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R. M. DIXON.

COUPLING.

APPLICATION FILED JULY 31, 1903.

NO MODEL.

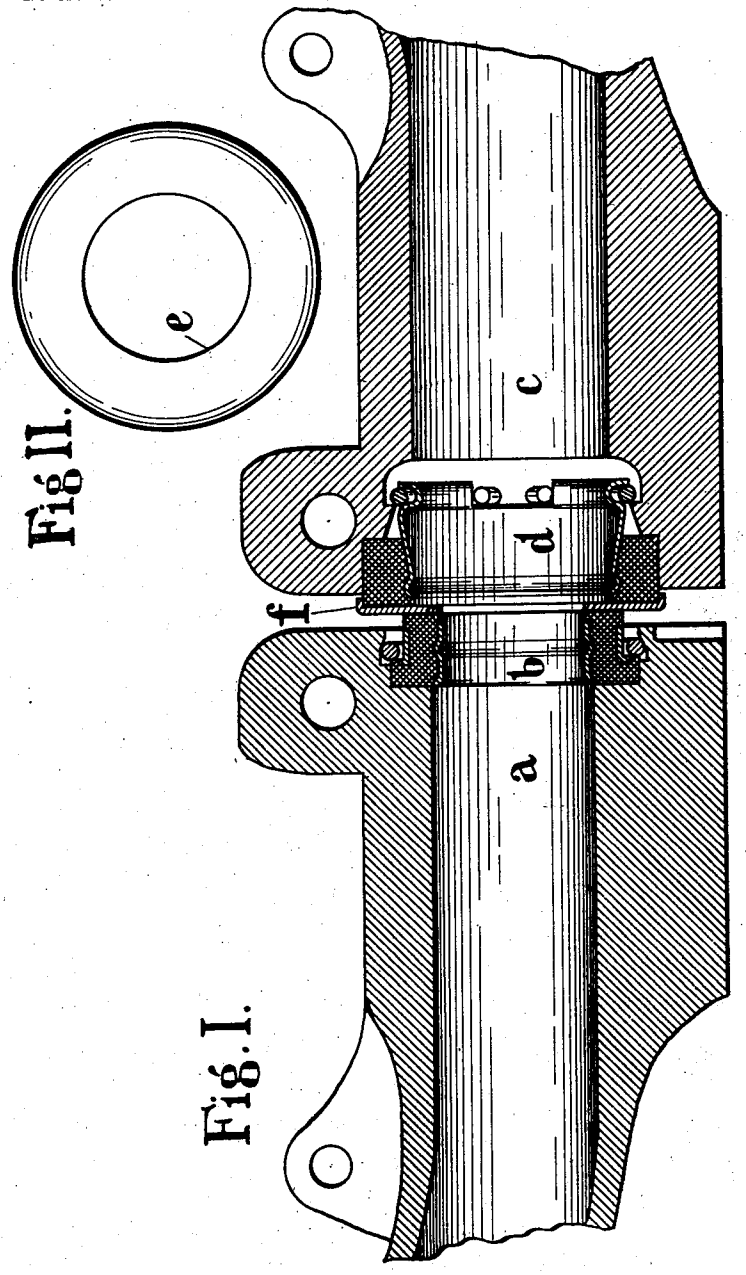


Fig II.

Fig. I.

WITNESSES:

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No. 744,506. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

ROBERT M. DIXON, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE SAFETY CAR HEATING AND LIGHTING COMPANY, A CORPORATION OF NEW JERSEY.

COUPLING.

SPECIFICATION forming part of Letters Patent No. 744,506, dated November 17, 1903.

Application filed July 31, 1903. Serial No. 167,667. (No model.)

To all whom it may concern:

Be it known that I, ROBERT M. DIXON, a citizen of the United States, residing in East Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Couplings, of which the following is a specification.

My invention relates to couplings, and has for its object to produce a coupling device by which couplings having ports of differing diameters may be efficiently coupled together.

In the drawings, Figure I is a coupling in which my invention is illustrated and embodied, and Fig. II is a face view of a ring or diaphragm forming part of my invention.

Heretofore devices for effecting the coupling of coupler members having ports of dissimilar diameters have been proposed, and it has been proposed to seat in the bushings of the said couplers supplemental bushings having orifices of the same size. This mode of coupling is open to many objections, chief among which is the objection that these supplemental bushings are more or less expensive, are inconvenient to carry, and are required to be made in a great number of different sizes.

By my invention I effect the coupling in a very simple manner by means of a device which can be carried by the dozen in the pockets of the trainmen and once used is sufficiently cheap to be thrown away. The device will thus commend itself to railroad-men generally.

In the device, *a* represents a coupler member with a bushing *b*. *c* represents another coupler member of a bushing *d*. The orifice of the bushing *b* is of less diameter than the orifice of the bushing *d*, and under ordinary circumstances the two couplers could not be efficiently coupled. However, in order to provide for the coupling I employ an apertured disk or diaphragm *e*, preferably of metal and provided, if desired, with a turned-down rim *f*, either continuous or interrupted.

The diaphragm *e* fits over one of the bushings, preferably the larger bushing *d*, and having an orifice of less diameter than that in the larger bushing the body of the diaphragm or ring *e* affords a supplemental bearing-surface for the face of the smaller bushing *b*. It is obvious that the form of this diaphragm may be changed, and I do not, therefore, limit myself thereto, but desire to include other structures within my claims, the essential features of the invention being that there shall be a compromise ring or its equivalent having therein a smaller orifice than the port of the coupler having a larger port and adapted to receive the thrust of the coupler having the smaller port, thus avoiding injury to the gaskets or bushings and providing means for making a serviceable joint. In the present instance I have shown these "diaphragms" or "coupler-rings," by which term I mean to include also devices having openings of forms other than circular, as made of sheet metal with a turned-over edge. These coupler-diaphragms may be carried by the trainmen in their pockets and can be instantly applied and as quickly removed, and in case of loss the expense of replacing them will be inconsiderable.

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

1. In a coupling, the combination of a pair of coupler-heads having ports of different areas, and a coupler-diaphragm having an orifice therein of less area than the larger port and intervening between the two coupler-heads so as to afford a bearing-surface for the gaskets.

2. In a coupling, the combination of a pair of coupler-heads having ports of different diameters and a coupler-diaphragm intervening between the said ports and affording a bearing-surface for the coupler-heads having different diameters.

3. In a coupling, the combination of a pair of coupler-heads having ports of different diameters and a sheet-metal coupler-diaphragm

between the said couplers and affording a bearing-surface for the couplers.

4. In a coupling, the combination of a pair of coupler-heads, a bushing in each of the said heads, the said bushings having different-sized orifices and a coupler-diaphragm intervening between the said bushings and forming a bearing-surface for both of the said bushings.

ROBERT M. DIXON.

Witnesses:
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