

H. E. BRAUNFELD.  
Singletree Coupling.

No. 214,753.

Patented April 29, 1879.

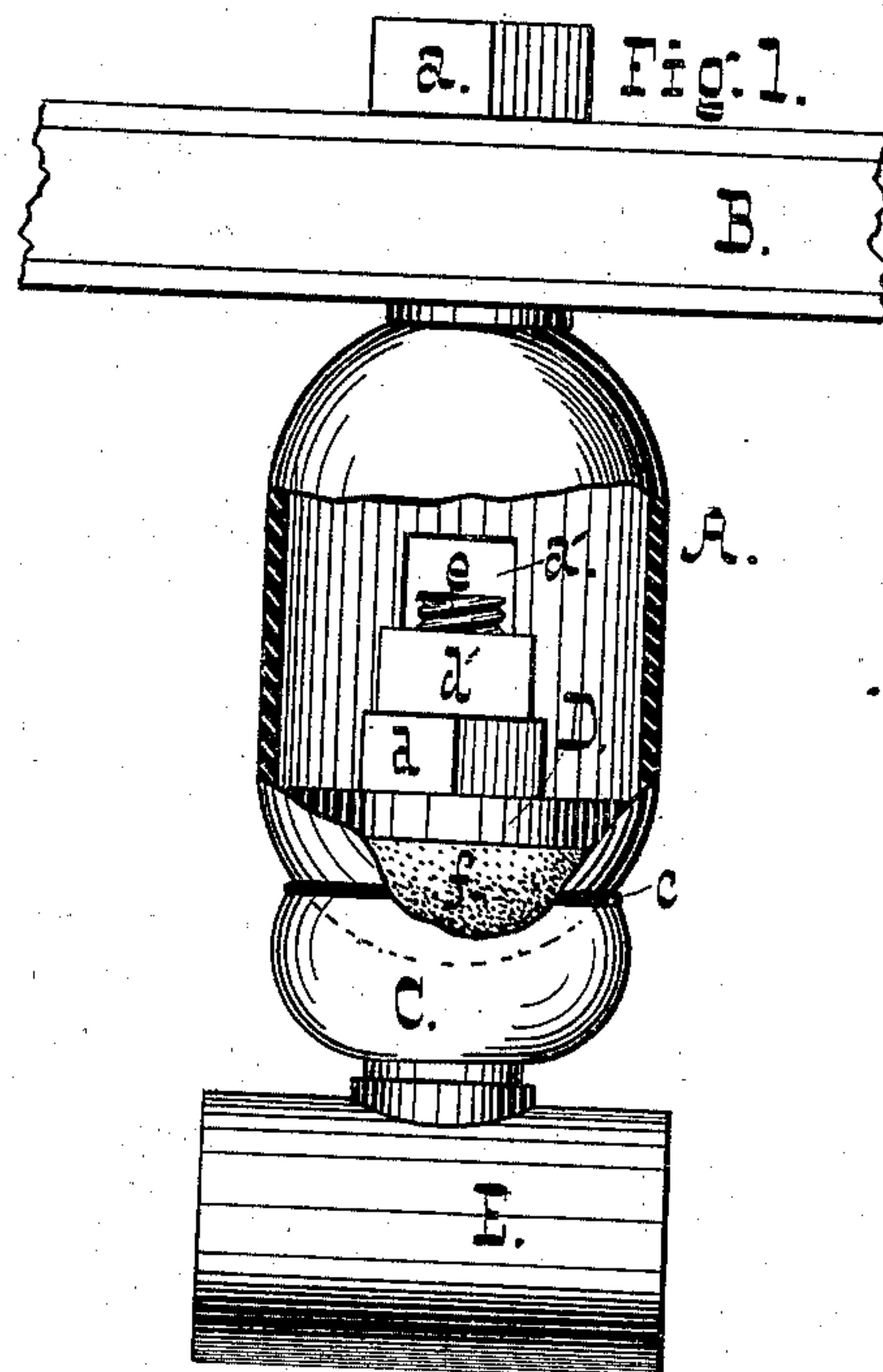
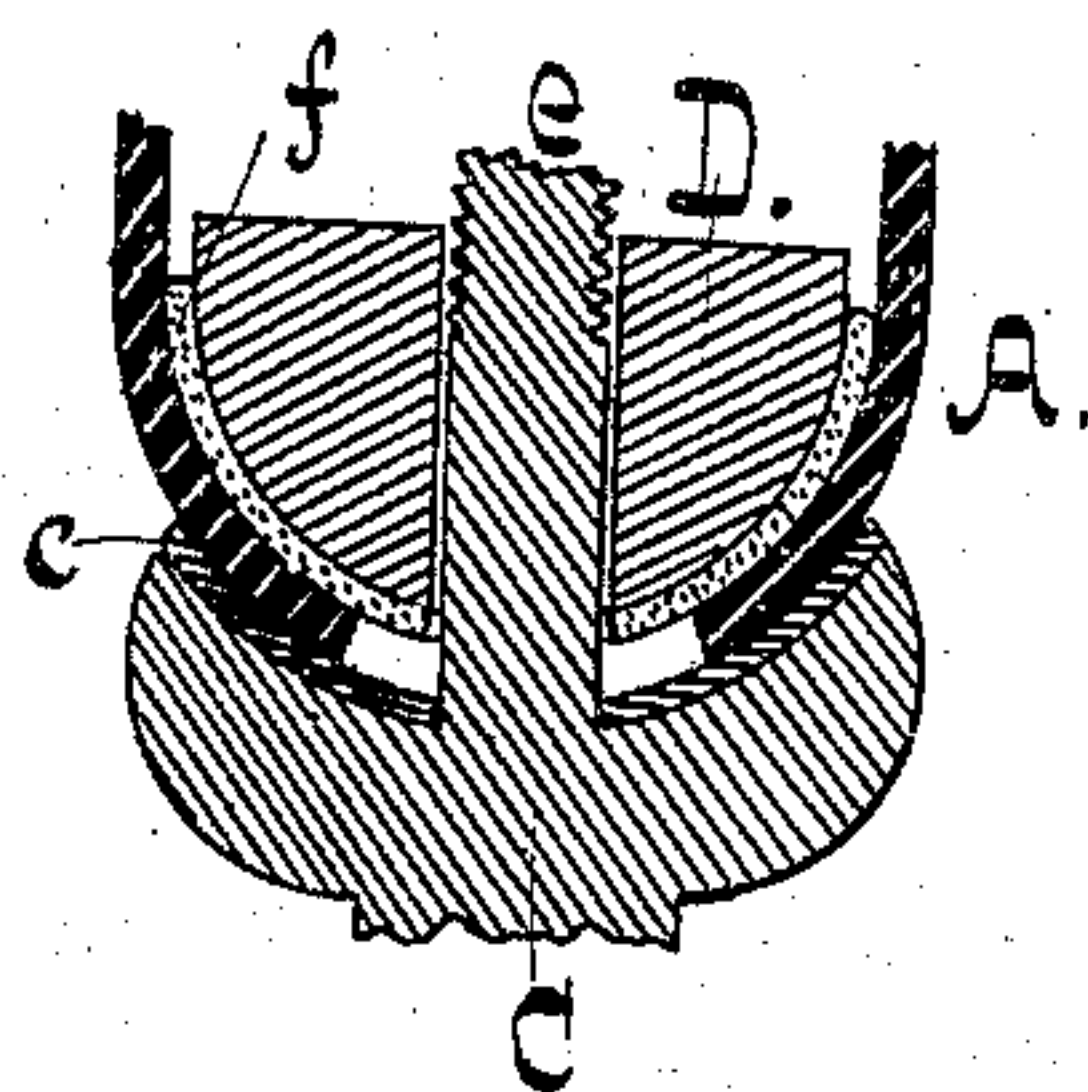


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SINGLE-TREE COUPLINGS.

Specification forming part of Letters Patent No. **214,753**, dated April 29, 1879; application filed September 21, 1878.

*To all whom it may concern:*

Be it known that I, HENRY E. BRAUNFELD, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Single-Tree Couplings; and I hereby declare the same to be fully, clearly, and exactly described, as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the device, partly in section; and Fig. 2 is a sectional view, illustrating certain details of construction.

This invention relates to that class of devices in use for attaching the single-trees of vehicles to the cross-bar between the shafts, or to the ends of the double-tree, as the case may be; and it consists in a device for accomplishing that end, constructed as hereinafter described, and possessing points of novelty which are made the subject of the claim.

In the accompanying drawings, A represents a metallic shell, preferably in the form of a short cylinder, terminating at either end in a hemisphere, and having a screw-bolt attached to or integral with one of the hemispheres, the said bolt serving to secure the device to the cross-bar or double-tree B, being fastened by means of a nut. E is a metallic tube, within which the single-tree (not shown) is secured in any appropriate manner, to which tube the piece C is attached, having a hemispherical cup adapted to fit over the end of the shell A.

Integral with the piece C is a bolt, *e*, which extends into the shell A through an opening in its end.

A washer, *c*, preferably of leather, is inserted between the parts C and A, and a similar washer, *f*, is placed on the interior of the shell,

between it and the block D, through which latter the bolt *e* passes, as shown. A pair of nuts, *d d'*, being screwed upon the bolt *e*, secure the parts together.

The shell A is provided with an opening, *a'*, through which the nuts are inserted, and are preferably screwed home by being held in any convenient manner while the tube *e* is revolved. As an obvious alternative, the opening may be made large enough for the insertion of a spanner; but the described construction is preferable, as it prevents the entrance of moisture into the shell.

The advantages of the device are evident. The ball-and-socket joint admits of motion on the part of the single-tree in every direction, and the latter may readily be turned into a vertical position, thereby greatly economizing space in the case of double-team vehicles. Finally, the described construction precludes the possibility of the hair of the horse's tail becoming entangled in the coupling, which has heretofore been a source of much annoyance with the couplings in general use.

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

1. In combination with the shell A, the tube E, cup C, bolt *e*, and ball D, substantially as described.

2. In combination with the shell A and cup C, having tube E, the ball D and washers *c f*, substantially as described.

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