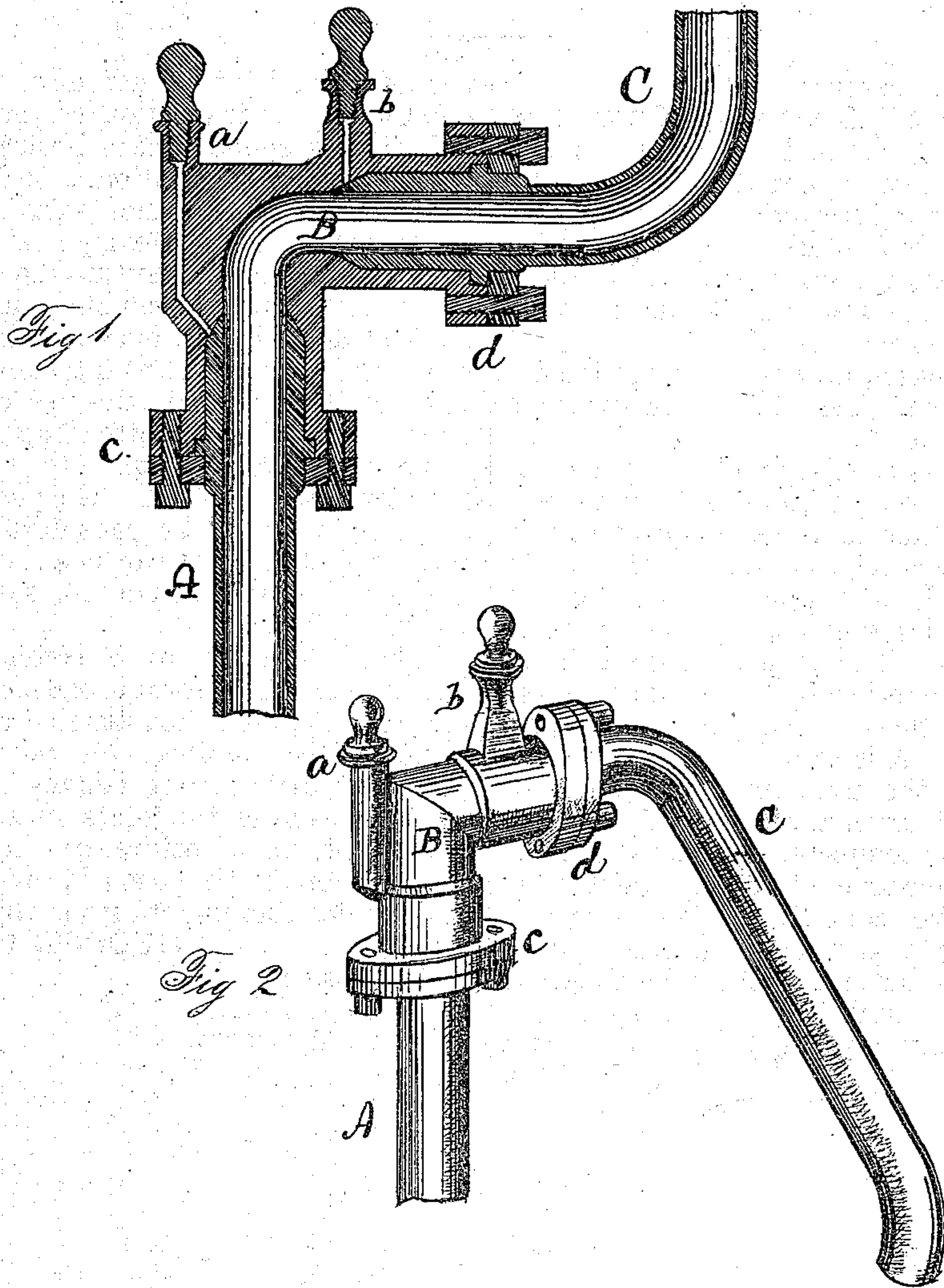


George C. Morgan

Rotating Drop Pipe.

No. 119,388.

Patented Sep. 26, 1871.



Witnesses
E. A. West,
O. W. Bond

George C. Morgan
Inventor.

UNITED STATES PATENT OFFICE.

GEORGE C. MORGAN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN ROTATING DROP-PIPES.

Specification forming part of Letters Patent No. 119,388, dated September 26, 1871.

To all whom it may concern:

Be it known that I, GEORGE C. MORGAN, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Rotating Drop-Pipe for supplying water to locomotive-tenders, of which the following is a full description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a section, all parts arranged in the same vertical plane. Fig. 2 is a perspective, differently arranged.

My improvements consist in adapting a metal pipe to be used in conducting water from tanks to the tenders of locomotives by providing it with suitable water-tight joints, and in the use of kerosene for lubricating such joints for the purpose of preventing the freezing of water therein in cold weather. The pipe consists of three parts, connected together by water-tight joints.

In the drawing these three parts are represented by A B C. A is to be connected to the pipe leading from the tank or other source of supply, in the ordinary manner. B is in the form of an elbow, and is connected with A by a water-tight joint, *c*, so constructed and arranged that B can be rotated horizontally upon A. C is connected with B by a similar joint, *d*, in such a manner that the outer end of C can be elevated or depressed at pleasure, and as much as may be required, C rotating upon B. The construc-

tion of these joints is not new, and will be understood by an inspection of the drawing. *a b* are oil-cups communicating with the joints for the purpose of lubrication, and for this purpose I use kerosene or other suitable coal-oil. In cold weather, when the pipe is not in use, the kerosene or coal-oil prevents the formation of ice about the joints; and no other lubricating-oil in use will do this; and even a thin film of ice in the joints is sufficient to interfere with the operation of the pipe. By the use of this pipe the many inconveniences attending the usual methods of introducing water into the tenders of locomotives are obviated. The position of the outlet of the pipe can be considerably varied with the greatest ease, as the position of the tender may require; and when not in use C can be thrown up out of the way.

What I claim as new is as follows:

1. A water-pipe for railroads, consisting of the parts A, B, and C, constructed and jointed substantially as described, and having a reservoir and duct arranged to convey an anti-freezing liquid to each of the joints, as set forth.

2. Supplying an anti-freezing liquid to the joints of pipes for the purpose of preventing the formation of ice therein, substantially as set forth.

GEORGE C. MORGAN.

Witnesses:

E. A. WEST,
O. W. BOND.

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