No. 625,946. Patented May 30, 1899.

F. A. WILMOT.

SHEET METAL WATER AND STEAM PIPE.

(Application filed Feb. 20, 1899.)

(No Model.)

Fig. 1.

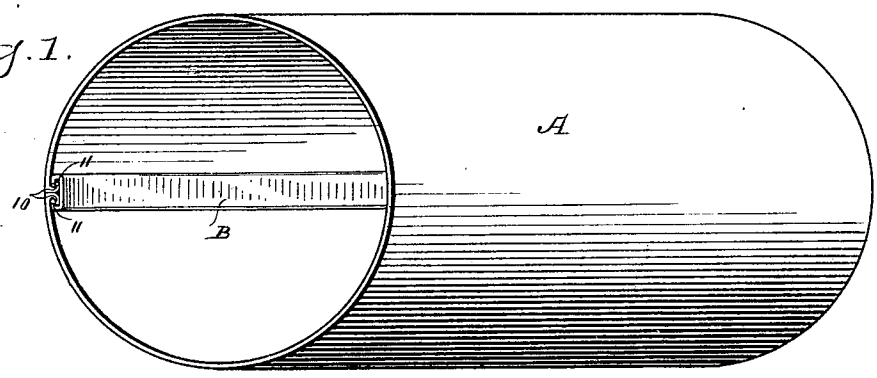


Fig. 2.

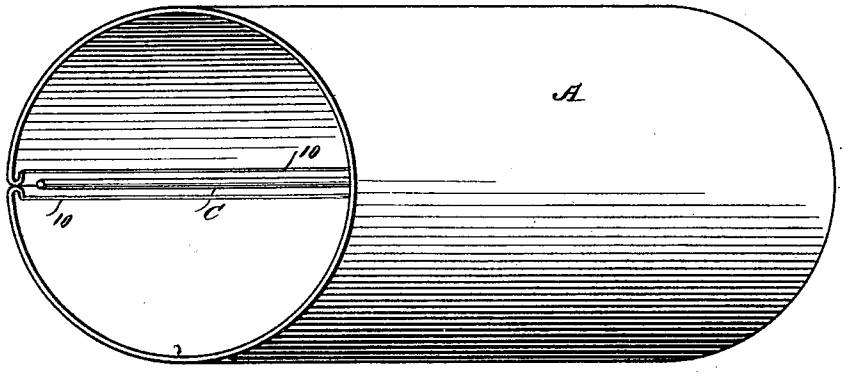


Fig. 3.



Fig. 4.

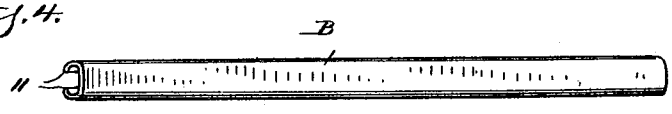


Fig. 5.

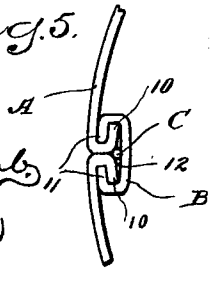
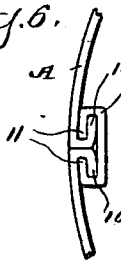


Fig. 6.



WITNESSES

H. A. Lamb.

S. A. Seley.

INVENTOR

Frank A. Wilmot

By A. M. Wooster

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK A. WILMOT, OF BRIDGEPORT, CONNECTICUT.

SHEET-METAL WATER AND STEAM PIPE.

SPECIFICATION forming part of Letters Patent No. 625,946, dated May 30, 1899.

Application filed February 20, 1899. Serial No. 706,229. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. WILMOT, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Sheet-Metal Water and Steam Pipe, of which the following is a specification.

My invention has for its object to provide a simple and inexpensive joint for sheet-metal pipes, more especially steam and water pipes, in which it is required that the joint shall be strong and durable and absolutely water and steam tight. With these ends in view I have devised the novel joint of which the following description, in connection with the accompanying drawings, is a specification, reference characters being used to designate the several parts.

Figure 1 is a perspective of a section of sheet-metal pipe, illustrating my novel joint; Fig. 2, a similar view showing the inwardly-curved edges of the sheet or strip of metal from which the pipe is formed brought together and a soft-metal wire lying at the intersection of the edges; Fig. 3, a perspective illustrating the retaining-strip formed to trough shape and before the edges are curved inward to engage the edges of the sheet or strip from which the pipe is formed; Fig. 4, a similar view, the edges of the retaining-strip having been curved inward; Fig. 5, an edge view, on an enlarged scale, of the joint after the parts are assembled, but before the final compression of the joint; and Fig. 6 is a similar view of the completed joint.

A denotes the pipe, which is formed from a sheet or strip of metal, the edges of which are curved inward to form continuous hooks 10.

B denotes the retaining-strip, the edges of which are also curved inward to form continuous hooks 11. In assembling, the hooks 11 upon strip B are caused to inclose the hooks 10 on the sheet or strip from which the pipe is formed, as clearly shown in the drawings.

The special mode in which the sheet or strip of metal from which the pipe is formed is manipulated—by that I mean the mode in which hooks 10 are formed and the edges are brought together—and the mode in which the hooks 11 are formed upon the retaining-strip and by which the retaining-strip is manipulated to cause the hooks thereon to inclose the hooks upon the edges of the sheet or strip from which the pipe is formed are not of the essence of my invention, my invention lying wholly in the joint itself and not in the mode in which it is formed.

The essential feature of my novel joint is that I place at the intersection of the edges of the sheet or strip from which the pipe is formed—by that I mean the point of engagement of the bows of the hooks upon the edges of the sheet or strip—a wire C, formed from soft metal—for example, lead or any soft alloy—this wire lying in the slight recess, which I have indicated by 12, between the bows of the hooks upon the edges of the sheet or strip from which the pipe is formed and the inner side of the retaining-strip, as clearly shown in Fig. 5.

The final operation by which the joint is completed consists in compressing the joint in such a manner that the wire C is crushed and caused to fill the entire recess 12, this operation being in practice performed so effectively that the entire recess between the edges of the sheet or strip from which the pipe is formed and the retaining-strip is packed full of the lead or soft alloy, thereby rendering it absolutely impossible for steam or water to pass through the joint, the joint in addition to being absolutely steam and water tight being strong and durable.

Having thus described my invention, I claim—

A sheet-metal pipe having inwardly-curved edges at the joint forming continuous hooks, a retaining-strip having bent edges forming continuous hooks inclosing the hooks at the edges of the pipe-sheet, and a filling or packing of metal compressed between the retaining-strip and the joint of the pipe-sheet.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK A. WILMOT.

Witnesses:
A. M. WOOSTER,
S. V. HELEY.