

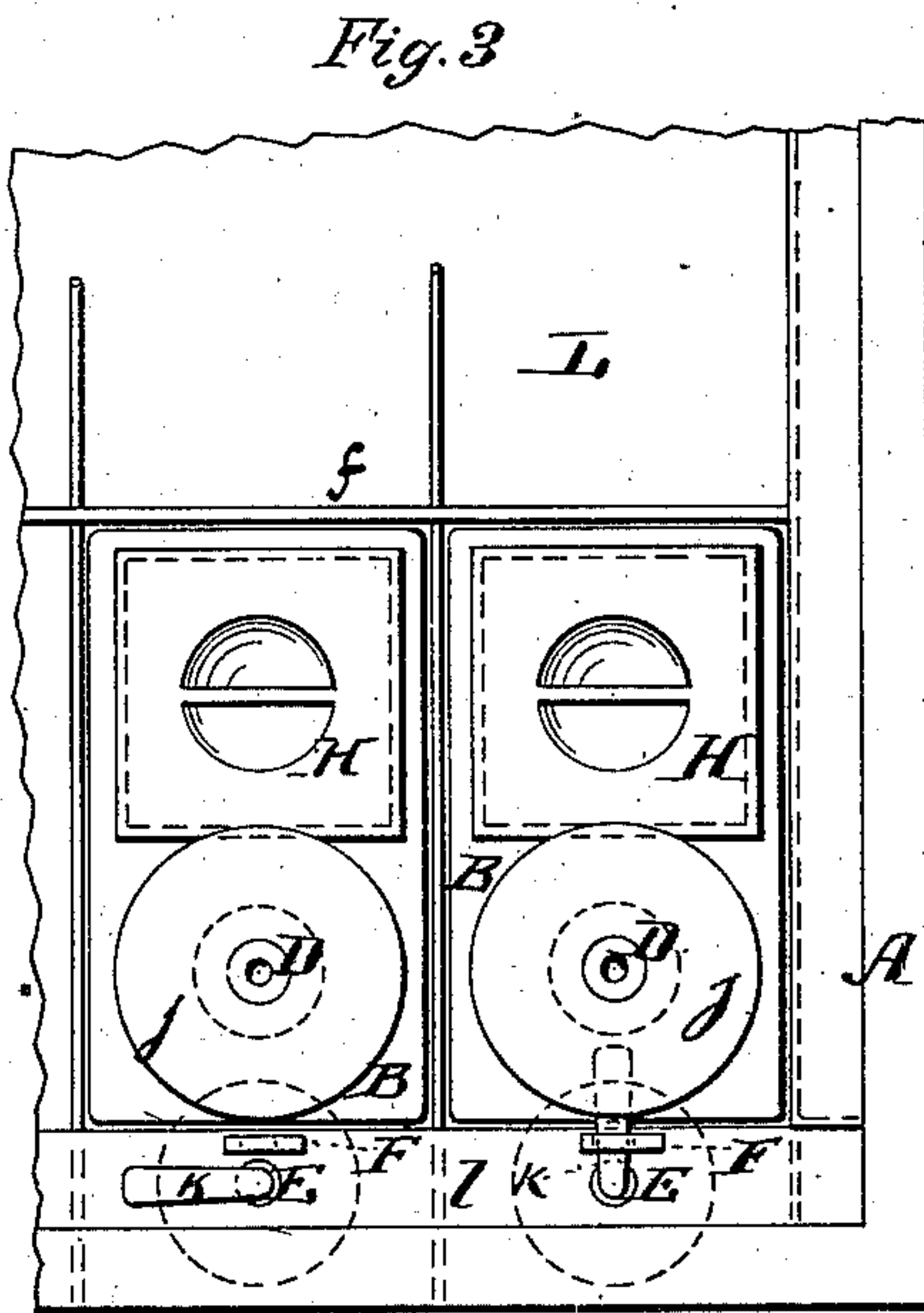
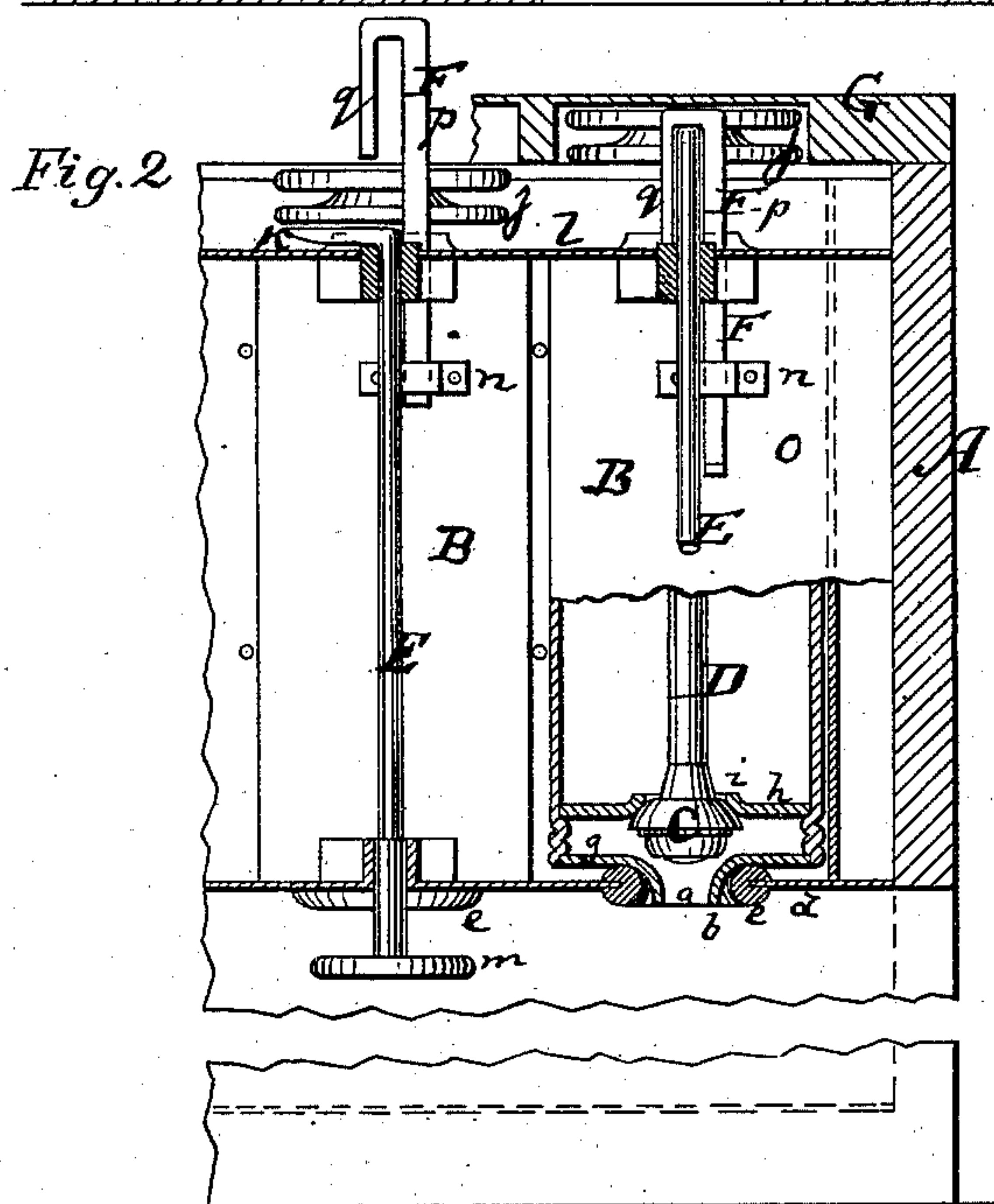
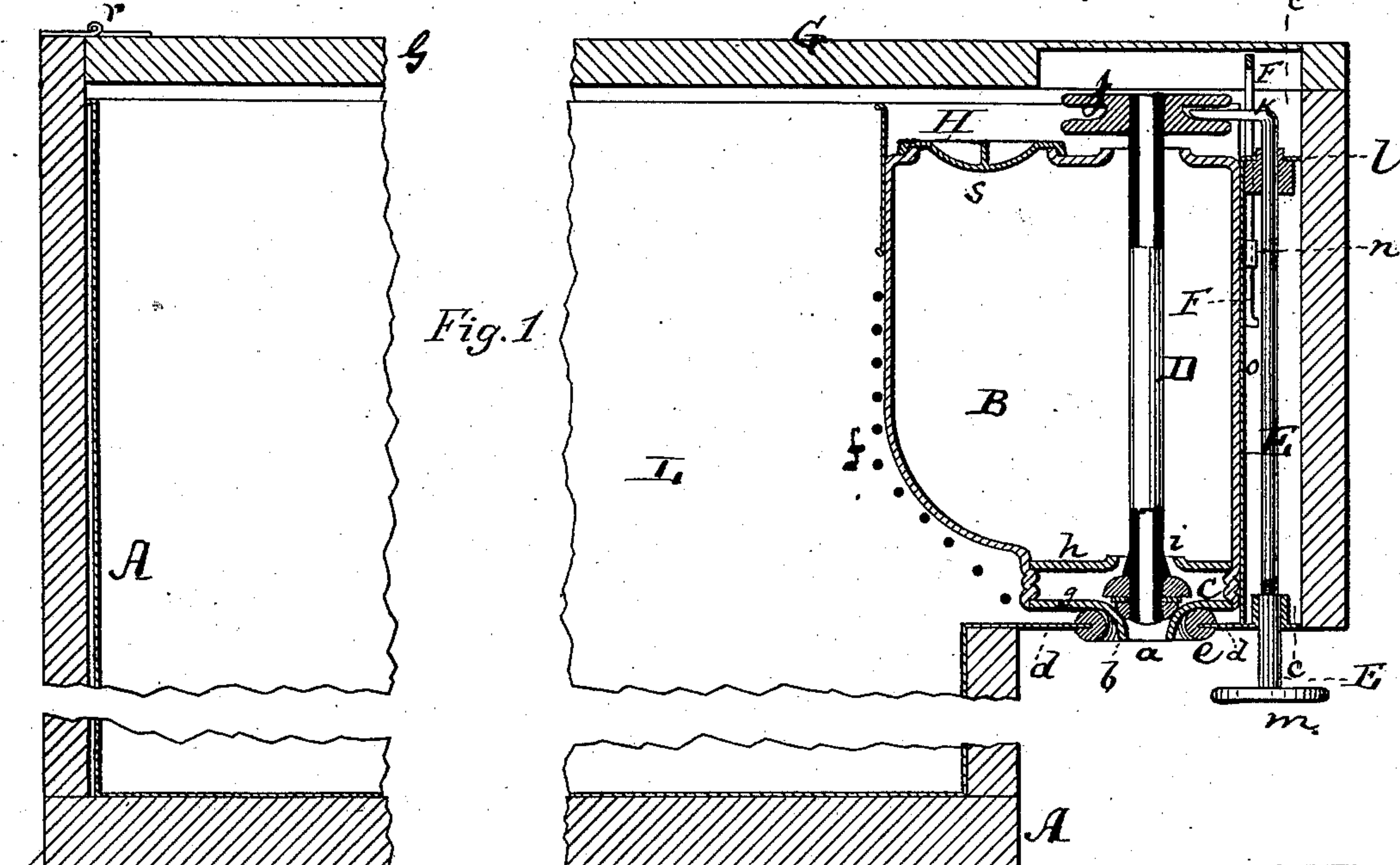
(No Model.)

J. MATTHEWS.

Sirup Tank for Soda Water Dispensing Apparatus.

No. 231,921.

Patented Sept. 7, 1880.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN MATTHEWS, OF NEW YORK, N. Y.

SIRUP-TANK FOR SODA-WATER-DISPENSING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 231,921, dated September 7, 1880.

Application filed July 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN MATTHEWS, of the city of New York, in the county of New York and State of New York, have invented an Improvement in Sirup-Tanks for Soda-Water-Dispensing Apparatus, of which the following is a full and exact description, reference being had to the accompanying drawings, in which—

10 Figure 1 represents a vertical cross-section of a dispensing apparatus containing my improved sirup-tank. Fig. 2 is a vertical section on the line *c c* of Fig. 1, showing two sirup-tanks side by side. Fig. 3 is a top view thereof.

15 The object of this invention is to improve the construction of the sirup tanks or receptacles used in dispensing apparatus for soda-water and in analogous apparatus, and also the valve mechanism thereof, and to insure the proper measuring of the amount discharged from each tank at every opening of the valve pertaining thereto, which opening is effected by a new sub-lift.

25 The invention consists of a new sirup-tank—an improvement on that shown in my Patent No. 96,823—having a partition a short distance above its lower discharge-opening and a valve which serves to alternately close the lower discharge-opening and the opening in said partition; also of new sub-lift mechanism for moving the valve; also of a new lock and guide for preventing the removal and displacement of the parts, and in other details of improvement, which will be hereinafter more fully described.

35 In the drawings, the letter A represents the body of the dispensing apparatus, having a suitable ice-chamber, L, within or near which the sirup-tanks B B are placed.

40 Each sirup-tank has a discharge-opening, *a*, at the lower end, and a downwardly-extending nozzle, *b*, around said discharge-opening. It is placed over a partition, *d*, of the apparatus A, said partition *d* being perforated wherever the nozzle *b* of the tank B is to protrude through it, as clearly shown in Fig. 1.

45 A rubber ring or buffer, *e*, grooved along its outer circumference, is fitted as a packing around the receiving-hole of the partition *d*, thereby preventing breaking of the nozzle *b* at the time the tank is put in place, the tank being preferably of glass or earthenware. The

packing-ring *e* also serves to prevent air from entering the ice-chamber around the nozzle *b*, and the melting water of the ice from escaping around said nozzle. Sirup-tank B is further 55 supported in the casing A by a fixed wire screen or partition, *f*, or by other suitable means, care being taken that the cold air or water in the apparatus A shall have free access to the interior of the sirup-tank, so that 60 the contents thereof may be properly cooled.

Within the sirup-tank B, at a short distance above its bottom plate, *g*, is arranged an inner partition, *h*, which has an opening, *i*, directly 65 above the discharge-opening *a*.

I now make the bottom *g* and the partition *h* of separate pieces, and cement or otherwise secure the same within the sirup-tank, as by this arrangement the manufacture of the tank 70 of glass is greatly facilitated.

75 C is the valve for controlling the discharge of liquid from the sirup-tank. This valve is a disk of rubber or other equivalent material attached to a tubular stem, D, which passes vertically through the sirup-tank.

80 The valve C is between the partition *h* and bottom *g* of the tank, as clearly shown. By its own weight it has the tendency to close the lower discharge-opening, *a*, as shown in Fig. 1, and thus prevent the discharge of liquid or sirup, the liquid meanwhile entering the space below the partition *h*. When, by means of the mechanism hereinafter described, or by equivalent means, the valve is raised, it is brought 85 against the partition *h*, and closes the aperture *i*, as shown at the right-hand side of Fig. 2, and allows the liquid below the partition *h*, and no more, to flow out through the opening *a*. Thus the amount of liquid discharged is actually measured, and waste of sirup prevented. 90

95 The spindle D extends up through the top of the tank B, and carries at or near its upper end a grooved wheel, *j*, into the groove of which enters a hook or arm, *k*, on a lifting-rod, E. This lifting-rod passes through the partition *d* of the casing A, and up through another partition, *l*, in said casing, the hook *k* being above *l*, as shown. The lower end of the rod E is near the discharge-orifice *a*, as shown in 100 Fig. 1, and has a suitable button or handle, *m*, so that the attendant, after placing a tumbler

or other receptacle below the orifice *a*, need only push the button *m* upward, thereby lifting the spindle *D* and valve *C*, and allowing the measured quantity of sirup to flow into
 5 said tumbler or receptacle. This sub-lift is an important element of this invention.

In order to prevent the hook *k*, by any accidental turning of the rod *E*, from becoming disengaged from the grooved wheel *j*, I have de-
 10 vised a lock, *F*, in form of an upright sliding hook, that moves in proper guides *n* along a vertical partition, *o*, standard, or wall of the apparatus *A*, and which lock receives the arm *k* between its shank *p* and its beak *q*. The
 15 beak rests on partition *l* or other stop.

The lock *F* is capable of sliding up and down, but cannot turn, and therefore while down and while engaging the arm *k*, it prevents
 20 said arm from turning, preventing thereby, also, the disengagement of the arm *k* from the wheel *j*, and the removal of the entire sirup-tank; nor can the lock *F* be moved to release the hook *k* until the cover *G* of the apparatus
 25 *A* is opened, for said cover fits closely above the lock *F* when the same is in a normal position, as shown in Fig. 1 and at the right-hand side of Fig. 2; but when the cover *G* is
 30 swung open on its hinges *r*, or removed, the lock *F* may be lifted to carry its beak *q* over the plane of the arm *k* and permit the said arm to be turned aside on or with the rod *E*, out of the groove of the wheel *j*, as indicated on the left-hand side of Figs. 2 and 3. When the arm *k*
 35 is thus disengaged the tank, with its valve, may be removed.

The sirup-tank can be filled through an opening, *s*, which is closed by a suitable removable cover, *H*.

It is evident that a suitable number of sirup-tanks of this device may be used in any one
 40 apparatus.

I claim—

1. A sirup-tank having lower discharge-orifice, *a*, and partition *h*, with its opening *i*, in combination with the valve *C*, spindle *D*, and
 45 grooved wheel *j* on said spindle, for operation for connection with lifting-rod *E*, having arm *k*, substantially as specified.

2. The sliding rod *E*, having projecting arm *k*, in combination with the wheel or shoulder
 50 *j* on the spindle *D* of the valve *C*, substantially as specified.

3. The sliding lock *F*, combined with the lifting-rod *E* and its arm *k*, for operation sub-
 55 stantially as described.

4. A sirup-tank having lower discharge-orifice and interior valve, *C*, in combination with
 60 lifting-rod *E*, which opens the valve when pushed upward, substantially as herein shown and described.

5. The dispensing apparatus *A* and its cover *G*, in combination with the sirup-tank, with its sub-lift valve mechanism *C D E*, and lock
 65 *F*, substantially as herein shown and described.

JOHN MATTHEWS.

Witnesses:

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