

No. 612,654.

Patented Oct. 18, 1898.

A. ABELSON.

COIN CONTROLLED APPARATUS FOR DISPENSING LIQUIDS IN SPRAYS.

(Application filed May 27, 1897.)

(No Model.)

2 Sheets—Sheet 1.

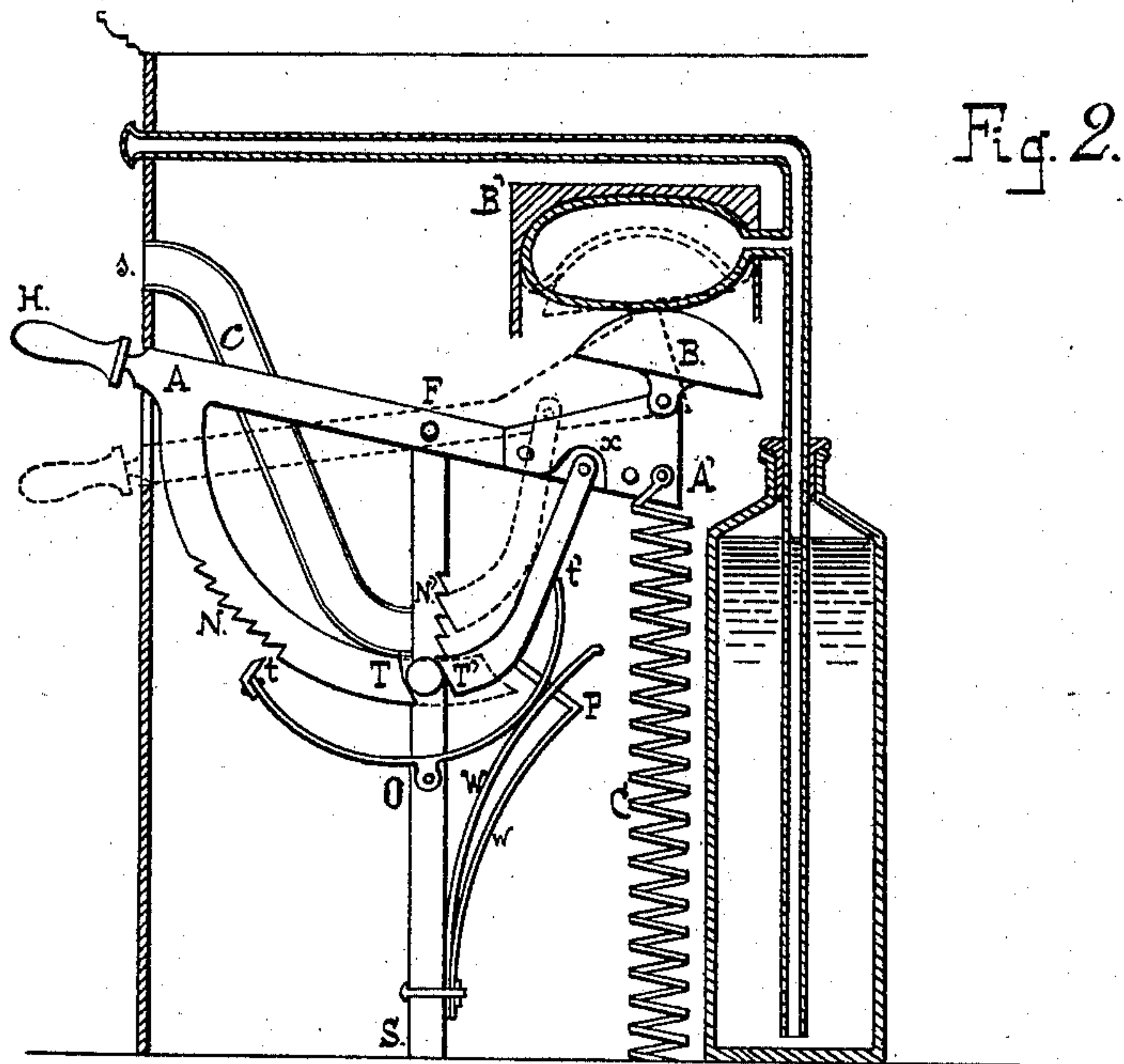
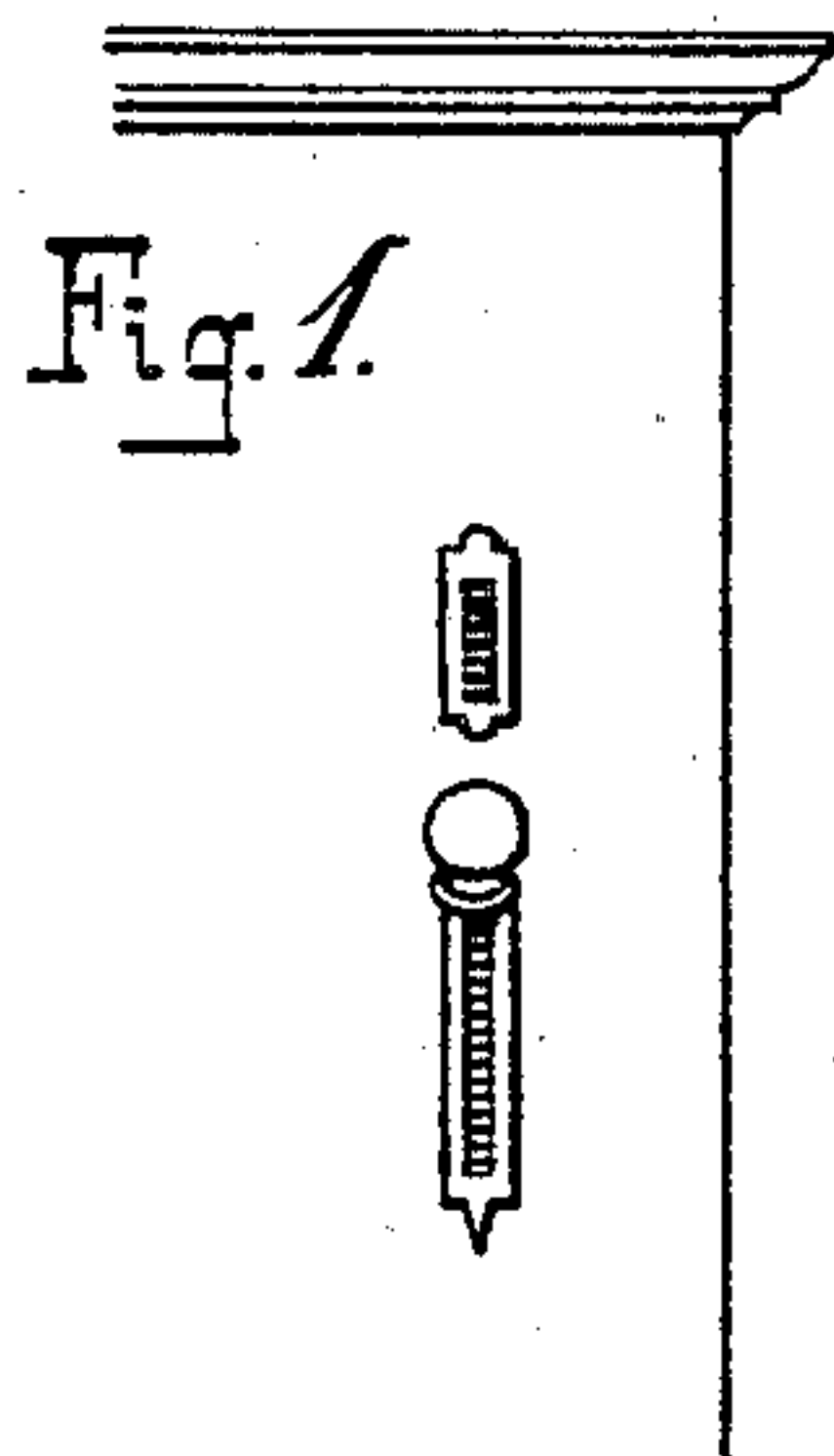
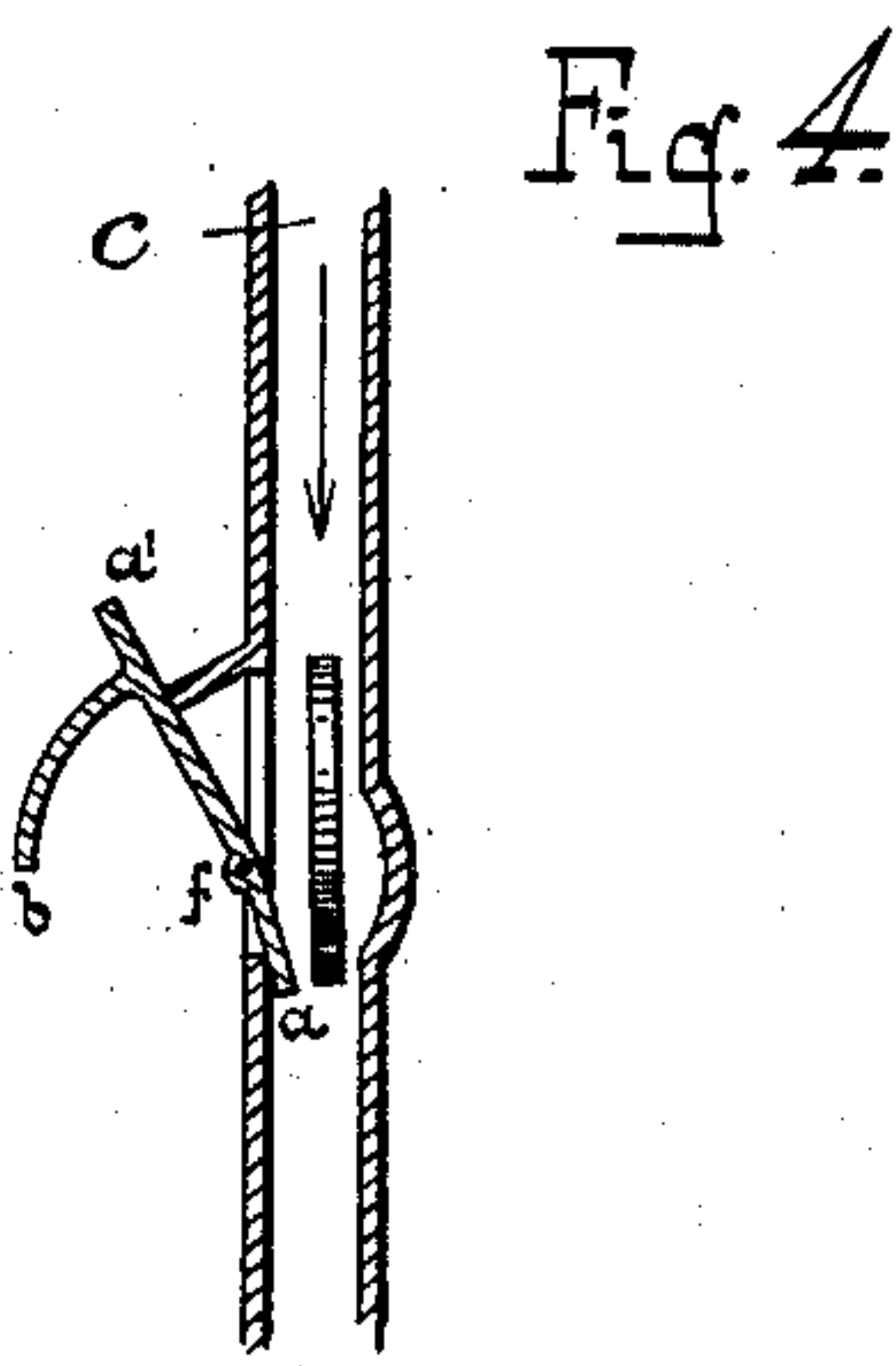
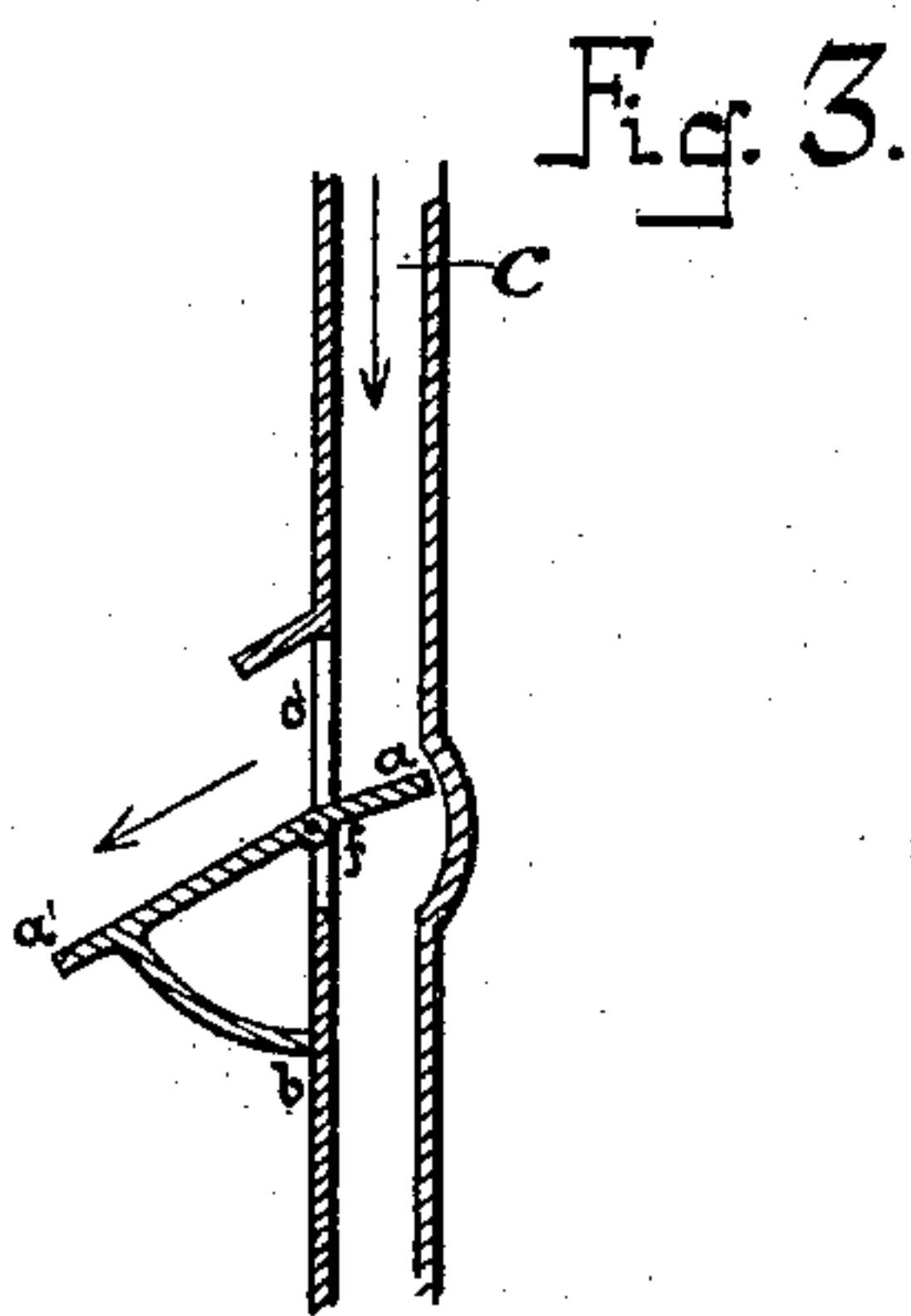
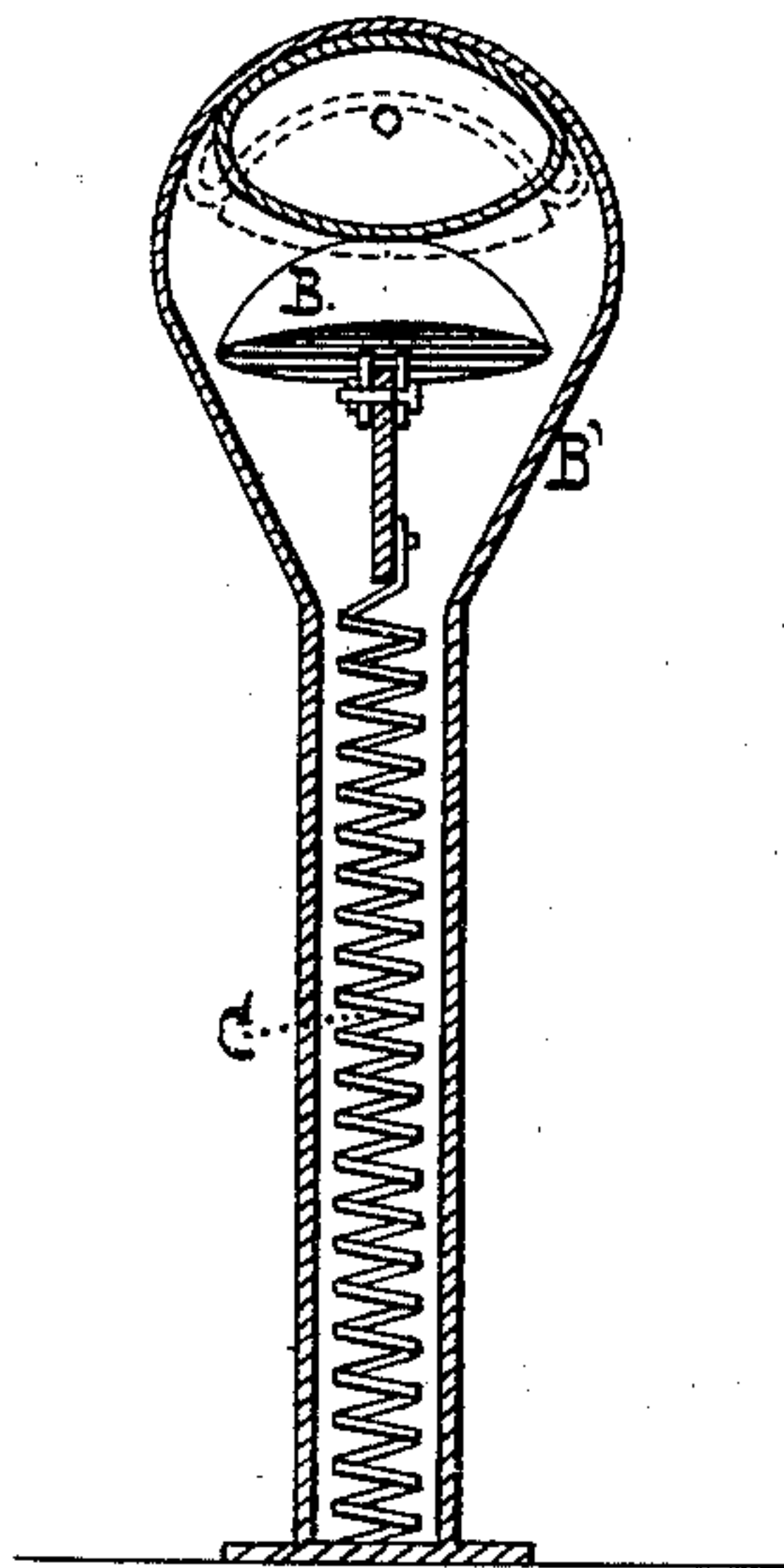


Fig. 5.



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Fig. 6.

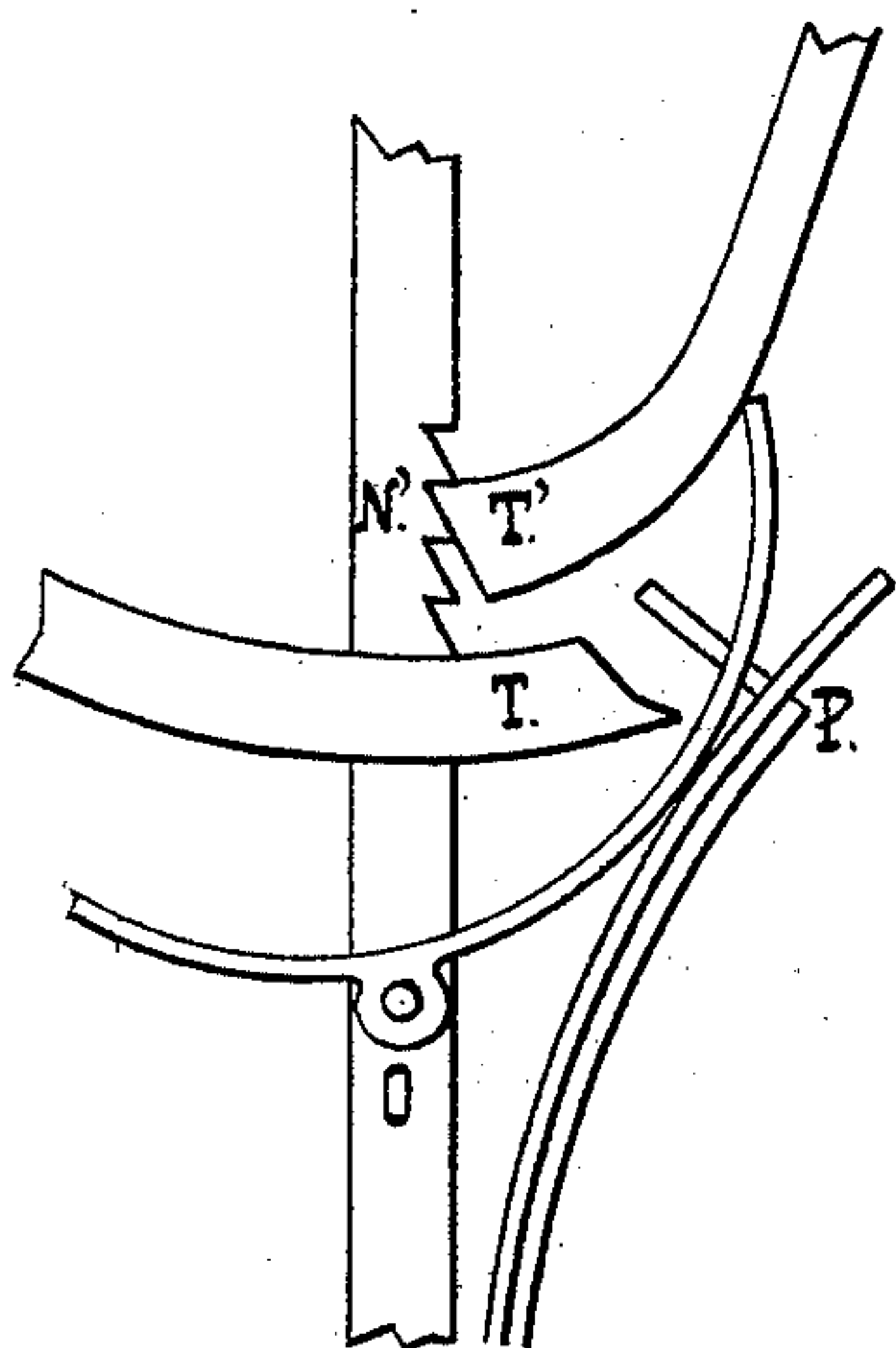
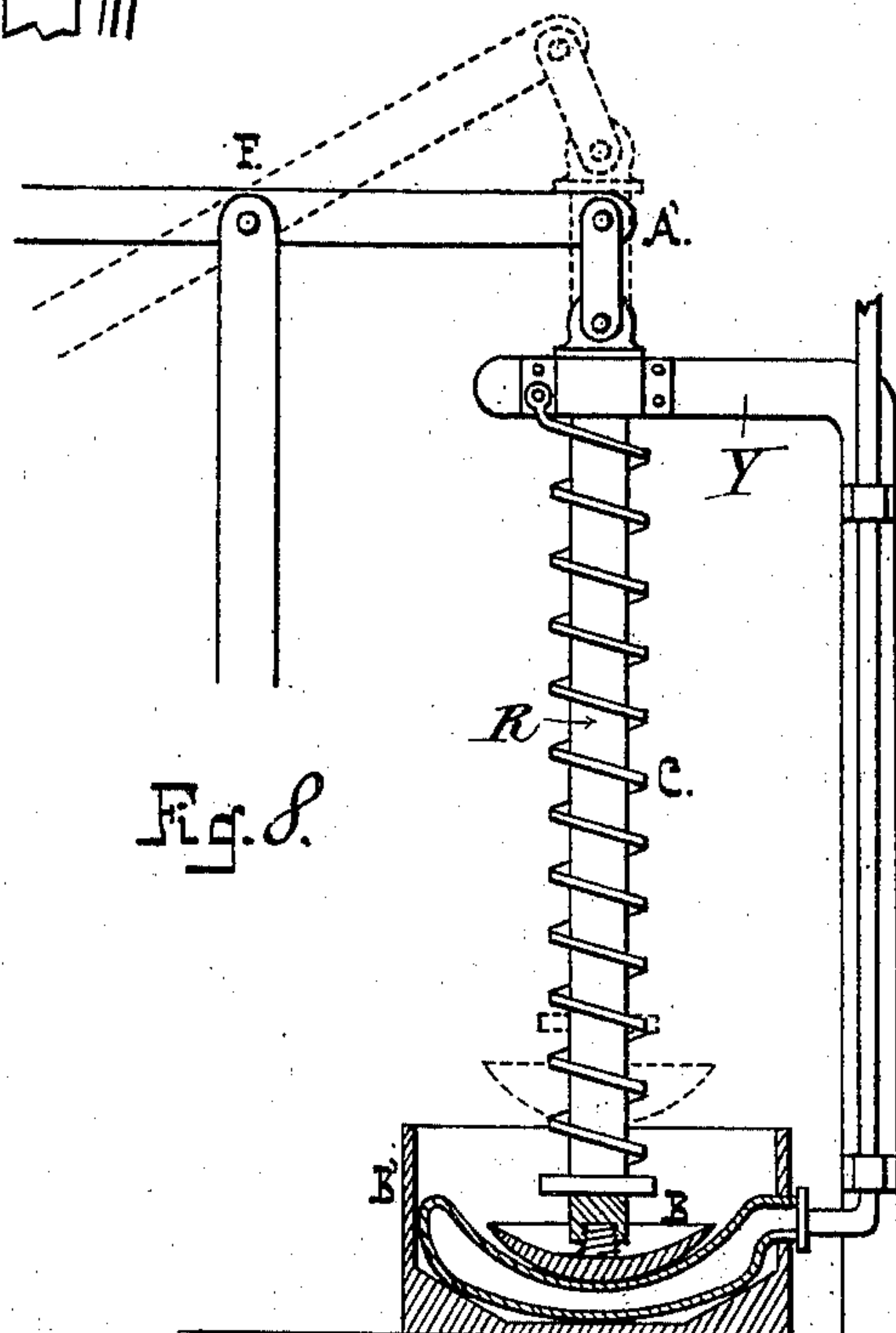
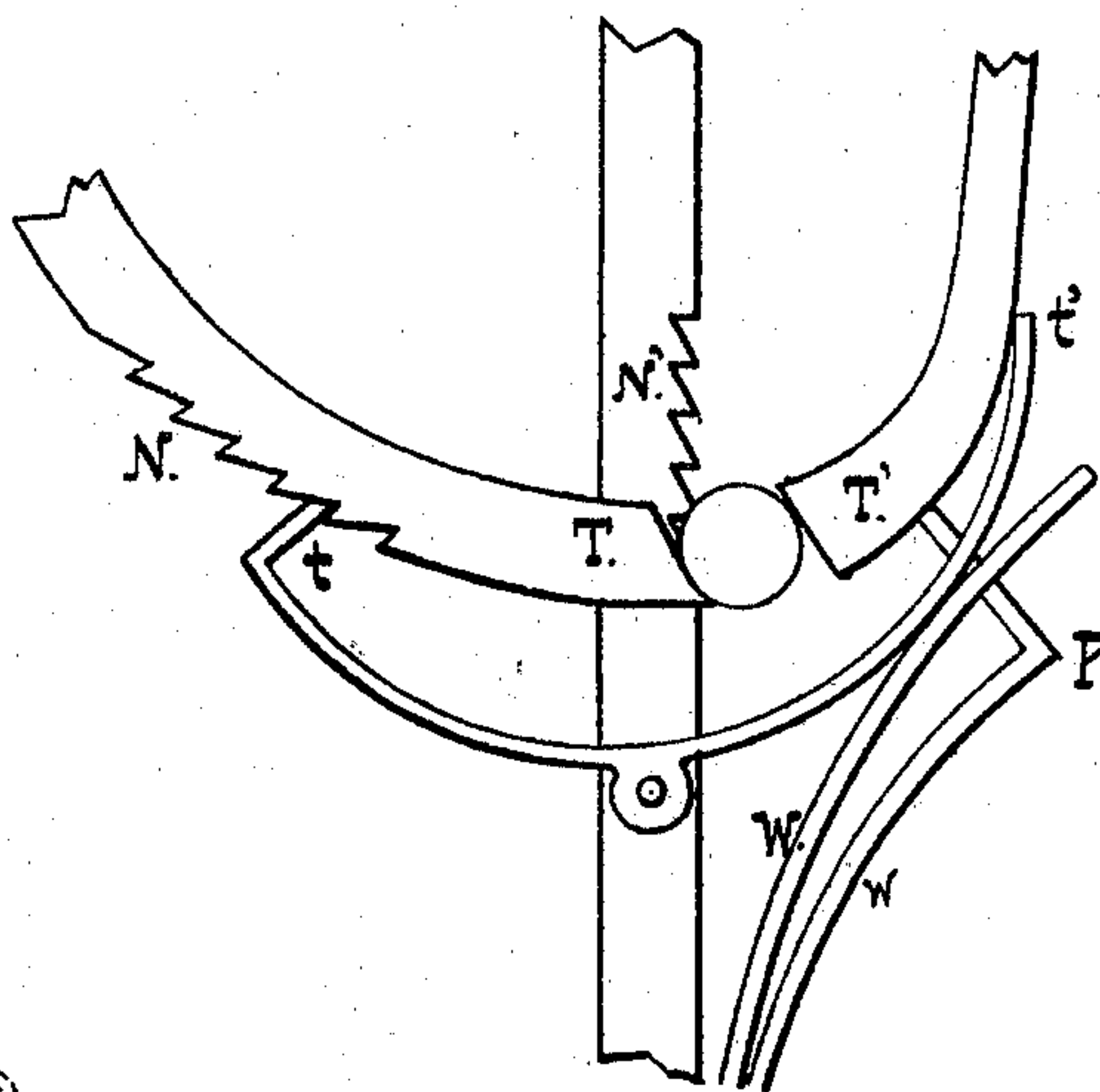


Fig. 7.



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# UNITED STATES PATENT OFFICE.

ABRAHAM ABELSON, OF NEW YORK, N. Y.

COIN-CONTROLLED APPARATUS FOR DISPENSING LIQUIDS IN SPRAYS.

SPECIFICATION forming part of Letters Patent No. 612,654, dated October 18, 1898.

Application filed May 27, 1897. Serial No. 638,466. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM ABELSON, of the city of New York, State of New York, have invented a new and useful Improvement in Coin-Operated Machines for Dispensing Liquors in Sprays, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Figure 1 is a front view of a part of the apparatus as it appears on the outside. Fig. 2 is a side elevation and partly sectional view of the apparatus. Figs. 3 and 4 are sectional views of the coin-chute. Fig. 5 is a rear elevation representing a sectional view of the bulb of the atomizer, together with the push-button compressing the same and a coiled spring connected with the button. Fig. 6 is a side view of the fraud-preventive device forming part of the apparatus. Fig. 7 is a partial side view representing the apparatus unlocked. Fig. 8 represents a modified construction of the push-button or compressor.

A coin being dropped through the slot *s*, Fig. 2, slides within the chute *c* until it strikes the arm *fa* of the bent lever *afa'*, Fig. 3. The weight of the coin depresses the arm *fa* and thereby raises the arm *fa'*, which shuts the aperture *o'*, as shown on Fig. 4. The coin slips down the chute. The longer arm *fa'* of the lever, depressed by its own weight, turns downward until the bar or attachment *a' b* strikes the side of the chute, the lever *afa'* resuming its original position shown on Fig. 3. Should anything but a coin of a specified weight be dropped into the slot, the arm *af* of the lever will retain its position and the object will slip out of the way by the aperture *o*.

The working mechanism of the apparatus is represented on Fig. 2. It consists of a lever *AFA'*, fulcrumed on a standard *FS* and set in motion by turning downward the handle *H*, whereby the arm *FA'* is made to exercise pressure upon the rubber bulb, forming part of an atomizer and placed in a cylindrical bracket *B'*. The pressure of the hand being transferred by the lever to the rubber bulb, a spray of perfume or any other liquid contained in the atomizer will be drawn therefrom through an orifice provided for the purpose. Fig. 2 shows the apparatus locked by means of the pawl *xT'*, which, through

pressure of the spring *w* with a pin *P* at the end, engages with the lowest notch of the serrated side *N'* of the standard *FS*. The coin dropped through the slot permits the unlocking of the apparatus. After sliding down the chute *c*, as before described, the coin lodges in the chamber *TT'* of the partly-hollow standard *FS* between the pawl *xT'* and the appendage *AT* to the arm *FA* of the lever. A downward movement of the handle *H* pushes the coin against the tooth *T'* of the pawl *xT'* and causes the coin to remove said tooth, thereby permitting the handle to raise the arm *FA'* of the lever and at the same time bringing the coin into direct contact with the pin *P'*, attached to the spring *w*. The resistance of the pawl *xT'* being removed, the coin is by the working of the spring ejected into a box or other receptacle provided for the purpose.

The shape and configuration of the appliances by means of which the arm *FA'* of the lever *AFA'* is made to exercise pressure upon the rubber bulb of the atomizer are not essential to my invention, any appliance in fact being suited for the purpose. One of them (shown on Figs. 2 and 5) consists of a button *B*, which is fastened on the arm *FA'* of the lever and compresses the bulb of the atomizer, placed within a cylindrical bracket *B'*, thereby forcing a spray of liquid through an orifice in front of the apparatus. (See Figs. 1 and 2.) When the flow of the liquid has ceased, the grip on the handle is released, and the latter is restored to its original position by the automatic action of a spring *C*, connecting the arm *FA'* of the lever *AFA'* with the foundation *S*, whereon the stand is erected.

Another form of compressor is represented on Fig. 8. A rod *R*, with a disk push-button *B* at its lower end, is placed inside of the coils of the spring *C*, fastened on the one end to the disk and on the other end to a bracket *Y*, with hole therein through which the rod moves up and down. The rubber bulb of the atomizer is placed in an excavation beneath the disk *B*. When the apparatus is locked, the bulb is tightly squeezed by the disk *B*. By unlocking the apparatus I raise the disk by the upward movement of the arm *FA'* of the lever and press the spring upward against the said bracket *Y*. The rubber bulb



is thus freed and resumes its full size. The grip on the handle being released the spring C stretches to its normal size and pushes down the disk, whereby a spray of the liquor is forced out of the atomizer, the apparatus being at the same time automatically restored to its original position.

When the pawl  $\alpha T'$  has been removed from its position shown on Fig. 2, and the apparatus has assumed the position shown on Fig. 7, the downward movement of the handle H could be stopped midway and a continuous spray drawn out of the apparatus, while the coin retains its position between the appendage AT and the tooth T'. This is prevented by an arc-shaped plate  $tOt'$ , fastened to and moving around a point or axis O, fixed in the stand FS and supported by a spring W. While the tooth retains its position shown on Fig. 2, the plate  $tOt'$  is pressed tightly by the spring W to the pawl  $\alpha T'$ , the latter being displaced by the movement of the handle H, the end  $t'$  of the plate moves downward and the other end  $t$  moves upward. A backward move of the handle will cause the tooth  $t$  at the end of the plate  $tOt'$  to engage with the indented edge N of the appendage AT, thereby stopping the further upward movement of the handle. Similarly the handle could be stopped from resuming its original position after the coin has been ejected, but before a full stream of liquid has been drawn out of the apparatus. Then by slightly turning the handle up and down the flow of the liquid could be continued. To guard against this, the stand FS is provided with a serrated edge N'. A downward move of the handle following an impeded and incomplete upward turn of the same will drive the tooth T' of the pawl  $\alpha T'$  into one of the notches of the serrated edge N', as shown on Fig. 6, and stop the operation of the apparatus.

The special advantage of my invention over other devices of a similar nature consists in the simplicity and cheapness of the construction.

The nature of the invention and a way of constructing and operating the same having thus been explained, though without attempting to set forth all of the forms in which it may be made or all of the modes of its operation, what I claim as my invention is—

1. A combination including: a lever AFA', whose one arm FA' is provided with a disk or push-button B, and the other arm FA with a handle H; a stand FS, whereon the lever AFA' is fulcrumed, the stand having a serrated edge N' and a hollow space or chamber TT' within; an atomizer with a rubber bulb contained in a bracket B' the disk or push-button B being brought in contact with said atomizer-bulb; an appendage AT with a serrated edge N joined to the arm FA of the said lever and a pawl  $\alpha T'$  ending with a tooth T' and so joined to the arm FA', as to engage with one of the notches of the serrated edge N' of the stand FS; a spring  $w$  with a pin P pressing against

the pawl  $\alpha T'$ ; a coin receptacle or chute  $c$  communicating with the chamber TT' within the stand FS and having an aperture  $o$  on one side whereby coins of inferior weight are removed; a bent lever  $afa'$  fulcrumed on the lower edge  $f$  of the said aperture  $o$  and operated by the weight of a coin; a plate  $tOt'$  moving around an axis O on the stand FS and provided with a tooth or pin  $t$ , engaging with the serrated edge N of the appendage AT and supported by a spring W; a coiled-wire spring fastened at one end to the arm FA' of the lever AFA' and at the other end to the bottom S; all of which substantially as herein described.

2. A combination including: a lever AFA', whose one arm is provided with a handle, and the other arm is joined to a rod R provided with a disk or push-button B attached to the other end thereof and moving up and down through a hole in a firmly-fixed bracket Y; a coiled-wire spring winding around said rod and fastened on the one end to the disk B and on the other to the bracket Y aforesaid; an atomizer with a rubber bulb resting in an excavation and having the disk or push-button B brought in contact therewith; a stand FS, whereon the lever AFA' is fulcrumed the stand having a serrated edge N' and a hollow space or chamber TT' within; an appendage AT with a serrated edge N joined to the arm FA of the said lever and a pawl  $\alpha T'$  ending with a tooth T' and so joined to the arm FA', as to engage with one of the notches of the serrated edge N' of the stand FS; a spring  $w$  with a pin P pressing against the pawl  $\alpha T'$ ; a plate  $tOt'$  moving around an axis O on the stand FS and provided with a tooth or pin  $t$  engaging with one serrated edge N of the appendage AT and supported by a spring W; a coin receptacle or chute  $c$  communicating with the chamber TT' within the stand FS and having an aperture  $o$  on one side whereby coins of inferior weight are removed; a bent lever  $afa'$  fulcrumed on the lower edge  $f$  of the said aperture  $o$  and operated by the weight of a coin; substantially as herein described.

3. A lever having an appendage attached to its handle and a locking-pawl attached to the other arm said lever being unlocked and operated by means of a coin inserted between the said appendage and locking-pawl so as to transmit the pressure exercised on the handle to the locking-pawl, substantially as herein described.

4. A device for preventing the partial turning of the handle, consisting of a movable arc-shaped plate set in motion by the turning of the handle and catching at the serrated edge of an appendage thereto and restored to its original position by a spring, substantially as herein described.

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Witnesses:

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