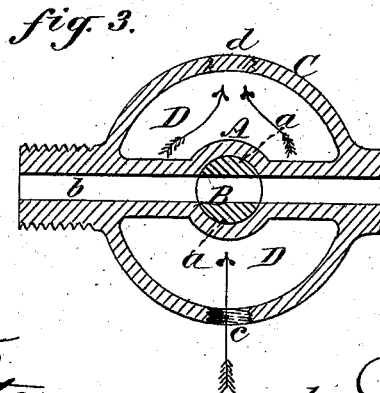
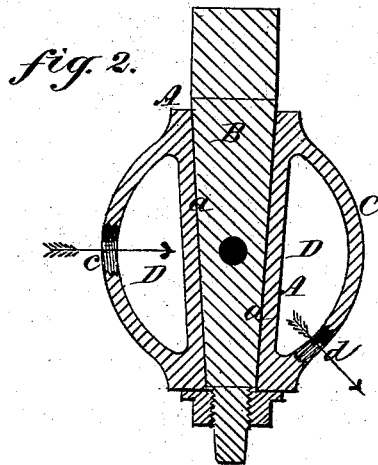
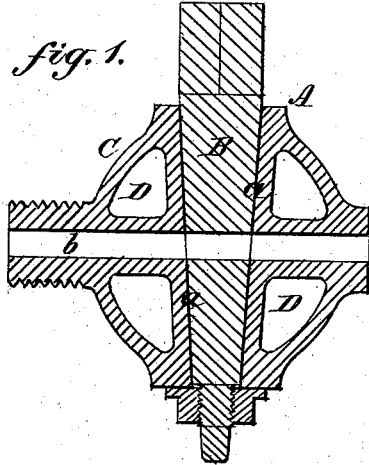


M. MEEHAN.

PET COCK FOR STEAM-ENGINE.

No. 187,661.

Patented Feb. 20, 1877.



Witnesses:

Floyd Norris
Geo. D. Patten.

Inventor:

Mathew Meehan.
by Johnson & Johnson
Attys.

UNITED STATES PATENT OFFICE.

MATHEW MEEHAN, OF ATHENS, PENNSYLVANIA.

IMPROVEMENT IN PET-COCKS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. 187,661, dated February 20, 1877; application filed September 29, 1876.

To all whom it may concern:

Be it known that I, MATHEW MEEHAN, of Athens, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Pet-Cocks for Steam-Engines, of which the following is a specification:

In steam-engines the pet-cock is liable to freeze in winter, and to interfere with the working of the pumps.

My object is to provide a simple means to keep the pet-cock in condition to open at all times, and the pumps always in working order, and free from the disadvantage of having to thaw out the cock before the pumps can be used.

For this purpose I have improved the pet-cock by a simple and novel construction, in which the cock proper is surrounded at its junction with the barrel by a steam-chamber having communication with the boiler, so that the heat from the steam will be applied directly to the seat of the cock, and within a spherical chamber through which said seat and cock both pass, making a cheap casting with the water-way, the cock-seat, and the steam-circulating chamber as a unitary, and within the immediate junction of the cock and its seat and the barrel.

In the accompanying drawings, Figure 1 represents a vertical section of a boiler pet-cock embracing my invention; Fig. 2, a similar section at right angles to Fig. 1, and Fig. 3 a horizontal section.

The tube or barrel A and the plug or cock B are of the ordinary construction for opening and closing the water-passage connecting the pumps with the boiler; but in constructing these parts I cast a spherical shell, C, forming a chamber, D, at their junction, which

surrounds the seat *a*, for the cock and the water tube or barrel *b*, and constituting in effect a pet-cock with a jacket and circulating-chamber as an entirety, and within which chamber the steam enters at the inlet *c*, and, giving out its heat upon the walls of the plug-seat and of the water tube or barrel, passes out at *d*, and keeps the cock entirely free from freezing, and the pumps always in condition for use. A current of steam is passed round the pet-cock seat, where it joins the barrel, by means of a suitable connecting-pipe, provided with a cock to let on and cut off the flow of steam when desired. The opening *d* for the escape of the steam is made at the bottom of the chamber, to allow the condensation to pass out, while the inlet-opening *c* is arranged to deliver the steam directly against the walls of the plug-seat and water ways.

The device is especially applicable for locomotives.

I claim—

1. A pet-cock provided with a steam jacket or chamber, C D, encompassing the intermediate junction of water-tube *b* and cock B, around which junction the steam enters, circulates, and passes out, substantially as described.

2. In a pet-cock provided with a steam-jacket, as described, the inlet-port *c*, arranged in such position as to cause the warming steam-jet to impinge directly upon the junctions of cock and barrel, in combination with the outlet *d*, for the purpose set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

MATHEW MEEHAN.

Witnesses:

GUY M. TOZER,
W. O. THURSTON.