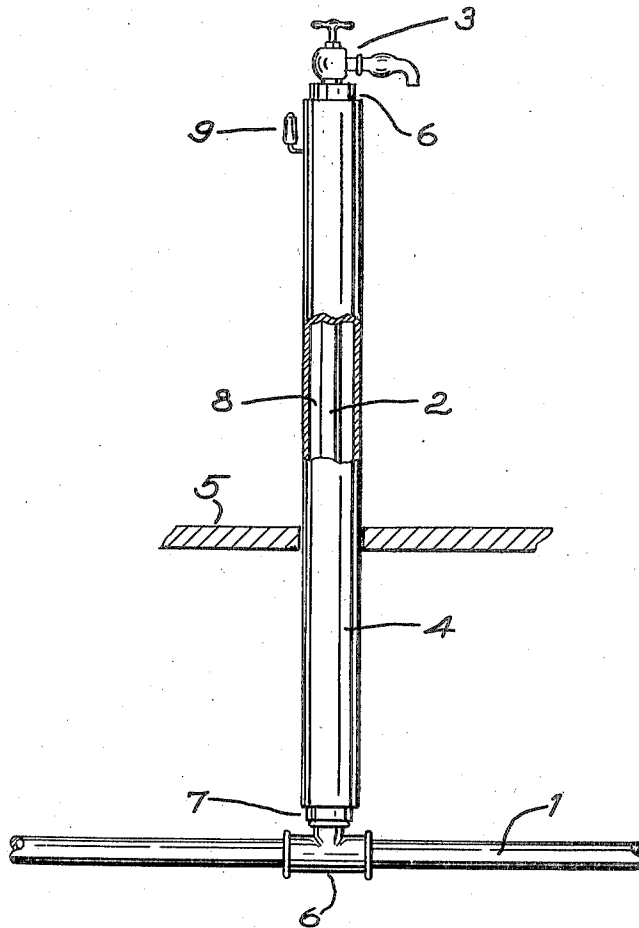


C. M. HANNA.  
ANTIFREEZING HYDRANT.  
APPLICATION FILED SEPT. 18, 1918.

1,322,014.

Patented Nov. 18, 1919.



Inventor  
*Carl M. Hanna*

# UNITED STATES PATENT OFFICE.

CARL M. HANNA, OF DEL NORTE, COLORADO.

ANTIFREEZING HYDRANT.

1,322,014.

Specification of Letters Patent.

Patented Nov. 18, 1919.

Application filed September 18, 1918. Serial No. 254,533.

*To all whom it may concern:*

Be it known that I, CARL M. HANNA, a citizen of the United States, residing at Del Norte, in the county of Rio Grande and State of Colorado, have invented certain new and useful Improvements in Antifreezing Hydrants, of which the following is a specification.

This invention relates to improvements in hydrants and has for its object to provide means for preventing freezing of the water pipe.

Another object of the invention is to provide an air tight compartment for incasing a water pipe to prevent freezing thereof.

With the above and other objects in view I have invented the device illustrated in the accompanying drawings in which—

The figure is an elevational view of a hydrant including my invention.

Like reference characters indicate like parts throughout the following specification and in the several views in the drawings in which 1 indicates a water main and 2 a branch pipe therefor leading to the faucet 3. The pipe 2 is inclosed in a larger pipe 4 which extends from the faucet down through the floor 5 to the joint 6 to the main 1. Air tight closures 6 and 7 are provided for the upper and lower ends of pipe 4 whereby an air tight space 8 around pipe 2 is provided in order to prevent freezing of water in said pipe.

An escape valve 9 may be provided in the upper end of pipe 4 for the escape of air and vapor from the space 8 through applying heat to the lower part of pipe 4 after first having put a small quantity of water in the space 8 and then securely closing the same through means of the closure members 6 and 7. Said heating will vaporize the water to such an extent that all air and a larger proportion of the vapor will be forced out through valve 9, thus creating a vacuum in the space 8.

When the hydrant is in a room warm

enough to prevent freezing it will not be necessary to have casing pipe 4 extend for the entire length of the pipe 2 within the room as the desired results will be had by having it terminate just above the floor line and extend down below the floor to a point where freezing is impossible.

Having now described my invention that which I claim as new and desire to secure by Letters Patent is:

1. In a hydrant a pipe and an anti-freezing casing therefor, said casing consisting of a tube larger in diameter than the pipe, an escape valve in said tube, the spaced apart walls of the pipe and tube providing a chamber in which a vacuum may be created, by heating water provided in the tube to drive off air and vapor through said valve.

2. In a hydrant a pipe, an anti-freezing casing therefor, a chamber provided between said casing and chamber in which a vacuum may be created by heating water provided in the casing to drive off air and vapor.

3. In a hydrant a pipe, an anti-freezing casing therefor, a chamber provided between said casing and chamber in which a vacuum may be created by heating water provided in the casing to drive off air and vapor, a valve provided in said casing through which said air and vapor may be driven.

4. In a device of the character described a main line pipe, a branch line pipe leading therefrom and an enlarged tube inclosing said branch pipe whereby spaces are provided in the said tube, and a valve in the upper end of said tubing for exhausting air and vapor created through the heating of water in the tube.

In testimony whereof I affix my signature in the presence of two witnesses.

CARL M. HANNA.

Witnesses:

W. SCOTT CARROLL,  
PAUL F. HANNA.