

No. 683,393.

Patented Sept. 24, 1901.

J. D. FORSTER.
PREPAYMENT GAS METER.

(Application filed Apr. 15, 1901.)

(No Model.)

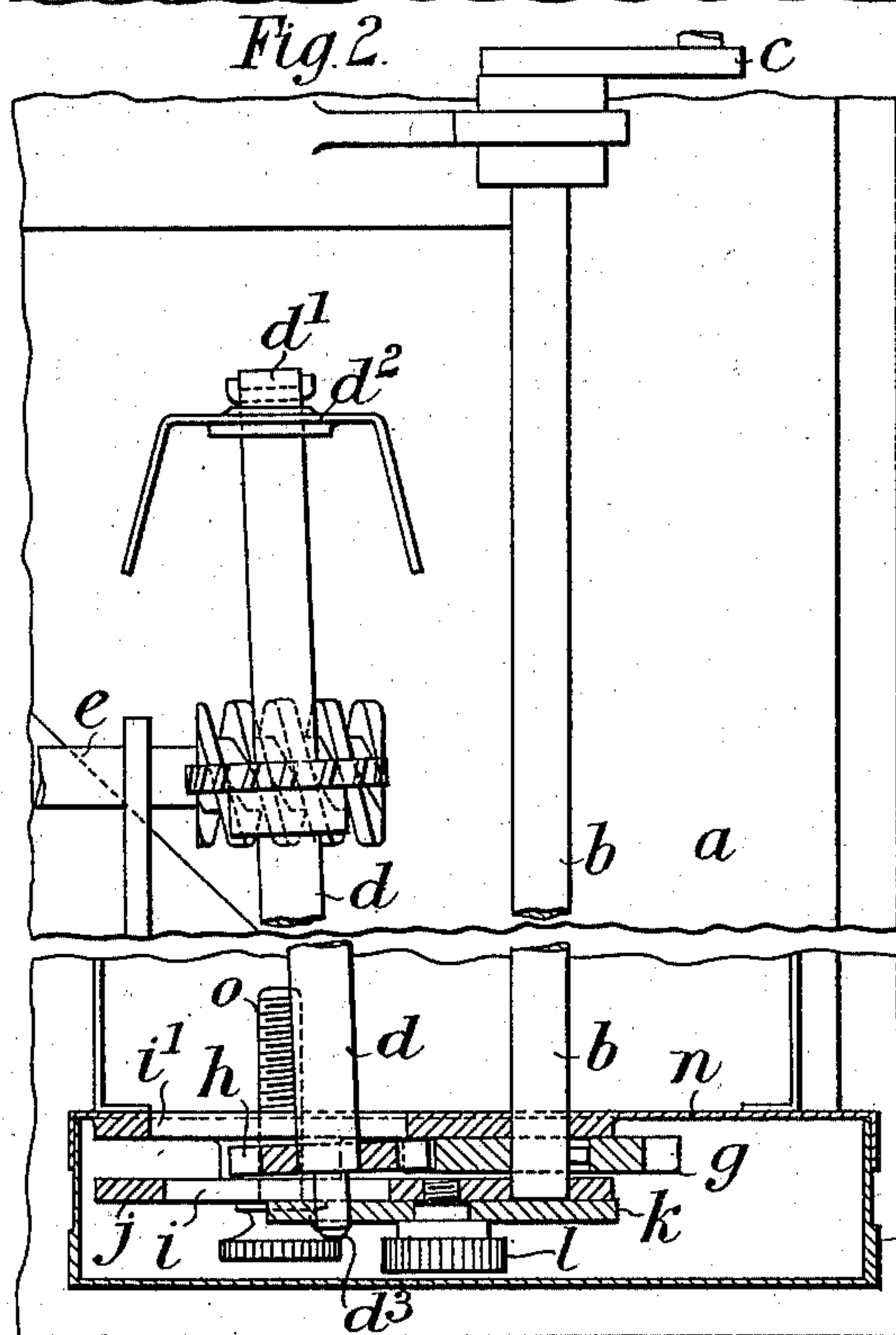
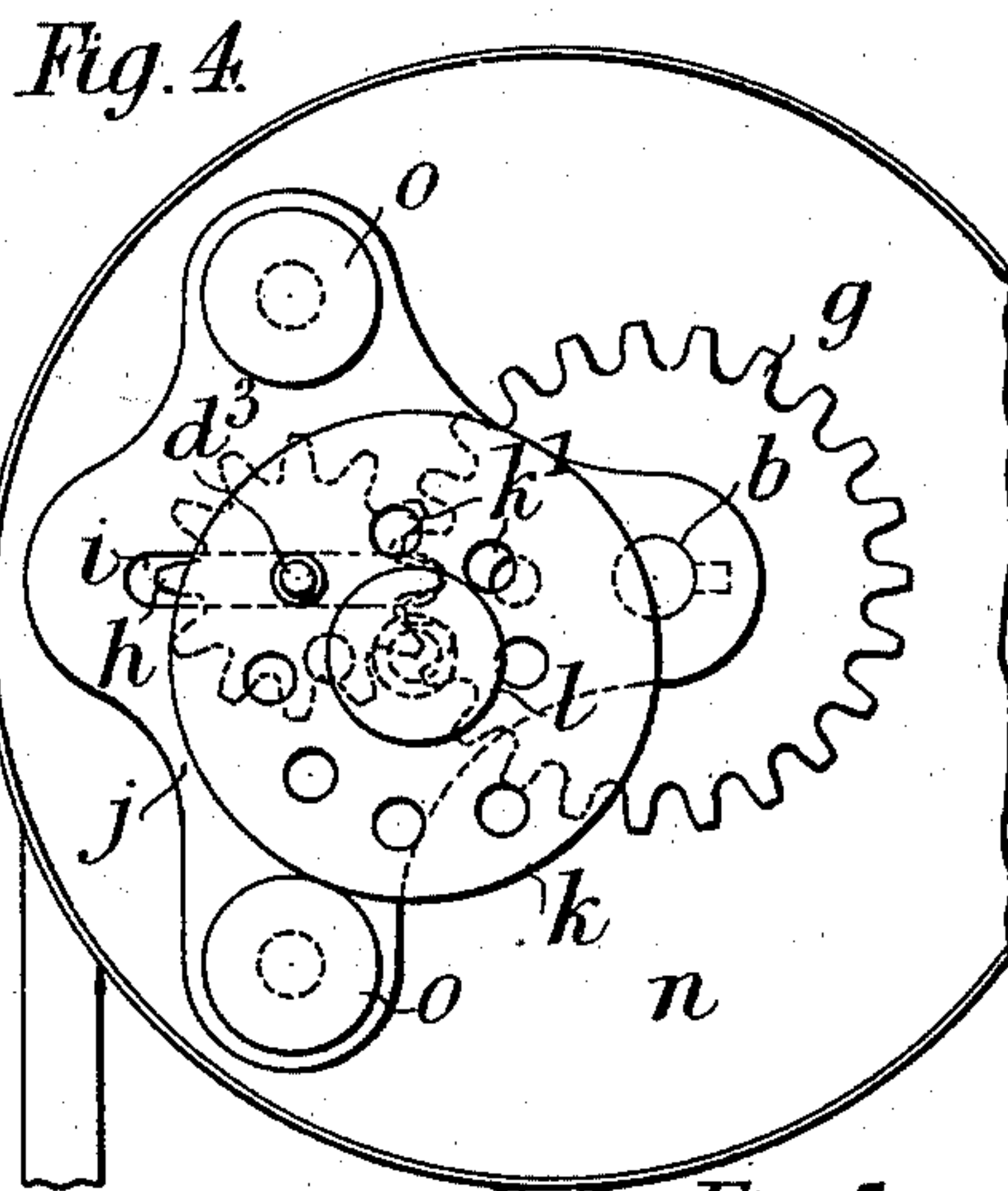
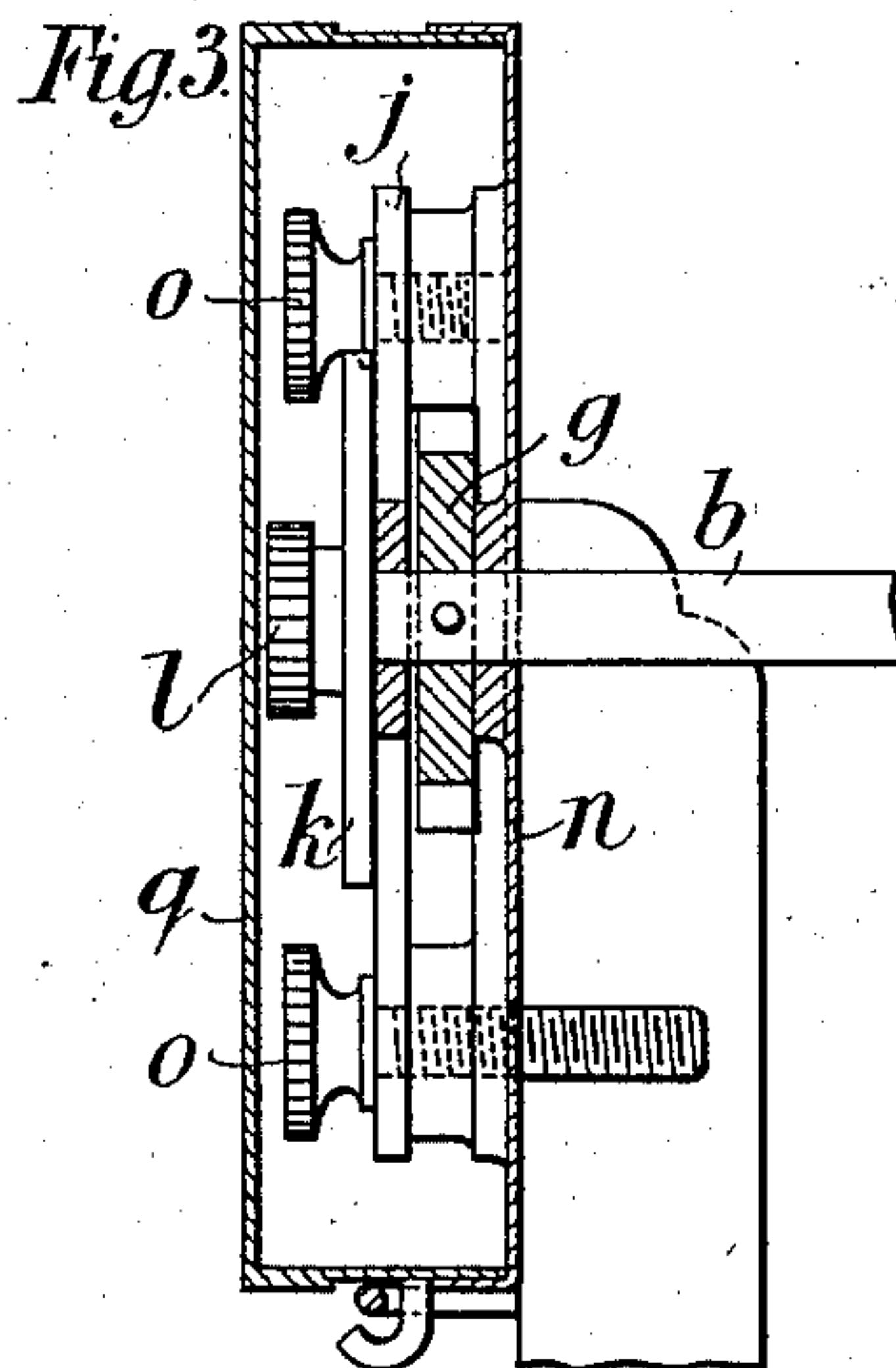
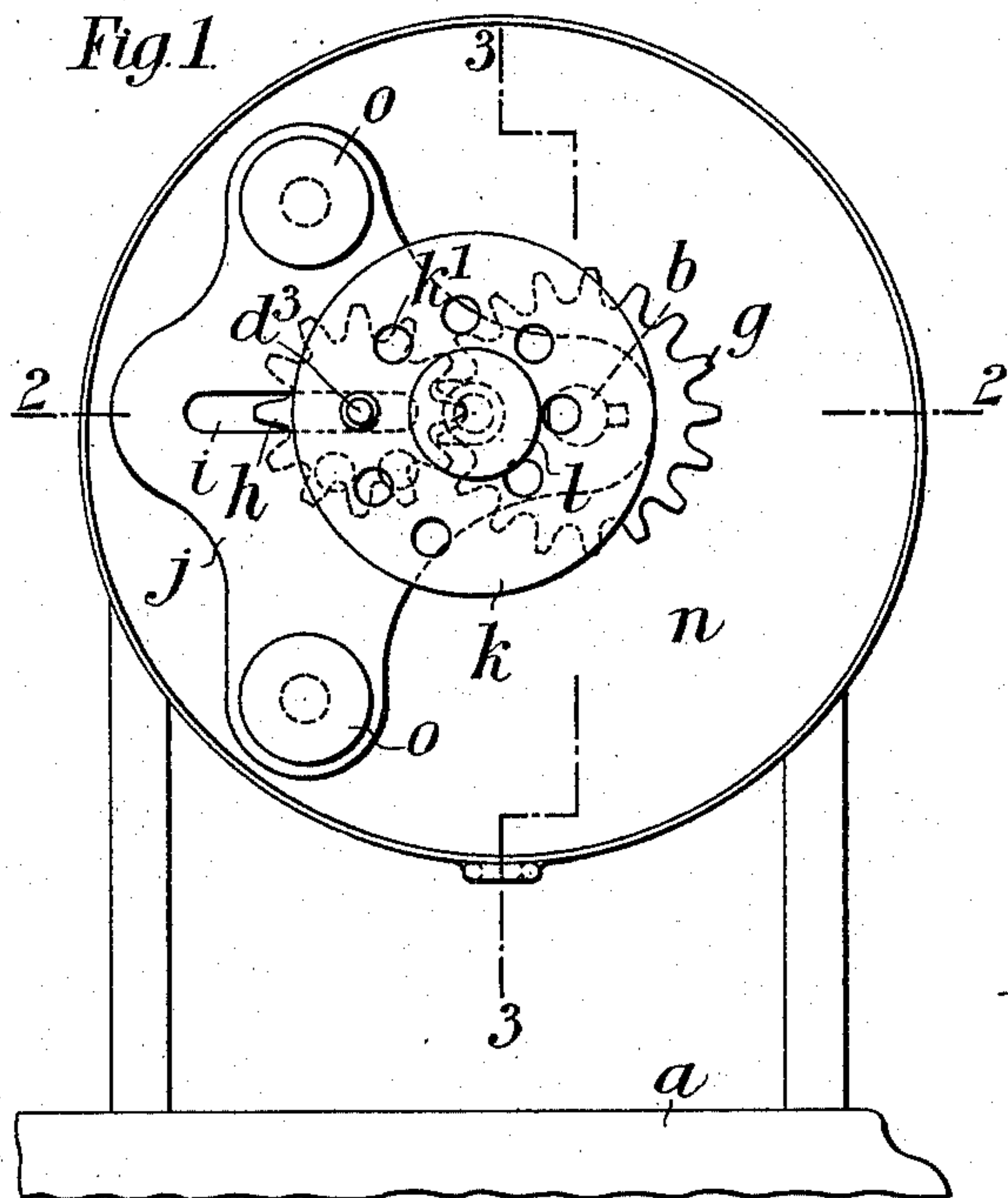


Fig. 5.

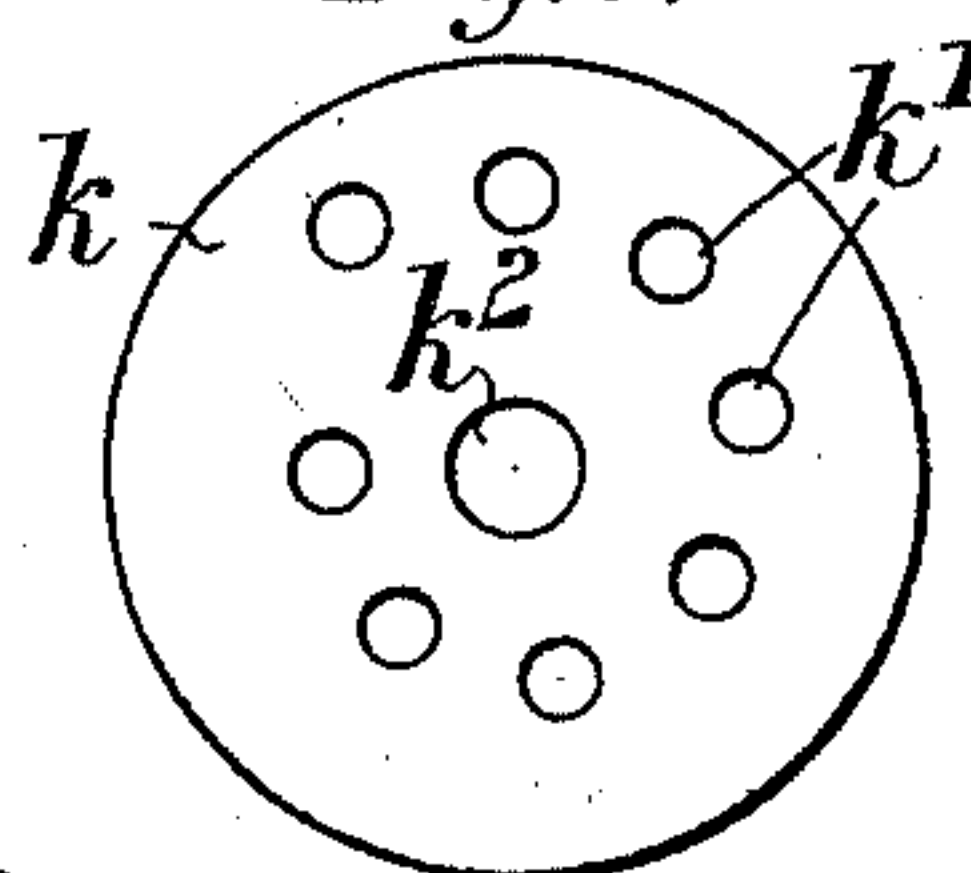
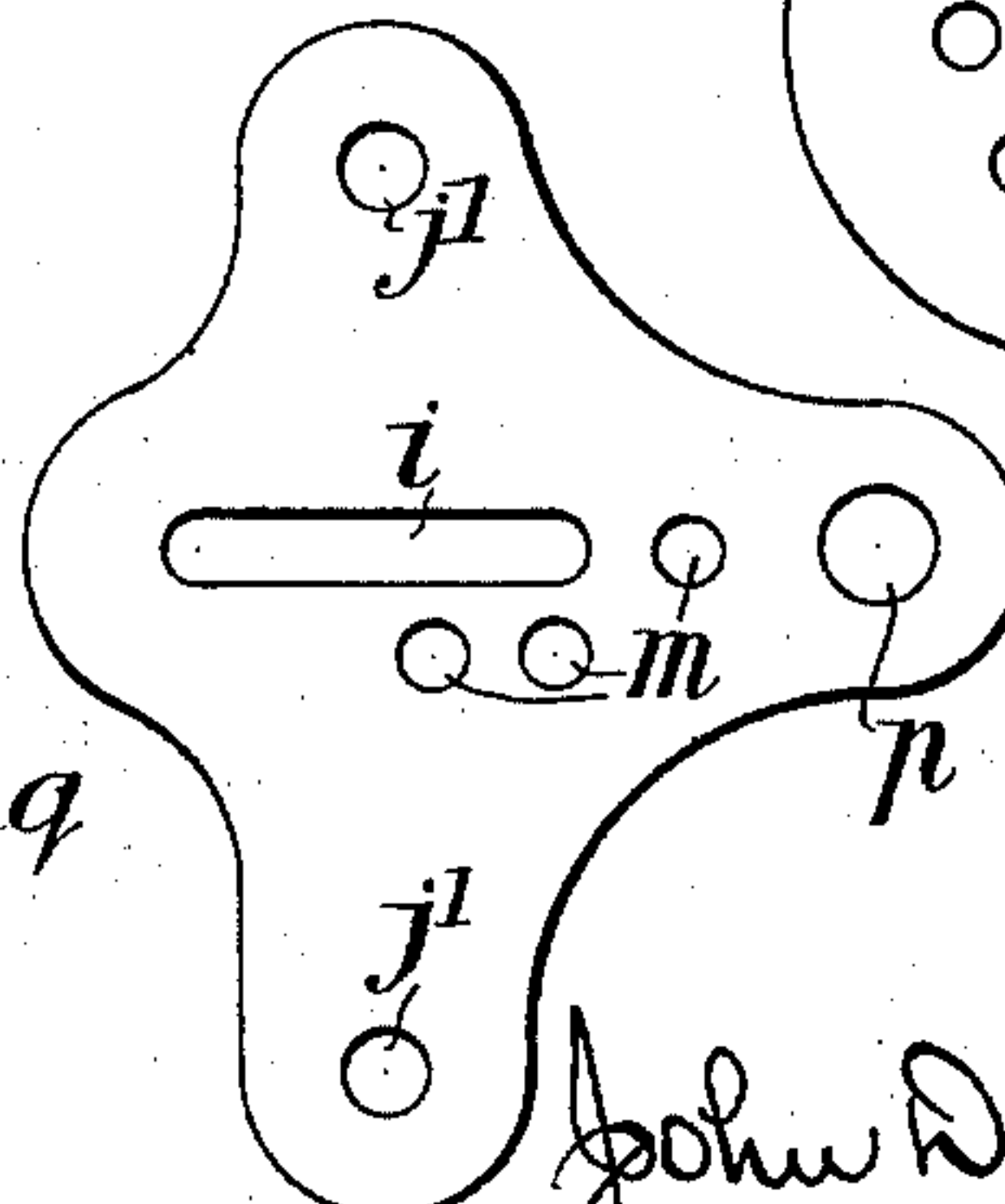


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

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PREPAYMENT GAS-METER.

SPECIFICATION forming part of Letters Patent No. 683,393, dated September 24, 1901.

Application filed April 15, 1901. Serial No. 55,932. (No model.)

To all whom it may concern:

Be it known that I, JOHN DANIEL FORSTER, a subject of the King of Great Britain, residing at 14 Commercial road, Peckham, London, England, have invented new and useful Improvements in Prepayment Gas-Meters, of which the following is a specification.

This invention relates to prepayment gas-meters, and especially to means for readily adapting such meters to any variations in the price of gas, the improvements being chiefly applicable for use with meters of the kind described in the specification of British Letters Patent No. 28,155 of 1896, but being also applicable to other meters.

In applying the invention to a meter of the kind described in the specification of the aforesaid former patent the shaft which operates the mechanism for controlling the supply of gas and also a shaft driven by the "two-foot" shaft are carried to the outside of the meter-casing and adapted at this point to be geared together by toothed wheels, one of which is preferably fixed upon its shaft, while the other is detachably mounted, so that it can serve as the "change-wheel." The shaft driven by the two-foot shaft is capable of being adjusted laterally—i. e., toward or away from the axis of the other shaft—a guide-plate having a slot supporting the projecting end of the said adjustable shaft. This guide-plate also carries a disk, plate, or quadrant (which forms a bearing for the shaft driven by the two-foot shaft) pivotally mounted upon it and provided with a series of holes at varying distances from the center of the said disk, plate, or quadrant, into any one of which the said projecting end can be inserted, according to the diameter of the change-wheel to be employed. The guide-plate is made removable to enable the wheel to be conveniently changed. This change mechanism is inclosed in a box or compartment provided with a lid normally secured by a suitable lock and which can be readily opened by the inspector.

To enable the invention to be fully understood, I will describe it by reference to the accompanying drawings, in which—

Figure 1 is an elevation illustrating the change-gear. Fig. 2 is a sectional plan of the

same, the section being on the line 2 2, Fig. 1. Fig. 3 is a vertical section on the line 3 3, Fig. 1. Fig. 4 is a similar view to Fig. 1, but showing a larger change-wheel applied. Fig. 5 is an elevation of the disk provided with the series of holes, and Fig. 6 is an elevation of the guide-plate.

a is the casing of the attic of the meter; *b*, the shaft which operates (through the medium of the crank *c*) the mechanism for controlling the supply of gas, as described in the specification of British Patent No. 28,155 of 1896; *d*, the shaft driven by the two-foot shaft *e*, and *g* *h* the gear-wheels whereby the shaft *b* is driven by the shaft *d*. All the foregoing parts are of known construction.

The gear-wheel *g* I make removable from the shaft *b*, so as to form a change-wheel, and to enable the shaft *d* to be moved toward or away from the shaft *b* to admit of this change being effected its end *d'* is supported with a certain amount of play in the bearing *d*², while its end *d*³, which carries the gear-wheel *h*, passes through a slot *i* in the guide-plate *j*, the casing *a*, through which the shaft *d* passes, also being provided with a slot *i'*.

k is the disk or plate carried by the guide-plate *j* and which serves as a bearing for the end *d*³ of the shaft *d*, a series of holes *k'* at varying distances from the center being made in the said disk, in any one of which the end *d*³ of the shaft *d* can be supported. The disk *k* is clamped upon the guide-plate *j* by suitable means, such as a milled-headed screw *l*, passing through a hole *k*² in its center and into one of a series of holes *m* in the said guide-plate, and the guide-plate is clamped to the back of the box *n*, inclosing the change mechanism, also by suitable means, such as milled-headed screws *o* *o*, passing through holes *j'* in the said plate.

p is a hole with which the guide-plate is provided as a bearing for the end of the shaft *b*.

With the above-described construction it will be seen that by removing the screw *l* to release the disk *k* and then removing the screws *o* *o*, so as to release the guide-plate *j*, the wheel *g* can be removed and another one of different size substituted to gear with the wheel *h*, according to the variation in the

price of gas, the shaft *d* being in consequence moved farther from or nearer to the shaft *b*. The guide-plate *j* and disk *k* are then replaced, the end *d*³ of the shaft *d* engaging with a different hole in the disk from that with which it previously engaged. The holes *m m* in the plate *j* permit of a wider range of wheels being employed than would be the case with only one such hole.

q is the lid of the box formed upon the casing *a*, in which box the change mechanism is arranged, the said lid or cover being normally secured by a suitable lock or seal (not shown) and being removable to enable the change-wheel to be altered without the necessity of obtaining access to the attic of the meter.

Although I have described the fixed shaft *b* as being that to which the change-wheels are applied, it will be obvious that the said wheels can be applied to the shaft *d*.

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

1. In a prepayment gas-meter, a change mechanism comprising among its members two shafts, one movable with respect to the other, gearing connecting said shafts, a guide-plate having a bearing for the stationary shaft and a slotted aperture for receiving the movable shaft and an adjusting-plate detachably secured to said guide-plate and provided

with a bearing-aperture engaging said movable shaft, substantially as described. 35

2. In a prepayment gas-meter, a change mechanism comprising among its members two shafts, one movable with respect to the other, gearing connecting said shafts, a guide-plate having a bearing for the stationary shaft and a slotted aperture for receiving the movable shaft and an adjusting-plate detachably secured to said guide-plate and provided with a series of bearing-apertures at different distances from its point of attachment to said guide-plate, said apertures being adapted to engage said movable shaft, substantially as described. 40 45

3. In a prepayment gas-meter, a change mechanism comprising among its members two shafts one movable with respect to the other, gearing connecting said shafts, a guide-plate having a bearing for the stationary shaft and a slotted aperture for receiving the movable shaft, a circular adjusting-plate provided with a central aperture, and a series of bearing-apertures for the movable shaft located at different distances from said central aperture and a set-screw engaging said central aperture and securing said adjusting-plate to said guide-plate, substantially as described. 50 55 60

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Witnesses:

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