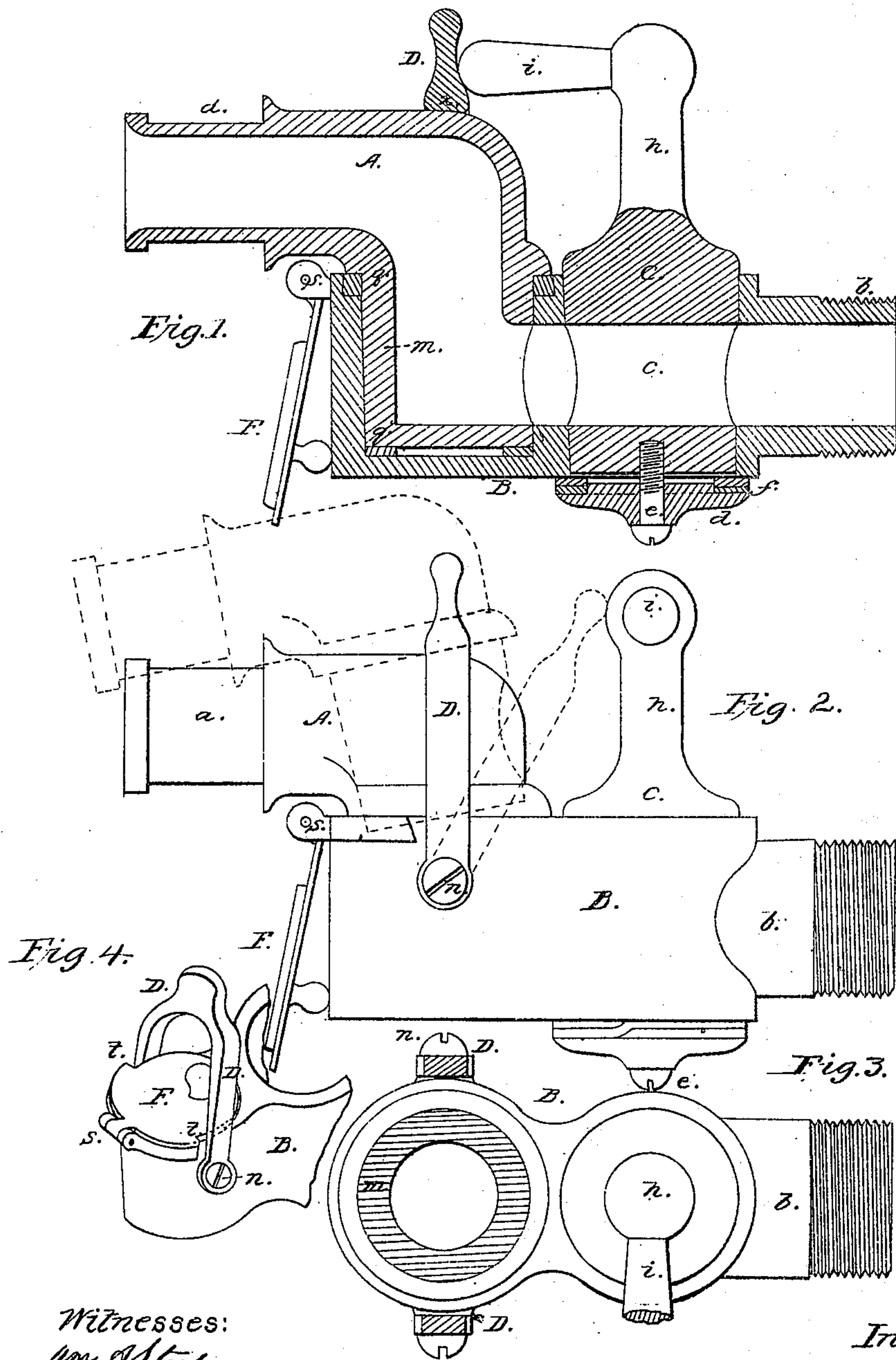


W. H. Yeaton,

Pipe Coupling.

No 83,118.

Patented Oct. 13, 1868.



Witnesses:
Wm. A. Steel.
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United States Patent Office.

WILLIAM H. YEATON, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 83,118, dated October 13, 1868.

IMPROVEMENT IN PIPE-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM H. YEATON, of Philadelphia, Pennsylvania, have invented an Improved Pipe-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a device, fully described hereafter, for readily coupling and uncoupling pipes, the said device being especially applicable to the coupling together of pipes used for conveying steam or warm water from car to car of a railroad-train, for the purpose of heating the same.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a sectional view of my improved pipe-coupling;

Figure 2, an exterior view of the same, showing the mode of coupling and uncoupling;

Figure 3, a plan view; and

Figure 4 a detached view drawn to a reduced scale, and illustrating a portion of my invention.

Similar letters refer to similar parts throughout the several views.

The coupling consists of two main portions, A and B, the former having a branch, *a*, to which is secured a pipe, and the latter a branch, *b*, to which is secured another similar pipe.

Into the portion B of the coupling is fitted a tapering plug, C, having a transverse opening, *c*, which, when the plug is in the position seen in fig. 1, forms a continuation of the interior of the branch *b*, the plug being confined to its place by the washer *d*, set-screw *e*, and packing-ring *f*. The plug has a projecting stem, *h*, and a handle, *i*, which will be referred to hereafter.

The portion A of the coupling has a hollow branch, *m*, cylindrical or slightly tapering, and arranged at right angles to the branch *a*, and this branch *m* fits snugly in a chamber formed in the portion B of the coupling, to which the portion A is confined by a yoke, D, which passes over the portion B, and is hinged thereto by set-screws *n*, the yoke bearing at *x*, fig. 1, on the portion A, between which and the portion B intervene two suitable packing-rings, *q* and *q'*.

The handle *i* is of such a length, and so arranged in respect to the opening *c* of the plug C, that when the latter forms a continuation of the interior of the branch *b*, as shown in fig. 1, the said handle will prevent the depression of the yoke.

When the plug is turned at right angles to the position shown in fig. 1, and intercepts the communication of the interior of the portion B of the coupling with that of the portion A, the yoke D can be turned downwards, to the position shown by red lines, fig. 2, and the portion B of the coupling can then be readily withdrawn from the portion A.

After separating the two portions of the coupling, the opening in the portion B, from which the portion A has been withdrawn, is covered by a lid or bonnet, F, as shown in fig. 4. This bonnet is hinged at *s* to the portion B, and is intended to prevent the admission of particles of dust or other matter to the interior of the pipe. It has, moreover, as seen in fig. 4, two lugs or shoulders, *t t*, which limit the motion of the yoke D upon its pins *n*, and prevent it from moving back beyond the proper point; and the said bonnet, when not in use, is turned down, so as not to interfere with the coupling of the two portions of the pipe.

On replacing the portions A and B of the coupling, elevating the yoke, and turning the plug so that its handle is in a position to prevent the movement of the said yoke, there is a free passage for fluids through the branch *b*, plug C, and interior of the branches *m* and *a*.

Although my invention may be applied with advantage to such pipes as have to be frequently coupled and uncoupled, it is especially applicable to the pipes which pass from car to car of a railway-train, for the conveyance of steam or hot water from the engine or tender of the train to the several cars, for warming purposes.

The portion A of the coupling may be connected to the flexible pipe of one car, and the portion B to that of the next car, and when these cars have to be uncoupled, all that is necessary is to turn the plug C so as to cut off all communication between the pipes of the two cars, then depress the yoke D, and withdraw the portion A from the portion B of the coupling.

After readjusting the portion A to the portion B, and turning the plug to the position shown in fig. 1, the yoke is retained in its position by the handle *i*, and no jarring of the cars can cause the disconnection of the portions of the coupling.

I claim as my invention, and desire to secure by Letters Patent—

1. The combination of the portions A and B of the coupling with the yoke D, the whole being constructed and arranged substantially as and for the purpose described.

2. The plug C, adapted to the portion B of the coupling, and having a handle, *i*, arranged in respect to the yoke D, substantially as set forth.

3. The combination, with the yoke D, of a lid or bonnet, F, having lugs *t t*, and hinged or otherwise adapted to the portion B of the coupling, for the purpose specified.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. YEATON.

Witnesses:

E. H. BAILEY,
WM. A. STEEL.