

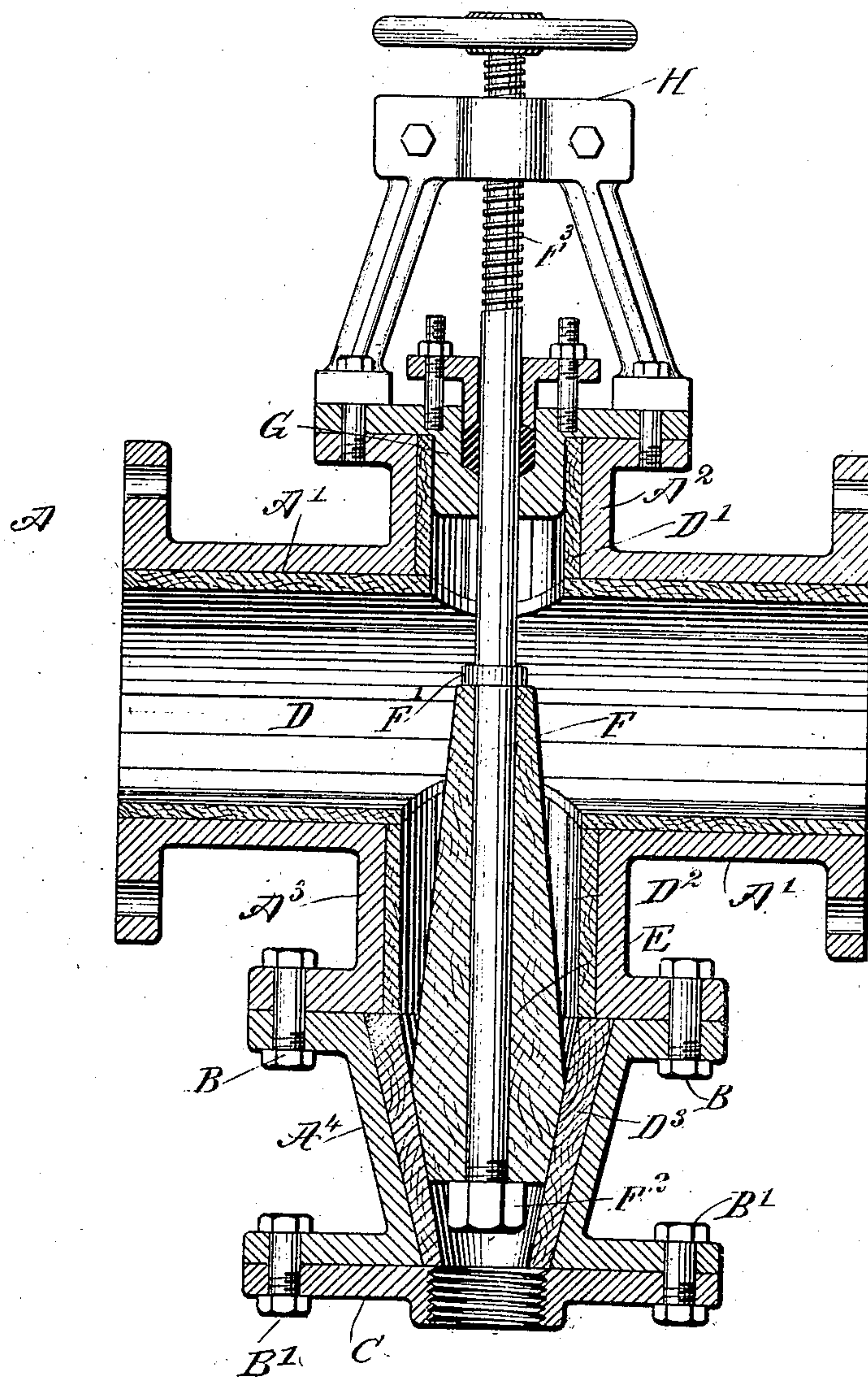
No. 731,220.

PATENTED JUNE 16, 1903.

R. A. QUIN.  
VALVE.

APPLICATION FILED DEC. 26, 1902.

NO MODEL.



WITNESSES:

*J. A. Propoy*  
*Rev. J. H. Hester*

INVENTOR

*Robert A. Quin*

BY

*Wm. H. Hester*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ROBERT A. QUIN, OF SHAMOKIN, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO MORRIS WILLIAMS, OF WILKESBARRE, PENNSYLVANIA, WILLIAM R. REINHARDT, OF SHAMOKIN, PENNSYLVANIA, AND ISAAC D. WEST, OF DANVILLE, PENNSYLVANIA.

## VALVE.

SPECIFICATION forming part of Letters Patent No. 731,220, dated June 16, 1903.

Application filed December 26, 1902. Serial No. 136,649. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT A. QUIN, a citizen of the United States, and a resident of Shamokin, in the county of Northumberland and State of Pennsylvania, have invented a new and Improved Valve, of which the following is a full, clear, and exact description.

The invention relates to valves required to be acid-proof internally; and its object is to provide a new and improved valve which is simple and durable in construction and completely acid-proof to permit its use for the passage of mine or acid waters, to insure long life of the valve, and at the same time prevent leakage.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure is a sectional side elevation of the improvement.

The metallic valve-body A (shown in the drawing) is in the form of a cross and has a longitudinal bore A', a top arm A<sup>2</sup>, and a bottom arm A<sup>3</sup>, on which latter is secured by bolts B a thimble A<sup>4</sup>, to which a threaded pipe-plate C is fastened by bolts B'. The body and parts mentioned are covered on the inside with wooden linings D, D', D<sup>2</sup>, and D<sup>3</sup>, respectively, which render the interior of the valve-body acid-proof. The linings D, D', and D<sup>2</sup> are cylindrical in shape, while the lining D<sup>3</sup> is in the form of an inverted frustum of a cone to form a wooden valve-seat for the tapering sides of a wooden valve-plug E, secured on a metallic valve-stem F between a fixed collar F' and a nut F<sup>2</sup>. The upper end of the valve-stem F extends through a suitable stuffing-box G, and the outer end of the valve-stem is connected with the usual operating device for moving the valve E to or from its seat D<sup>3</sup>. The operating device shown in the drawing consists of a bon-

net H, in which screws the upper threaded end F<sup>3</sup> of the valve-stem F; but it is to be understood that I do not limit myself to this particular means for actuating the valve.

The base end of the lining D<sup>3</sup> is somewhat thicker than the lining D<sup>2</sup> to give more strength to the valve-seat and to prevent upward movement of the valve-seat in the thimble A<sup>4</sup> by the base end of the valve-seat abutting against the under side of the arm A<sup>3</sup>, as indicated in the drawing.

The shank of the valve-plug E is tapering in an opposite direction to the taper of the valve proper, and this shank is made of considerable length, so as to give the desired strength to the valve.

Now from the foregoing it will be seen that by having the interior of the valve-body lined with wood and the valve-plug E likewise made of wood it is evident that the said parts are not affected by any acid that may pass through the valve when the valve is opened, and consequently long life of the valve is insured. In case the valve-seat D<sup>3</sup> is worn out the thimble A<sup>4</sup> can be readily removed and a new valve-seat placed therein. In a like manner the valve-plug E can be renewed in case it is desirable to do so.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A valve, comprising a metallic body having a main body portion and an arm having parallel walls extending from one side of said main body portion, a thimble secured to the outer end of said arm and having its inner walls tapered, all of said parts being lined on the inside with wood, the wooden lining of the thimble forming a valve-seat, and a wooden valve-plug having tapered sides at its bottom end to fit said valve-seat, said plug also having an elongated inwardly-tapering top portion extending upwardly from said valve-seat, through said arm into the main body portion of the valve.

90

2. A valve comprising a metallic body having a wooden lining, a removable thimble having a wooden conical valve-seat abutting against an arm of the said metallic body, and a  
5 wooden plug having tapering sides, adapted to be seated on the said conical valve-seat, as set forth.

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

ROBERT A. QUIN.

Witnesses:

JNO. MULLEN,  
F. D. BRINDEL.