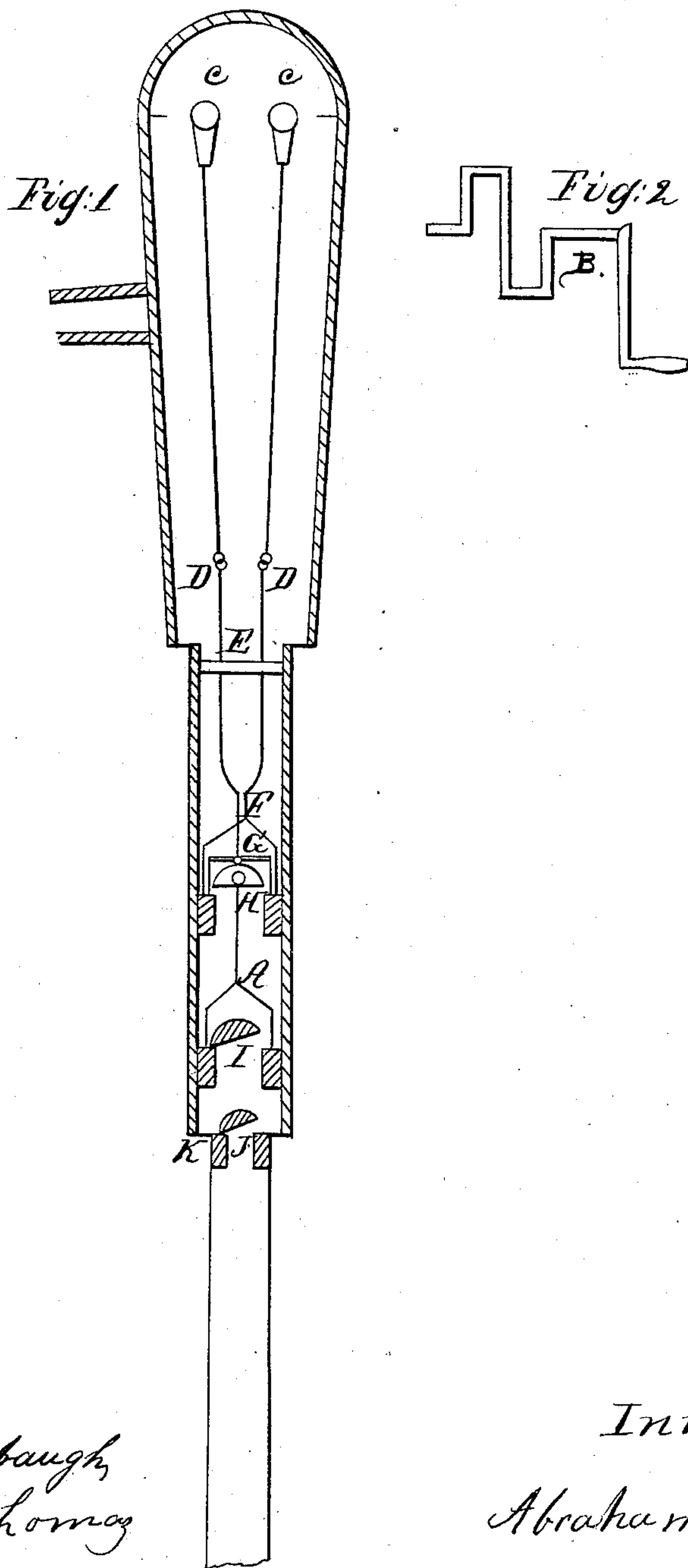


A. Arnold,
Double-Acting Pump,
N^o 38,209. Patented Apr. 21, 1863.



Witnesses
John H. Aulabaugh,
Nathaniel Thomas

Inventor
Abraham Arnold

UNITED STATES PATENT OFFICE.

ABRAHAM ARNOLD, OF HEIDELBERG, PENNSYLVANIA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **38,209**, dated April 21, 1863.

To all whom it may concern:

Be it known that I, ABRAHAM ARNOLD, of Heidelberg township, county of York, and State of Pennsylvania, have invented a new and useful improvement, it being a Double-Action Suction-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 annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a double crank.

Two iron rods working in crank at C C, extending from C C to joints at D D, and rods running from D D through a bar of iron at the upper joint of pump-stock at E, one of the rods from D D extending to the upper sucker at F, and the other extending to lower

sucker at A, the rod extending to A going through a bar of iron, G, above the valve H in uppersuction, to prevent the valve from going above the iron bar G, the valve of the lower suction opening only on the one side, and the stationary sucker I to be in the second joint of pump-stock at K.

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

A double-acting force-pump, having the connecting-rod A of the lower sucker to work through the upper sucker at F, when operated by the double crank, (represented by Fig. 2 at C C,) the whole as shown and described.

ABRAHAM ARNOLD.

Witnesses:

JOHN M. WOLF,
ABNER P. WILSON.