(No Model.)

J. G. PFISTER.

PIPE COUPLING.

No. 382,107. Patented May 1, 1888.

Fig.1.

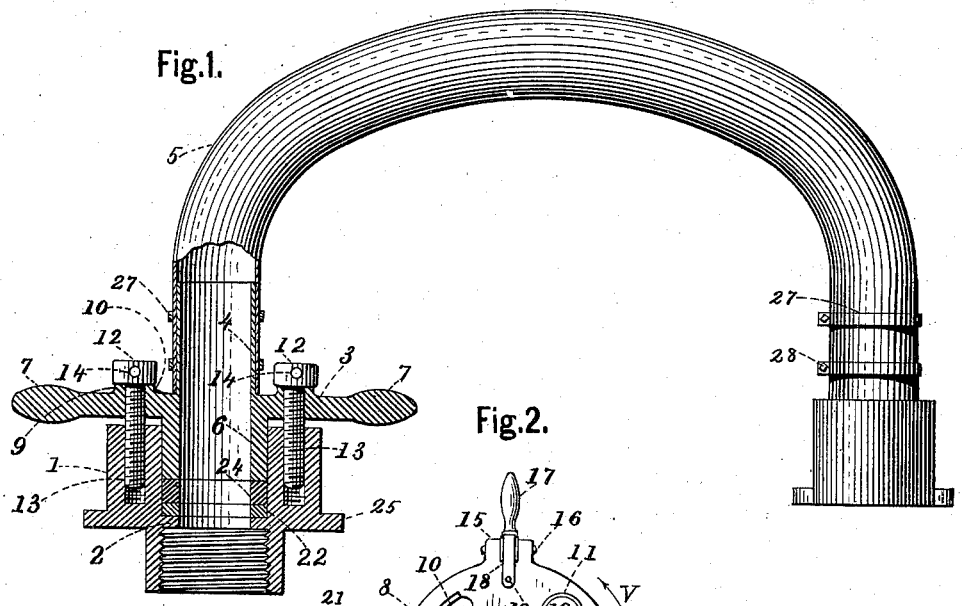


Fig.2.

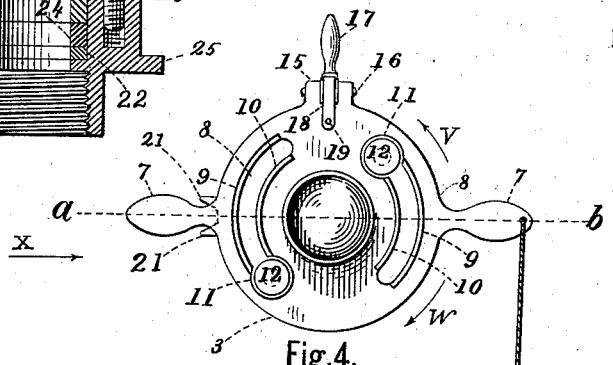


Fig.4.

Fig.3.

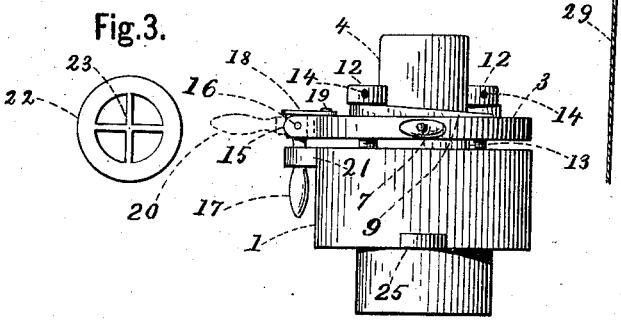
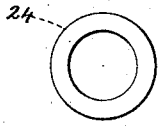


Fig.5.



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UNITED STATES PATENT OFFICE.

JOHN G. PFISTER, OF BUFFALO, NEW YORK.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 382,107, dated May 1, 1888.

Application filed February 29, 1888. Serial No. 265,656. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. PFISTER, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Pipe-Couplings, of which the following is a specification.

My invention relates to couplings for connecting steam-pipes or other like purposes; but it is specially adapted for coupling pipes for conducting steam or hot air through railroad-cars and other details of construction, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a central section through line *a b*, Fig. 2, through the coupling and a portion of the elastic tubing connected to it, the cover being so turned as to show the bolts through the slots, showing also a side elevation of the elastic tubing and the coupling-piece attached to the opposite end. Fig. 2 is a top plan view of the coupling without the elastic tubing. Fig. 3 is a top plan view of the metallic supporting-ring. Fig. 4 is a side elevation of the coupling looking in the direction of the arrow X at the part 1 of the coupling. Fig. 5 is a top plan view of the elastic tightening-ring.

The body of the coupling or lower portion, 1, is preferably made of iron, but may be made of brass or other similar material. It is provided with an annular seat, 2, and a gland or cover, 3. This cover 3 is provided with a thin tube, 4, (see Fig. 4,) adapted to receive the elastic tubing 5, and on the opposite side with a tube or sleeve, 6, also two handles, 7, for operating it and two curved slots, 8, having raised inclined ways 9 10 on each side, and at one end of each slot is a circular hole, 11, large enough to allow the heads of the screw-bolts 13 to pass easily through. The holes 14 in the heads 12 allow the use of an ordinary bar or wrench for turning them. On one side of the cover 3 are two lugs, 15, between which is pivoted by a pin, 16, a holding lever or arm, 17. The pivoted end of the arm 17 is made square, and on the top of the cover 3 is a flat spring, 18, secured by a rivet or bolt, 19. The object of this construction is to provide the means for holding the arm 17 securely either when shut down, as shown in Fig. 4, or when up, as shown by the dotted lines 20. On one side of the body of the coupling are rigidly secured to it, or form a part of it, two lugs, 21, similar to the lugs 15 on the cover. These lugs are separated just enough to permit the arm 17 to shut in between them when down, as shown in Fig. 4.

The object of the pivoted arm 17 on the cover and the lugs 21 on the body of the coupling is to provide the means for securing the cover and preventing it from turning back when put on.

On the annular seat 2 is a ring, 22, having cross pieces 23 to prevent the elastic ring from dropping through, (shown in Fig. 3,) and above that is a packing-ring, 24, (see Fig. 1,) of asbestus, rubber, or other similar material.

The body of the coupling is provided with ears or lugs 25, by which it is secured to the car or in place by bolts in any well-known way. The elastic tubing 5 is secured by slipping one end over the tubular portion 4 and securing it by rings 27 and bolts 28 in the usual way. The lugs 21 are beveled or made to incline from the inside out each way, as shown in Fig. 2. One of the arms or handles 7 is perforated near the end and a piece of chain or cable, 29, secured to it, the other end of the chain being secured to any suitable point on the car. The object of this construction is to provide the means whereby the coupling may be separated without breaking in case of accident. The inclined sides will cause the pivoted arm 17 to move up out from between the lugs 21 when sufficient force is used in turning the cover 3, thereby permitting the cover 3 to be turned by the cable or chain 29 in the direction of the arrow W until brought into the position shown in Fig. 2, in which position the cover can be easily drawn off by any force tending to separate the couplings—the breaking apart or uncoupling of two cars, for instance.

The operation of the device is very simple, the body 1 of the coupling being rigidly secured to the car by means of bolts which pass in the usual way through the lugs 25. The cover or gland 3, with the elastic tube attached, is put in place, as shown in Fig. 2, so as to permit the bolt-heads 12 to pass through the holes 11. It is now tightened by turning the

cover in the direction of the arrow *v*, which causes the inclined ways 9 and 10 to tighten against the heads of the bolts, thereby causing the sleeve 6 to press down upon the elastic ring and tighten the joint. When it is turned around sufficiently far, the arm 17 will drop in place and hold it, as before mentioned.

I claim as my invention—

1. A pipe-coupling consisting of a top provided with handles and with two curved slots having inclined ways on each side and enlarged holes 11 at the ends, an upper pipe for connecting with an elastic tubing, and a downwardly-projecting sleeve, 6, in combination with two screw-bolts provided with heads under which the inclined ways move while operating the coupling, and an elastic packing-ring and metal supporting-ring, as and for purposes described.

2. In a pipe-coupling, a cover, 3, having handles and two curved slots with bolt-holes at the ends and inclined slideways on each side, in combination with two screw-bolts secured to the body of the coupling and having heads under which the inclined ways move, a pivoted handle on the cover, and lugs 21 on the body of the coupling, between which the handle drops, for holding the coupling in position, substantially as described.

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