(No Model.)

J. G. BLOUNT.

CHECK VALVE.

No. 344,620. Patented June 29, 1886.

Fig. 2.

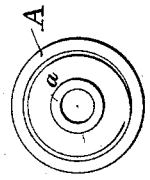

Fig. 3.

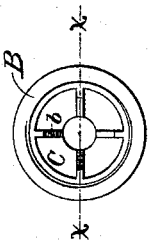

Fig. 1.

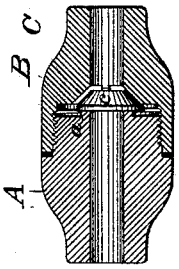

Fig. 4.

Witnesses
John F. Nelson.
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Inventor
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UNITED STATES PATENT OFFICE.

JOHN G. BLOUNT, OF BOSTON, MASSACHUSETTS.

CHECK-VALVE.

SPECIFICATION forming part of Letters Patent No. 344,620, dated June 29, 1886.

Application filed February 21, 1885. Serial No. 156,851. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. BLOUNT, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Check-Valves, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to simplify and improve the construction of check-valves adapted to be used in or as connections between horizontally-arranged pipes employed for the circulation of steam or fluids.

One end of one-half of my improved check-valve case has a boss or projection and the other half has at one end a recess to receive the tapered end of a frusto-conical valve, the broader end of the valve seating itself upon the said boss or projection by gravity and serving to check the backward movement of the valve, the recess being of sufficient size to permit a forward and backward movement of the valve, as well as a limited rising-and-falling movement.

Figure 1 in section represents a check-valve embodying my invention; Fig. 2, an inner end view of the externally-threaded half of the case of the check-valve; Fig. 3, a like view of the internally-threaded half, and Fig. 4 shows the valve by itself.

The externally-threaded half or portion A of the case of the valve is provided about its central opening with a boss or projection, *a*, preferably made annular and of a diameter externally less than, and having an opening also less in diameter than, the large end of the valve *c*, which is made of conical shape from near its larger end toward its opposite end. The half or portion B of the valve threaded internally to enable it to be engaged with the part A is recessed, as at C, to receive the valve *c*, and has two or more ribs, *b*, herein shown as four, which serve to arrest the conical end of the valve as the said valve is forced away from the annular boss or projection by the pressure of the steam or water against the large end of the valve as the steam or water moves through the check-valve case in the regular direction of its flow, the spaces between the ribs *b* permitting the water to circulate past the valve *c*. The space formed by the ribs *b* is sufficient to permit the valve *c* to move forward and backward freely, and also to permit of a limited rising-and-falling movement thereof, and the faces of the said ribs *b* are inclined to co-operate with the valve *c*, serving as guides therefor in the backward movement of the valve. Thus when steam or fluid is forced through the valve-case the valve *c*, normally seated by gravity, is forced forward in the direction of the arrow, rising slowly, guided by such ribs *b* as it may bear upon, according to the position of the valve, until it presses against all the ribs which permit free passage through the valve-case. Should the pressure be removed the valve *c* will immediately become seated by gravity, and in so doing will follow down the inclined faces of the ribs *b*. The end of the valve next the boss or projection *a* being of a diameter greater than the opening through the center of the boss enables the valve to always fully cover the boss and the said opening as it drops from the conical recess or from the ribs upon the said boss, which latter is the regular seat for the valve. The two parts of the valve-case preferably have a packing between them.

The valve herein described is intended to be used in connection with horizontally-arranged pipes; but it is obvious that the same may be employed to good advantage in connection with vertically-arranged pipes.

I claim—

The herein-described check-valve, composed of the part A, having the boss or projection *a*, and the part B, having the recess, and two or more ribs having inclined faces, and of the frusto-conical valve *c*, having a backward-and-forward movement and also a rising-and-falling movement within the recess, seating itself upon the projection *a* by gravity, and guided in its movements by the inclined ribs, all substantially as described.

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

JOHN G. BLOUNT.

Witnesses:

B. J. NOYES,

F. CUTTER.