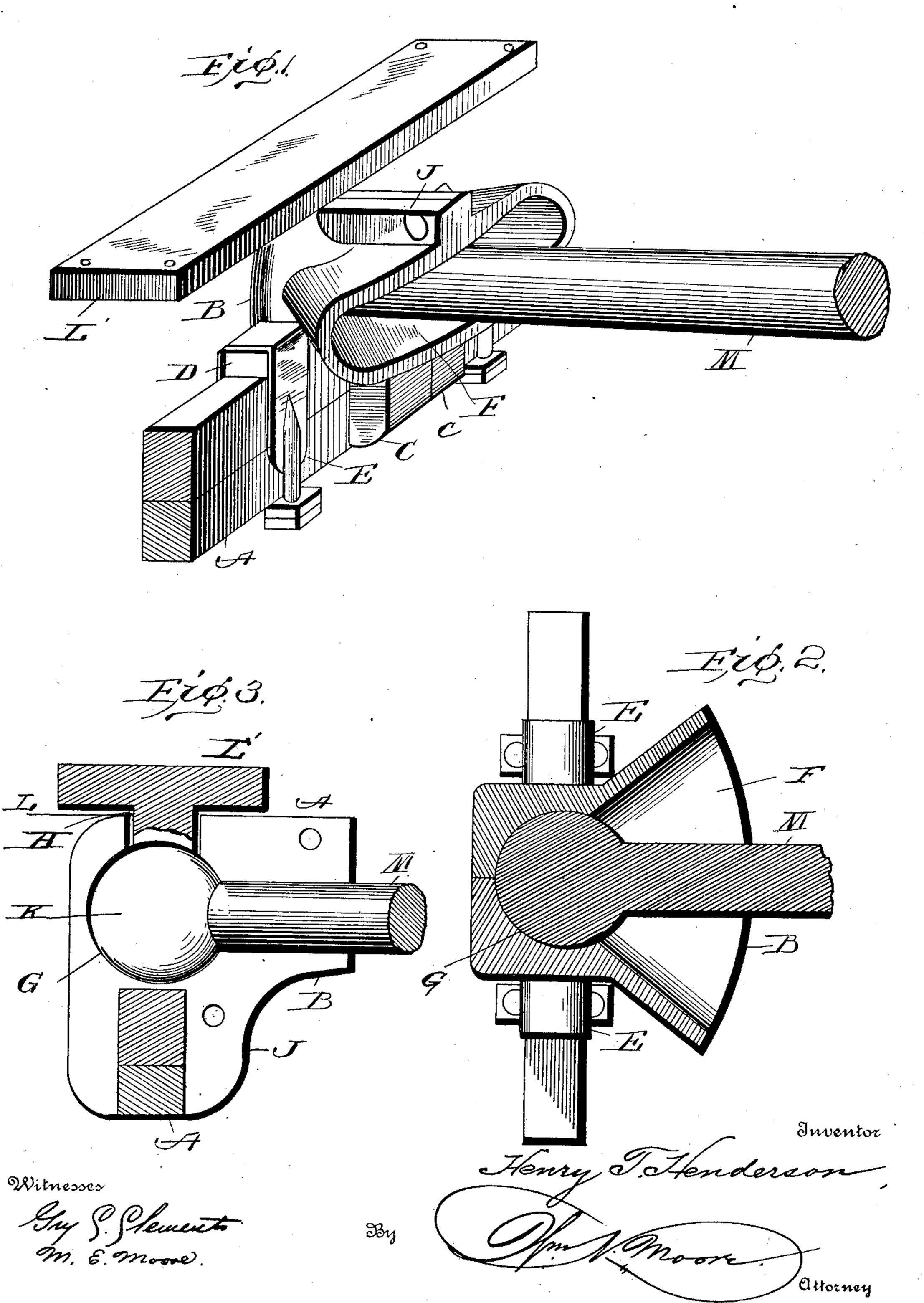
## H. T. HENDERSON. BALL COUPLING. APPLICATION FILED AUG. 6, 1902.

NO MODEL.



## United States Patent Office.

HENRY T. HENDERSON, OF KEOKUK, IOWA.

## BALL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 729,168, dated May 26, 1903.

Application filed August 6, 1902. Serial No. 118,625. (No model.)

To all whom it may concern:

Be it known that I, Henry T. Henderson, a citizen of the United States, residing at Keokuk, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Ball-Couplings, of which the following is a specification.

My invention relates to improvements in ball-couplings, and refers to a ball-coupling for fifth-wheels of vehicles; and the object of my invention is the provision of a coupling of this character which will allow for the proper movements of the vehicle when passing over rough roads and which will entirely remove all strain from the parts of the vehicle and coupling.

Another object of my invention is the provision of a coupling which will have proper movement and which will be of simple, duable, inexpensive, and practical construction, thus embodying the features to render the coupling entirely efficient in every particular.

With these objects in view my invention consists of a fifth-wheel coupling embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1 represents a perspective view of my coupling. Fig. 2 represents a transverse sectional view, and Fig. 3 represents a longitudinal sectional view.

In the drawings, A designates the axle of the vehicle, upon which rests the two-part casting B, having the depending lugs C, which 35 embrace the axle, the lateral ears D, which are engaged by the pair of clips E, which secure the casting to the axle, and the casting has the flaring mouth or channel F and the ball-socket G, with which communicates the 40 vertical opening H, and the members or parts of the casting are secured firmly together by bolts J, as shown. From this construction it | will be seen that the casting or frame is secured firmly upon the axle and is small and 45 compact, and in the ball-socket thereof fits snugly the ball K, which is formed with a stem L, which passes through the opening H, and upon this stem is the transverse supporting-plate L', and leading from said ball K is 50 the coupling-bar M, which is suitably connected to the usual reach which connects the front and rear axle, as will be understood. The said coupling-bar is arranged in the flaring mouth of the frame or casing or casting |

and has full and proper lateral movement or 55 play therein.

It will be seen that I provide a coupling which is small and compact and can be easily applied, which permits free movement of the axle under all conditions, and which is strong 60 and durable and practical in every respect.

I claim—

1. A vehicle reach-coupling, consisting of the casing having a ball-socket, depending lugs to embrace the axle, and lateral ears, 65 clips engaging said ears to secure the casing, and a ball fitting in the ball-socket and having a coupling-bar at one side, an integral stem extending from the upper face through the casing and an integral transverse sup- 70 porting-plate.

2. A vehicle reach-coupling, composed of the casing having the depending lugs embracing the axle and the lateral ears, the clips engaging said ears to secure the casing, 75 the ball-bearing in the casing, the supporting-plate, the integral stem depending from said plate and mounted upon the upper side of the ball and the coupling-bar formed on the ball and at one side thereof.

3. A vehicle reach-coupling consisting of the casing composed of two members having the depending lugs to embrace the axle, the lateral ears to receive the securing-clips, the inward-extending flaring mouth and the ball 85 socket or bearing, the arm carrying the ball fitting in said socket, said ball having a stem extending upward through the casing, and the plate on said stem.

4. The vehicle reach-coupling herein shown 90 and described, consisting of the transverse supporting-plate, the integral stem depending from said plate, the ball formed on said stem and the bar on one side of the ball, said plate, stem, ball and bar being in one piece, 95 the casing composed of two vertical members having the ball-socket, the flaring mouth leading from said socket, the depending lugs fitting on the axle, and the lateral ears on each side and clips engaging the ears to secure the 100 casing upon the axle.

In testimony whereof I affix my signature in presence of two witnesses.

## HENRY T. HENDERSON.

Witnesses:

WILLIAM C. HOWELL, B. M. BOND.