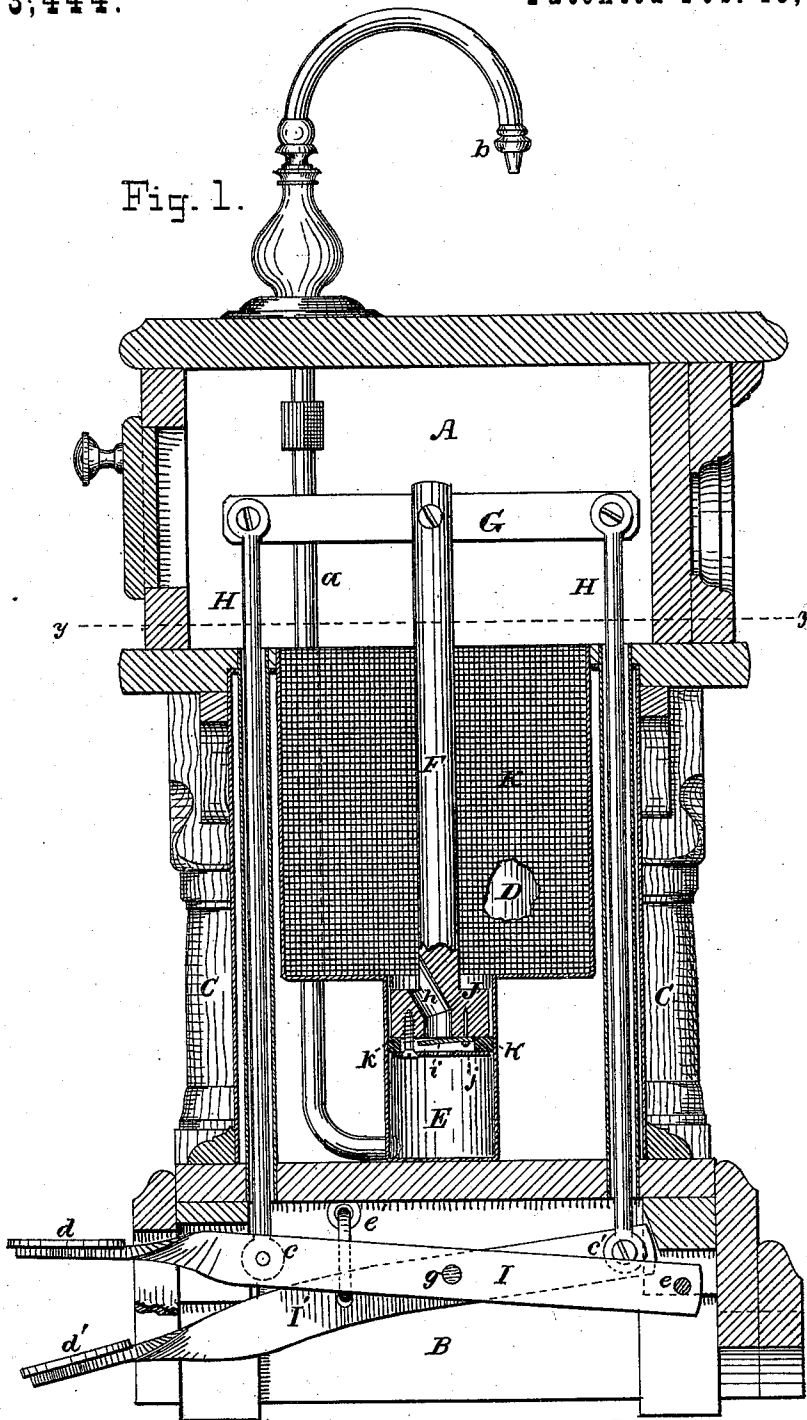


J. B. CHAPMAN.
SODA-FOUNTAIN.

No. 173,444.

Patented Feb. 15, 1876.

Fig. 1.



ATTEST:

Arthur C. Fraser.
Charles A. Judson

INVENTOR:

John B. Chapman
Per Burke & Fraser
Atty.

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Fig. 2.

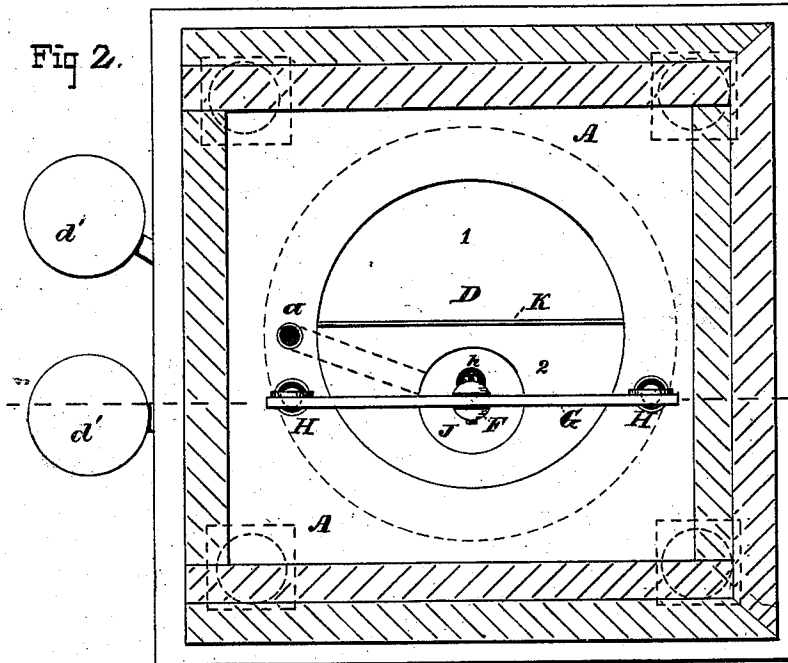
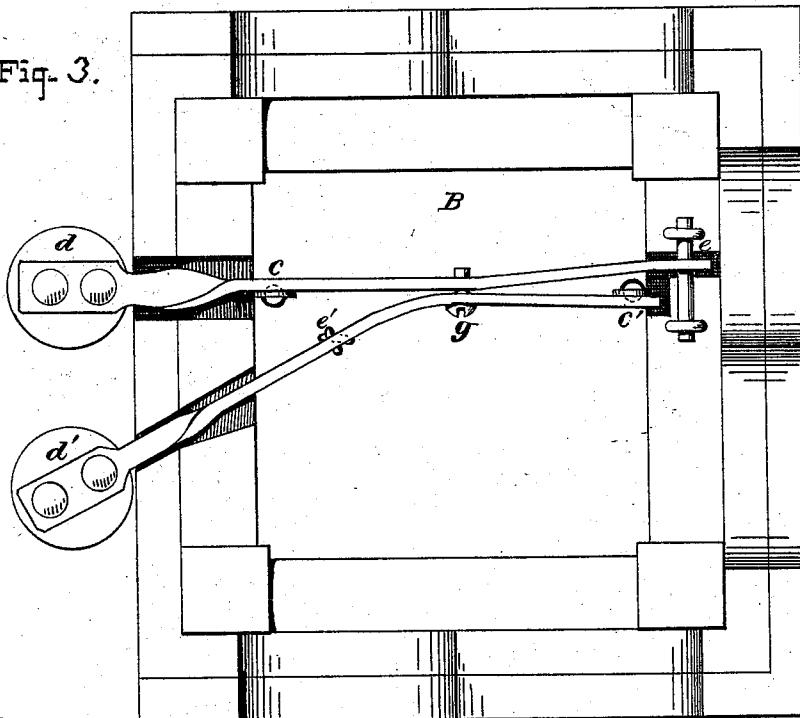


Fig. 3.



ATTEST=

Arthur C. Fraser,
Charles H. Judson

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UNITED STATES PATENT OFFICE.

JOHN B. CHAPMAN, OF MADISON, INDIANA, ASSIGNOR TO HIMSELF,
SAMUEL J. SMITH, AND NANCY M. CHAPMAN, OF SAME PLACE.

IMPROVEMENT IN SODA-FOUNTAINS.

Specification forming part of Letters Patent No. **173,444**, dated February 15, 1876; application filed January 12, 1876.

To all whom it may concern:

Be it known that I, JOHN B. CHAPMAN, of Madison, in the county of Jefferson and State of Indiana, have invented certain Improvements in Soda-Fountains, of which the following is a specification:

This invention relates to that class of fountains wherein the soda-water is forced out through the draft tube by the stroke of a pump-plunger; and it consists partly in a novel construction and combination of the treadles, parallel rods, and plunger-rod; also, in the novel construction of the plunger.

In the drawings, Figure 1 is a vertical section of a fountain embodying my improvements taken in the plane of the line *x x* in Fig. 2. Fig. 2 is a transverse section of the same, taken in the plane of the line *y y* in Fig. 1. Fig. 3 is a plan or bottom view, showing the arrangement of the treadles.

Let A represent a cap or cover, which serves as a delivery-counter, B the base, and C C the columns connecting the two. D is a soda-water reservoir, E the pump, F the plunger-rod, *a* the draft-pipe, and *b* the draft-tube.

All of the above-named parts, arranged substantially as herein shown, are common to this class of fountains, and may be seen in the patent to James W. Chapman, dated June 29, 1869. The said patent also shows an arrangement of double treadles, on which the device I will now describe is an improvement.

To the upper end of the plunger-rod F is secured a cross-head, G, to the ends of which are attached parallel rods H H. These rods extend down at opposite sides of the reservoir and take hold of treadles I I' at the points *c c'*, respectively. The treadles may be provided with pedals *d d'*, as shown. The treadle I is pivoted to the frame at *e*, and a downward pressure on the pedal *d* causes the plunger J to descend and force the soda-water out through the draft-tube *a*. The treadle I' is secured at *c'* by a link or loose joint, and the two treadles are connected by a pin, or its equivalent, at a point, *g*, midway between the points *c c'*. The consequence is that the

pressure on the pedal *d* acts equally, through the connection *g*, on both parallel rods H H, and thus the plunger-rod F receives a direct vertical pressure, free from side draft. As the pedal *d* moves down, the pedal *d'* moves up, and vice versa. A downward pressure on the pedal *d'* serves to fill the pump-chamber. This filling is accomplished by means of the peculiar construction of the plunger. The plunger-rod F is made, preferably, of wood, and the body of the plunger is a part of the same. In it *h* is an opening or passage for the water from the reservoir to the pump-chamber, and it is controlled by a valve, *i*, opening downward. An annular washer, *j*, secured to the plunger by screws, serves to secure and expand a packing-ring, *k*, of rubber or other similar material.

K represents a perforated diaphragm, arranged vertically within the reservoir D. This forms no part of my present invention, however, and need not be more fully described.

The water-reservoir may be, as usual, placed inside a sheet-metal cylinder, and the space between be filled with some non-conducting material. It is preferable to have the parallel rods pass down through pipes, as shown.

Having thus described my invention, I claim—

1. In a soda-fountain, the combination of the treadles I I', parallel rods H H, and plunger-rod F, constructed and arranged to operate substantially as herein shown and specified.

2. In a soda-fountain, the plunger J, having a rigid rod, F, passage *h*, valve *i*, annular washer *j*, and packing-ring *k*, all constructed, combined, and arranged substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN B. CHAPMAN.

Witnesses:

C. R. McLELAND,
S. J. SMITH.