No. 622,897. Patented Apr. 11, 1899.

J. J. LAWLER.

FITTING FOR WROUGHT METAL PIPES.

(Application filed Oct. 15, 1898.)

(No Model.)

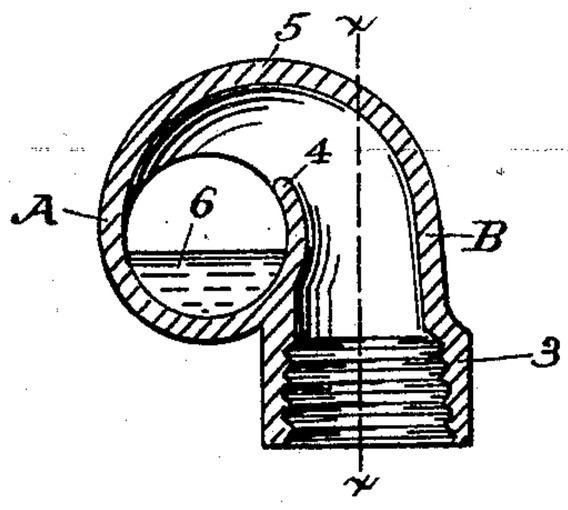

FIG. 1.

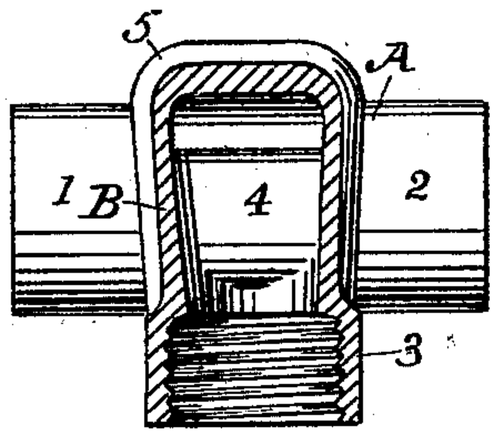

FIG. 2.

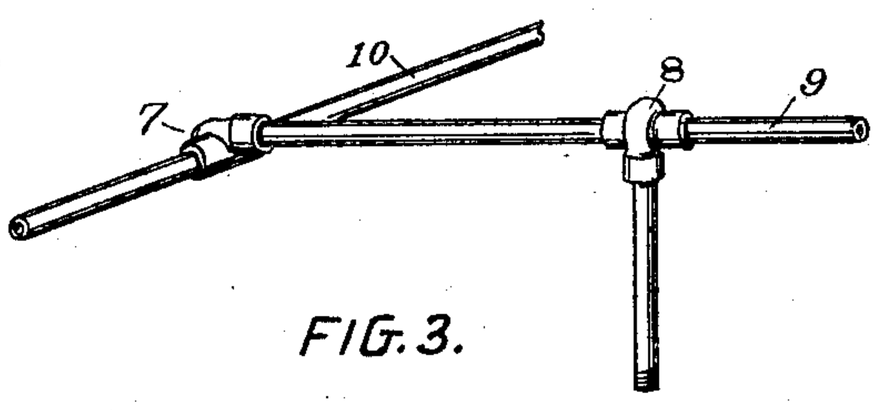

FIG. 3.

WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES J. LAWLER, OF MOUNT VERNON, NEW YORK.

FITTING FOR WROUGHT-METAL PIPES.

SPECIFICATION forming part of Letters Patent No. 622,897, dated April 11, 1899.

Application filed October 15, 1898. Serial No. 693,598. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. LAWLER, a citizen of the United States of America, and a resident of Mount Vernon, county of Westchester, and State of New York, have invented certain new and useful Improvements in Fittings for Wrought-Metal Pipes, of which the following is a specification.

My invention relates to improvements in fittings to be used in connecting up wrought iron or brass pipe; and it consists of a T of peculiar construction, as will be hereinafter fully described, the object being to produce a T-fitting which when used with the outlet end pointing either vertically or horizontally will form a trap to prevent any condensation of gas or air from going beyond the T and for other uses to which it can be advantageously put.

My improved T is shown in the accompanying drawings, which form part of this specification, wherein—

Figure 1 is a vertical sectional view. Fig. 2 is a vertical cross-sectional view of Fig. 1 at line *x x;* and Fig. 3 is a perspective view of my improved fitting as applied to a section of piping, showing the T in both horizontal and vertical positions.

The body A has the usual ends 1 2, which are tapped for the reception of pipe, thereby connecting the "running-pipe." An outlet B, not unlike a return-bend, has its end 3 tapped for connecting with a branch pipe. As my improved T is made of cast metal, the passages for the run, as well as the side outlet, are cored, the core-box being so arranged that a solid metal dam 4 will be left in the fitting when cast, the dam extending across the outlet part parallel with the run and carried up a suitable distance, as will be seen in Figs. 1 and 2. The fitting is cast in one piece, the body A and branch B being integral.

To give a full supply to the outlet-passage, the fitting is arched at 5, the passage being carried upward or away from the outlet end 3, then over the dam 4, and, continuing, goes downward to the end of the fitting, the dam preventing the condensation 6 from running down into the branch outlet.

The following description of Fig. 3 will indicate how my improved fitting may be used in piping a house for supplying so-called "air-gas"—a mixture of air and gasolene-vapor—or any other gas affected by change in temperature which causes the moisture in the gas to condense and become liquefied.

It has previously been the custom to place common T's in runs with the outlet pointing up, then using two elbows and two short nipples to make a return-bend, into which the drop is screwed. The pipe constituting the run is pitched so that any condensation is carried along its interior to a riser connecting with an outlet, where it is drawn off. This "building up" of so many fittings, which are generally between the ceiling and floor, necessitates that the connections be very carefully made, as a leak might cause damage or at least much annoyance, often requiring floors to be taken up if a leak is detected after floors, carpets, &c., are in place.

By the use of my improved fitting there are no more joints made than in a common T—that is, the run and the branch joints. I show an improved T-fitting at 7, the side or branch outlet pointing horizontally, and at 8 a similar fitting is shown, the branch outlet being a vertical drop, from which a fixture may be suspended. Any condensation in pipe 9 will run into pipe 10, the dam in fitting 8 preventing it from running down into the drop, there being plenty of space in the pipe and fitting for the flow of gas, and as the branch outlet on the fitting 7, placed horizontally, is above the supply-pipe 10 the condensation will naturally run along the bottom of the pipe.

It is obvious that the fitting can be used in piping where it is desired to throw the side outlet off the center of the running-pipe and other uses, which will occur to any one versed in the art of piping for gas, air, water, &c.

Having fully described my invention, what I desire to secure by Letters Patent of the United States is—

1. In a fitting adapted to be used in connecting wrought-metal pipes together a T having a side outlet in the shape of a return-bend, having a dam interposed between the said side outlet and the body, substantially as shown and described.

2. In fittings for wrought-metal pipes a T consisting of the body A adapted for con-

necting to the run of wrought-metal pipe, and having a branch outlet from said body the said outlet from the body being in a direction opposite the discharge-opening substantially as shown and described.

3. In fittings for wrought-metal pipes a T consisting of the body A adapted for being interposed in the run of a pipe, and having an arched side outlet, which outlet leaves body in a direction opposite to that of its discharge-opening, substantially as shown and described.

Signed by me, at New York city, this 14th day of October, 1898.

JAMES J. LAWLER.

Witnesses:

VALENTINE ELASSER,

GASTON E. CORDEAUX.