

C. E. TITCHENER.  
BOW SEPARATOR.  
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933,933.

Patented Sept. 14, 1909.

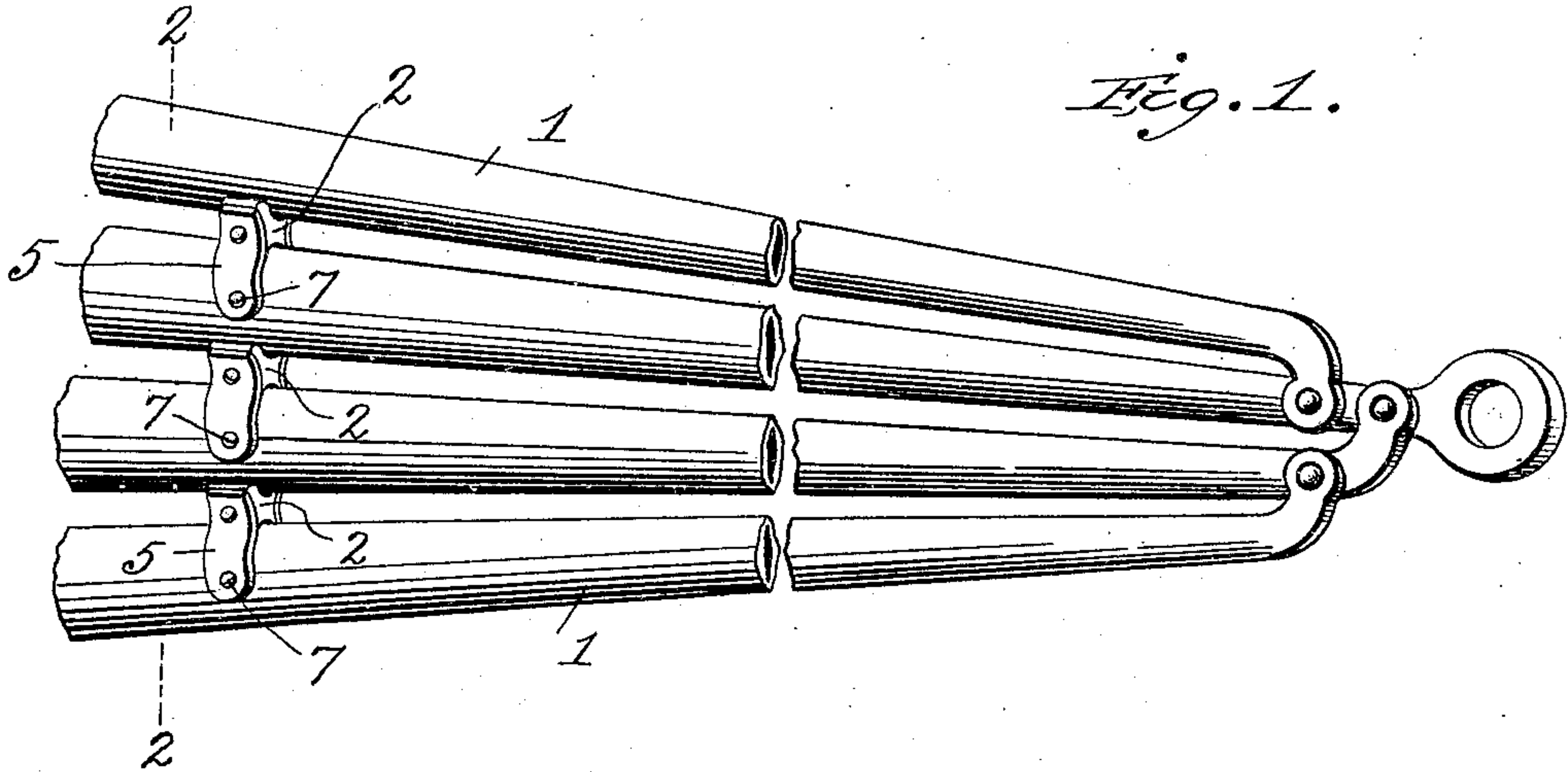


Fig. 2.

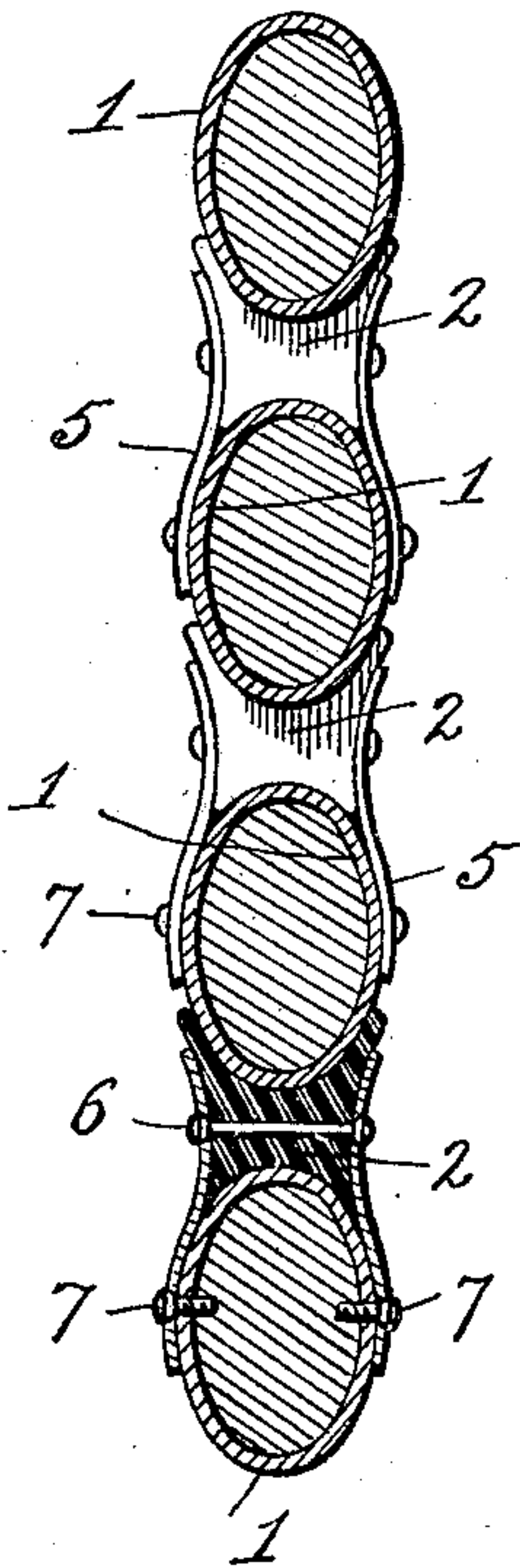


Fig. 3.

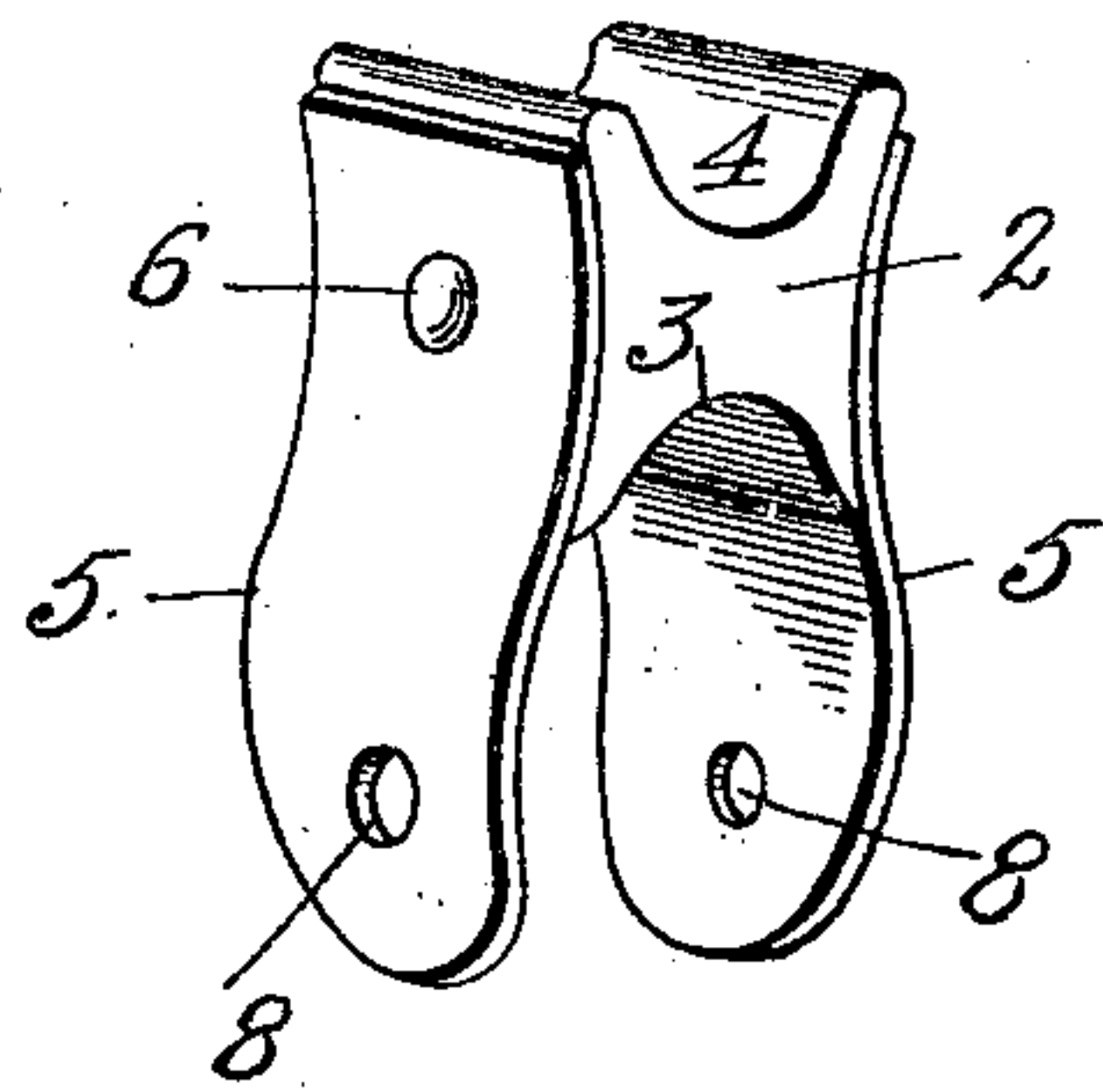
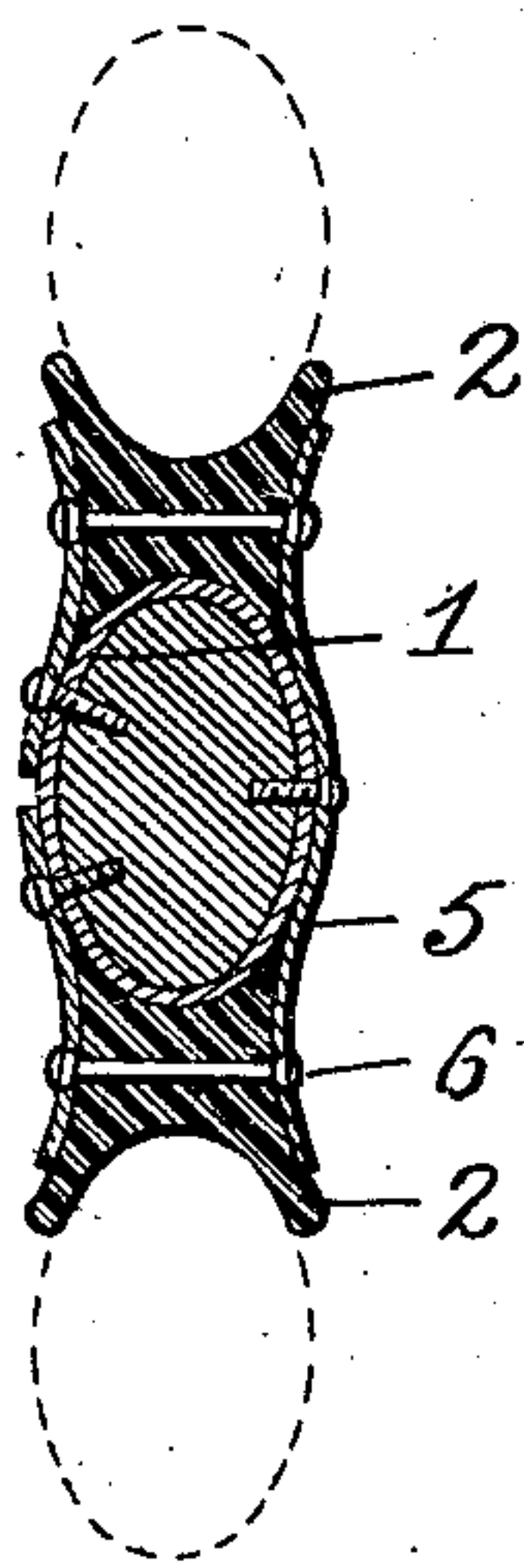


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES E. TITCHENER, OF BINGHAMTON, NEW YORK.

BOW-SEPARATOR.

933,933.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed February 20, 1909. Serial No. 479,249.

*To all whom it may concern:*

Be it known that I, CHARLES E. TITCHENER, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented new and useful Improvements in Bow-Separators, of which the following is a specification.

This invention relates to vehicles, and its object is to provide a simple, neat and inexpensive device for separating the bows of a folding top when said top is folded down, in order to keep the bows in vertical alinement and prevent them from chafing.

The invention is especially advantageous in the case of automobiles, in which the bows must be strapped down tight to keep them from jouncing and rubbing when the car is run at high speed.

The invention consists in a bumper or cushion of rubber molded with deep grooves in its top and bottom to fit the bows. On each side of the cushion is a plate of stiff sheet metal, preferably brass, shaped to support the sides of the cushion and to fit the bow on which the cushion rests. These plates or clips are preferably secured to the bows by rivets or screws, and are so located that when the top is folded down the cushions all come in line one above the other.

In the accompanying drawing, Figure 1 is a perspective view of a portion of a vehicle top, showing the bows folded and provided with my improved separators. Fig. 2 is a vertical cross section of the bows on the line 2—2 of Fig. 1 showing one of the separators in section and the others in elevation, and Fig. 3 is a perspective view of a single separator, on a larger scale. Fig. 4 shows a modification.

The bows 1 are usually sheet metal tubes, and are of any suitable shape in cross section; those shown in the drawing being circular. At some suitable point along each bow is attached the separator, which comprises a cushion 2 of some elastic substance, preferably a good grade of soft rubber. In its under side the cushion has a groove 3 to fit upon the upper side of the bow on which said cushion rests. In its upper side the cushion also has a deep groove 4 adapted to fit the bow next above, when folded down into said groove. The several cushions are thus interposed between the bows and form

a firm, slightly resilient support, keeping all the bows in vertical alinement and separating them sufficiently to prevent any chafing or rubbing of one bow upon another, while the surface of the rubber does not mar the varnished finish of the bows at the points where they rest in the cushions.

In order to secure the cushion in place, there are provided two curved plates or clips 5 of sheet brass or other metal, whose upper ends are fastened to the sides of the cushion preferably by means of a rivet 6 which passes through both plates and the body of the cushion. The upper edges of the clips are below the upper edges of the cushion, so that they cannot come in contact with the bow resting in said cushion. The lower ends of the clips depend below the cushion and are slightly curved or otherwise shaped to fit the sides of the bow on which the cushion is supported. While embracing the sides of the bow, these are preferably not long enough to strike the edges of the cushion next below, so that a series of the separators may be arranged in a tier, one above the other, without interfering. The lower ends of the clips are preferably fastened to the bow, as for instance by means of screws 7 passed through holes 8 in the lower ends of said clips.

These separators can be easily attached to any bow, and are neat and inconspicuous, besides being simple in construction and inexpensive. If desired, these separators may also be constructed double, as shown by Fig. 4. These would be particularly adaptable to 3-bow tops and a double separator would be fastened to the center bows only.

Having thus described my invention, what I claim is:

As a new article of manufacture a separator for vehicle bows, comprising a cushion of soft material having grooves in its top and bottom, and separate clips of metal secured to opposite sides of said cushion, said clips being curved to fit the sides of a bow and extend partially around the same.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES E. TITCHENER.

Witnesses:

FRANK E. HOWLAND,  
E. A. BREWER.