Does your antique auto need a top? Here is some info that may come in handy if you need to make a top for you antique car. The Cortland Forging Company made Ajax Auto Bow sockets. There is a nice write-up on their construction and nine styles that they made. Note that covering the sockets with leather was an added touch of quality. Cray Brothers of Cleveland, Ohio offered Auto Bow Sockets in their 1915 Catalog. Some of their styles were a little different, so I've included their styles also.

Note: John Boorinakis (530-885-4956) makes auto bow sockets. Before you fit the wood bows permanently, I can cover them.

AJAX AUTO BOW SOCKETS

Construction

TUBES

Ajax Auto Bow Socket Tubes are made of 22 gauge, pickled and cold rolled, Open Hearth sheet steel, prepared especially for our requirements. From this material tubes are produced having the greatest possible strength. Tube openings are regularly made for 1 in. x $1\frac{1}{2}$ in. wood bows. For top builders who use $\frac{7}{8}$ in. x $1\frac{1}{4}$ in. wood bows, we can furnish bow sockets to conform to this size of bows, if desired.

FORGINGS

All forgings, while made on the same general lines which have made our Buggy bow sockets **a standard for comparison,** are much heavier and stronger. All holes are **drilled, not punched.**

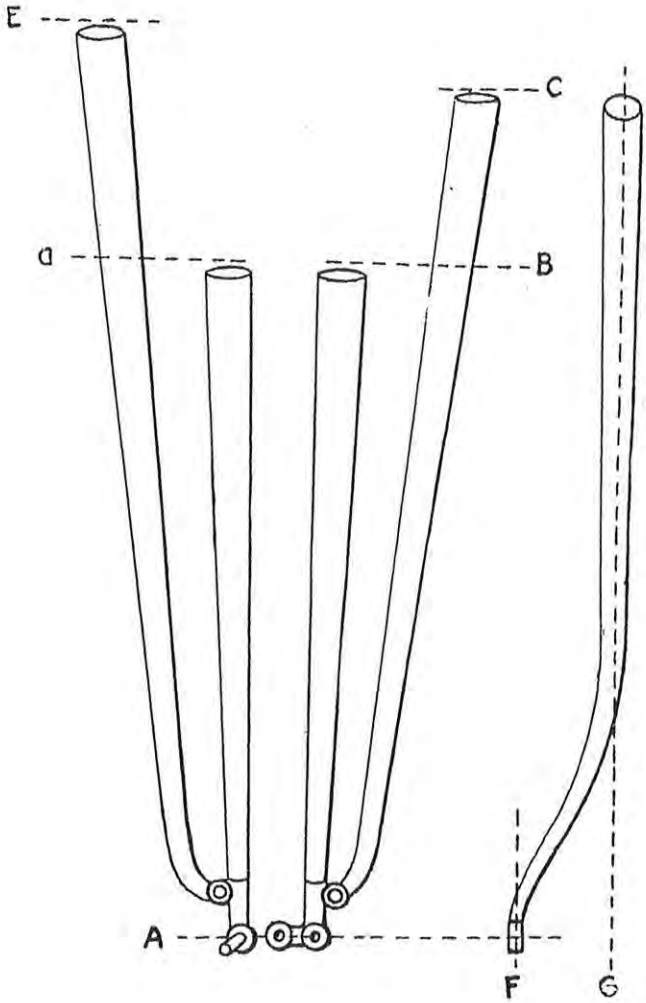
WOOD FILLERS, REINFORCEMENT TUBES AND STEEL STIFFENERS

Each tube contains a hard wood filler, **shaped to the tube,** and an inner reinforcement tube of the same shape and taper as the outside tube, and in addition, all **back tubes** have a 12 gauge steel stiffener. With this construction it is practically impossible to bend or break a tube over the bow rest.

OFFSET

AJAX Auto Bow Sockets are offset uniformly, so that all bows line up when the top is down.

Orders should specify if bow sockets are desired straight or offset. If offset, specify amount of offset in inches as indicated on the following page.

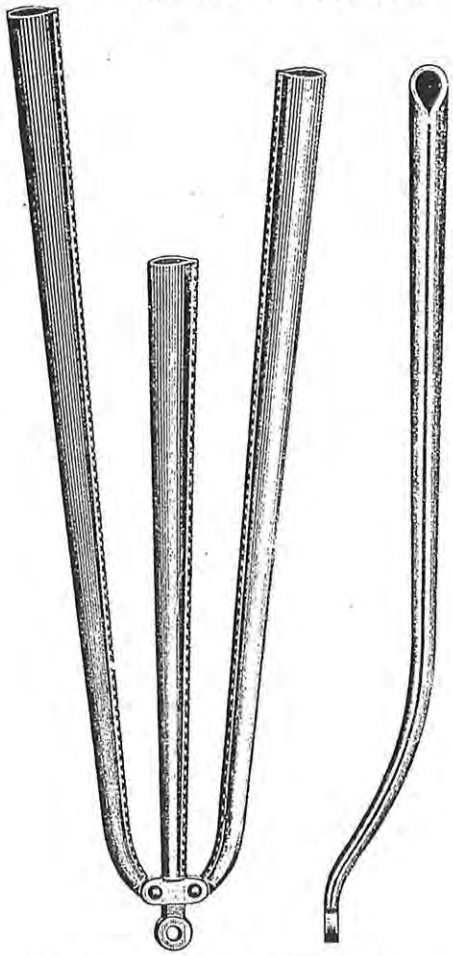


MEASUREMENTS

In ordering Ajax Automobile Bow Sockets, specify catalogue pattern, giving dimensions carefully from the end of each tube to the center of the bottom eye, as indicated in the cut. Specify tubes in order, beginning at the front.

For Offset Bow Sockets, give distance in inches from center of tube to center of eye F—G.

JAPANNED OR LEATHER COVERED



Three Bow AJAX, offset or straight

Carried in stock. Immediate shipment can be given of the following patterns, *straight* style, Japanned, for 1″ x 1½″ wood bows:—

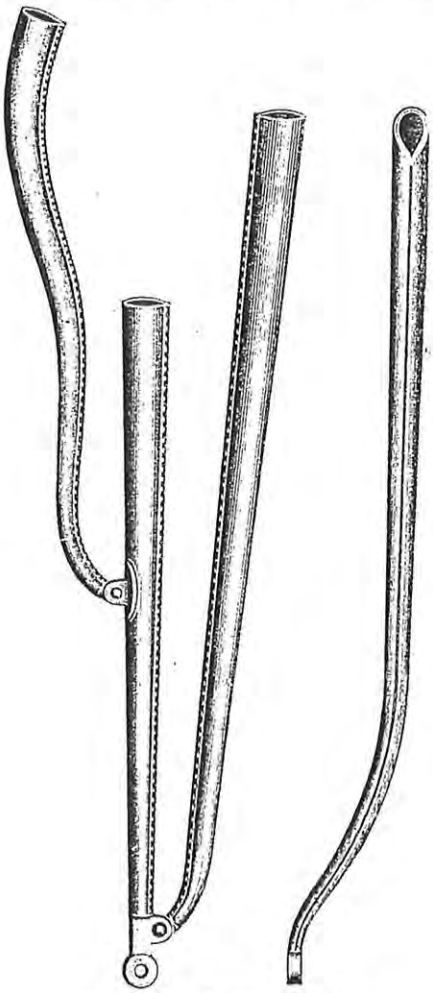
Pattern No.	Front	Center	Back
30	33 in.	26 in.	32 in.
35	34 in.	28 in.	34 in.

STANDARD LIST

Japanned, all lengths	per set,	$1.80
Leather Covered, 28 inch and under	"	4.60
29 inch	"	4.70
30 inch	"	4.80

AJAX AUTO BOW SOCKETS
CORTLAND FORGING CO.
CORTLAND, N.Y.
DOUBLE BACK TUBE

JAPANNED OR LEATHER COVERED

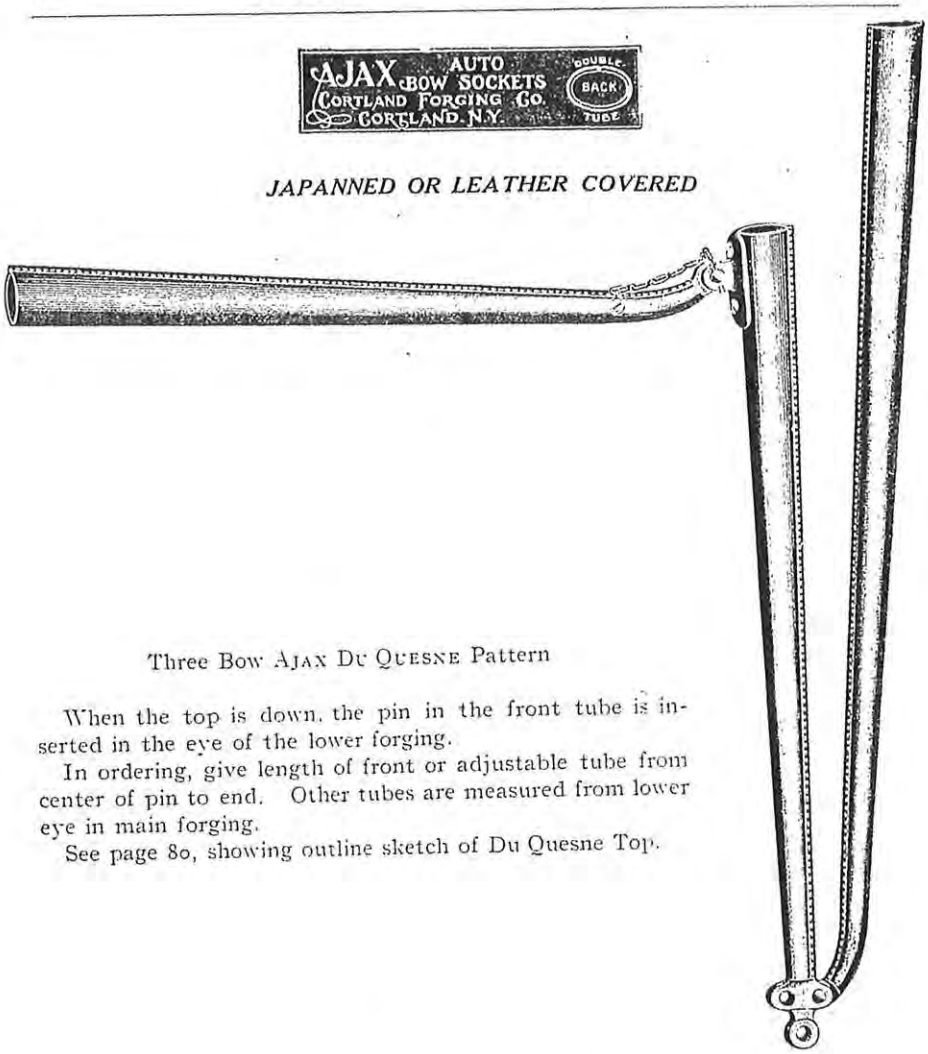


Three Bow AJAX, Ramshorn
Offset or Straight

STANDARD LIST

Japanned, all lengths	per set,		$2.15
Leather Covered, 28 inch and under	"		5.10
29 inch	"		5.20
30 inch	"		5.30

JAPANNED OR LEATHER COVERED



Three Bow Ajax Du Quesne Pattern

When the top is down, the pin in the front tube is inserted in the eye of the lower forging.

In ordering, give length of front or adjustable tube from center of pin to end. Other tubes are measured from lower eye in main forging.

See page 80, showing outline sketch of Du Quesne Top.

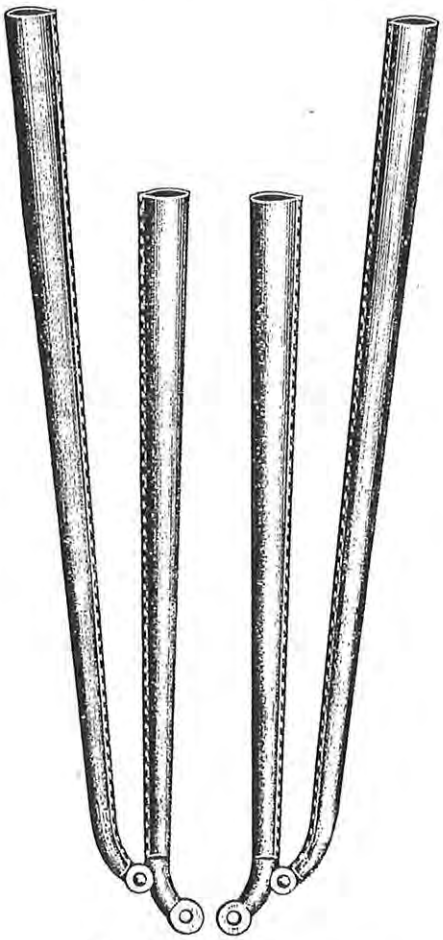
Carried in stock. Immediate shipment can be given of the following pattern in Japanned or Leather Covered style, for 1″ x 1½″ wood bows:—

Pattern No.	Front	Center	Back
25	27 in.	27 in.	33 in.

Standard List

Japanned, all lengths	per set,	$2.50
Leather Covered	"	5.30

JAPANNED OR LEATHER COVERED

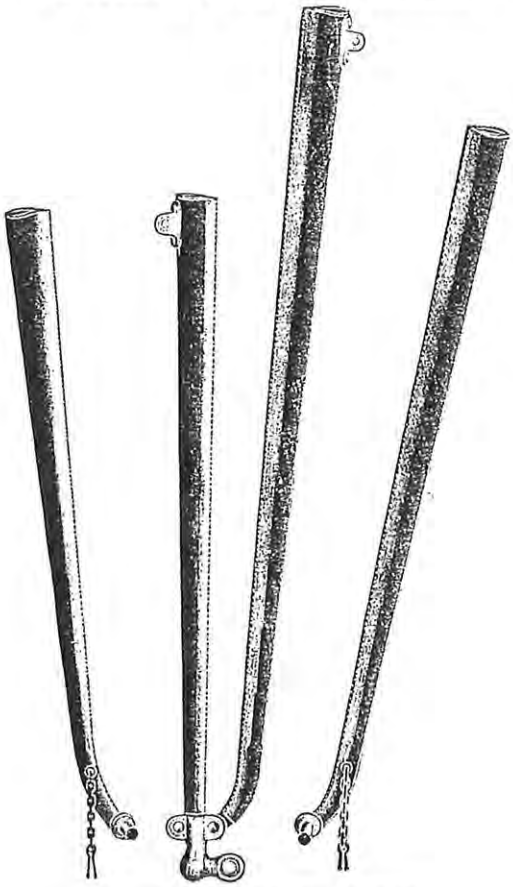


Four Bow Ajax Runabout

Standard List

Japanned, all lengths	per set,	$2.50
Leather Covered, Base Price	"	6.40

JAPANNED OR LEATHER COVERED



Four Bow Ajax Du Quesne
For Rumble Seat Runabout

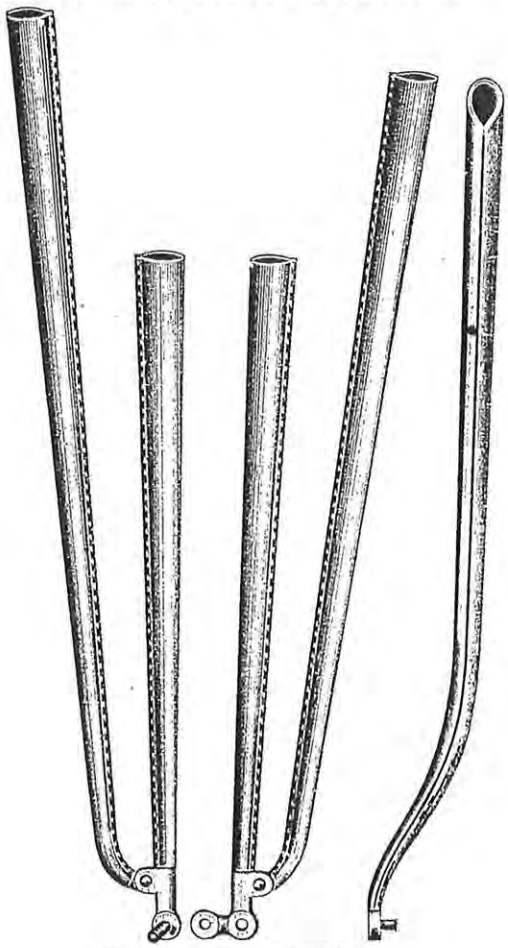
Has a front identical with the regular Three Bow Ajax Du Quesne Socket. Rear bows extend over the rumble seat, and top is fastened with straps at the front and rear, lets down like an ordinary top by shifting horizontal tubes to lower eyes.

See outline sketch of Du Quesne Top page 80.

Standard List

Japanned, all lengths	per set,	$3.15
Leather Covered, Base Price	"	6.75

JAPANNED OR LEATHER COVERED



Four Bow Extension AJAX
Offset or Straight

Carried in stock. Immediate shipment can be given of the following patterns in Japanned or Leather Covered style for 1″ x 1½″ wood bows, 2½″ offset:—

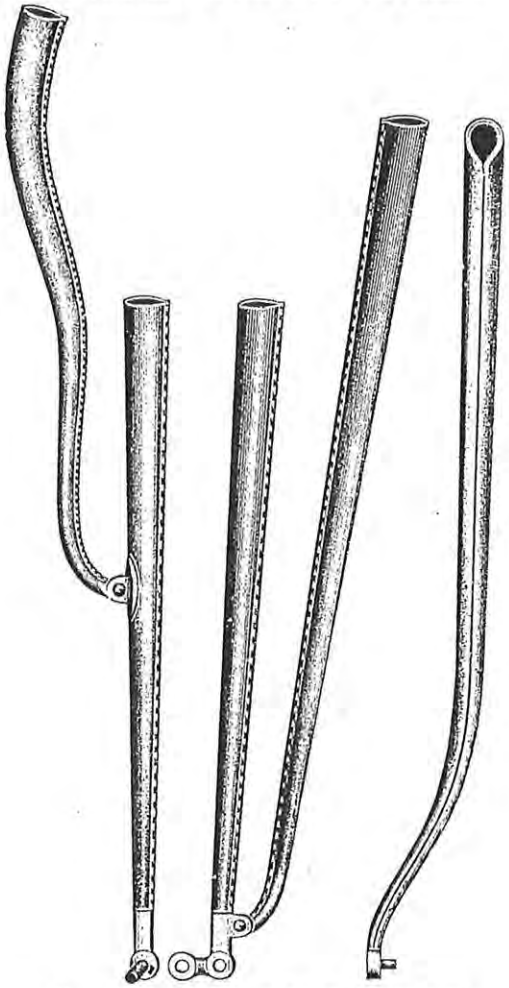
Pattern No.	Front	Centers	Back
40	38 in.	24 in.	34 in.
41	40 in.	26 in.	36 in.

STANDARD LIST

Japanned, all lengths	per set,	$2.50
Leather Covered, Base Price	"	6.40

Add $0.20 to list price for each additional four inches or fraction of leather over a total of 126 inches to a half set.

JAPANNED OR LEATHER COVERED



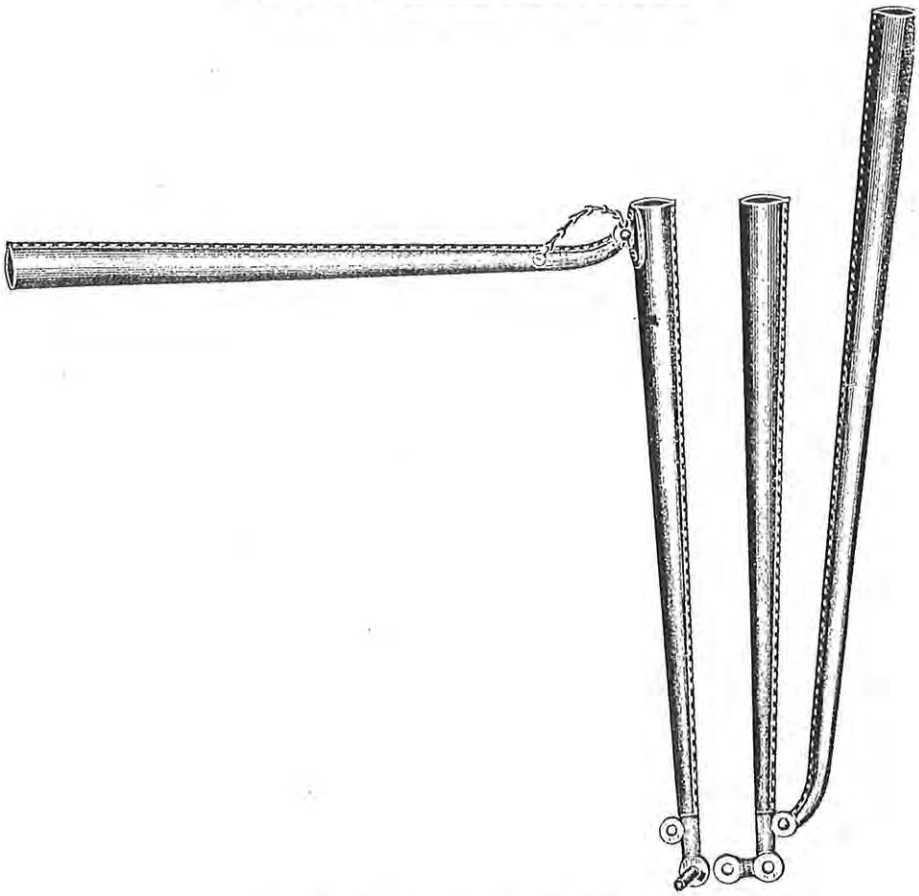
Four Bow Extension AJAX RAMSHORN
Offset or Straight

STANDARD LIST

Japanned, all lengths	per set,	$3.00
Leather Covered, Base Price	"	6.90

Add $0.20 to list price for each additional four inches or fraction of leather, over a total of 126 inches, to a half set.

JAPANNED OR LEATHER COVERED



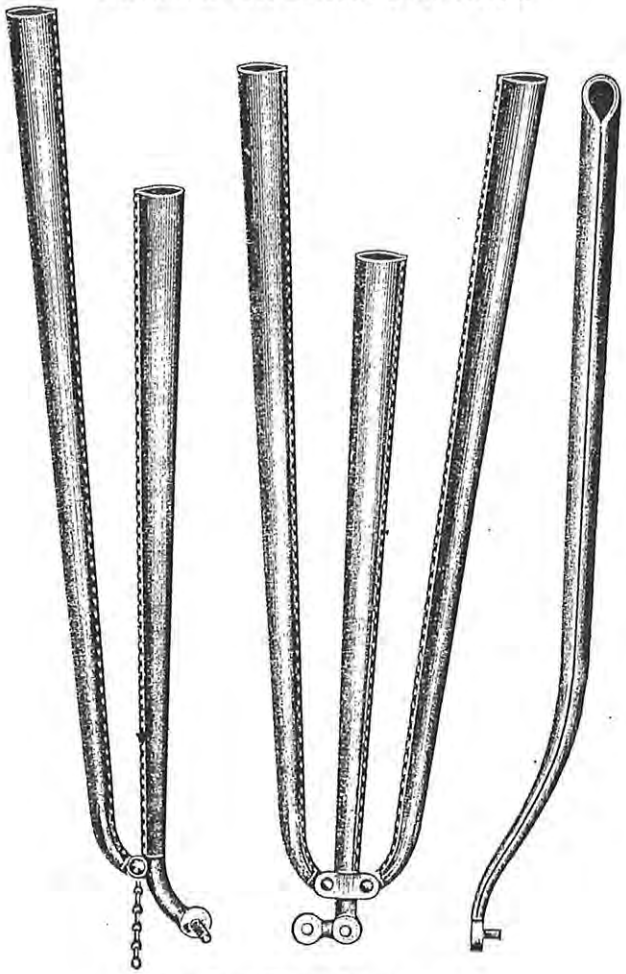
Four Bow Extension AJAX DU QUESNE

See outline sketch of top page 80

STANDARD LIST

Japanned, all lengths	per set,	$3.20
Leather Covered, Base Price	"	7.10

JAPANNED OR LEATHER COVERED



Five Bow Extension AJAX
Offset or Straight

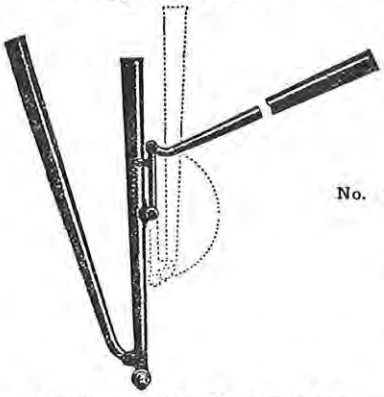
STANDARD LIST

anned, all lengths	per set,	$3.50
ther Covered, Base Price	"	7.60

dd $0.25 to list price for each additional four inches or fraction of leather over tal of 158 inches to a half set.

AUTO BOW SOCKETS

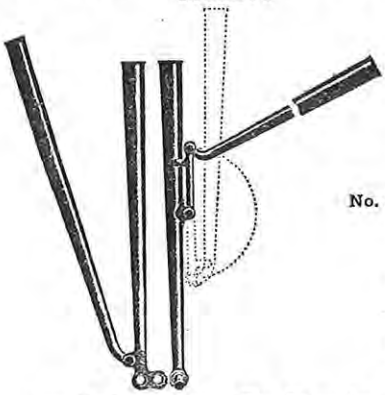
EUCLID THREE BOW AUTO BOW SOCKETS



No. 1557¾A
Length center tube 25 in.
Length front tube 25 in.
Length back tube 30 in.

Euclid shifting device. No pins to remove. Nothing to take apart. Can be operated by one person. Japanned.
Price, $2.56 per set.

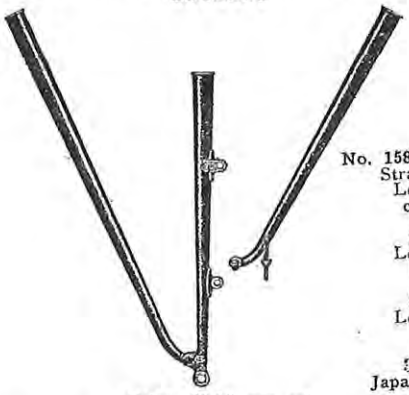
EUCLID FOUR BOW EXTENSION AUTO BOW SOCKETS



No. 1558¾A
Length center tube 28 in.
Length front tube 30 in.
Length back tube 34 in.

Have Euclid Shifters. For Extension Tops.
Japanned
Price, $3.12 per set.

3 BOW "SHIFTING HANDY" AUTO BOW SOCKETS

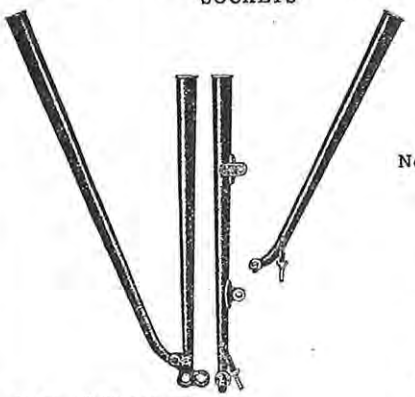


No. 1588¼A
Straight.
Length center tube 26 in.
Length front tube 28 in.
Length back tube 33 in.
Japanned.

Price, $2.12 per set.

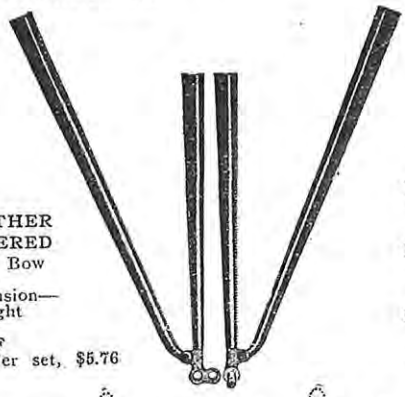
In measuring length of auto sockets take distance from center of pivot or pivot hole in main or middle tubes to top of each tube.

4 BOW "SHIFTING HANDY" AUTO BOW SOCKETS



No. 1591¼A
Straight.
Length center tubes 24 in.
Length front tube 28 in.
Length back tube 35 in.
Japanned.

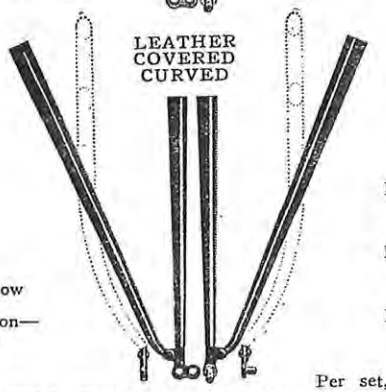
Price, $2.68 per set.



LEATHER COVERED
Four Bow Auto Extension—Straight
No. 1598F
Per set, $5.76

Length center tube 26 in.
Length front tubes 41 in.
Length back tubes 35 in.

LEATHER COVERED CURVED



Four Bow Auto Extension—Curved
No. 1599F

Length center tube 26 in.
Length front tubes 41 in.
Length back tubes 35 in.

Per set, $6.11

EXTRA TUBES FOR AUTO SOCKETS

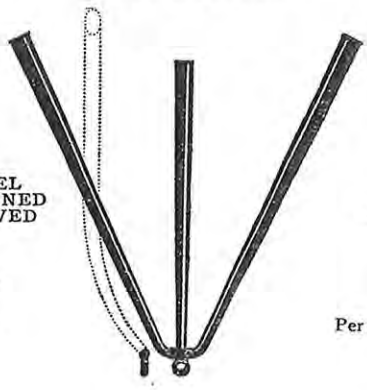
In ordering single tubes, give length of tube over all. In ordering curved or offset sockets send exact size paper pattern or diagram showing shape and amount of offset. These tubes are not carried in stock but are made to order. It usually takes about 10 days to fill these orders. They are not subject to return.

Prices

Straight Japanned Tubes, each	$0.75
Curved Japanned Tubes, each	.90
Straight Leather Covered Tubes, each	1.35
Curved Leather Covered Tubes, each	1.50

Less than full sets of auto sockets take the price of the separate tubes.

STEEL JAPANNED

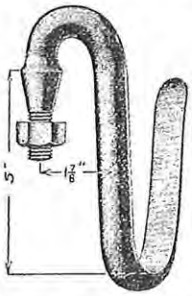


STEEL JAPANNED CURVED
Three Bow Auto-Curved
No. 1590 G

Length of center tube 28 in.
Length outside tubes 34 in.
Per set, $1.69

The Cray Brothers Catalog for 1915 also shows the irons for attaching the auto bow sockets to the body. First you need body socket irons that fit in place before the upholstery is installed. Most antique autos still have those body sockets. If you need the goosenecks that go between the body sockets and the top bow sockets, sometimes the one ones that fit Ford Model T also fit very well. If not, you can make or modify some. Reproduction Ford catalogs, such as Lang's, have these goosenecks, body socket parts, and rear prop irons.

Forged Automobile Irons

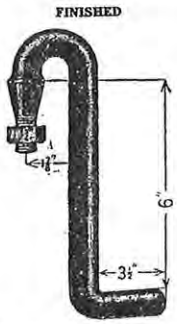


No. 1844B. FINISHED REAR PROP IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.21
Price, per doz. 2.27

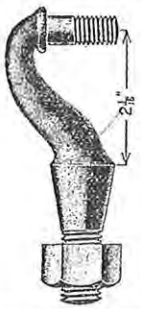


No. 1844D. FINISHED REAR PROP IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.18
Price, per doz. 1.94

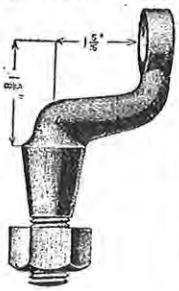


No. 1847C. FINISHED CENTER GOOSE NECK IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.12
Price, per doz. 1.30

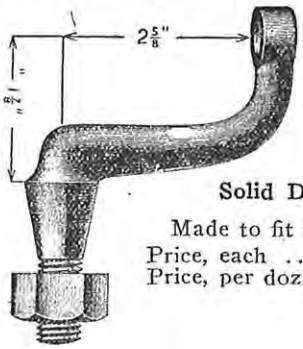


No. 1848A. FINISHED FRONT GOOSE NECK IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.12
Price, per doz. 1.30



No. 1848B. FINISHED FRONT GOOSE NECK IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.12
Price, per doz. 1.30

Forged Automobile Irons

FRONT GOOSE NECK IRONS

Made to fit ¾ taper. Seat iron eye drilled for ¾ front ex. bow socket pin.

No.	Distance shoulder to c. of eye	Price each	Price Per doz.
1841B	4	$0.12	$1.30
1841C	6	.12	1.30

CENTER GOOSE NECK IRONS

Made to fit ¾ taper seat iron goose neck end shank for 7/16 rear ex. bow socket eye and prop nut.

No.	Distance between shoulders	Price each	Price Per doz.
1842B	4	$0.12	$1.30

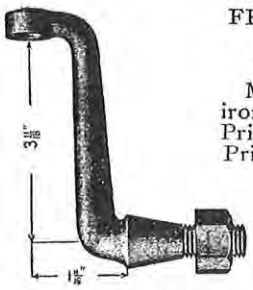
FINISHED REAR PROP IRONS

Made rights and lefts.
To fit ¾ taper seat iron.
Prop end for 7/16 prop nut.

No. 1844A

Round	Drop	Proj.
¾	5	3½

Price, each $0.21
Price, per doz. 2.27



No. 1848C. FINISHED FRONT GOOSE NECK IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.12
Price, per doz. 1.30

No. 1847A. FINISHED CENTER GOOSE NECK IRONS

Solid Drop Forged

Made to fit ¾ taper seat iron.

Price, each $0.12
Price, per doz. 1.30

Cortland Catalog shows these body irons and measurements for the two common tapers used on goosenecks.

Automobile Irons--Continued

No. 1847B. FINISHED CENTER GOOSE NECK IRONS

Solid Drop Forged

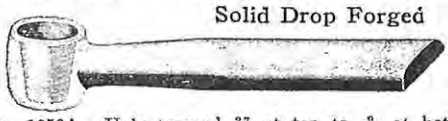
Made to fit ¾ taper seat iron.

Price, each $0.12

Price, per doz..... 1.30

OVAL EDGE SHANK SOCKET IRONS

Solid Drop Forged



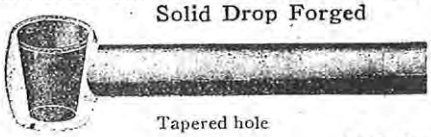
No. 1856A. Hole tapered $\frac{37}{32}$ at top to $\frac{9}{16}$ at bottom and ¾ deep. Length over all, 5½ in.

Price, each $0.09

Price, dozen ..... .97

ROUND SHANK SOCKET IRONS

Solid Drop Forged



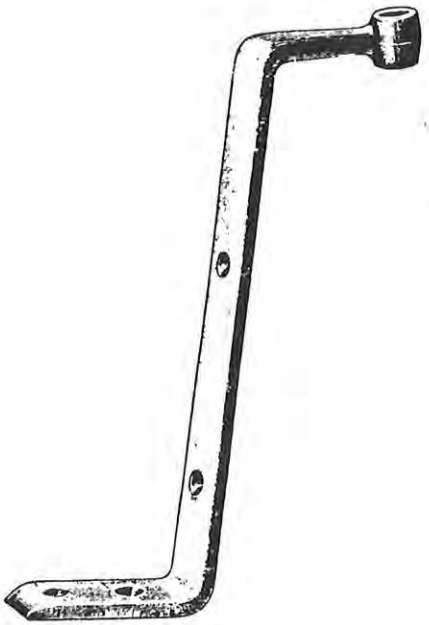
Tapered hole

	Each	Per doz.
No. 1863C, for ¾ post, 6 in. long.....	$0.14	$1.51

WROUGHT STRAIGHT AUTO SEAT IRONS

No.	Length Flat	Hole	Strap	Each	Per doz.
1868B	19	For ¾ post	1¼x$\frac{7}{16}$	$0.27	$2.92
1868D	30	For ¾ post	1¼x$\frac{7}{16}$	.34	3.67

AUTOMOBILE BODY IRONS



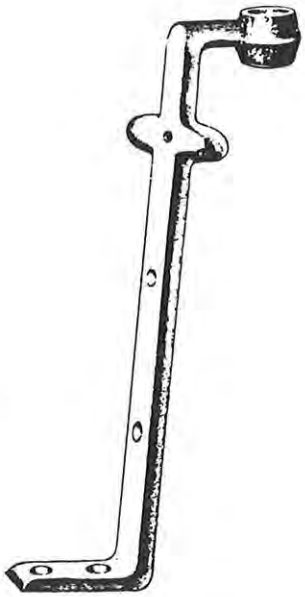
Made in quantities to customers' patterns.

No. 600—Drilled for No. 1 Taper.

Diameter at top of hole $\frac{5}{8}$ inch.
Diameter at bottom of hole $\frac{9}{16}$ inch.
Length of hole $\frac{7}{8}$ inch.

No. 601—Drilled for No. 2 Taper.

Diameter at top of hole 1 inch.
Diameter at bottom of hole $\frac{5}{8}$ inch.
Length of hole 1$\frac{1}{8}$ inch.

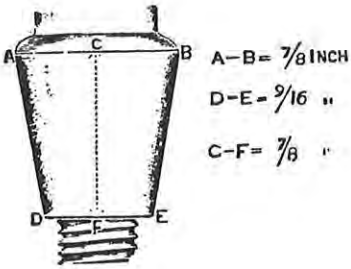


No. 602—Drilled for No. 2 Taper.

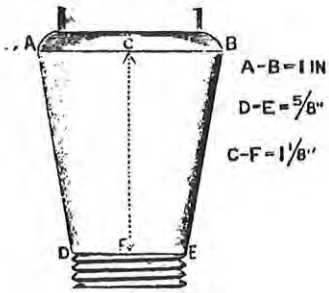
Dimensions of hole as above.
A solid drop forged eye, with ears to brace the iron.
Distance from center of hole to inside of seat 1$\frac{11}{16}$ inch.
Top of seat to center of ears 2 inches.

Prices quoted upon receipt of Patterns.

We should have accurately bent Patterns



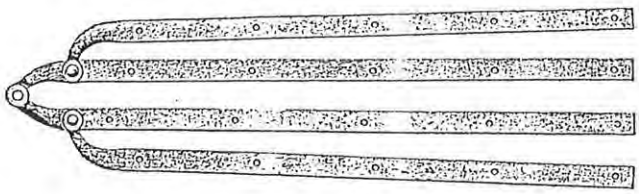
No. 1, Taper
Used on $\frac{9}{16}$ and $\frac{5}{8}$ inch ends.



No. 2 Taper
Used on $\frac{3}{4}$ inch ends.

Many tops were made with slat irons instead of bow sockets. Here is what the the SLIGO Iron Store Company, St. Louis, MO offered.

FORGED SLAT IRONS.

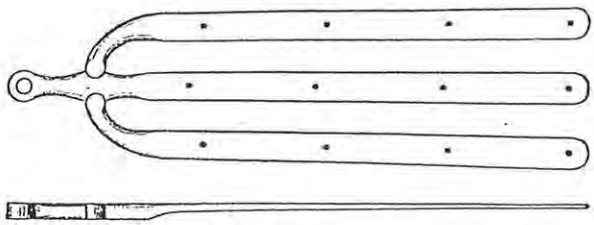


No. 429. FOUR BOW.

FOR AUTOMOBILES, WAGONS AND HEAVY BUGGIES.

Best $\frac{7}{8}$x$\frac{5}{16}$ Half Oval Norway Iron.

Price, per set, for $\frac{1}{2}$-inch Goose Necks..... 3.00

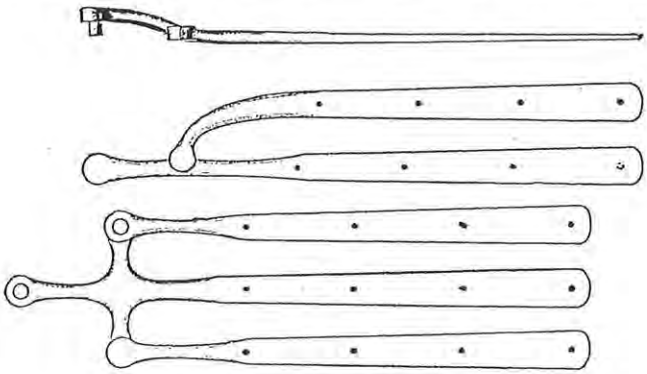


No. 482. THREE BOW.

FOR AUTOMOBILES, WAGONS AND HEAVY BUGGIES.

Best $\frac{7}{8}$x$\frac{5}{16}$ Half Oval Norway Iron

Price, per set, for $\frac{1}{2}$-inch Goose Necks 2.20

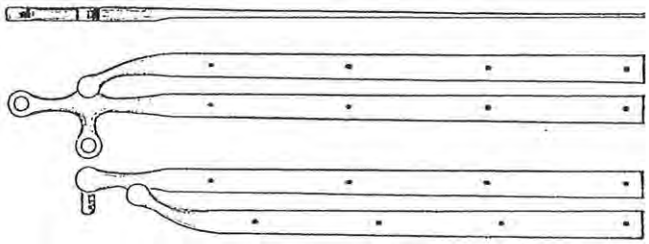


No. 481. FIVE BOW EXTENSION.

FOR AUTOMOBILES AND HEAVY WORK.

Best $\frac{7}{8}$x$\frac{5}{16}$ Half Oval Norway Iron.

Price, per set, for $\frac{1}{2}$-inch Goose Necks 6.00

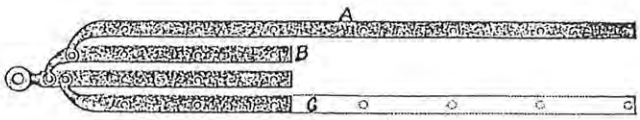


No. 483. FOUR BOW EXTENSION.

FOR AUTOMOBILES AND HEAVY WORK.

Best $\frac{7}{8}$x$\frac{5}{16}$ Half Oval Norway Iron.

Price, per set, for $\frac{1}{2}$-inch Goose Necks 4.25



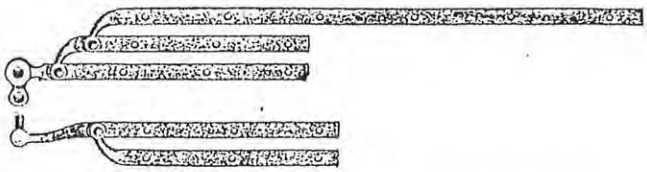
No. 140. IMPROVED PHILADELPHIA PATTERN.

FOR BUGGIES. FOR 7-16 GOOSE NECKS.

Four Bow, two long bows—see dotted lines, per doz. sets 8.50

Three Bow, two long bows, per doz. sets..... 7.50

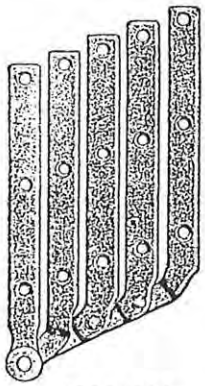
In Three Bow, the Slat A disappears; Slat B is long and Slat C is long.



No. 143. PHILADELPHIA EXTENSION.

FOR SURREYS WITH 7-16 GOOSE NECKS.

Four Bow, per set 1.25



GODDARDS.

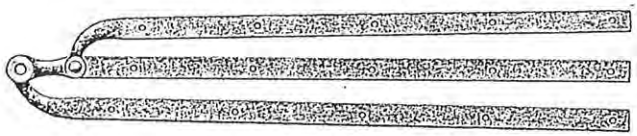
GODDARD SLAT IRON.

MALLEABLE IRON.

For Goddards or Close Top Buggies.

8 inches long by $\frac{3}{4}$ inch wide.

No. 281. Four Bow, per doz. sets..... 4.00



No. 432. 3-BOW VICTORIA SLAT IRONS.

FOR VICTORIAS, AUTOMOBILES AND HEAVY BUGGIES.

Best $\frac{7}{8}$x$\frac{5}{16}$ Half Oval Norway Iron.

Price, per set, for $\frac{1}{2}$-inch Goose Necks..... 2.20

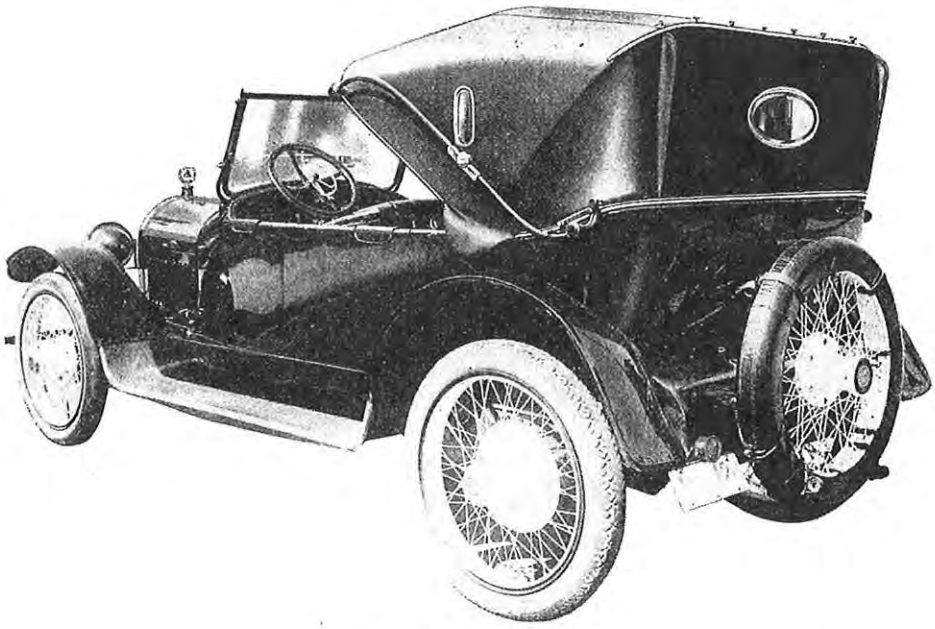
In 1927 C.M. Hoof Company offered slat irons for what is commonly called a victoria top.

SLAT IRONS

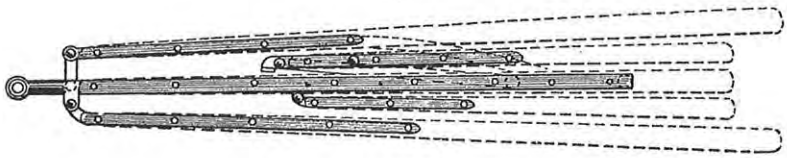
Close Folding for Sport Cars

Packard, Cadillac, Marmon, Lincoln, Franklin, Etc.

Always specify make of car



Side View Ready to Fold Top



Side View Top Folded

Brass Nickel Plated Slat Irons 4-Bow

We can furnish Slat Irons only or complete with Bows, finished in natural wood or walnut.

Made to order only, delivery about ten days to fit the above cars, or to your specifications.

Price quoted on application