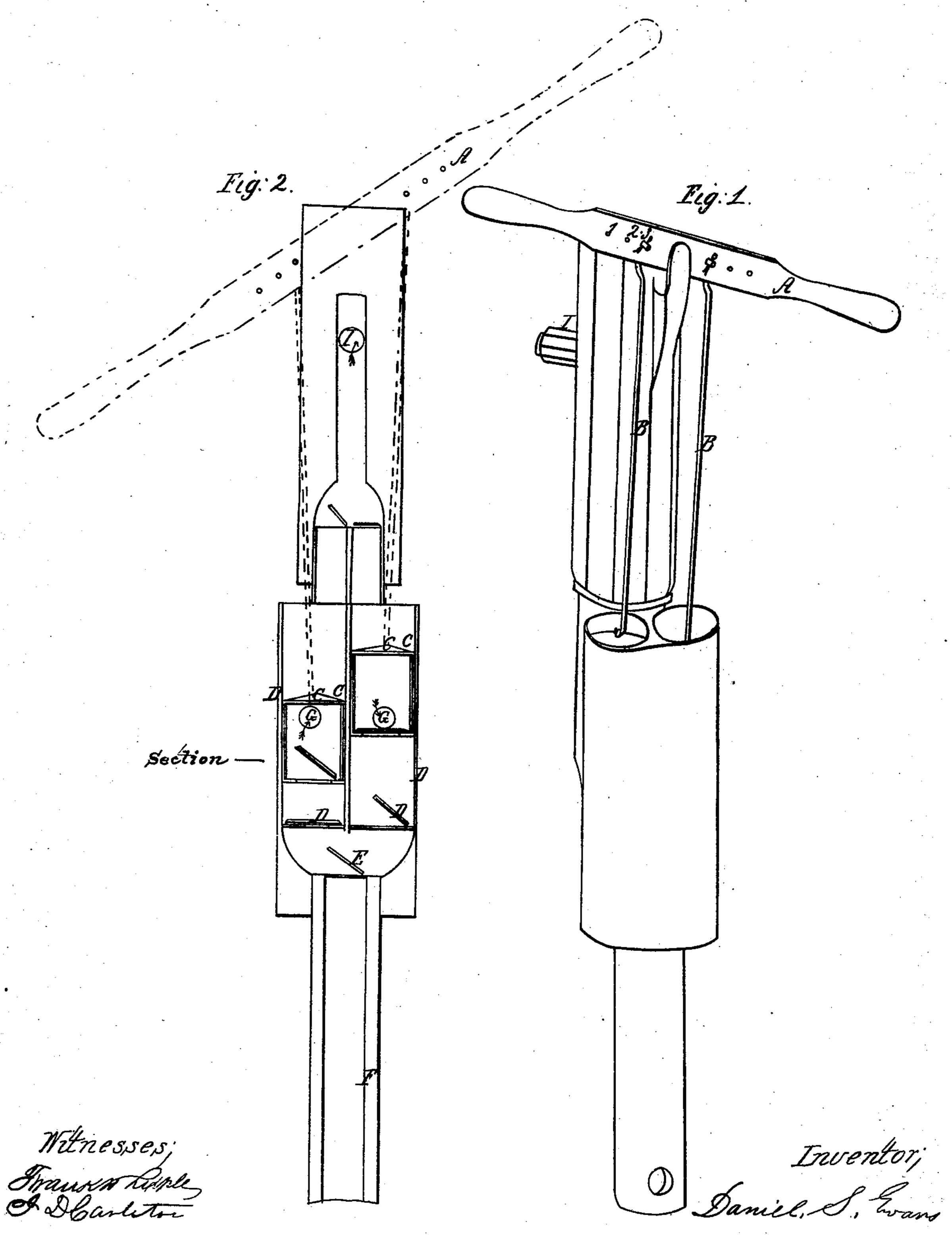
1. 5. Englis.

10702 P27777.

1085,517.

Palentel 11.5,1869.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



## DANIEL S. EVANS, OF BROCKWAY, MICHIGAN.

Letters Patent No. 85,517, dated January 5, 1869.

## IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Daniel S. Evans, of Brockway, St. Clair county, State of Michigan, have invented a new and useful Combined Double-Acting Suction and Force-Pump; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, the same making a part of this specification, in which—

Figure 1 is a perspective view;

Figure 2, a longitudinal elevation; in which—

A is a handle or brake.

L L are two cylinders, in which the pistons C C are fitted.

B B, piston or connecting-rods, connecting handles with combined plungers and suction-boxes, marked C C.

D D, check-valves at lower end of cylinder.

E, holding-valve at the head of the foot-piece or pipe marked F.

G G, ports, through which the water is forced from

cylinder to pump-head, through valves H H, at head of ports.

I, spout or hose-connection.

The stroke of the pump may be changed by changing connecting-rods in holes 1, 2, 3 in handle.

By disconnecting one connecting-rod, the pump may be operated at one-half its capacity with less power.

This pump may be constructed of wood or of metal, may be operated by hand or steam-power, and is particularly calculated for raising water to great height or from very deep wells.

This pump is claimed to raise or throw water with about one-half the power used in operating any other pump of the same capacity.

What I claim as new, and desire to secure by Let-

ters Patent, is-

The two cylinders L L, together with the valves D D and valve E, in connection with valves H H, the whole constructed substantially as above described.

Witnesses:

DANIEL S. EVANS.

R. S. PATTERSON, T. LOCKTON.