(No Model.)

G. L. CRANDAL.

CARRIAGE BOW.

No. 404,900. Patented June 11, 1889.

Fig 1

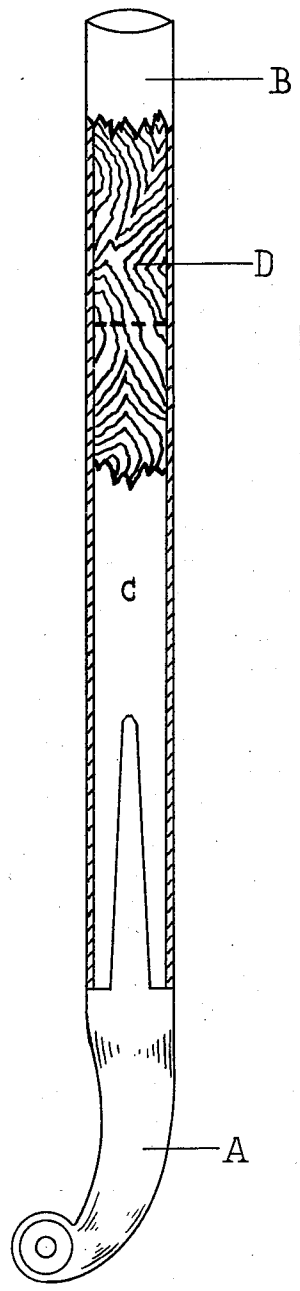


Fig 2

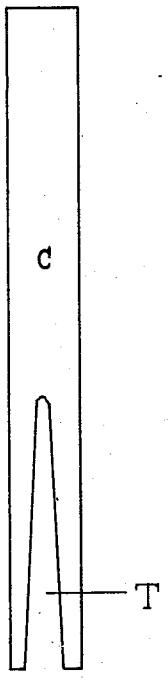
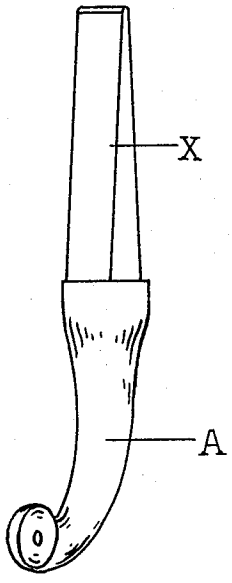


Fig 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE L. CRANDAL, OF BINGHAMTON, NEW YORK.

CARRIAGE-BOW.

SPECIFICATION forming part of Letters Patent No. 404,900, dated June 11, 1889.

Application filed March 18, 1889. Serial No. 303,810. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. CRANDAL, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Carriage-Bows, of which the following is a specification.

My invention relates to an improved device for strengthening carriage-bows at the point where the inside strengthening-strip of steel and wood bow or filler meet the slat-iron. Where the wood filler and inside metal strengthening-strip were driven down into the tubular socket until they came in contact with the blunt flat end of the slat-iron, it was found that the finished bow-socket was weak and liable to break at the point of contact. This trouble has been avoided sometimes by welding the inside sheet-metal strengthening-strip to the slat-iron or by welding in a ferrule of some kind and then driving the metal strengthening-strip into the ferrule. These methods are somewhat complicated and expensive, while my improved method is simple and inexpensive.

Figure 1 is a sectional view of a bow-socket embodying my invention. B is the outside metal tubular bow-socket, which is welded to the slat-iron A in the usual way. C is the sheet-metal strengthening-strip, a detached view of which is represented by Fig. 2. D is the usual wood bow or filler.

Fig. 3 is a detached view of the slat-iron A. The upper end of the slat-iron A is forged out into a projecting tang or point X, and the metal strengthening-strip C is cut away at the lower end at T, so as to fit closely on both sides of the projecting tang X. The wood bow or filler D is cut away in the same manner at the lower end, and also cut into far enough in the direction of its length so that the metal strip C can be inserted. After the slat-iron A has been welded to the tubular socket B, the wood bow or filler D, with the inserted sheet-metal strip C, is driven down into the tubular socket B, so that the wood D and metal strip C rest firmly upon and against both sides of the tang X of the slat-iron A, and also against the inside surface of the socket B. In this way no weak point is left unprotected, and a strong joint is made.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a carriage-bow, the combination, with the metal tubular bow-socket B and wood bow or filler D, of the slat-iron A, having the projecting tang X, and the metal strengthening-strip C, made with its lower end cut away at T, so as to fit over and rest upon the projecting tang X of the slat-iron A, substantially as described.

2. In a carriage-bow, the combination, with the metal tubular bow-socket B, of the slat-iron A, having the projecting tang X, and the metal strengthening-strip C, made with its lower end cut away at T, so as to fit over and rest upon the tang X, substantially as described.

GEORGE L. CRANDAL.

Witnesses:
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