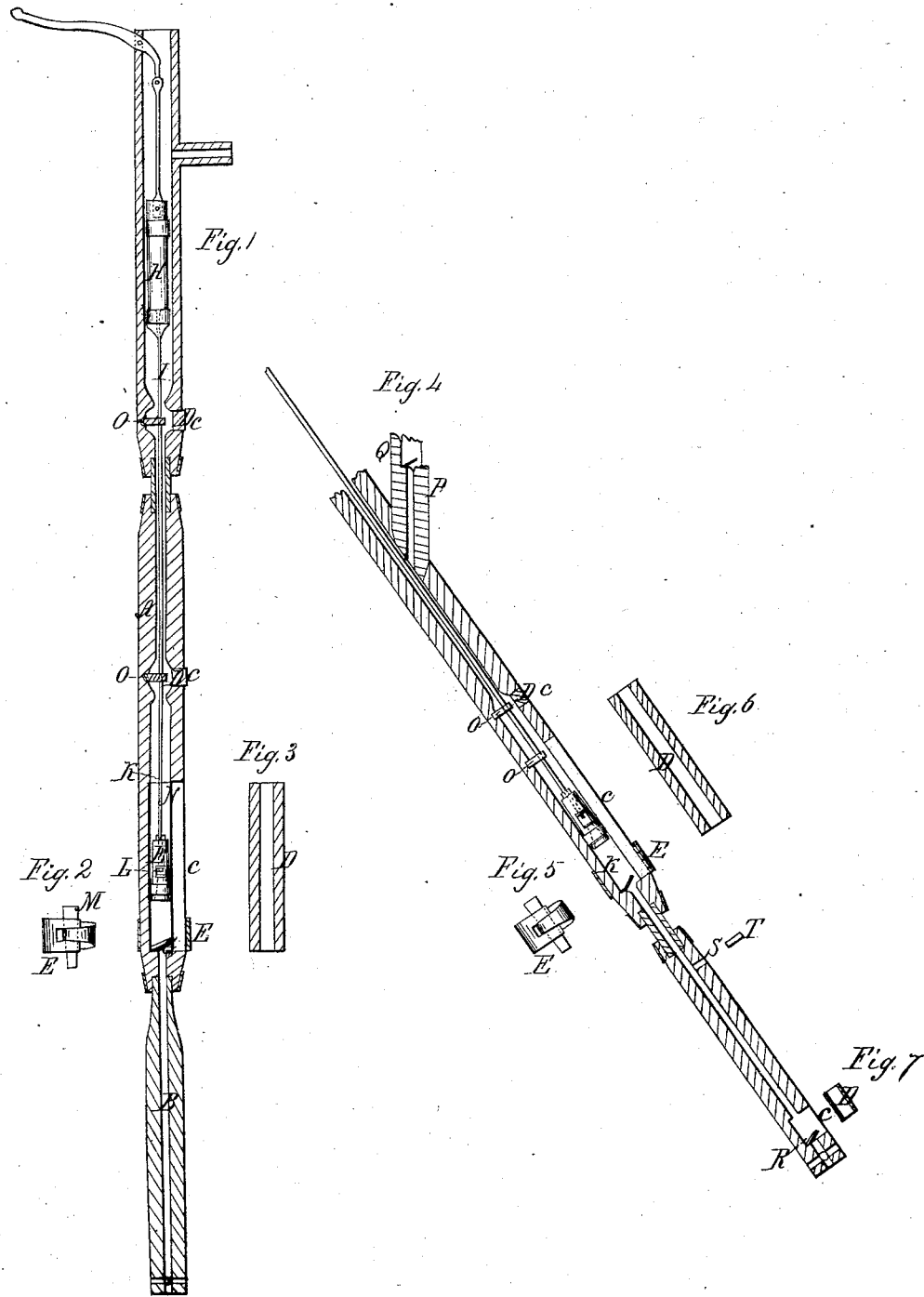


# J. Evens, Pump Lift,

N<sup>o</sup> 1002.

Patented Nov. 9, 1888.



# UNITED STATES PATENT OFFICE.

JOSEPH EVENS, OF LEBANON, OHIO.

## PUMP.

Specification of Letters Patent No. 1,002, dated November 9, 1838.

*To all whom it may concern:*

Be it known that I, JOSEPH EVENS, of Lebanon, Warren county, Ohio, have invented a new and useful Improvement in the Construction of Pump-Stocks and Pump-Spears for Raising Water, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

10 The pump stock A Figure 1 is made generally like others in use, except in the following particulars; The bore B is the same diameter throughout except at the places where the bucket valve works, and below  
15 the lower valve which should be reamed out a quarter of an inch larger within 4 inches of the lower valve. At the places marked C sections or rectangular pieces, or plugs D of the pump stock A are removed in order  
20 to form apertures through which to admit the bucket and valve which work therein and brackets or screw guides to the pump spear which should be screwed in or pass through with a shoulder through a small piece of  
25 leather and pump stock and a nut put on the outside. The plugs when put in their places are secured by bands and keys E Figs. 12, 4, 11. The buckets and valves are made in the usual manner.

30 By having the side apertures C and plugs D to close then at the chambers K containing the bucket and valve for admitting them into the same. The bucket and valve are placed in the chamber K the rod I inserted  
35 through the bucket and secured by screws and nuts L or keys to the bucket and the plugs D put in their places made tight and secured by metallic rings L and wedges or keys M, Fig. 2.

40 When the bucket or valve is out of order access to it for the purpose of repair may be had through said openings C by simply removing the plug D Fig. 3.

The bucket may work in a copper tube N  
45 or otherwise placed in the working bore or chamber. The lower end of this copper tube may be sloped off or placed up sufficient for the valve to work. The bucket may also be made of copper or wood.

50 The improvement on the pump stock is pump spear is as follows A half inch rod

above described and the improvement on the passing down through a bore of 2 or 2½ inches passing through as many screw guides as is thought sufficient any given distance to 55 within thirty feet of the water or near it if thought proper and fastened to the bucket and upper valve as previously described.

In using the pump in an inclined or vertical position metallic or wood buckets and 60 screw guides O Figs. 1, 4 must be used with round apertures in the same through which the pump rod passes for sustaining it and causing the bucket to work upon in the center without rubbing its under side against 65 the lower side of the working chamber or that part of the bore which is enlarged for the bucket to work in, the buckets and rod being made of suitable material to prevent wearing. The above 70 buckets should be placed within thirty feet of the perpendicular height of the water. And also another valve R in the lower end of the inclined stock. In the use of the inclined pump an aperture S must be made 75 below the suction valve to admit water into the lower piece of the pump stock which aperture is to be closed by a plug T.

The invention claimed and desired to be secured by Letters Patent consist— 80

1. In the construction of the pump stock with openings and plugs in the side of the same to insert the buckets valves and tubes in the working parts of the bore by which means the other part of the bore can be made 85 of a uniform small diameter except below the lower valve which should be reamed out one fourth of an inch larger to within four inches of the lower valve.

2. The improvement on the spear is as 90 previously described by passing a half inch or ⅝ inch rod through a 2 or 2½ inch bore through as many screw guides as is necessary to keep the rod in the center of the bore to keep the bucket from wearing 95 in either a perpendicular or inclined pump and the screw guides to be made of suitable metal to prevent wearing.

JOSEPH EVENS.

Witnesses:

SAMUEL B. MORGAN,  
JOSEPH MORGAN.