

No. 632,440

Patented Sept. 5, 1899.

L. BRUCKS.

LOCK SEAM FOR SHEET METAL PIPES.

(Application filed Mar. 6, 1899.)

(No Model.)

Fig. 1.

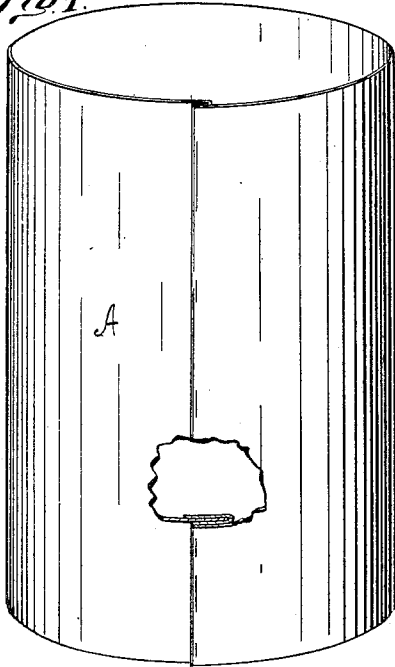


Fig. 3.

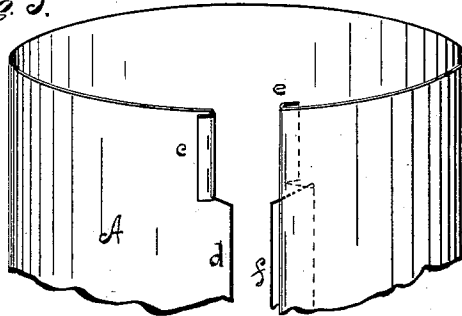


Fig. 4.

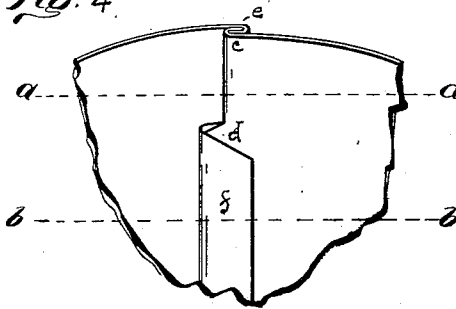


Fig. 5.

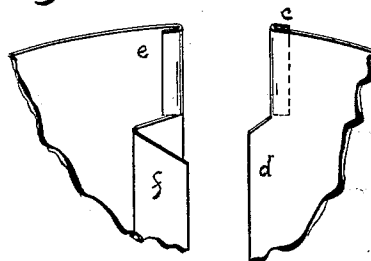


Fig. 6.

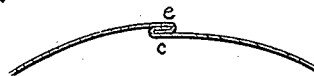


Fig. 7.



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# UNITED STATES PATENT OFFICE.

LOUIS BRUCKS, OF CANAL DOVER, OHIO.

## LOCK-SEAM FOR SHEET-METAL PIPES.

SPECIFICATION forming part of Letters Patent No. 632,440, dated September 5, 1899.

Application filed March 6, 1899. Serial No. 707,895. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS BRUCKS, a citizen of the United States, residing at Canal Dover, in the county of Tuscarawas and State of Ohio, have invented new and useful Improvements in Lock-Seams for Sheet-Metal Pipes, of which the following is a specification.

My invention relates to improvements in lock-seams for sheet-metal pipes, and has for its object the provision of a novel form of self-contained lock which may be readily and simply constructed out of a part of the sheet metal from which the pipe is formed without waste of material and which may be readily operated or locked upon the seam of the pipe, as will be hereinafter more fully described and claimed.

Figure 1 is a perspective view of a section of pipe with a part cut away to show the lower portion of the seam. Fig. 2 is a perspective view of the upper section of the pipe, showing the position of the parts before being sprung into the locked position. Fig. 3 is a perspective view of the upper section of the pipe, showing in dotted lines the position of the hem. Fig. 4 is a detailed view of the upper section of the pipe, from the inside thereof, when locked together. Fig. 5 is a detailed view of a portion of the upper section before being sprung into the locked position. Fig. 6 is a cross-sectional view from *a* to *a*. Fig. 7 is a cross-sectional view of the seam from *b* to *b*.

In the accompanying drawings similar letters of reference refer to similar parts.

A is a section of a sheet-metal pipe which may be of any desired size, and upon the upper left-hand edge thereof a small flange *c* is formed by cutting out a V-shaped portion and folding the remaining portion of the flange back upon itself and narrowing the same by cutting off a longitudinal portion forming the flange *c*, which leaves the projecting tongue *d*, which extends throughout the balance of the edge of the section. From the upper and right-hand flange of the section a similar V-shaped portion is cut and a longitudinal cut made, and the upper portion of the flange is folded backward and inward upon itself, form-

ing a flange *e*. The balance of the flange extending throughout the rest of the section is folded backward and inward upon itself and thence outward, forming the second member or hem *f*, adapted to receive the tongue *d*. The oppositely-disposed members *c* and *e* of the locking-seam are narrower than the tongue *d* and the portion of the hem *f* adapted to receive the same.

To lock the section in its normal position, the tongue *d* is placed upon or in the portion of the hem *f* adapted to receive the same, when the right-hand portion of the section is sprung downward, as shown in Fig. 2, until the upper portion of the locking-seam *e* shall be below the lower portion of the flange *c*, when the upward movement of the right-hand portion of the section causes the oppositely-disposed flanges *c* and *e* to slide into engagement with each other, thus securely locking the parts of the section together.

It will be observed that by employing this novel construction the parts are not only securely locked together, but can be readily disengaged and numerous sections nested together for shipment, and in case it is desired to shorten the section the seam is so formed that the oppositely-disposed flanges *c* and *e* can be readily formed by the use of a pair of tinners' shears from the balance of the section without re-forming or bending any portion thereof excepting the turning back upon itself of the upper left-hand flange of the locking-seam.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is—

1. A section of sheet-metal pipe having at its upper end oppositely-disposed flanges, a tongue formed upon one of its edges, adapted to engage the hem formed on the opposite edge, by folding a portion of the metal thereof inward and backward upon itself, and thence outward, substantially as described and for the purpose set forth.

2. The combination in a sheet-metal pipe-section, of a locking device consisting of oppositely-disposed flanges formed upon the upper portion of the section, with a tongue

formed upon one of the edges of the section  
adapted to engage the hem formed upon the  
opposite section, by folding the metal thereof  
inward and backward upon itself, and thence  
5 outward, substantially as described and for  
the purpose set forth.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing  
witnesses.

LOUIS BRUCKS.

Witnesses:

P. A. ARNOLD,  
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