

(No Model.)

J. G. MURDOCK.

PLUMBER'S FASTENING STRAP FOR LEAD PIPES.

No. 470,698.

Patented Mar. 15, 1892.

FIG. 1.

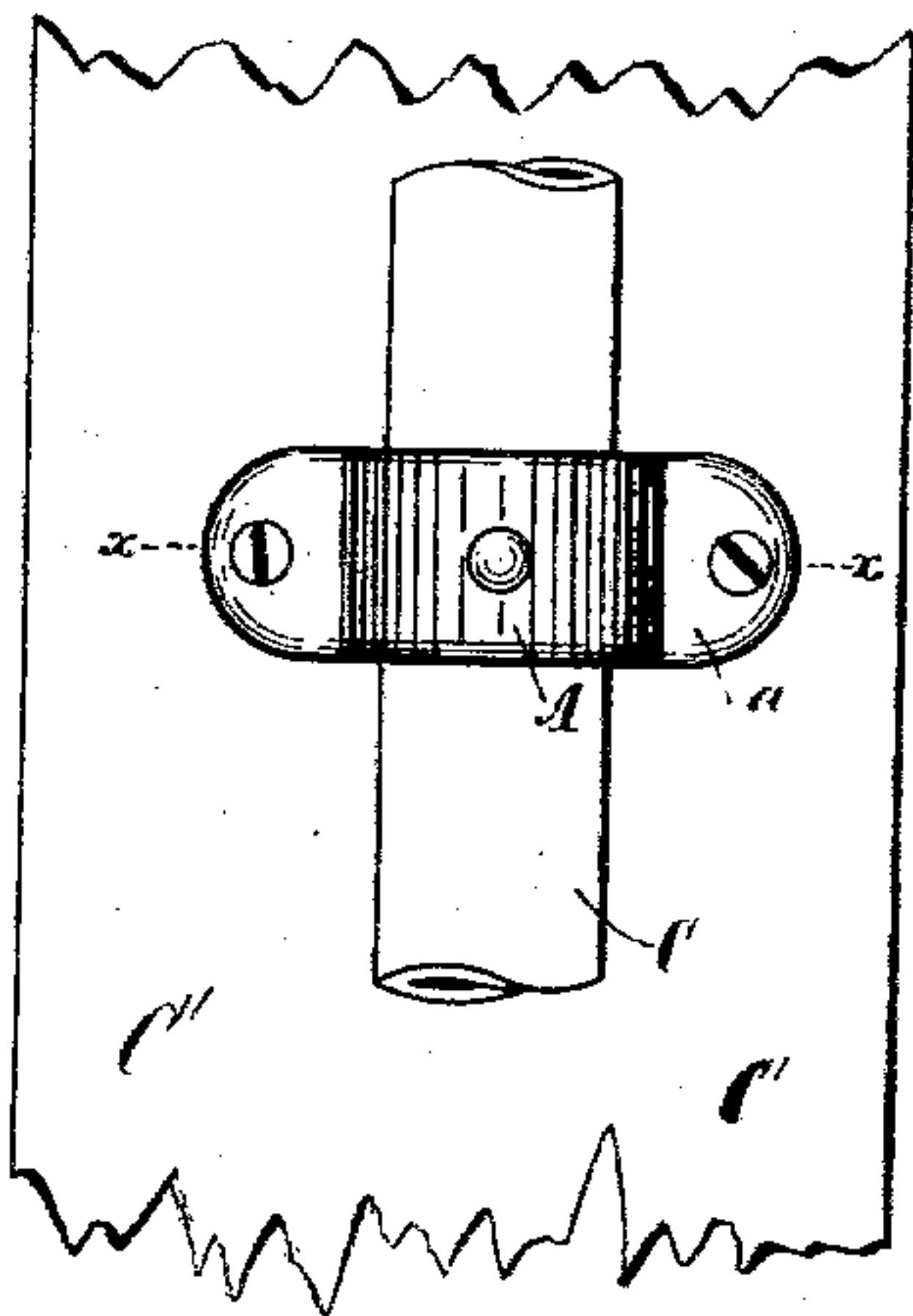


FIG. 2.

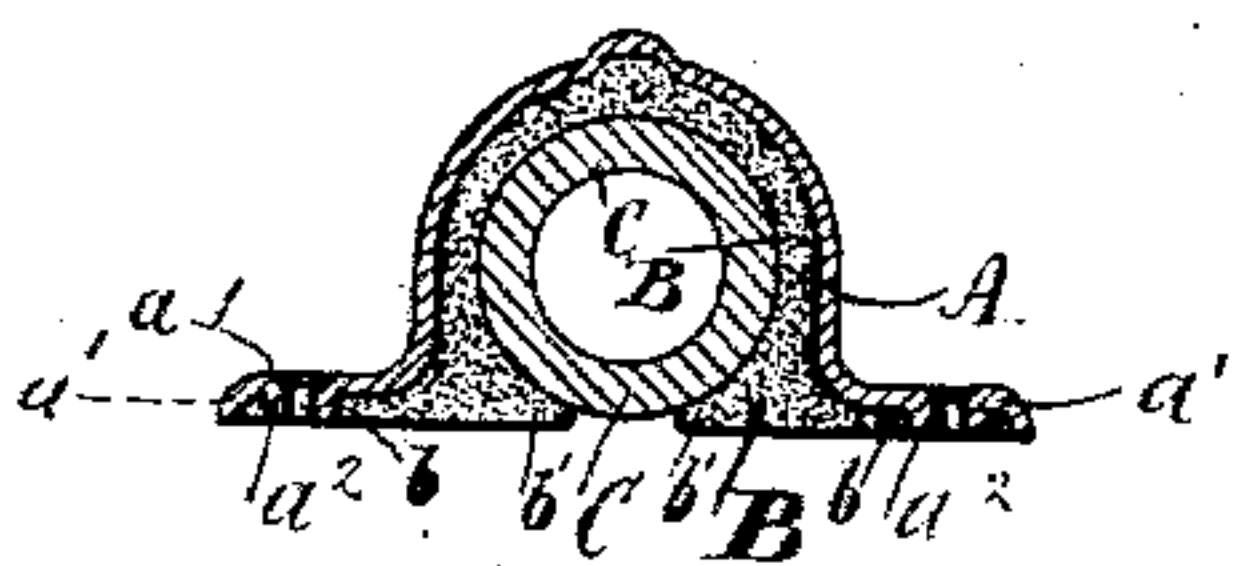


FIG. 5.

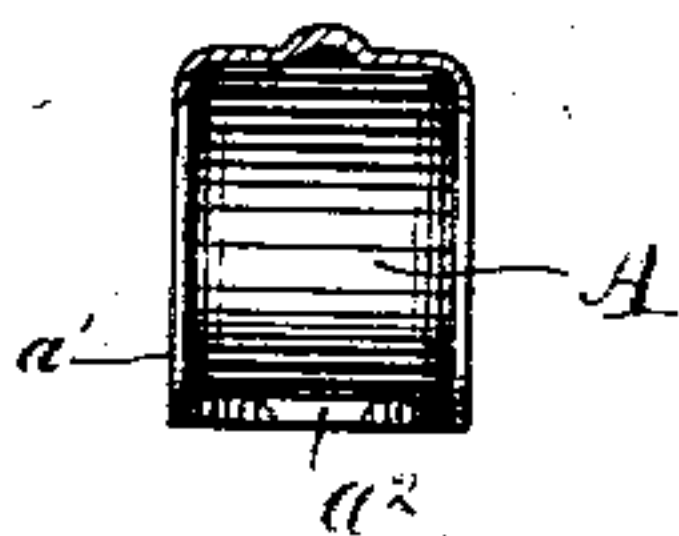


FIG. 3.

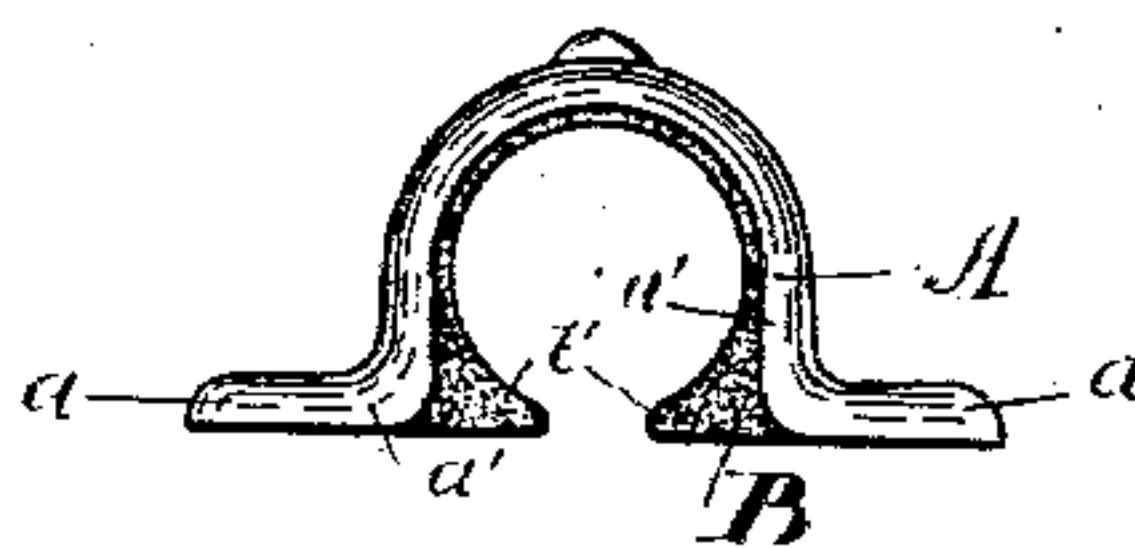
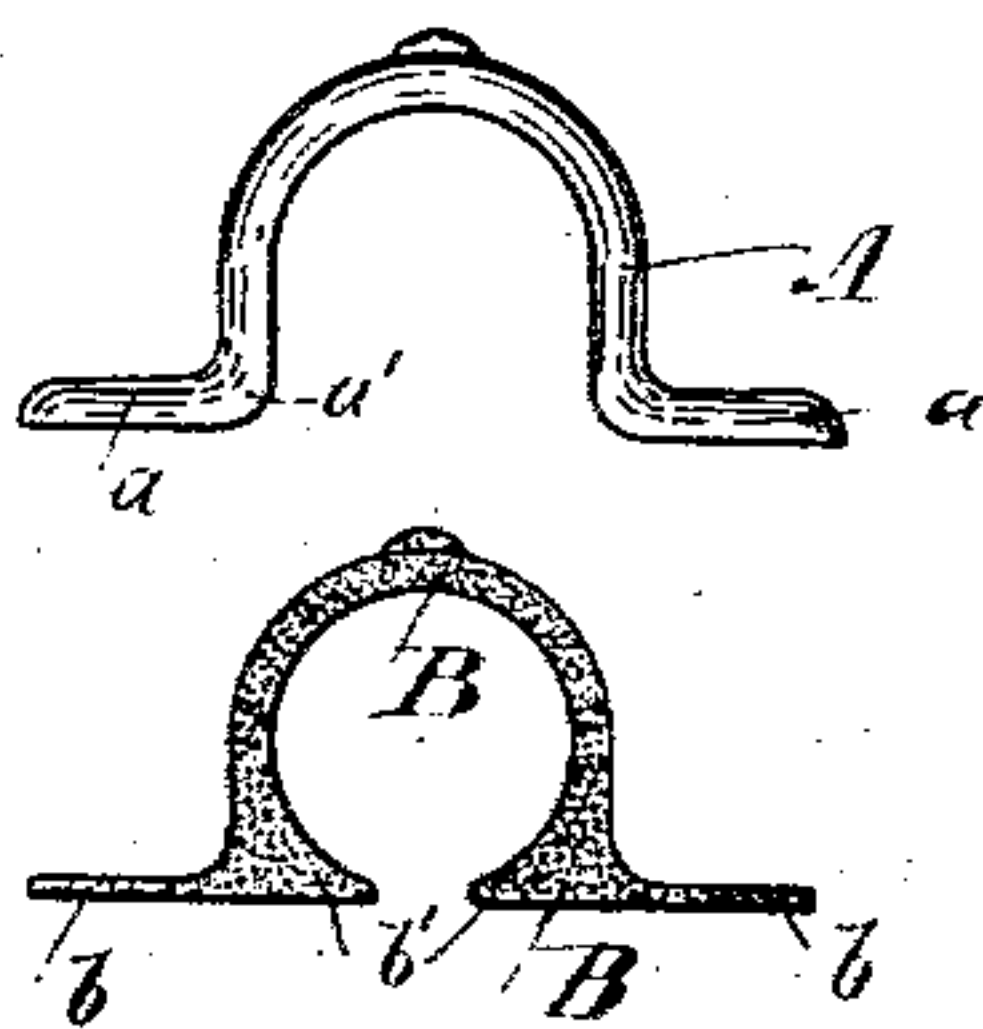


FIG. 4.



Witnesses

Frank Davis.

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PLUMBER'S FASTENING-STRAP FOR LEAD PIPES.

SPECIFICATION forming part of Letters Patent No. 470,698, dated March 15, 1892.

Application filed December 22, 1890. Serial No. 375,415. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. MURDOCK, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Plumbers' Fastening-Straps for Lead Pipes, of which the following is a specification.

The object of my invention is to provide a cheap, neat-appearing, and secure fastening-strap for lead pipes used for water-supply in buildings. The usual method now in use for fastening these pipes is to solder lead "tacks" or lugs to the pipe and screw these tags to the wall or other support. These are expensive and present an unsightly appearance. Metal hooks have also been used for the same purpose; but as the pipes are liable to expansion and contraction (especially when used as hot-water pipes) and are also subject to jar from water-hammer when the supply is turned on metal hooks have been generally dispensed with, because they cut into and injure the pipe, as they allow for no play of the pipe within them. These defects are overcome in my invention, which will be first fully described in connection with the accompanying drawings, and will then be particularly referred to and pointed out in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is an elevation of part of a pipe secured to its support by my fastening-strap. Fig. 2 is a transverse section through line xx , Fig. 1. Fig. 3 is an end view of the elastic cushion and metal strap detached from the pipe. Fig. 4 is an end view of the metal strap and the elastic cushion detached from each other. Fig. 5 is a vertical transverse section of the metal strap.

Referring to the parts, A is a U-shaped strap having outwardly-projecting lugs a and a downwardly-projecting flange a' surrounding both edges of the strap and lugs. The lugs a are perforated and the surplus metal pressed or cast inwardly, forming downward tubular projections a^2 , the lower ends of which are on the same level with the flanges projecting downward from the lugs a for the purpose of forming a firm bearing upon the wood and also a countersink upon the upper sur-

face of the lugs for a cone-headed screw, if desired. The tubular projections a^2 prevent the center portion of the lugs from being pressed downward and furnish a bearing around the screw. This strap A is stamped up from sheet metal, preferably brass.

B is an elastic or yielding strap, preferably of vulcanized rubber or lead. It is made to fit within the flanges of the metal strap A, the inner circle of the rubber projecting below the flanges, so as to prevent them from bearing upon the pipe C and the laterally-projecting lugs b , which come flush with the flanges and are perforated to pass the tubular projections which bear firmly upon the backing or support C'. The lower portion of the elastic strap is carried around so as to partially pass under the pipe, as seen at b' .

To apply my device for use the elastic strap is first placed over the pipe, the metal strap placed over it, and the screws driven to place. The pipe is thus firmly held in position with elastic pressure, the cushion B protecting it from injury, while holding it with sufficient pressure to prevent its turning or sliding within its fastenings. It will be seen that the flanged metal strap incases the elastic cushion B, and when the screws are driven in prevent it expanding in the direction of the length of the pipe, thus compressing it around and partially under the surface of the pipe. So constructed it is more effective and much neater in appearance than if the incasing side flanges were omitted. The omission of these flanges, however, would be but an inferior modification of my invention, which I should regard as fairly within the spirit and scope of my invention.

The pressure of the rubber packing need not be great, as I have discovered that rubber has the quality of adhering very closely to lead, and even if the rubber is but slightly compressed upon the lead pipe it will require considerable force to cause the pipe to slip within it.

What I claim is—

1. A fastening-strap for lead pipes, consisting substantially as hereinbefore set forth, of the U-shaped metal fastening-strap A, having laterally-projecting fastening-lugs a , and the elastic or yielding cushion B, adapted to embrace the pipe and fit within the strap A,

whereby the pipe is firmly clamped and held with elastic pressure.

2. In combination, substantially as hereinbefore set forth, in a fastening-strap for lead pipes, of the U-shaped strap A, having laterally-projecting lugs *a* and incasing flanges *a'*, the whole formed of sheet metal, and the elastic cushion B, arranged to fit within the flanges and having a circular opening to fit partially around the pipe, substantially as shown and described.

3. The combination, in a fastening device for lead pipes, of the sheet-metal strap having

laterally-projecting perforated lugs *a* and surrounding flanges *a'* and downwardly-projecting tubular extensions *a''*, with the cushion B, having circular portion extending below the strap portion of the part A, and laterally-projecting perforated lugs *b* and inwardly-projecting portion *b'*, combined and arranged substantially as and for the purpose set forth.

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Witnesses:

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