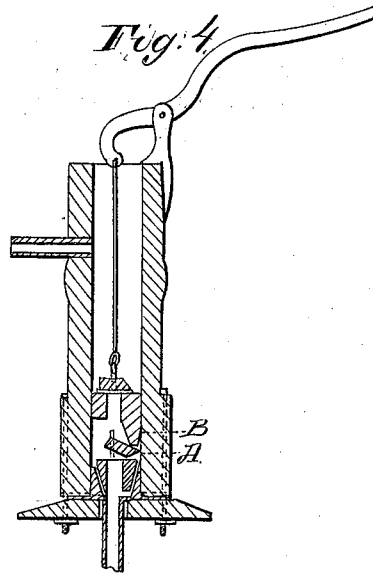
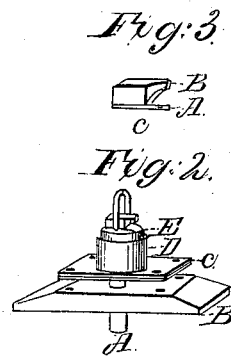
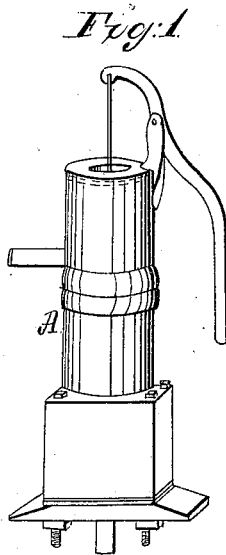


*S. Adams,
Pump Lift,*

N^o 141.

Patented Mar. 11, 1837.



Witnesses:
Jos. Giles.
Wm. Borden.

Inventor
Samuel Adams

UNITED STATES PATENT OFFICE.

SAMUEL ADAMS, OF TOWNSEND, MASSACHUSETTS.

PUMP FOR PREVENTING THE WATER FROM FREEZING WITHIN THE BARREL.

Specification of Letters Patent No. 141, dated March 11, 1837.

To all whom it may concern:

Be it known that I, SAMUEL ADAMS, of Townsend, in the county of Middlesex and State of Massachusetts, have invented a new and useful improvement in connecting lead and other pipe with the barrels of wooden pumps and in letting off the water to prevent freezing; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in connecting lead and other pipe with the barrels of wooden pumps so as to form an air tight junction by means of soldering a flange to the pipe, and a socket, to receive the lower box, to said flange, and bolting said flange to the wooden barrels, and in letting off the water by means of a lever valve to the lower box, opened by a vertical projection in the upper box.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

See the drawings annexed, Figure 1, A represents the pump entire, two feet and two inches in length. Fig. 2, A represents the pipe which is to be connected with the pump at the bottom, B represents a pedestal of oak or other hard wood, of an oblong square form, projecting on two sides about three inches from the base of the pump, by means of which the pump is made fast to the floor or platform, C represents a lead or other metallic flange about one eighth of an inch thick, and large enough to cover the bottom of the pump. Through the center of said pedestal and flange, the pipe A passes and is soldered to said flange so as to make the upper end of the pipe even with the upper surface of the flange. Directly over the end of the pipe, on the upper surface of the flange is soldered a lead or other metallic socket, D, about three inches deep, the bore, or interior surface of which is in the shape of an inverted truncated cone, two inches and one fourth in diameter at the top, and one inch and three fourths at the bottom, or point of junction with the flange; the outer surface of said socket is cylindrical, two inches and a half in diameter at both ends. This socket is passed into the bore of the pump (which is $2\frac{1}{2}$ inches in diameter) at the bottom until the aforesaid

flange, which has a layer of soft leather, or other similar substance upon it, comes in contact with the bottom of the pump, against which it is made to press at pleasure, by means of the aforesaid pedestal, B, drawn up against it by four bolts, as seen in Fig. 1, passing either up or down, through the shoulder corners of the pump's base, and tightened by nuts or keys. E represents the lower box fitted water tight into the aforesaid socket, where it lodges when dropped down the bore of the pump.

The water is let off to prevent freezing by raising the pump handle to its greatest height, thereby causing a projection in the bottom of the upper box to open the valve of the lower box. Said valve of the lower box, which I call the lever valve, consists of the usual leather, as long as the upper diameter of the box, with a lever of some hard wood, of the same length, attached to its upper surface, and is fastened to the upper edge of the box in the usual way (the boxes being made of wood).

The form and nature of the lever valve, and its operation, will be best understood by an inspection of its drawings. Fig. 3 in which A represents the leather, B represents the lever, and C represents the point on which the lever turns when its small end is pushed down by the aforesaid projection in the bottom of the upper box, as seen in Fig. 4, in which A represents the lever valve of the lower box, opened by B, the aforesaid projection in the bottom of the upper box pushed down upon the small end of the aforesaid lever by raising the pump handle to its greatest height.

The construction aforesaid effectually prevents the water in the pipe from wasting by the admission of air at the point of junction of the lead, (or other metal) and the wood; when the pump is not in operation and the pump handle being raised to its height opens the valve of the lower box as aforesaid and lets off the water from the pump and pipe so as to prevent the damage and inconvenience of freezing when the temperature is such as to freeze water.

What I claim as new and of my own invention, is—

The connecting of lead and other pipe

with wooden pump barrels so as to form an
air tight junction, by means of locating the
lever box in a socket connected with the
pipe as aforesaid, within the pump barrel,
5 and other means as aforesaid; and the let-
ting off of the water to prevent freezing, by
means of the lever valve in the lower box,

opened by the projection in the bottom of
the upper box, all as aforesaid.

SAMUEL ADAMS.

Witnesses:

JOEL GILES,
WM. BOWDAM.