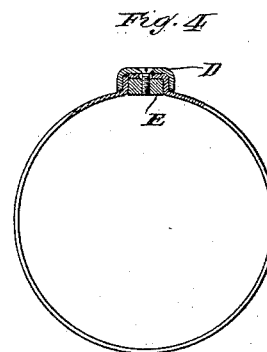
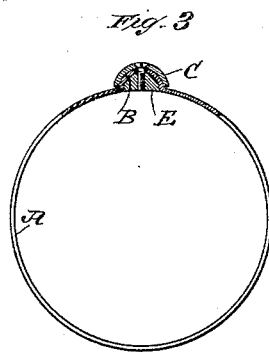
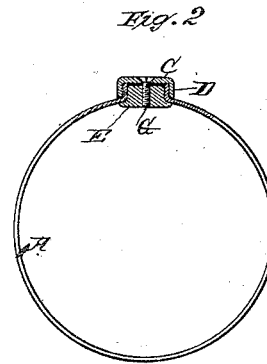
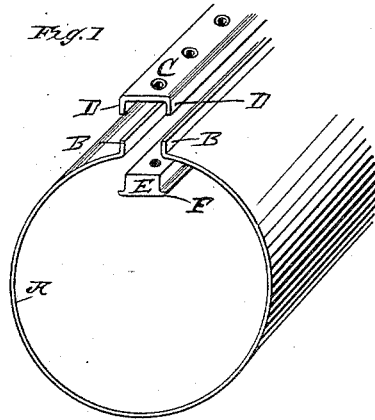


(No Model.)

J. C. BAYLES.  
PIPE OR TUBING.

No. 422,064.

Patented Feb. 25, 1890.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JAMES C. BAYLES, OF NEW YORK, N. Y.

## PIPE OR TUBING.

SPECIFICATION forming part of Letters Patent No. 422,064, dated February 25, 1890.

Application filed July 18, 1889. Serial No. 317,961. (No model.)

*To all whom it may concern.*

Be it known that I, JAMES C. BAYLES, of the city, county, and State of New York, have invented certain new and useful Improvements in Pipes or Tubing, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The present invention relates to pipe or tubing formed of sheet or plate metal shaped into pipe form, the longitudinal side edges of which are secured together by separate or auxiliary parts constituting a clamp or lock for firmly grasping and holding the edges of the blank.

The invention consists of a pipe composed of a blank brought to pipe form with its adjoining side edges flanged or bent outwardly, the flanged edges being grasped between the members of a two-part seam-lock, as hereinafter fully described.

Referring to the drawings, Figure 1 illustrates a portion of a pipe-section in perspective, the seam parts being separated. Fig. 2 shows a section of the same with the seam completed. Figs. 3 and 4 are modified forms of the seam parts.

Referring to the views in detail, A represents the blank or body of the pipe. This blank is shaped to cylindrical or any other desired form, and its longitudinal edges are bent outwardly into the flanges B, which lie practically in radial planes.

C is the cap-piece of the lock. It consists of a flat strip or plate of the same length as the pipe-section, and has its edges or sides turned down into flanges D, which correspond in depth to the height of the flanges B of the blank.

E is the locking-bar of the seam parts. It is a plain bar, of metal or other suitable material, of the length of the pipe-section, and has shoulders F, upon which the angles of the blank-flanges rest, these flanges B lying flat against the side of the body of the bar.

When the parts are assembled, as in Fig. 2, the lock cap and bar are drawn firmly together, and thereby secured by bolts, rivets, or screws G, or by any other like or suitable means. Thus drawing the lock-bar into its cap and between the flanges on the body of the pipe wedges the edges of the blank firmly and

tightly between the lock parts. A seam thus produced is one of great strength and certain tightness. It is easily made, is readily repaired, and by its very form and construction serves materially to strengthen the pipe and stiffen it against flexure, and the seam parts are easily shaped, so that they will not intrude upon the pipe area.

The locking-bar may, in such cases as require it, consist of lead or other similar soft metal adapted to packing a joint. In such case it would be of the form shown in Figs. 1 and 2—that is, with shoulders or fins extending circularly along the inner surface of the body of the pipe. Thus used, the locking-bar would under internal pressure be forced between the flanges of the blank and into more intimate contact with the inner surfaces thereof, thereby consolidating the seam and rendering it tighter and less liable to ruptures or leaks.

The pipe may obviously be composed of more than a single blank—that is, two or more blanks may be joined longitudinally together to form one pipe-section. So, too, any thickness of blank may thus be made into pipe. Another important advantage of a seam thus easily made is, that it does not require special tools or skilled labor to close it, and this permits shipping the pipe-blanks unassembled to the place where the pipe is to be used and there putting them into pipe form, which of course implies convenience and economy in transportation.

In Fig. 3 I show a modified form of joint. Here the flanges B are curved to the form of quarter-circles outwardly from the blank and toward each other, and the lock-cap and locking-bar are similarly shaped. When great strength of seam is not a condition, this form will be found sufficient, and it can be made to give a finished and sightly effect to the pipe for cases when such conditions are to be considered.

Another modification is that of Fig. 4. Here the flanges of the blank are similar to those of Figs. 1 and 2, except that they turn from their outward bend toward each other, and the shoulders F of the lock-bar are thereby rendered unnecessary.

Still other modifications may occur to those skilled in this art; but I have shown sufficient

to fully illustrate the principle of my improvement.

What is claimed as new is—

A pipe composed of a sheet-metal blank  
5 brought to the desired pipe form and having  
its adjacent longitudinal edges bent outwardly into flanges, a locking-bar arranged  
between said flanges, and a locking-cap ar-

ranged over and inclosing the flanges, said  
bar and said cap being secured together, 10  
whereby the said flanges are firmly clamped  
and a tight seam produced.

JAMES C. BAYLES.

Witnesses:

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