No. 891,570. PATENTED JUNE 23, 1908.

W. C. SMITH.

LOCK SEAM FOR METAL PIPES.

APPLICATION FILED MAR. 5, 1907.

Fig. 1.

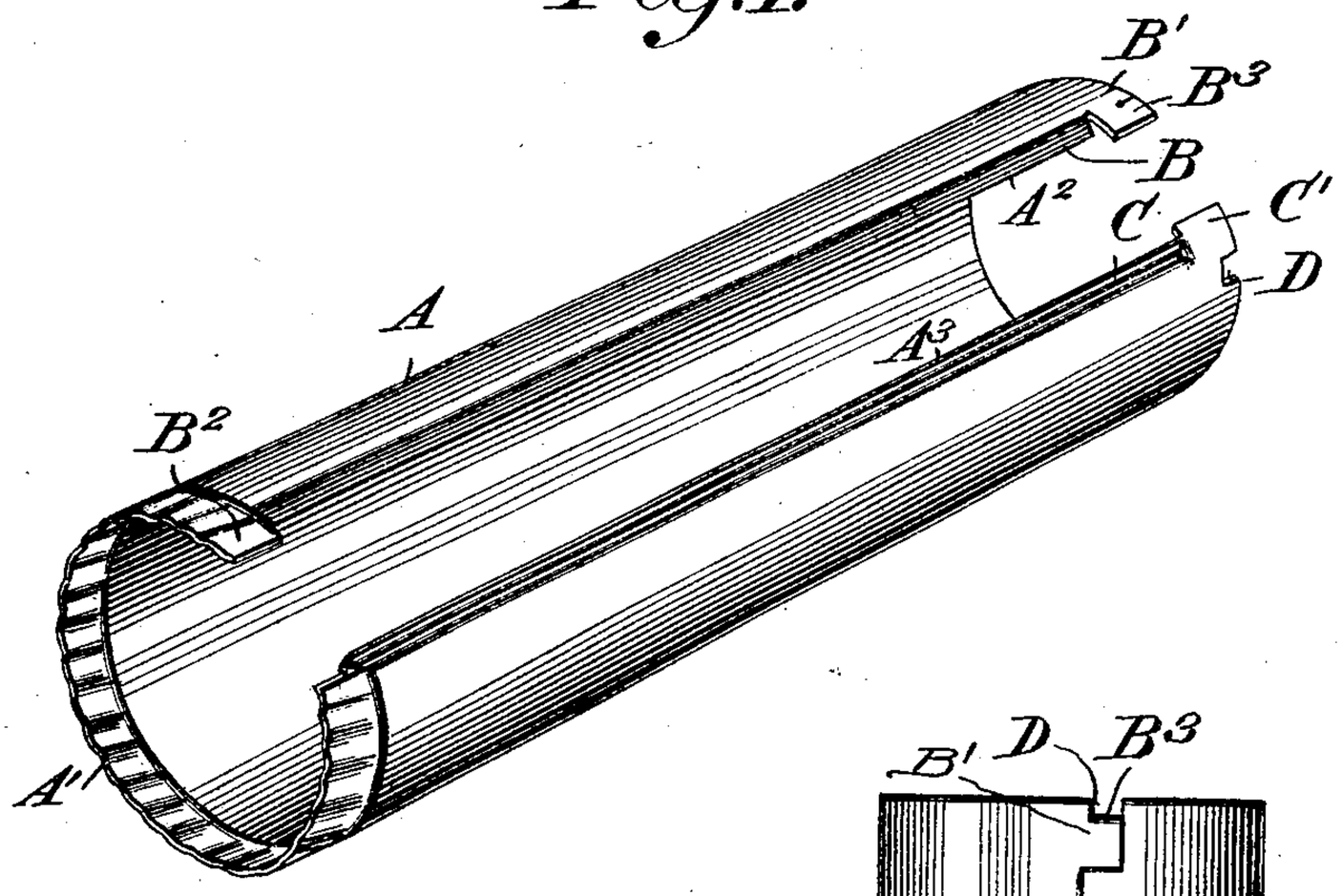


Fig. 2.

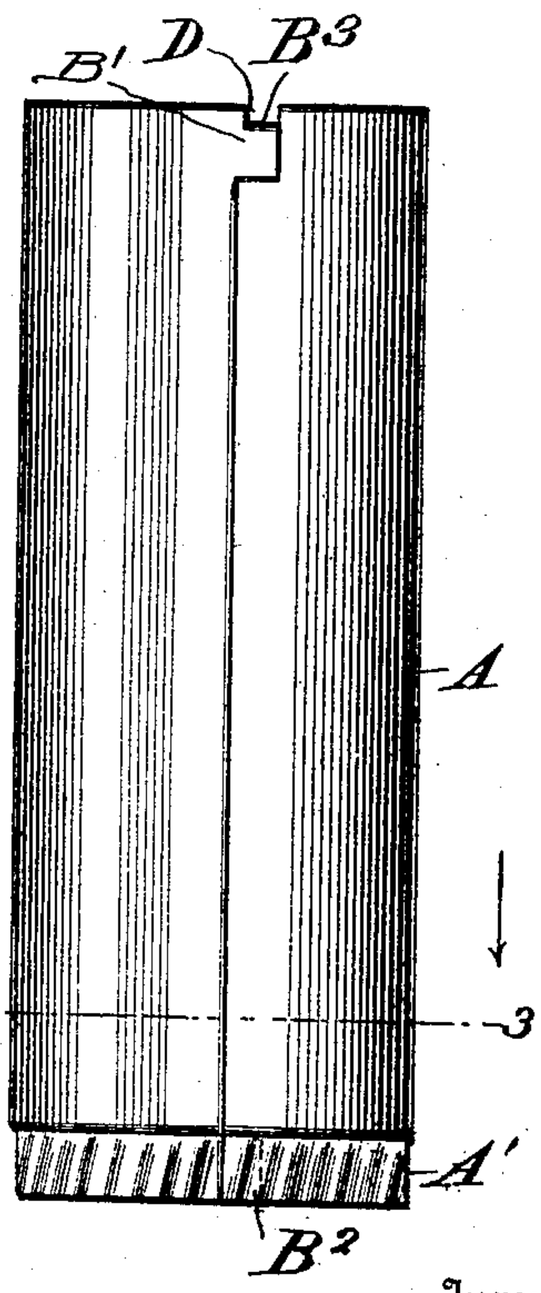


Fig. 3.

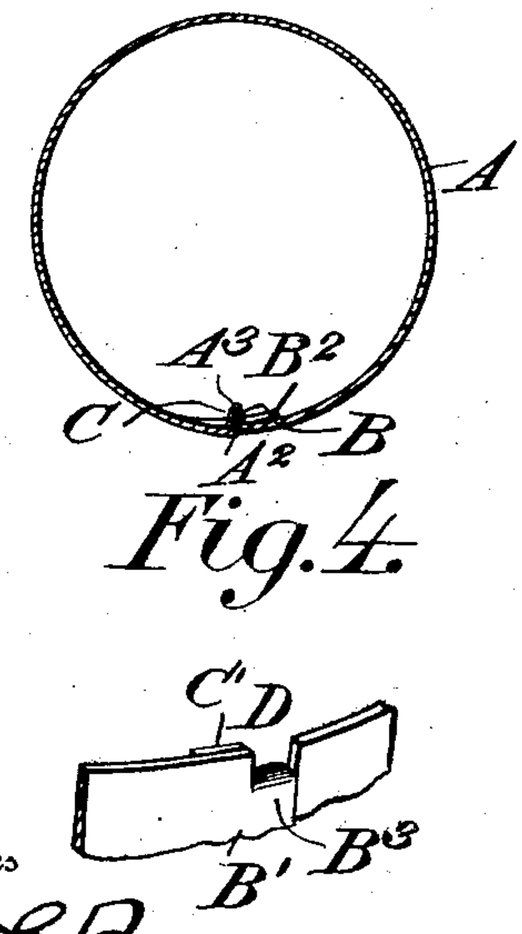


Fig. 4.

Witnesses

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## LOCK-SEAM FOR METAL PIPES.

No. 891,570. Specification of Letters Patent. Patented June 23, 1908.

Application filed March 5, 1907. Serial No. 360,687.

*To all whom it may concern:*

Be it known that I, WILLIAM CARLETON SMITH, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Improvement in Lock-Seams for Metal Pipes, of which the following is a specification.

This invention relates to sheet metal pipes and more particularly to means for locking the seams of the same, the object being to provide the adjacent edges of the pipe-sections with locking means which can be easily and quickly locked together or unlocked as desired.

Another object of my invention is to provide a sheet metal pipe which is very simple and cheap in construction and one which can be spread out when unlocked, so that a number of the pipe sections can be nested together for transportation, storage or displaying.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts hereinafter fully described and pointed out in the claims.

In the drawing forming a part of this specification: Figure 1 is a perspective view of my improved pipe showing the joint opened. Fig. 2 is an elevational view of the pipe showing the joint closed. Fig. 3 is a section taken on lines 3—3 of Fig. 2. Fig. 4 is a detail perspective view of the pipe showing the locking means.

In the drawings A indicates a sheet metal pipe section having a crimped end A′. The adjacent edges $A^2$ $A^3$ of the section are split adjacent their ends and the lower end or the crimped portion of the edge $A^3$ is cut away. The edge $A^2$ between the splits is bent downwardly at right angles to the pipe forming a locking tongue B. The outwardly projecting portion left at each end forms flaps B′ $B^2$ the flap B′ being split to form a tongue $B^3$, for the purpose hereinafter fully described.

The edge $A^3$ between the split and cut away portion is bent downwardly and then upwardly forming a substantially U-shaped socket C in cross-section in which the downwardly projecting tongue B is adapted to fit, the flap $B^2$ fitting under the crimped portion of the lower end of the pipe and the flap B′ fitting over the flap C′ formed by the outwardly projecting portion left at the upper end of the pipe. A notch D is formed in the upper edge of the pipe adjacent the flap C′ in which the tongue $B^3$ is adapted to fit and be bent back upon the pipe so as to securely lock the ends together.

From the foregoing description it will be readily seen that when it is desired to lock the pipes together the lower ends of the pipe are pushed together so as to bring the flap $B^2$ under the lower end of the pipe and the lower end of the tongue B is placed in the lower end of the socket C, the upper end of the pipes are then forced together allowing the tongue B to drop into the socket C and securely lock the edges together.

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

1. A sheet metal pipe section having a downwardly projecting tongue formed on one edge, a U-shaped socket formed on the adjacent edge, adapted to receive said tongue and a notch formed in the end of said pipe, and flaps formed on the edge first mentioned one of said flaps being provided with a locking tongue adapted to fit in said notch.

2. A sheet metal pipe section having a downwardly projecting tongue formed on one edge, a U-shaped socket formed on the adjacent edge adapted to receive the tongue, and a notch formed in the end of said pipe, a flap formed on the lower end of the first mentioned edge adapted to fit under the lower end of the second mentioned edge, and a flap formed on the upper end of the first mentioned edge adapted to fit over a flap formed on the second mentioned edge, said last mentioned flap being provided with a locking tongue for engagement with the notch formed in the pipe end.

3. A sheet metal pipe section having a tongue formed on one edge, and a socket formed on the adjacent edge adapted to receive said tongue, a flap formed on the lower end of the first named edge adapted to fit under the adjacent edge and a flap formed on the upper end of the first named edge, adapted to fit over a flap formed on the end of the second named edge said flap being provided with a locking tongue adapted to engage said pipe.

4. A sheet metal pipe section having a crimped end, the adjacent edges of said pipe section being split adjacent their ends, one crimped portion being cut away from the

split portion, one edge being bent downwardly between the splits to form a tongue, the adjacent edge between the split and cut away portion being bent downwardly and upwardly to form a U-shaped socket adapted to receive the tongue, outwardly projecting flaps formed on the ends of the first named edge, the lower flap fitting under the lower crimped portion of the second named edge, and the upper flap fitting over a flap formed on the upper end of the second named edge, a notch formed in the end of the second named edge and a tongue formed on the upper flap of the first named edge, adapted to fit in said notch and securely lock said edges together.

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