

April 8, 1924.

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J. E. KESTLER

HEATER UNIT FOR PIPES

Filed July 14, 1922

2 Sheets-Sheet 1

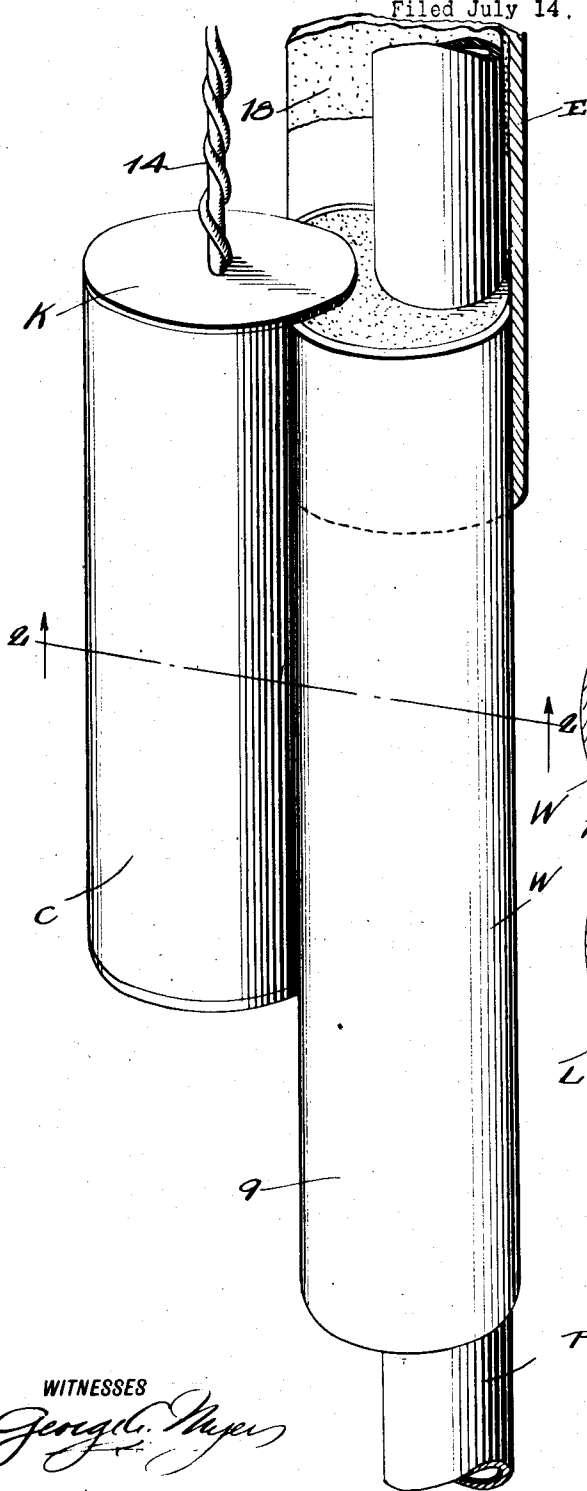


Fig. 1.

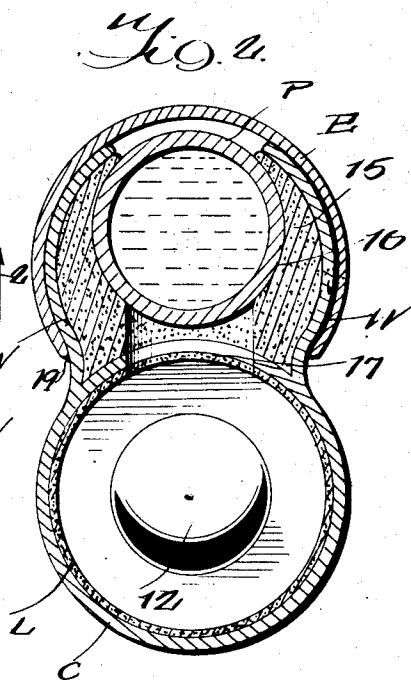


Fig. 2.

WITNESSES
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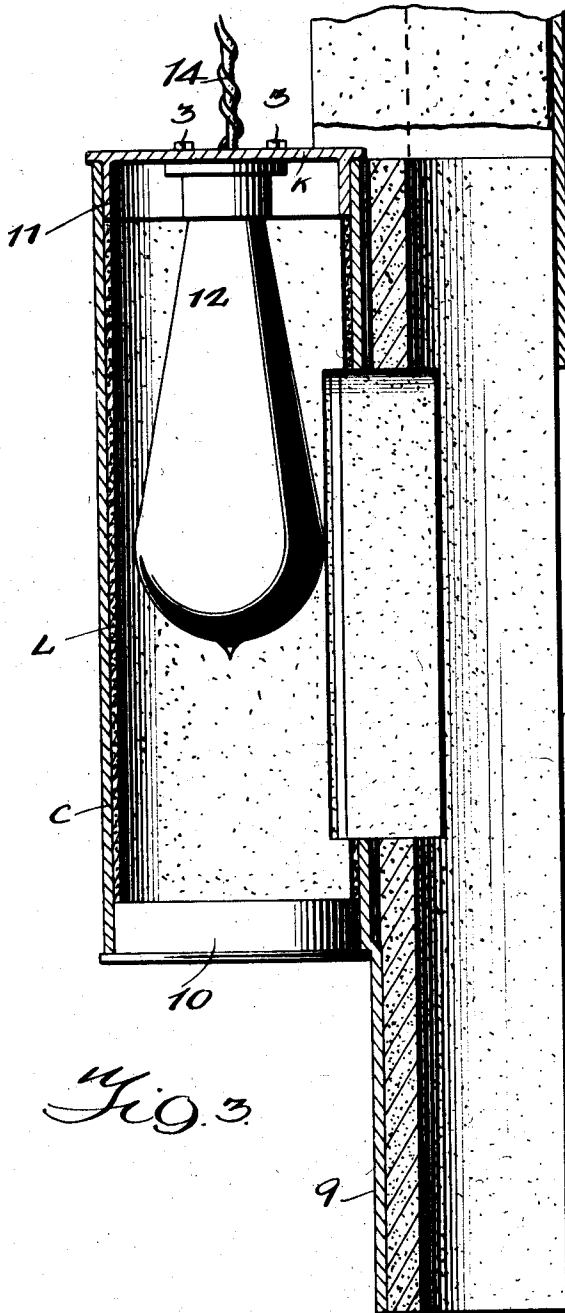


Fig. 3

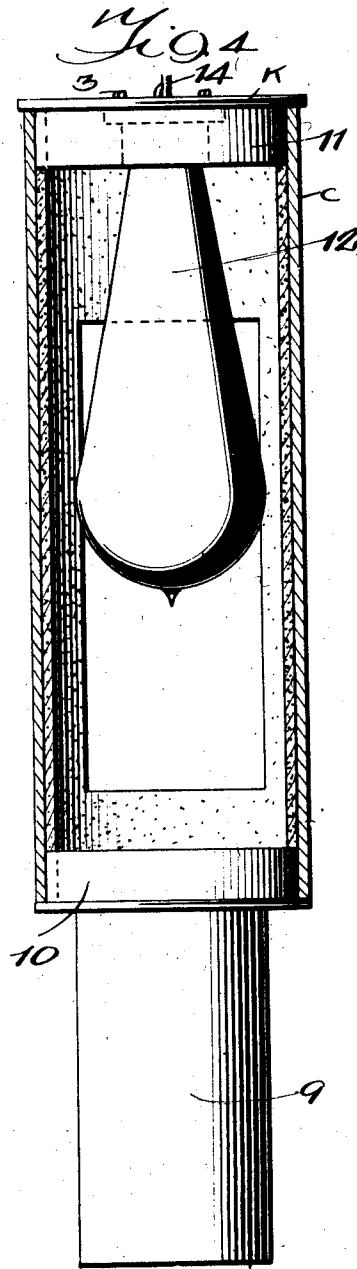


Fig. 4

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UNITED STATES PATENT OFFICE.

JOHN E. KESTLER, OF FOUNTAIN INN, SOUTH CAROLINA.

HEATER UNIT FOR PIPES.

Application filed July 14, 1922. Serial No. 575,106.

To all whom it may concern:

Be it known that I, JOHN E. KESTLER, a citizen of the United States, and a resident of Fountain Inn, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Heater Units for Pipes, of which the following is a specification.

This invention relates to a heater unit for pipes.

The object of the invention is to provide a heating unit which may be applied to pipes employed for distributing water or a similar liquid and which are adapted to prevent freezing of the water in said pipes during extremely low surrounding temperature.

It is also an object of the invention that the device be inexpensive to manufacture and economical in operation.

Other objects will hereinafter appear.

The invention is illustrated by way of example in the accompanying drawings, in which:—

Figure 1 is a perspective view of the device when applied.

Figure 2 is a transverse sectional view taken substantially on the line 2—2 of Figure 1.

Figure 3 is a vertical sectional view of the heater unit.

Figure 4 is a similar sectional view taken through the heater and at right angles to the views shown in Figure 3.

Referring to the drawings more particularly, the heater may consist in a casing C, which is preferably cylindrical, and has its interior lined with asbestos as at L. The lower end of the casing is provided with a closure 10, while its upper end is open and fitted with a cap K, said cap having a downwardly extending flange 11 to form a tight closure with the casing and supporting an electric incandescent lamp 12, the base of said lamp being secured to the cap by the means of bolts or the like as at 13, and said cap being provided with a suitable opening through which there may extend the cord 14 for supplying the lamp 12 with electric current. The casing C may be provided with a pair of wings W which are resilient and arcuate in shape. Within these wings there may be positioned a lining of insulating material such as asbestos or the like as indicated generally at 15 and which may extend entirely the length of the wings W, said wings preferably extending below the casing

C, as shown, and these extended portions being integrally joined as at 9. The interior surface of the lining or insulation 15 should be arcuate as at 16 so that this lining may fit about a pipe P.

At a point in horizontal alignment with the lamp 12 there should be provided an opening 17 which should extend through the insulation L of the casing C, the casing C itself, and the lining or insulation 15.

As is shown the wings W substantially encircle the pipe P to be heated and these wings therefore substantially form a casing with insulating material therein adapted to surround the pipe to which the lamp 12 is adapted to supply heat through the opening 17.

For further protecting the pipe P, there is provided an extension generally indicated by the reference character E and which consists in a pipe section recessed longitudinally and made of resilient material. Suitable insulation 18 is provided for this section of the pipe. The lower end portion of the extension is not lined with insulation and is adapted to telescope about the wings W.

It is thought from the description heretofore given that the operation of this present device may be entirely and clearly understood. The device is particularly useful in the winter for preventing freezing of water pipes in the house or buildings which are exposed to extremely low temperatures. The device may be applied to a pipe in a short interval of time and with a small amount of labor, and the cord 14 may be led to a suitable source of electric current supply for energizing the lamp 12. The removable feature of the device is valuable in that it permits the same to be sold at any store and sold in sizes so that they may be utilized in connection with any diameter of pipe.

I claim:

1. In combination, a pipe, insulation about said pipe, said pipe having an exposed portion with respect to said insulation, an enclosure arranged in close relation to the insulation about the pipe, and said enclosure having an opening in register with the exposed portions of said pipe, and means whereby a heating medium may be provided in said enclosure.

2. In combination, a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said casing

and insulation having aligned openings to expose a portion of said pipe, and a heating chamber communicating with said openings.

3. In combination, a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said casing and insulation having aligned openings to expose a portion of said pipe, a second casing having an opening communicating with said openings, and means for positioning a heating element in the last named casing.

4. In combination; a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said casing and insulation having aligned openings to expose a portion of said pipe, a second casing having an opening communicating with said openings, and means for suspending an electric lamp in the last named casing.

5. In combination, a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said insulation and casing having aligned openings to expose a portion of the pipe, a second casing carried by the first named casing and having an opening communicating with the opening of the first named casing, and a

heating chamber positioned in the second casing.

6. In combination, a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said insulation and casing having aligned openings to expose a portion of the pipe, a second casing carried by the first named casing and having an opening communicating with the opening of the first named casing, a heating chamber positioned in the second casing, and an extension from the first named casing encircling other portions of the pipe.

7. In combination, a pipe, a casing surrounding said pipe, insulation interposed between said casing and pipe, said insulation and casing having aligned openings to expose a portion of the pipe, a second casing carried by the first named casing and having an opening communicating with the opening of the first named casing, a heating chamber positioned in the second casing, an extension from the first named casing encircling other portions of the pipe, and insulation material interposed between the casing section and the pipe.

JOHN E. KESTLER.