(No Model.)

C. F. BINGHAM.

STOP COCK BOX FOR WATER OR GAS PIPES.

No. 368,372. Patented Aug. 16, 1887.

Fig. 1.

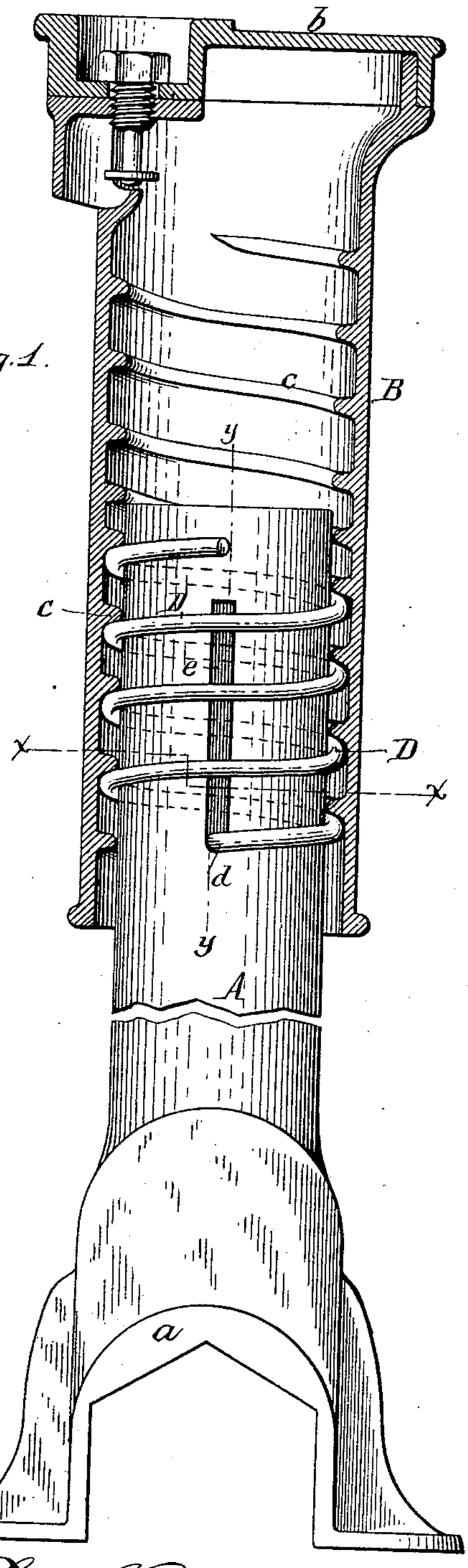


Fig. 2.

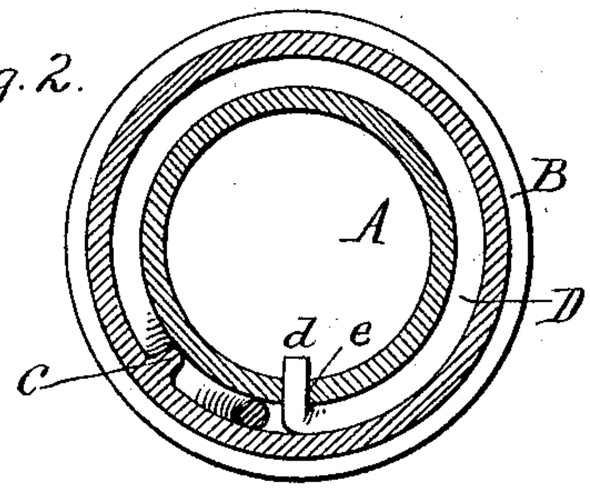
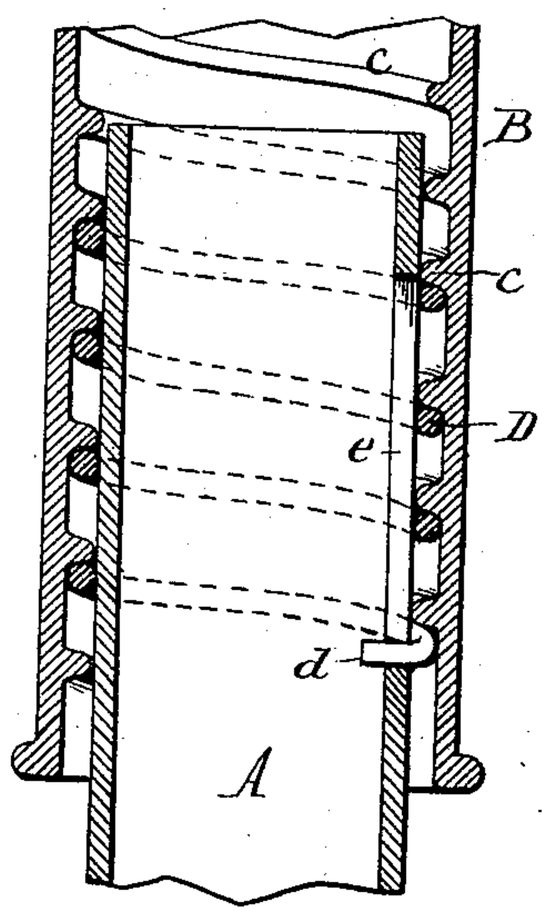


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES F. BINGHAM, OF BUFFALO, NEW YORK.

STOP-COCK BOX FOR WATER OR GAS PIPES.

SPECIFICATION forming part of Letters Patent No. 368,372, dated August 16, 1887.

Application filed April 18, 1887. Serial No. 235,222. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. BINGHAM, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Stop-Cock Boxes for Water or Gas Pipes, of which the following is a specification.

This invention relates to the tubular boxes or casings which are employed in connection with water, gas, and other pipes for the purpose of affording access to the cocks which are arranged in these pipes below the surface of the ground. These boxes or casings consist usually of two tubular parts so connected that the upper part can be vertically adjusted on the lower part as may be necessary to place the top of the box about on a level with the surface of the ground. In many localities these boxes are placed in the streets, where heavy wagons pass over the same, and, as the connection between the two parts of the box is rigid, the pressure of a loaded vehicle passing over the box is liable to force the box down in the ground, together with the gas or water pipe over which it is placed, thereby causing leaks. Another difficulty experienced in the use of these boxes is that they are often raised above the ground by the frost.

The object of my invention is to overcome these difficulties; and it consists of the improvement which will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional elevation of my improved stop-cock box. Fig. 2 is a horizontal section in line *x x*, Fig. 1. Fig. 3 is a vertical section in line *y y*, Fig. 1.

Like letters of reference refer to like parts in the several figures.

A represents the lower part of the tubular box, provided with the usual foot, *a*, which straddles the pipe over which it is placed.

B represents the upper part of the box, provided with a cover, *b*, of any suitable construction.

c is an internal screw-thread formed in the upper part, B.

D represents a spiral spring which is coiled around the upper portion of the lower part, A, and which engages with the screw-thread *c* of the upper part, B, so as to support the latter. The lower portion of the upper part, B, surrounds the upper portion of the lower part, A, and the spring D. The latter has vertical play in the screw-thread *c*, so that the upper part, B, can be depressed by compressing the spring. The lower end, *d*, of the latter is bent inwardly, as represented in Figs. 2 and 3, and engages in a vertical slot, *e*, formed in the lower part, A, and rests on the bottom of said slot, as represented in Fig. 1, when the parts are in their normal position.

The upper part, B, of the box can be raised or lowered on the lower part, A, in substantially the same manner as if both parts were connected by any of the usual connecting devices.

When a heavy load passes over the box, the upper part, B, yields by compressing the spring, thus preventing the pressure from being directly transmitted to the lower part. This prevents hard shocks from falling on the lower part of the box, which would disarrange the service-pipes. When the frost lifts the upper part, B, of the box, the lower end of the spring rises in the vertical slot *e* of the lower part, A, thereby preventing the lower part from being raised, and when the action of the frost ceases the upper part and the spring settle back to their normal position.

I claim as my invention—

1. The combination, with the upper and lower parts of the box, one of which parts is provided with a screw-thread, of a spiral spring attached to the other part and engaging with said screw-thread, substantially as set forth.

2. The combination, with the lower part, A, provided with a vertical slot, *e*, of the upper part, B, provided with an internal screw-thread, *c*, and a spiral spring, D, engaging with said screw-thread and seated in the slot of the lower part, substantially as set forth.

Witness my hand this 9th day of April, 1887.

CHARLES F. BINGHAM.

Witnesses:

JNO. J. BONNER,

CARL F. GEYER.