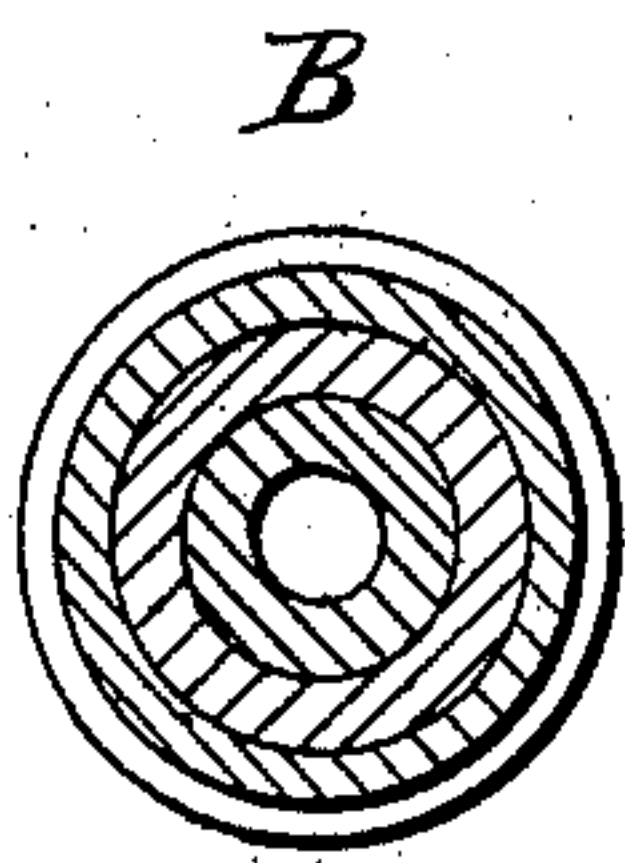
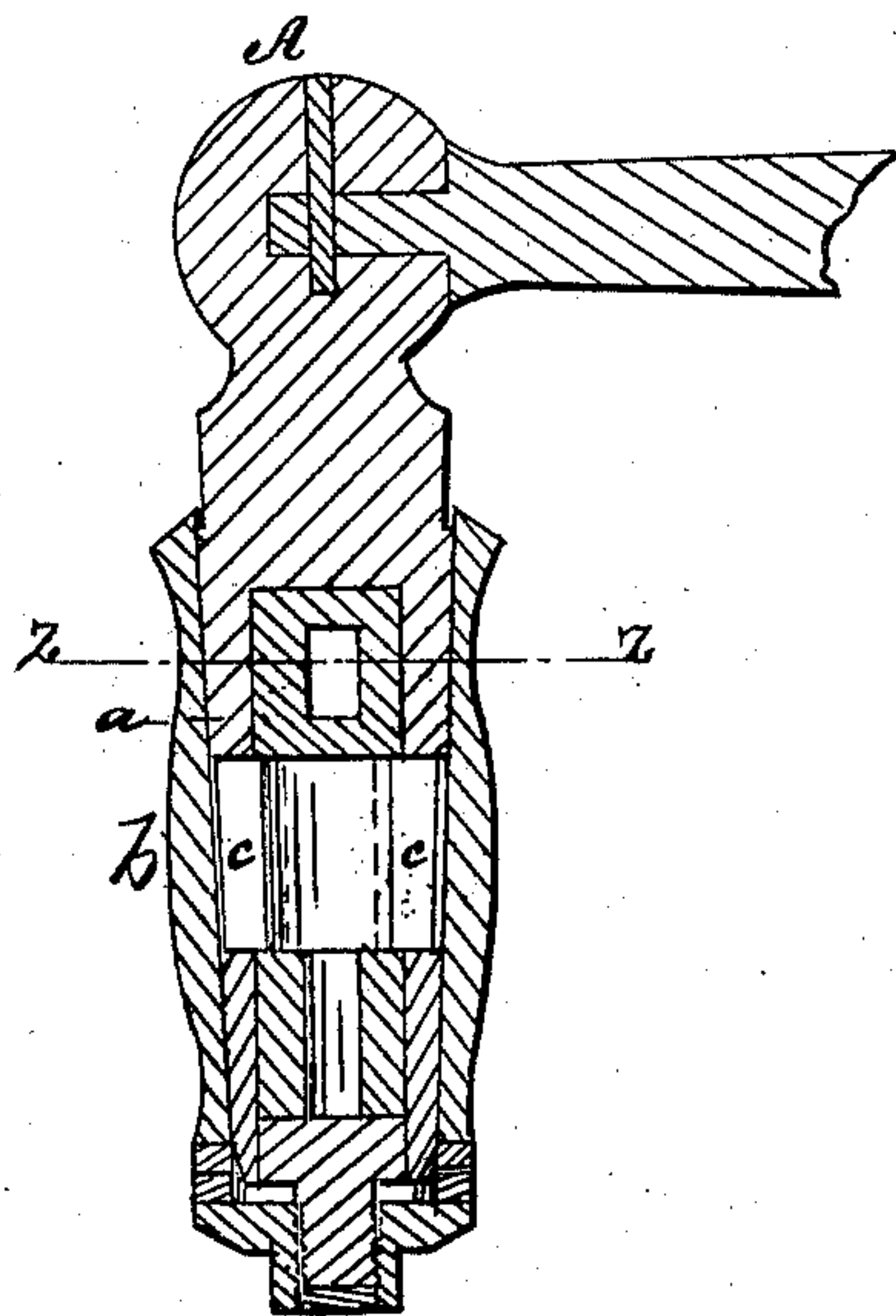


H. Strater, Jr.

Cock,

No 55,931,

Patented June 26, 1866.



Inventor;

Herman Strater Jr.

By his Atty,

Crosby & Gould

Witnesses;

S. B. Kidder

W. W. Frothingham

UNITED STATES PATENT OFFICE.

HERMAN STRATER, JR., OF ROXBURY, MASSACHUSETTS.

IMPROVEMENT IN STOP-COCKS.

Specification forming part of Letters Patent No. 55,931, dated June 26, 1866.

To all whom it may concern:

Be it known that I, HERMAN STRATER, Jr., of Roxbury, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Stop-Cocks; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In that variety of stop-cocks and faucets having taper plugs with mortises or passages through them, which remain filled with liquid when the plug is so turned as to shut off the flow of liquid through the cock, much trouble arises in the winter where such cocks are located in exposed situations, occasioned by the breakage of some of their parts consequent upon the freezing and expanding of the liquid thus shut up and filling the cavity in the plug.

To prevent such breakage consequent upon the freezing of the liquid in the plug is the object of my invention, which consists in making a cavity in the plug, either above or below, or both above and below, the mortise through the plug, and placing in such cavity or cavities elastic yielding material, preferably vulcanized rubber, though other elastic yielding material will answer the purpose—as, for example, cork, &c.

Of the drawings, A is a section taken through the barrel and plug of an ordinary water-faucet modified so as to embody my invention. B is a cross-section of the same, taken in the line *z z*, (seen in drawing A.)

The plug is marked *a*, the barrel *b*, and the mortise or passage through the plug *c*. The plug is shown as made with one cavity above and one below the mortise *c*. The cavity above the mortise is represented as filled with vul-

canized rubber. The cavity below the mortise is shown as occupied by a section of rubber tube or pipe.

To facilitate placing the filling in the plug, the lower part thereof (marked *d*) may be made separate from the body of the plug, so that the filling may be pushed up into the cavity therein, made by coring or boring, and then the piece *d* may be secured in its place by screw-threads thereon, or by solder. The filling may be held in place by pins or otherwise, if necessary. It will now be obvious that if the plug of the cock is turned in the barrel thereof to the position seen in A, when fluid has been passing through the cock, the passage *c* will remain full, and that upon the freezing of the fluid in said passage the elastic yielding filling will merely be temporarily compressed by expansion of the fluid as it freezes, thus relieving the parts of the cock from the great pressure which it would otherwise be subjected to.

In very large cocks, where the plugs are cored out to save unnecessary weight of metal, there being a large cavity in the plug besides the mortise through it, there is an increased liability to damage of the cock consequent upon freezing, because of the greater amount of expansion of the larger body of water; hence with such plugs my invention is very important.

I claim—

In a stop-cock, providing its plug with elastic yielding filling, substantially as and for the purpose described.

HERMAN STRATER, JR.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.