

(No Model.)

4 Sheets—Sheet 1.

H. SCHLOESING & B. DÉGREMONT.
LIQUID VENDING APPARATUS.

No. 462,778.

Patented Nov. 10, 1891.

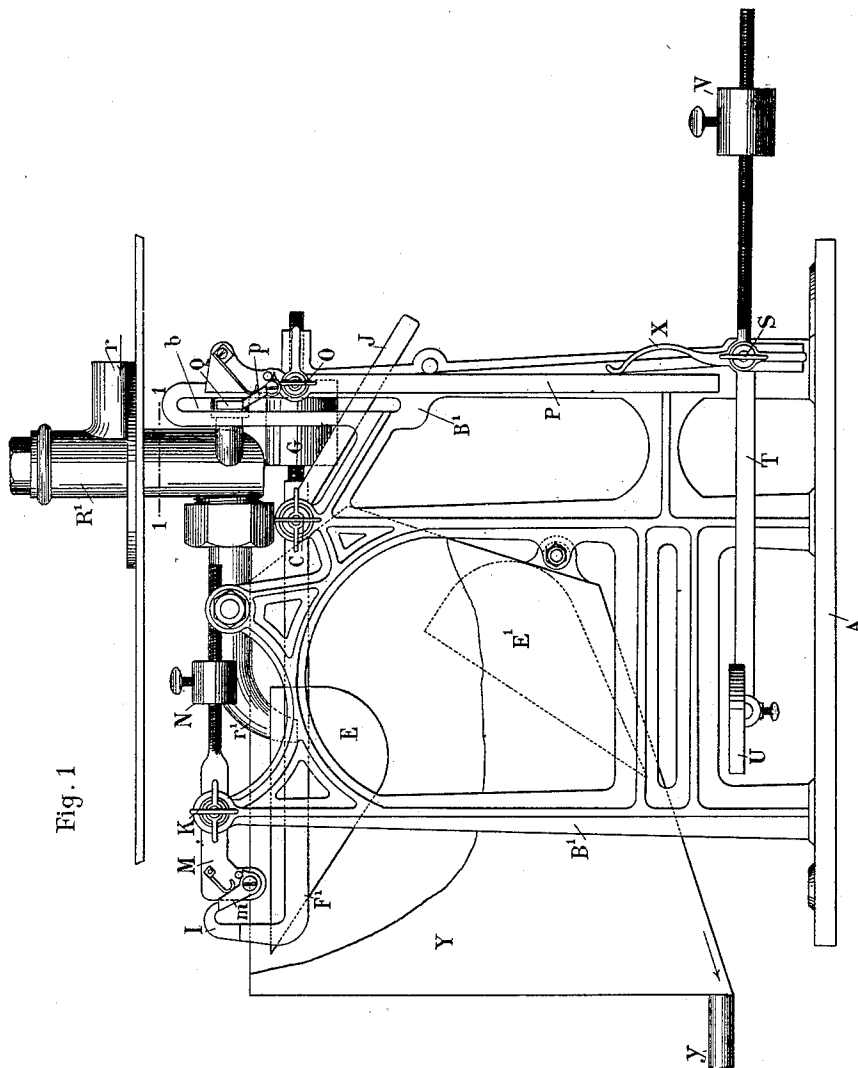


Fig. 1

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Associate Attys.

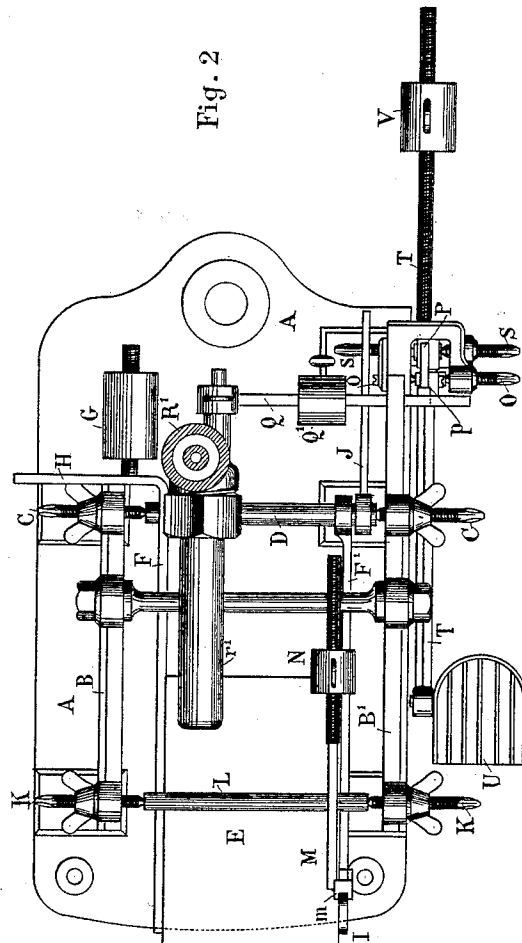
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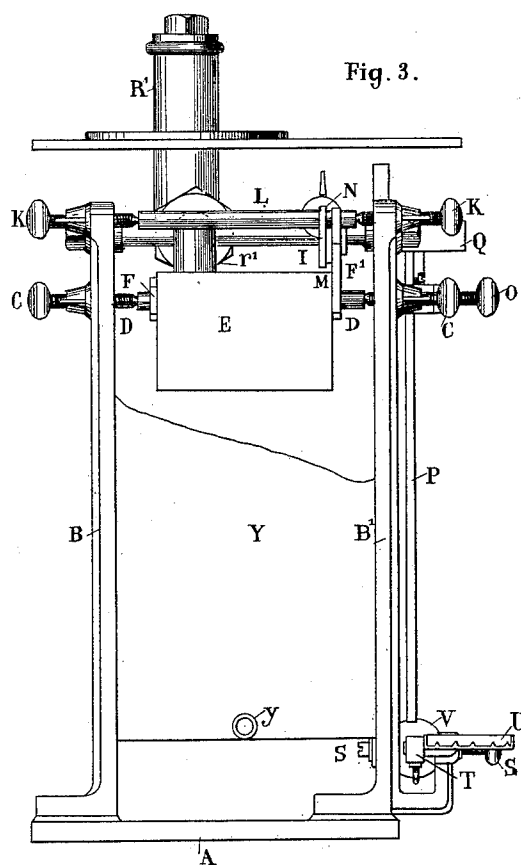
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Fig. 5

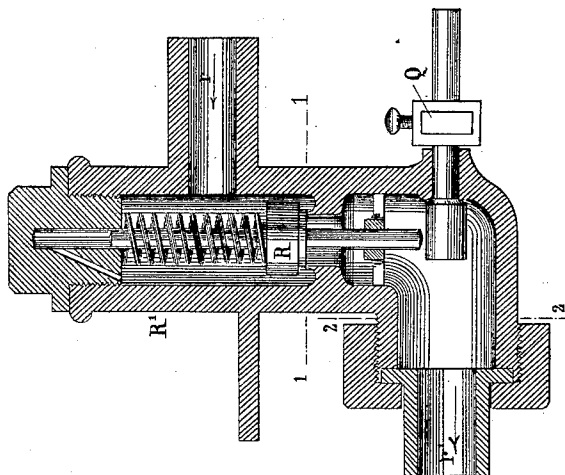
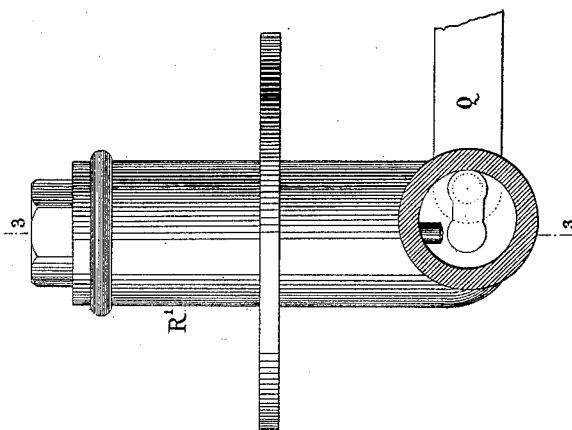


Fig. 4



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UNITED STATES PATENT OFFICE.

HENRI SCHLOESING AND BENJAMIN DÉGREMONT, OF MARSEILLES, FRANCE.

LIQUID-VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 462,778, dated November 10, 1891.

Application filed April 4, 1891. Serial No. 387,654. (No model.) Patented in France August 16, 1890, No. 207,660.

To all whom it may concern:

Be it known that we, HENRI SCHLOESING and BENJAMIN DÉGREMONT, citizens of France, residing at Marseilles, France, have invented certain new and useful Improvements in Liquid-Vending Apparatus, (for which we have obtained a patent in France, dated August 16, 1890, No. 207,660;) and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its object a new apparatus for automatically delivering liquid, a predetermined quantity being served out by introducing a coin of a given value.

The apparatus is shown in the annexed drawings, in which—

Figure 1 is a side elevation of the mechanism. Fig. 2 is a plan, partly in section on the line 1 1, Figs. 1 and 5. Fig. 3 is a front view of the mechanism. These three figures are half size. Fig. 4 is an elevation, partly in section on the line 2 2, Fig. 5, of the valve and parts connected therewith. Fig. 5 is a section on the line 3 3, Fig. 4. Figs. 4 and 5 are full size.

In the drawings the same parts are marked with the same letters in all the figures.

A is a base-plate on which the two uprights B B', forming the frame of the apparatus, are fixed. These uprights are bored with a number of threaded holes in which pointed steel thumb-screws engage. These screws serve as pivots for the various parts of the mechanism.

Between the screws C C is mounted an axis D, to which two parallel arms F F', of tinned copper, are fixed. E is a balanced receptacle mounted between the arms F F'. The arm F has at its rear an arm H, provided with an adjustable counterbalance-weight G to balance the receptacle E. This arm H also serves to actuate a registering-counter, which is not shown in the drawings. The arm F' terminates at one end in a hook I, which rests on the catch *m*. The axis D also carries an inclined lever J. The screws K K serve as pivots for a shaft L, on which is mounted an

arm M, having a counterbalance-weight N. The front end of the arm M carries the catch *m*. The screws O O act as pivots to a vertical lever P, the short arm of which is provided with a catch *p*. The catches *m* and *p* are spring-catches, as shown; but in some cases we prefer to replace the springs by balanced weights.

Q is the lever which controls the valve R. The end of this lever rests upon the catch *p* when the valve is shut. The lever Q carries an adjustable weight Q'. The screws S S serve as pivots for the horizontal lever T. This lever carries at one end a coin-holder U and at the other an adjustable counterbalance-weight V. On this lever an arm X is fixed vertically, so as to actuate the lever P. Y is a funnel of metal, caoutchouc, or other suitable material, in which is the balanced receptacle E. The funnel is fixed to the frame in any suitable manner. It is provided with a tube *y*. In Figs. 1 and 3 we have cut away a part of the funnel Y in order to show the interior mechanism. In Fig. 2 it is not shown at all.

R' is the valve-shell fixed in the apparatus in any suitable manner. It is placed so that the actuating-lever Q can work freely in the slotted guide *b*, formed in the upright B' of the frame. The shell R' is provided with two pipes *r* and *r'*. The pipe *r* serves to supply the liquid from any suitable reservoir. The liquid flows from the shell by the pipe *r'*, placed above the balanced receptacle E. The direction of the flow of liquid through the apparatus is shown by arrows.

We have not shown in the drawings any of the exterior casing of the apparatus nor the reservoir for the liquid. We have also not shown the arrangement for leading the coin to the holder, for these we may employ any suitable arrangements.

Working of the apparatus.—When the coin of the proper value is introduced in the apparatus, it falls into the coin-holder U. The counterbalance-weight V being suitably placed, the lever T oscillates on its shaft, carrying with it the arm X, which presses forward the lever P. The catch *p* is displaced and moves from the lever Q in the valve-shell R'. The lever Q, being no longer supported, falls (being actuated by its weight Q') in the

slotted guide *b* and opens the valve *R* in the valve-shell *R'*. The liquid to be delivered flows by the pipe *r'* into the balanced receptacle *E*. The counterbalance-weight *G* of the
 5 balanced receptacle *E* is placed so that when there is no liquid in the balanced receptacle it is perfectly level. When the liquid comes into the balanced receptacle, the weight of the latter increases, and when this weight is sufficient to balance the counterbalance-weights
 10 *G* and *N* the hook *I* leaves the catch *m*. The balanced receptacle descends quickly, taking the position *E'*. (Shown in dotted lines in Fig. 1.) At this moment the lever *J* raises the
 15 lever *Q*, which again engages with the catch *p*, thus closing the valve *R* in the shell *R'*. The balanced receptacle *E*, after having delivered its liquid into the funnel *Y*, automatically resumes its place by reason of its counter-weight *G*. The hook *I* again engages with
 20 the catch *m* and the apparatus is ready to work a second time.

Having now particularly described and ascertained the nature of our said invention
 25 and in what manner the same is to be performed, we declare that what we claim is—

1. The combination of the horizontal lever *T* with its coin-receiver and arm, the vertical lever *P* with its catch, and the lever *Q* for
 30 actuating the valve.

2. The combination, with the shaft *D*, of the arms *F F'*, carrying the balanced receptacle *E*, and the lever *J* to raise the lever *Q* for
 closing the valve.

35 3. The combination, with the arm *F'* and its hook *I*, of the balanced lever *M* and its catch *m*.

4. A liquid-vending apparatus comprising
 40 a main shaft, a receptacle secured to said shaft by arms, one of which is provided with an adjustable weight, an inclined arm also attached to said main shaft, a valved conduit intermediate of the receptacle and a suitable reservoir, and means, substantially as shown and
 45 described, for delivering a certain predetermined quantity of liquid from the reservoir to the receptacle, substantially as shown and described.

5. In a liquid-vending apparatus, the combination of a main shaft, a receptacle arranged in advance of but connected with the main shaft by parallel supporting-arms, one of said arms being provided with an adjustable weight, a rearwardly-extending inclined
 55 lever connected to the main shaft, a valved conduit extending from the receptacle to a suitable reservoir, a shaft journaled in the wall of the conduit and adapted to contact with the valve-rod, a weighted lever connected
 60 to said shaft, a vertical lever supporting the free end of the weighted valve-operating lever, and the tray-arm for operating said vertical lever and the valve of the apparatus, substantially as shown and described, for the
 65 purpose specified.

6. In a liquid-vending apparatus, the com-

bination of a main shaft, a balanced receptacle carried by said main shaft, a conduit supported above the supports and adapted to convey liquid from a suitable reservoir to the
 70 balanced receptacle, a valve in said conduit, a shaft journaled in the walls of the conduit and adapted to contact with the end of the valve-rod therein, a weighted lever attached to said shaft and working in a slot in one of
 75 the supports of the apparatus, a vertical lever provided with means for holding or supporting the free end of the valve-operating lever, and a weighted lever pivoted to one of the side supports and provided with a coin-
 80 receptacle and an arm adapted to contact with and operate the vertical lever, substantially as shown and described.

7. In a liquid-vending apparatus, the combination of a main shaft, a balanced receptacle supported on said shaft by parallel arms
 85 and inclosed within a funnel-shaped vessel provided with a suitable outlet, one of said supporting-arms being weighted and the other arm provided with an upwardly-extending
 90 hook, another shaft arranged in advance of the main shaft, a lever fulcrumed on said axis and provided at one end with an adjustable weight and at its other end with a spring-catch which engages with the hook end of
 95 one of the receptacle-supporting arms, a conduit arranged above the balanced receptacle and extending therefrom to a suitable reservoir, a valve arranged in said conduit, means for delivering a certain quantity of liquid to
 100 the balanced receptacle, whereby the main shaft is rotated and the liquid in the receptacle discharged through the outlet of the funnel, and weights for returning the receptacle to its normal position when empty, substantially as shown and described.

8. In a liquid-vending apparatus, the combination of the tiltable receptacle having a hook-shaped projection, a balanced lever carrying a detent which engages the hook-shaped
 110 projection on said receptacle to sustain the same in its horizontal raised position, a valved conduit, a balanced rock-shaft adapted to open the valve, an arm movable with the tiltable receptacle and arranged in the path of
 115 the lever on the rock-shaft, a vertical lever also having a detent which engages the lever of the rock-shaft, and a tray-arm arranged to throw a vertical lever and disengage its detent from the lever of the rock-shaft, substantially
 120 as and for the purpose described.

9. In a liquid-vending apparatus, the combination of the tiltable receptacle, a balanced lever *M*, having a detent which engages the
 125 receptacle, a conduit adapted to discharge into said receptacle and having a normally-closed valve therein, a tray-arm, a vertical lever *P*, having a detent *p*, the lever *Q*, normally sustained by the detent *p* and adapted to open the valve in the conduit and when released therefrom to engage with the detent *p*,
 130 and an arm *J*, arranged in the path of the le-

ver Q and movable with the receptacle to elevate the lever Q as the receptacle descends, substantially as described.

10. The combination of the tiltable receptacle supported by a shaft, an arm J, rigid with said shaft, a lever Q, adapted to rest upon said arm and connected with a shaft in the path of the valve-stem, a conduit having a spring-pressed valve, a tray-arm, and a lever actuated by said tray-arm and normally sustaining the lever Q in its elevated position, substantially as and for the purpose described.

11. In a liquid-vending apparatus, a tiltable receptacle, a shaft, the arms rigid with said shaft and the receptacle, one arm having an upwardly-projecting hook I and the other arm carrying the weight G, in combination with the balance-lever M, having its detent engaging with the hook, a valved conduit, a tray-arm, and mechanism intermediate of said tray-arm, and the valve in the conduit to open said

valve on the deposit of a coin on the tray-arm, substantially as and for the purpose described.

12. The combination, with a tiltable receptacle and a valved conduit adapted to discharge therein, of a balanced tray-arm having a projection, a vertical lever P, arranged in the path of said projection and carrying in its upper end the spring-pressed detent, and lever Q, normally sustaining said detent and adapted to actuate the valve in said conduit, and arm movable with the receptacle and arranged in the path of the lever Q, for the purpose described, and substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRI SCHLOESING.

BENJAMIN DÉGREMONT.

Witnesses:

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ROBT. M. HOOPER.