C. F. HENIS.

Pipe-Coupling

No. 166,989. Patented Aug. 24, 1875.

Fig. 1.

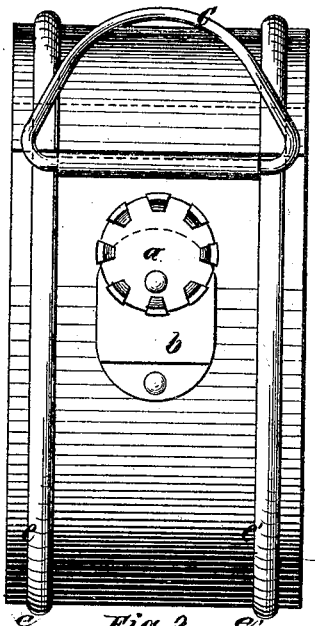


Fig. 3.

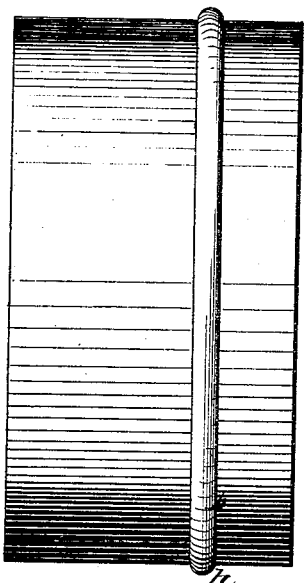


Fig. 4.

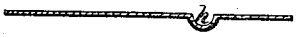


Fig. 2.

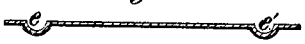


Fig. 5.

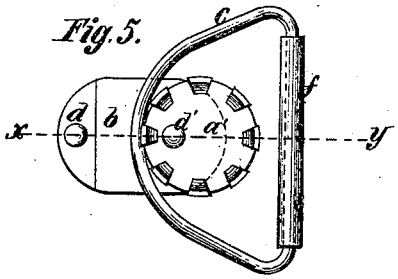
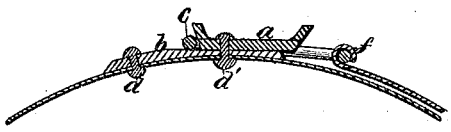


Fig. 6.



Witnesses

Jas. H. Richards

Chas. F. Pike.

Inventor.

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UNITED STATES PATENT OFFICE.

CHARLES F. HENIS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PIPE-COUPLINGS.

Specification forming part of Letters Patent No. **166,989**, dated August 24, 1875; application filed May 22, 1875.

To all whom it may concern:

Be it known that I, CHARLES F. HENIS, of Philadelphia, Pennsylvania, have invented a Coupling for Sheet-Metal Pipes, of which the following is a specification:

My invention consists of an adjustable coupling for connecting the sections or lengths of sheet-metal pipes.

In the drawing, Figure 1 is a side elevation of the device. Fig. 2 is a section of the same. Fig. 3 is the view of the end of a section of pipe, showing the bead. Fig. 4 is a section of the same. Fig. 5 is a plan of the lock. Fig. 6 is a section of the same on the line *x y*.

a, Figs. 1, 5, and 6, is an eccentric plate. *c*, Figs. 1, 5, and 6, is a hinged loop. *d d'*, Figs. 5 and 6, are rivets. *e e'*, Figs. 1 and 2, are beads on the band. *h h'*, Figs. 3 and 4, is the bead on the end of the pipe.

The sheet metal of which the coupling is composed is bent into a circular form, and provided with two beads, *e* and *e'*, as shown in Figs. 1 and 2. On one end of the sheet metal the eccentric *a* and eccentric plate *b* are fastened by two rivets, *d d'*, as shown in Figs. 5 and 6. The hinged loop *c* is secured to the other end of the sheet metal, as shown at *f*, Figs. 5 and 6. The ends of the sections of pipe to be connected are provided with beads, as shown at *h h*, Figs. 3 and 4. The eccentric is provided with notches, as shown at Fig. 5, to facilitate the turning of the same.

The operation of my invention is as follows: The hinged loop *c* is thrown back free from the eccentric, as shown in Fig. 1, and the coupling is expanded. The ends of the pipes to be connected are placed within the coupling, and the beads on the pipes resting in those of the coupling, the coupling is drawn together with the hand, and the hinged loop is placed over the eccentric, as shown in Figs. 5 and 6. The eccentric is then turned on the rivet *d'*, drawing the coupling tightly around the pipes.

The eccentric *a* is beveled on its edge, and the hinged loop being between the eccentric and the eccentric plate, as shown in Fig. 6, it binds the eccentric, thus preventing its slipping, and rigidly securing the coupling. This feature enables me to overcome the differences there may be in the diameter of the pipe, as the eccentric will remain in any position in which it may be placed.

I claim—

1. The eccentric and eccentric plate, in combination with the hinged loop, for the purpose set forth.

2. The combination of the eccentric, eccentric plate, rivets *d d'*, hinged loop *c*, and the sheet metal of which the coupling is composed, substantially as shown and described.

CHARLES F. HENIS.

Witnesses:

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