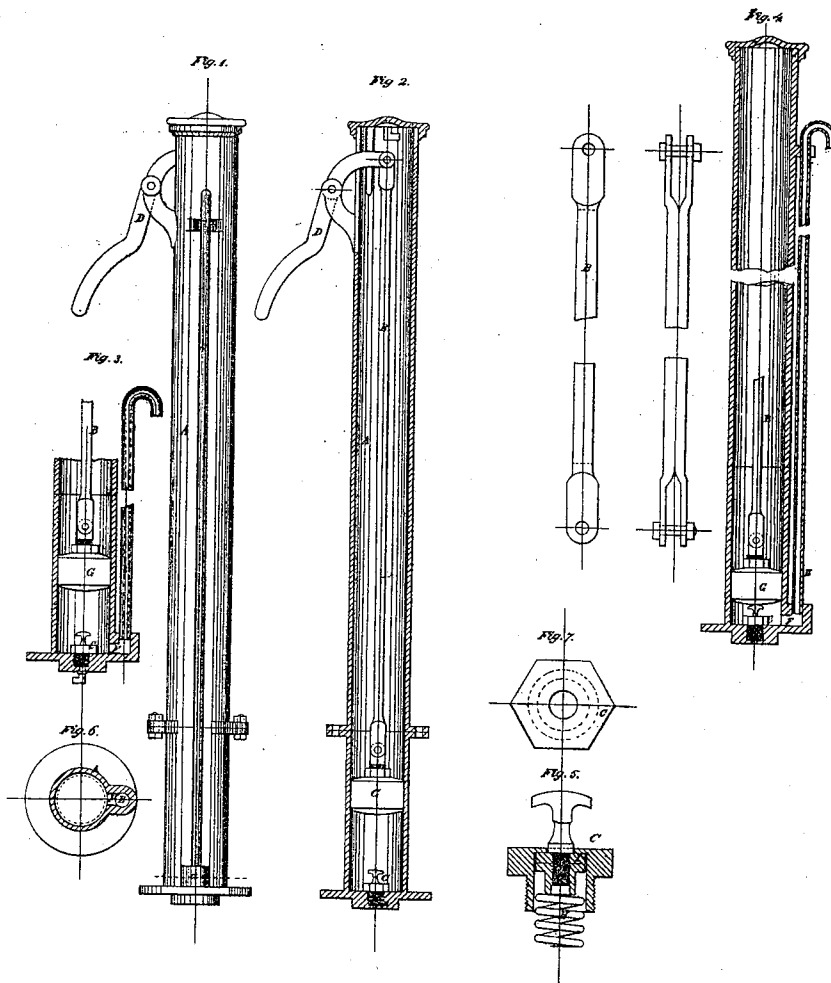


J. CULVER.
HYDRANT AND FIRE PLUG.

No. 14,712.

Patented Apr. 22, 1856.



UNITED STATES PATENT OFFICE.

JOHN CULVER, OF BALTIMORE, MARYLAND.

WASTE DEVICE FOR HYDRANTS.

Specification forming part of Letters Patent No. 14,712, dated April 22, 1856; Reissued September 27, 1859, No. 828.

To all whom it may concern:

Be it known that I, JOHN CULVER, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement in Hydrants and Fire-Plugs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is an elevation of hydrant on side showing discharge pipe. Fig. 2 is a section through axis. Fig. 3 is a sectional view of lower part, showing plunger elevated. Fig. 4 is a sectional view, with plunger down. Fig. 5 is a full size view of valve. Fig. 6 is a crop section through a Fig. 1. Fig. 7 is a top view of valve.

Similar letters of reference in the several figures denote the same part.

The object of my invention is the construction of hydrants so that they shall not be rendered inoperative by the freezing of water within them.

The nature of my invention consists in so arranging the plunger relative to the discharge pipe, that on the rising of the plunger a chamber will be formed in the lower portion of the hydrant for the reception of the water left in the pipe; which chamber will, by the construction of the hydrant be below the surface of the earth sufficiently far to prevent freezing.

In the drawing, A is the body of the hydrant; B, the connecting rod of plunger; G, the plunger lifted by lever D; E, the discharge pipe, communicating with A by chamber F.

C is the valve governing entrance of water; the spiral spring H and india rubber packing I shutting off the supply. This valve is screwed into the bottom of hydrant, and can readily be removed for repairs.

The elevation of long arm of lever D depresses the plunger upon valve C, admitting water to the hydrant, which is discharged as is shown in Fig. 4.

The lifting of the plunger to position shown in Fig. 3, causes spring H to act upon valve C and force packing I close to the seat, and thus cut off a further supply. The water left in discharge pipe flows back into chamber formed by the elevation of plunger and there remains, together with a portion at the same level in pipe E, beyond the reach of frost. The body of the hydrant being sufficiently long to carry the lower portion below the freezing limit. The rise of the plunger is just sufficient to give the requisite capacity of chamber for the contents of discharge pipe.

I claim—

The described arrangement of the plunger relative to the discharge pipe, and capable of elevation proportional to the capacity of said pipe, for forming a chamber in the lower portion of the hydrant for the reception of the contents of the discharge pipe, substantially as, and for the purposes specified.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

JOHN CULVER.

Witnesses:

GEO PATTEN,

JOHN S. HILLINGSHEAD.