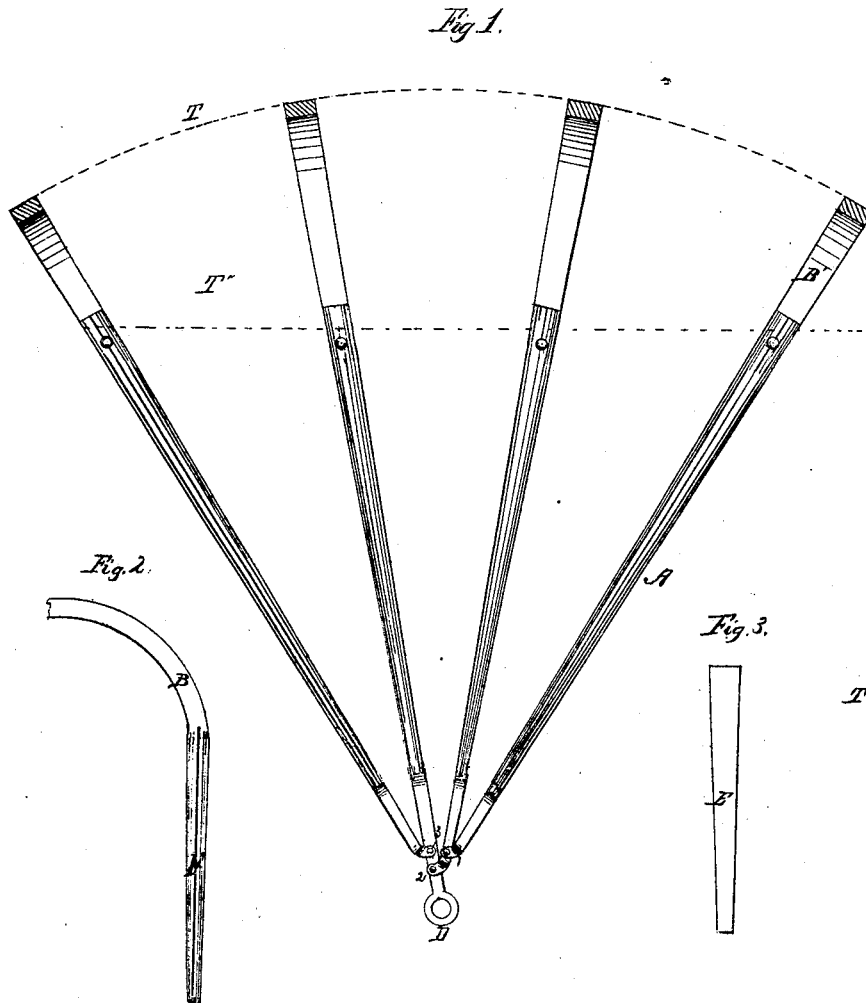


I. N. TOPLIFF.

Improvement in Combined Carriage-Bow Covers and Slat-Irons.

No. 114,885.

Patented May 16, 1871.



Witnesses.

A. F. Parson  
F. D. Hayden

Inventor.

Isaac N. Topliff.

# United States Patent Office.

ISAAC N. TOPLIFF, OF ELYRIA, OHIO.

Letters Patent No. 114,885, dated May 16, 1871.

## IMPROVEMENT IN COMBINED CARRIAGE-BOW COVERS AND SLAT-IRONS.

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

### *To all whom it may concern :*

Be it known that I, ISAAC N. TOPLIFF, of Elyria, county of Lorain and State of Ohio, have invented a new and improved Carriage-Bow Cover and Slat-Iron combined ; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

Figure 1 is a perspective view of the bows covered on a four-bow top with open sides.

Figure 2 represents a section of a bow as seen when out of the cover.

Figure 3 shows a tapering piece of sheet-steel or other hard metal.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A in fig. 1 represents one of my bow covers, which is constructed as follows :

I take sheets of steel or other hard metal, from which I cut tapering strips of steel like fig. 3. These are usually from two to three feet long. They are first taken to a folding-machine, in which both edges are folded over, then to a bending-machine, in which it is bent round a mandrel, bringing the folds together so as to lock them ; then putting the tube I have formed on a grooved mandrel, I run it between rollers, which press the folds together, forming a strong, tight lock with the bead or fold on the inside, leaving the outside smooth and even.

I do not claim as new the locking only as applied to metallic bow-covers.

Into the small ends of these tubes or bow-covers thus formed I weld, solder, or otherwise fasten pieces of iron, shaped and formed like 1, 2, and 3 in fig. 1, or any other shape desired.

One or more of these ends 1, 2, and 3 should have a large eye or hole, as shown at D in fig. 1, at which it is attached to the iron on the seat of the carriage in the usual manner.

My drawing represents a four-bow top, but I do not confine myself to that number of bows or any particular shaped ends.

After fastening the ends together in any form desired the whole is then japanned, and, thus finished, resembles patent leather.

These bow-covers should be long enough to extend above the dotted line T" or near to the bend in the bows.

The dotted lines T T T" show the outlines of the leather forming the top.

The wood bow B may extend the whole length of the metallic cover or only part, but should be driven on tight and then fastened with a knob, nail, or screw.

Before the bow is inserted into the cover I take a saw and slit it as shown in fig. 2 at F, into which I insert the tapering piece of sheet-steel, represented in fig. 3, to give the bow greater strength.

The whole thus described makes a neat, substantial, and durable bow-cover and slat-iron.

I do not claim as new the covering of bows with sheet metal ; but

What I claim, and desire to secure by Letters Patent, is—

1. The combination of the metallic carriage-bow cover and slat-iron.
2. The locking of the metallic carriage-bow covers.
3. The tapering piece of sheet-steel E, for the purpose shown and described.

ISAAC N. TOPLIFF.

Witnesses:

F. D. HAYDEN,  
A. F. PARSONS.