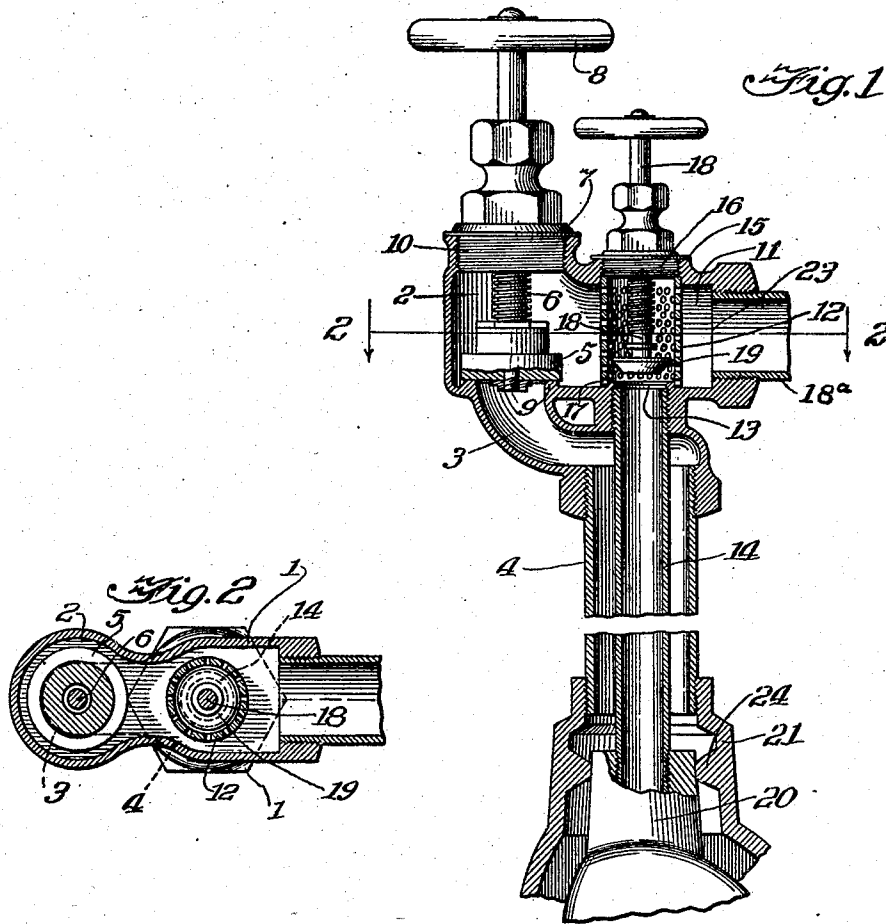


H. N. MOSELEY.
PIPE JOINT.
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932,633.

Patented Aug. 31, 1909.



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UNITED STATES PATENT OFFICE.

HORACE N. MOSELEY, OF ELGIN, ILLINOIS.

PIPE-JOINT.

932,633.

Specification of Letters Patent. Patented Aug. 31, 1909.

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To all whom it may concern:

Be it known that I, HORACE N. MOSELEY, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented new and useful Improvements in Pipe-Joints, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in pipe joints and more particularly to that class of joints used for connecting the heating coils of steam heating apparatus with steam traps.

When steam heating apparatus, designed for heating railway cars, has the steam coils connected with the steam traps, in extremely cold weather, the pipe leading from said coils to the trap, as well as the trap itself, is liable to freeze, and it is one of the objects of this invention to provide a pipe connection between the coils and traps having a valve whereby steam can be admitted to a jacket surrounding this connecting pipe to thaw out both the pipe and the trap.

A further object of my invention is to provide an improved means for preventing foreign objects from entering the steam trap from the coils, thus insuring the perfect working of the trap under all conditions.

A further object of my invention is to provide a device of this character which is of the same general size as the angle valves now in use, to the end that a readjustment of the parts may be unnecessary in placing my device in the position the angle valves occupy. This is accomplished by arranging in my device the inlet and outlet for the steam in the same relative positions, as are the inlets and outlets in the angle valves now in use.

I have illustrated the embodiment of my invention in the accompanying drawings, in which:

Figure 1 is a longitudinal sectional view of my valve; Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

As shown in the accompanying drawings, my device makes use of a casing 1, having a chamber 2 formed therein, which chamber is adapted to communicate by the port 3 with the pipe or jacket 4. A valve 5 controls the port 3. This valve is of the usual construction having a screw-threaded stem

6 adapted to be screwed into the plug 7 and provided with a handle 8, whereby the valve may be raised or lowered from the seat 9, to control the admission of steam from the chamber 2 to the jacket 4. The plug 7 is preferably screw-threaded into its opening 10, as shown. A second chamber 11 is formed in the casing 1, which communicates through the port 13 and connecting pipe 14 with the steam trap. A screen 12 is arranged in the chamber 11 and fits over the port 13 to prevent foreign objects from entering the steam trap. This screen is preferably cylindrical in form and is adapted to be inserted in the chamber 11 through an opening 15 formed in the top thereof. The lower end of the screen rests preferably on a seat 17 formed around the port 13 and the screen is held in position by the screw-threaded plug 16 through which passes the stem 18 of a valve 19 which when seated closes the port 13. Normally the valve 19 is opened and the same is provided to close the valve in case the apparatus become disarranged or when it is desired to remove the pipe 14 or disengage the same from the steam trap. The pipe 14 extends to the top of the steam trap 20 and is screw-threaded therein. This pipe is surrounded by the pipe 4, which extends downwardly and has at its lower end a bell-shaped cap 21 screwed thereon, which fits over the top of the steam trap. The top 20 of the trap is tapered as shown in Fig. 1 and the cap 21 is correspondingly tapered and provided with inwardly projecting lugs 24 which engage the tapered portion 20 of the trap and thus render lateral movement of the jacket impossible whereby any vibration of the parts due to the jar of the train when in motion is effectually prevented. Steam may be admitted into the jacket 4 through the port 3. The chamber 11 is connected with the steam supply through the port 23 by means of a suitable pipe 18^a.

In operation, the valve 5 being closed and valve 19 opened, steam will pass from the port 23 to the chamber 11 through the screen 12, down through the pipe 14 into the steam trap, the screen 12 serving to prevent foreign particles from escaping into the trap. In event the pipe 14 or the steam trap becomes frozen, the valve 5 may be opened by operating the handle 8 and steam will then pass through the port 3 into the jacket 4 around the pipe 14, heating said pipe and trap, and serving to thaw them out.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:

1. In combination, a pipe joint casing
5 having supply and exhaust ports, a pipe secured to said casing and leading from said exhaust port, a jacket secured to said casing and surrounding said pipe, a steam trap having a tapered end in threaded engagement with said pipe, and lugs extending inwardly from said jacket and arranged for engagement by said tapered end of said steam trap whereby a wedge connection is formed.

15 2. In combination, a pipe joint casing having supply and exhaust ports, a pipe secured to said casing and leading from said exhaust port, a jacket secured to said casing and surrounding said pipe and having a bell-shaped portion at the lower end thereof, a steam trap arranged in said bell-shaped portion of said jacket and having a tapered end in threaded engagement with said pipe, and lugs extending inwardly from said jacket and arranged for engagement by said tapered end of said steam trap whereby a wedge connection is formed.

3. In combination, a pipe joint casing having a chamber with supply and exhaust
30 ports, a pipe secured to said casing and leading from said exhaust port, a jacket secured to said casing and surrounding said pipe and communicating with said chamber, a steam trap having a tapered end in threaded engagement with said pipe, and lugs extend-

ing inwardly from said jacket and arranged for engagement by said tapered end of said steam trap whereby a wedge connection is formed.

4. In combination, a pipe joint casing
40 having supply and exhaust ports, a pipe secured to said casing and leading from said exhaust port, a jacket secured to said casing and surrounding said pipe, a steam trap having a tapered boss at its inlet with which said pipe has threaded engagement, and lugs extending inwardly from said jacket and arranged for engagement by said tapered boss whereby a wedge connection is formed.

5. In combination, a pipe joint casing
50 having a chamber with supply and exhaust ports, a pipe secured to said casing and leading from said exhaust port, a jacket secured to said casing and surrounding said pipe and having communication with said chamber, a valve for controlling the connection between said chamber and said jacket, a steam trap having a tapered end in threaded engagement with said pipe, and lugs extending inwardly from said jacket and arranged for engagement by said tapered end of said steam trap whereby a wedge connection is formed.

In witness whereof, I have hereunto subscribed my name in the presence of two
65 witnesses.

HORACE N. MOSELEY.

Witnesses:

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