LA HALT, LISTEMAN & HADLEY.

Wagon-Top Bow.

No. 84,199. Patented Nov. 17, 1868.

Fig: 1.

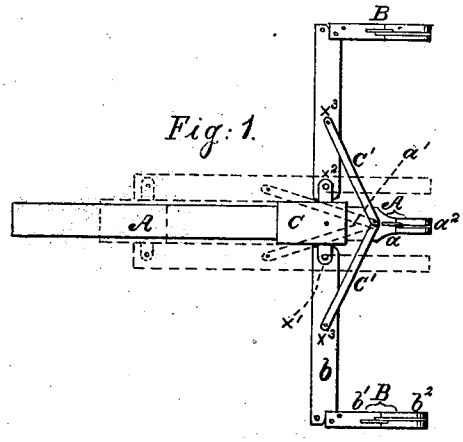



Fig: 2.

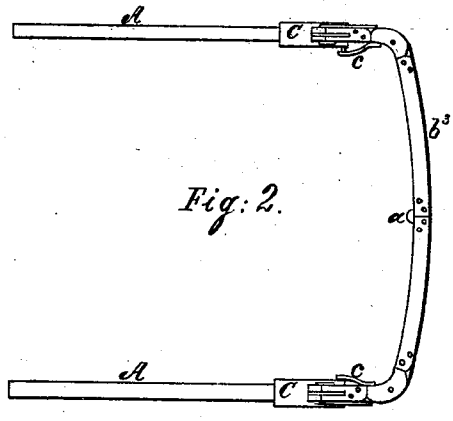
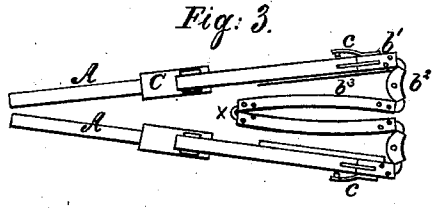



Fig: 3.




Witnesses:

H. Paulig

R Simon.

Inventors:

Ale. La halt.

P. Listeman

C. Hadley

By their Attorneys

Wm Randolph & Co

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# United States Patent Office.

S. C. LA HALT, P. LISTEMAN, AND C. HADLEY, OF COLLINSVILLE, ILLINOIS.

*Letters Patent No.* 84,199, *dated November* 17, 1868; *antedated November* 9, 1868.

## IMPROVEMENT IN WAGON-TOP BOWS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that we, S. C. LA HALT, P. LISTEMAN, and C. HADLEY, all of Collinsville, in the county of Madison, and State of Illinois, have invented a new and useful "Improvement in Wagon-Top Bows;" and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a certain arrangement and combination of bows for wagon or carriage-tops; also, to a peculiar construction of the bows themselves, the object being to prepare a set of hoops that may easily be folded up and packed away, either for storage or transportation, and at the same time that may be very easily and quickly adjusted to their proper position on the vehicle for the reception of the cover.

To enable those skilled in the art to make and use our improved tops, we will proceed to describe their construction and operation.

Figure 1 is a side elevation of the improved top;

Figure 2 is a front elevation of the same; and

Figure 3 is a front elevation or plan of the hoops as they would appear folded up for transportation.

The set consists of a central hoop, A, and two end hoops, B B. The central hoop is formed of two upright pieces, $a$, by means of which the whole top is attached to the vehicle, two joint pieces, $a^1$, and two top pieces, $a^2$. Each of the end bows is formed of two sliding bottom pieces, $b$, two joint pieces, $b^1$, that have a longitudinal motion, two joint pieces, $b^2$, that have a lateral motion, and two top pieces, $b^3$. The top pieces are jointed together at $x$, so as to be folded quite together, as shown in fig. 3. The bottom ends of the pieces $b$ are pivoted at $x^2$ to the sliding clasp or band C, that is made so as to be moved up and down on the central hoop A. As seen most clearly in fig. 1, two braces, C′, are pivoted to the central bow at $x^2$, and to the pieces $b$ at $x^3$. When the band C is moved down on the piece $a$ as far as the braces C′ will allow it to go, the two pieces $b$ of the bows B will be folded up tightly to the sides of the central bow-piece, as is shown in fig. 1 by the red lines, and then, if the top be taken off from the body of the vehicle, it may be turned inside out and folded up, as is shown in fig. 3. When the whole top is in position on the vehicle, the bands C will be shoved up into the position shown by full lines in figs. 1 and 2, and then the braces C′ will distend the end hoops sufficiently to receive the cover. When the bands C are raised up, they will be secured in that position by means of the spring-catches $c$.

Having described our invention,

What we claim, is—

Arranging the central hoop A in hinged parts $a$, $a^1$, and $a^2$, and the end hoops B in hinged parts $b$, $b^1$, $b^2$, and $b^3$, so that said parts may be folded together into small compass, substantially as set forth.

S. C. LA HALT.
P. LISTEMAN.
C. HADLEY.

Witnesses:
H. H. KUHLENBECK,
PAUL REX.