

(No Model.)

S. WALTERS.  
RAILWAY HOSE COUPLING.

No. 587,111.

Patented July 27, 1897.

Fig. 1.

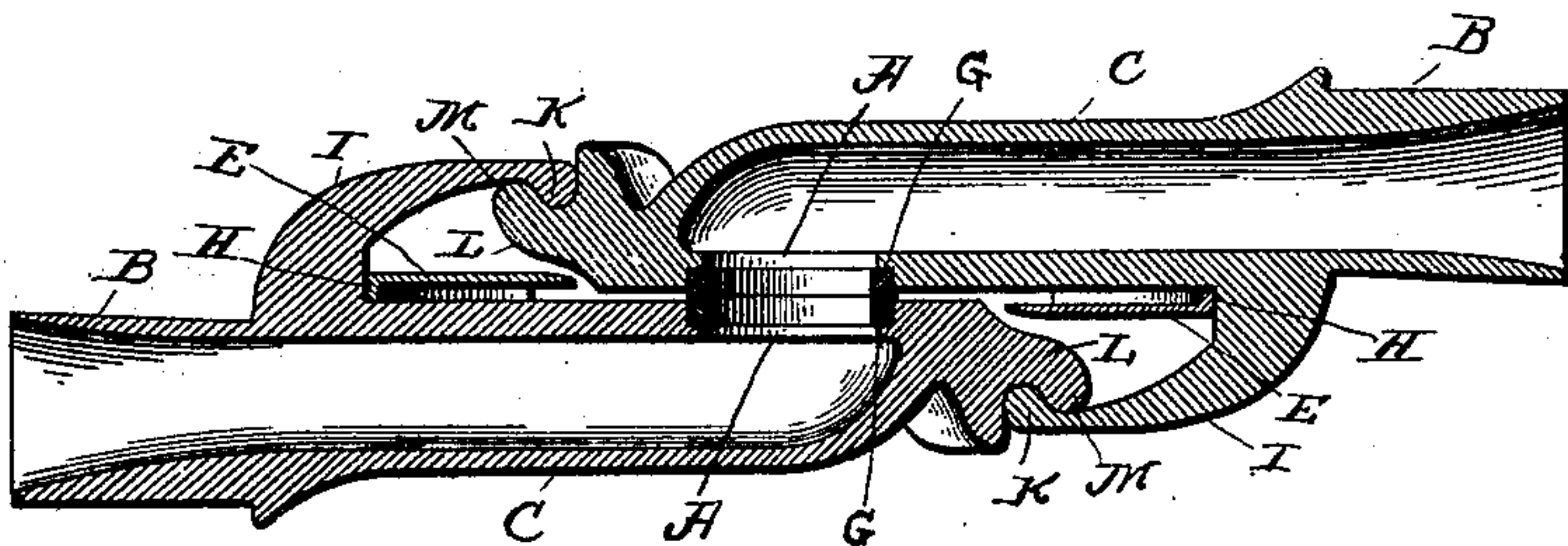


Fig. 2.

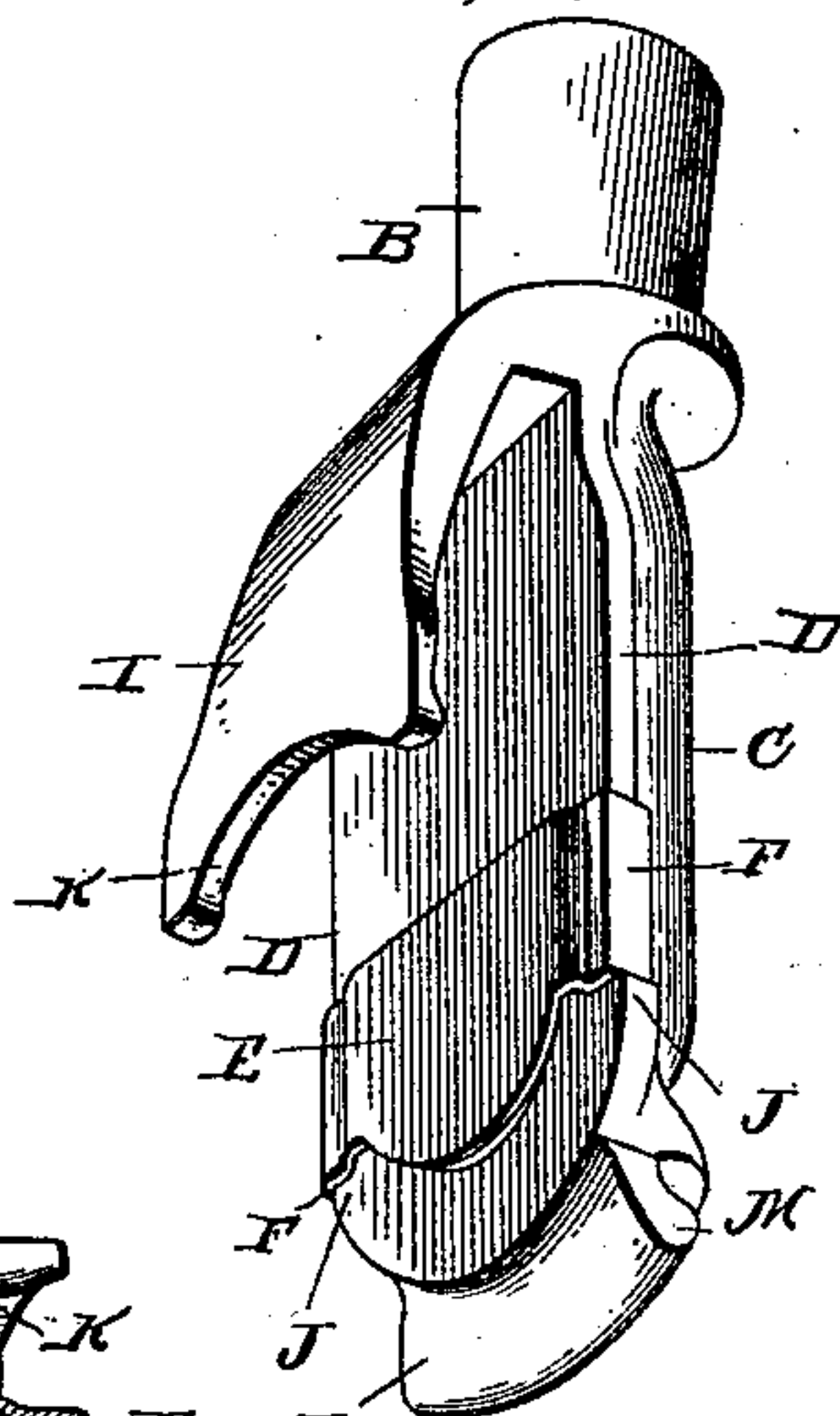


Fig. 3.

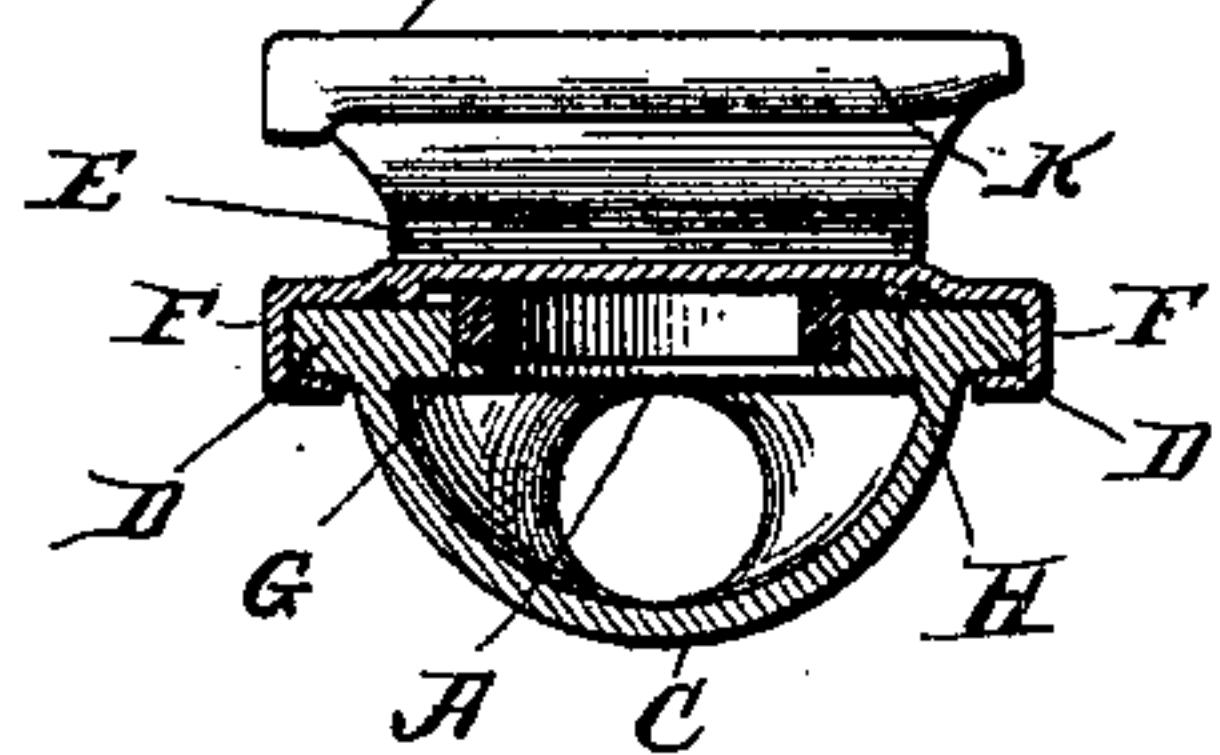
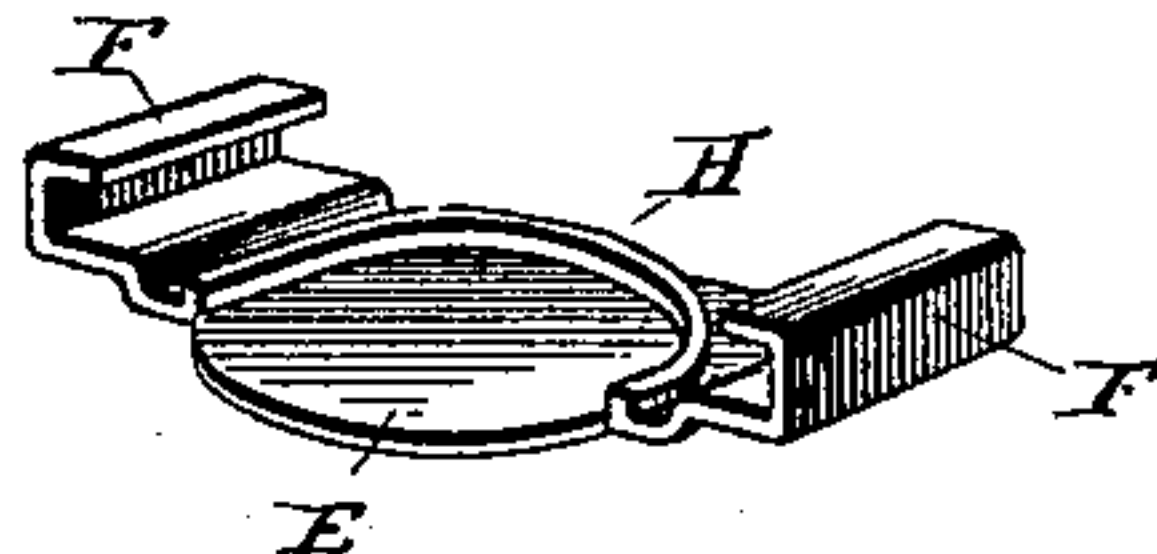


Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

SAMUEL WALTERS, OF WARREN, PENNSYLVANIA.

## RAILWAY HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 587,111, dated July 27, 1897.

Application filed September 21, 1896. Serial No. 606,455. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL WALTERS, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented a certain new and useful Improvement in Railway Hose-Couplers, of which the following is a specification.

This invention relates to a new and useful improvement in hose-couplers for railway-train service, and has for its object to improve upon the construction in general of such devices, but more particularly to provide therefor an automatic valve by means of which the seat of the coupler will be closed against access of dirt, snow, water, and other foreign substances which tend not only to injure the face of the seat, but also clog the interior of the coupler to such an extent as to prevent its immediate use when occasion requires, thus necessitating a considerable loss of time in cleaning the coupler before it can be secured to a similar coupler in connecting up the cars of a train, and will keep dust from getting in triple valve and air-cylinder.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, its construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal section of two couplers secured together, illustrating the position of the valve when the couplers are in this relative position; Fig. 2, a perspective of a coupler in the position assumed when not in use, showing the valve in position to close the opening in the coupler and protect the seat thereof; Fig. 3, a cross-section taken through the coupler at the center of the opening therein when the valve is in position to close the same, and Fig. 4 a detail perspective of the valve.

In carrying out my invention the coupler is cast in a single piece and so cored as to form a cavity therein, from which leads the opening

A and the shank B, the latter being adapted for connection with the flexible hose of the train-pipe.

The body C of the coupler has formed thereon the flanges D, which serve to guide the valve E by the latter having the hooked ends F adapted to embrace these flanges and slide to and fro thereon.

As is usual, the opening A is provided with a rubber bushing G, which serves as a packing-ring for making an air or steam tight joint between two couplers when secured together, and this bushing projects slightly above the upper face of the coupler, necessitating the slight elevation of the central portion of the valve E, which is accomplished by the formation upon the under side thereof of a rib H, as clearly shown in Fig. 4.

The overhanging lug I is of a greater length than usual with the construction of couplings now in use, which also lengthens the face of the coupler, and the object of this in my improvement is to provide space in which the valve E may remain when two couplers are attached together, so that, as shown in Fig. 1, the valve of each coupler in no wise interferes with the action of the couplers when in use, yet when a coupler is out of use and drops to a vertical position by reason of the flexibility of the hose to which it is secured the valve by its weight will automatically assume the position shown in Fig. 2, when it will completely close the opening in the coupler and prevent the accumulation of snow, ice, water, or dirt within the coupler or upon the face thereof, in order that when said coupler is again needed for use no preparatory cleaning will be necessary, as the valve may be slid back within the space beneath the overhanging lug when the valve is elevated by the operator, leaving the coupler in perfect condition to be attached to another.

The valve is prevented from sliding off the coupler when the latter is hanging downward by the stop-shoulder J, and in assembling the ends of the valve may be first bent at right angles to the body thereof and afterward turned inward beneath the flanges of the coupler.

The overhanging lug is provided with a curved bead K, and the nose L is also provided with a curved bead M, so that when



two couplers are brought together this last-named bead will enter into engagement with the first-named bead, as clearly shown in Fig. 1, thereby securing the couplers face to face, and these beads are slightly inclined in the direction of their length, so as to have a cam action upon each other, which will draw their faces inward during the coupling movement and force the bushings or packing-rings tightly against each other, thus making an air-tight joint.

Having thus fully described my invention, what I claim as new and useful is—

1. A coupler for train service, consisting of a hollow body, a shank formed therewith and adapted to be attached to a flexible hose, an opening leading from the interior of the body at right angles to the length of the coupler, flanges formed upon the body, and a valve arranged to slide upon said flanges and adapted to automatically close the opening, as specified.

2. In a device of the character described, a coupler, flanges formed thereon and a sliding valve engaging the flanges, as and for the purpose described.

3. A coupler of the character described, consisting of a hollow body, an opening leading therefrom at right angles thereto, an overhanging lug so arranged as to provide a space therebetween and the face of the body, flanges formed upon said body, and a valve fitted to slide upon said flanges and adapted to close the opening in the coupler when the latter is swung downward, as specified.

4. The herein-described combination of a hollow body C, a shank formed therewith, an

opening leading therefrom at right angles thereto, flanges formed with the body, a valve E having hooked ends for engagement with the flanges, an overhanging lug I having a curved bead formed thereon, and a nose L also having a curved bead formed thereon, the two beads adapted to engage corresponding beads formed upon a similar coupling, substantially as and for the purpose set forth.

5. In a device of the character described, a coupler, flanges D formed thereon, a valve E having hooked ends F adapted to embrace and slide on the flanges, as and for the purpose described.

6. In a device of the character described, a coupler, a bushing-ring secured thereon, flanges formed on said coupler, a valve slidable on the flanges having a raised portion to fit over the bushing, as and for the purpose described.

7. In a device of the character described, a coupler, a bushing-ring G set therein, flanges D formed on the sides of the coupler, a valve E having a central raised portion and a rib II to fit the bushing-ring, hooked ends F formed on the valve to engage and slide on the flanges and shoulders J at the end of the flange to limit the movement of the valve, as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

SAMUEL WALTERS.

Witnesses:

S. S. WILLIAMSON,  
WM. KULOW.