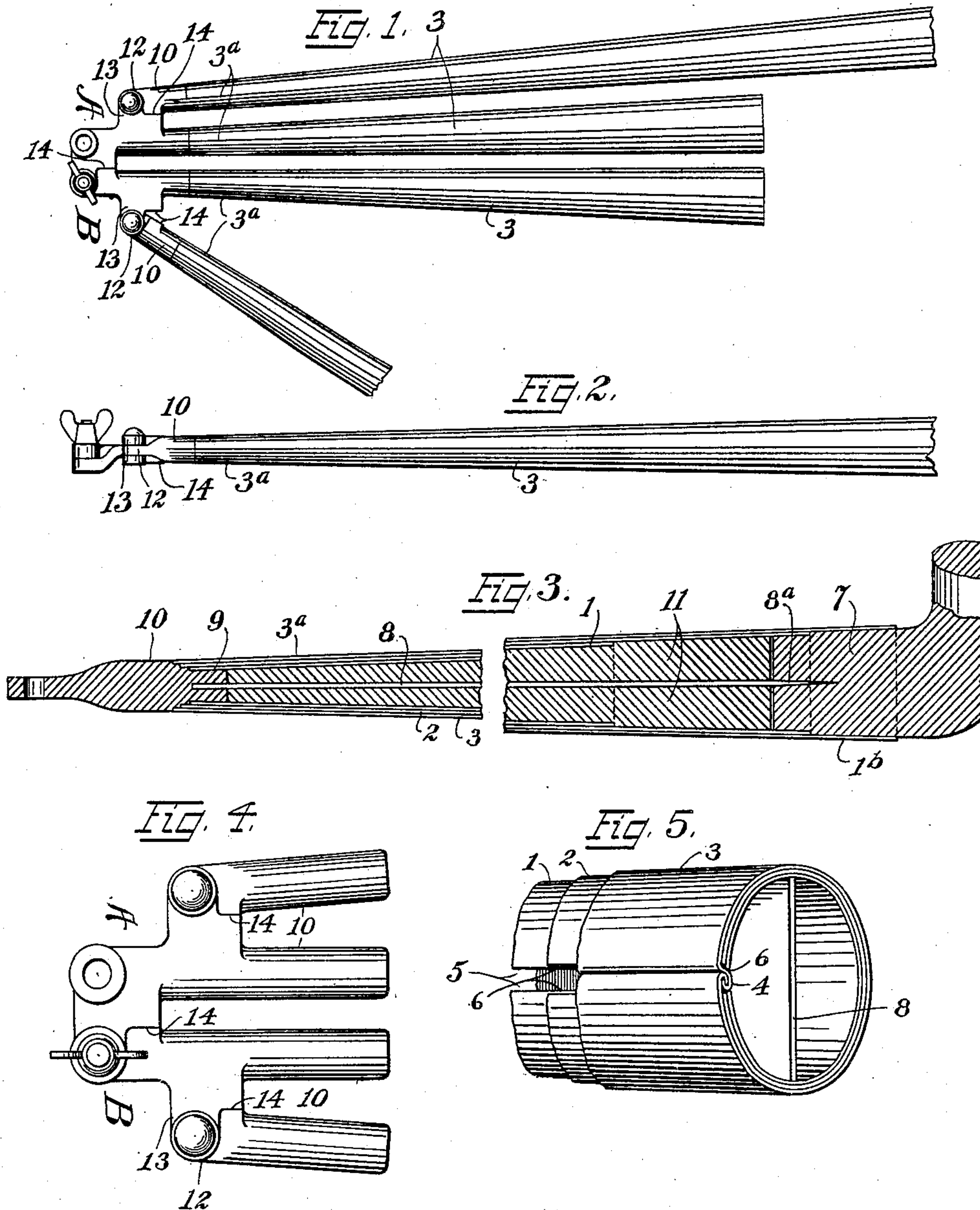


J. C. COSS.
VEHICLE BOW SOCKET.
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UNITED STATES PATENT OFFICE

JAMES C. COSS, OF CLEVELAND, OHIO.

VEHICLE BOW-SOCKET.

No. 898,837.

Specification of Letters Patent.

Patented Sept. 15, 1908.

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To all whom it may concern:

Be it known that I, JAMES C. COSS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Vehicle Bow-Sockets, of which the following is a specification.

My invention relates to improvements in vehicle bow-sockets, designed with special reference for use in connection with heavy vehicles, such as automobiles and the like, and with this end in view the invention comprises a bow-socket separator embodied in the slat-irons or forgings, and a generally-improved reinforced bow-socket, of great strength and stiffness, adapted to cooperate with said separator as hereinafter described.

The primary object of the invention is to provide an improved form of bow-socket separator embodied in the slat-irons or forgings by means of abutting extensions or stops near the pivots of the pivot connections of said slat-irons or forgings, and an improved bow-socket which is given great strength and stiffness, where subjected to the greatest stress or strain and most liable to breakage, by means of improved methods of reinforcement.

Another object is to provide means for keeping the several bow-sockets in alinement with each other, as against any lateral movement or displacement, by providing the slat-irons or forgings with a pivot connection made up of male and female members.

With these ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1, is a side elevation of the improved vehicle bow-sockets in folded position, one of the bow-sockets being extended for the purpose of clearer illustration of the abutting extension of the slat-iron forging for separating the bow-sockets and bows when the top is folded. Fig. 2, an edge view of the folded bow-sockets. Fig. 3, a longitudinal sectional view of one of the im-

proved bow-sockets showing manner of securing the end of a bow in the upper or bow-receiving end of the same. Fig. 4, a plan view of the slat-iron forging, embodying the bow-socket separator, in folded position. Fig. 5, a detail perspective view of the triple tubular portion of one of the bow-sockets.

Similar characters of reference designate like parts throughout all the figures of the drawings.

The improved bow-socket, proper, is made up of three tapered tubes, 1, 2, and 3, of increasing length and diameter from the first or inner base tube to the upper end of outer tube 3, forming what may be termed a "triple tube" bow-socket at the base or stem portion 3^a, where by reason of the decreased diameter and increased strain or stress, especially when used in connection with the improved bow-socket separator embodied in the slat-iron or forging, hereinafter described, great strength or rigidity is required. The outer tube 3, is made in the ordinary way the seam 4, being folded upon the inside of the tube in the usual manner. The inner tubes 1, and 2, are not seamed but are rolled into substantially the form shown most clearly in Fig. 5, of the drawings, leaving a longitudinal slit 5, intermediate the longitudinal edges 6, of the rolled strip of metal and the tapered end of the tube 2, is first inserted into the enlarged end of the outer tube 3, with the edges 6, taking over and receiving the seam 4, when forced home endwise toward the base or stem portion 3^a, of the outer tube, preferably by means of a mandrel. The inner tube 1, is similarly inserted and forced within the tube 2, so that when the inner tubes are forced home their edges 6, will impinge on each side of the seam 4, firmly gripping the same and preventing any displacement of the inner tubes relative to the outer, as shown most clearly in Fig. 5, of the drawings. As a further means of strengthening and reinforcing the bow-socket, and especially of reinforcing the upper or bow-receiving end 1^b, of the bow-socket where there is considerable strain or stress, and a tendency of the inserted end 7, of the bow to work loose, a longitudinally-

extending centrally-located steel reinforcing-bar or strip 8, is inserted in the bow-socket, the lower end being secured in a milled recess 9, of the slat-iron. The upper end 8^a, is wedge-shaped and takes into the inserted end 7, of the bow, expanding the end 7, of the bow and securely tightening and fastening the same within the surrounding walls of the bow-receiving end 1^b, of the bow-socket. The slat-irons 10, are inserted and driven into the base or "triple tube" stem portions of the bow-sockets and the tubes welded thereto. Before the insertion of the ends 7, of the bows into the bow-sockets, the bow-sockets are still further reinforced by the insertion of the companion tapering or wedge-shaped wood filler-strips 11, on each side of the central reinforcing-strips and forced or driven downward toward the stem portions of the bow-sockets entirely filling and tightly fitting within the tubes of said bow-sockets on each side of said reinforcing strips or bars 8.

In the present embodiment of my invention I have shown the slat-irons or forgings A, and B, and attached bow-sockets, arranged in sets adapted for connection to the rear and front portions, respectively, of a vehicle body.

As a means of keeping the several bow-sockets in alinement as against any lateral displacement, the pivot connections of the slat-irons or forgings comprise male and female members 12; and 13, respectively.

As a means of providing a bow-socket separator for spacing the several bows apart and separate from each other, when the top is in its folded position, as shown most clearly in Fig. 1, of the drawings, extensions or stops 14, are formed, in the present instance, at the base of the lug or recess portion of the female members 13, so as to abut against adjacent portions of the opposite or male members 12, of the slat-irons when the bow-sockets are brought to a substantially parallel position relative to each other as indicated in Figs. 1, and 4, of the drawings. It is obvious that the extensions or stops might be formed in some other or equivalent manner, on one or both of the members of the pivot connection, and adapted to abut against the other or opposite member whereby the bow-sockets with attached bows may be separated when the top is folded, substantially as shown and described.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

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

1. In a bow-socket forging, a pivot con-

nection comprising male and female members, said female member being provided with a stop extension above the pivot and engaging with said male member when the top is folded.

2. A bow-socket forging, comprising a male member and a female member, said female member being provided with a stop extension at the base of its lug or recess portion and abutting against the adjacent portion of the male member when said members are moved to their folded position.

3. In a bow-socket forging, a pivot connection comprising a male and female member one of which is provided with a stop extension above the pivot engaging the other member when the top is folded.

4. In a bow-socket forging, a pivot connection provided with an extension or stop on one member adapted to engage with the other or opposite member whereby the bow-sockets are separated when the top is folded.

5. In a bow-socket forging, a pivot connection having its members extended and adapted to engage with each other above the pivot whereby to separate the attached bow-sockets when the top is folded.

6. In a bow-socket forging, a pivot connection provided with abutting extensions above the pivot whereby the bow-sockets are separated when the top is folded.

7. In a bow-socket, a reinforcing bar having one end secured to the slat-iron and the other or upper end wedge-shaped and extending into the bow-receiving end of the bow-socket.

8. In a bow-socket, the combination with a tubular bow-socket provided at its lower or stem end with a slat-iron and having its upper end taking over the end of a bow; of a reinforcing-bar having one end secured to said slat-iron and the other or upper end wedge-shaped and extending into the end of said bow.

9. A bow-socket comprising an outer tapered tubular member provided at its side with an inner seam and inclosing a plurality of tapered and slotted tubular members extending from its stem end and of different lengths, a slat-iron forging welded to said tubular members, and an inner reinforcing-bar one end being secured to said slat-iron forging and the other being wedge-shaped and extending to the upper or bow-receiving end of said bow-socket.

10. In a device of the character described, the combination with a bow-socket forging comprising a pivot connection provided with a stop on one member adapted to engage with the opposite member when the top is folded; of a tapered bow-socket carrying a plurality of tapered slotted tubes in its stem portion.

11. In a device of the character described,
the combination with a bow-socket forging
comprising a pivot connection provided with
a stop on one member engaging with the op-
posite member when the top is folded; of a
5 tapered bow-socket carrying a bow in its up-
per or outer end, and a reinforcing-bar hav-
ing one end secured to the bow-socket forg-

ing and the other wedge-shaped and taking
into the end of said bow.

In testimony whereof I have affixed my
signature, in presence of two witnesses.

JAMES C. COSS.

Witnesses:

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