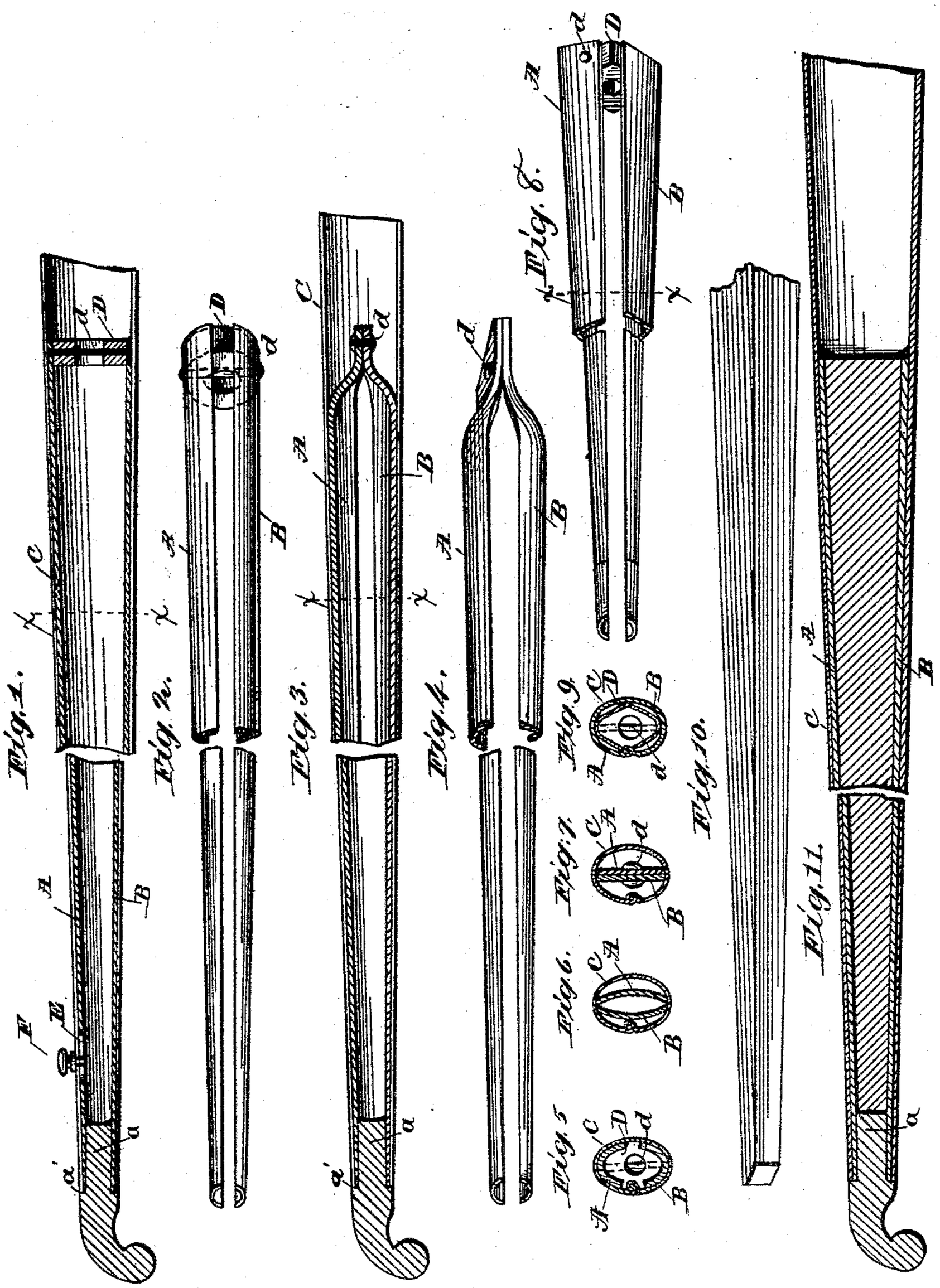
(No Model.)

W. J. PLATT.

CARRIAGE BOW SOCKET.

No. 412,291. Patented Oct. 8, 1889.



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CARRIAGE-BOW SOCKET.

SPECIFICATION forming part of Letters Patent No. 412,291, dated October 8, 1889.

Application filed August 19, 1889. Serial No. 321,206. (No model.)

To all whom it may concern:

Be it known that I, WILBUR J. PLATT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Bow-Sockets, of which the following is a clear and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to bow-sockets, and has for its object, first, to strengthen the lower end of the socket when it is welded to the slat-iron, and provide means for stiffening the lower end of the tube, where the breakage is of most frequent occurrence, and, secondly, to simplify the construction and lessen the initial cost, while providing the least number of parts requisite to strength.

My invention consists in the employment of two interior plates or bars of metal welded together with the exterior tube to the slat-iron, with means for separating and securing the upper ends of the bars.

My invention is shown in the accompanying drawings, described in the specification, and more specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section of a bow-socket provided with my improvements. Fig. 2 is a detail view of the plates and attaching-ring. Fig. 3 shows a second form of attaching the plates together, and Fig. 4 a detail of the same. Fig. 5 is a transverse section on line X X, Fig. 1. Fig. 6 is a cross-section on line X X, Fig. 3. Fig. 7 is a cross-section of a bow-socket, showing plates meeting throughout their length, except at the slat-iron. Fig. 8 is a longitudinal view showing angular plates; and Fig. 9 is a cross-section of same and outer tube on line X X, Fig. 8. Fig. 10 shows a perspective view of filler, and Fig. 11 is a longitudinal section of same.

Heretofore in the construction of bow-sockets an interior tube has been used to obtain the required strength, which has been found expensive to make and consuming too much time and labor in construction; or a single plate has been employed to re-enforce the tube, its lower end resting in a slot in the slat-iron. This form has been found strong only in one direction, and liable to come loose and rattle, besides being expensive. The outer tube, being welded to the slat-iron and afterward ground and polished, is thereby rendered thin and unfit to stand the strain on the socket.

The object of my invention is to avoid the necessity for expensive machinery or dies and at the same time provide the required resistance on all sides of the tube. To this end I employ two separate bars or taper plates, as A B, Figs. 1, 2, 3, 4, and 9, either adapted to conform to the inner surface of the tube or placed angularly thereto in such a manner as to resist strains from all directions. In all the figures the lower ends of the plates are curved to conform to the surface of the pin of the slat-iron. A shoulder being formed on the slat-iron, as at a' in the figures, the plates A and B are fitted to the pin a, and the lower end of the tube C being placed over them they are all welded together. The upper free ends of the plates are then attached together by rivets, as d in Figs. 3 and 4, or by means of a rivet d and intervening ring or plate, as D. (Shown in Figs. 1, 2, 8, and 9.) The plates A and B are shown rounded, so as to fit closely or conformably to the interior of the outer tube, and in Figs. 8 and 9 are bent at an angle throughout their length, thus offering resistance to a cross-strain from any direction. Another form is shown in Fig. 7, in which simple taper plates are shown riveted together at the upper end, this form of plates requiring no die or rollers to shape them.

In case it is desired to employ a wooden filler the forms shown in Figs. 1 and 8 may be used, the filler taking the sectional figure of the opening between the plates. A square filler, as in Figs. 10 and 11, being the least expensive to make, it can be most advantageously employed. Thinner plates may be then employed, the filler acting to re-enforce them. A slot, as E, may be left in one of the plates a few inches from the lower end for the pin of the button F for the curtain, as shown in Fig. 1.

It will be observed that little labor is required to form the plates A and B to the shapes required, and the weld at the pin being formed of double thickness great strength and rigidity are obtained.

I do not claim as part of my invention the

particular form or sectional contour of my interior plates; nor do I confine myself to any particular size or construction of details. Such is not of the nature or spirit of my invention; but

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

1. In a bow-socket, duplicate plates, as A and B, having their lower extremities welded to the pin of the slat-iron and to an exterior tube, substantially as described.

2. In a bow-socket, an exterior tube, duplicate longitudinal plates placed interiorly to the outer tube, a slat-iron pin welded to the exterior tube and plates at their lower end, and means for uniting the plates at their outer end, substantially as described.

3. In a bow-socket, an exterior socket-tube, interior longitudinal plates conformably fitting the inner surface of the tube, a slat-iron pin welded to the lower ends of the plates and exterior tube, and means, substantially as described, for connecting the upper ends of the plates, all substantially as and for the purpose set forth.

4. In a bow-socket, an exterior tube, a slat-iron provided with an extended pin, interior plates welded to the slat-iron and exterior tube at their lower ends, and a filler, substantially as described, fitting conformably to the inner surface of the plates, all substantially as and for the purpose set forth.

5. In a bow-socket, an exterior inclosing-tube, interior longitudinal plates, a slat-iron welded to the plates and exterior tube, and a filler for separating and re-enforcing the plates, substantially as described.

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