

(No Model.)

I. H. SIMPSON.
DEVICE FOR THAWING ICE FROM PIPES.

No. 529,204.

Patented Nov. 13, 1894.

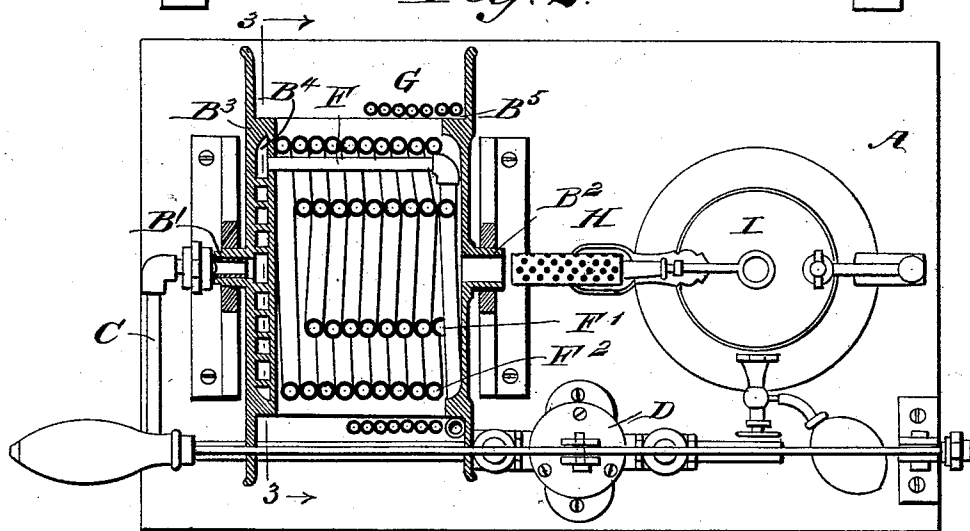
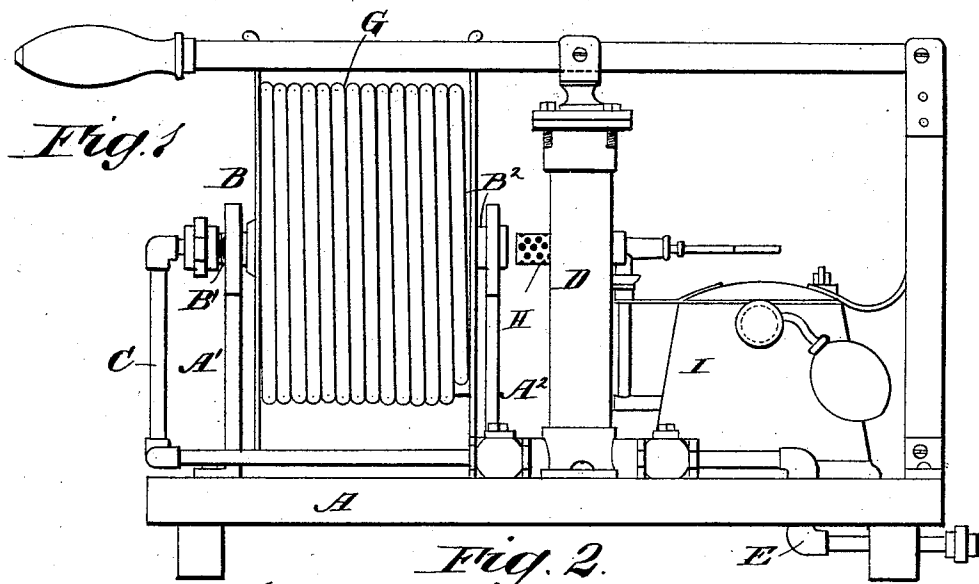
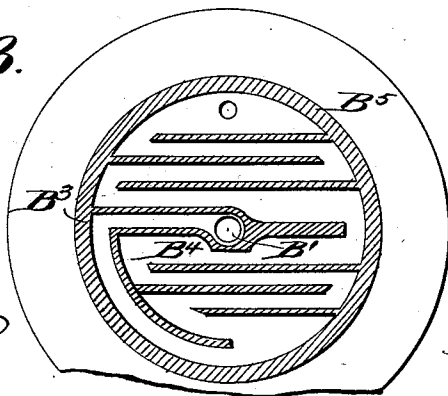


Fig. 3.

WITNESSES:

J. M. Ardle
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UNITED STATES PATENT OFFICE.

ISAIAH H. SIMPSON, OF BRUNSWICK, MAINE.

DEVICE FOR THAWING ICE FROM PIPES.

SPECIFICATION forming part of Letters Patent No. 529,204, dated November 13, 1894.

Application filed March 14, 1894. Serial No. 503,593. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH H. SIMPSON, of Brunswick, in the county of Cumberland and State of Maine, have invented a new and Improved Device for Thawing Ice from Pipes, of which the following is a full, clear, and exact description.

The invention relates to devices for thawing ice from pipes, such as shown and described in the Letters Patent of the United States, No. 458,503, granted to me August 25, 1891.

The object of the present invention is to provide a new and improved portable device, which is very compact in construction, easily manipulated, and arranged for rapidly thawing ice formed in water pipes.

The invention consists principally of a revoluble boiler, through which circulates the water to be heated and forced into the thawing pipe.

The invention also consists of certain parts and details, and combinations of the same, as will be hereinafter described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a sectional plan view of the same; and Fig. 3 is a transverse section of the boiler, on the line 3—3 of Fig. 2.

The improved device is mounted on a suitably constructed base A supporting the brackets A' and A², in which are journaled the hollow trunnions B' and B², of a boiler B, made in the form of a drum and adapted to be revolved, for the purpose hereinafter more fully described.

The hollow trunnion B' connects with a water supply pipe C, leading to a pump D of any approved construction, and mounted on the base A. The inlet or suction pipe E for the said pump D is adapted to be connected with a suitable source of water supply for filling the boiler, after which the said pipe E is connected with the collecting receptacle, into which flows the water from the pipe to be thawed, as described and shown in the patent above referred to.

The inner end of the trunnion B' discharges

into water-ways B⁴ formed in the head B³ of the boiler B, the said water-ways being preferably formed in the manner shown in Fig. 3, so that the water entering the water-ways through the trunnion, circulates through the entire head, to finally pass into one end of a pipe F, arranged within the boiler and formed preferably into two concentric coils F' and F², through which the water circulates after leaving the water-ways in the head B³. The end of the larger coil F² passes through the rim B⁵ of the boiler B to then connect on the outside of the rim with the pliable pipe G, adapted to be passed into the pipe to be thawed, it being understood that the said pipe G is coiled on the rim B⁵ of the drum boiler and may be readily uncoiled therefrom, as needed, by revolving the said boiler. The rim B⁵ is also provided with openings to permit the escape of the smoke and gases from the interior of the drum. The other hollow trunnion B² is in alignment with a plumber's or tinsmith's blast lamp H, of any approved construction and connected with the supply vessel I, located on the base A.

Now, it will be seen that the flame of the blast lamp H passes through the hollow trunnion B² into the interior of the drum boiler B, to strike principally the opposite head B³, so as to rapidly heat the water circulating through the water-ways B⁴ in the said drum B³. The heat also acts on the coils F' and F², so that the water passing through the said coils, after leaving the head B³ is heated to a high degree by the time it passes through the thawing pipe G.

It is understood that when the device is in operation, the pump is kept going, so that water is constantly forced through the boiler to pass into the pipe G, which latter is forced into the pipe to be thawed and as it discharges hot water, the ice is rapidly melted in the pipe. The hot water flowing out of the pipe to be thawed, is collected in a receptacle connected with the pipe E, so as to be returned by the action of the pump D to the boiler to be used over and over again.

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

1. A device for thawing ice from pipes, provided with a revoluble boiler having hollow

trunnions, of which one is connected with a water supply, and the other forms an inlet for the heat, the said boiler being formed at one of its heads with water-ways connected
5 with the trunnion having a water supply, and a pipe coiled within the said boiler and also connected with the said water-ways, substantially as shown and described.

2. A device for thawing ice from pipes, provided with a revoluble boiler having hollow
10 trunnions, of which one is connected with a water supply, and the other forms an inlet for the heat, the said boiler being formed at

one of its heads with water-ways connected with the trunnion having a water supply, a
15 pipe coiled within the said boiler and also connected with the said water-ways, and a thawing pipe adapted to be coiled on the rim of the said boiler and connected with the pipe coiled in the boiler, substantially as shown
20 and described.

ISAIAH H. SIMPSON.

Witnesses:

JOHN L. SWIFT,
BENJAMIN GREENE.