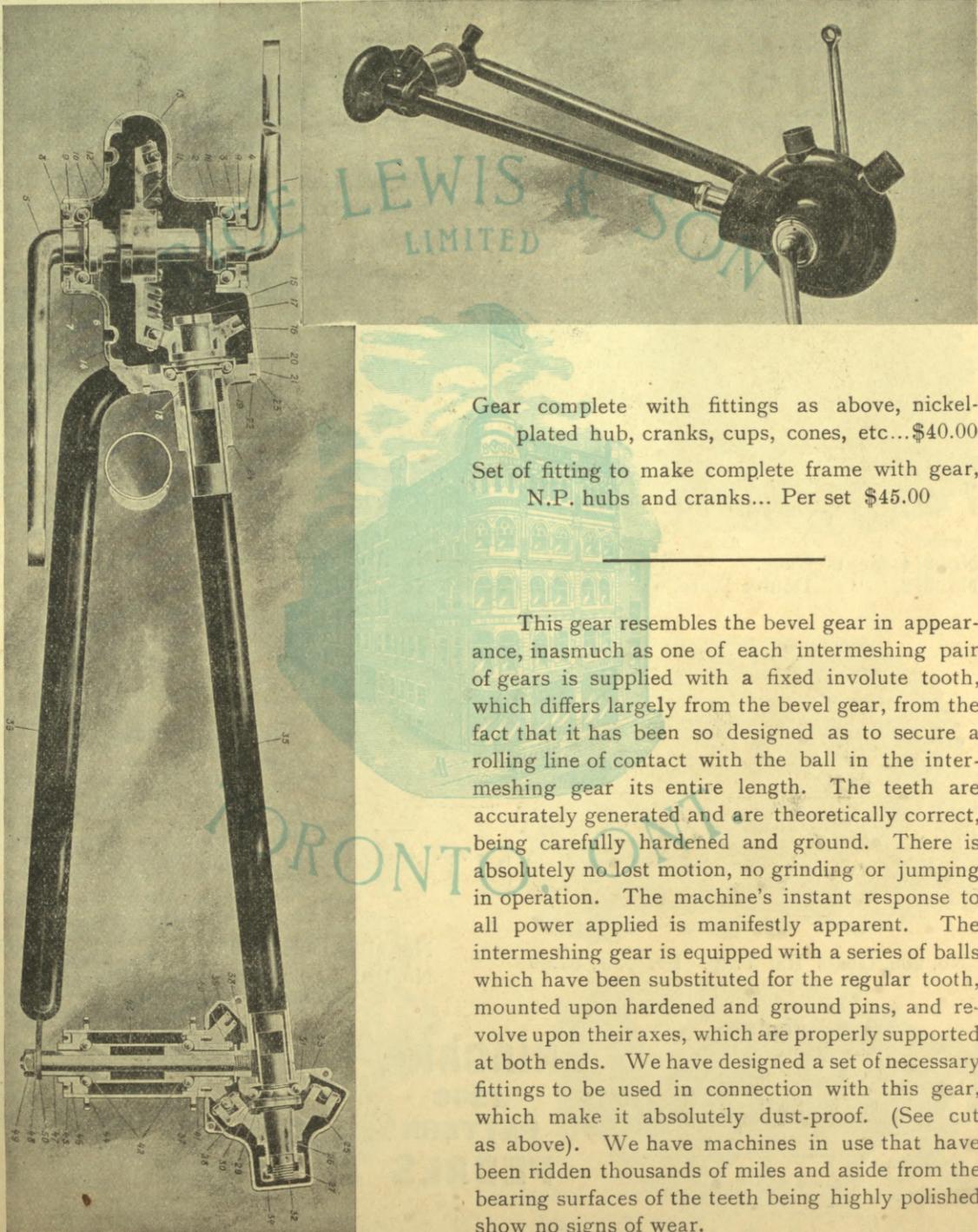
DESCRIPTION—(a) Connecting link; (b) Boss to connect with the main or cross rod; (c) Steering lever, in one piece with the body of the steering knuckle; (d) Dust shield for the steering knuckle; Bearing in both front and rear hubs, $\frac{3}{8}$ inch; Bearing in knuckle, $\frac{1}{4}$ inch; Bearing in connecting link, $\frac{3}{16}$ inch; Axles 1-inch, with 6-inch stub; Width C to C, flanges 4 inches; Diameter of barrel, $2\frac{1}{4}$ inches; Diameter of flanges, $3\frac{3}{8}$ inches.

CARRIAGE HUBS

Same diameter shell as No. 2 Auto Hub, ball bearing, axles 1-inch, best material, strictly high grade. Price on application.

BULLIS BALL GEAR

CANADIAN SELLING AGENTS

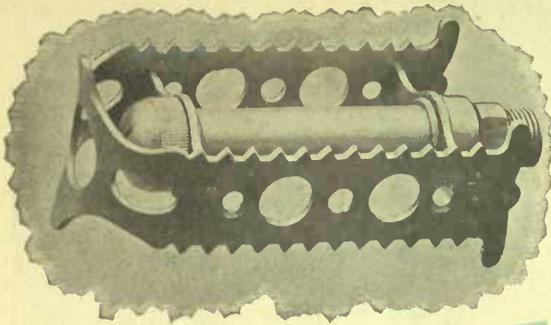


Gear complete with fittings as above, nickel-plated hub, cranks, cups, cones, etc...\$40.00

Set of fitting to make complete frame with gear, N.P. hubs and cranks... Per set \$45.00

This gear resembles the bevel gear in appearance, inasmuch as one of each intermeshing pair of gears is supplied with a fixed involute tooth, which differs largely from the bevel gear, from the fact that it has been so designed as to secure a rolling line of contact with the ball in the intermeshing gear its entire length. The teeth are accurately generated and are theoretically correct, being carefully hardened and ground. There is absolutely no lost motion, no grinding or jumping in operation. The machine's instant response to all power applied is manifestly apparent. The intermeshing gear is equipped with a series of balls which have been substituted for the regular tooth, mounted upon hardened and ground pins, and revolve upon their axes, which are properly supported at both ends. We have designed a set of necessary fittings to be used in connection with this gear, which make it absolutely dust-proof. (See cut as above). We have machines in use that have been ridden thousands of miles and aside from the bearing surfaces of the teeth being highly polished show no signs of wear.

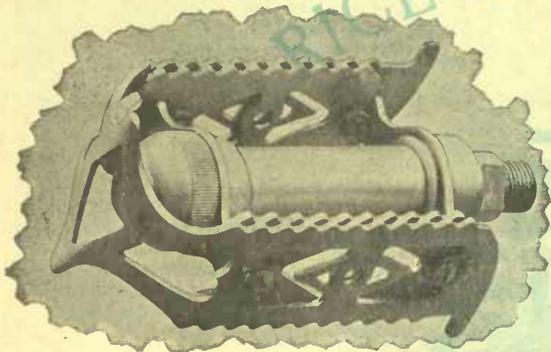
DIAMOND PEDALS



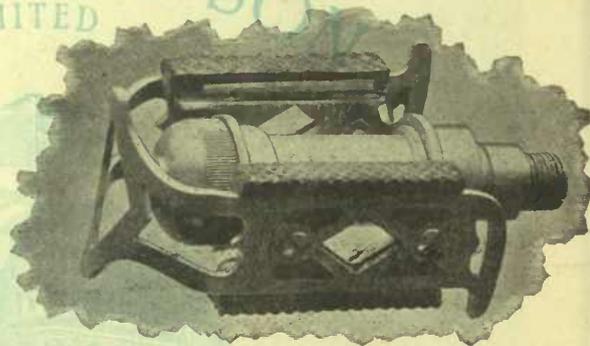
No. 220, Gents' Rat Trap. Per pair, \$1.00



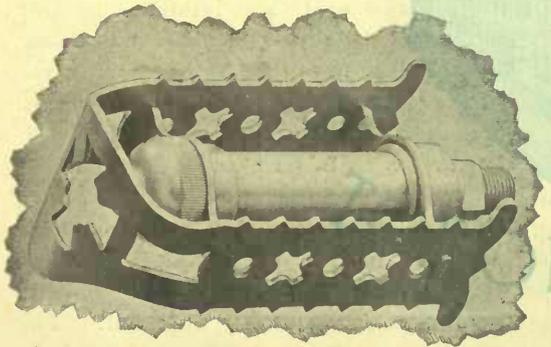
No. 221, Gents' Combination. Per pair, \$1.30
No. 222, Ladies' " " 1.30



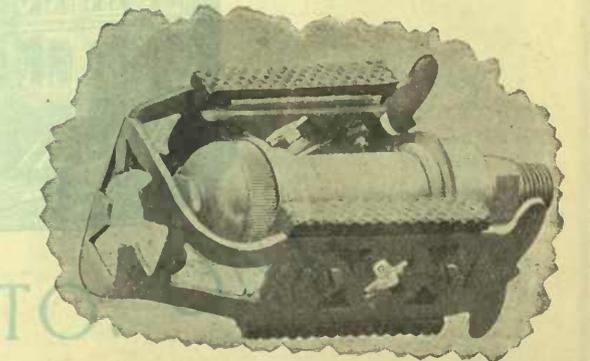
No. 214, Gents' Race. Per pair, \$1.80
No. 212, " Double Plate. " 2.00



No. 210, Gents' Combination. Per pair, \$2.00
No. 206, Ladies' " " 2.00



No. 208, Gents' Rat Trap. Per pair, \$1.80

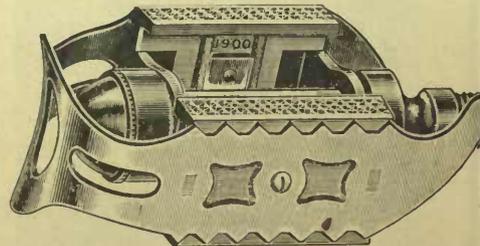


No. 216, Gents' Combination. Per pair, \$2.00
No. 218, Ladies' " " 2.00



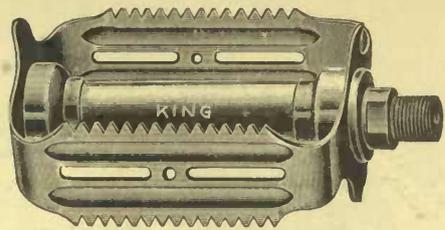
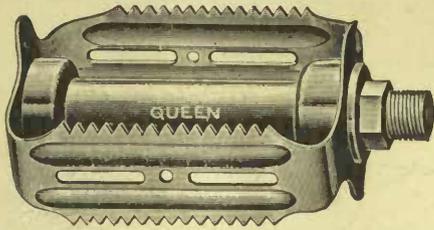
No. 223, Gents' Rat Trap. Per pair, \$0.90
No. 224, " Combination. " 1.10

NIAGARA 1900 PATTERN PEDALS



No. 225, Ladies' Combination. Per pair, \$1.10

PEDALS

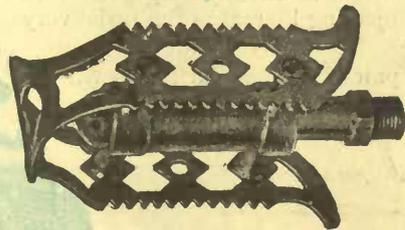
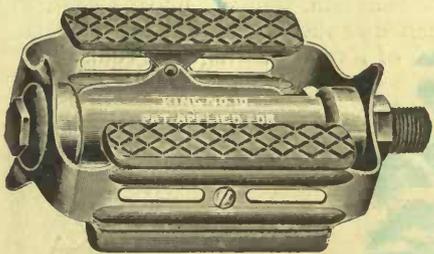


Queen—Gents' Rat-trap, wide continuous Band Frame, large Barrel, dust-proof Bearing with 10 $\frac{3}{8}$ " Balls in each end, easily adjusted Per pair \$1.60

King—Gents' Rat-trap, same construction as Queen, only narrower Frame Band, Smaller Barrel, and 15 $\frac{1}{8}$ " Balls... Per pair \$1.50

Queen—Gents' Combination, with Interchangeable Rubber..... Per pair 1.85

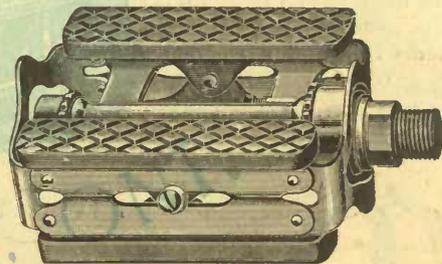
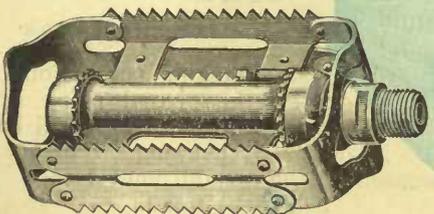
King—Gents' Combination, with Interchangeable Rubber Per pair 1.75



King—Ladies' Combination, with Interchangeable Rubber Per pair \$1.75

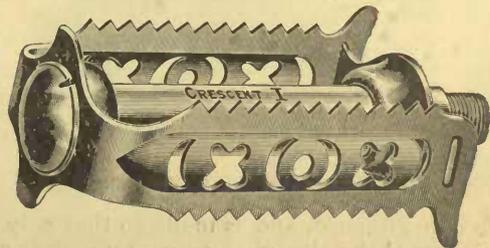
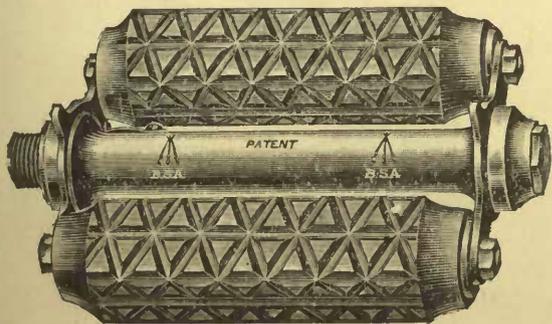
Century—Gents' Extra Heavy Side Plates, Rat Trap Per pair \$1.10

Century—Gents' Extra Heavy Side Plates, Combination Per pair 1.35



Banner—Gents' Rat-trap Per pair \$1.10
 " " Combination " 1.35

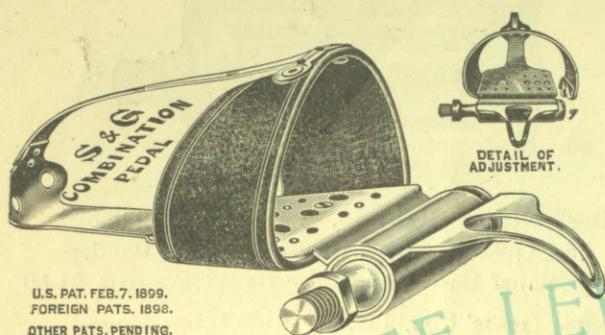
Banner—Ladies' Combination Per pair 1.35



B.S.A.—Ladies' or Gents' Rubber ... Per pair \$4.00
 Pattern, Gents' Rat-trap..... " 1.00

Crescent—Gents' Rat-trap, End Bearing design, $\frac{3}{8}$ " Balls Per pair \$1.00
 With Universal Rubber..... " 1.35

PEDALS

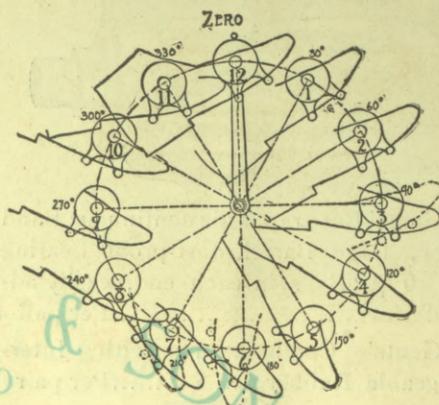


U.S. PAT. FEB. 7, 1899.
FOREIGN PATS. 1898.
OTHER PATS. PENDING.

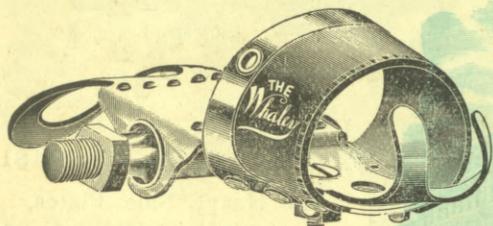
S and G Combined Pedal and Toe Clip.

Has full, flat bearing for the foot, the leather top can be adjusted to fit any size shoe, the rear projecting lip makes the pedal very easy to catch.

Per pair\$2.50



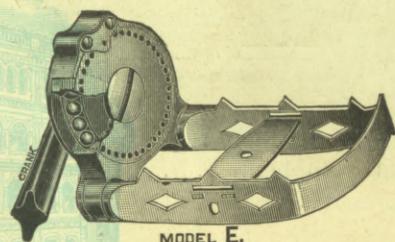
Clock Diagram, showing under swing, with perfect ankle motion obtained by use of Ramsey Swinging Pedals.



Whaley Adjustable Stirrup Pedal

Pedal and base of clip in one piece; the leather top, which is held in shape by metal spring on face of clip, is adjustable to fit any size shoe; fitted with tripper, which enables pedal to be caught instantly.

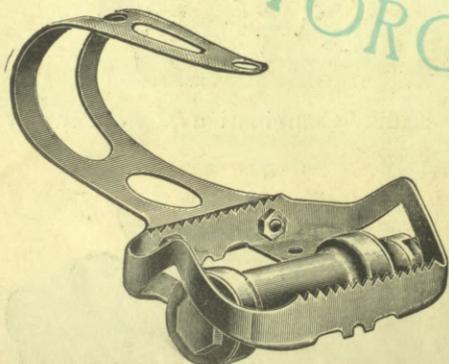
Per pair\$2.50



No. E Ramsey Swinging Pedal

Has a forward or under swing (as per motion above). This is caused by the pivotal point being above the tread. The ordinary pedal has a backward or over swing. This is caused by the pivotal point being below the tread.

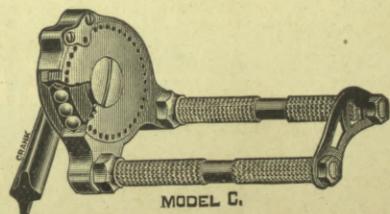
Per pair\$4.50
Toe Clips for same, per pair 0.50



The "Professional" Pedal

Has toe clip attached, and is made so that only one side is used, thereby giving an extra clearing above the ground of nearly one inch more than ordinary pedals.

Per pair\$1.75



No. C Ramsey Swinging Pedal

Description as above, with round knurled bars.

Per pair\$4.50
Toe Clips for same, per pair 0.50

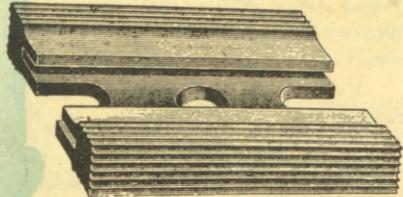
Pedal Parts

No. 1. Large cup	each, \$0	12
" 2. Dust cap	"	18
" 3. Small cup	"	8
" 4. Centre washer, leather ...	per doz.	24
" 5. Inside plate.....	each,	7
" 6. Lock washer for cone ...	per doz.	44
" 7. Cone	each,	14
" 8. Rubbers	per set,	30
" 9. Axle washers	per doz.	20
" 10. Barrel and cross-bar	each,	42
" 11. Axle	"	40
" 12. Outside dust washers.....	"	9
" 13. Steel side plates.....	"	7
" 14. Inside dust washers	"	9
" 15. Front Stretcher	"	17
" 16. Frames.....	"	48
" 17. Small bolts for rubber ...	per doz.	14
" 18. Small bolt for nuts	"	10
" 19. Large check nuts	each,	9

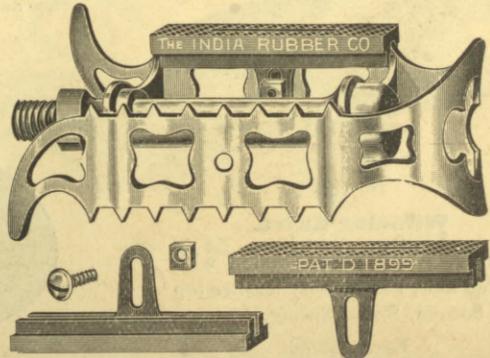
No. B 28 L



No. 20. Interchangeable Rubber Combination, to fit "King" and "Queen" pedals. Sizes for ladies' and gents' pedals, per set. \$0 25



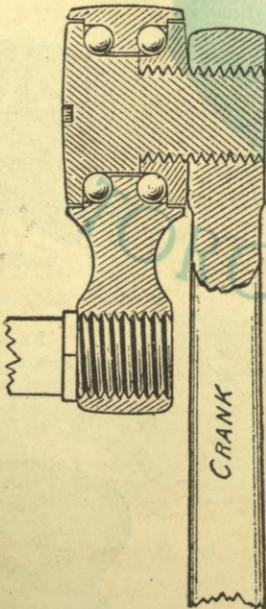
No. 21. Universal Combination Rubbers. Snaps on; no bolts or screws; will fit almost any pedal. Sizes for ladies' and gents' pedals, per set, \$0 25



No. 22. "India" Combination Rubbers, 8 pieces to set, with N.P. bolts. Per set, \$0.25.

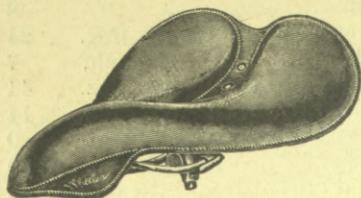
Jointed Attachment for Cranks

EXACT SIZE



The best and most useful invention on bicycles ever made. Fits any bicycle. Weighs only 8 ounces. Far better than any swinging pedal. Much lighter. Do not look clumsy. Less cost. Strong, durable, well nickeled. Price.....per pair, \$1 20

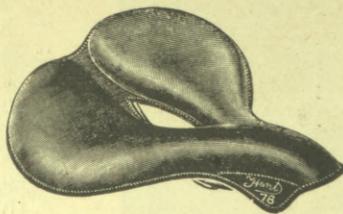
AMERICAN SADDLES



No. 56

Wheeler Special

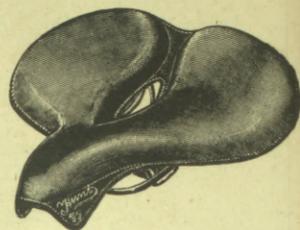
Gents' Roadster, Wood base,
Padded. Each, \$2.00.



No. 76

Hunt

Gents', Wood base, Padded, best quality
Leather top and bottom. Coil Spring.
Each, \$1.60.

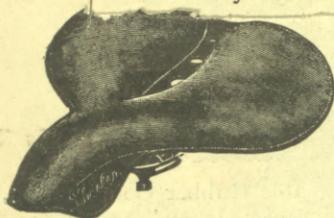


No. 77

Hunt

Ladies', same material as No. 76.
Each, \$1.60.

Projecting lip makes the pedal
easy to catch.



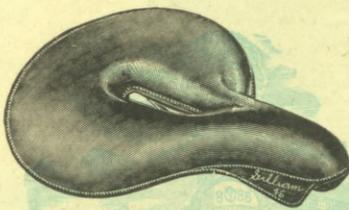
No. 86

Wheeler Extra

Gents', Wood base, Padded with
curled hair, best quality Leather top
and bottom, Coil Spring.

Each, \$2.30.

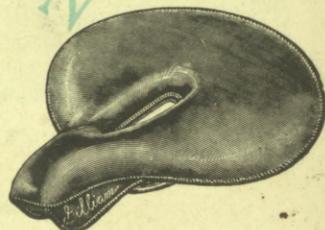
With Spiral Spring, each, \$2.50.



No. 46

Gents', Metal base, Padded, selected
Leather top and bottom. Coil Spring.

Each, \$1.20.



No. 47

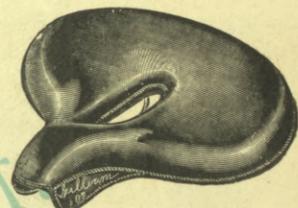
Ladies', same material as No. 46.
Each, \$1.20.



No. 108

Gents', Metal base, Padded, good Leather
top and bottom. Truss Spring.

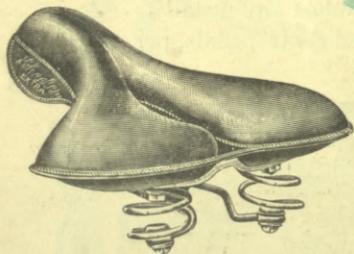
Each, \$1.00.



No. 107

Ladies', same material as No. 108.

Each, \$1.00.

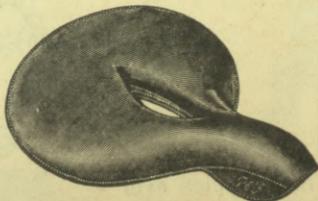


No. 87

Wheeler Extra

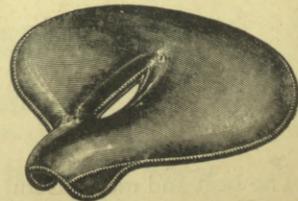
Ladies', Wood base, Padded with
curled hair, best quality leather top
and bottom, Spiral Spring.

Each, \$2.50.



No. 98

Gents', Metal base, Padded, Truss Spring
Each, 80c.

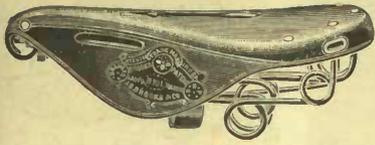


No. 97

Ladies', same material as No. 98.

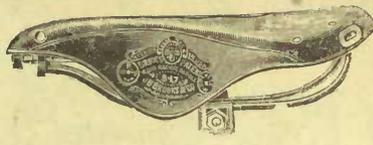
Each, 80c.

BROOKS' SADDLES



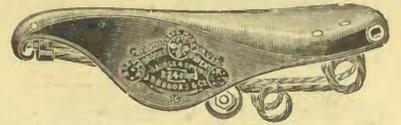
No. **B 10 L**

Ladies'.....each, \$2.80



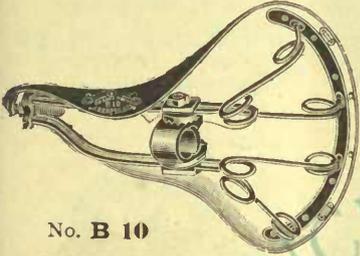
No. **B 17**

Track Racing.....each, \$2.40



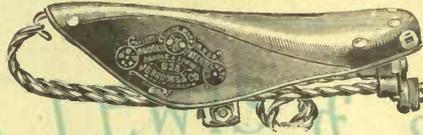
No. **B 24 L**

Ladies'.....each, \$2.40



No. **B 10**

Road Racing.....each, \$2.80



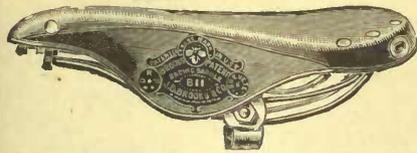
No. **B 28**

Gents' Roadster.....each, \$3.25



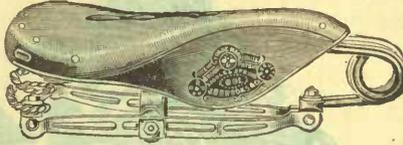
No. **B 28 L**

Ladies'.....each, \$3.25



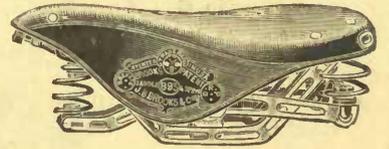
No. **B 11**

Track Racing.....each, \$2.80



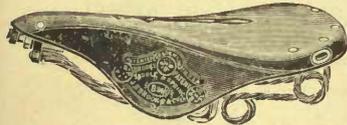
No. **B 91**

Hammock Roadster, each, \$4.25



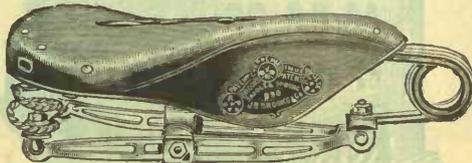
No. **B 93**

Ladies' or Gents, patent double action spring, each, \$4.00



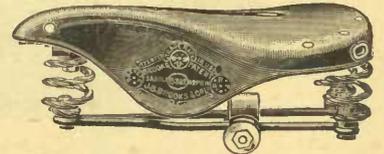
No. **B 24-1**

Light Roadster...each, \$2.40



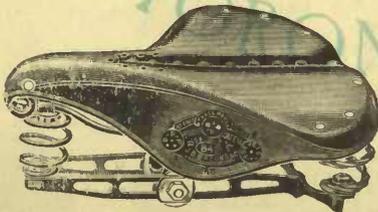
No. **B 90**

Hammock Roadster.....each, \$5.00



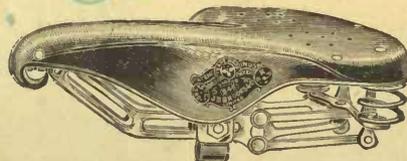
No. **B 302 L**

Ladies', with 3 coil springs, each, \$2.80



No. **B 40**

Each..... \$5.00



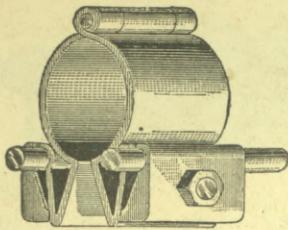
No. **B 45**

Each \$5.00

Nos. B 40 and B 45 are broad saddles with patent tensioned leather under-seat by which the body is supported and the peak left soft and unrestrained.

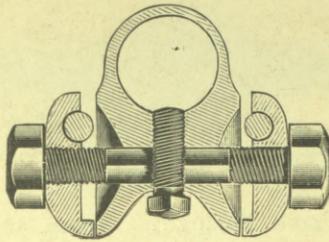
Springs for Brooks' Saddles, each, \$1.00; Spiral Springs for Brooks' Saddles, each, 40c.

SADDLE CLAMPS



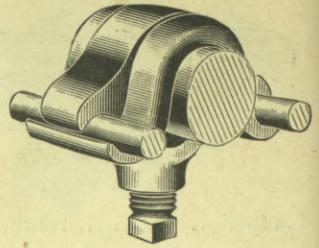
No. 9

Saddle Frame Clamp
Each, 50c.



No. 5

For Upright T or L Posts,
all wire springs.
Per doz., \$4.00; Each, 40c.



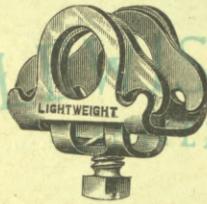
No. 7

Per doz..... \$2.50
Each25



No. 6

For $\frac{1}{8}$ Flat Spring and $\frac{5}{8}$ Seat
Post.
Per doz..... \$1.65
Each20



No. 1

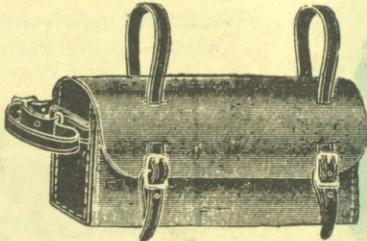
Per doz..... \$1.60
Each20



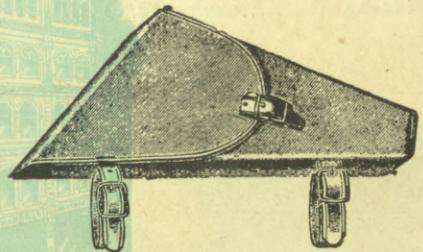
No. 3

Per doz..... \$1.35
Each15

TOOL BAGS



No. 572



No. 672

No. 572, size 1. Gents', square top, bevel riveted end, with patented clasp, per dozen..... \$4.00
 " 572, " 2. " " " " sewed " round bottom, with patented clasp, per doz... 6.00
 " 672, " 4. Ladies' Triangular, sewed, with patented clasp, per doz. 4.50
 " 672, " 6. " " " " " " " " extra quality, per doz..... 6.25

REPAIR KITS



No. 218

Dunlop Repair Kit.
Per doz., \$1.35.



No. 217

Midget. Per doz., \$1.35.



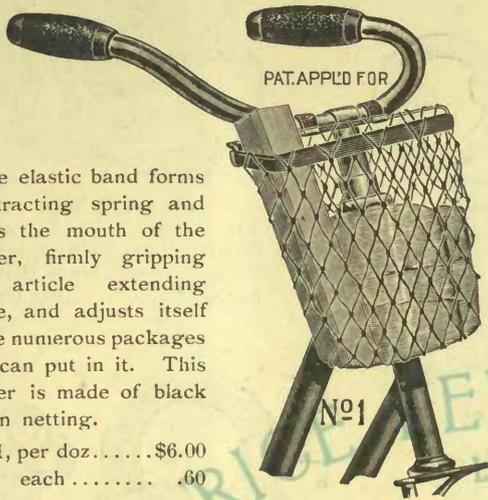
No. 216

Morgan & Wright
single or double tube
tire, quick repair outfit
Each, 10c.

PARCEL AND BUNDLE CARRIERS

PARCEL CARRIERS

SCHOOL BAG CARRIER



The elastic band forms a retracting spring and closes the mouth of the carrier, firmly gripping any article extending above, and adjusts itself to the numerous packages you can put in it. This carrier is made of black cotton netting.

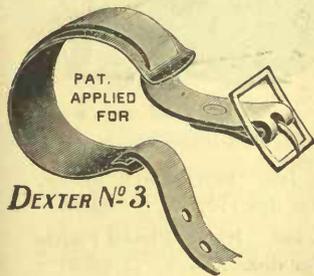
No. 1, per doz. \$6.00
 " each60



This carrier is supplied with our spring clamp, same as on our No. 3 Carrier. The clamps prevent the bag from sliding together at the top, or slipping from side to side on bar. Leather straps with nickel-plated trimmings.

No. 5, heavy colored duck, size, 9x10x3 in....	Per doz.	Each.
" 6, " " " " 10x10x3 in....	\$5.00	50c.
	5.00	50c.

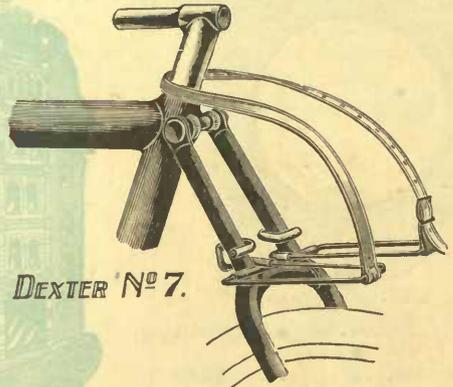
POCKET CARRIERS



No. 3 clamps around the handle bars and holds the strap in place. Can be used on almost any part of bicycle. Springs are adjustable.

No. 3, per doz. pair, \$3.60
 " per pair35

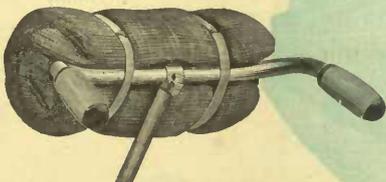
REAR LUGGAGE CARRIER



This carrier adjusts itself and will fit in rear forks of all bicycles. It is supplied with proper length straps and nickeled buckle. Just the carrier for cameras or any package or coat.

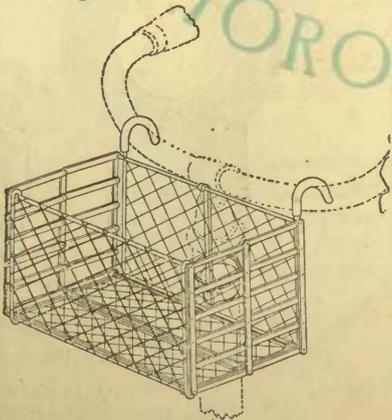
No. 7, heavily nickel-plated, per doz., \$4.00; each, 40c.

ELASTIC CARRIERS



No. 162, per doz. pair, \$1.25; per pair, 15c.

Folding Wire Parcel Carrier



No. 161, Size, 6x6x10"....each, \$1.33
 " 160, " 6x8x14".... " 1.65

Canvas Waterproof Luggage Bag



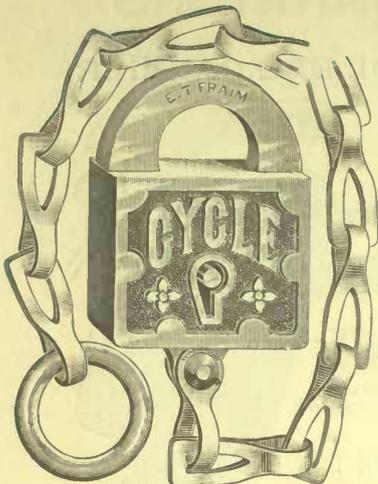
No. 159, Size, 8 x 10" . each, \$3.00
 " 158, " 10 x 14" .. " 4.00

"Kozy" Child's Seat

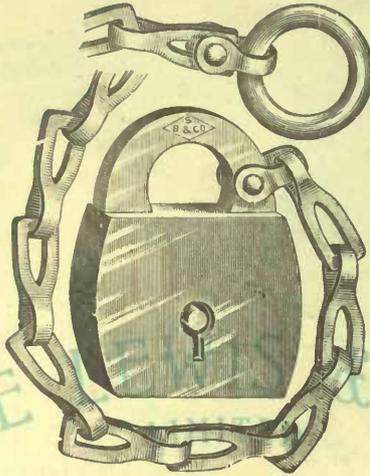


No. 163.
 Each, \$2.25

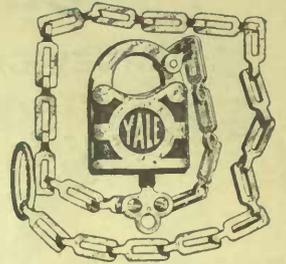
LOCKS



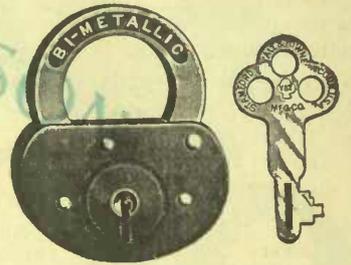
No. 391
Aluminum Bronze, extra strong spring shackle, self-locking, 1 key, nickel-plated steel chain, solid steel ring.
Per doz..... \$2.25



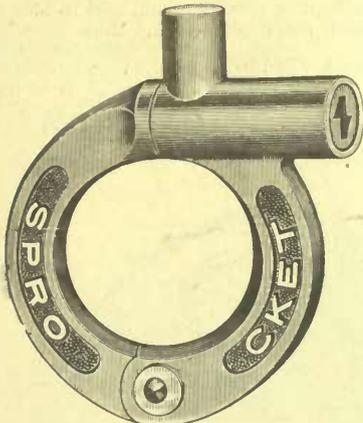
No. 205
Bronze Metal, self-locking, one key, nickel-plated chain.
Per doz..... \$2.90



No. 8013 B
Yale, Bronze Metal, self-locking, two keys, all different, brass chain.
Per doz..... \$16.00



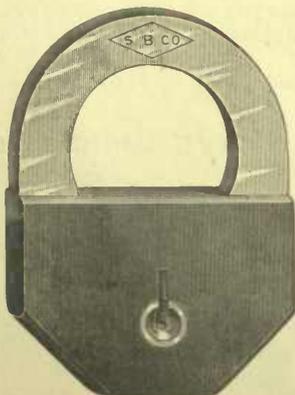
No. 100
Yale Steel, self-locking, one key.
No. 100. Ivory Black Finish.
Per doz..... \$1.75
No. 105. Nickel-Plated Finish.
Per doz..... \$2.50
No. 104. Same as No. 100, with chain.
Per doz..... \$3.20
No. 106. Same as No. 105, with chain.
Per doz..... \$4.00



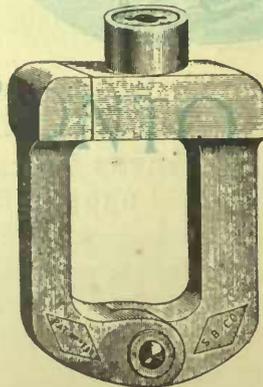
No. 1000
Bronze Metal, 200 changes, self-locking, one key.
Per doz..... \$3.80



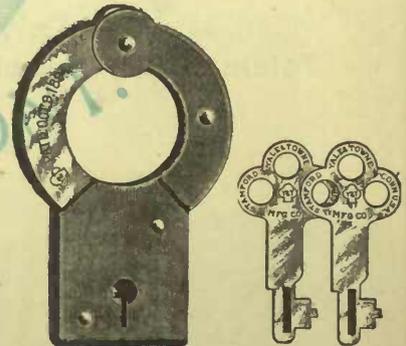
No. 206
Security Lock, brass, nickel-plated, key fastens in lock when not in use.
Per doz..... \$3.20



No. 735
Pressed Metal, brass interior works, self-locking, one key.
Per doz..... \$1.10

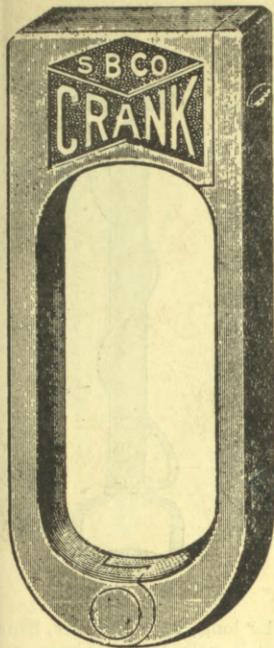


No. 1300
Bronze Metal, twelve changes, self-locking, one key.
Per doz..... \$2.90



No. 102
Yale Steel, self-locking, two keys.
No. 102. Ivory Black Finish.
Per doz..... \$2.60
No. 103. Bronze Finish.
Per doz..... \$2.60

LOCKS



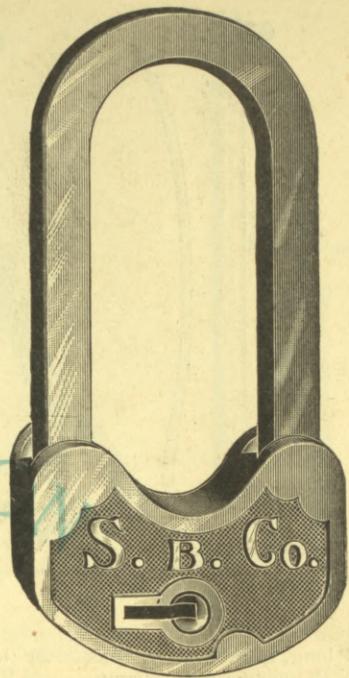
No. 1200

Bronze metal, plated, 200 changes, self-locking, one key.
Per dozen, \$4.00



No. 37

Aluminum, spring shackle, self-locking, flat key, all different, weight $\frac{7}{8}$ oz.
Per doz., \$8.00



No. 1400

Acme Crank Lock, bronze metal, self-locking, one key.
Per dozen, \$2.80

CYCLIST'S KNIFE



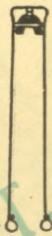
No. 95800

3½" Aluminum handle, large spear blade, turn screw and tire detacher.
Per doz., \$10.00; Each, \$1.00

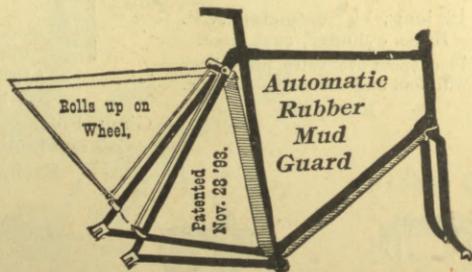
MUD GUARDS

No. 182

Rubber band mud guard for front and rear wheel.
Per pair, \$0.50



MUD GUARDS



No. 187

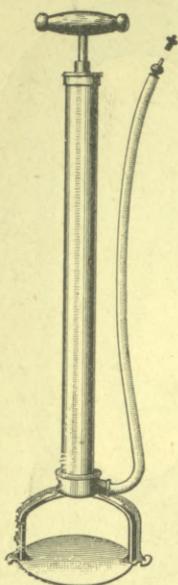
Each, \$1.00



No. 184

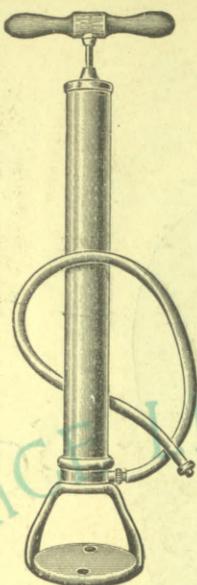
Ladies' Gem Strip
Each, \$0.40

PUMPS



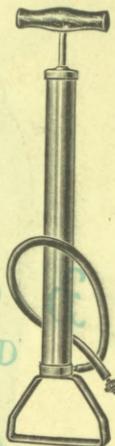
No. 255

22" long, 1½" diameter, Brass
N.P. cylinder, cast stirrup.
Each, \$2.10.



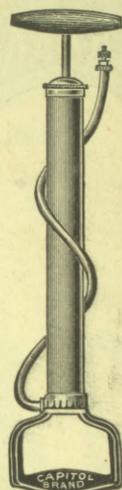
No. 250

20" long, 2" diameter, Brass
N.P. cylinder, cast stirrup.
Each, \$4.40.



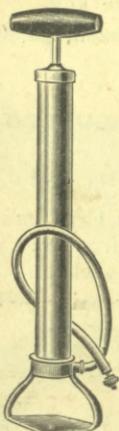
No. 249

12" long, 1¼" diameter, Brass
N.P. cylinder, wrought
stirrup.
Per doz., \$5.20; each, 45c.



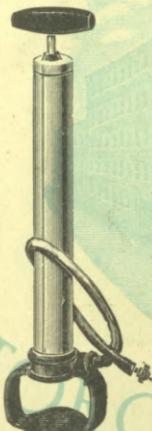
No. 265

12" long, 1¼" diameter, Brass
N.P. cylinder, cast base, pat-
ented expander plunger.
Per doz., \$6.40; each, 55c.



No. 256

12" long, 1½" diameter, drawn
steel, N.P. cylinder, cast base
Per doz., \$8.40; each, 75c.



No. 257

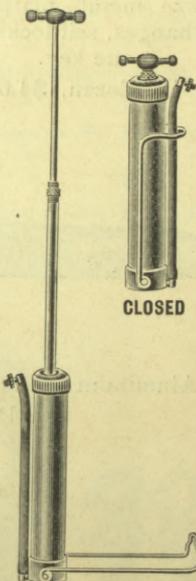
12" long, 1½" diameter, Brass
N.P. cylinder, cast base.
Each, 90c.



THE
BANNER PUMP.
Patented Jan. 10, 1899.

No. 264

12" long, 1¼" diameter, N.P.
Brass cylinder, cast base.
Place spout over valve, press down
with foot and connection is made.
Each, 60c.



CLOSED

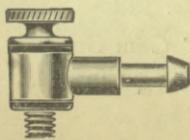
AS A FOOT PUMP
No. 266

Giant Folding Pocket, Foot
or Hand Pump.
Each, 65c.



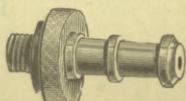
No. 264

Per doz., 76c.; each, 8c.



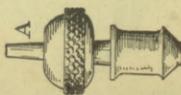
No. 264

Right Angle Pump
Connection.
Per doz., 90c.; ea., 10c.



No. 263

Swivel Nipple A and K
combined.
Per doz., 60c.; ea., 8c.



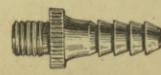
No. 260

A—Swivel.
Per doz., 60c.; ea., 10c.



No. 259

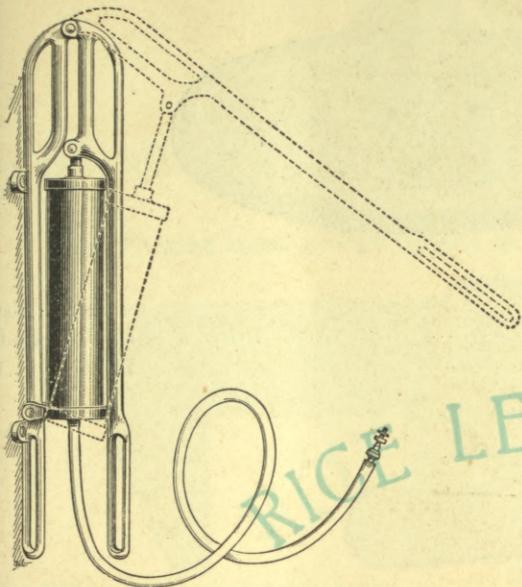
K—Nipple
Per doz., 30c.; ea., 5c.



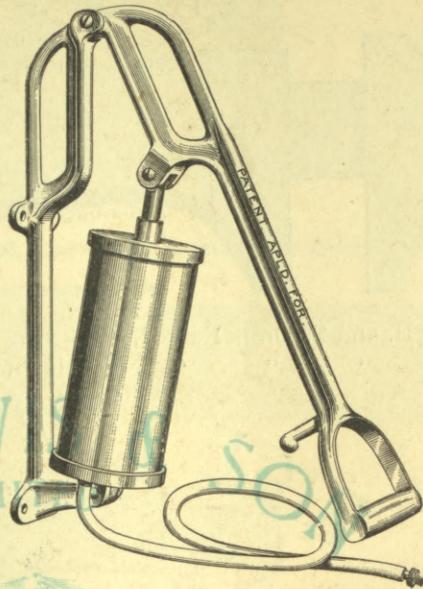
No. 262

Hand Pump Nipples.
Per doz., 30c.; ea., 5c.

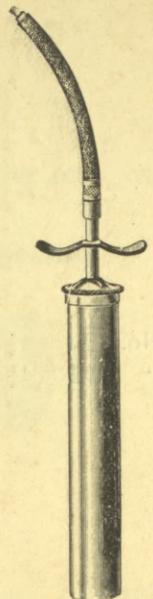
PUMPS



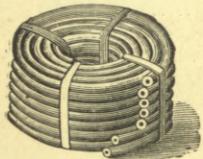
Cylinder. Capacity.
 No. 54 10x1 1/2 in. 17 cubic in... each, \$2.40
 " 55..... 8x2 " 25 " " " 4.20



Cylinder. Capacity.
 No. 56 6 1/4 x 3 in. 38 cubic in.
 Each.....\$7.00



No. 258.
 Hand Pump.
 Per doz.....\$1.65
 Each..... 0.16



Rubber Pump Tubing.
 Per foot.....8c.



Pump Suckers.
 Hand pumps, per. doz . . 12c.
 Foot pumps. 1 1/4 1 1/2 2"
 Per doz.... 30c. 35c. \$1.00



Steel Pump Clips.
 Per pair.....10c.

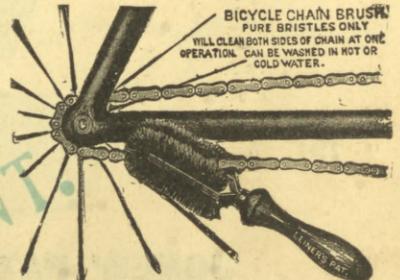


Automatic Cut-off Valve.
 Each, 60c.

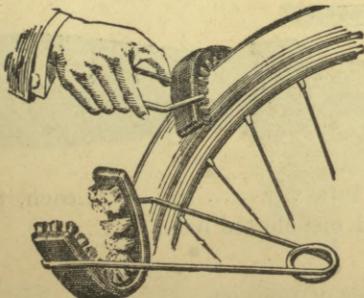
CHAIN CLEANING BRUSHES



No. 140. Single rowper doz., \$1.35
 " 141. Double row..... " 2.50



BICYCLE CHAIN BRUSH!
 PURE BRISTLES ONLY
 WILL CLEAN BOTH SIDES OF CHAIN AT ONE
 OPERATION. CAN BE WASHED IN HOT OR
 COLD WATER.
 No. 142. Per doz., \$2.00; each, 20c.



No. 143. Per doz., \$3.00; each, 30c.

TIRE CLEANING BRUSHES



LEWERS PAT. BICYCLE TIRE BRUSH!
 WILL CLEAN AND POLISH TIRE AND
 RIM AT THE SAME TIME WITHOUT
 TROUBLE OR SOILING THE HANDS.
 FITS ANY SIZE.
 MADE OF RUSSIAN BRISTLES
 AND CAN BE WASHED OUT IN
 HOT OR COLD WATER AND
 ARE GUARANTEED IN EVERY
 OTHER RESPECT.
 No. 144. Per doz., \$4.00; each 40c.

WRENCHES



						Per Doz.	Each.
No. 194.	4 1/4-inch,	B. and S.	Drop	Forged,	black.....	\$10.10	\$1.00
" 491.	4 1/4 "	"	"	"	nickel-plated.....	11.25	1.15

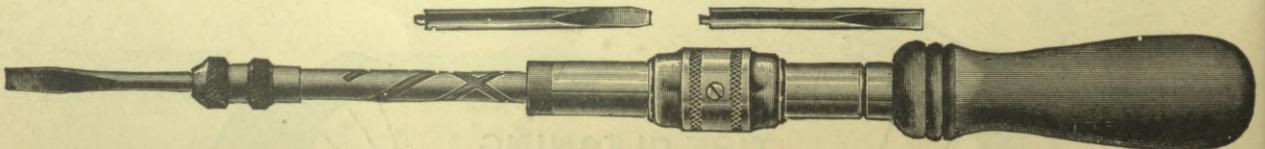


						Per Doz.	Each.
No. 195.	5-inch,	B. and S.	Drop	Forged,	black.....	\$10.10	\$1.00
" 196.	6 "	"	"	"	".....	13.50	1.35
" 591.	5 "	"	"	"	nickel-plated.....	11.25	1.15
" 691.	6 "	"	"	"	".....	16.80	1.65



						Per Doz.	Each.
No. 197.	5-inch,	B. and S.	Drop	Forged,	black.....	\$10.10	\$1.00
" 791.	5 "	"	"	"	nickel-plated.....	11.25	1.15

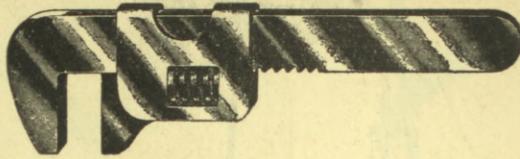
JONES' PATENT REVERSIBLE SCREW DRIVER



No. 1.	Length, closed, 11-inch; open, 17-inch, with three forged steel bits	each,	\$2.60
" 2.	" " " 10 " " 15 " " two plain bits and one slotted bit.....	"	2.30

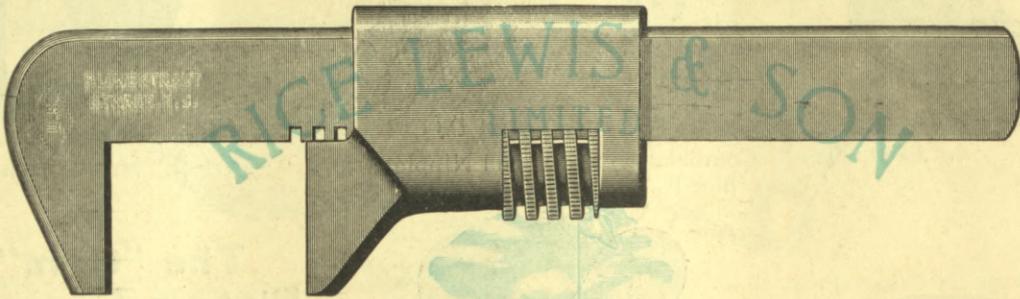
The No. 2 is suitable for use on the Spoke Nipples of bicycles.

WRENCHES



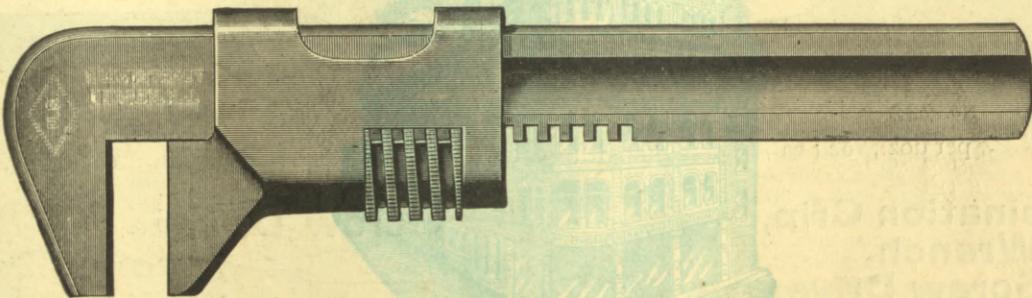
No. 290. Nickel-plated (special pattern), all Wrought SteelPer doz., \$2.40; each, 25c.

Drop Forged from a high grade of Steel, carefully tempered and highly finished.

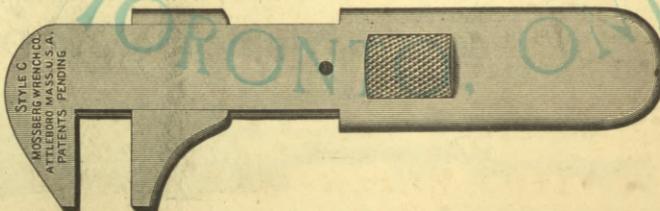


No. 191. Polished, Forged Steel.....Per doz., \$2.30; each, 25c.

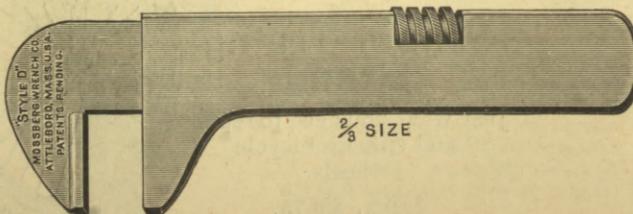
" 192. Nickel-plated, Forged Steel " 2.75; " 30c.



No. 193. Nickel-plated, FlutedPer doz., \$3.20; each, 35c.

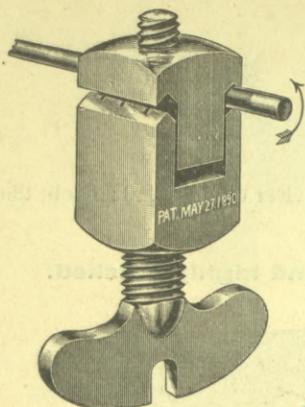


No. 201. Mossberg C, Nickel-platedPer doz., \$3.50; each, 35c.



No. 199. Mossberg D, Nickel-plated.....Per doz., \$3.50; each, 35c.

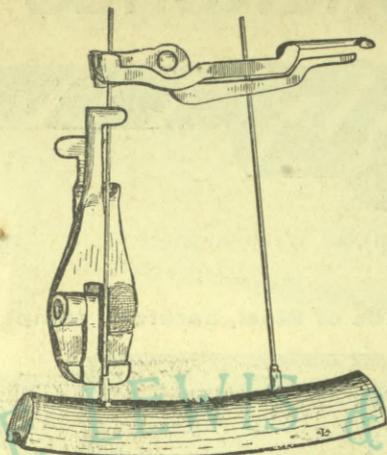
Spoke Grips



No. 205

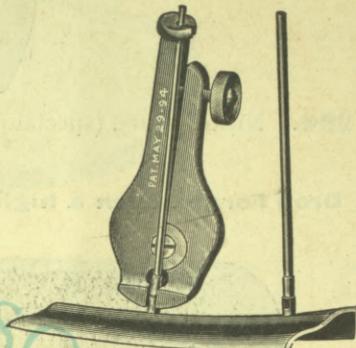
Double.....each, 80c.

Nipple Grips



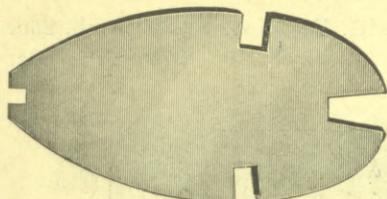
No. 206

Combination Spoke and Nipple Grip,
blued...per doz., \$3.50; each, 35c.



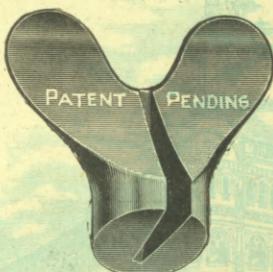
No. 204

"Perfect," blued..... each, 70c.



No. 203

"Pony," N.P., per doz., 75c.; ea., 10c.



No. 202

Plated.....each, 15c.

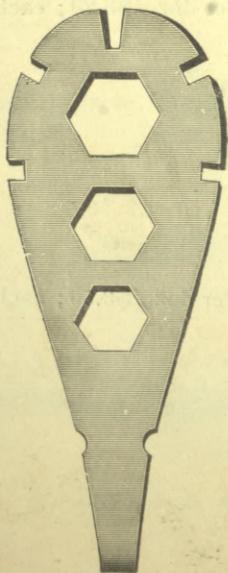
The "Gem" Pinhole Spanner



No. 201

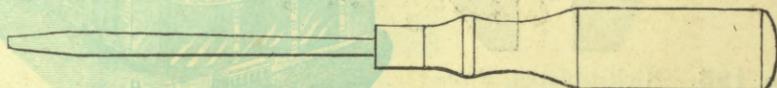
Blued.....each, 35c.

Combination Grip, Wrench, and Screw Driver



Plated, per doz., \$1.80; ea., 20c.

Screw Driver



No. 3

Standard, Mahogany handle, 2" blade.....per doz., \$1.00

Nipple Screw Driver



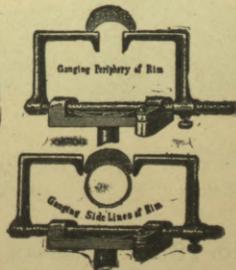
No. 200

5" over all.....per doz., \$2.50; each, 25c.

Wheel Truing Stand

Just what you need to repair and true up bicycle wheels.

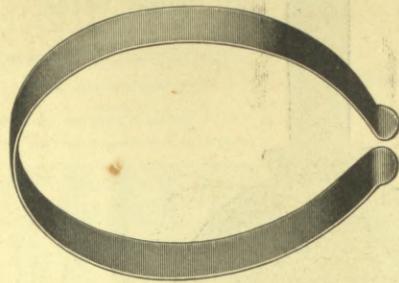
Each, \$6.75.



TROUBLE BELLS

CORRUGATED

PLAIN



No. 228. Japanned.....per gross, \$2.60; per doz., 25c.

No. 229. Japanned.....per gross, \$2.60; per doz., 25c.



No. 230. Soliel, or French Clip, blued.....per gross, \$6.50; per doz., \$0.70
 " 231. " " " " nickel-plated " 8.00; " 0.90

CYCLOMETERS



The "Jockey"

Geared throughout. Action positive. No springs nor eccentric parts. The registering is absolute. It cannot be re-set.

What is the good of a cyclometer whose mileage can be changed at will? You want one whose record you can bank on.

Made and warranted by the New England Watch Co.

No. 167, each..... \$0.80
 Per doz..... 8.50



The New Departure

Non-corrosive, dust-proof, water-proof, simple, strong mechanism, giving direct and positive motion; without springs, ratchets, pawls or other cumbersome and intricate parts, thus forming the smallest, lightest, and at the same time the most durable Cyclometer in existence. No soft metals employed in its construction, every part being made either from hard brass or best nickel silver, which insures durability with lightness. Records 10,000 miles and repeats. Guaranteed by the New Departure Bell Company.

No. 166, each, 80c.; per doz., \$9.00

EXACT SIZE

U. S. Trip

Registers 100 miles by tenths, and can easily be set to "0" at any time to record any journey.

The total registers up to 10,000 miles, and keeps a perfect record of the season's mileage.

The new spoke stud will not move on the spoke, but will always remain in its place.

OUR GUARANTEE.—Should the meter be damaged send to maker, with stamps, and he will return it in good order.

THE U.S. MFG. CO.,



READS:
 TOTAL 2486 MILES.
 TRIP 75 ⁷/₁₀ MILES.

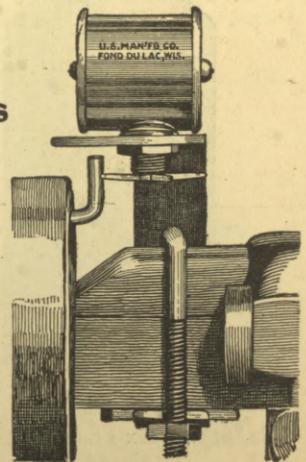
Trip Feature, with Improved Set-Back.

No. 169, each..... \$1.00

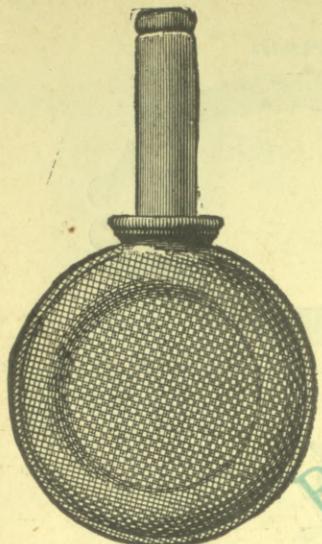
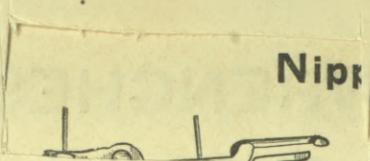
U.S. Odometer for Carriages

Registers 10,000 miles by tenths. The U.S. Odometer registers the distance traveled by a horse. Everyone who has a horse and carriage will be interested in this instrument. Liverymen, physicians, "speeders," etc., will find the "U.S." of great practical value. No one can guess with accuracy how far a horse has traveled. The "U.S." does no guessing. It tells the truth. In ordering state size of wheel.

No. 170, each, \$2.50



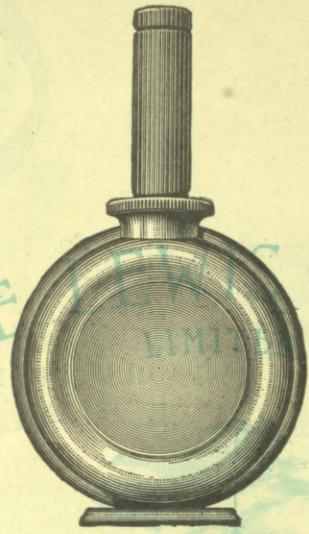
As it looks when Attached



No. 224

Perfect. Corrugated.

Per doz. \$0.70
Each 0.10



No. 223

Zenith. With stand, plated.

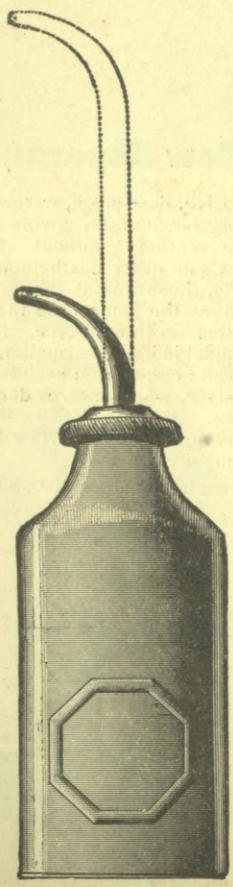
Per doz. \$1.10
Each 0.10



No. 221

Star. Plated.

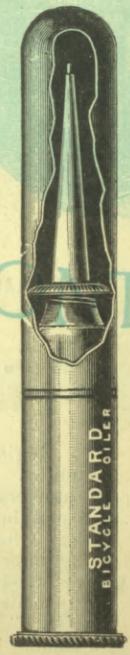
Per doz \$0.70
Each 0.10



No. 225

Safety. Extension Spout, plated.

Per doz. \$2.00
Each 0.20



No. 219

Standard. Plated, small or large.

Per doz \$2.40
Each 0.25



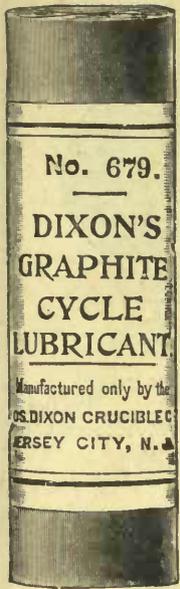
No. 220

Magic. Plated.

Per doz \$1.00
Each 0.10

TORONTO, ONT.

BELLS



No. 679
Per gross, \$10.00
" doz.. 1.00



No. 691
Per gross, \$5.00
" doz.. 0.50



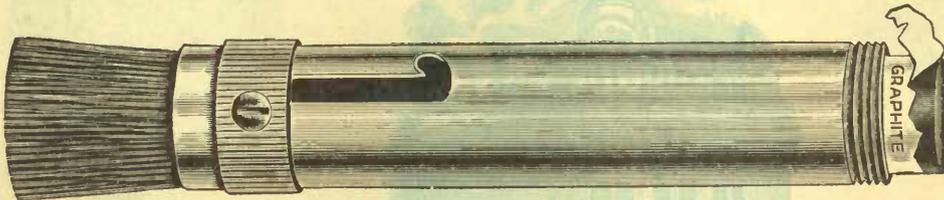
No. 692
Per gross, \$10.00
" doz.. 1.00



No. 267
Per gross, \$4.00
" doz.. 0.40



No. 254
Per gross, \$9.00
" doz.. 0.80



No. 52
Brush and Graphite.....each, 20c.
Brush and Repair Kit " 30c.

ECLIPSE CHAIN LUBRICANT



No. 160. Graphite, 2-oz. sticks in tin foil.

Per gross, \$2.75; per doz., 25c.

No. 161. Glase Mica, 2-oz. sticks in tin foil.

Per gross, \$3.20; per doz., 35c.



No. 3
3-oz. bottles.
Per doz.....\$2.40
" bottle.... 0.25



No. 265
Gross lots only\$4.80
Per doz..... 0.45
" gallon..... 1.00



REDUCED CUT
No. 4
Per doz.....\$2.20
Each 0.25



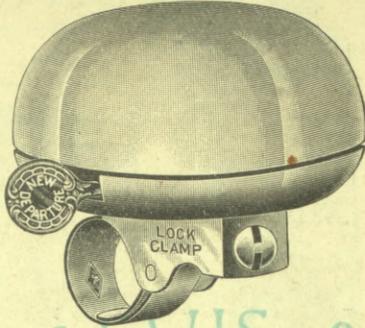
Metal Polish.
Per doz., 50c.; each, 5c.

Nipi



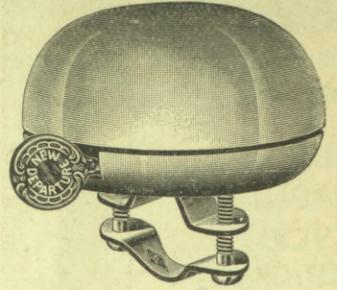
Electric Stroke

	Per Doz.
No. E 9½. 1¾" Gong	\$5.00
" E 7½. 2" "	6.00
" E 5½. 2½" "	10.00



Electric Stroke

	Per Doz.
No. E 3½. 2¾" Gong	\$12.00



Electric Stroke

	Per Doz.
No. E 6½. 2¾" Gong	\$9.50

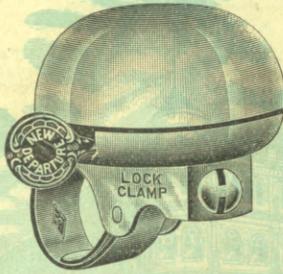


Electric Stroke

	Per Doz.
No. E 9. 1¾" Gong	\$5.60
" E 7. 2" "	6.50

Double Stroke

" D 8. 1¾" Gong	4 70
" D 6. 2" "	5.35



Double Stroke

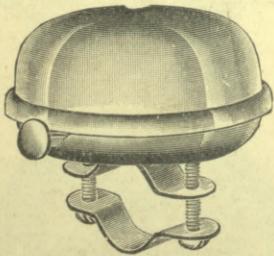
	Per Doz.
No. D 8½. 1¾" Gong	\$4.25
" D 6½. 2" "	5.10



Fleur De Lis

	Per Doz.
No. 1126. Electric Stroke, 2" Gong	\$ 8.00
" 1125. Push button, continuous ring 2" Gong	15.00

CONTINUOUS RING



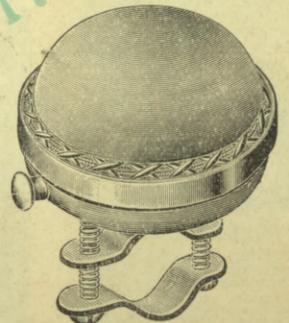
Push Button

	Per Doz.
No. 415. 2" Gong	\$11.00
" 413. 2¼" "	11.00



Push Button

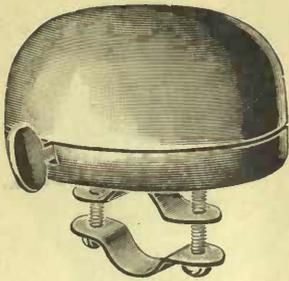
	Per Doz.
No. 425. 2" Gong	\$12.00
" 423. 2¼" "	12.00



Push Button

	Per Doz.
(Rotary Movement Non-Revolving Gong)	
No. 150. Screw Clamp, 1¾" Gong	\$10.80
" 152. Band Clamp, 1¾" Gong	11.50

BELLS

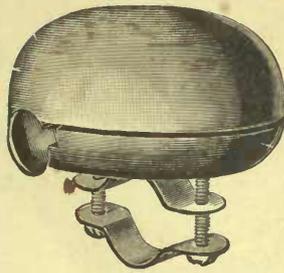


Electric Stroke

No. 211.	1 3/4" Gong.....	Per Doz. \$2.40
" 212.	2" "	3.00

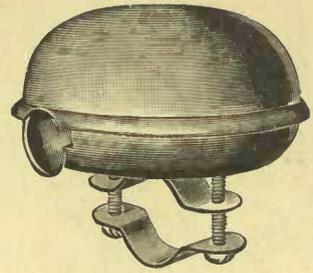
Double Stroke

" 111.	1 3/4" Gong.....	2.50
" 112.	2" "	2.70



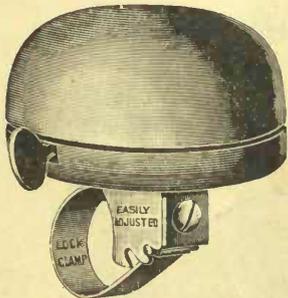
Electric Stroke

No. 311.	1 3/4" Gong.....	Per Doz. \$3.00
" 312.	2 1/8" "	3.60



Electric Stroke

No. 311 B.	1 3/4" Gong.....	Per Doz. \$3.20
" 312 B.	2 1/8" "	3.80



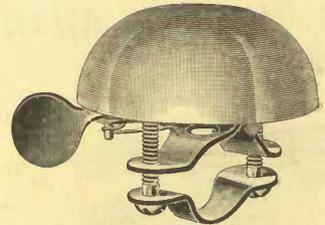
Electric Stroke

No. 321.	1 3/4" Gong.....	Per Doz. \$3.50
" 322.	2 1/8" "	4.00



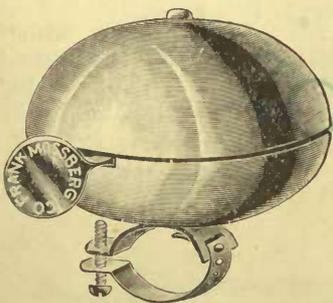
Electric Stroke

No. 321 B.	1 3/4" Gong....	Per Doz. \$3.70
" 322 B.	2 1/8" "	4.20



Single Stroke

No. S 4	Per Doz. \$1.60
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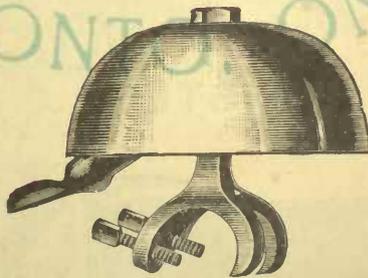


This bell is entirely new in principle and design and has less number of parts than any chime bell made.

Action is reversible for either right or left hand.

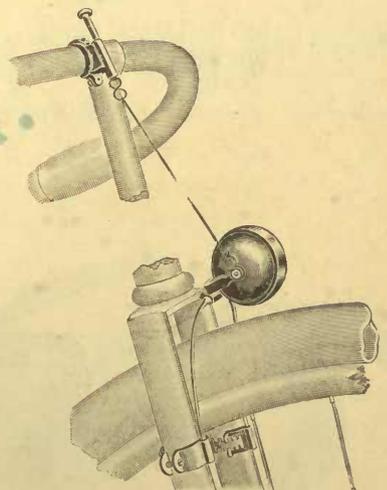
Each stroke produces two clear and distinct tones.

No. 10.	Double stroke, 2 1/2" Gong	Per Doz. \$6.50
" 12.	Electric stroke 2 1/2" Gong	11.50



Single Stroke

No. 14 1/2.	2 1/2" and 2 3/4" Gong	Per Doz. \$1.20
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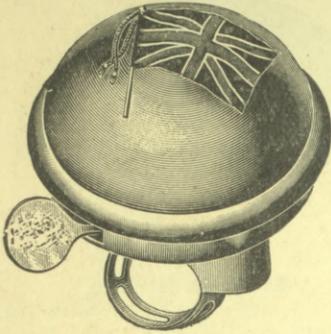


Tire Bell, Continuous Ring

No. T 9.	2" Double Gong with spring push	Per Doz. \$6.00
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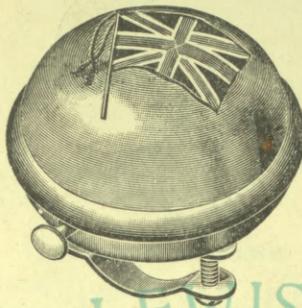
BELLS

DECORATED



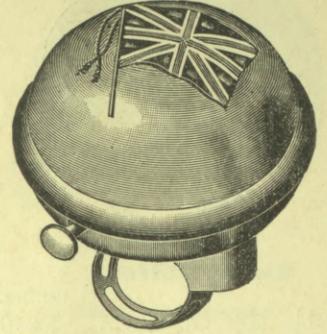
Electric Stroke

No. 223. 2" Gong.
Per doz..... \$6.00.



Continuous Ring

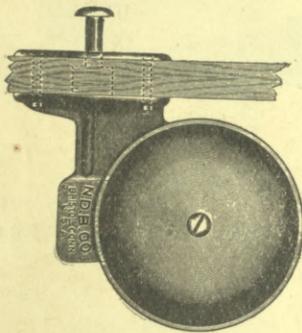
No. 514. 2" Gong.
Per doz..... \$12.50.



Continuous Ring

No. 524. 2" Gong.
Per doz..... \$13.00.

AUTOMOBILE BELLS



Rotary

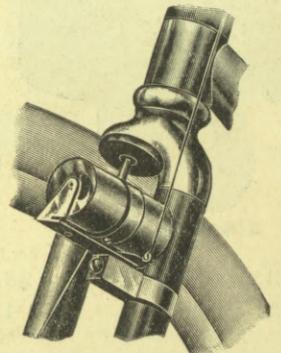
No. F-63. 3½" Bell Metal Gong,
nickel trimmings, enameled
case.
Each ... \$3.75.



Double Stroke Chime

No. F-95. 3½" Bell Metal Double
Gong of different tone, all
nickel plated.
Each \$9.00.

TIRE WHISTLE



Cycle Whistle

No. 228. Double action, whist-
ling at each end. Can be attached
to any bicycle. 1¼" diameter, 2½"
long. Each \$1.33.

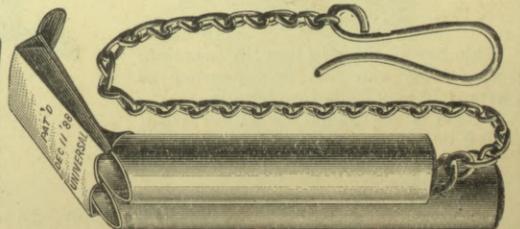
WHISTLES



No. 225. Echo Call.
Per doz., \$2.20.

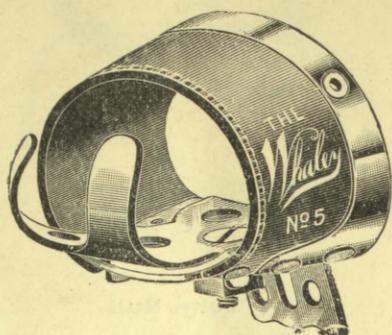


No. 216. The Develine Whistle.
Per doz., \$1.50.



No. 227. Universal Whistle.
Per doz , \$2.40.

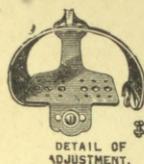
TOE CLIPS



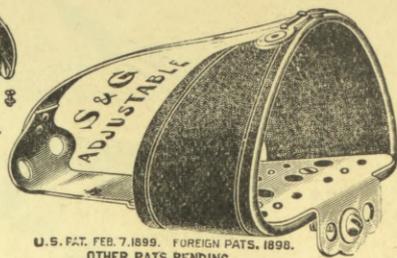
THE WHALEY ADJUSTABLE BICYCLE STIRRUP

No. 417. Is adjustable to all sizes of shoes without losing shape or strength. Will not mar the shoe or bruise the foot. Made of water-proof strap leather, Russet finish. The metal parts are spring steel polished nickel-plated finish.

Per doz. pairs, \$4.80. Per pair, 50c.



DETAIL OF
ADJUSTMENT.



U.S. PAT. FEB. 7, 1899. FOREIGN PATS. 1898.
OTHER PATS. PENDING.

THE S. & G. ADJUSTABLE TOE CLIP

No. 406. The S. & G. Adjustable has a one-piece cover, and can be quickly changed to fit a large or small foot. The cover spring is the strongest form that can be made, and will stand without injury any ordinary usage. Will not injure the finest shoes.

Per doz. pairs, \$4.80. Per pair, 45c.

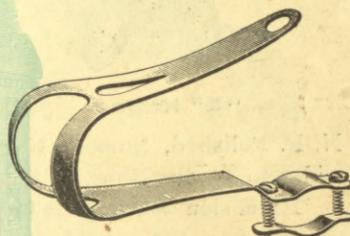


PATENT APPLIED FOR.

HANDY FOOT GUIDE OR CLIP TRIPPER

Makes it doubly easy to insert the feet into any toe clip. Made of spring steel, nickel-plated.

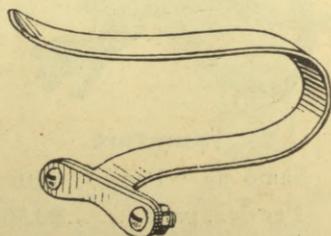
Per doz. pairs, \$1.65. Per pair, 15c.



UNITY

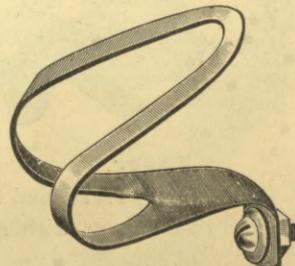
No. 419. Nickel-plated, polished, hardened steel, round edge. Attaches to centre-bar of pedal.

Per doz. pairs, \$2.00. Per pair, 25c.



No. 410. Nickel-plated, polished, two bolts.

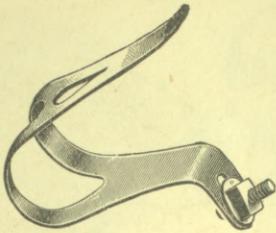
Per doz. pairs, 80c. Per pair, 10c.



No. 413. Nickel-plated, polished.

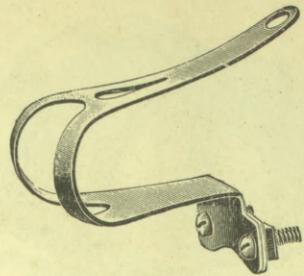
Per doz. pairs, \$1.50. Per pair, 15c.

TOE CLIPS



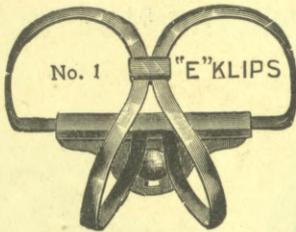
Holdfast

No. 411. N. P. Polished Hardened Spring Steel.
 Per doz. pair..... \$1.90
 Per pair15



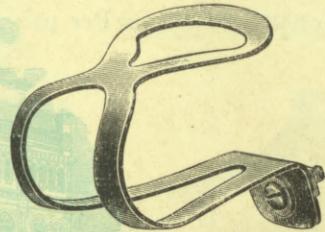
John Bull

No. 412. N. P. Hardened Steel, Round Edge,
 two bolts.
 Per doz. pair..... \$1.90
 Per pair..... .25



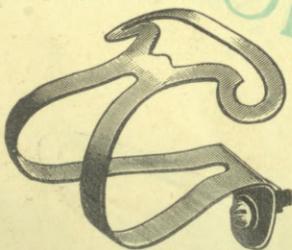
"E" Klips

No. 408. N. P. Polished, Smooth Edge, adjust-
 able in width to fit any shoe, will not mar
 shoe. Extension over pedal plate
 keeps clip from turning sideways.
 Per doz. pair.....\$3.00
 Per pair30



Scorcher

No. 415. N. P. Polished, Hardened Steel, Round
 Edge. Fits any shoe.
 Per doz. pair..... \$1.75
 Per pair20



Pacer

No. 418. N. P. Polished, Hardened Steel. Top
 piece curved to conform with shape
 of shoe.
 Per doz. pair..... \$2.00
 Per pair25



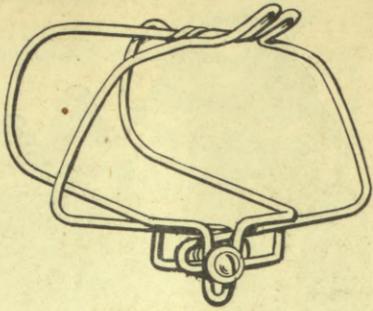
Kumfurt

No. 404. Same as "Pacer," with two bolts.
 Per doz. pairs.....\$2.50
 Per pair30

RICE LEWIS & SON
 LIMITED

TORONTO, ONT.

TOE CLIPS

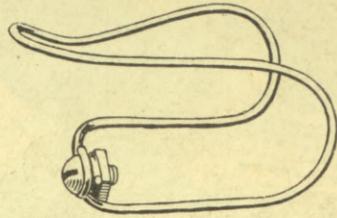


Design Registered

Adjustable Wire Basket Clip

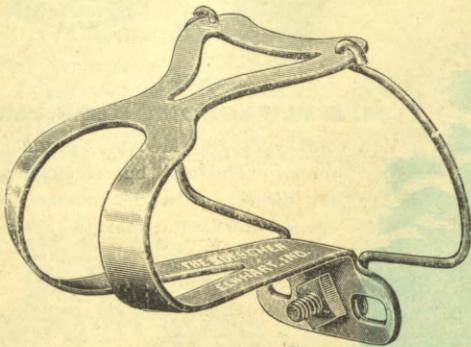
This Clip presents a flat surface for the foot, and bolted on the inside of the pedal, does not roll.

No. 204. N. P., per doz. pair, \$1.80; per pair, 20c.



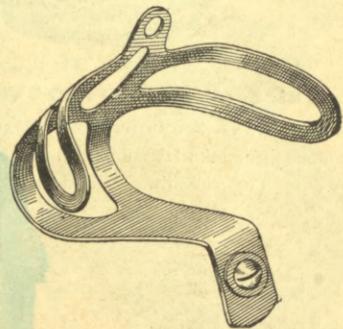
Single Bolt

No. 205. N. P., Wire Clip, per dozen pair, \$1.00; per pair, 12c.



No. 407. N. P., Polished Hardened Steel, with wire side guard.

Per doz. pair... .. \$1.86
Per pair20



No. 416. N. P., Polished, per dozen pair, \$2.80; per pair, 30c.



No. 414. N. P., Polished, 2½ or 3" wide, per doz. pair, \$2.50; per pair, 25c.

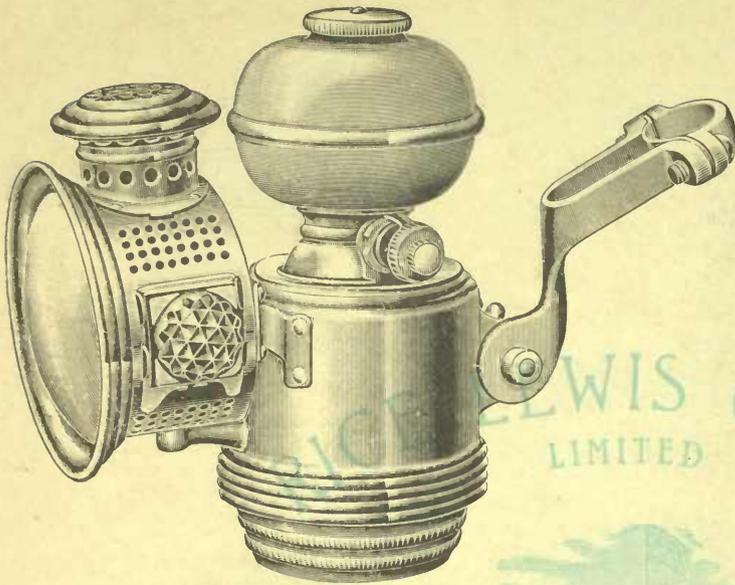


No. 409, A, for ladies, 2½",
B, small men's, 3",
C, medium men's, 3¼",
D, large men's, 3½".

Per doz. pair..... .. \$2.40
Per pair25

ACETYLENE GAS LAMPS

NO SMOKE, GREASE OR ODOR

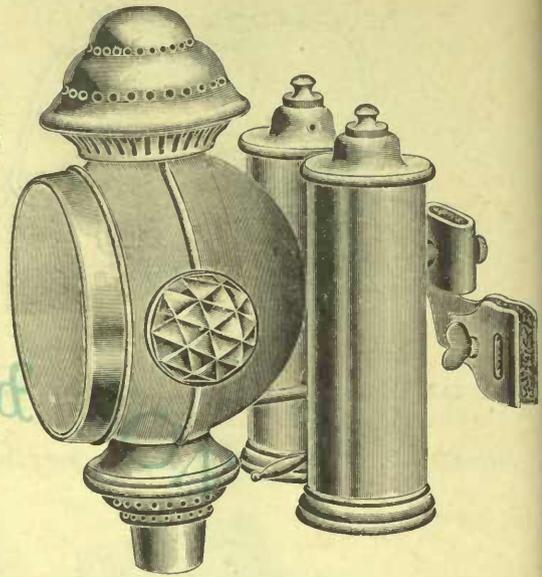


No. 11

"M. & W. IMPROVED" GAS LAMP

IMPROVED AND BROUGHT UP-TO-DATE. New in everything but design. And with our new "Duplex Bracket" it has few equals as a medium priced lamp.

Price, each, \$3.00.

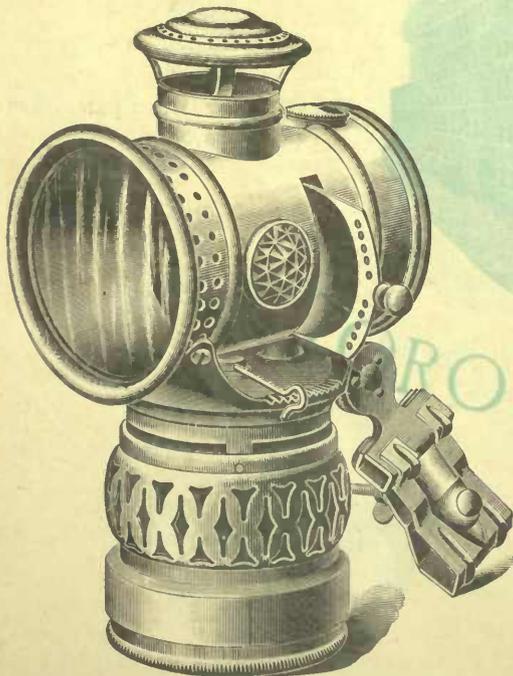


No. 7

M. & W. "LOCOMO" GAS LAMP

FOR CARRIAGES AND MOTOR VEHICLES. Built like our famous "Duplex," but of larger capacity, with half-foot burner. It works precisely the same as the "Duplex," and is the most satisfactory gas-lamp for vehicles ever introduced.

Price, each, \$10.00.

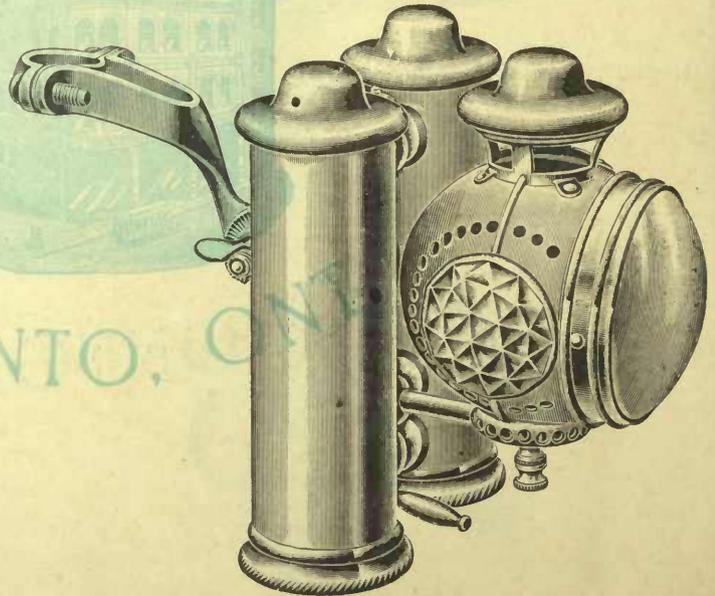


No. 8

"DAYLIGHT"

Has rocker bottom carbide holder which makes it easy to remove same. Perfectly focused lens and reflector. Use loose carbide.

Price, each, \$3.50.



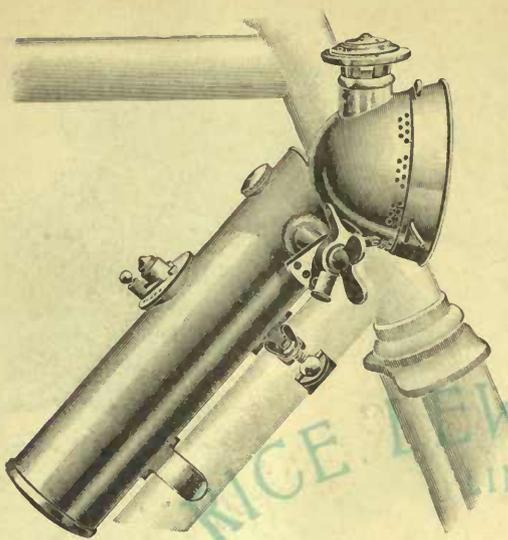
No. 13

M. & W. "DUPLEX" GAS LAMP

IT'S DIFFERENT—New and Novel. Made on gas lines. Candle power, 175. Turns up or down, on or off. Automatic and mechanical. A cool lamp but a hot seller, in fact the very best gas lamp on the market at any price.

Price, each, \$3.75.

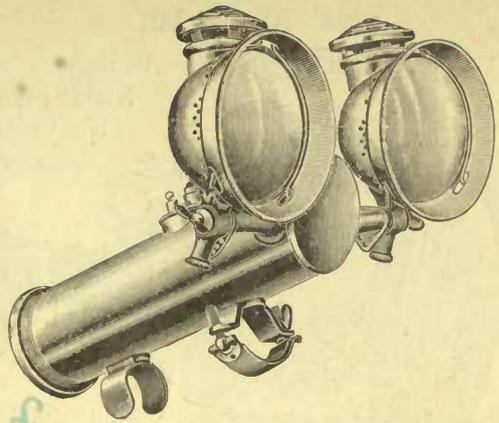
ACETYLENE GAS LAMPS



No. 10
NEW DEPARTURE

Each\$3.60

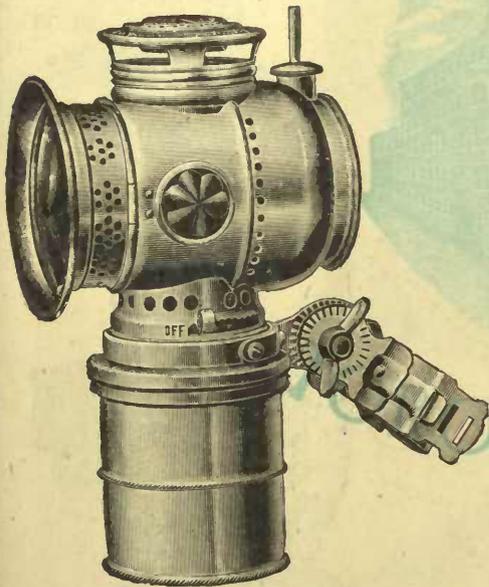
New Departure Lamps have automatic generator feed. Use loose carbide. No special form of charge required. Flame may be regulated while riding. Lamp may be adjusted to throw light at any desired angle. Lamp and generator separate, thus making a small lamp and insuring against explosions. Lamp finished in full nickel plate.



No. 9
NEW DEPARTURE TWIN HEAD LIGHT

Has two burners, giving the most powerful light obtainable by any means. Each lamp is adjustable independently, so that any area or angle of light may be obtained.

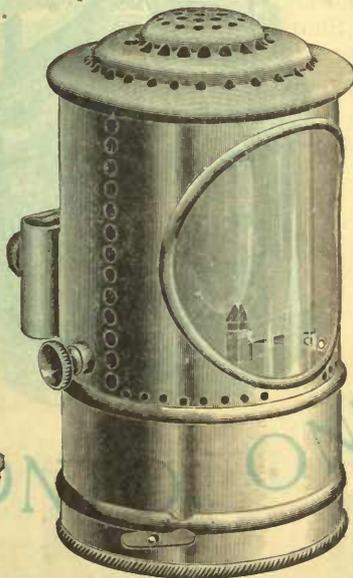
Each.....\$5.40



No. 6
BRECKENRIDGE
(New Model)

Special design. Non-carbonizing burner. Use loose carbide. Water, which is supplied at bottom of lamp, causes gas to ascend through the dry carbide, thus taking all moisture from gas. Has 2½-inch double convex lens, perfectly focused.

Each\$3.50



No. 5
M. & W. "RAINBOW"

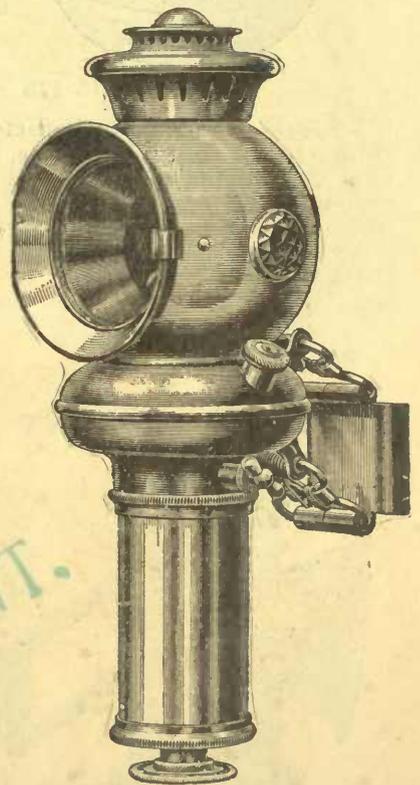
Without exception the best low-priced gas lamp. It is our leader. Turn valve on full, the lamp runs itself—enough said.

Retail price, each....\$1.60

CARBIDE IN SEALED TINS

1¼ lb. tins.....each, 20c.
2½ " " " " " 30c.

Price on application for cases of 2 dozen tins or bulk.



No. 12. Acetylene Lamp.
THE SCHUMACHER

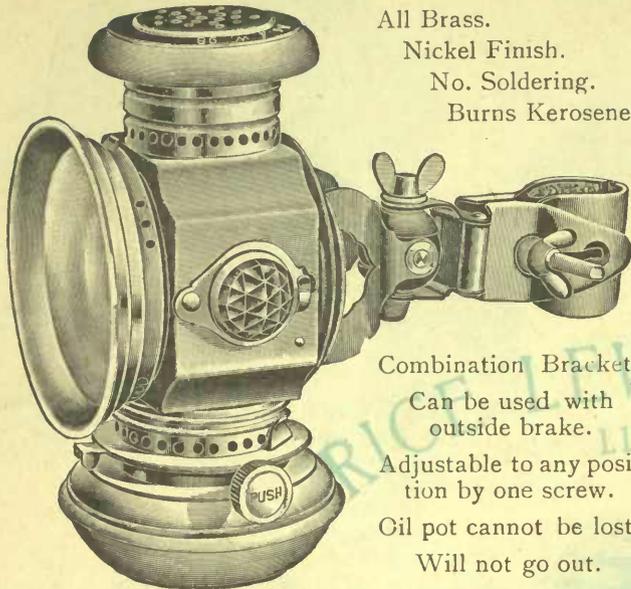
Is loaded with a cartridge like a breech-loading gun. Every cartridge guaranteed to burn with a clear, even flame. Safest, cleanest and quickest lamp to operate on the market. A combination of simplicity and perfect action.

No. 12. Lamps, with 3 cartridges.
Each\$1.50

No. 14. Cartridges for No. 12 Lamp.
Per doz.....75c.

OIL LAMPS

THE M. & W.



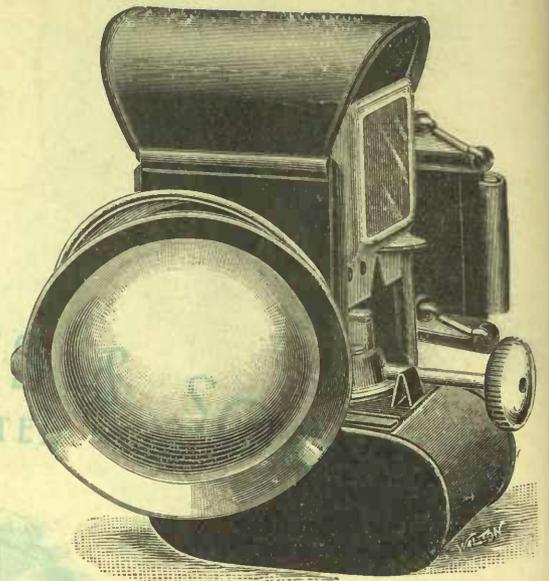
All Brass.
Nickel Finish.
No. Soldering.
Burns Kerosene.

Combination Bracket.
Can be used with
outside brake.
Adjustable to any position
by one screw.
Oil pot cannot be lost.
Will not go out.

No. 178

The M. & W. Patent Reflector is the only reflector which can be removed complete, for cleaning or polishing, through the lens opening. Simple construction, air-tight and secure. No springs or wires. The double convex lens is large and powerful, throwing a white, bright, steady light over 100 feet.

Each \$2.25



No. 186

Has 2 1/4" Double Convex Lens, Plated Cone Front and Reflector, Detachable Oil Reservoir, Nickel-plated Wind-up Burner, etc.

Japanned, each \$1.00

LIGHT WEIGHT



No. 177

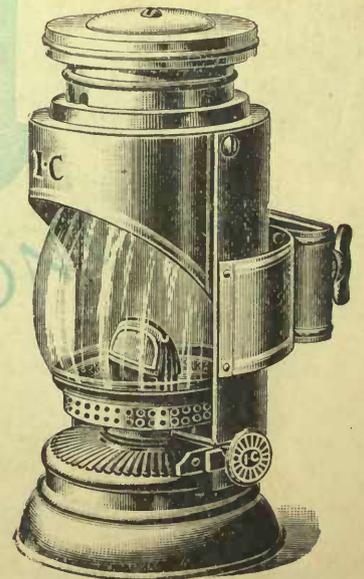
Spring Back, Improved Design, Side Lights, Burns Kerosene Oil only, Nickel-plated.

Each \$1.20



Standard Lamp Oil.

Per doz \$1.70



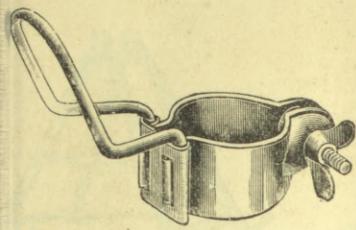
No. 179

(One-Half Actual Size).

All Brass, Nickel-plated, no Soldering, all parts riveted, won't blow or jar out.

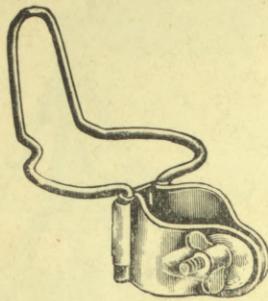
Each \$1.00

LAMP BRACKETS



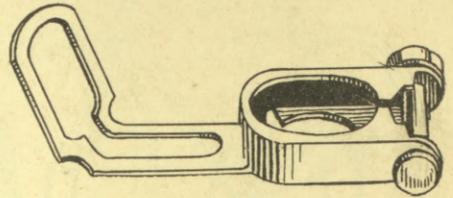
No. 179
Standard

Bracket for Head, lined and N.P.
Per doz., \$1.35; each, 15c.



No. 185
Brake Bracket

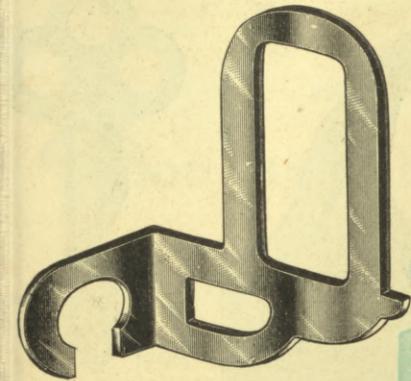
For Head, lined and N.P.
Per doz., \$1.50; each, 20c.



No. 76

Head Lamp Bracket and Bolt
N. P.

Per doz., \$1.00; each, 10c.



No. 177

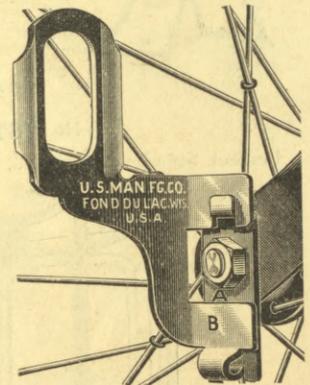
Nickel-plated sheet steel Bracket
for Axle,
Per doz., 40c.; each, 5c.



No. 178

Fork Bracket

Reversible. Fits any Fork, N.P.
Per doz., \$1.80; each, 20c.

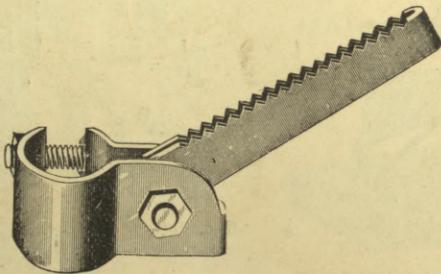


No. 180

U. S. Detachable Bracket, for
Axle, N. P.

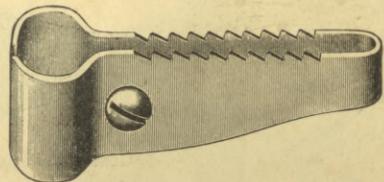
Per doz., \$1.00; each, 10c.

COASTERS



No. 318

Folding Coaster, N. P., per doz. pair, \$3.00;
per pair, 25c.

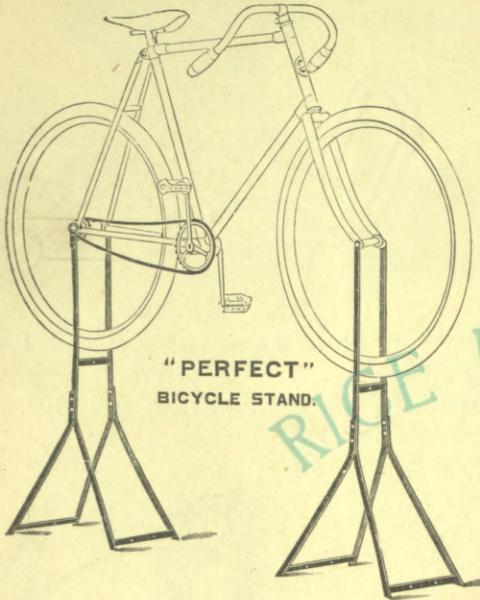


No. 319

Hercules Coaster, N.P., per doz. pair, \$1.80;
per pair, 20c.

BICYCLE STANDS

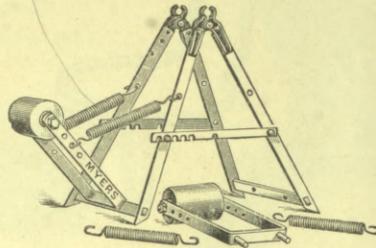
MYERS'—THE ONLY PRACTICAL EXHIBITION STANDS ON THE MARKET. ALLOWS THE PURCHASER TO MOUNT THE WHEEL



"PERFECT"
BICYCLE STAND.

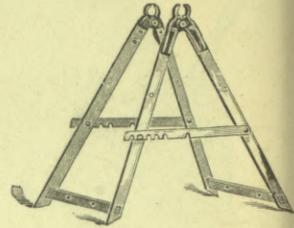
No. 767

Perfect Stand Per pair, \$3.40



No. 703

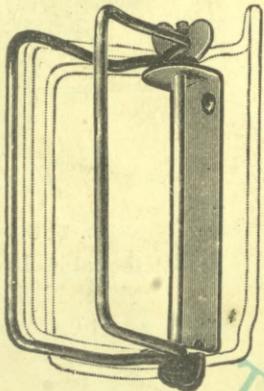
Home Trainers, complete, each, \$1.70



No. 697

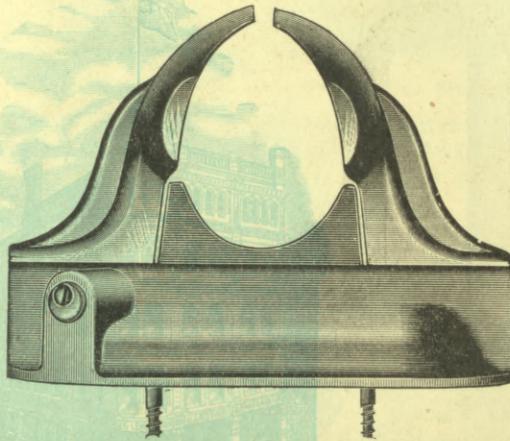
Stands each, 85c.

Wheel Truing Attachment for Myers' Stands, each, 60c.



IDEAL WALL STAND—Patented.

Adjusts at any angle by using thumb screw.
Each, 25c.



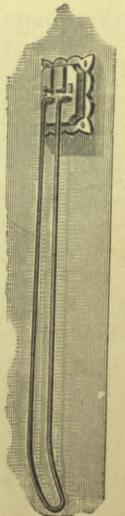
No. 740

One-half size Cut of Bicycle Locking Stand.

Each..... \$1.80



Full size Cut of Key.

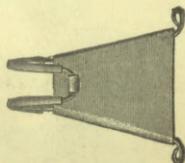


No. 274

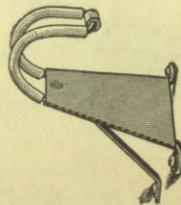
Simplex Stand.
Screws on wall.
Drops down when
not in use.
Each..... 20c.



FLOOR.



Gem Top, Plain.



Gem Top, with Brace.



Gem Bottom.

Covered with rubber. Covered with leather.

	Per Doz.	Each.	Per Doz.	Each.
GEM Tops, plain.....	\$1.00	\$0.13	\$1.20	\$0.13
“ with Brace.....	1.33	.16	1.46	.16
“ Wire bottom, per doz.,	33c.; each, 6c.			

RUBBER SOL TIRES D



RUBBER PATCHING SOLUTION

No.	0	1	2	3	4	5
	TUBES		TINS			
	2 1/2 x 1/2" 4 x 3/4"		1/4 pt.	1/2 pt.	pint.	qrt.
per doz.	20c. 35c.		12c.	20c.	35c.	60c.
each						

HEAVY CANVAS SOLUTION

No.	10	11	12	13
	1/4 pint.	1/2 pint.	pint.	quart.
Each	25c.	40c.	70c.	\$1.00

NOTE—Our Solution is done up in IMPERIAL MEASURE TINS

WOOD RIM CEMENT (for Cementing Tires to Rims)

No.	14	20	21	22	23	24	25	28	
	Bottles with Swab.		TUBES		United States Wine Measure—TINS				
			2 1/2 x 1/2"	4 x 3/4"	1/4 pint.	1/2 pint.	pint.	quart.	gal.
per doz.	\$1.00		0.30	0.50	1.00	1.80	3.00	.....	.....
each	.10		.05	.05	.10	.18	.30	.60	2.00

NOTE—Our Wood Rim Cement is American make and is done up in Tins of U.S. Standard Wine Measure

JIFIOD PLUGGING CEMENT

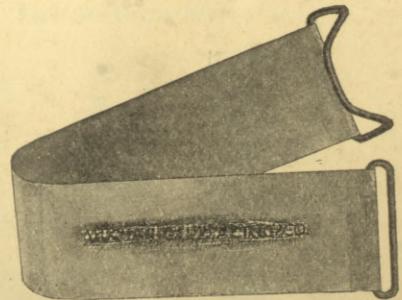
No.	7	8
	2 1/2 x 1/2"	4 x 3/4"
per doz.	\$0.60	1.00

PURE GUM SHEET RUBBER



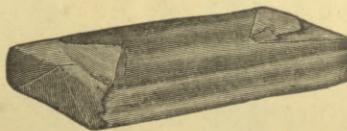
1st Grade	Per lb.,	\$3.00
2nd "	"	2.20
2nd " Squares, 4 x 4"	Per doz.,	.50

EMERGENCY BANDS



HARD TIRE CEMENT

BEST RED



1 lb. packages per lb., \$0.40
No. 0, Telescope boxes, per doz. 1.35

Made of good quality rubber. Can be placed around tires and rim, securely binding and holding air in the tires until repairs are effected.

Per doz., \$1.50. Each, 15c.



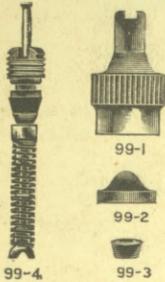
per doz. \$1.35
each15

BICYCLE STA

ERS' THE ONLY

IN STANDS ON THE MARKET. AT

SCHRADER UNIVERSAL



Valve Parts

No. 1, Caps.....	per doz.,	\$0.53
" 2, Cap Washers, per 100,		.75
" 3, Plunger " "		.40
" 4, Inside Parts per doz.		.67
" 5, Plungers.....	"	.35
" 6, Plugs.....	"	.15
" 8, Springs	"	.10



No. 8

Valve.....	per 100,	\$9.00
"	per doz.,	1.13
"	each,	0.13

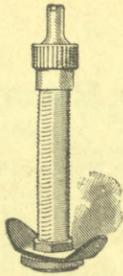


590E STYLE

No. 9

Metal Base.

Per doz.....	\$2.00
Each.....	0.17



No. 10

Dunlop Metal Base.

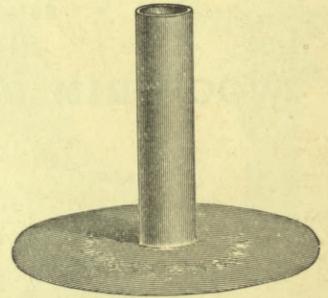
Per doz.....	\$1.67
Each	0.17



No. 11

Valve and Stem complete.

Per 100	\$15.00
Per doz.	1.67
Each	0.20



No. 12

Valve Stems

Per 100.....	\$3.50
Per doz.....	0.50

Valve Tubing.....per foot, 8c.

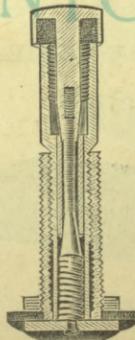
WOODS BROS.'

All Metal. No Rubber or Leather used in Construction of Valve Parts



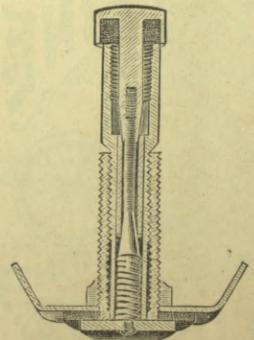
No. 13
Valve.

Per 100.....	\$9.00
Per doz.....	1.13
Each	0.13



No. 14
Metal Base.

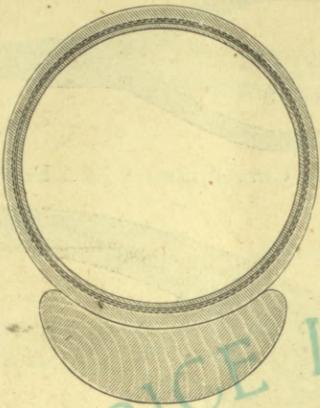
Per doz.....	\$2.00
Each	0.17



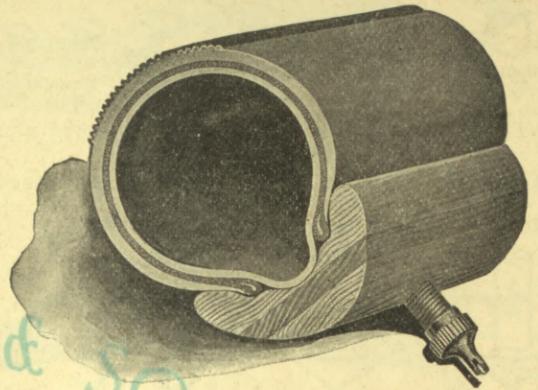
No. 15
Metal Base.

Per doz.....	\$2.00
Each.....	0.17

TIRES



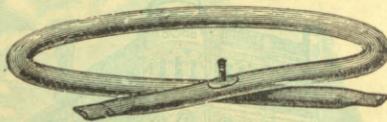
C. R. CO.—Double or Single Tube



DUNLOP DETACHABLE

Per pair..... \$8.00 Per pair \$10.00

INNER TUBES



MADE OF BEST STOCK

Butt End or Continuous Pattern, X Quality..... per doz., \$10.50 each, \$1.00
 “ “ “ XXX Quality “ 13.35 “ 1.33
 Vulcanized Butted Ends for repairing Inner Tubes “ 2.20 “ .25

TREAD BANDS

Corrugated Protection Strips, for 28" wheels.....each, 90c.

BICYCLE GEAR TABLE

For 28-inch Wheels

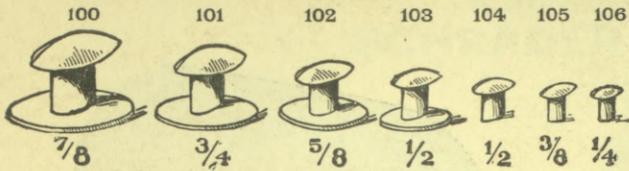
Teeth on front chain wheel.	Teeth on back chain wheel.			
	7	8	9	10
16.....	64	56	49 $\frac{7}{8}$	44 $\frac{3}{8}$
17.....	68	59 $\frac{1}{2}$	52 $\frac{3}{8}$	47 $\frac{3}{8}$
18.....	72	63	56	50 $\frac{3}{8}$
19.....	76	66 $\frac{1}{2}$	59 $\frac{1}{2}$	53 $\frac{1}{2}$
20.....	80	70	62 $\frac{3}{8}$	56
21.....	84	73 $\frac{1}{2}$	65 $\frac{1}{2}$	58 $\frac{3}{8}$
22.....	88	77	68 $\frac{3}{8}$	61 $\frac{3}{8}$
23.....	92	80 $\frac{1}{2}$	71 $\frac{3}{8}$	64 $\frac{3}{8}$
24.....	96	84	74 $\frac{3}{8}$	67 $\frac{1}{2}$
26.....	104	91	80 $\frac{3}{8}$	72 $\frac{3}{8}$
28.....	112	98	87 $\frac{1}{2}$	78 $\frac{3}{8}$
30.....	120	105	93 $\frac{3}{8}$	84
32.....	128	112	95 $\frac{3}{8}$	89 $\frac{3}{8}$

For 30-inch Wheels

Teeth on front chain wheel.	Teeth on back chain wheel.			
	7	8	9	10
1 Trimming Knife, 1, 30c.	68 $\frac{1}{2}$	60	53 $\frac{1}{4}$	48
18.....	73	63 $\frac{3}{4}$	56 $\frac{3}{4}$	51
19.....	77	67 $\frac{1}{2}$	60	54
20.....	81 $\frac{1}{2}$	71 $\frac{1}{4}$	63 $\frac{1}{4}$	57
21.....	85 $\frac{3}{4}$	75	*66 $\frac{3}{4}$	60
22.....	90	78 $\frac{3}{4}$	70	63
23.....	94 $\frac{1}{4}$	82 $\frac{1}{2}$	73 $\frac{1}{4}$	66
24.....	98 $\frac{1}{2}$	86 $\frac{1}{4}$	76 $\frac{3}{4}$	69
26.....	103	90	80	72
28.....	111 $\frac{1}{2}$	97 $\frac{1}{2}$	86 $\frac{3}{4}$	78
30.....	120	105	93	84
32.....	128	112	100	90
	137	120	106	96

TIRE REPAIRS

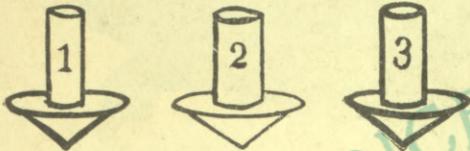
PLUGS



These plugs have oval stems and conform more easily to ordinary cuts.

Assorted per doz. 25c.

UMBRELLA PLUGS



Nos. 1, 2, 3, assortedper doz. 15c.

LATEST INVENTION IN PLUGS

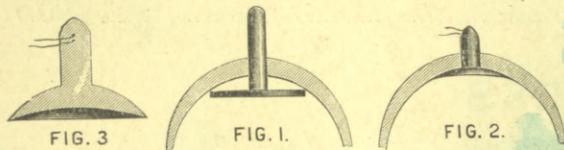
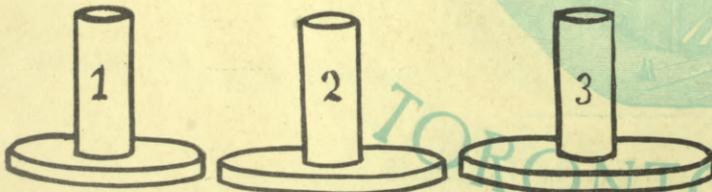


Fig. 3. The Strauss Curved Plugs are made in three sizes : $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ " , and come in strips of one dozen each. The special feature of this plug is that it conforms to the shape of the tire and is bound to adhere to it. They are provided with a string, and are inserted in the usual way. These plugs will supersede all plugs at present on the market, and are the only plugs that will repair a cheap tire. Figure 1 shows the old style, and Figure 2 our Curved Plug with the natural position in the tire.

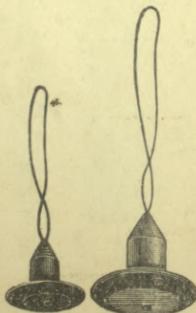
Assorted.....per doz., 30c.

FLAT PLUGS



Nos.	1	2	3
Per doz.	15c.	20c.	30c.

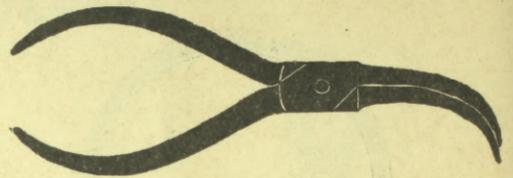
PLUGS WITH STRING



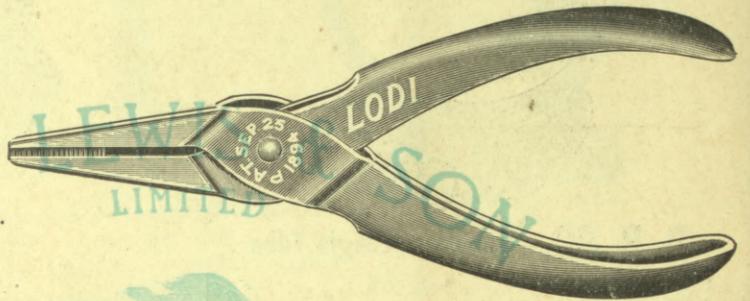
$\frac{1}{2}$ oz. rolls	per doz.,	\$0.25
$\frac{1}{2}$ oz. "	per gross,	2.50
$\frac{1}{2}$ lb. "	per lb.,	0.60

Small, 10c., Large, 20c. doz.

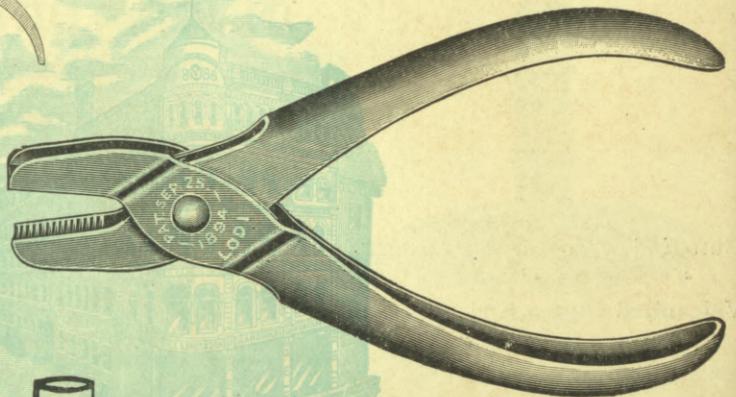
PLUGGING PLIERS



No. 87. Curved nosePer pair, 60c.



No. 88. Flat nose.....per doz., \$1.00 ; each, 12c.



No. 89. Valve Pliers (as cut)each, 25c.
 " 90. " " forged " 50c.

TIRE LACING



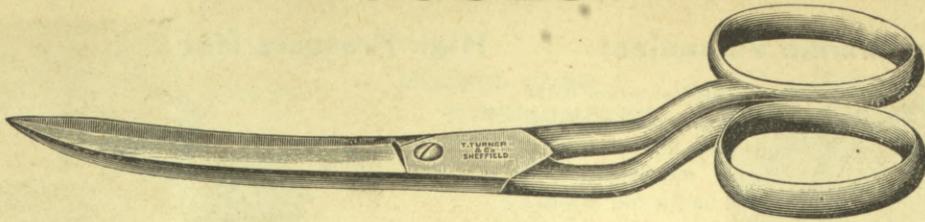
Waxed Linen



Hemp

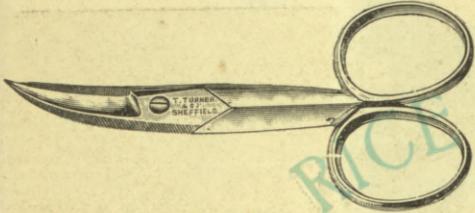
Cards, waxed linen	per doz.,	\$1.20
$\frac{1}{4}$ lb. balls waxed linen	each,	.5
$\frac{1}{4}$ lb. " hemp	"	.20

TOOLS



No. 6621

Bent Handle Trimmers, Saw Tooth for Canvas work..... Each, 85c.



No. 6361

Bent Nose Trimmer for Patch work...Each, 45c.



No. 100

Pointed Trimmer for Patch work...Each, 80c.



No. 5

Pointed Trimming Knife.
Each, 30c.



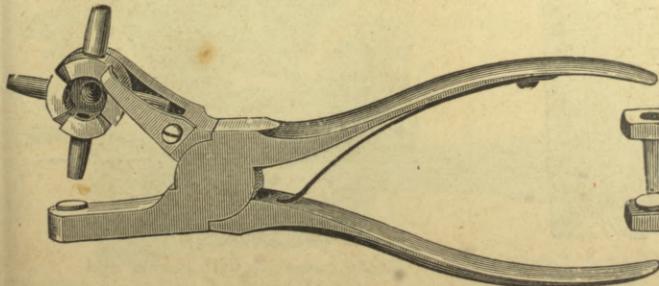
No. 15

Round Pointed Trimming Knife.
Each, 30c.



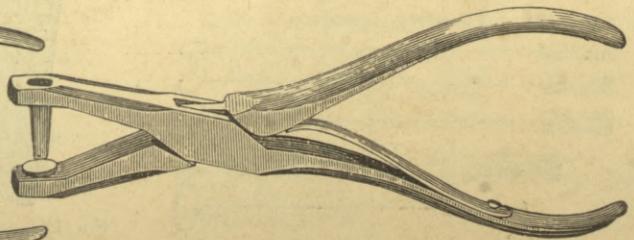
No. 25

Straight Pointed Trimming
Knife. Each, 15c.



No. 24

Revolving Tire Punch...Each, \$1.20.

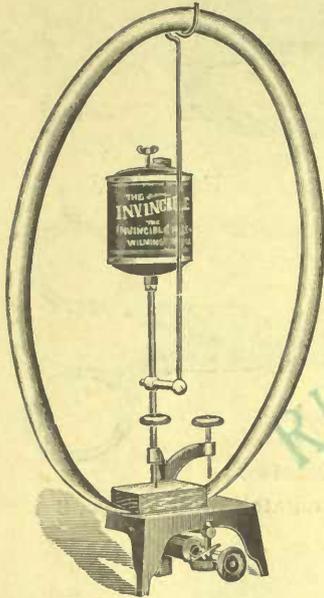


No. 10

Single Tube Tire Punch...Each, 45c.

VULCANIZERS

The Invincible Vulcanizer



This Vulcanizer is the least complicated, easiest operated, and most effective on the market. It takes only a few minutes to heat up, and the burner is so adjusted that it cannot be heated too hot. Common stove gasoline is the fuel used.

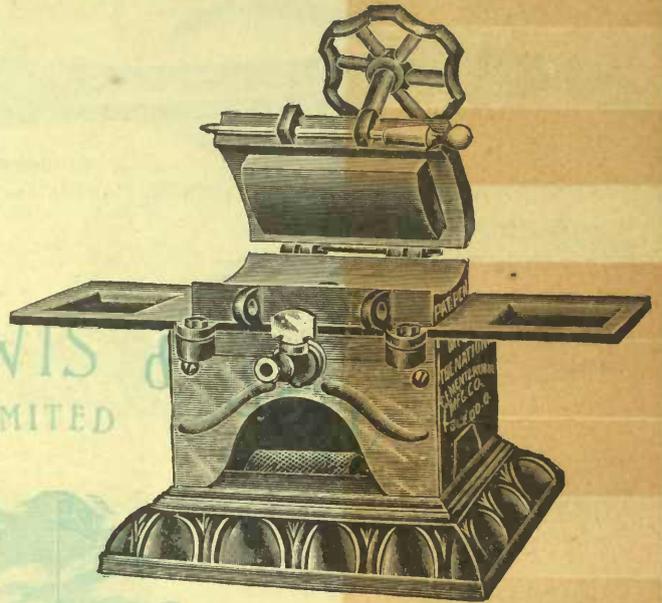
Each Vulcanizer is carefully tested.

Full directions for operating and instructions for vulcanizing are sent with it.

Invincible Vulcanizer, including material for twenty-five or more repairs.

Each\$7.00

High Pressure Hot Water Vulcanizer



(Patent pending)

High Pressure Unvulcanized Patches with Strings



(One-third size)

Small size, per doz.....	30c.
Medium " "	40c.
Large " "	50c.
Extra large " "	60c.

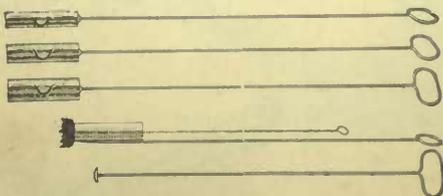
Vulcanizer Supplies

	Single Tubes	Pints	
Stuff No. A. For first coat	10c.	\$0.30	
" B. " second coat	30c.	1.50	
	Per sq. foot	Sq. yard	
Stuff No. C. Canvas to apply inside	30c.	\$1.85	
" D. Unvulcanized Rubber to apply outside		Per lb.	\$1.35
		Each	
Hardwood Pegs		10c.	
Rubber Forms		10c.	
Sheet Metal Forms		10c.	
Soft Metal Forms		10c.	
Hardwood Forms		10c.	

Soapstone

Powdered, per lb.10c.

Casing Tools



For patching casings inside.

Set of 5 pieces\$3.00

No Extra Valve Stem Core

This Vulcanizer is constructed with a hot water jacket lying underneath the Thermal or Heating Plate, and acts as a sheet of water through which the heat passes before reaching tire, obviating the danger of unequal vulcanization. The lower plate is extended for the purpose of protecting the tire from any heat that may possibly come from below. On either end of this plate is provided indentations to hold water, keeping the ends of the plate and tire cool. The tire is held carefully in place by the upper plate and pressure screw.

The Burner is located in the base of the Vulcanizer. The Improved '99 Burner for this Vulcanizer is raised free from the base and burns freely with an even heat. This burner is supplied with a specified quantity of alcohol sufficient to generate the amount of heat necessary to properly vulcanize a tire.

The Vulcanizer is automatic, as the vulcanization is complete when the alcohol is consumed. It is economical, and by following directions carefully we can assure the operator ultimate success.

Full directions for operating, and a small amount of supplies accompany each Vulcanizer.

No. 2 Hot Water Vulcanizer, complete, each\$9.00

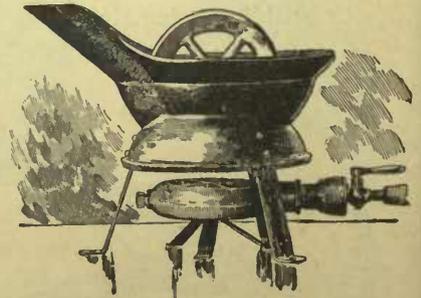
Tube Horn



For Directing Tubes into Casings.

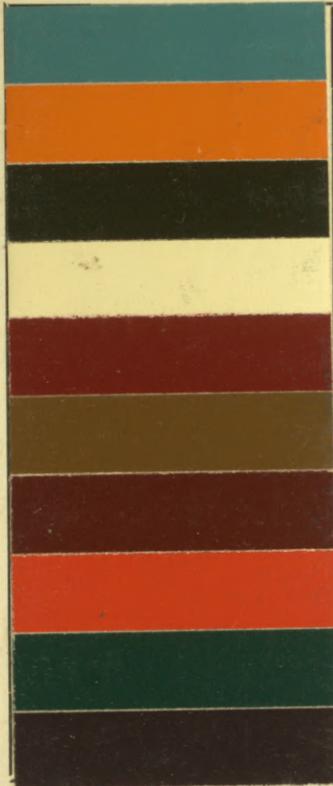
Each12c.

Cement Kettle



Kettle complete with burner and Gas Tube \$3.20
Kettle only, each 1.60

CYCLE ENAMEL



CYCLE BLUE

ENAMEL OVEN THERMOMETER

ORANGE

BRONZE GREEN

WHITE

ROSE

SNUFF

WINE

VERMILION

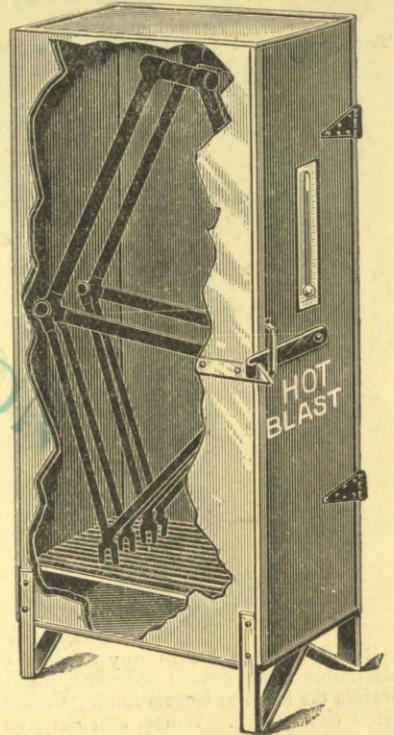
DEEP GREEN

ROYAL PURPLE



Each, \$2.50

ENAMELING OVEN



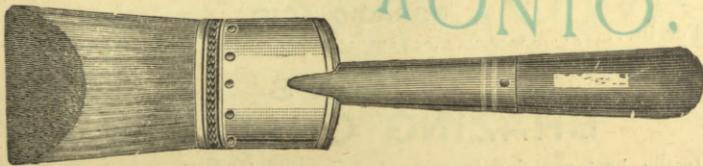
AIR DRYING

	Gals.	Qts.	Pts.	½ pts.	Large Tins.	Small Tins.
Black.....	\$1.50	0.45	0.25	0.20	0.18	0.15 each.
".....	.....	.....	.....	2.00	1.60	1.35 doz.
Colors.....	.....	.....	.....	.....	.30	.20 each.
".....	.....	.....	.....	.....	3.20	2.00 doz.

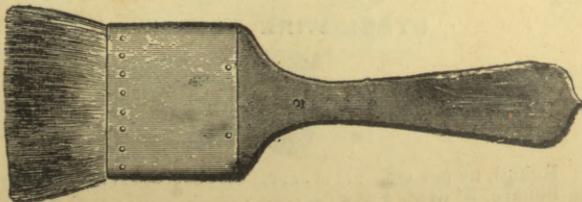
BAKING

Black.....	\$1.50	0.50	0.30	0.20	.....	..... each.
Colors.....	5.50	1.40	0.75	0.40	.....	..... "
Varnish.....	5.50	1.50	0.80	0.45	.....	..... "

ENAMEL BRUSHES



Ox Hair, 1-inch, Tin Handles and Caps.....per doz., \$4.50



Bear Hair, 1-inch.....per doz., \$1.75

This is the Torch included with Oven



Holds 1 gallon; will burn 8 hours.
Also used for burning enamel off frames.
Each, \$5.00

No. 1.—Perfection Hot Blast, made of heavy galvanized iron, double walls, 16 inches wide, 28 inches deep, 4 feet 9 inches high. Holds 2 frames, including forks.

With Thermometer and Burner, each, \$24.00

No. 2.—34½ inches wide, 28 inches deep, 4 feet 9 inches high. Holds 5 single frames and forks, weight 150 lbs.

With Thermometer and Burner, each, \$36.00

No. 3.—Electric Hot Blast, galvanized iron, single walls, 15 inches wide, 28 inches deep, 3 feet 9 inches high.

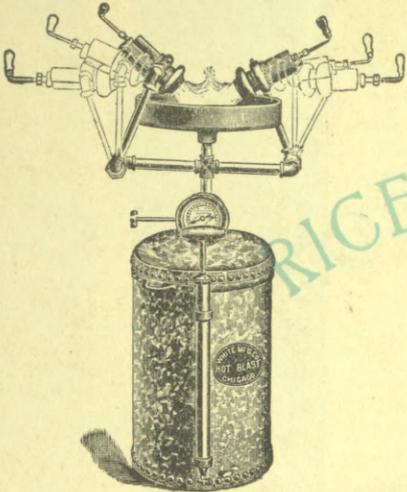
With Thermometer and Burner, each, \$18.00

Above also supplied for gas.

GASOLINE BRAZER AND FORGE

Tanks Tested to 200 lbs. Pressure to the Square Inch.

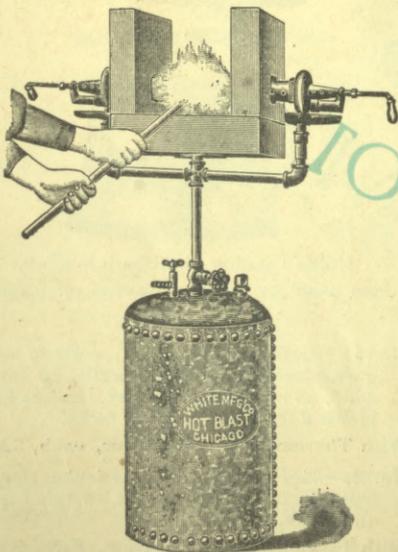
SWIVEL BURNER—Mammoth



Burners adjustable to any angle. Powerful hot blast, blue flame, devoid of smoke, capable of quickly brazing the heaviest bicycle joint. Flame easily regulated to any size. Works efficiently with air pressure of 35 to 75 lbs. It is safe, portable, easily operated.

Complete, with gauge and pump, each, \$30.00

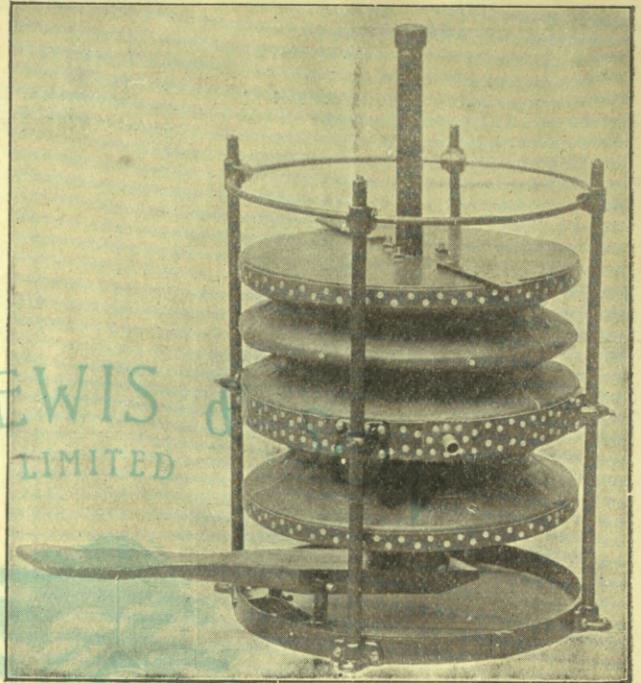
COMBINATION HOT BLAST



Works with pressure of 35 to 75 lbs. Indicator registers 100 lbs. pressure. Generators of special bronze. Burners can be operated independently. Flame easily regulated to any size blast.

Complete with gauge, no pump, each, \$25.00

BRAZING BELLOWS



No. 278. Brazing Bellows.....each, \$24.00

BLOWPIPE



No. 276. Fitted with self-acting and regulating valves and continuous lighting jet. By releasing lever gas valve closes. Quantity of gas consumed can be regulated to suit description of work to be brazed. Each, \$7.50.

BRAZING SPELTER

We keep only the very highest grade procurable.

Grain.....per lb., 40c. Strip.....per lb., 40c.

BORAX

Lump.....per lb., 11c. Powdered.....per lb., 13c.

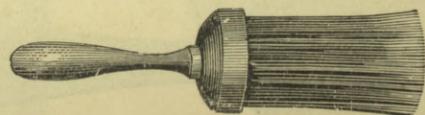
BORACIC ACID

Per lb.....20c.

DIXON'S BRAZING GRAPHITE

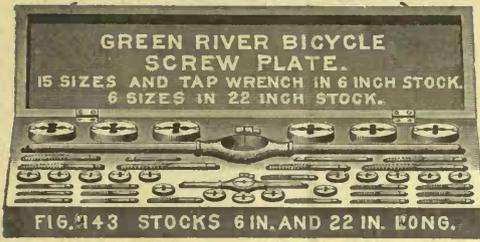
Is the best anti-flux known. It prevents the spelter or brass from sticking to the work, and saves time and money. No filing is necessary where this is used. Send for sample. Per lb., 50c.

STEEL WIRE BRUSH



No. 1. Round, as per cut.....each, 50c.
 " 2. Square, 5" wire, 4 row....." 50c.
 " 3. Oblong, 3 row, with long bent handle....." 40c.

WILEY & RUSSELL BICYCLE SCREW PLATES



No.	Case containing	with Stock, Tap Wrench (fitting in stock),	No. 0 Dies, Guides and Taps	Per Case
152,	"	7 "	"	\$8.25
154,	"	10 "	"	10.50
158,	"	15 "	"	14.65
143,	"	21 " with 2 Stocks,	"	20.65
consisting of 10 wire gauge sizes and fractional sizes. $\frac{9}{64}$, $\frac{4}{32}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, $\frac{15}{16}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, $\frac{15}{16}$, outside diameter of Dies $\frac{5}{16}$ and over, $2\frac{3}{16}$ 40.15				
133,	Case containing Stock 10" long and 7 sizes of Taps, Dies and Guides,			17.25
350,	Case containing 5 sizes, with Stock, Tap Wrench (fitting in stock),	No. X Dies and Taps,		6.60
352,	Case containing 7 sizes, with Stock, Tap Wrench fitting in stock),	No. X Dies and Taps,		8.90
354,	Case containing 10 sizes, with Stock, Tap Wrench (fitting in stock),	No. X Dies and Taps,		11.65

REGULAR SIZES OF DIES AND TAPS CARRIED IN STOCK

Wire Gauge sizes	Nos. 11 ⁵⁶ , 12 ⁴⁸ , 12 ⁵⁶ , 13 ⁴⁸ , 13 ⁵⁶ , 14 ⁵⁶ , 15 ⁵⁶ , 16 ⁵⁶ , 17 ⁵⁶
Machine Screw sizes	Nos. 2 ⁵⁶ , 3 ⁴⁸ , 4 ³⁶ , 6 ³² , 8 ³² , 10 ²⁴ , 12 ²⁴ , 14 ²⁰ , 16 ¹⁶ , 16 ²⁰
Fractional sizes	Nos. $\frac{5}{64}$, $\frac{3}{32}$, $\frac{7}{64}$, $\frac{1}{8}$, $\frac{9}{64}$, $\frac{5}{32}$, $\frac{11}{64}$, $\frac{3}{16}$, $\frac{13}{64}$, $\frac{7}{32}$, $\frac{15}{64}$, $\frac{1}{4}$, $\frac{17}{64}$, $\frac{9}{32}$



Patent Elastic Stocks, 6" long	each, \$1.15
Dies, 1" diameter	" .90
Guides	" .25
Taps	" .40
Cases, 5 sizes, each, 55c.; 7 and 10 sizes.	" .65

Explanation of Dies and Guides supplied in No. 0 Bicycle Screw Plates—The cut shows a Die and Guide complete; also a Die taken apart to show the mechanism. The cup-headed screw on the right holds the halves together as a hinge, while the size is regulated by the wedge-shaped screw on the left, the Die being clamped in the Elastic Stock. It is readily adjusted without danger of breakage common to Dies open only on one side and solid on the other.



No. X PARTS



PRICES OF SINGLE PARTS	
Stock, 5 1/4" long	each, \$0.60
Dies, 3/8" diameter	" .60
Taps	" .40
Tap Wrench.	" .60
Cases, 5 sizes, 55c.; 7 and 10 sizes	" .65

BICYCLE TAPER TAPS FOR REPAIRERS

Butterfield & Co.'s

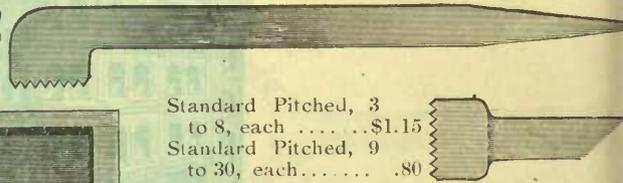
The Wiley & Russell Mfg. Co.'s



Diameter	1/4	Threads	20 to 32	each	.....	\$0.45
"	5/16	"	20 to 32	"	.....	0.50
"	3/8	"	20 to 32	"	.....	0.55
"	7/16	"	20 to 32	"	.....	0.60
"	1/2	"	20 to 32	"	.....	0.70
"	5/8	"	20 to 32	"	.....	0.80
"	3/4	"	20 to 32	"	.....	0.90

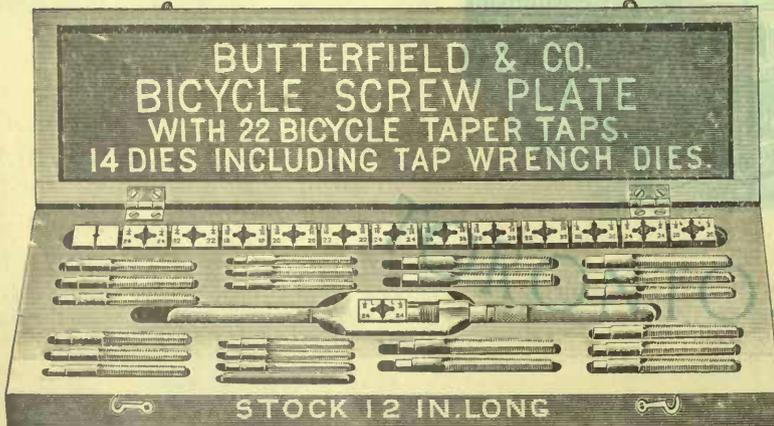
- No. 1. Size $\frac{1}{16}$, tapering to $\frac{1}{32}$, 4 inches long, Threads 18 to 32, each.....\$1.00
- No. 2. Size $\frac{3}{16}$, tapering to $\frac{1}{32}$, 4 inches long, Threads 18 to 32, each..... 1.30
- No. 3. Size, $\frac{1}{4}$, tapering to $\frac{3}{32}$, 4 inches long, Threads 18 to 32, each..... 1.65

INSIDE AND OUTSIDE CHASERS



Standard Pitched, 3 to 8, each\$1.15
 Standard Pitched, 9 to 30, each..... .80

B. & CO. BICYCLE SCREW PLATES

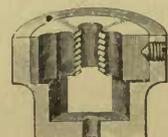


No. 99. Case containing stock 12 inches long, with 14 pairs Dies, $\frac{1}{4}$ x 24, 32; $\frac{5}{16}$ x 18, 20, 22, 24, 26, 28, 32; $\frac{1}{2}$ x 20, 24, Right Hand. $\frac{1}{2}$ x 20, 24, Left Hand. 22 Bicycle Taper Taps $\frac{1}{4}$ x 20, 22, 24, 26, 28, 32; $\frac{5}{16}$ x 20, 22, 24, 26, 28, 32; $\frac{3}{8}$ x 18, 20, 22, 24, 26, 28; $\frac{1}{2}$ x 20, 24, Right Hand; $\frac{1}{2}$ x 20, 24, Left Hand. Including one pair of Tap Wrench Dies, per case\$20.00

No. 151. Case containing 5 sizes Taps, Dies and Guide, with Adjustable Tap Wrench, per case. \$6.30
 No. 153. Case containing 6 sizes Taps, Dies and Guide, with Adjustable Tap Wrench, per case.. 7.10
 No. 157. Case containing 10 sizes Taps, Dies and Guide, with Adjustable Tap Wrench, per case.. 10.20

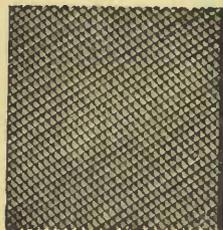
Prices of Single Parts for Sets Nos. 151, 153 and 157

Stock, 6 inches long, each.....	\$1.00	Taps, each.....	\$0.35
Dies, $\frac{5}{8}$ diameter, each.....	0.40	Tap Wrench No. 0, each.....	1.50
Guides for Dies, each.....	0.20	Cases, each.....	0.40

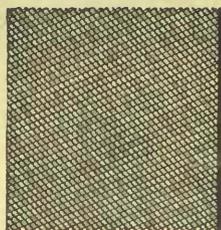


Sectional View of Die and Guide.

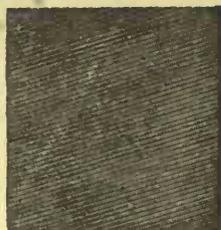
FILES



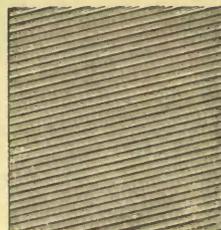
BASTARD.



SECOND CUT.



SMOOTH.



MILL FILE

JOWITT'S FILE LIST

Size in inches	4	4½	5	6	7	8	9	10	11	12
Flat, half-round, round, square and mill saw bastard	\$1.15	1.25	1.40	1.70	2.10	2.60	3.00	3.60	4.35	5.20
Flat and half-round, second-cut and second-cut mill saw	1.35	1.45	1.60	2.00	2.40	2.90	3.25	4.10	4.80	5.75
Flat and half-round, round and square-smooth, cabinet files and rasps	1.65	1.80	2.00	2.30	2.80	3.30	3.75	4.60	5.55	6.40
Flat and half-round dead smooth	2.50	2.70	3.00	3.50	4.20	4.80	5.70	6.85	8.40	9.60
Hand bastard and warding	1.25	1.40	1.50	2.10	2.55	2.90	3.60	4.35	5.20	6.00
Hand smooth	1.80	2.00	2.15	2.75	3.25	3.75	4.60	5.55	6.40	7.20
Knife files, bastard	2.00	2.30	2.55							
Half-round wood rasps						2.60	3.00	3.60	4.35	5.20
Round wood rasps							3.25			
Size in inches	3½	4	4½	5	5½	6	7	8	9	10
Taper saw files	0.95	1.10	1.20	1.35	1.55	1.80	2.30	2.90	3.75	4.70
Band saw files	1.55	1.80	2.05	2.30	2.55	2.90				
Pit or frame saw files			1.40	1.55	1.80	2.05	2.55	3.25	3.85	4.80

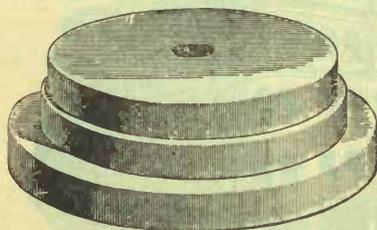
EMERY WHEELS



No. 283.

Diam.	¾	1	1½	2 in. face.
3	\$0.80	0.95	1.10	1.40 each
4	1.10	1.35	1.60	2.10 "
6	1.75	2.40	3.00	4.35 "
8	2.60	3.60	4.60	6.60 "
10	3.60	5.10	6.60	9.50 "
12	4.00	5.75	7.35	10.70 "

FELT BUFFING WHEELS



Hard, medium or soft grades.
6 x 1 8 x 1 8 x 1½ 10 x 1½ inches.
\$1.15 2.30 2.85 4.50 each

EMERY CLOTH

Nos 0 0 ½ 1 1½ 2 2½ 3
Per quire .. \$1.00 1.10 1.30 1.40

EMERY POWDER

Corn, Nos. 54 to 120 per lb., 10c.
Flour..... " 6c

STEEL WOOL

For polishing frames.

Polishing Rubbing Scouring
Nos 0 1 2 3
Per lb.... 80c. 66c. 53c. 40c.



THOMPSON'S HACK SAWS

N.P. extension (8-12 ins.) frame, with one blade.....each, 1.50
Extra blades, 8", 96c.; 9", \$1; 10", \$1.07 per doz.

EMERY WHEEL DRESSERS



No. 3. Steel Bushing and Arbor.....each, \$1.25
Extra Wheels and Washersper set, .70

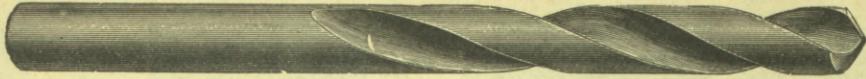
FILE CLEANERS



No. 1. Mounted Cards, 4 x 1½ inches....each, 20c.

WE ALSO CARRY A STOCK OF BLACK DIAMOND, GLOBE, STUBBS' and "GROBET'S SWISS" MAKES OF FILES.

TWIST DRILLS



No. 105—STRAIGHT SHANK

Diameter.....	$\frac{1}{16}$	$\frac{5}{64}$	$\frac{3}{32}$	$\frac{7}{64}$	$\frac{1}{8}$	$\frac{9}{64}$	$\frac{5}{32}$	$\frac{11}{64}$	$\frac{3}{16}$	$\frac{13}{64}$	$\frac{7}{32}$	$\frac{15}{64}$	$\frac{1}{4}$	$\frac{17}{64}$	$\frac{9}{32}$	inch
Length	$2\frac{1}{2}$	$2\frac{5}{8}$	$2\frac{3}{4}$	$2\frac{7}{8}$	3	$3\frac{1}{8}$	$3\frac{1}{4}$	$3\frac{3}{8}$	$3\frac{1}{2}$	$3\frac{5}{8}$	$3\frac{3}{4}$	$3\frac{7}{8}$	4	$4\frac{1}{8}$	$4\frac{1}{4}$	"
Price, per doz..	\$1.00	1.10	1.20	1.30	1.45	1.60	1.80	2.00	2.20	2.40	2.65	2.90	3.15	3.40	3.65	
Price, each....	\$0.09	0.10	0.11	0.12	0.13	0.15	0.16	0.18	0.20	0.21	0.23	0.26	0.28	0.30	0.32	

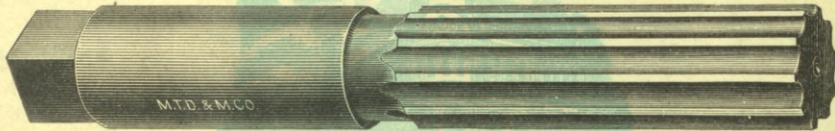
Diameter	$\frac{19}{64}$	$\frac{5}{16}$	$\frac{21}{64}$	$\frac{11}{32}$	$\frac{23}{64}$	$\frac{3}{8}$	$\frac{25}{64}$	$\frac{13}{32}$	$\frac{27}{64}$	$\frac{7}{16}$	$\frac{29}{64}$	$\frac{15}{32}$	$\frac{31}{64}$	$\frac{1}{2}$	inch
Length.....	$4\frac{3}{8}$	$4\frac{1}{2}$	$4\frac{5}{8}$	$4\frac{3}{4}$	$4\frac{7}{8}$	5	$5\frac{1}{8}$	$5\frac{1}{4}$	$5\frac{3}{8}$	$5\frac{1}{2}$	$5\frac{5}{8}$	$5\frac{3}{4}$	$5\frac{7}{8}$	6	"
Price, per doz.....	\$3.90	4.20	4.50	4.80	5.10	5.40	5.70	6.00	6.40	6.80	7.20	7.50	7.75	8.00	
Price, each	\$0.35	0.37	0.40	0.42	0.45	0.48	0.50	0.53	0.55	0.59	0.63	0.65	0.67	0.70	



No. 109—BIT STOCK

Diameter.....	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{11}{32}$	$\frac{3}{8}$	$\frac{13}{32}$	$\frac{7}{16}$	$\frac{15}{32}$	$\frac{1}{2}$	$\frac{5}{8}$	inch
Price, per doz..	\$1.50	1.65	2.10	2.60	3.10	3.60	4.10	4.70	5.40	6.30	7.20	8.00	8.80	9.60	10.30	16.20	
Price, each....	.14	.16	.20	.24	.29	.33	.38	.43	.48	.54	.62	.68	.75	.82	.87	1.35	

SOLID REAMERS



No. 116

Diameter.....	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$1\frac{1}{16}$	inch
Flute, length.	$2\frac{3}{16}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{7}{16}$	$2\frac{9}{16}$	$2\frac{5}{8}$	$2\frac{3}{4}$	$2\frac{3}{4}$	3	$3\frac{1}{8}$	$3\frac{1}{4}$	$3\frac{7}{16}$	$3\frac{5}{8}$	$3\frac{3}{4}$	"
Price, each ..	\$1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.10	3.30	3.50	3.75	4.05	4.35	4.65	

Lightning Taper Reamers



The sizes are arranged to follow each other from the smallest to the largest, so that with a set of these useful tools any size from $\frac{3}{16}$ to $1\frac{1}{4}$ inch may be accurately made. Each Reamer leaves a round, true cut hole.

Sizes ...	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$
Each... \$	0.68	0.75	0.78	0.90	1.05	1.20	1.35	1.58

Sizes ...	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$1\frac{1}{16}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Each... \$	1.80	2.10	2.40	2.75	3.00	3.38	3.90

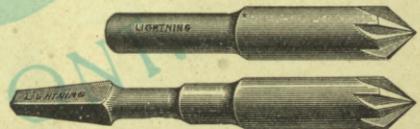
Centre Punches



No. 14. $\frac{8}{32}$, $\frac{10}{32}$, $\frac{12}{32}$, assorted, per dozen..... \$1.85

Lightning Countersinks

Round Shanks, $\frac{1}{2}$ and $\frac{41}{64}$ inch in diameter.



60 or 80 Degrees for Bolt or Screw Heads.

No. 500. Regular size, $\frac{5}{8}$ " diam., $\frac{5}{8}$ " cut	Each. \$0.75
No. 510. Large size, $\frac{3}{4}$ " diam., $\frac{3}{4}$ " cut	1.13

Give style of shank and degrees wanted.

New Centre Reamer

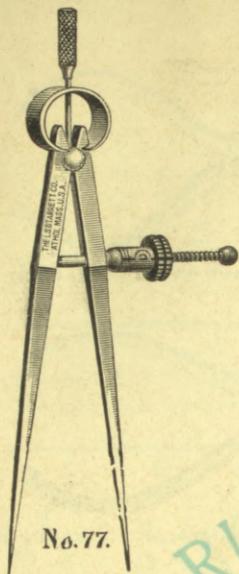


Accurately made of the best steel, and of the most approved form.

No. 530. $\frac{1}{4}$ " Shank, cuts $\frac{3}{8}$, each	\$0.38
" 531. $\frac{3}{8}$ " " " $\frac{1}{2}$, "	0.45
" 532. $\frac{1}{2}$ " " " $\frac{5}{8}$, "	0.90

CALIPERS

Dividers

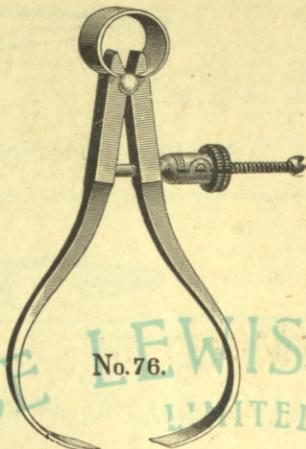


No. 77.

Solid Nut. Spring Nut.

3"...	\$1.25	1.45
4"...	1.55	1.75
5"...	1.55	1.75
6"...	1.90	2.20

Thread

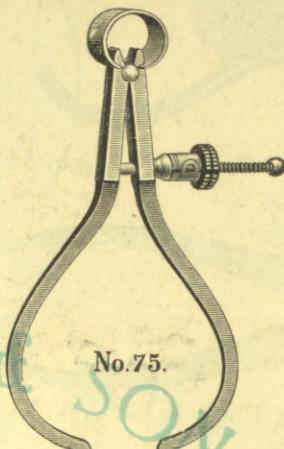


No. 76.

Solid. Spring.

3"...	\$1.25	1.45
4"...	1.40	1.55
5"...	1.40	1.55

Outside

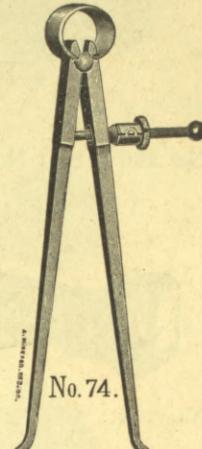


No. 75.

Solid. Spring.

3"...	\$1.25	1.45
4"...	1.40	1.55
5"...	1.40	1.55
6"...	1.70	1.90

Inside

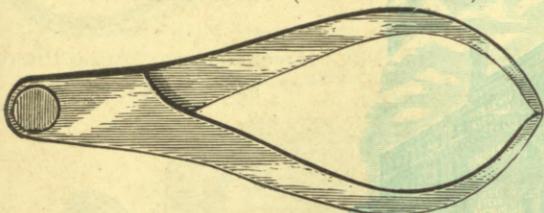


No. 74.

Solid. Spring.

3"...	\$1.25	1.45
4"...	1.40	1.55
5"...	1.40	1.55
6"...	1.70	1.90

Firm-Joint (Outside or Inside).



Each ... 3", 25c.; 4", 30c.; 6", 50c.

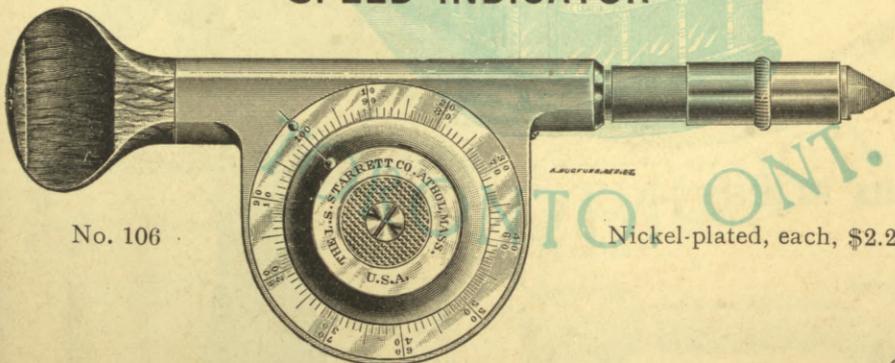
Improved Firm-Joint (Outside or Inside).



No. 27.

Each3", 50c.; 4", 65c.; 5", 70c.; 6", 80c.

SPEED INDICATOR



No. 106

Nickel-plated, each, \$2.25

IMPROVED COMBINATION PLIERS



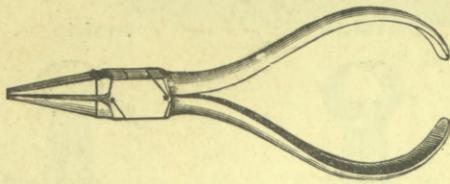
No. 22.	6", Black, per dozen.....	\$20.25
" 23.	6", per dozen	22.50

SPOKE CUTTING NIPPERS COMPOUND LEVER

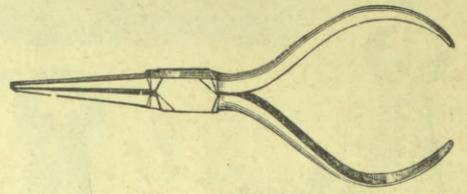
Each.....\$1.60



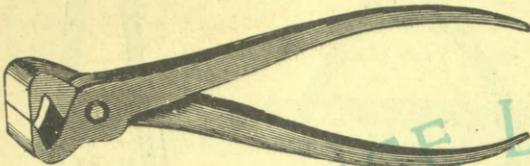
TOOLS



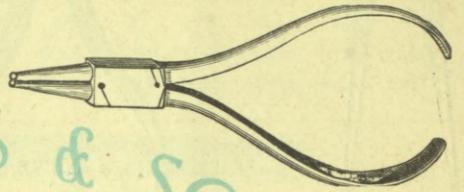
No. 160 Flat Nose Pliers, 6" each, \$1.00



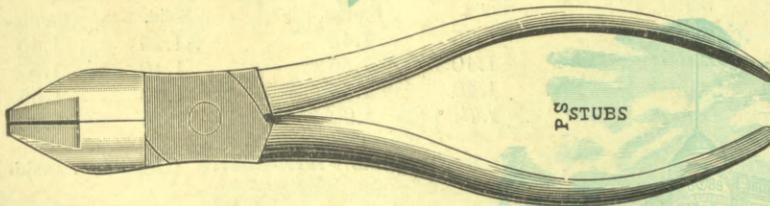
No. 156. Long Nose Patch Pliers, 5 $\frac{3}{4}$ " each, 85c.



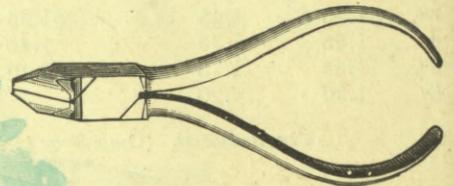
No. 154. Face Cutting Pliers, 6"each, \$1.45



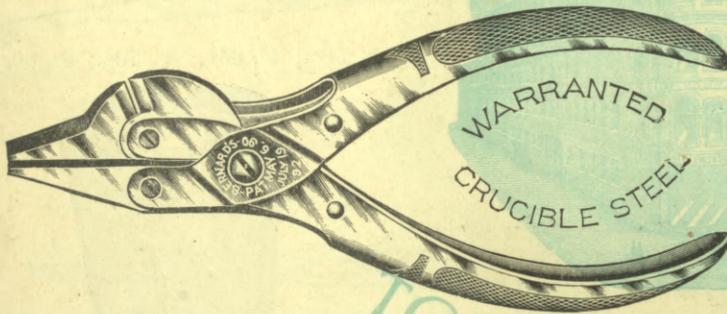
No. 162. Round Nose Pliers, 6".....each, \$1.00



No. 153. Side Cutting Pliers, 6"each, \$1.20

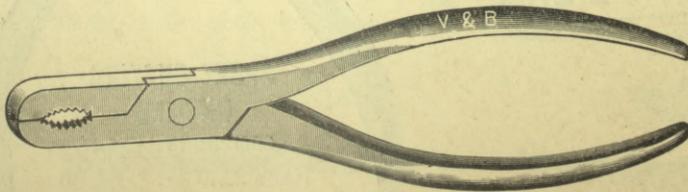


No. 149. Bevelled Face Cutting Pliers, 6", each, \$1.45

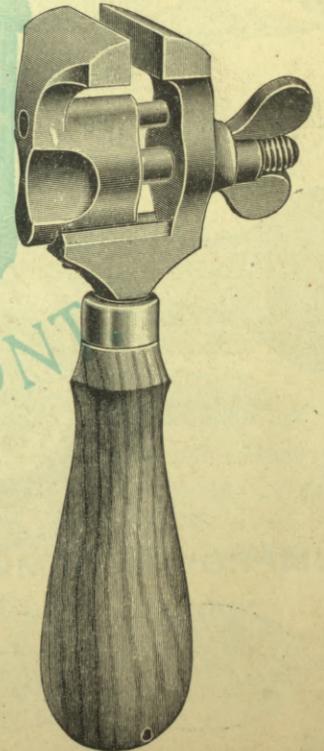


BARNARD PLIERS

- | | | | | |
|---------|---------------------------------|-------|-------|--------|
| No. 100 | Flat Nose, 5 $\frac{1}{2}$" | ..... | each. | \$1.20 |
| " 200. | Round " 5 $\frac{1}{2}$" | ..... | " | 1.20 |
| " 300. | Side Cutting, 5 $\frac{1}{2}$" | ..... | " | 1.80 |



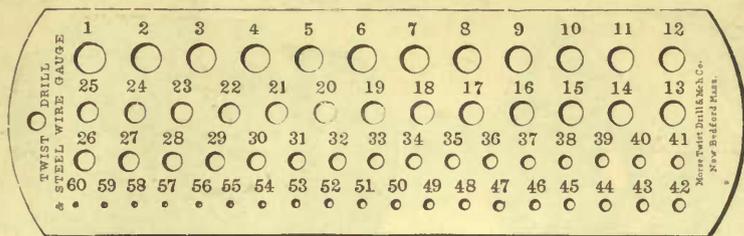
No. 161. Cone Pliers, 6"each, \$0.55



No. 2. Boss Hand Vice, Hardened Steel Jaws, 1 $\frac{1}{4}$ " wide. each, \$1.15

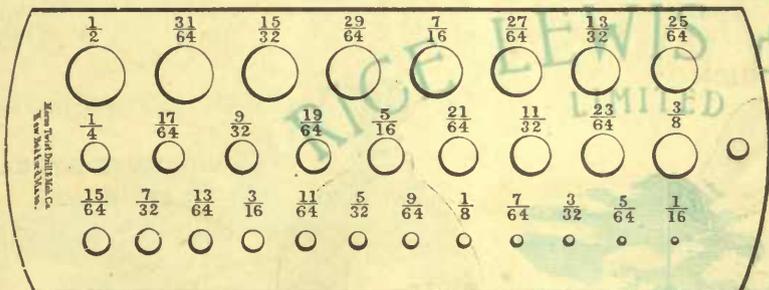
GAUGES

DRILL GAUGES



No. 774

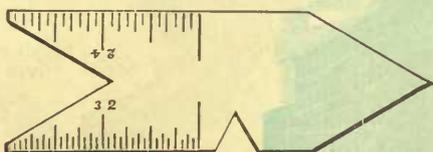
Gauge numbers from 1 to 60 each, \$2.25
 This gauge is used for measuring Twist Drills and Stub's Steel Rods.



No. 775

Jobbers' Drill Gauge, sizes from $\frac{1}{16}$ to $\frac{1}{2}$ inch each, \$4.00

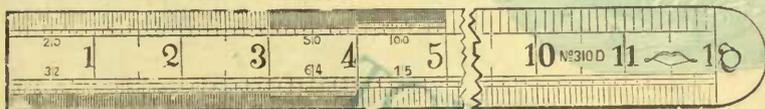
GRADUATED CENTRE GAUGE



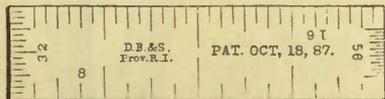
Full Size.

Each60c.

STEEL RULES



Size.....	3"	4"	6"	12"
No. 300 D. Graduated on one side... per doz.,	\$3.20	3.20	3.60	6.00
No. 326 D. " both sides.. " "	4.80	5.60	8.00	



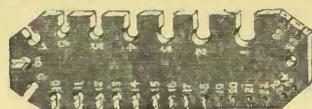
With End Graduations.

Size.....	3"	4"	6"	9"	12"
Each	\$0.55	0.70	1.00	1.50	1.90

In this Rule the ends are graduated on one side to 48ths and 100ths, and on the other side, as shown in cut, to 32nds and 56ths of an inch. The 32nds extend entirely across the rule.

The 3-in. Rules are graduated to 40ths instead of 100ths on the end.

WIRE GAUGES



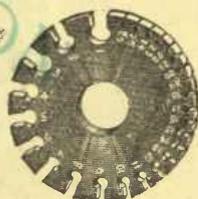
No. 1110

Each \$3.00



No. 848

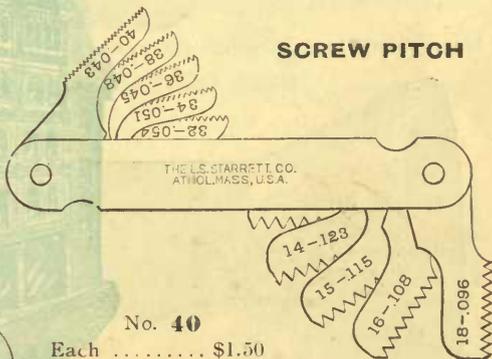
Each \$3.50



No. 611

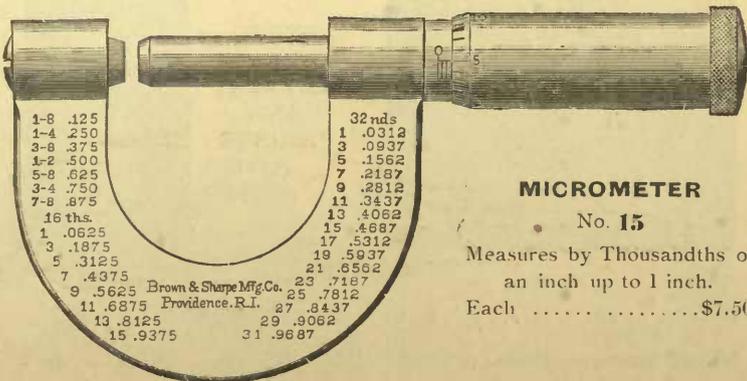
Each \$3.00

SCREW PITCH



No. 40

Each \$1.50



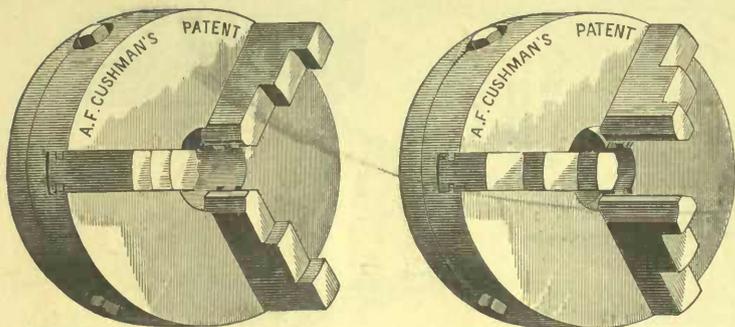
MICROMETER

No. 15

Measures by Thousandths of an inch up to 1 inch.
 Each \$7.50

TOOLS

GEARED SCROLL CHUCK



No. 290. With No. 1 Jaws.
 With 1 set Jaws.....each, 3", \$12.50; 4", \$15.00; 5", \$18.75; 6", \$22.50
 " 2 sets " " 3", 15.00; 4", 18.00; 5", 22.50; 6", 27.00

No. 291. With No 2 Jaws.

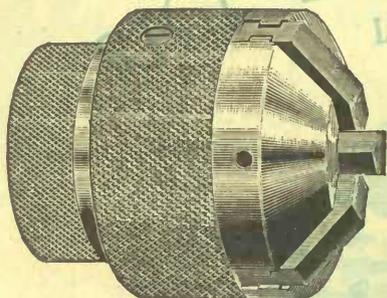
THE HARTFORD DRILL CHUCK



No. 2. Diameter. 2 3/4".

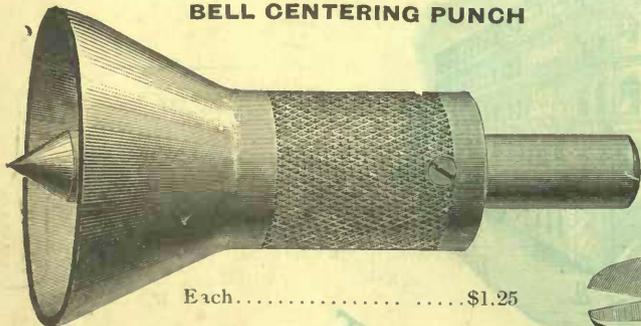
No. 0. Holds from 0 to 1/4".....each, \$7.50
 " 1. " 0 to 1/2"..... " 8.75
 " 2. " 0 to 3/4"..... " 10.00

THE ACME DRILL CHUCK



Holds from 0 to 1/2" self-tightening, three jawseach, \$5.00

BELL CENTERING PUNCH



Each.....\$1.25

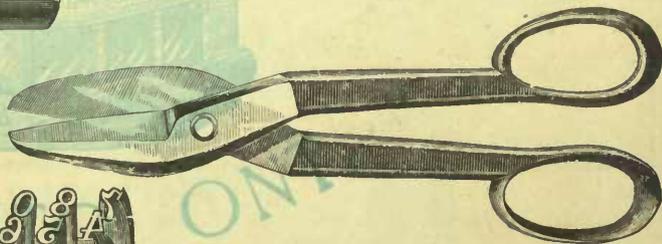


IMPROVED STEEL LATHE DOG

No. 1, 3/8"....each, \$0.35
 " 2, 1/2".... " .35
 " 3, 3/4".... " .50
 " 4, 1".... " .60
 " 5, 1 1/4".... " .75
 " 6, 1 1/2".... " .85
 " 7, 1 3/4".... " 1.00
 " 8, 2".... " 1.10

Small set of 8 Dogs,
 from 3/8 to 2"..... 5.50

METAL SHEARS



No. 8, Straight cut,
 3 1/2", each, \$2.20
 No. 9, Straight cut,
 3", each, \$1.65

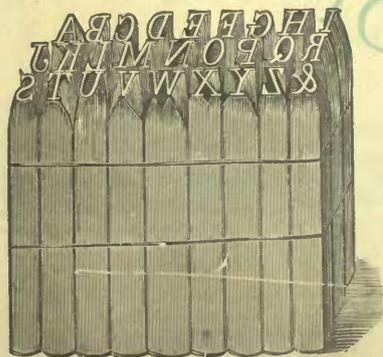
OIL CAN

No. 13

Copper-plated, 3 3/8"
 dia., 3" spout.
 Each40c.

No. 14

Copper-plated, 3 3/8"
 dia., 9" spout.
 Each 50c.



No. 284

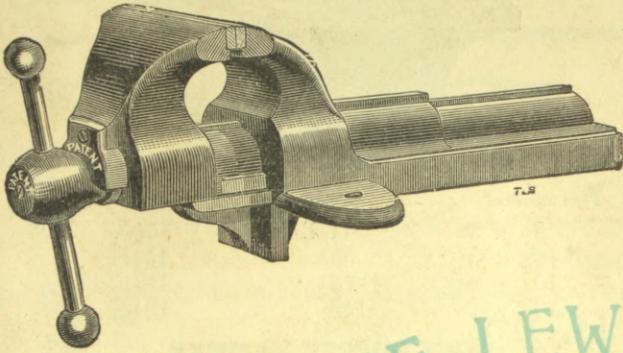
No. 284. Letters 1/16", \$4.40 1/8", \$4.40 3/16", \$5.40 1/4", \$6.75
 " 265. Figures..... 1/16", 1.50 1/8", 1.50 3/16", 1.80 1/4", 2.25
 Name Stamps, per letter, 1/16", .20 1/8", .20 3/16", .30 1/4", .35



No. 285

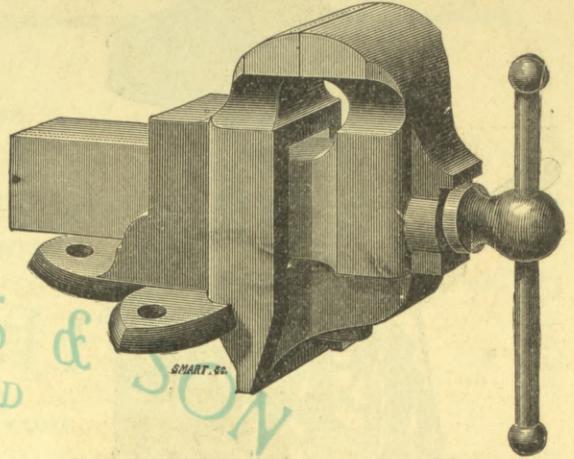
TOOLS

OVAL SLIDE VICE



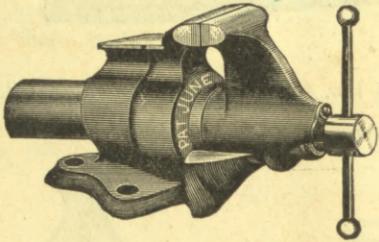
No. 72. Jaws 3" each, \$3.20
 " 73. " 3½" " 4.00

SIMPSON STATIONARY VICE



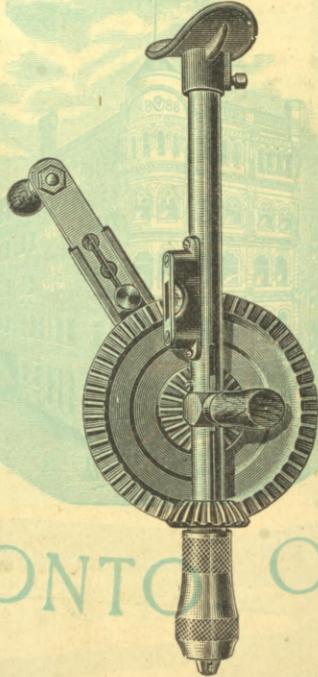
No. 31. Jaws 4" each, \$9.60

MECHANICS' BENCH VICE



No. 24. Jaws 3" each, \$4.65
 " 29. " 3½" " 7.30

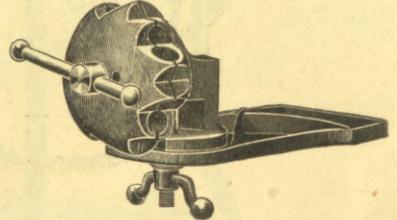
BREAST DRILL



No. 10

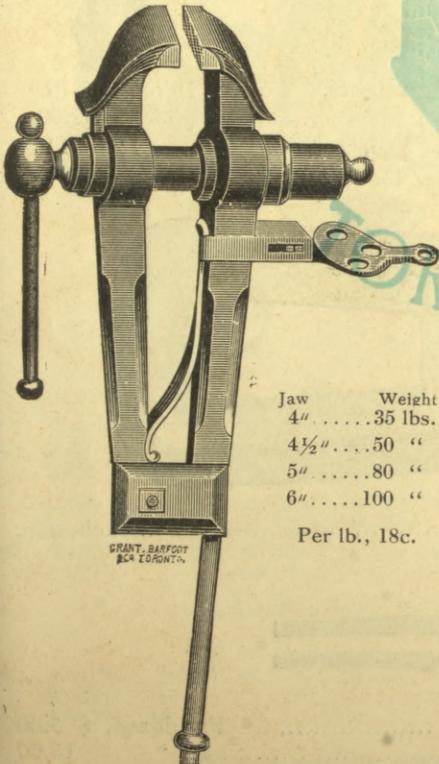
BALL BEARING, nickel-plated Stock and Chuck, will hold both round and square Shank Drills. The Gears are cut, and are changeable from even to 3 to 1. Each, \$4.95.

TUBE VICE



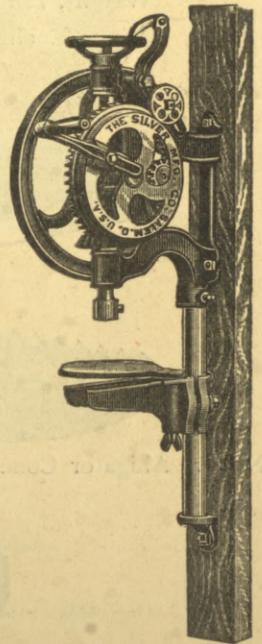
Holds Tubing at any angle.
 Each \$7.67

WROUGHT IRON LEG VICE



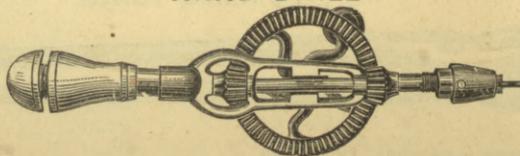
Jaw Weight
 4" 35 lbs.
 4½" 50 "
 5" 80 "
 6" 100 "
 Per lb., 18c.

POST DRILL



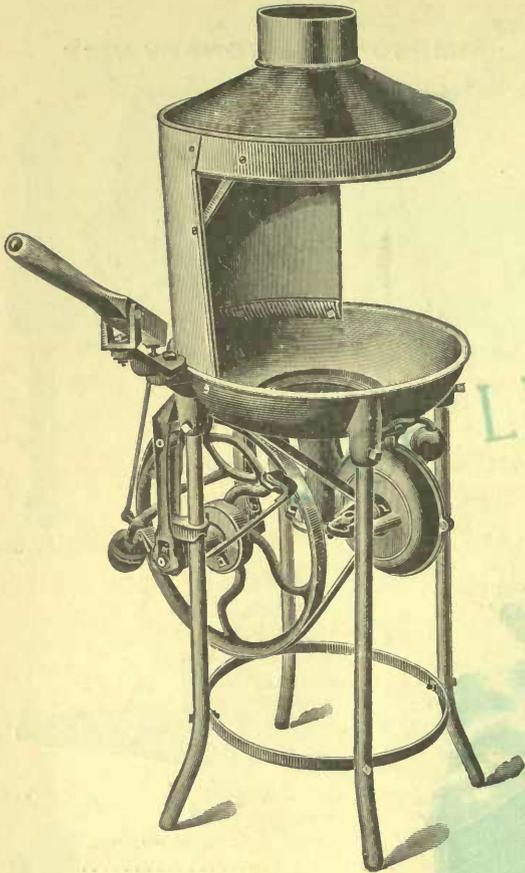
No. 731 x 1
 Each \$9.50

HAND DRILL



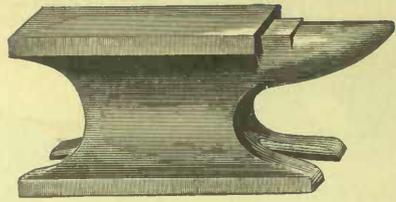
No. 1, with 6 Drill Points each, \$2.10
 " 2, " 6 " " large size " 4.15

TOOLS



No. 7. Forge, hearth, 18" ; height, 30"
Weight, 75 lbs. Half hood.
Each, \$23.00.

ANVIL



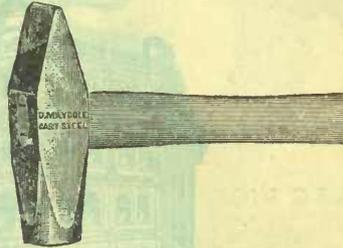
Face Measure.	Weight.	Price per lb.
8½ x 3"	41 lbs.	15½c.
10 x 3"	55 "	15½c.
10 x 3½"	78 "	15½c.
13 x 4"	136 "	13½c.

SOFT COPPER HAMMER

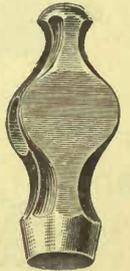


1 lb., each \$1.15; 1½ lbs. ea., \$1.35; 2 lbs. ea., \$1.65.

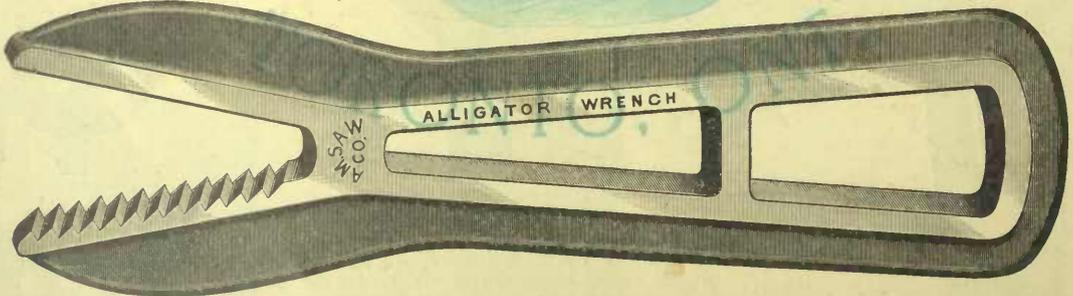
RIVETING HAMMER



BALL PEIN

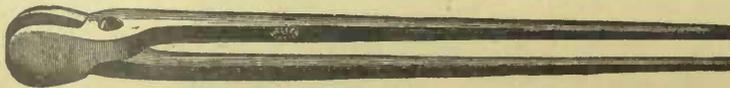


Riveting Hammers, weights,	7 oz.,	13 oz.	1½ lb.
Per doz.....	\$5.50.	\$6.50.	\$7.50.
Machinists' Hammers, weight,	½ lb.	¾ lb.	1 lb.
Per lb.....	45c.	30c.	30c.
			1¼ to 3 lbs.
			25c.



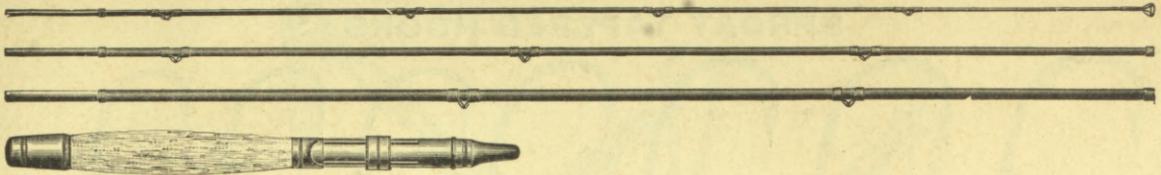
No. 1. Alligator Cone Wrench, 5¾ inches long.....Each, 35c.

FORGING TONGS



Heller Bros., Forging Tongs (see cut), 12 to 17"	Per dozen, \$ 5.00
No. 1 Stearns, Straight, Swivel Jaw Blacksmith Tongs 16"	" 15.00
No. 2 " " " " " 18"	" 15.00

FISHING RODS



STEEL RODS

No. 4.	Brass Rod, 10 feet in length, Nickel Mountings, Cork Grip.....	each, \$8.50
" 4A.	" 10 " " " " " Celluloid Grip.....	" 7.70
" 8.	Fly Rod, 10 " " " " " " Cork Grip.....	" 8.50
" 17.	Bait Casting Rod, 7 feet in length, Nickel Mountings, Cork or Cane Wound Grip.....	" 10.00

BAMBOO RODS

No. D12.	Fly Rod, Six Strip Rod, Nickel Mountings, Solid Reel Seat, Cork Grip, 9½ to 10 feet.....	each, \$4.65
" D15.	Bait " " " " " " " " 9½ " 10 "	" 4.65
" N12.	Fly " " " " " " " " 9½ " 10 "	" 2.75
" N15.	Bait " " " " " " " " 9½ " 10 "	" 2.75
" 12.	Fly " " " " " " " " 9½ " 10 "	" 1.75
" 15.	Bait " " " " " " " " 9½ " 10 "	" 1.75

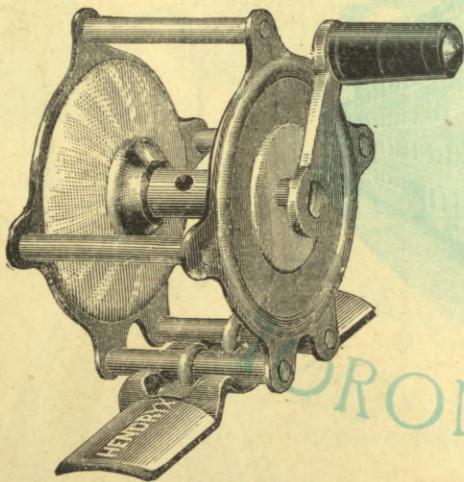
GREENHEART RODS

No. 36¼.	Fly Rod, Solid Reel Seat, Improved Shouldered Ferrules, Silk Wrappings, Scored Wood Grip, 10 feet, each, \$3.50
" 46¼.	Bait " " " " " " " " 10 " " " 3.50

LANCEWOOD RODS

No. X85.	Fly Rod, Full Nickel Mounted, Raised Ferrules, Silk Whippings, Scored Grip, 10 feet.....	each, \$2.05
" X95.	Bait " " " " " " " " 10 "	" 2.05
" 495.	Combination Rod, 3-Joint Heavy Bait Rod, 10½ feet, weight 15 ounces, or a 2-Joint Trolling Rod, 7 feet, weight 13 ounces, Full Nickel Mountings, Solid Reel Seat, Silk Wound Tee Guides, Celluloid Grip above and below Reel Seat.....	" 4.05

FISHING REELS



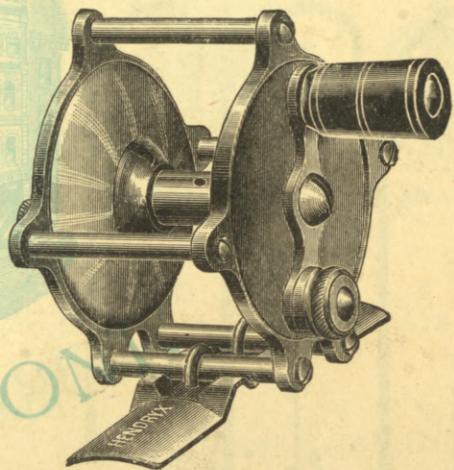
No. 102P.

Single Action, Raised Pillar, Rivet Brass Reel.

No. 102P.	Capacity 25 yds.....	per doz., \$1.70
" 106P.	" 60 "	" 2.25

Single Action, Raised Pillar, Riveted Brass Reel, with Click, Nickel-Plated.

No. 204PN.	Capacity, 40 yds	per doz., \$3.40
" 206PN.	" 60 "	" 3.70



No. 00304

Single Action, Raised Pillar, Screwed Brass Reels, with Flush Balance Handle and Back Sliding Click, Nickel-plated.

No. 00304PN.	Capacity 40 yds.....	per doz., \$6.85
" 00306PN.	" 60 "	" 7.45
" 00307PN.	" 80 "	" 8.00

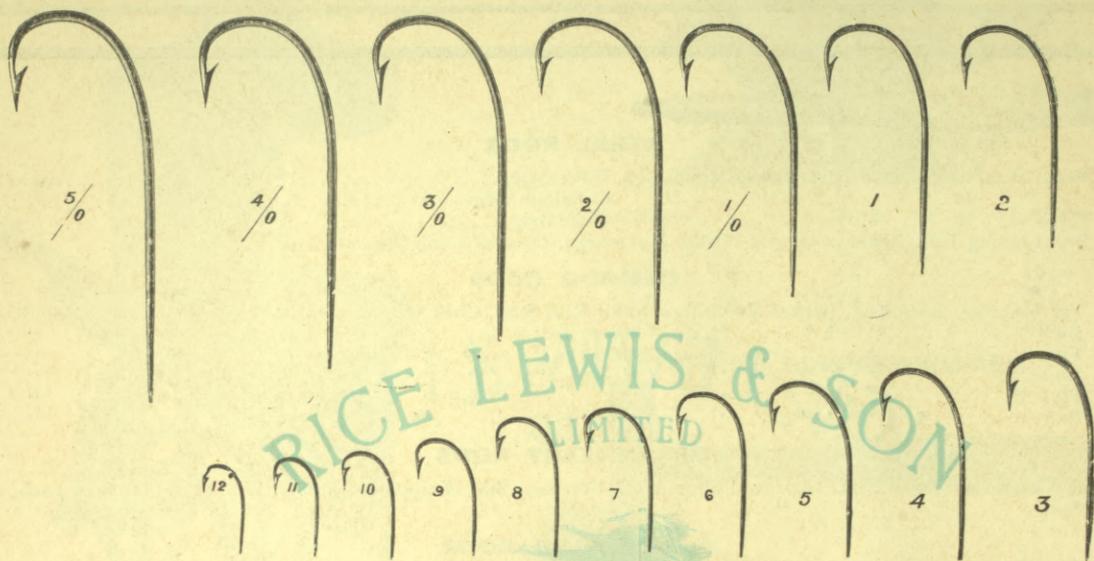
Double Multiplying, Raised Pillar, Balance Handle, Screwed Brass Reel, with Patent Adjustable Slide Drag, and Back Sliding Click.

No. 2904PN.	40 yds., N.P.....	Per dozen \$9.60	No. 002904PN.	40 yds., N.P., with Rubber Cap..	Per dozen \$12.00
" 2906PN.	60 " "	10.50	" 002906PN.	60 " " " " " "	13.00
" 2907PN.	80 " "	11.40	" 002907PN.	80 " " " " " "	14.00
			" 002908PN.	100 " " " " " "	15.50

If you deal in above, write for our Sporting Goods Catalogue.

FISH HOOKS

SPROAT TAPERED HOOKS



No. 2544

Size Nos	12 to 1	1-0	2-0	3-0
No. 2544	per 1000	\$1.15	1.45	1.65
			1.90	

CARLISLE FISH HOOKS



No. 2613

Size Nos.	12 to 1	1 0	2 0	3 0	4-0	5-0	6-0
No. 2613 — Ringed	per 1000	\$1.00	1.25	1.45	1.70	1.95	2.15
“ 2614½ — Marked	“	1.00	1.25	1.45	1.70	.....	.....

KIRBY AND LIMERICK FISH HOOKS, RINGED

Size Nos.	12 to 1	1-0	2 0	3-0	4-0	5-0	6-0	7 0	8-0	9-0	10-0
No. 1989—Kirby bend.....	per 1000	\$0.63	0.80	1.00	1.15	1.30	1.50	1.90	2.45	3.20	4.15
“ 1987—Limerick.....	“	0.63	0.80	1.00	1.15	1.30	1.50	1.90	.....	.....	.....

One hundred in a box.

If you deal in above, write for our Sporting Goods Catalogue.

TROLLING BAITS



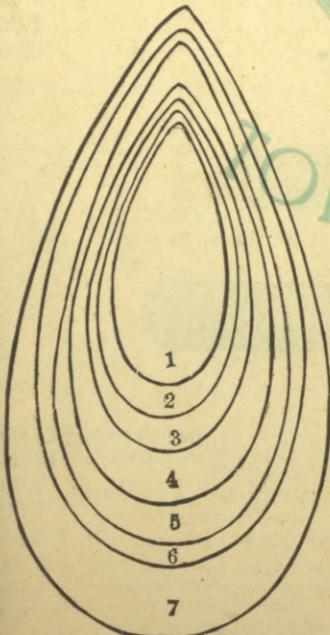
FLUTED

PICKEREL

COBOURG

DIAMOND C.

ALLURE



Scale for sizes of Spoons

FLUTED

Size Nos.....	4	4 $\frac{3}{4}$	5	6	7	8
Fluted Bait, nickel-plated, per doz.,	\$1.15	1.15	1.15	1.15	1.15	1.15

PICKEREL

Size Nos.....	4	5	6	7
Pickerel Bait, nickel-plated .....per doz.,	\$1.05	1.05	1.05	1.05

COBOURG

Size Nos.....	3	4	5	6	7	8
Cobourg Bait, nickel-plated, per doz.,	\$1.25	1.25	1.25	1.25	1.25	1.25

DIAMOND C.

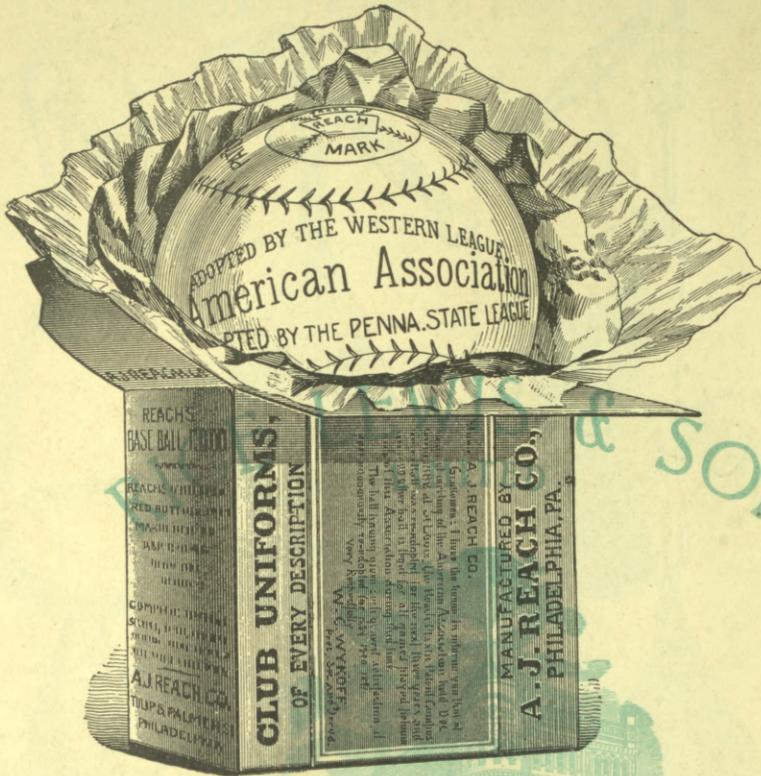
Size Nos.....	3	2	1	1-0
Diamond C., nickel-plated, gold end.....per doz.,	\$4.00	4.00	4.00	4.70

ALLURE

Size Nos	3	2	1	1-0	2-0
Allure Bait, nickel and brass .....per doz.,	\$7.40	7.40	7.40	8.10	8.10

If you deal in above write for our Sporting Goods Catalogue.

BASE BALLS



No. 1.	League Ball adopted by Western Association	per dozen, \$20.60
" 0.	" "Double Seamed Ball," Double Stitched, warranted to last a full game.....	" 20.60
" 20.	Regulation Size and Weight, a first-class ball	" 10.80
" 30.	" "Horsehide Cover	" 8.10
" 40.	" " "and well made.....	" 5.40
" 50.	" " " " " "	" 2.70
" 60.	" " "good Boys' ball	" 1.65
" 70.	" "Rattler," Boys' ball.....	" 1.05
" 80.	" "Boss," "	" 0.60

BASEBALL BATS



No. 3A



LOUISVILLE SLUGGER

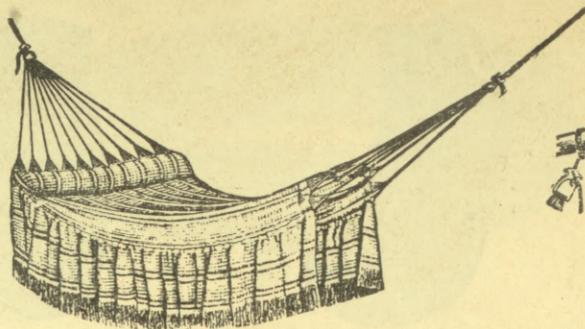
Louisville Slugger, best selected Ash, well balanced and finished	per dozen, \$14.00
No. 3-O. Highest grade Ash, thoroughly seasoned, well balanced and finished.....	" 12.85
" 1A. Extra quality Ash, Antique Finish, highly polished	" 7.00
" 1C. Finest selected English Willow, highly finished	" 7.00
" 2A. Excellent quality Ash, carefully selected, highly polished.....	" 3.85
" 3A. Extra " "Antique Finish, best Boys' bat made	" 3.85
" 7. Ash, highly polished, red end, length 30 inch	" 1.50
" 9. " " " " 26 "	" 0.80

If you deal in above, write for our Sporting Goods Catalogue.

HAMMOCKS



WITH PILLOW



WITH VALANCE

No.	Description	PER DOZ.
A1.	Quarter Color, 34 x 70", Open Weave	\$11.70
B2.	" " 36 x 76", " one Patent Wood Spreader	14.50
B4.	" " 36 x 76", " Spreader and Pillow	18.00
B5.	Full " 36 x 76", " and Valance	30.00
E4.	" " 36 x 76", Combination Weave Spreader and Pillow	25.00
E5.	" " 36 x 76", " " Pillow and Valance	37.00
G5.	" " 40 x 78", Twilled " " " "	51.00
K4.	" " 41 x 78", Open " " and Pillow	29.50
NE4.	" " 36 x 76", Corded " " Stretcher and Pillow	28.00
NE5.	" " 36 x 76", " " " Pillow and Valance	40.00
P5.	" " 40 x 78", " " " Pillow and Valance	50.00

QUOITS



W & C. WYNN & CO.
4 lbs

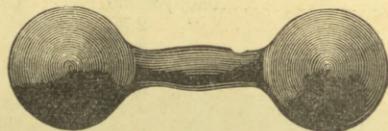
London Pattern, Superior Wrought Steel, Hardened and Polished.

Weight per pair	4	5	6	7	8	10	12	14	16 lbs.
Per pair	\$1.90	2.35	2.75	3.20	3.60	4.90	7.00	8.50	10.20

MALLEABLE IRON QUOITS

Weights, 3, 4, 5, 6, 7, 8, 10 lbs. eachper lb., \$0.12

DUMB-BELLS



IRON

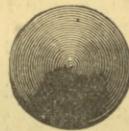
Weights, 1½, 2, 3, 3½, 4, 4½, 5, 6, 7, 8, 9, 10, 12, 14 lbs.
Per lb.\$0.08

WOOD

Made of Selected Maple, Oiled, Lathe Polished.

Weights... ½ ¾ 1 1½ 2 2½ 3 lbs.
Per pair...\$0.20 0.28 0.30 0.40 0.50 0.60 0.70

PITCHING SHOT



Weights, 10 to 50 lbs.....per lb., \$0.08

INDIAN CLUBS

Made of Selected Maple, Oiled, Lathe Polished,
well shaped and balanced.

Weights... ¾ 1 1½ 2 3 4 5 6 lbs.
Per pair \$0.25 0.35 0.40 0.50 0.60 0.90 1.00 1.15

If you deal in above, write for our Sporting Goods Catalogue.

BOXING GLOVES



No. 020



No. 032



No. 024

	Per set.		Per set
No. 02—Boys' Boxing Gloves, made of Gold Tan Kid, Elastic Wrist, and filled with Curled Hair. Style as 024.....	\$1.75	No. 013X—Men's Boxing Gloves, made of Benton Tan Kid, Laced, and filled with superior quality Curled Hair. Style as 020.....	\$6.00
" 07 —Boys' Boxing Gloves, made of White Kid, Elastic Wrist, filled with Curled Hair Style as 024.....	1.90	" 020 —Men's Boxing Gloves, made of fine imported Colored Kid, fac-simile in style of the gloves used at the Corbett-Mitchell contest at Jacksonville. Laced, and filled with the finest quality of Curled Hair	8.00
" 02X—Boys' Boxing Gloves, made of Gold Tan Kid, Elastic Wrist, and filled with Curled Hair. Style as 020	2.40	" 024 —Men's Boxing Gloves, made of Benton Tan Kid, Gold Tan Palm, California Thumb, Padded Wrist, Laced, and filled with a superior quality Curled Hair	5.35
" 03— Boys' Boxing Gloves, made of Wine Colored Kid, Elastic Wrist, and filled with good quality Curled Hair. Style as 024.....	2.40	" 026 —Men's Boxing Gloves, made of White Kid, Elastic Wrist, and filled with good quality Curled Hair. Style as 020.....	3.35
" 03X—Boys' Boxing Gloves, made of Wine Colored Kid, Elastic Wrist, and filled with good quality Curled Hair. Style as 020.....	2.70	" 027 —Men's Boxing Gloves, made of White Kid, Elastic Wrist, and filled with good quality Curled Hair. Style as 024	2.40
" 04 —Men's Boxing Gloves, made of Wine Colored Kid, Elastic Wrist, and filled with good quality Curled Hair. Style as 020	4.00	" 030 —Men's Boxing Gloves, Made of Gold Tan Kid, Elastic Wrist, and filled with Curled Hair. Style as 024.....	2.40
" 07X—Boys' Boxing Gloves, made of White Kid, Elastic Wrist, and filled with Curled Hair. Style as 020	2.40	" 030X—Men's Boxing Gloves, made of Gold Tan Kid, Elastic Wrist, and filled with Curled Hair. Style as 020.....	3.00
" 013 —Men's Boxing Gloves, made of Benton Tan Kid, Laced, and filled with superior quality Curled Hair. Style as 024	5.35		

The better quality of Gloves are stocked in 6 and 8 ounces. 8 ounces will be sent unless weight is specified.

STRIKING BAG GLOVES

No. 034—Oil Tan, Padding in Back.....	per pair, \$0.80
" 032—Wine Color Padding in Back, with Hand Bar in Palm.....	" 1.35

STRIKING BAGS

Complete with Bladders. Double Loop and Rubber Cord.

No. 81XB—Oil Tan Yellow Bag, 27 inch	each, \$2.30
" 81X — " " " 30 "	" 2.50
" 81 —Lined Oil Tan Yellow Bag, 30 inch	" 2.90
" 84 — " " " 30 " Double Seamed	" 3.10
" 65 —Lined Craven Tan Dark Bag, 30 " Welt "	" 3.75
" 82X — " " " 30 " Double "	" 4.45
" 86 —Lined Green Tan " 32 " Welt "	" 5.15
" C —Best Grained Leather Bag, 30 " Hand Sewed	" 3.40
" C — " " " 32 " "	" 4.40

Single Loop, for using with Platform.

No. 81—Lined Oiled Tan Yellow Bag, 30 inch.....	each, \$2.25
" 25 — " Craven Tan Dark " 30 " with Seam	" 3.10
" 86 — " Green Tan " 32 " "	" 4.50
" 83 — " " " 32 " Double Seam.....	" 6.20
" C —Best Grained Leather " 30 " Hand Sewed	" 2.75
" C — " " " 32 " "	" 3.75



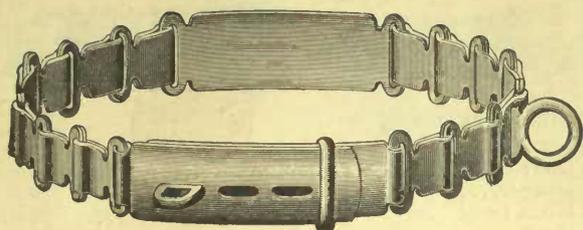
DOUBLE LOOP



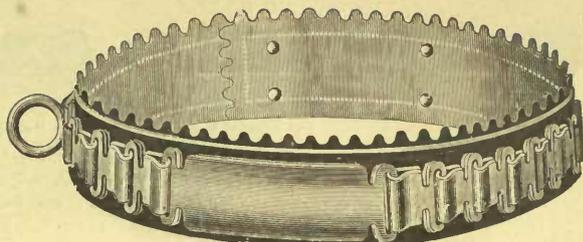
SINGLE LOOP

If you deal in above write for our Sporting Goods Catalogue

DOG COLLARS



UNLINED



LINED

UNLINED

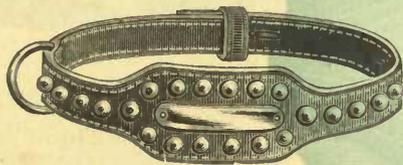
No. 260.	1/2 inch wide, lengths assorted	9 to 13 inches, Brass, Nickel-plated	per dozen, \$2.00
" 261.	3/4 " " " "	13 to 17 " " " "	" " 2.55

WITH HARD LEATHER LININGS

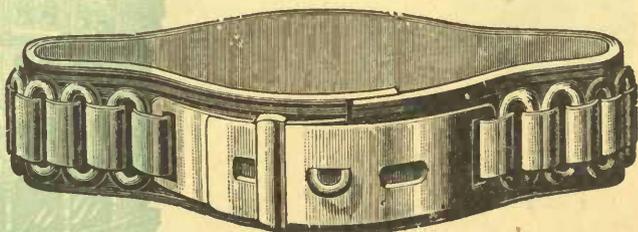
No. 250S.	1/2 inch wide, lengths assorted	9 to 13 inches, Brass, Polished	per dozen, \$2.70
" 251S.	3/4 " " " "	13 to 17 " " " "	" " 3.55
" 260S.	1/2 " " " "	9 to 13 " " Nickel-plated	" " 3.05
" 261S.	3/4 " " " "	13 to 17 " " " "	" " 3.75
" 282S.	1 " " " "	17 to 21 " " " "	" " 5.20

WITH CHAMOIS LINED LININGS

No. 250C.	1/2 inch wide, lengths assorted	9 to 13 inches, Brass, Polished	per dozen, \$4.50
" 251C.	3/4 " " " "	13 to 17 " " " "	" " 5.15
" 260C.	1/2 " " " "	9 to 13 " " Nickel-plated	" " 4.65
" 261C.	3/4 " " " "	13 to 17 " " " "	" " 5.40

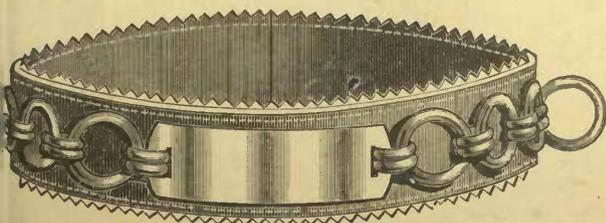


No. 427

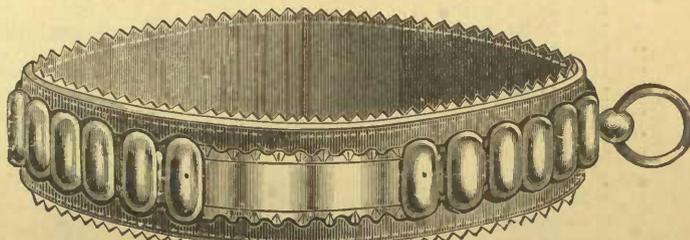


Nos. 915 and 925

No. 427.	Lengths assorted	13 to 17 inches, Black Leather, Nickered Trimmings and Studs	per doz., \$18.00
" 406.	3/4 inch wide, lengths assorted	13 to 17 inches, Russet Leather, Nickered Trimmings and Studs	" " 8.65
" 407.	1 " " " "	16 to 20 " " " "	" " 10.00
" 415.	1 1/4 " " " "	18 to 22 " " " "	" " 13.00
" 465.	2 " " " "	25 to 29 " " " "	" " 16.60
" 605.	1/2 " " " "	9 to 13 " " Chamois Lined, Nickered Trimmings	" " 5.75
" 915.	3/8 " " " "	9 to 13 " " " "	" " 6.50
" 925.	3/4 " " " "	11 to 15 " " " "	" " 7.25
" 935.	1 1/4 " " " "	14 to 20 " " " "	" " 10.00



No. 945

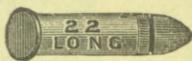


No. 954

No. 945.	3/8 inch wide, lengths assorted	13 to 17 inches, Russet Leather, Chamois Lined, Nickered Trimmings	per doz., \$8.65
" 954.	7/8 " " " "	15 to 19 " " " "	" " 13.00

CARTRIDGES

RIM FIRE



Blank Cartridges same list as Ball Cartridges, except .22 and .32.

	Per 1000		Per 1000
B.B. Caps	\$4.00	.38 Short	\$16.00
C.B. "	4.50	.38 Long	18.00
.22 Short, 50 in a box	5.00	.38 Extra Long	25.00
.22 " 100 "	5.00	.41 Short	15.00
.22 " Mushroom, 50 in a box	5.50	.41 Long	17.50
.22 " " 100 "	5.50	.42 Calibre, No. 64, Forehand & W.	30.00
.22 Long, 50 in a box	6.00	.44 Short	23.00
.22 " 100 "	6.00	.44 Long	25.00
.22 Colt's M.R. Short, 50 in a box	5.00	.44 Henry, Flat	24.00
.22 " " 100 "	5.00	.44 " Pointed	25.00
.22 " " Long, 50 "	6.00	.44 C. & W.	25.00
.22 " " 100 "	6.00	.44 Howard Long	27.00
.22 Long Rifle, 50 in a box	6.00	.44 Extra Long	36.00
.22 " " 100 "	6.00	.46 Short Pistol	25.00
.22 Extra Long	9.00	.46 Long Rifle	33.00
.22 Winchester	9.00	.46 Extra Long	46.00
.25 Short	8.50	.56-46 Spencer Sporting	40.00
.25 Stevens	14.00	.56-50 " Carbine	40.00
.30 Short	9.00	.56-52 " Rifle	40.00
.30 Long	10.50	.56-56 " Carbine	40.00
.32 Extra Short	10.00	SHOT CARTRIDGES, .22 Long	11.00
.32 Short	10.00	" " .32 "	22.00
.32 Long	11.50	BLANKS, .22 Short	5.00
.32 Long Rifle	11.50	" .32 "	10.00
.32 Extra Long	16.50		

CENTRAL FIRE PISTOL SIZES



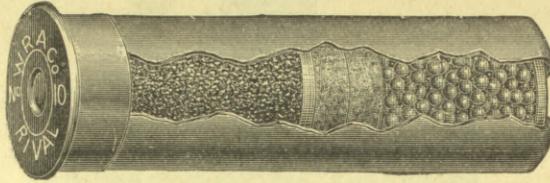
Blank Cartridges same List as Ball Cartridges.

Primer	Per 1000	Primer	Per 1000
No. 1 —.22 Extra Long	\$13.00	No. 1 —.38-40 Marlin	\$19.00
" 1 —.22 Winchester	15.00	" 1 —.38 Extra Long	23.00
" 1 —.25-20 Grs. Stevens' and Winchester Single Shot	18.00	" 0 —.41 Short, Colt's Single Action	15.00
" 1 1/2 —.25-20 Marlin and Winchester	16.00	" 0 —.41 " " Double " "	15.00
" 1 —.300 Rook	15.00	" 1 —.41 Long " " " "	17.50
" 1 —.32 Protector	9.00	" 0 —.44 S. & W. No. 3 American	19.00
" 1 —.32 Ideal	20.00	" 2 —.44 " " 3 Russian	20.00
" 0 —.32 Short Colt's	11.00	" 2 —.44 " " Russian Gallery, Round Ball	22.00
" 0 —.32 Long	12.00	" 2 —.44 " " Grooved	25.00
" 1 —.32 " Colt's Inside Lubricant	12.00	" 1 —.44 Merwin, Hulbert & Co.	20.00
" 1 —.32 " Rifle	12.00	" 2 —.44 Colt's	20.00
" 0 —.32 Smith & Wesson Gallery, Round Ball	10.00	" 1 —.44 Long Ballard	22.00
" 0 —.32 " "	11.00	" 1 —.44 Extra Long Wesson	30.00
" 0 —.32 H. & R. or M. H. & Co.	14.00	" 1 —.44 " Ballard	30.00
" 1 —.32 Winchester	16.00	" 1 —.44 Winchester	19.00
" 1 —.32 Colt's M.R. for Colt's Lightning Rifle	16.00	" 1 —.44 Colt's M. R. for Colt's Lightning Rifle	19.00
" 1 —.32-20 Marlin	16.00	" 1 —.44-40 Marlin	19.00
" 1 1/2 —.32-30 Remington Grooved	25.00	" 2 1/2 —.44 Evans' New Model	26.00
" 1 1/2 —.32 Extra Long Ballard	18.00	" 1 —.44 " Old "	22.00
" 1 1/2 —.32 " Smith & Wesson Rifle	20.00	" 1 —.44 Webley	16.50
" 1 —.32-44 S. & W. Gallery, Round Ball	18.00	" 1 —.44 Bull Dog	14.50
" 1 —.32-44 " Target, Grooved	19.00	" 1 —.45 Smith & Wesson	25.00
" 0 —.38 " Gallery, Round Ball	12.50	" 1 —.45 Webley	20.00
" 0 —.38 " "	13.50	" 2 —.45 Colt's U.S.A.	22.00
" 1 —.38-44 " Target, Grooved	23.00	" 2 —.45 " " 28 Grs.	22.00
" 1 —.38-44 " Gallery, Round Ball	19.00	" 2 —.45 " Round Ball	22.00
" 0 —.38 Merwin, Hulbert & Co.	13.50	" 1 —.450 Revolver	15.00
" 0 —.38 Short	13.50	" A —.50 Pistol	28.00
" 1 —.38 Long, for Colt's D.A. Pistols, etc.	14.50	SHOT CARTRIDGES, .38 W.C.F and .44 W.C.F.	20.00
" 1 —.38 Winchester	19.00	BLANKS, .32 Smith & Wesson	11.00
" 1 —.38 Colt's M.R. for Colt's Lightning Rifle	19.00	" .38 "	13.50

We Stock all sizes and sorts of Cartridges.

LOADED SHOT SHELLS

AMERICAN



12 GAUGE

Load No.	Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
100	3 Drs.	1 Oz.	10	\$25.00
106	3 "	1 "	6	25.00
96	3 "	1 1/8 "	6	26.00
98	3 "	1 1/8 "	8	26.00
122	3 1/4 "	1 1/8 "	2	26.50
123	3 1/4 "	1 1/8 "	3	26.50
124	3 1/4 "	1 1/8 "	4	26.50
125	3 1/4 "	1 1/8 "	5	26.50
126	3 1/4 "	1 1/8 "	6	26.50
127	3 1/4 "	1 1/8 "	7	26.50
128	3 1/4 "	1 1/8 "	8	26.50
134	3 1/2 "	1 1/8 "	4	27.00
135	3 1/2 "	1 1/8 "	5	27.00
136	3 1/2 "	1 1/8 "	6	27.00
191	3 3/4 "	1 1/8 "	BB	29.50

10 GAUGE

Load No.	Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
240	4 Drs.	1 1/8 Oz.	10	\$29.00
244	4 "	1 1/8 "	4	29.00
246	4 "	1 1/8 "	6	29.00
247	4 "	1 1/8 "	7	29.00
256	4 "	1 1/4 "	6	30.00
258	4 "	1 1/4 "	8	30.00
274	4 1/4 "	1 1/4 "	4	30.50
275	4 1/4 "	1 1/4 "	5	30.50
276	4 1/4 "	1 1/4 "	6	30.50
277	4 1/4 "	1 1/4 "	7	30.50
278	4 1/4 "	1 1/4 "	8	30.50
282	4 1/2 "	1 1/8 "	2	30.00
283	4 1/2 "	1 1/8 "	3	30.00
296	4 1/2 "	1 1/4 "	6	31.00
298	4 1/2 "	1 1/4 "	8	31.00

DOMINION TRAP, 12 GAUGE

Load No.	Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
D	3 Drs.	1 1/8 Oz.	4	\$20.50
D	3 "	1 1/8 "	5	20.50
D	3 "	1 1/8 "	6	20.50
D	3 "	1 1/8 "	7	20.50
D	3 "	1 1/8 "	8	20.50
D	3 "	1 1/8 "	10	20.50
G	3 1/4 "	1 1/8 "	3	21.00
G	3 1/4 "	1 1/8 "	4	21.00
G	3 1/4 "	1 1/8 "	5	21.00
G	3 1/4 "	1 1/8 "	6	21.00
G	3 1/4 "	1 1/8 "	7	21.00
G	3 1/4 "	1 1/8 "	8	21.00
G	3 1/4 "	1 1/8 "	10	21.00
J	3 1/2 "	1 1/8 "	3	21.50
J	3 1/2 "	1 1/8 "	4	21.50
J	3 1/2 "	1 1/8 "	5	21.50
J	3 1/2 "	1 1/8 "	6	21.50
J	3 1/2 "	1 1/8 "	8	21.50
J	3 1/2 "	1 1/8 "	10	21.50

DOMINION TRAP, 10 GAUGE

Load No.	Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
O	4 Drs.	1 1/4 Oz.	3	\$23.50
O	4 "	1 1/4 "	4	23.50
O	4 "	1 1/4 "	5	23.50
O	4 "	1 1/4 "	6	23.50
O	4 "	1 1/4 "	8	23.50
O	4 "	1 1/4 "	10	23.50
U	4 1/4 "	1 1/4 "	3	24.00
U	4 1/4 "	1 1/4 "	4	24.00
U	4 1/4 "	1 1/4 "	5	24.00
U	4 1/4 "	1 1/4 "	6	24.00
U	4 1/4 "	1 1/4 "	8	24.00
U	4 1/4 "	1 1/4 "	10	24.00

HAND LOADED SMOKELESS SHOT SHELLS

Loaded with C. & H. Amberite Powder.

12 GAUGE

Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
3 Drs.	1 1/8 Oz.	Any number 1 to 10	\$47.75

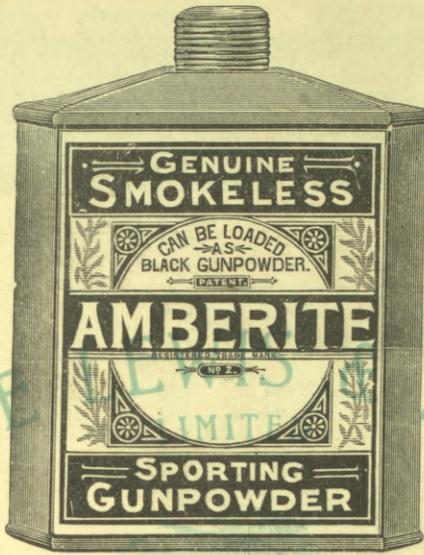
10 GAUGE

Weight of Powder.	Weight of Shot.	Size of Shot.	Price per 1000.
3 1/2 Drs.	1 1/4 Oz.	Any number 1 to 10	\$52.50

Price on application of any Special Loads.

POWDER

SOLE AGENTS FOR CURTIS'S & HARVEY'S BLACK AND NITRO POWDERS



C. & H. Black Powder

	F	FF	FFF	TP
25 lb. Kegs. per keg,	\$5.30	5.65	5.95	9.40

C. & H. "Honker" Ducking Powder

Coarse or Medium Grain.

Pounds	25	12½	6¼	1
Per Tin	\$12.50	6.50	3.30	0.55

C. & H. Celebrated "Diamond Grain"

Nos.	4	6
25 lb. Kegs. per keg,	\$18.75	18.75
12½ "	10.15	10.15
1 lb. Tins. per doz.,	11.25	11.25
½ "	6.25	6.25

Hamilton Blasting Powder

25 lb. Kegs per keg,	\$2.50
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C. & H. Amberite Smokeless Powder

Tins	½	1	5 lb.
Per lb.	\$2.20	2.05	2.00

Amberite Smokeless Powder contains no Nitro-Glycerine, gives a high muzzle velocity with low pressure, and is quick in ignition. It is a hard, clean grain, and practically unaffected by cold, heat or moisture. It is a safe and pleasant powder to shoot with, and loads measure for measure with Black Powder.

Savage Smokeless Powder

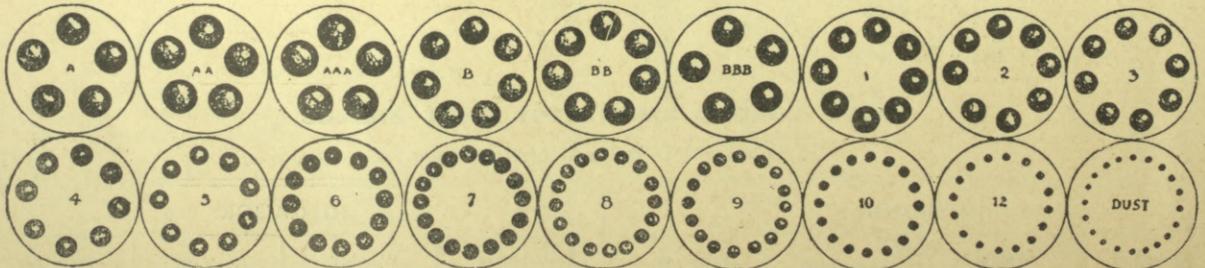
No. 1.	For High Pressure Savage Cartridges
2 "	For Miniature " "
In Tins (about 1 lb)	per tin, \$1.85

Dynamite

30%	40%	50%	60%	75%
Price on application.				

Detonators per 1000, \$11.25

SHOT



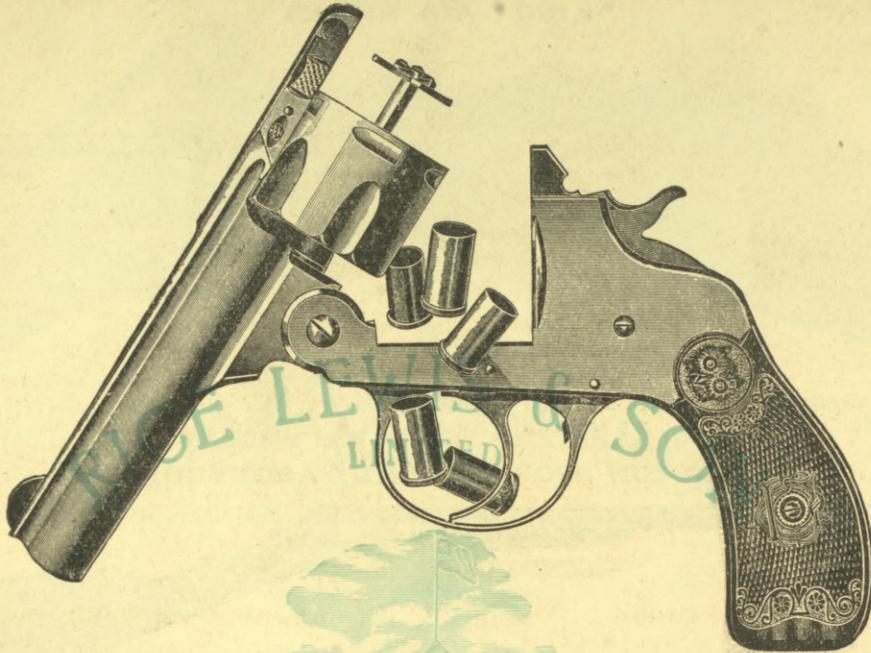
Soft Shot, Dust to No. 3A	per lb.,	\$0.06
" 4A, S, SG, and SSG (Buck Shot)	"	0.07
Chilled Shot, Dust to No. 3A	"	0.06½

Approximate Number of Pellets to the Ounce.

Dust, or No. 12	10	9	8	7	6	5	4	3	2	1	B	BB	BBB	A	AA	AAA	AAAA	SS	SG	SSG
982	882	560	375	278	209	166	121	98	92	69	58	49	44	38	32	27	24	15	11	10

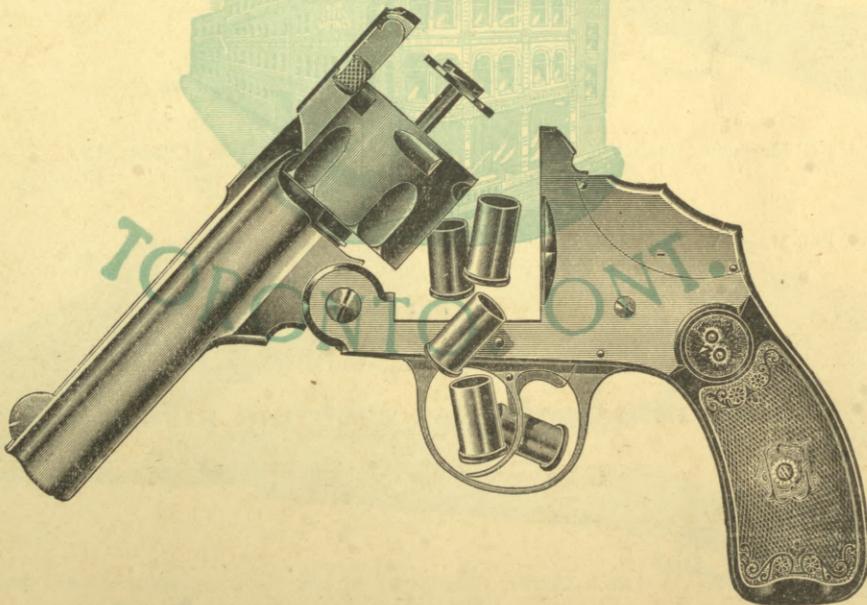
REVOLVERS

IVER JOHNSON SAFETY HAMMER AUTOMATIC REVOLVERS



.32	Calibre, 3-inch Barrels, Nickel	.....	each, \$5.50
.32	" 3 " Blued	.....	" 6.15
.32	" 6 " Nickel	.....	" 7.35
.38	" 3 1/4 " Nickel	.....	" 5.50
.38	" 3 1/4 " Blued	.....	" 6.15
.38	" 6 " Nickel	.....	" 7.35

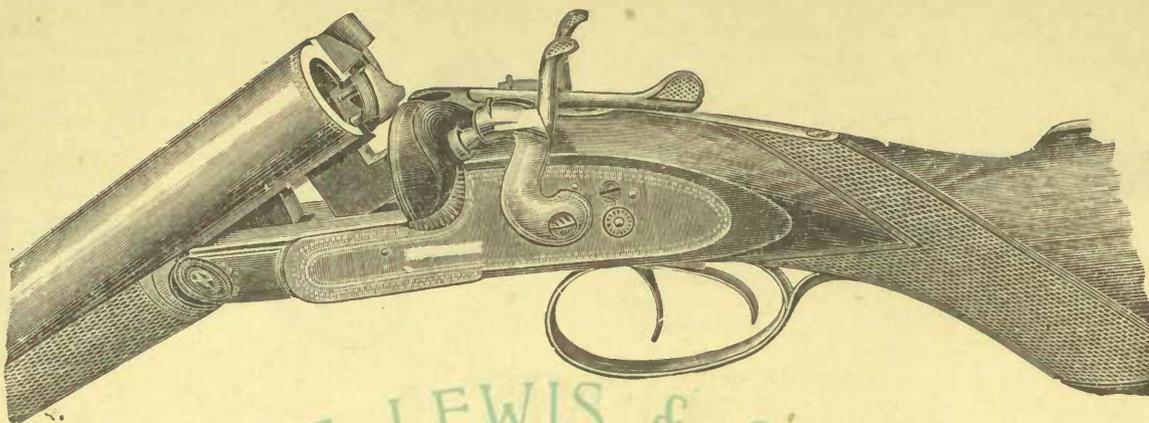
IVER JOHNSON SAFETY HAMMERLESS AUTOMATIC REVOLVERS



.32	Calibre, 3-inch Barrels, Nickel	.....	each, \$6.75
.32	" 3 " Blued	.....	" 7.35
.32	" 6 " Nickel	.....	" 8.60
.38	" 3 1/4 " Nickel	.....	" 6.75
.38	" 3 1/4 " Blued	.....	" 7.35
.38	" 6 " Nickel	.....	" 8.60

We have a large assortment of Revolvers.

DOUBLE BARREL BREECH LOADING GUNS



GENUINE BAR LOCKS, EXTENSION RIBS

RICE LEWIS & SON
LIMITED

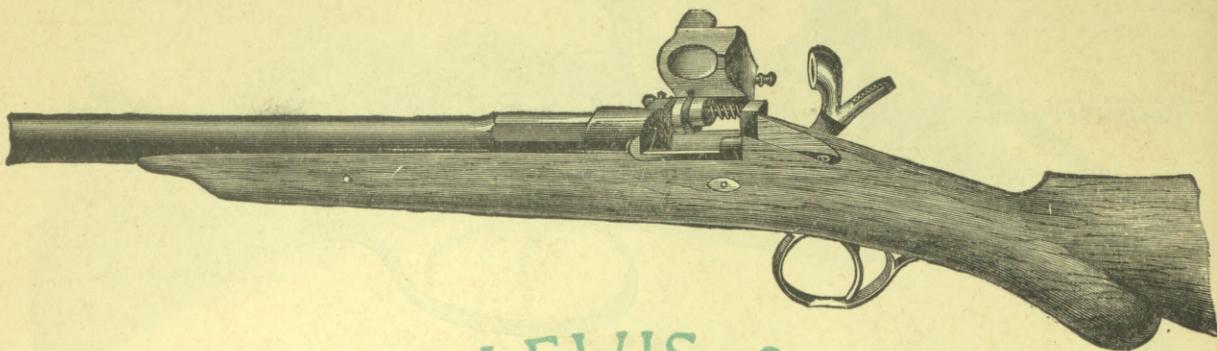
No. C—Fine Imitation Twist, Rebounding Locks, Pistol Grip, Checkered Butt, 12 Bore.....	each, \$12.75
“ C— “ “ “ “ “ “ “ “ 10 “	“ 13.25
“ D—Imitation Boston Damascus, Rebounding Locks, Pistol Grip, Checkered Butt, Double Bolt, Matted Rib, 12 Bore	“ 14.25
“ D—Imitation Boston Damascus, Rebounding Locks, Pistol Grip, Checkered Butt, Double Bolt, Matted Rib, 10 Bore	“ 15.00
“ J—Genuine Twist, Rebounding Locks, Deeley & Edge Fore End, Matted Rib, Fine Engraving, Full Pistol Grip with Plate, Extra Fine Polished Barrels, Left Barrel Choked, 12 and 16 Bore.....	“ 17.25
“ J—The same, 10 Bore	“ 18.00



No. E—Imitation Fine Damascus, Full Pistol Grip with Shield, Greener Bolt, Deeley & Edge Fore End, Matted Rib, 12 Bore	each, \$17.75
“ L—Boston Damascus Barrels, Best Quality Bar Lock, Rubber Butt, Rebounding Lock, Pistol Grip, Greener Bolt, 12 Bore	“ 25.25
“ L—The same, 10 Bore	“ 26.00

We have in stock a number of high-grade Guns.

BREECH LOADING GUNS



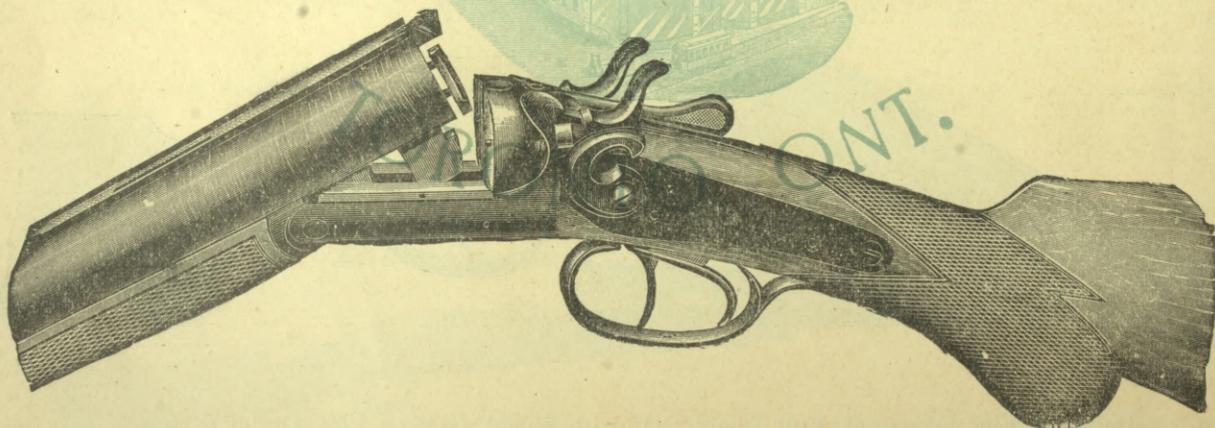
Zulu Single Breech Loading Guns, 12 Boreeach, \$6.00

REMINGTON SINGLE BREECH LOADING GUNS



No. 3—Top Lever, Blued Steel Barrel, Rebounding Lock, Side-Cocking Lever, Pistol Grip, Choke
Bore, 12 or 16 Bore.....each, \$13.25

BREECH LOADING DOUBLE BARREL GUNS



TOP SNAP ACTION

No. A—Fine Imitation Twist, Rebounding Locks, Pistol Grip, Checkered, 12 Bore.....each, \$11.00
“ B— “ “ “ “ “ “ “ Matted Rib, Engraved, 12 and 16 Bore, “ 11.50

We keep all kinds of Guns and Rifles

INDEX

A	PAGE
Adjusters, Chain	3, 12
Adjustable Handle Bars	20
Air Compressor Valve	43
Anvils	78
Axles	3

B	PAGE
Baby Carriers	39
Bags, School	39
" Tool	38
Ball Heads	2, 10
Balls, Cricket	83
" Steel	24
Base Balls	82
" Ball Mitts	83
Bats	82, 83
Bells	50, 51, 52
Bellows	68
Bent Bars	19
Bicycle Stands	60
Bicyclic	61
Blow Pipes	68
Bolts	3, 10, 13, 26, 35
Boracic Acid	68
Borax	68
Braces, Mud and Chain Guard	25
Brackets	2, 7, 8, 9, 10
Bracket Cups and Fittings	3, 7
Brakes	21, 27
Brazers	68
Brazing Graphite	68
Brushes	43, 49, 67, 68
Buffers, Handle Bar	22
Buffing Wheels	71
B. S. A. Sundries	2, 3

C	PAGE
Calipers	73
Canvas, Repair	66
Carbide	57
Carriers, Parcel	39
Cartridges	88, 89
Casing Tools	66
Cement	61
" Kettles	66
Centre Gauges	75
" Punches	76
" Reamers	72
Chains and Parts	26
Chain Adjusters	3, 12
" Brushes	43
" Guards	23, 24
" Guard Irons	25
Chasers	70
Chucks	76
Clamps, Ball Head	3, 10, 19
" Saddle	38
Clubs, Indian	85
Clusters	13
Coasters	27, 59
Cones	3, 7, 10, 15, 35
Connections, Pump	42
Cotter Pins	3, 16
Countersinks	72
Crank Axle Fittings	3
" Hangers	2 or 3
Cranks	3, 9, 16, 19, 35
Cricket Bats	83
Crown Tips	11
Crowns	11, 19
Cups	3, 7, 10, 15, 35
Cycle Enamel	67
Cyclist's Knife	41
Cyclometers	47

D	PAGE
Detonators	90
Dividers	73

	PAGE
Dies, Screw Cutting	69, 70
Dog Collars	87
Drills	72, 77
Dynamite	90
Dumb-bells	85

E	PAGE
Emergency Bands	61
Emery Powder and Cloth	71
Emery Wheels	71
Emery Wheel Dresser	71
Enamel Brushes	67
Enameling Oven	67
Enamel	67
Expanders	19

F	PAGE
Figures, Steel Marking	76
Files	71
File Cleaners	71
Fishing Tackle	79, 80
Fittings, Ball Head	3
" Machined	2, 3
" Pressed Steel	4, 5, 6, 10, 11, 12, 13, 14, 15
" Sets	3, 4, 5, 6
Forges	78
Forgings	11, 17
Foot Pumps	42, 43
Fork Crowns	11
" Crown Tips	11
" Ends, Rear	2, 14, 17
" End Screws	3
" End Tips	18
Forks	11, 18

G	PAGE
Gasoline Brazier	68
Gas Lamps	56, 57
Gauges	75
Gear and Gear Table	31, 63
Gloves, Boxing and Striking Bags	86
Golf Sticks and Balls	84
Graphite	49, 68
Grips, Cork, Leather or Rubber	22
" Spoke	46
Guards, Mud	23, 41
" Dress	25
" Trouser	47
Guns	93, 94

H	PAGE
Hack Saws	71
Hammers	78
Hammocks	85
Hand Drills	77
" Pumps	42, 43
Handle Bars	20, 21
" Bar Clamps	3
" " Buffers	22
" " Expanders	20
" " Stems	12
" " Tees	12
Hangers	2, 7, 8, 9, 10
Hard Tire Cement	61
Head Fittings	3, 10
" Stems	19
" Lugs	3, 12
Heads	2, 6, 10
Holder, Bicycle	60
Hooks, Fish	80
Hub Sprockets	3
" Steps	3
Hubs	2, 27, 28, 29, 30

I	PAGE
Inner Tubes	63

K	PAGE
Kits, Repair	38
Knives	65

	PAGE
Lacing	25
" Loops	25
Lacrosse Sticks	84
Lamps and Oil	56, 57, 58
Lamp Brackets	3, 59
Lathe Dogs	76
Lawn Tennis Balls	84
" " Rackets	84
Leather Grips	22
Lever Pumps	43
Letters, Steel Marking	76
Liquid Tire Cement	61
Locks	40, 41
Locking Pins	3
Lock Nuts	3, 7, 10
Lubricant	49
Luggage Carriers	39
Lugs	2, 3, 6, 11, 13, 17

M

Machine Screws	15
Machined Fittings	2, 3, 16
Metal Polish	49
" Shears	76
Micrometer Gauge	75
Mud Guards	23, 41
" Guard Irons	25

N

Nipple Washers	26
" Screwdriver	44, 46
" Wrenches	46
Nipples	26
" Pump	42
Nuts	3, 10, 15, 26

O

Odometer	47
Oil Cups	3, 24
" Cycle	49
" Lamps	58
" Hole Covers	24
Oilers	48, 76
Ovens, Enameling	67

P

Pads	83
Pant Clips	47
Parcel Carrier	39
Patch Rubber	61
Patches, Vulcanizing	66
Pedals and Parts	2, 3, 32, 33, 34, 35
Pin-Hole Spanners	46
Pitching Shot	85
Plugs	64
Plugging Cement	61
Pliers	64, 73, 74
Powder	90
Pressed Steel Fittings	3
Protector, Inflated Body	83
Pump Clips	43
" Tubing	43
Pumps	42, 43
Punches	65, 72

Q

Quoits	85
--------	----

R

Reamers	72
Rear Fork Ends	2, 14
" Forks	18
" Stay Tips	2
" Stays	18
Reels	79
Reinforcements	13, 14
Repair Kits	38
Revolvers	91
Rim Countersink and Drill	24
Rims, Wood	23
Rifles	92
Rivets	26
Rods, Fishing	79
Rubber Mud Guards	41
" Pedals	2, 35

	PAGE
Rubber, Repair	61
" Solution	61
Rules, Steel	75
Rust, Remove	49

S

Saddles	36, 37
Saddle Clamps	38
Saws, Hack	71
Screw Plates	69
" Driver	44, 46
Screws, Crank End	3, 15
" Pitch Gauges	75
Seat Post Lugs	2, 6, 13, 17
" " Tees	12
" Posts	19
Sets Fittings	3, 4, 5, 6
Shot	90
Sides, Chain	26
Soapstone	66
Solution	61
Speed Indicator	73
Spelter	68
Spiders	17
Spokes	26
Spoke Grips	46
Sprocket Guards	24
" Wheels	3, 16, 17
Stands, Bicycle	60
Stay Tips	2, 14
Stays, Rear	18
Steel Balls	24
" Wire Brushes	68
" Wool	71
Steering Tubes	19
Stems, Valve	62
Striking Bags	86
Struts	12
Suckers, Pump	43
Sulky Hubs	27
" Rims	23

T

Tandem Rims	23
" Hangers	9
Taps and Dies	69, 70
Thermometers	67
Thimbles	14
Tire Brushes	43
" Lacing	64
" Tape	64
Tires	63
Toe Clips and Trippers	52, 53, 54, 55
Tool Bags	38
Tongs, Blacksmith	78
Torch, Enameling Oven	67
Trimmers	65
Trolling Baits	81
Trouser Guards	47
Truing Stand	46
Tread Bands	63
Tube Horn	66
" Vice	77
Tubing	19

V

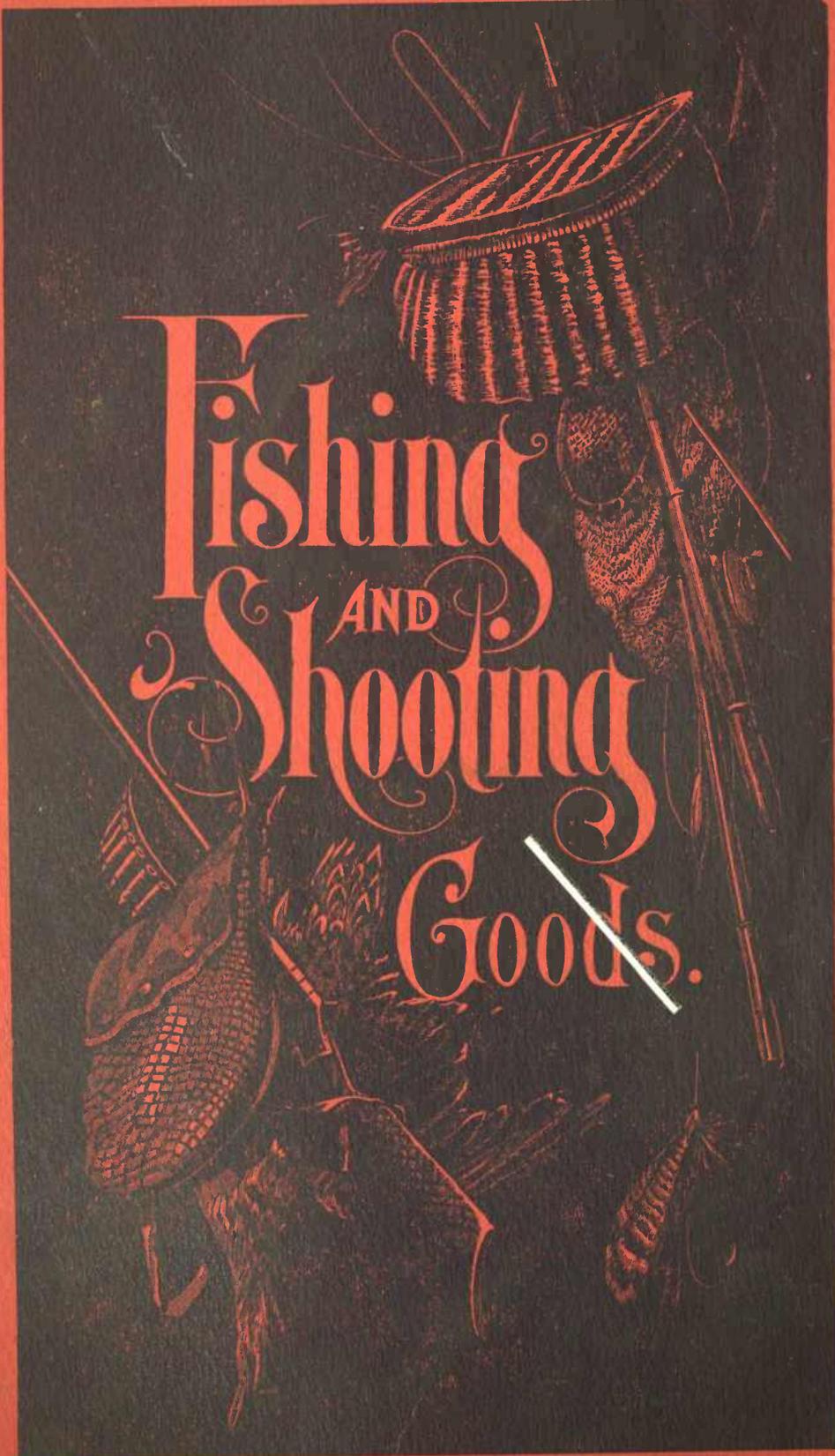
Varnish	67
Valve, Tubing	62
Valves and Parts	62
Valve Pliers	64
Vises	74, 77
Vulcanizers and Supplies	66

W

Washers	3, 7, 10, 15, 26, 35
Whistles	52
Wire Gauges	75
Wood Handle-Bars	21
" Mud Guards	23
" Rims	23
" Rim Washers	26
Wrenches	44, 45, 46, 78

TOOLS

BUILDERS' HARDWARE



Fishing
AND
Shooting
Goods.

HOUSE FURNISHINGS

CUTLERY