

(No Model.)

2 Sheets—Sheet 1.

J. TURNER-TURNER.
COIN FREED GOODS DELIVERY APPARATUS.

No. 591,511.

Patented Oct. 12, 1897.

FIG. 1.

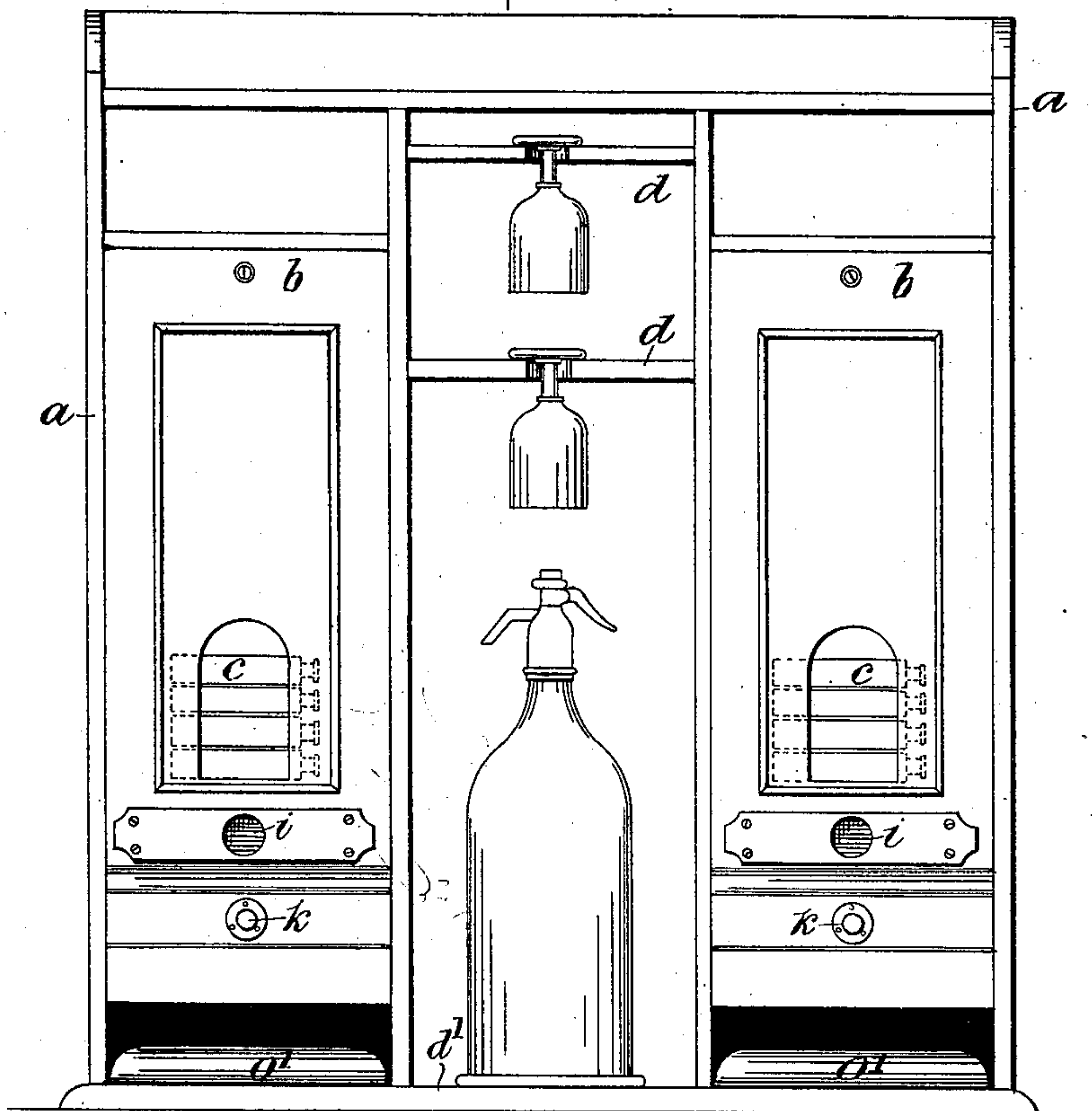


FIG. 6.

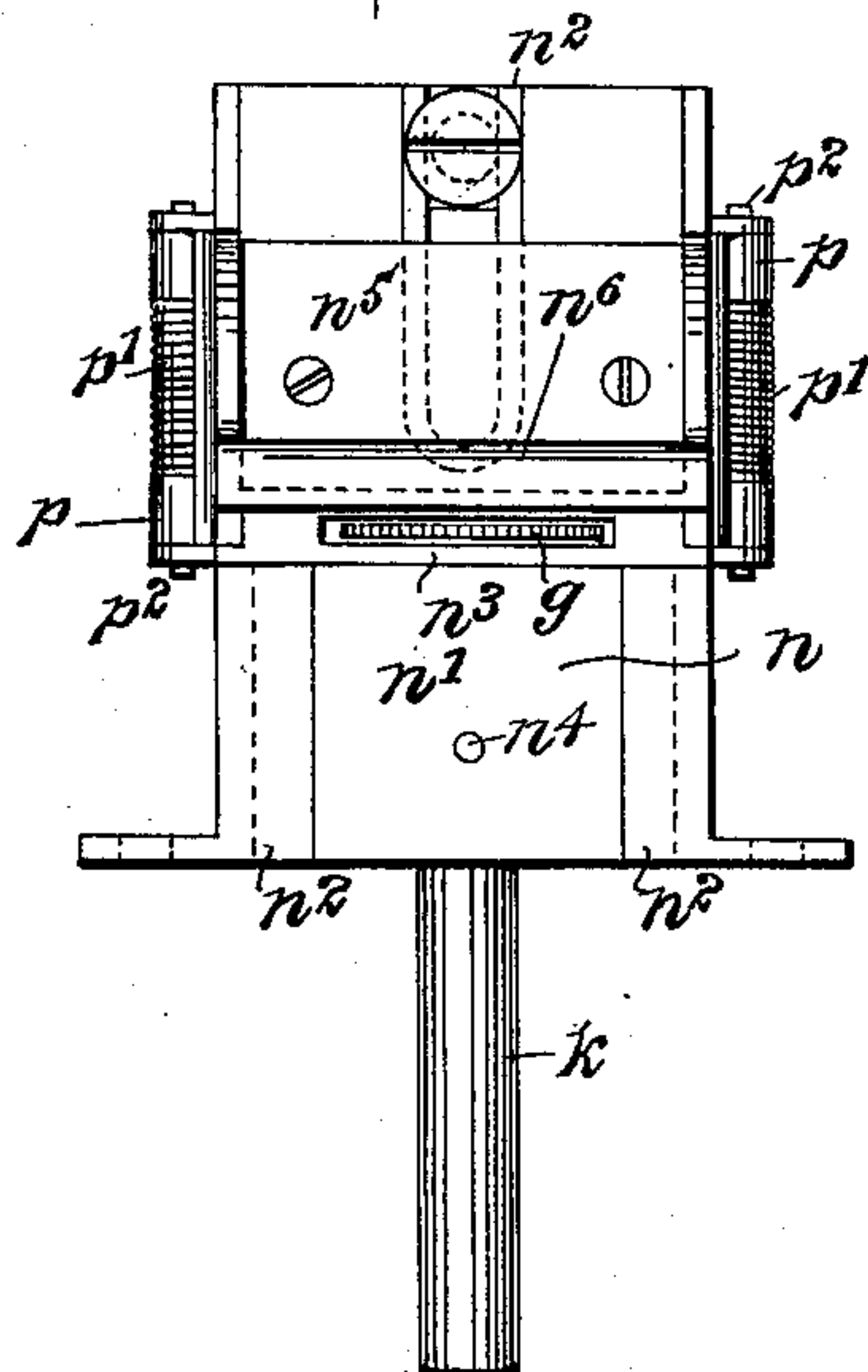
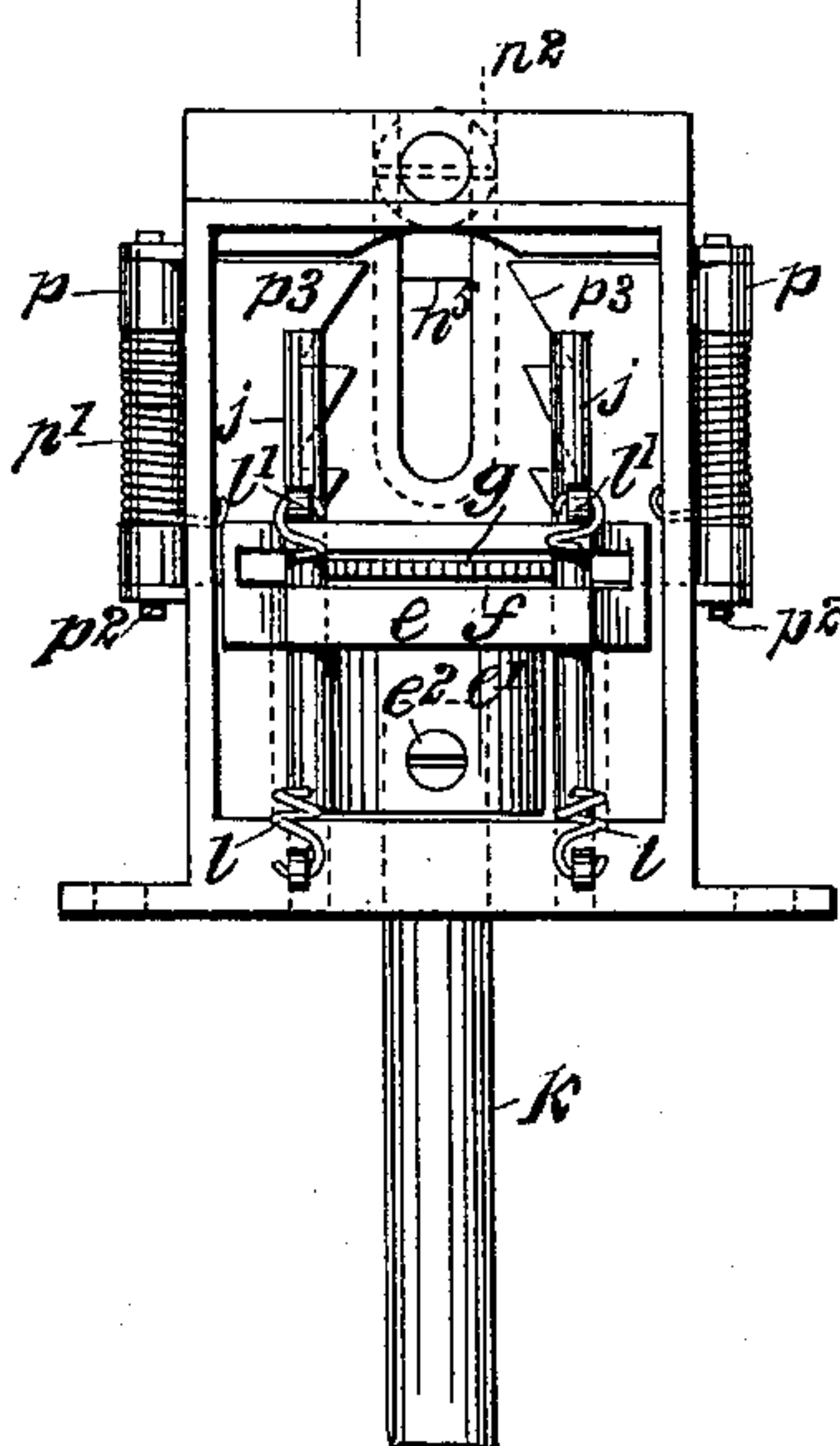


FIG. 7.



WITNESSES:

Fred White
Rene Bruine

INVENTOR:

John Turner-Turner,
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Alfred C. Turner & Co.

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2 Sheets—Sheet 2.

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FIG. 2.

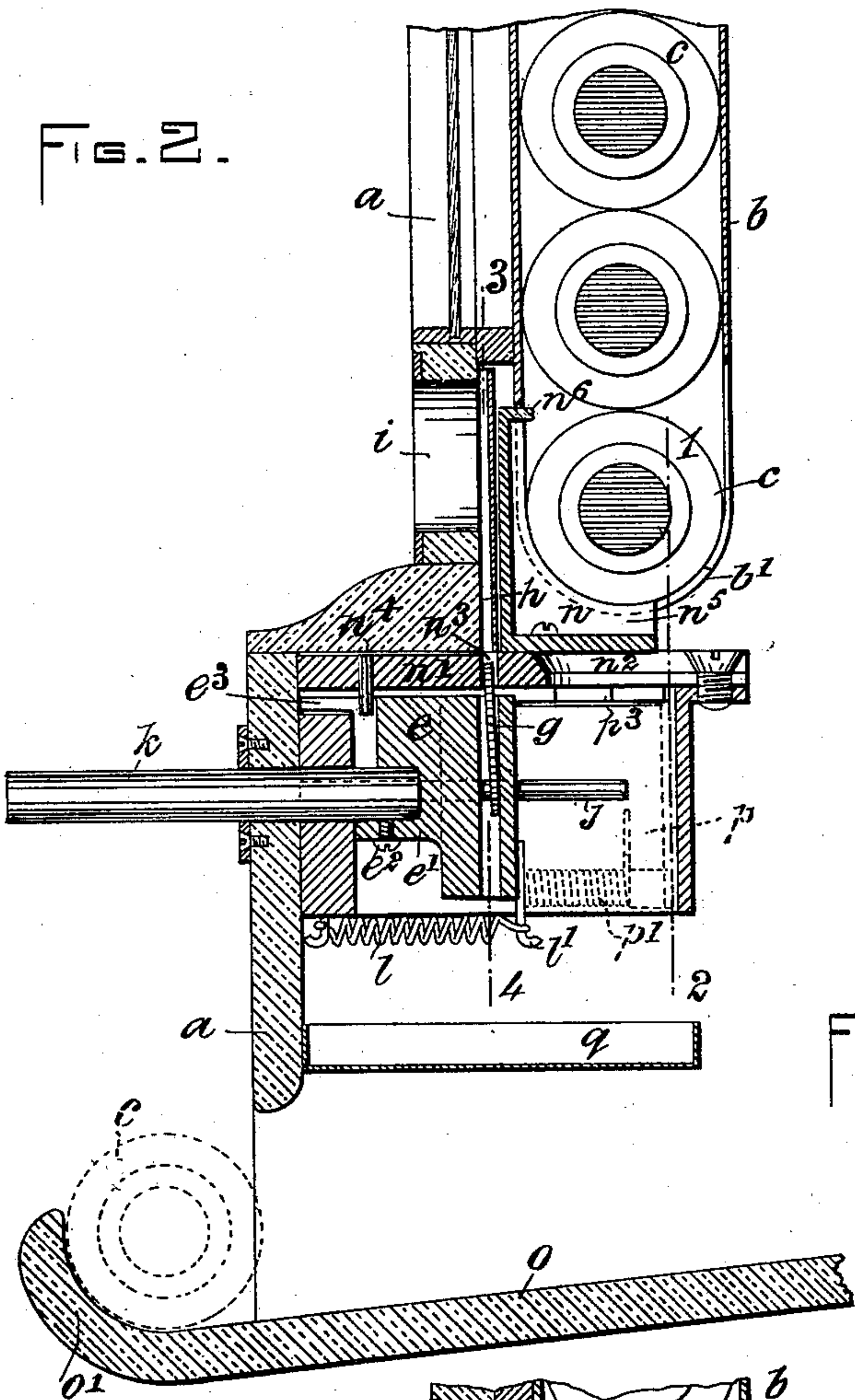
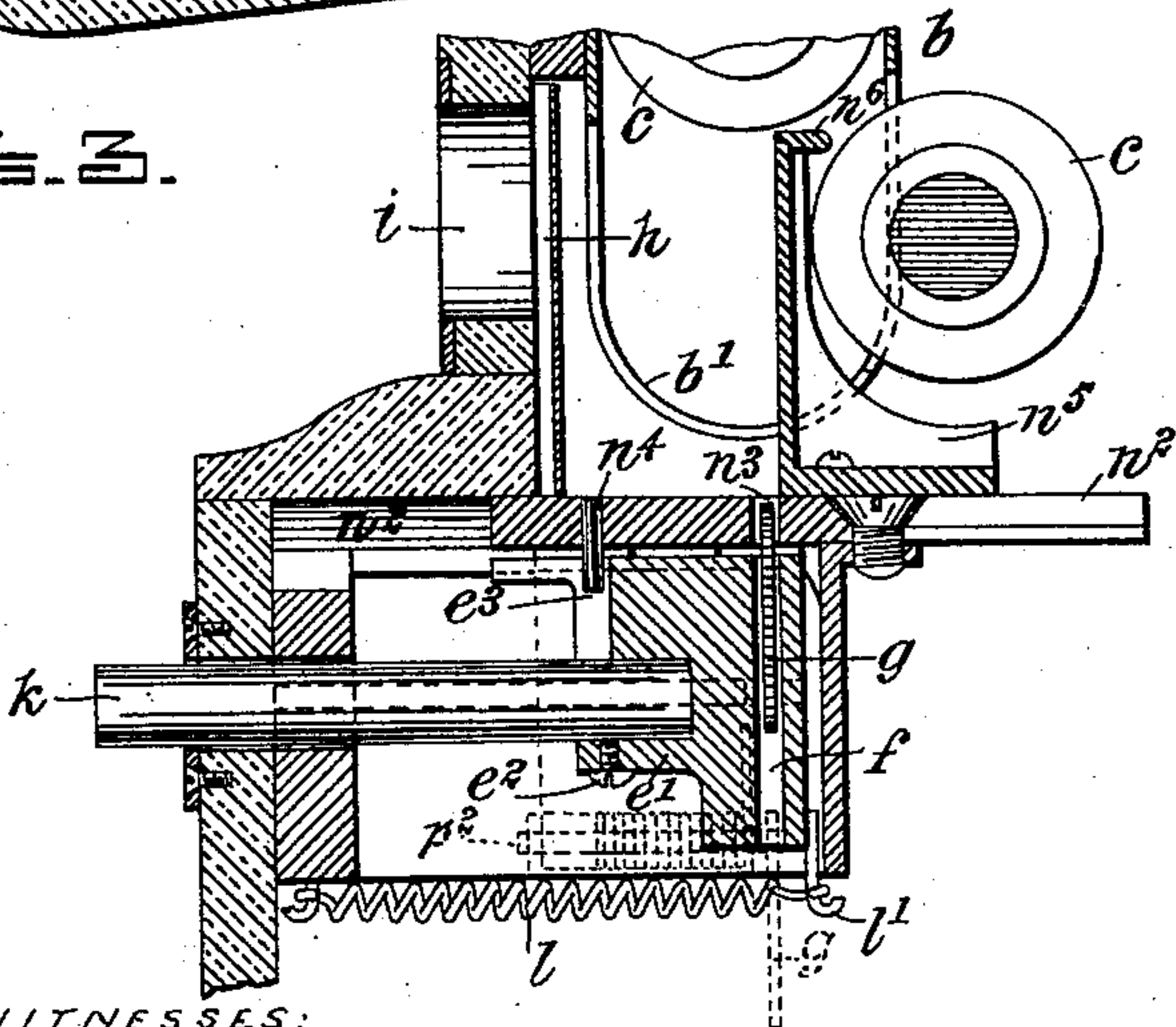


FIG. 3.



WITNESSES:
Fred Whitey
Rene Bruine

FIG. 4.

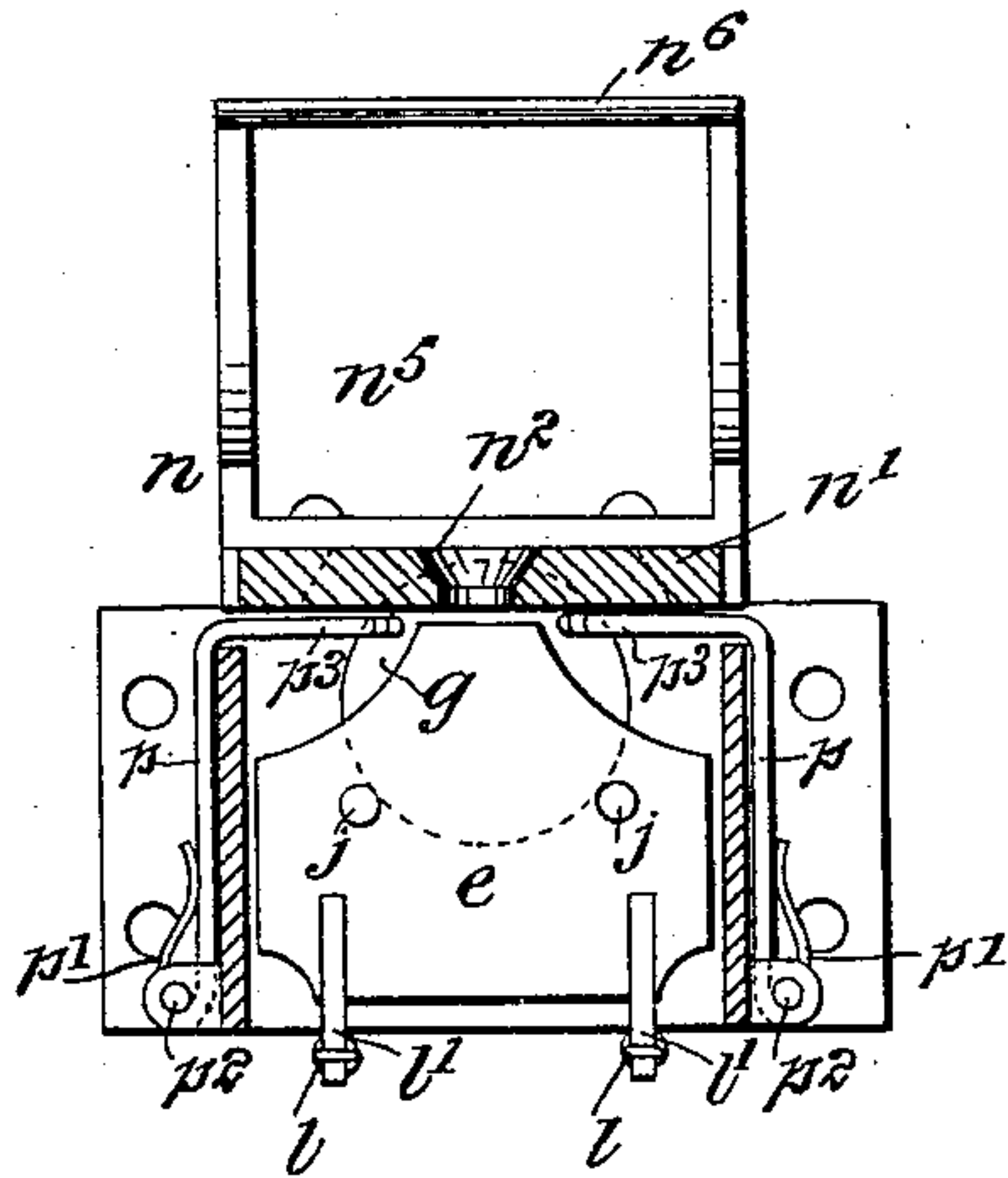
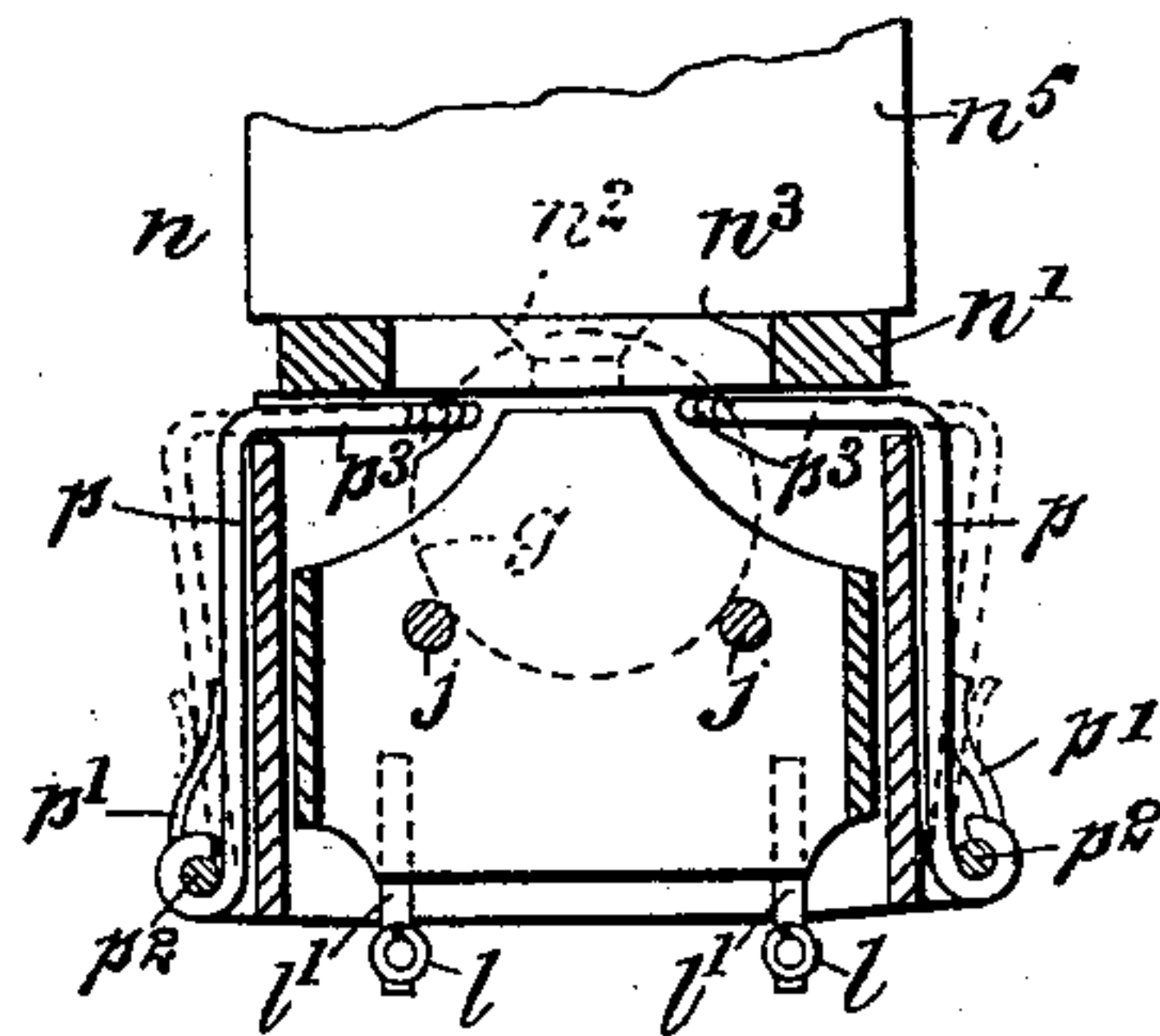


FIG. 5.



INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN TURNER-TURNER, OF AVON CASTLE HOTEL, HAMPSHIRE, ENGLAND.

COIN-FREED GOODS-DELIVERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 591,511, dated October 12, 1897.

Application filed April 12, 1897. Serial No. 631,747. (No model.)

To all whom it may concern:

Be it known that I, JOHN TURNER-TURNER, a subject of the Queen of Great Britain and Ireland, residing at Avon Castle Hotel, Hampshire, England, have invented a certain new and useful Improved Coin-Freed Goods-Delivery Apparatus, of which the following is a specification.

This invention relates to a coin-freed delivery apparatus designed particularly for use in hotels and such like places, the principal object of the invention being to provide a means for storing and automatically supplying, on due payment, bottles or the like containing spirits, wines, &c., and adapted also to contain drinking-glasses and aerated waters, all readily accessible to the purchaser after payment of the fixed price.

In order that my invention may be fully understood, I will describe an apparatus constructed in accordance therewith for delivering bottles of liquid, and illustrated by the accompanying drawings, of which—

Figure 1 is a front elevation of the apparatus; Fig. 2, a vertical section through a part of the same, showing the position of the bottles therein and of the mechanism when ready for operation; Fig. 3, a similar section to Fig. 2, but showing the position of the parts when the coin has been inserted and the mechanism operated to deliver a bottle; Fig. 4, a transverse section through the mechanism-case on the line 1 2 of Fig. 2; Fig. 5, a transverse section through the mechanism-case on the line 3 4, Fig. 2; Fig. 6, a plan of the operating mechanism, and Fig. 7 an inverted plan of the same.

Like letters of reference refer to the same parts in the several figures.

The casing *a* is divided into any convenient number of separate compartments *b b*, each containing superposed bottles *c c*, filled with the liquid or other matter to be delivered in exchange for a coin. Another compartment is provided and fitted with suitable shelves *d d* for supporting drinking-glasses, and with a shelf *d'* for supporting a soda-water siphon, as shown in Fig. 1, or the like.

Below each of the containing-compartments *b* is arranged a mechanical device adapted to be operated by a coin. It consists of a block *e*, fixed to the inner end of a push-bar *k*, and

provided with a slot *f*, to which the inserted coin *g* is conducted by a chute *h*, communicating at its upper end with a circular coin-admission cavity *i*, opening at the front of the apparatus, one cavity for each container. The block *e* is caused to slide on guide-rods *j j* by the push-bar *k*, which extends through the mechanism-case to the front of the apparatus, and which is fixed to the said block *e* by means of a boss *e'* and set-screw *e''*. Springs *l l*, attached at one end to hooks *l' l'* on the block and at the other end to the case or frame of the mechanism, return the block to its normal position. The inserted coin *g* is supported in the slot *f* of the block *e* in such a manner that its upper part projects above the slot by the guide-rods *j j*, fixed in the front wall of the mechanism-case. When the block is carried toward the rear by the operation of the push-bar *k*, the projecting part of the coin *g* is pressed against and moves a delivery-slide *n*, the part *n'* of which rests immediately beneath the bottles supported by the curved ledge *b'* of the container *b*. This slide *n* consists of a plate *n'*, provided with beveled guide-surfaces *n''*, a slot *n'''*, into which the coin projects to operate it, a pin *n''''* for engaging the block *e* to return the slide *n* to the normal position after operation, and a piece *n'''''*, adapted to push a bottle from the container and at the same time, by means of the ledge *n''''''*, to prevent the descent of the bottles resting above the bottle being pushed out. The latter bottle is ejected into the rear of the apparatus, where it falls upon a chute *o*, inclined toward and traversing the front wall of the apparatus, where it is provided with a curved part or rest *o'*, adapted to hold the bottle, which can be conveniently removed therefrom by the customer. The chute *o* is faced with velvet or other soft material in such a manner that the falling bottle will not be injured by striking it.

Above the sliding block *e* and in the line of travel of the projecting part of the coin are arranged two horizontal rack-plates *p*, pressed inward by coiled springs *p'*, which encircle pivot-pins *p''*, carried at the lower part of the mechanism-case and passing through holes at the bottom of vertical extensions of the rack-plates which oscillate about the said pins, one end of each spring

p' pressing against the vertical part of the corresponding rack-plate, the other end being fastened to the case of the apparatus. The plates p have ratchet-teeth p^3 at their upper inwardly-turned edges adapted to engage the coin as it is carried backward and prevent its return until the bottle is discharged from the container, when the said coin, disengaged from the rods jj , falls out into a receptacle q , the closing action of the spring-pressed rack-plate assisting in its ejection. The insertion of a coin into the apparatus is rendered impossible, unless the push-rod be in its normal position, by an extension e^3 of the block e , which closes the slot during the travel of the push-rod independently of the slide n' . This extension is provided with a slot which allows the block e to travel independently of the pin n^4 on the slide n when the push-rod is operated without a coin. Thus a bottle cannot be obtained by simply operating the push-rod. The block e and delivery-slide n are returned by the action of the springs ll to their normal position. The coin-receptacle q is supported immediately below the operating mechanism and above the chute o by the casing a of the apparatus.

The mode of operating the apparatus is as follows: A person desirous of obtaining a bottle of liquid from one or other of the compartments b inserts a coin of the kind for which the apparatus is adapted into the cavity i at the foot of the compartment containing the liquid he has selected in such a manner that it can pass by way of the chute h to the slot f in the block e . He then presses the push-bar k so that the projecting part of the coin will engage the slot n^3 and the slide n be carried backward, so that the part n^5 will push the lowermost bottle c against the ledge b' and so raise and eject it from the compartment b and cause it to drop to the chute o , down which it rolls to the lip o' , whence the purchaser can conveniently remove it. The bottles which were supported upon the bottle ejected are supported by the ledge n^6 at the top of the part n^5 during the ejection, and on the return of the mechanism to its normal position the said bottles descend, the lowermost being supported on the piece b' at the foot of the compartment b . The coin rests on the rods jj , as has been already mentioned, and during its backward travel it passes between the serrated edges of the rack-plates p , the teeth p^3 of which are so inclined as to allow the backward passage of the coin, but prevent its return. Therefore the mechanism cannot be returned to its normal position until the rod k has been pushed in sufficiently far to allow the coin to clear the ends of the rods jj and drop into the receptacle q . The serrated edges of the plates p , in addition to preventing the return of the coin, hasten its fall from the slot g in the plate e by pressing against its circumference near the top. When the push-bar is released

after the coin has left the slot f , the operating parts are all drawn to their normal position by the spiral springs ll and the apparatus is again ready for operation on the insertion of another coin.

By the above-described apparatus a customer can select the liquor he desires and on the insertion of the proper coin will receive a bottle of the same, and also have access to a glass and aerated water.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for delivering an article in exchange for a coin, a block sliding on guide-rods at its lower part and having a vertical slot through it, normally in line with a slot in an upper sliding plate carrying an ejector, but closed at the bottom by the guide-rods except at the end of the rearward travel of the block, in combination with laterally-movable serrated plates or racks immediately above the vertical slot in the sliding block, which racks are constantly pressed inward toward each other, substantially as and for the purposes described.

2. In an apparatus for delivering an article in exchange for a coin, a compartment adapted to hold articles one above another and having a chute and curved lip at its lower end in combination with a sliding plate having a downwardly-projecting lug or pin, a lateral slot opening at the top and bottom of the plate and carrying an ejector having a rearwardly-curved lower portion and a ledge at its upper part, substantially as described.

3. In an apparatus for delivering an article in exchange for a coin, a compartment adapted to hold articles one above another, a sliding plate having a slot, a downwardly-projecting lug or pin and carrying an ejector, in combination with a block sliding on guides at its lower part and having a vertical slot through it normally in line with the slot in the sliding plate but closed by the guide-rods except at the end of the rearward travel of the block; a forwardly-projecting extension at the upper part of, and a push-rod attached to, the said block, substantially as described.

4. In an apparatus for delivering an article in exchange for a coin, the compartment b , for containing articles to be delivered, having a delivery-chute o for discharging such articles, and coin-chute h , in combination with the device n consisting of the plate n' , pin or lug n^4 and ejector n^5 ; the block e having a slot f and push-rod k ; the guide-rods jj and the racks or plates p , for permitting delivery of such articles in exchange for a coin, substantially as and for the purpose set forth.

5. In apparatus for delivering an article in exchange for a coin, a casing having a coin-slot, in combination with a movable pusher in said casing having a slot normally in line with that of the casing, a movable ejector in said casing having a slot normally in line with that

of the pusher, means holding a predetermined coin within the slots of both the pusher and ejector during the movement of said parts requisite to the operation of the latter, and then releasing such coin, a laterally-movable serrated part engaging the coin while so held and preventing return of the pusher during such movement, and means pressing said serrated part against the coin, whereby the coin operatively connects the pusher and ejector, and the serrated part prevents return of the pusher until the ejector has operated.

6. In an apparatus for delivering an article in exchange for a coin, a compartment adapted to hold articles one above another, and having elevating ledges, for preventing the removal of the lowermost article until it has been pushed forward and so raised over such

ledges, and having also a delivery-chute, in combination with an ejector for successively delivering such articles, coin-controlled mechanism for operating said ejector, a casing for said parts, said ejector having an upwardly-extending lower portion for receiving and pushing the lowermost article up over such ledges, and means for sustaining the superposed articles while delivering the lowermost from beneath them, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JOHN TURNER-TURNER.

Witnesses:

GEO. H. WELCH,
WALTER WHEELER.