(No Model.)

E. CONVERSE.

PIPE THIMBLE.

No. 390,003. Patented Sept. 25, 1888.

Fig. 1

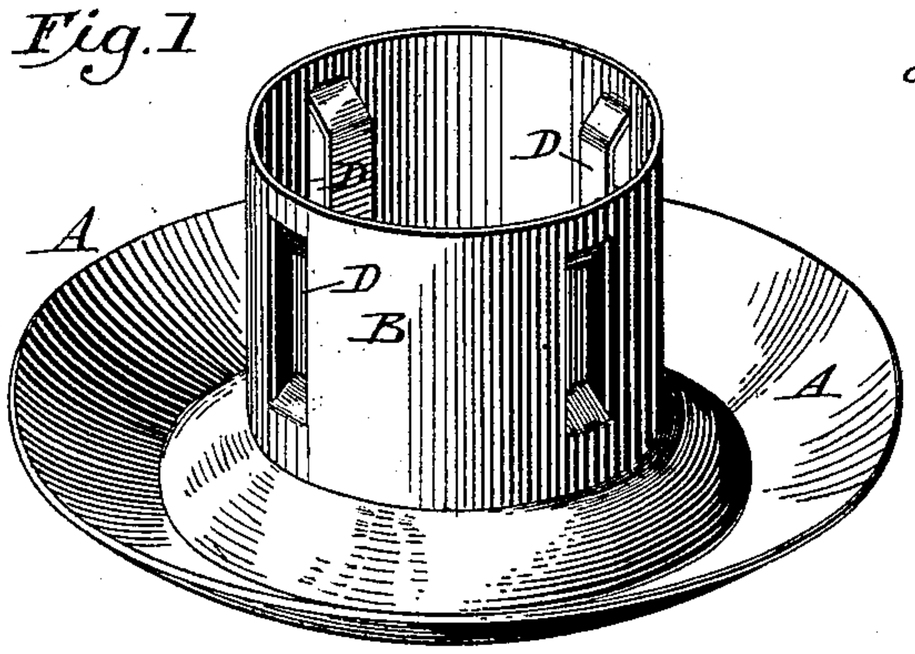


Fig. 2.
ON LINE X—X

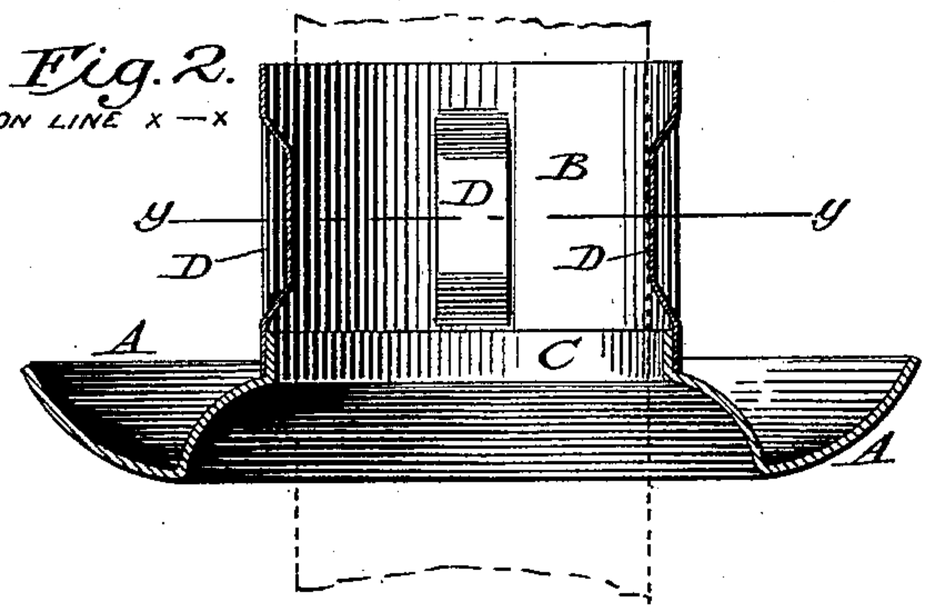


Fig. 3.
ON LINE Y—Y

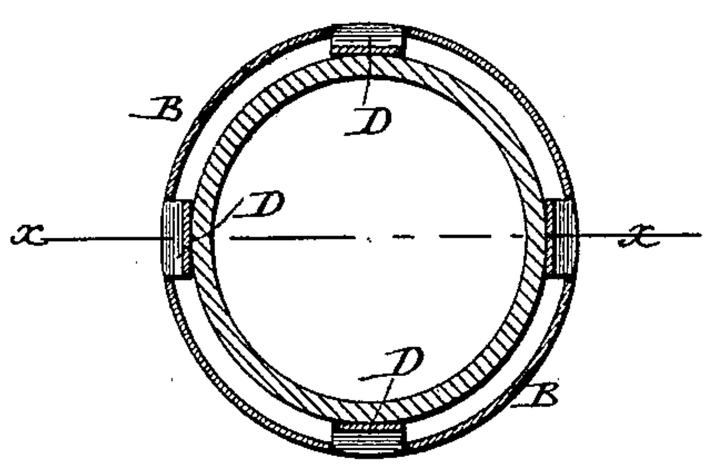


Fig. 4.

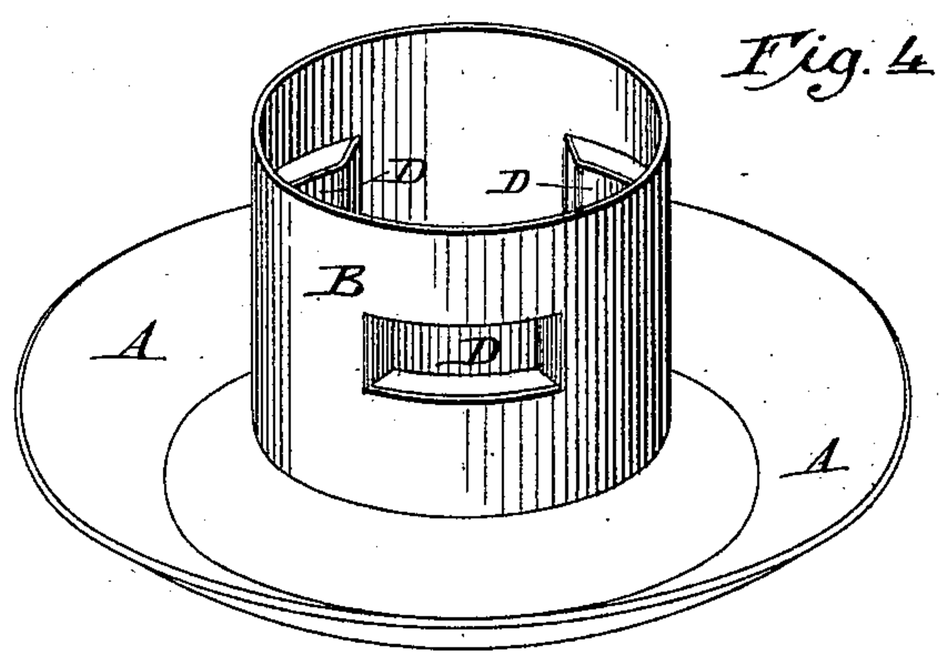


Fig. 5.

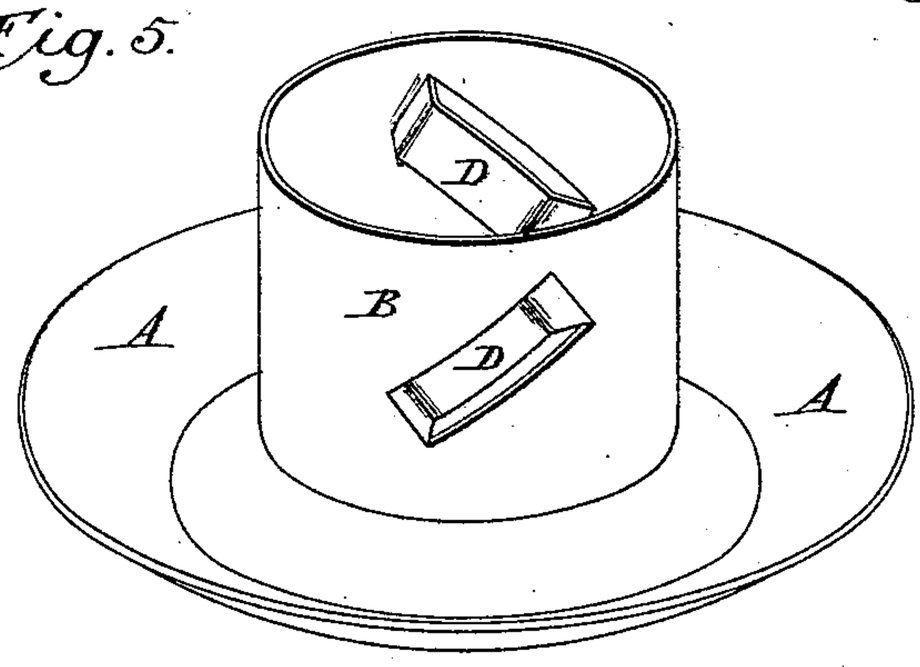


Fig. 6

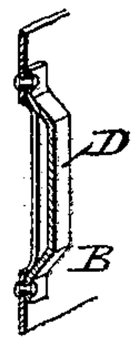
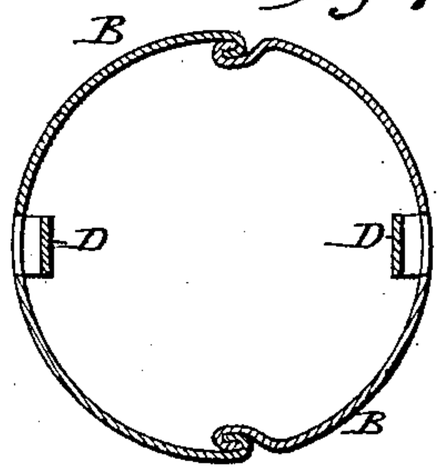


Fig. 7.



Attest:
Sidney P. Hollingsworth
Horace A. Dodge.

Inventor:
Edmund Converse,
by Dodges Sons,
his Attys.

UNITED STATES PATENT OFFICE.

EDMUND CONVERSE, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO THE WORCESTER FERRULE COMPANY, OF SAME PLACE.

PIPE-THIMBLE.

SPECIFICATION forming part of Letters Patent No. 390,003, dated September 25, 1888.

Application filed November 1, 1887. Serial No. 253,998. (No model.)

To all whom it may concern:

Be it known that I, EDMUND CONVERSE, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Thimbles, of which the following is a specification.

My invention relates to that class of thimbles designed more particularly for use upon steam-pipes to prevent the pipe from coming into contact with the wood-work, and also to cover up the hole or opening through which the pipe passes; and the object of the invention is to simplify and cheapen and generally to improve the construction of such thimbles.

In the drawings, Figure 1 is a perspective view of my improved thimble; Figs. 2 and 3, sectional views of the same, taken at right angles to each other on the lines *x x* and *y y;* and Figs. 4 to 7, views illustrating various modifications.

A indicates a collar or disk having a central opening, and which may be made more or less ornamental in appearance, the collar being advisably formed with a flange or rim, C, around the central opening, as shown in Fig. 2.

B represents the shell or neck, which, while preferably cylindrical in cross-section, may be of any other desired form. This shell B is soldered or otherwise secured to the flange C when such flange is used; but if the flange be omitted the connection between the shell and the disk or collar may be made in any other suitable manner. In other words, the construction of the shell and of the disk and the manner of connecting these parts are matters that are capable of considerable variation and relate in no way to the gist of my invention.

D D indicate spring-arms projecting inwardly from the inner face of the shell B, the arms having an extended bearing-face. These arms will advisably, though not necessarily, be formed integral with the shell B, and where the arm is made integral it is formed by making cuts or incisions in the shell close to each other, and then indenting or bending inward that portion of the metal between the incisions, as shown in Figs. 1, 2, 3, 4, and 5. The arms D are of a length equal to about one-half (more or less) of the length of the shell, and form extended bearing-faces, which rest upon the pipe; and it will be observed that by reason of the ends of the arms being rounded or beveled slightly the insertion of the pipe is greatly facilitated.

Owing to the peculiar formation of the arms, the pipe may be inserted into the thimble or the thimble applied to the pipe from either end at will, and while the elasticity or resiliency of the arms is such as to hold the thimble in proper position upon the pipe, yet the thimble may be moved upward and downward upon the pipe without any difficulty, the beveled ends of the arms riding over whatever roughnesses there may be on the exterior of the pipe.

The arms D will preferably be made to extend longitudinally or lengthwise of the shell B; but it is apparent that they may be arranged horizontally, as in Fig. 4, or spirally, as in Fig. 5. So, too, instead of making the arms D integral with the shell B they may be made separate therefrom and riveted thereto, as shown in Fig. 6. The latter plan is, however, more expensive than the other, and for that reason I prefer to make them integral.

It frequently happens that the end of the pipe is not accessible, and for this reason it may be desirable to make the thimble in two parts, as shown in Fig. 7. The number of arms D may be varied as desired.

I am aware that pipe thimbles have been provided with spring-arms to bear upon the pipe; but in all cases, so far as I am aware, the arms were so constructed as to bear at one point only, either at the free end or at a point between their ends. The latter plan has never to my knowledge been successfully carried out, principally because the arms were not adapted to hold or secure the thimble upon the pipe, but were designed merely to steady or center the pipe in the thimble, the latter being secured rigidly within the stove-pipe hole.

Thimbles provided with spring-arms adapted to bear at their free ends upon the pipe have been successfully used for some time since, but are more or less liable to lose their hold upon the pipe, especially where the thimble is large and heavy, or where the floors of the building are subjected to vibrations or jars.

To overcome the objections which practical

experience has brought to attention is the object of the present invention, which consists in providing the arms with extended bearing-faces, which bear upon the pipe not at a single point, but at two or more points, thereby insuring the retention of the thimble in place. The elongated arms or bearing-faces form a sort of truss, which construction gives greater resistance, and thereby acts much more efficiently than an arm bearing only at its free end.

No broad claim is made by me to a divided pipe-thimble having spring-arms, as such a construction is shown in the patents to A. T. Matthews, Nos. 379,482 and 379,483.

Having thus described my invention, what I claim is—

1. A pipe-thimble provided with an internal spring-arm secured at its ends to the shell and beveled at each end to facilitate the ready insertion of the pipe from either end.

2. A pipe-thimble provided on its interior with a longitudinally-extending spring-arm secured at its ends to the shell of the thimble and having an extended bearing-face.

3. In a pipe-thimble, the combination, with a collar, A, and shell B, of a series of spring-arms, D, projecting inwardly from the inner face of the shell and connected at both ends to the latter.

In witness whereof I hereunto set my hand in the presence of two witnesses.

EDMUND CONVERSE.

Witnesses:

WM. E. LEWIS,

F. G. KING.