(No Model.)

J. F. McELROY.

HOSE COUPLING.

No. 454,287. Patented June 16, 1891.

Fig. 1.

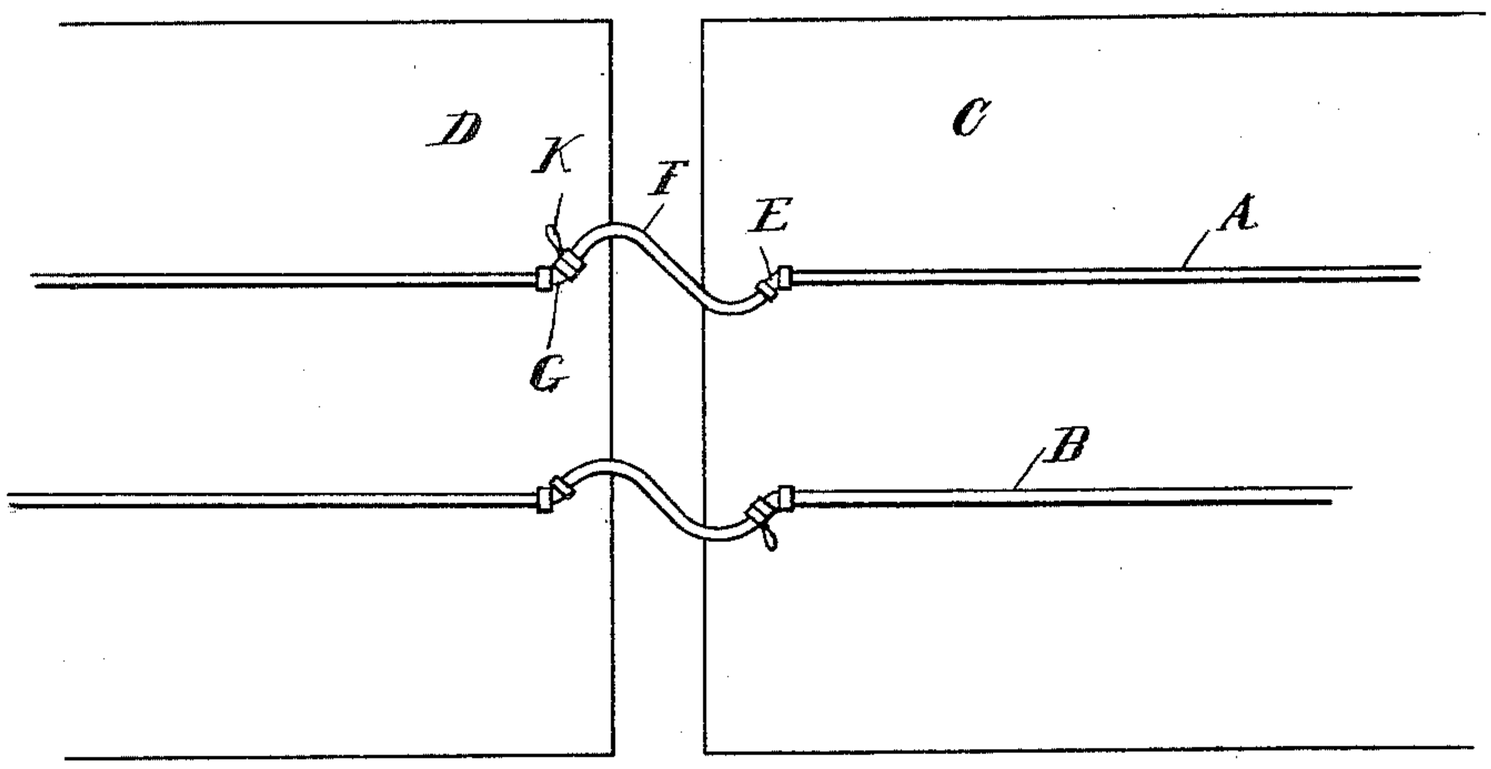


Fig. 2.

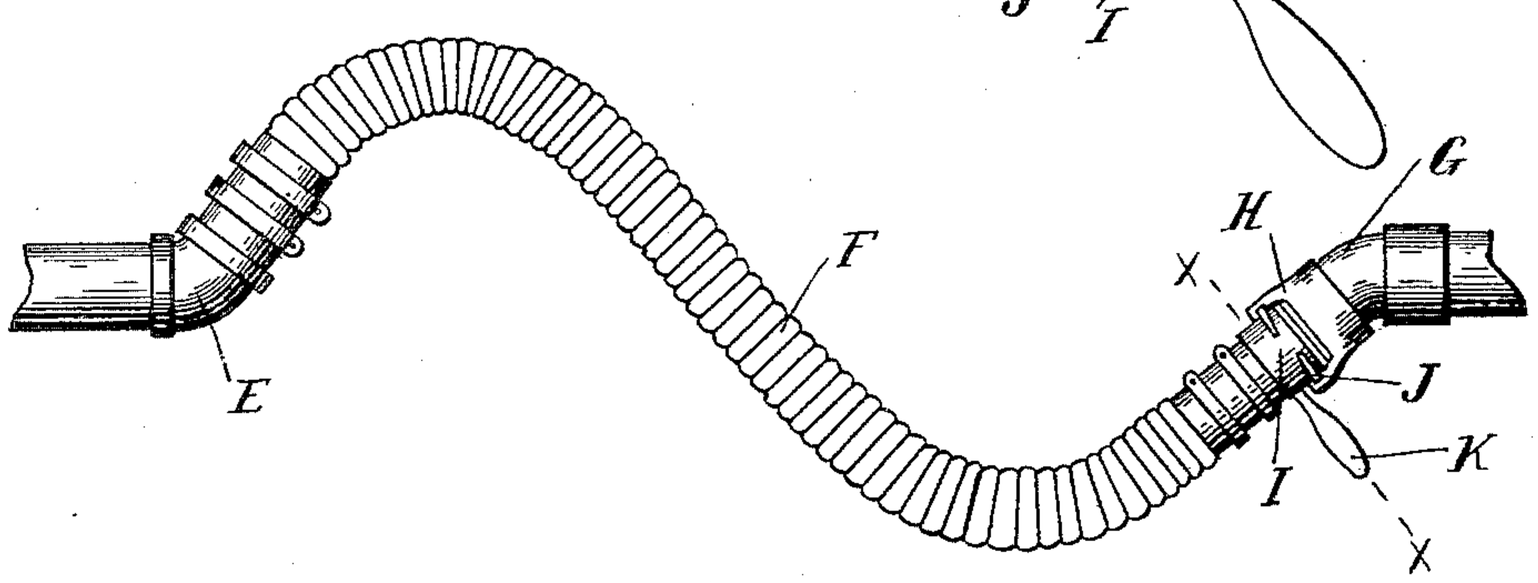
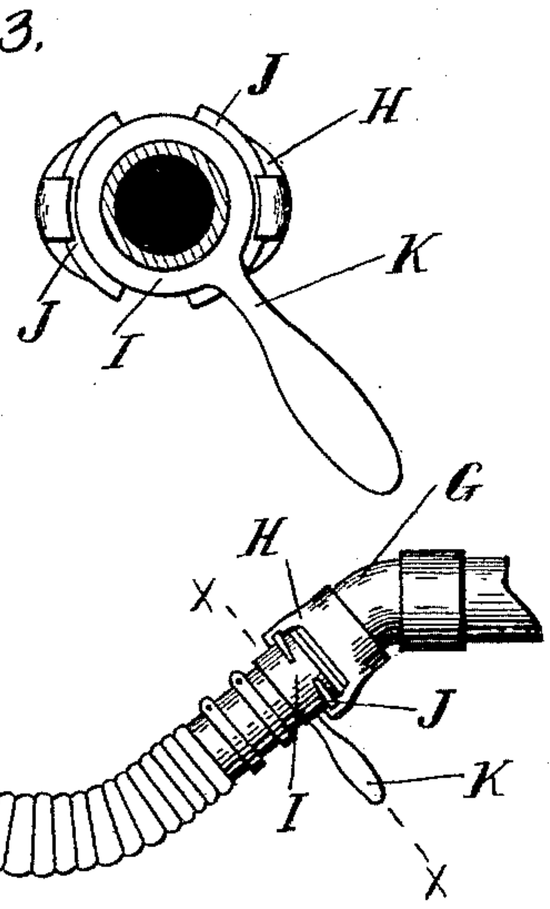


Fig 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES F. McELROY, OF ALBANY, NEW YORK, ASSIGNOR TO THE CONSOLIDATED CAR HEATING COMPANY, OF SAME PLACE.

HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 454,287, dated June 16, 1891.

Application filed September 25, 1890. Serial No. 366,160. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. MCELROY, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Hose-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in hose-couplings for railway-cars; and the invention consists in the peculiar construction of the train-pipes in combination with a flexible connecting hose and coupling, whereby the motion between the cars is taken up to the best advantage and the least danger of damage to the hose, and whereby little or no strain is brought upon the coupler in the running of the train, which may cause it to leak, all as more fully hereinafter described.

In the drawings, Figure 1 is a diagram plan view showing the meeting ends of two adjoining cars coupled together with my improved hose-coupler. Fig. 2 is an enlarged view of one of said couplers. Fig. 3 is a cross-section thereof on line *x x*.

My coupler is especially designed to be used in connection with what is popularly known as the "return system" of car-heating—that is, in which there are two train-pipes required, one to take the steam from the locomotive as a supply-pipe to the cars, while the other carries back the water of condensation to the locomotive.

A is the steam-supply pipe, and B the return-pipe, C and D being the ends of the adjoining cars.

To connect the two parts of each train-pipe A and B, I use a like connection, and a description of one will suffice for both. This connection consists of an angled elbow or offset E upon the end of one pipe, having a suitable nipple, to which is secured one end of a flexible hose F. The end of the train-pipe upon the adjoining car is provided with a similar offset G, upon the outer end or nipple of which is secured a stationary coupling-jaw H. The free end of the hose connection F is provided with a rotary ring I, having upon its periphery double cam-rings J, adapted to engage in suitable jaws upon the coupler-head H. This ring is provided with a suitable handle K, by means of which the two parts are engaged and disengaged. The angled offset E extends toward one side of the car and the angled offset G toward the other side of the car—that is, the angled offset upon one car extends in the opposite direction upon that of the adjoining car, thereby enabling me to arrange the hose-section F in an **S** shape or with two bends in it, in which the motion between the cars may be taken up, each bend taking up a part of the movement. Each car at the end will thereby be provided with a coupler-section on one side arranged on the end of the train-pipe and with the flexible connection of hose on the other side provided with a coupler-section at its free end, and when two cars thus provided come together the coupler-section on the hose may quickly be connected to the stationary coupler-section upon the end of the train-pipe.

To retain the hose in a horizontal position, they are made of sufficient stiffness, either by binding them with steel or using stiff material to construct the same with. I have, however, found that the ordinary stiff steam-hose will retain a horizontal position.

What I claim as my invention is—

1. The combination, with the train-pipe of railway-cars, of a connection for the ends thereof upon adjoining cars, comprising a rigid angled offset upon the end of the train-pipe, a double bent flexible connecting-pipe secured thereto, a coupling member at the free end thereof, an oppositely-extending angled offset upon the end of the adjacent train-pipe, and a semi-coupler at the end thereof, substantially as described.

2. The combination, with the train-pipes, of adjacent cars arranged in line, of a rigid angled horizontal offset upon the ends of the train-pipes extending in opposite directions, a coupling member upon one offset, and a flexible hose having a semi-coupler at its free end secured to the other offset, said hose having sufficient slack to take up the motion between the cars, substantially as described.

3. The combination, with the train-pipes of adjacent cars arranged in line, of a rigid angled horizontal offset upon the ends of the

train-pipes extending in opposite directions, a coupling member upon one offset, and a flexible hose having a semi-coupler at its free end secured to the other offset, said hose having its slack arranged in an S shape between the train-pipes, substantially as described.

4. The combination, with the ends of two train-pipes arranged on adjacent ends of the cars, of horizontal angle offsets on the ends extending in opposite directions and a stiff to flexible hose connected with the offsets, substantially as described.

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

JAMES F. McELROY.

Witnesses:

EDWIN A. SMITH,

JOHN B. BRAIDWOOD.