(No Model.)

G. Q. McGOWN.

HYDRAULIC ELEVATOR.

No. 299,930. Patented June 3, 1884.

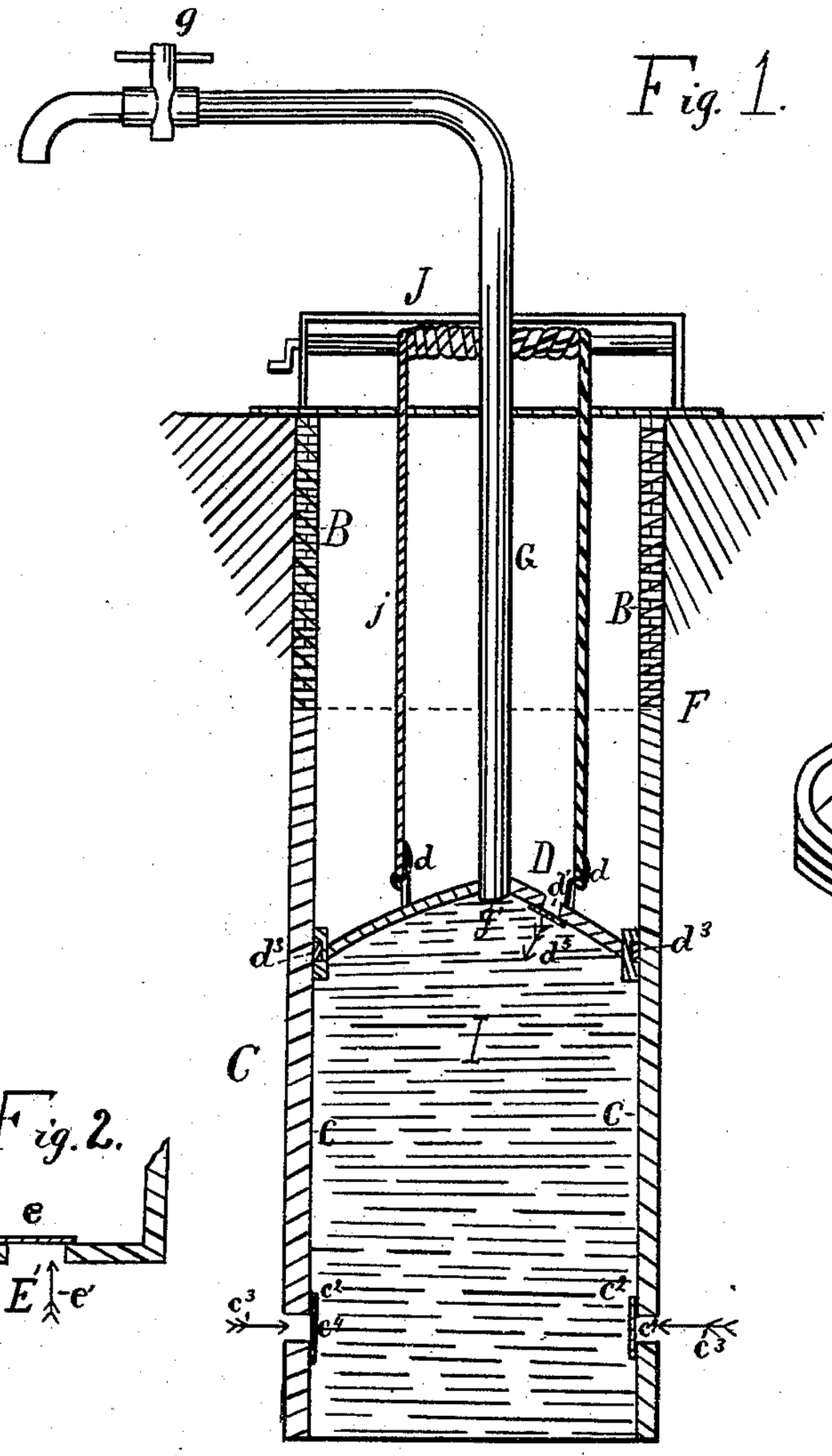

Fig. 1.

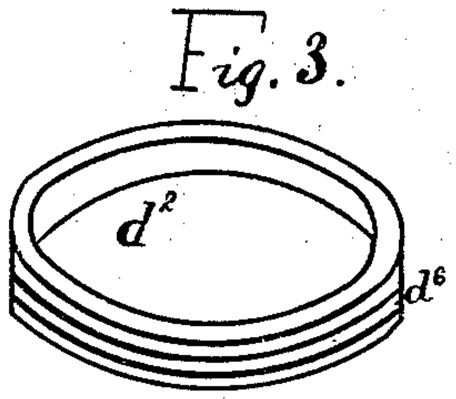

Fig. 3.

Fig. 2.

Witnesses.

G. A. Haseltine.

A. B. Fairbanks.

Inventor.

George Q. McGown,

By Seward A. Haseltine,

Attorney.

UNITED STATES PATENT OFFICE.

GEORGE Q. McGOWN, OF GOLDEN CITY, MISSOURI.

HYDRAULIC ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 299,930, dated June 3, 1884.

Application filed November 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE Q. McGOWN, a citizen of the United States, residing at Golden City, in the county of Barton and State of Missouri, have invented certain new and useful Improvements in Hydraulic Elevators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in hydraulic elevators, the object of which is to provide an easy and convenient means of raising water from wells without the necessity of constant pumping. These objects I attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical longitudinal section showing the entire device. Figs. 2 and 3 are detailed views.

A is a well, having a bottom, E, upon a rock or other solid substance, H.

C is a wall, made of tiling or other suitable material, with an inner surface, *c c*, made smooth. This wall has holes c^4 c^4 near the bottom, with valves c^2 c^2, which open only inwardly, as shown by the direction of the arrows c^3. These valves are constructed so as to let water into, but prevent its return from, the well. In sand or other loose soil the water may be admitted though a false or artificial bottom, E′, made of any suitable substance. In this case a valve, *e*, may be used opening only upward, permitting water to flow only in the direction of the arrow *e′*. These valves are unnecessary when a head of water is sufficiently high.

B is an ordinary wall of stone or brick, resting upon the top of the tiled wall at F, which is above the high-water mark.

D is a weighted piston, preferably made of cast-iron, and of any desired weight, convex on the upper and concave on the lower side, this construction of the lower side assisting to conduct the fluid to a central orifice, *g′*. This weighted piston has an encircling-band of wrought iron, brass, or other suitable material, which is fitted tightly around it and closely against the inside of the wall C. This band is made of suitable width to cause all parts of the weighted piston to rise and fall together perfectly horizontal, and in the middle of the perimeter or outer circumference of this band is made a groove, d^6, in which is placed a band, d^3, preferably made of rubber and of any desired size. I make a groove one-half inch deep and two inches wide and place a rubber band one inch thick and two inches wide in it. In the top of the weighted piston are hooks or bolts with eyes *d d*, for attaching the chain of a windlass or any suitable device for raising and lowering the weighted piston when desired; and through the weight is a hole, d^4, having a valve opening downward, so as to let water flow in that direction indicated by the arrow d^5 only. The weighted piston rests upon the surface of the water I, and by its pressure the water is forced up through the central orifice, *g′*, into the conducting tube or hose G, made of rubber or other suitable material. This conductor may be placed in a building or other place desired, and is provided with a faucet, *g*, to cut off the constant flow caused by the continued pressure of the weight.

Having thus described the use, construction, and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hydraulic elevator composed of a weighted piston, D, concave on its lower side, having an orifice, *g′*, hole d^4, hooks *d d*, and tube G, in combination with walls C, having inlet-valves, as and for the purpose set forth.

2. A weighted piston, D, concave on its lower side, having an orifice at its center, and hooks *d d*, combined with a tube, G, having a faucet, *g*, and a well, A, having walls B C, the part C having smooth inner sides, *c c*, valves c^2 c^2, and a bottom, E, all arranged and constructed substantially as shown and described, for the purpose set forth.

3. A weighted piston, D, concave on its lower side, having an orifice, *g′*, at its center, tube G, hole d^4, hooks *d d*, and an encircling-band having a groove, d^6, in which is placed a rubber band, d^3, combined with walls C, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE Q. McGOWN.

Witnesses:

J. W. ALDRICH,

J. E. HICKMAN.