3 Sheets—Sheet 1.

E. LEWIS & W. A. MALONEY.

Stand-Pipe.

No. 204,344. **Patented May 28, 1878.**

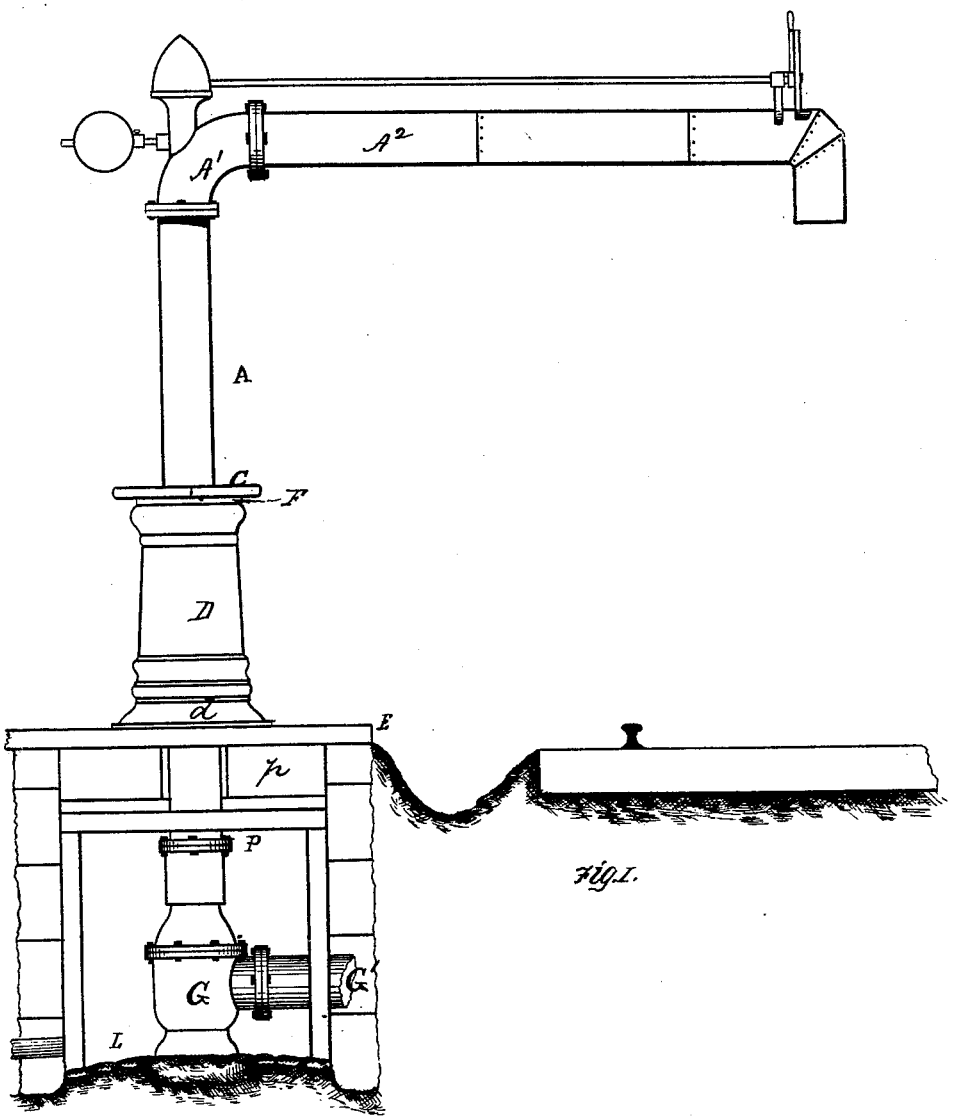

Fig. 1.

Witnesses
J K Smith
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Edward Lewis
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Atty's

3 Sheets—Sheet 2.

E. LEWIS & W. A. MALONEY.

Stand-Pipe.

No. 204,344. **Patented May 28, 1878.**

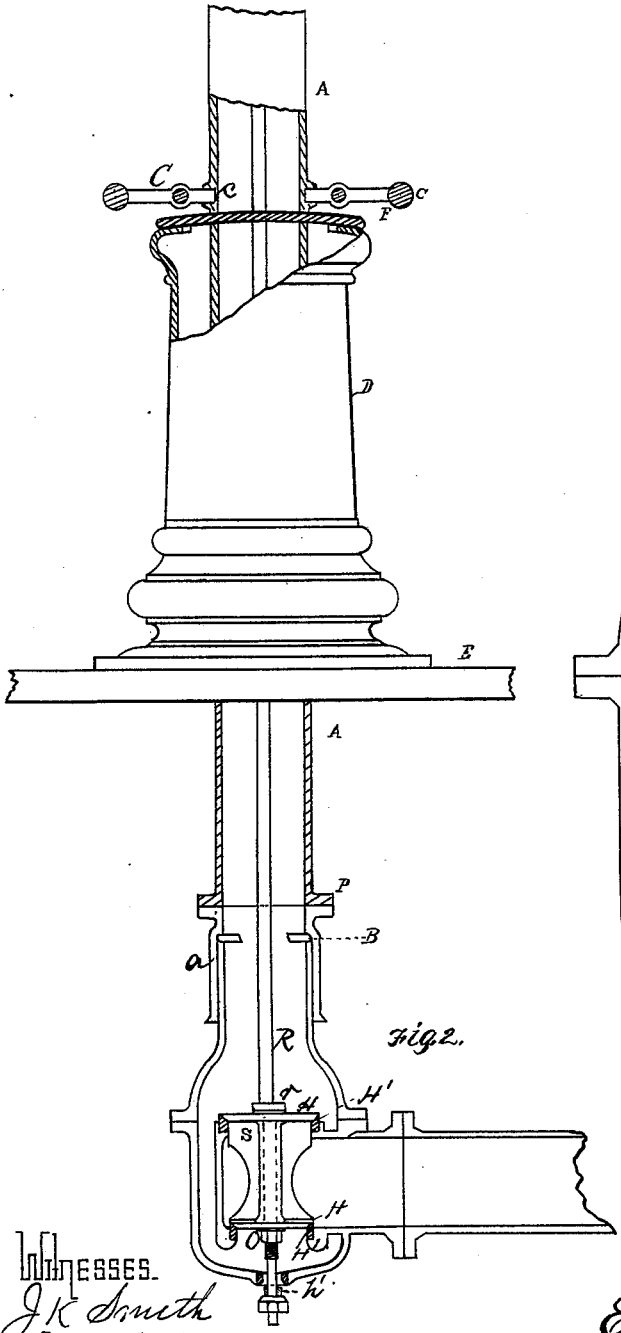

Fig. 2.

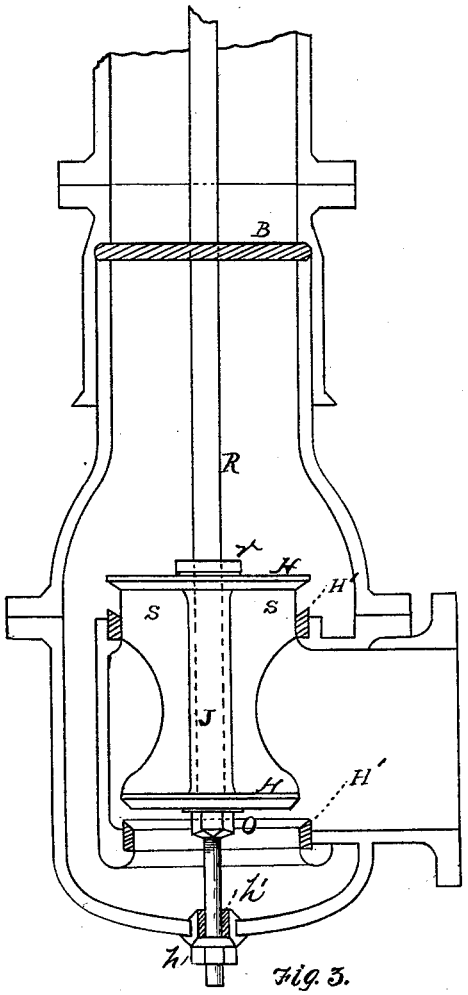

Fig. 3.

Witnesses.
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3 Sheets—Sheet 3.

E. LEWIS & W. A. MALONEY.

Stand-Pipe.

No. 204,344. Patented May 28, 1878.

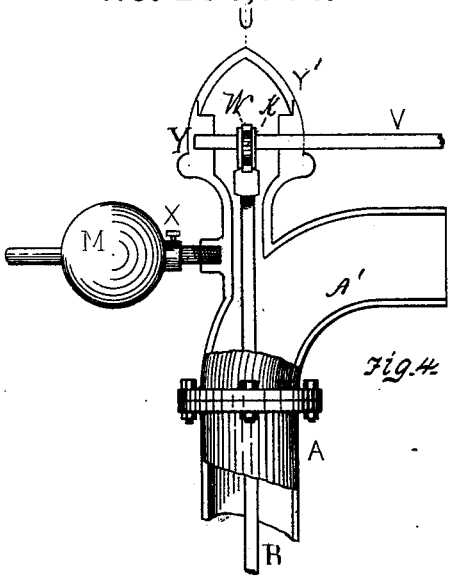
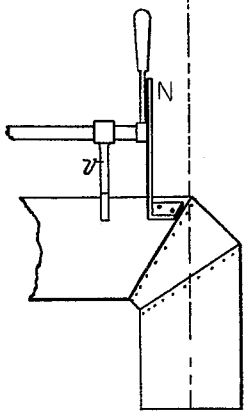


Fig. 4.



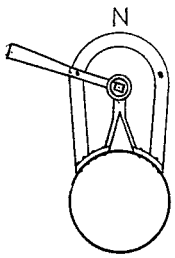


Fig. 5.

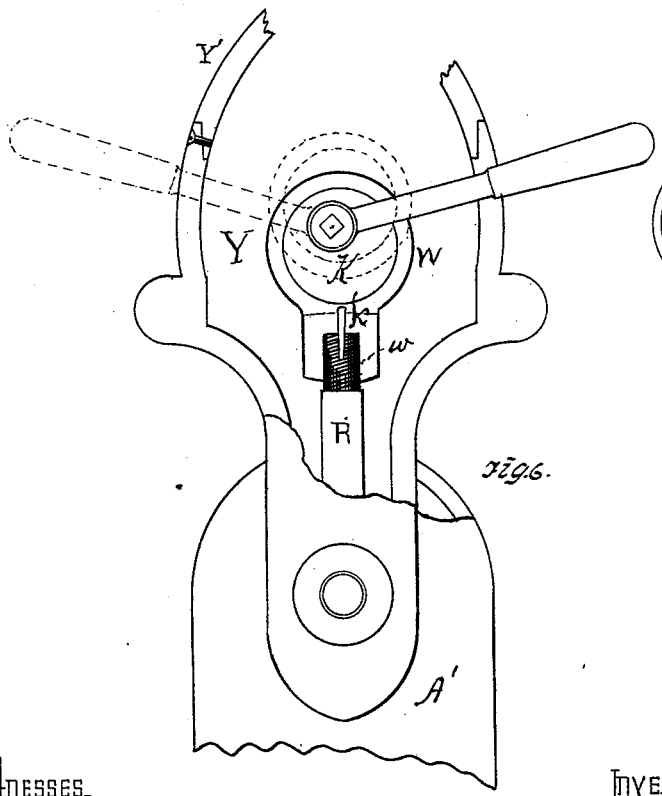


Fig. 6.

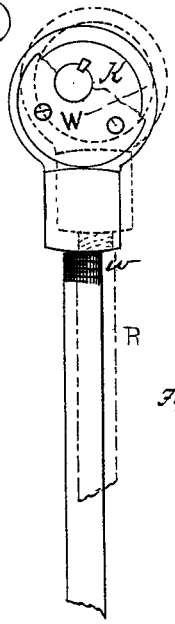


Fig. 7.

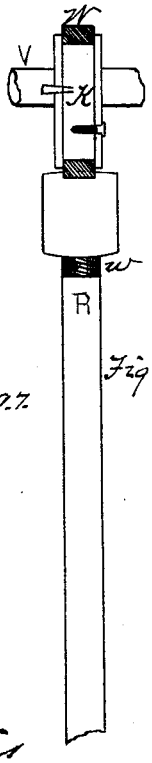


Fig. 8

Witnesses.
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R. H. Whittlesey

Inventors.
Edward Lewis
William A. Maloney
by Bakewell & Kerr Attys

UNITED STATES PATENT OFFICE.

EDWARD LEWIS AND WILLIAM A. MALONEY, OF OIL CITY, PENNSYLVANIA, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO THOMAS M. KING.

IMPROVEMENT IN STAND-PIPES.

Specification forming part of Letters Patent No. **204,344**, dated May 28, 1878; application filed March 9, 1878.

To all whom it may concern:

Be it known that we, EDWARD LEWIS and WILLIAM A. MALONEY, of Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Improvement in Stand-Pipes; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is an elevation of a stand-pipe embodying our invention, the valve-pit being shown in section. Fig. 2 is a partial sectional view of the valve-chamber, pedestal, and stand-pipe. Fig. 3 is an enlarged sectional view of the valve-chamber and valve. Figs. 4, 5, 6, 7, and 8 are detail views.

Like letters refer to like parts wherever they occur.

Our invention relates to the construction of stand-pipes for supplying the tank-water to locomotive-tenders and for like purposes.

We will now proceed to describe our invention, so that others skilled in the art to which it appertains may apply the same.

E indicates a platform, beneath which is formed a pit or excavation, P, for the valve-chamber of a stand-pipe. This excavation is walled suitably, and floored over just below the platform E, to form an intermediate space, *p*, which can be filled with sawdust or like non-conductor, to guard and protect the valve-chamber from low temperatures.

A represents a vertical pipe, usually of cast-iron, one-half inch thick and about eight inches interior diameter, either formed to seat over the upper end of the valve-chamber, or preferably bolted at its bottom to a flange-pipe, *a*, which cups over the top of the valve-chamber, around which it swings freely. In order to reduce the friction as far as possible, a ball-joint or a brass ring, B, is neatly turned to fit and is inserted between the pipes.

Upon the upper end of vertical pipe A is bolted an elbow, A^1, to which is secured a horizontal feed-pipe or jib, A^2, usually of zinked sheet-iron, and of such length that when swung into position for use its outer end will hang directly over a track with relation to which the stand-pipe and its platform are located.

Above the platform E, and inclosing vertical pipe A, is a pedestal, D, having a broad firm base, *d*, through which pass lag-screws to hold it in position. This pedestal is closed at its top by a cap-plate, F, having an aperture carefully turned to fit pipe A, which is steadied and guarded against lateral motion by said cap-plate.

C indicates a hand-wheel, which may be cast in two pieces, and bolted together around pipe A in a slotted flange, *c*, just above pedestal D, and at a convenient distance above platform E to permit the pipe A to be operated therefrom, so as to turn the pipe and its jib in any required direction.

G represents the valve-chamber, located within pit P; and G′, the water-supply pipe.

Within the valve-chamber G is the valve, formed of two plates, H H, (usually brass disks,) properly beveled on the edges to fit seats H′ H′, the plates H being joined centrally by a tube, J, and stiffened by three or more wings, S S. Through the center of tube J passes the valve rod or stem, R, having a flange or shoulder, *r*, above the upper valve-plate H, and a threaded nut, O, below the lower plate, for securing the valve to the rod. The rod R, below the valve, is reduced in size, and carries a smaller valve, *k*, adapted to close an opening in the bottom of the valve-chamber when the rod R is raised, and to open the same when the valve-rod is lowered, thus permitting the escape of the residuary or surplus water, which would otherwise be retained and freeze within the stand-pipe. In order to adjust this supplemental valve to the varied lift of valve-rod R, it will preferably be secured thereto by jam-nuts or like devices, and should terminate above in a sleeve, *k′*, which enters the opening in the bottom of the valve-chamber, and prevents loss of water when the valve is insufficiently lifted. On the upper end of valve-rod R is an eccentric-band, W, preferably adjustably connected thereto by the thread *w* and key *k*, so that by screwing the rod either up or down, (and fastening it by key *k*,) the lift of the valve may be regulated at pleasure.

V is a rod, supported in bearings or standards *v* on the "jib" or feed-pipe, and furnished at its outer end with a hand-lever, N. Upon

or near the opposite end of rod V is an eccentric or cam, K, which works within the band W on the upper end of valve stem or rod R, so that by means of lever N the rod V may be turned to bring the greatest eccentricity of K uppermost when it is desired to open valve H H. In order to protect the cam or eccentric K, a hollow chamber, Y, of any desired shape, is formed on the elbow A′ in direct line with the valve-stem R; and in order to get at the cam and rod for oiling and adjusting the parts, the cam-chamber is closed by a removable cap, Y′.

Secured to the elbow of the stand-pipe, at a point opposite the feed-pipe or jib, is a counterpoise, M, arranged on a rod, and provided with a set-screw, X, so that the weight can be moved backward and forward, and finally secured in such position as will counterbalance the weight of the feed-pipe or jib, and prevent the vertical column A from binding or cramping at joint B or on cap-plate F as it is swung around.

As before specified, the ring B, valve-plates H H, and ring-seats H′ H′ are preferably of brass; but other suitable material well known in the art may be employed.

In lieu of the rod extending along the jib or feed-pipe, the eccentric K might be operated by a short shaft and rope or chain carried to the outer end of the jib.

The operation of our devices is as follows: The platform and vertical pipe A being properly located with reference to the track, and the calculated length of the jib or feed-pipe being such that its outer end will swing directly over the center of the track, or man-hole in a tender thereon, the vertical pipe A is rotated on the valve-chamber by means of hand-wheel C until the end of feed-pipe is in position over the man-hole of the tender. This brings the lever N in reach of a person upon the tender, who can thus operate the valve H H while watching the water in the tender, thus guarding against an overflow. By adjusting the stem and eccentric so as to lift the valve-stem two inches, both the upper and lower plates of the valve will rise that distance, making an aperture of water-way of two inches above and two inches below, thus performing the same service as a single valve would if raised twice this distance.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In combination with a stand-pipe, the valve-chamber provided with the double-seated valve, substantially as and for the purpose specified.

2. The combination, with the valve H and its stem, of the eccentric-band W, eccentric K, and rod V, mounted on the jib, the whole constructed substantially as and for the purpose specified.

3. The combination, in a stand-pipe, of the valve-stem, the eccentric-band adjustably connected to the valve-stem, and the cam or eccentric, substantially as and for the purpose specified.

4. In a stand-pipe, the combination of the main valve and the adjustable frost or waste valve, provided with the sleeve *h′*, connected to and operated from the main valve or its stem, substantially as and for the purpose specified.

In testimony whereof we, the said EDWARD LEWIS and W. A. MALONEY, have hereunto set our hands.

EDWARD LEWIS.
WILLIAM A. MALONEY.

Witnesses:
F. W. RITTER, Jr.,
JOHN H. SMITH.