

(No Model.)

W. A. MILES.
JOINT FOR METAL PIPES.

No. 347,947.

Patented Aug. 24, 1886.

Fig. 1.

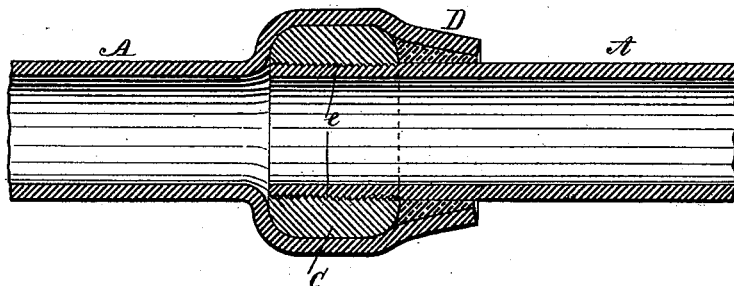
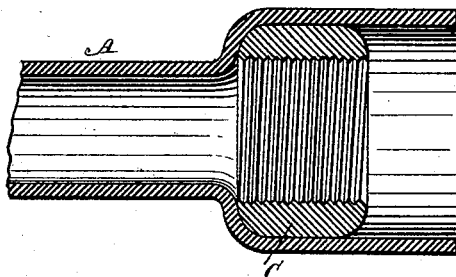


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM A. MILES, OF COPAKE IRON WORKS, NEW YORK.

JOINT FOR METAL PIPES.

SPECIFICATION forming part of Letters Patent No. 347,947, dated August 24, 1886.

Application filed June 4, 1885. Serial No. 167,604. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. MILES, of Copake Iron Works, in the county of Columbia and State of New York, have invented an Improvement in Joints for Metal Pipes, of which the following is a specification.

This improvement is especially intended for utilizing wrought-iron tubes—such as old flue-tubes from steam-boilers—but the improvement is available with any kind of wrought-metal tubes; and by this improvement I am enabled to secure the tubes together in a very firm and reliable manner, and also to introduce a packing of lead or other soft metal at the joint to render the same perfectly tight.

In the drawings, Figure 1 is a section of the joint complete. Fig. 2 shows the tube as enlarged at one end and containing the screw-ring ready to be permanently secured by compressing the tube around the ring and contracting the end portion of the same.

The tube A is of wrought metal, preferably wrought-iron or steel. At one end of said tube an exterior screw-thread is cut in the ordinary manner, as at *e*. The other end of the tube is enlarged cylindrically sufficient for the introduction of the screw-ring C, which is preferably of malleable cast-iron, and it is provided with an interior screw-thread of a size to fit the exterior screw-thread, *e*, on the end of the next length of pipe. After the screw-ring C has been introduced, the end portion of the pipe is closed tightly around the same

by suitable dies or rolls, in order to hold the said ring from revolving or from moving end-wise; and in this operation the extreme portion of the enlarged end is reduced in its diameter until it is only slightly larger than the exterior of the diameter of the pipe. After the pipes have been screwed together, lead or other suitable material is introduced into the annular cavity bounded by the pipe A on one side, the ring C on the other side, and the projecting contracted portion D of the next pipe. The lead or other soft metal is to be poured into this recess after the pipes are screwed together, and it is consolidated by calking.

I claim as my invention—

The method herein specified of making joints between wrought-metal tubes, consisting in spreading the end of the tube, inserting an internally-screw-threaded ring therein, closing the metal around the ring to hold it firmly, screwing into the ring the screw-threaded end of the next pipe, and introducing a packing into the space formed by the inner tube and that portion of the spread end of the outer tube outside the end of the ring, substantially as set forth.

Signed by me this 30th day of May, A. D. 1885.

WILLIAM A. MILES.

Witnesses:

ERASTUS WOLCOTT,
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