I. N. TOPLIFF.

Carriage Bow.

No. 110,513. Patented Dec. 27, 1870.

Fig. 1

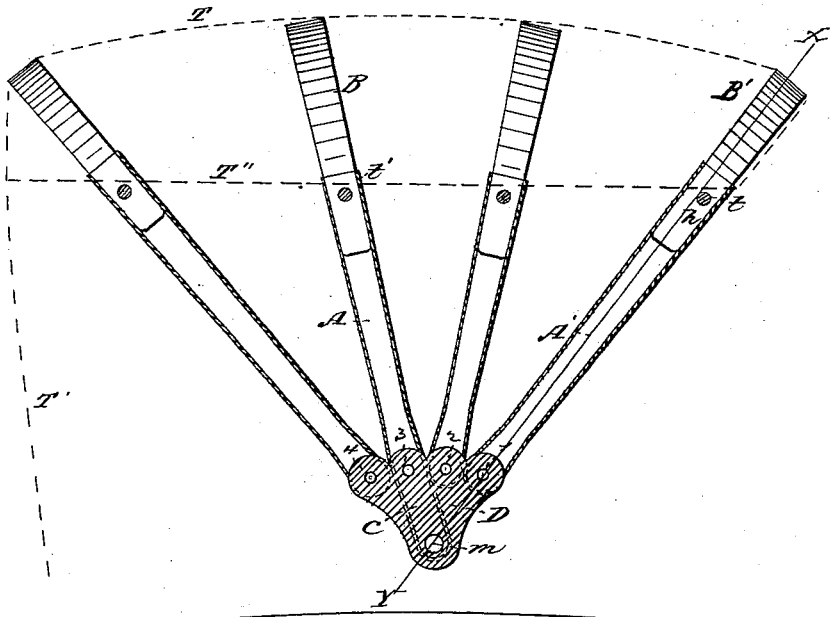
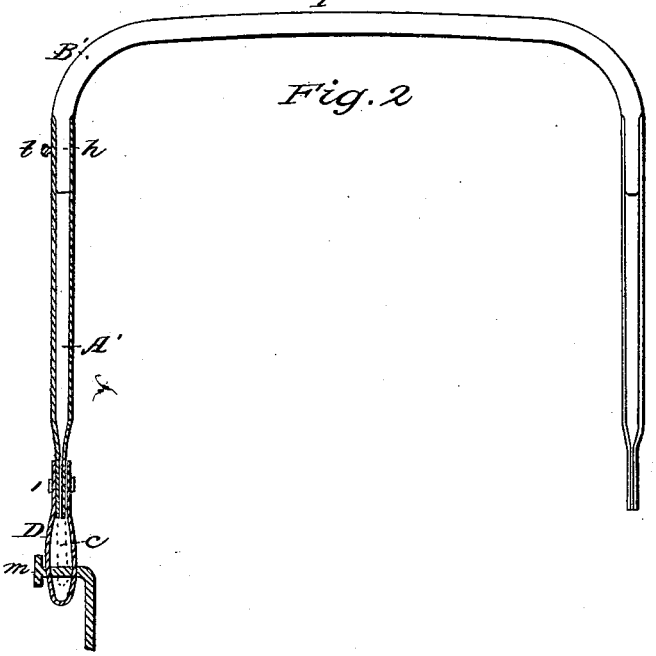


Fig. 2



Witnesses:

E. Richards

W. H. Cornell

Inventor:

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United States Patent Office.

ISAAC N. TOPLIFF, OF ADRIAN, MICHIGAN.

Letters Patent No. 110,513, dated December 27, 1870.

IMPROVEMENT IN CARRIAGE-BOWS.

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

I, ISAAC N. TOPLIFF, of Adrian, in the county of Lenawee and State of Michigan, have invented certain Improvements in Carriage-Bows, of which the following is a specification.

The nature of my invention consists in constructing the straight part of carriage-bows out of tapering tubes made of sheet-iron, with soldered seams, and lower ends flattened to form, in part, the hinge, in conjunction with the bows, made of wood, shaped and fitted into the upper ends of the tubes.

Also, in the bow-socket, made of two sheet-iron concave disks or plates, placed with concave faces together, so that the tube A may extend downward between them, to receive the swivel-bolt *m*, to make it firm to the socket.

In the annexed drawing—

Figure 1 is a side elevation of the several bows of a carriage-top, embodying my invention.

Figure 2 is a plane section of one of the bows A′ and bow-socket D, cutting the line *x y*.

A′ is one of the several similar tapering tubes of sheet-iron forming the straight part of the bow for carriage-tops, and flattened at the lower end to enter the bow-socket D.

This tube is to be manufactured of sheet-iron or of any other suitable sheet metal, with soldered seam, and into its upper end the wooden part B′ of the bow is inserted, the wooden part being the same, as far as it goes, as that now in use.

The bow-socket D is also made of sheet metal, and it consists of two concave pieces with their edges soldered together, their concave sides facing each other, and having scalloped upper edges, into which the tubes A A′, &c., are inserted and secured by the pivots 1 2 3 4.

The second bow A extends its flattened portion C downward to and receives the joint-bolt *m*, so as to prevent radial movement of the bow around the pin 3.

When the top of the carriage is thrown back the bow-socket D turns upon the joint-bolt *m* only to the extent of the sweep of the solid-jointed bow A.

What I claim as my invention is—

The straight part of the bow A, tubular and flattened at the lower end, the bow-socket D, consisting of two concave scalloped pieces, and the bent part of the bow B′, all combined, constructed, and arranged as and for the purposes set forth.

ISAAC N. TOPLIFF.

Witnesses:

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