SARAH E. SAUL.

METALLIC CASINGS FOR LEAD PIPE.

No. 182,485. Patented Sept. 19, 1876.

Fig 1

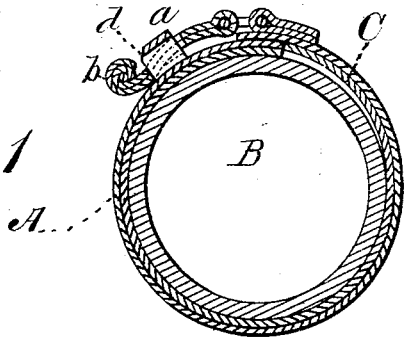


Fig 2

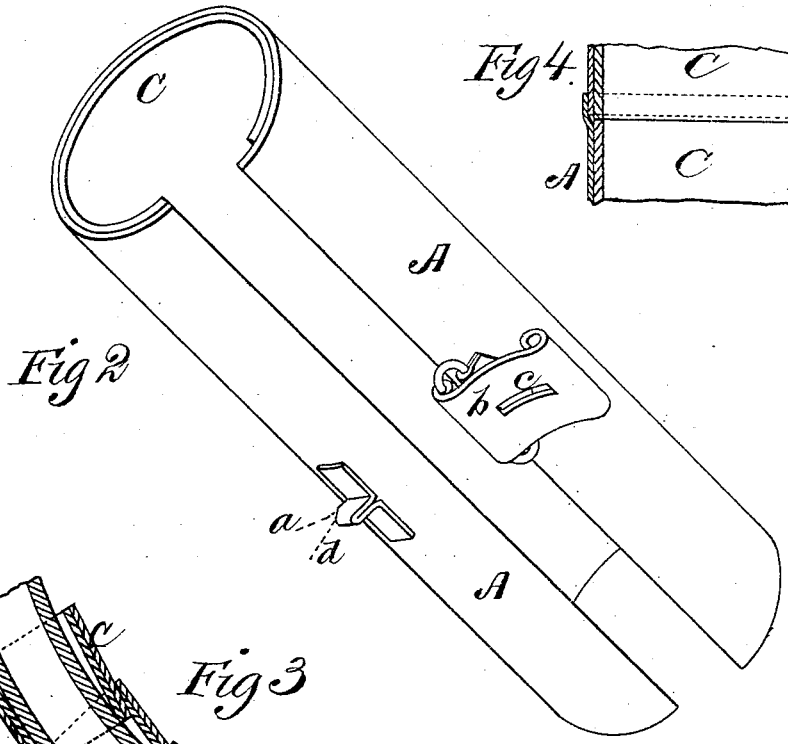


Fig 4.

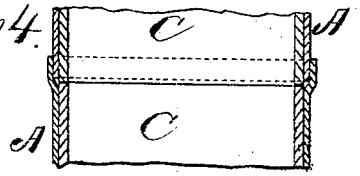
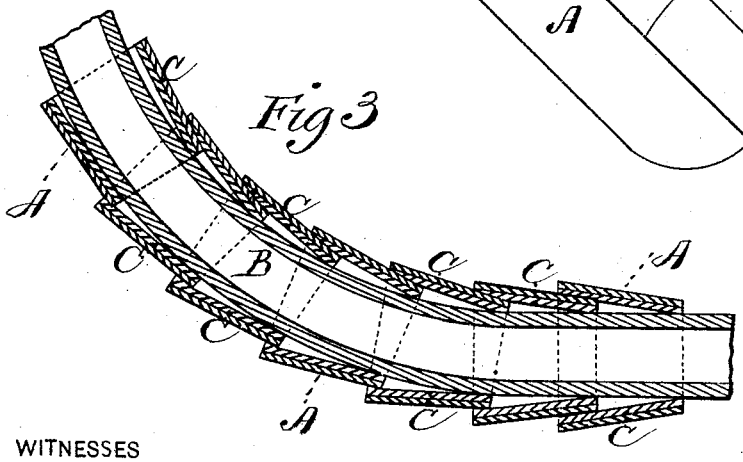


Fig 3



WITNESSES

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IMPROVEMENT IN METALLIC CASINGS FOR LEAD PIPES.

Specification forming part of Letters Patent No. **182,485**, dated September 19, 1876; application filed February 25, 1876.

To all whom it may concern:

Be it known that I, SARAH E. SAUL, of Brooklyn, in the county of Kings and State of New York, have invented a new and valuable Improvement in Metallic Casings for Lead Pipe; 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a cross-sectional view of my sectional casings. Fig. 2 is a perspective view of the same. Fig. 3 is a longitudinal vertical section of my sectional sheaths applied to a bent pipe. Fig. 4 shows a manner of constructing the joint.

This invention has relation to improvements in covering for lead water-pipe.

The object of the invention is to devise means for protecting leaden water-pipes in exposed situations from the gnawing of rats, and at the same time to prevent them from being bursted by the freezing of their contents. To this end the nature of the invention consists in a hard-metal sheathing, adapted to be clamped around the exposed portions of the pipes, whereby they are protected from being gnawed through by rats, and consequently flooding the building. It also consists in a rat-proof sheet-metal sheathing for lead pipe, having an interior lining of non-conducting material glued or secured thereto, the said sheathing being longitudinally divided and adapted to be clamped around water-pipe already laid, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates a hard-metal sheathing, which is preferably of tin, and is of such dimensions as to be capable of encircling a lead pipe, B, of a given diameter, and which will be of a size proportionate thereto. As shown in Fig. 1, the edges of this sheathing slightly overlap, and it is clamped about the pipe and secured to the same in the following manner, to wit: One edge of this sheathing is provided with a catch-spur, *a*, with which a vibrating hasp, *b*, slotted at *c* for the purpose, upon the other edge of the said sheathing, is adapted to engage. When the sheathing is passed around the pipe and the hasp is engaged over the spur and thrust into position thereon, the said sheathing will be not only secured around, but also clamped on the pipe, this latter result being obtained by beveling the edge of the spur farthest from the edge of the sheathing, as shown at *d*, Fig. 1. Tin or hard metal of any description being impenetrable by the teeth of rats, the softer leaden pipes will be effectually protected thereby. In order to prevent the pipes from being bursted by the freezing of the water therein, sheathing B will be provided with an interior covering, C, glued or otherwise secured thereto, which covering will be between the pipe and sheathing when the latter is in position, and will effectually prevent the penetration of frost thereto. This covering may be made of felt, cotton, or wool, or of any other non-conducting substance which will prevent the heat of the water from being thrown out into the colder air surrounding the pipes. This frost-proof substance being attached permanently to the sheathing, will be clamped around and removed from the pipe simultaneously therewith, by which means its application is rendered very expeditious, and its removal, if from any cause this should become necessary, greatly facilitated and simplified.

In practice, while preferring to employ the beveled catch and the hasp above described, I do not propose to confine myself strictly thereto. I may use independent clamps or other similar devices if I so elect.

The sheath-section, when applied about a bent pipe, will be made rather short, and also tapering, in order that the necessary connection thereof, the one with the other, may be secured by the insertion of the smaller end of one section into the larger end of the section next adjoining. This construction is illustrated in Fig. 3.

Instead of hard metal, any suitable substance may be employed for the sheathing.

What I claim as new, and desire to secure by Letters Patent, is—

1. The rat-proof sheathing for lead pipe, made of tin or other hard sheet metal, and having an interior lining of non-conducting material glued or pasted thereto, the said

sheathing being longitudinally divided and adapted to be clasped around the pipe when already laid, substantially as specified.

2. As a new article of manufacture, a hard sheet-metal sheathing, having an interior non-conducting material secured thereto, and provided with clamps, substantially as specified.

3. The combination, with a metallic pipe and a sheathing, A, of the beveled spur *a* and hasp *b*, substantially as specified.

4. The metallic sheathing A, provided with spur *a* and hasp *b*, as a new article of manufacture.

5. The frost-proof metallic or wooden sectional casings or coverings for lead pipe, tubular in form, and lined with a suitable non-conducting material, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SARAH E. SAUL.

Witnesses:
GEORGE H. STORY,
A. F. BRITTON.