

T. P. HARDY.
T COUPLING FOR PIPES.

Patented Jan. 11, 1876.

No. 172,117.

Fig. 1.

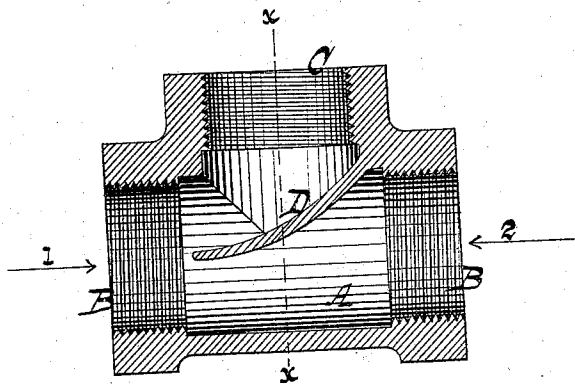
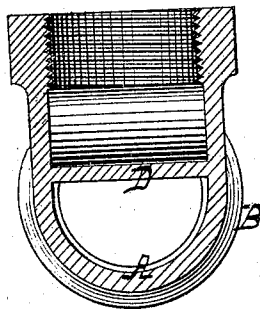


Fig. 2.



Witnesses.

Otto Aufeland

Robert E. Miller

Inventor.

Thomas P. Hardy

per
Van Santvoord & Hauff.
attys.

UNITED STATES PATENT OFFICE.

THOMAS P. HARDY, OF MARION, NEW JERSEY.

IMPROVEMENT IN T-COUPPLINGS FOR PIPES.

Specification forming part of Letters Patent No. **172,117**, dated January 11, 1876; application filed December 9, 1875.

To all whom it may concern:

Be it known that I, THOMAS P. HARDY, of Marion, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in T-Couplings for Pipes, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a central longitudinal section of my improvement. Fig. 2 is a cross-section at *x x*, Fig. 1.

Similar letters indicate corresponding parts.

This invention relates to T-couplings for pipes; and consists in the arrangement therein of a diaphragm stretching across the interior, beginning at one side of the coupling, near the place where the middle socket intersects the same, and extending out gradually toward the center of the coupling opposite or in front of the mouth of the middle socket, and terminating at a point near to or past the opposite side of the middle socket.

My invention enables me to divide a current of steam or other fluid by means of the diaphragm, so as to insure the entrance into the middle socket and its connections of a portion of the current which has entered the coupling, which result is only obtained in the case of ordinary T-couplings after the pipes and connections which are in the direct line of the coupling are filled, until which time the current naturally flows past the lateral socket, instead of passing through it and filling its connections. This result of my invention renders it of value in steam and hot-water radiators, since by means thereof the lateral connections will receive a due share of the current which enters the receiving end of the coupling.

My invention is also of great advantage in leading off condensed water, since the water coming into the coupling through one of the end sockets is prevented from interfering with or overpowering a current coming from the middle socket, or vice versa.

The letter A designates a T-coupling, having the usual end sockets B B and a middle

socket, C. D is a diaphragm cast in the interior of the coupling, extending from side to side, beginning at or near one side of the middle socket, and inclining or curving out gradually toward the center of the coupling, in front of the mouth of the middle socket.

The diaphragm extends forward into the coupling far enough to secure the desired action and result, and in this example its length is a little greater than the width of the middle socket-opening.

It is obvious that by means of my invention a current of steam entering the coupling in the direction of the arrow 1—that is to say, from the left-hand side—will be divided by the diaphragm, a part being directed into the middle socket, and the residue being left to pass through the coupling in the direction in which it entered it. Furthermore, if a current of condensed water flows into the coupling in the direction of arrow 2—that is to say, from the right-hand side through the end socket or the middle socket, or both—the diaphragm will guide it in such a manner that the currents will enter the coupling without hinderance or interference from each other, and neither current will react upon the current coming through another part of the coupling.

My invention is applicable to couplings where more than one lateral socket are employed; but where more than one are employed in connection with my diaphragm, the diaphragms are not extended out so near the center line of the coupling, but room is left between the diaphragms for a central passage in the line of the coupling.

What I claim as new, and desire to secure by Letters Patent, is—

A diaphragm combined with a T-coupling for pipes, substantially as above described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 7th day of December, 1875.

THOMAS P. HARDY. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.