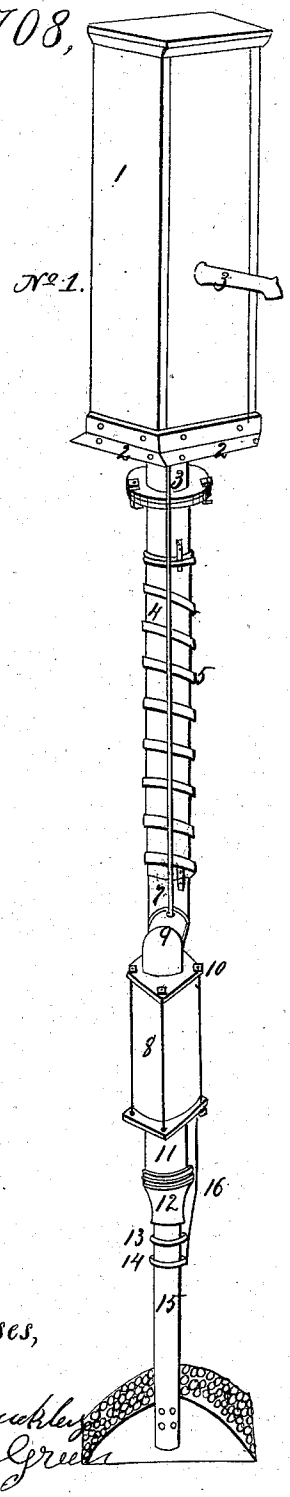
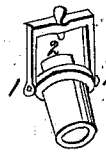
J. Greaves.

Pump Lift.

No. 36,708, Patented Oct. 21, 1862.

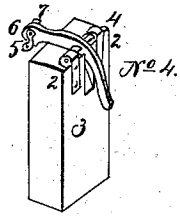


No. 1.



No. 2.

No. 3.



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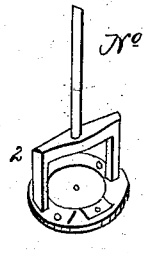

No. 5.

Witnesses,

John Buckley

William Greaves

Inventor,

James Greaves

UNITED STATES PATENT OFFICE.

JAMES GREAVES, OF UTICA, NEW YORK.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **36,708**, dated October 21, 1862.

To all whom it may concern:

Be it known that I, JAMES GREAVES, of Utica, in the county of Oneida, in the State of New York, have invented a New Way of Making Pumps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the drawings, and to the letters of reference marked thereon.

The nature of my invention consists in making the pipe of a force-pump answer for its sole support, and other novel features by which I make a cheap and durable antifreezing force-pump.

To enable others to make and use my invention, I will describe its construction and operation.

In Figure 1, No. 1, is the part that contains the handle-rod and air-chamber. This I fasten to the iron base 2 2. This and flange 3 I make in one piece. 4 is the pipe. 5 is a metal band wound around it to strengthen it, it being made of wood. 7 is the rod which goes through the elbow 9 and flange 10. 8 is the barrel. This I make of earthenware, well glazed, so that it is as smooth as glass, and costs only one-third as much as iron, and is much better and quite strong enough. 11 is the lower pipe and flange. 12 is a short rubber pipe fastened to the iron pipe 11. The earthen pipe 15 goes in the iron pipe 11 from one to four inches, so that the pipe 15 will be sure to rest on the bottom of the well, and the base 2 2 on the platform over the well. The rubber pipe 12 fits tight enough to the pipe 15 to make a water-tight joint by the pressure of the air. The enlargement 13 prevents the pipe 15 coming out of the pipe 11, with the assistance of the ring 14 and rod 16.

No. 2 is the hose-coupling. 1 1 are joints to allow of its being put quickly on the spout 3. The projection 2 goes into the spout 3.

No. 3 is the hose-pipe. The main part of it, 2, is iron, and the small part, 3, brass.

No. 4 shows my arrangement of the handle and joints. 2 2 are bearings fastened to the wood 3. The short shaft 4 I harden to prevent wear. 5 is the part screwed on the pump-rod, and also works on the pin 6. This I fasten to the handle with the nut 7, so that the handle will not wear any, and should the pin 6 wear out another one can be put in the handle. The wood 3 is fastened to inside of the pump 1, No. 1, with two bolts.

No. 5 is the upper valve. The seat 1 and the part screwed on the rod I make of one piece of cast-iron.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the flange 3 and base 2 2, as constructed and combined with the upper part, 1, and spout 3, metal band 5 as fastened to the wood pipe 4, the elbow 9, and flange 10, as combined with the rod 7 and pipe 4, said pipe being the only support of the barrel 8, and the barrel 8, when constructed of stoneware or earthenware, all as shown in Fig, 1, as and for the purposes described.

2. The rubber pipe 12, as combined with the iron pipe 11 and earthenware pipe 15, the enlargement 13, ring 14, and rod-supporter 16, all shown in Fig. 1, all as and for the purpose described.

JAMES GREAVES.

Witnesses:

JOHN BUCKLEY,

WILLIAM GREEN.