

(No Model.)

J. EVANS.
COIN ACTUATING MECHANISM.

No. 462,479.

Patented Nov. 3, 1891.

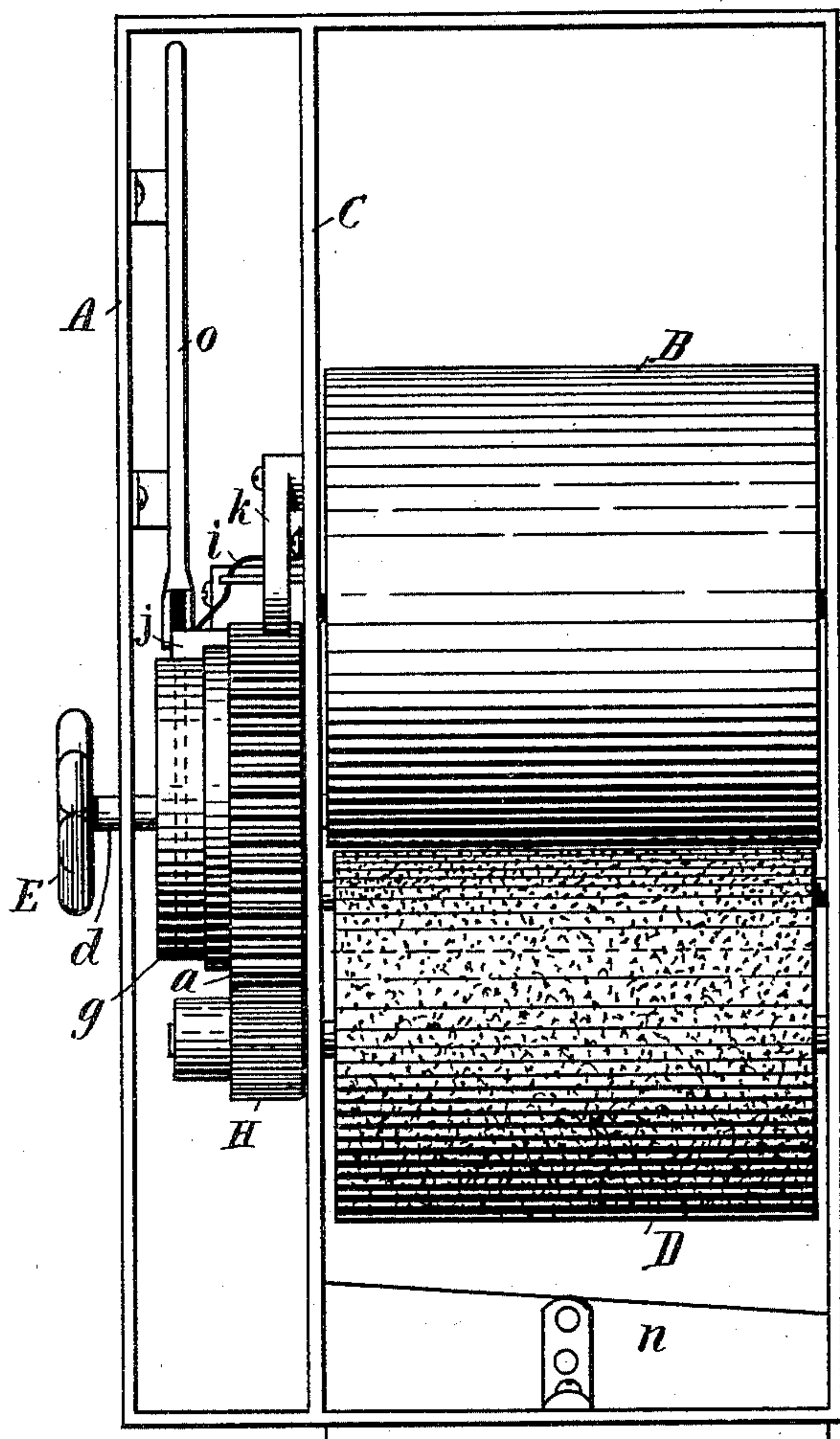


Fig. 1.

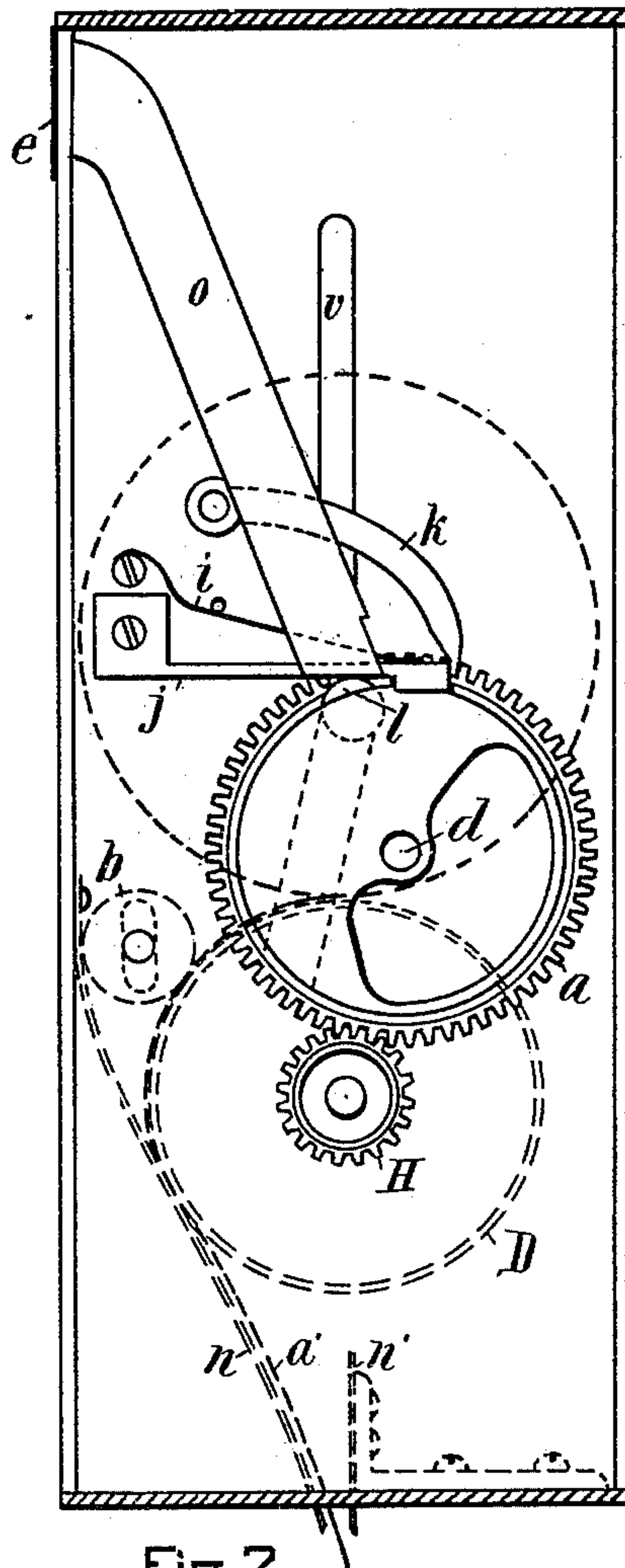


Fig. 2.

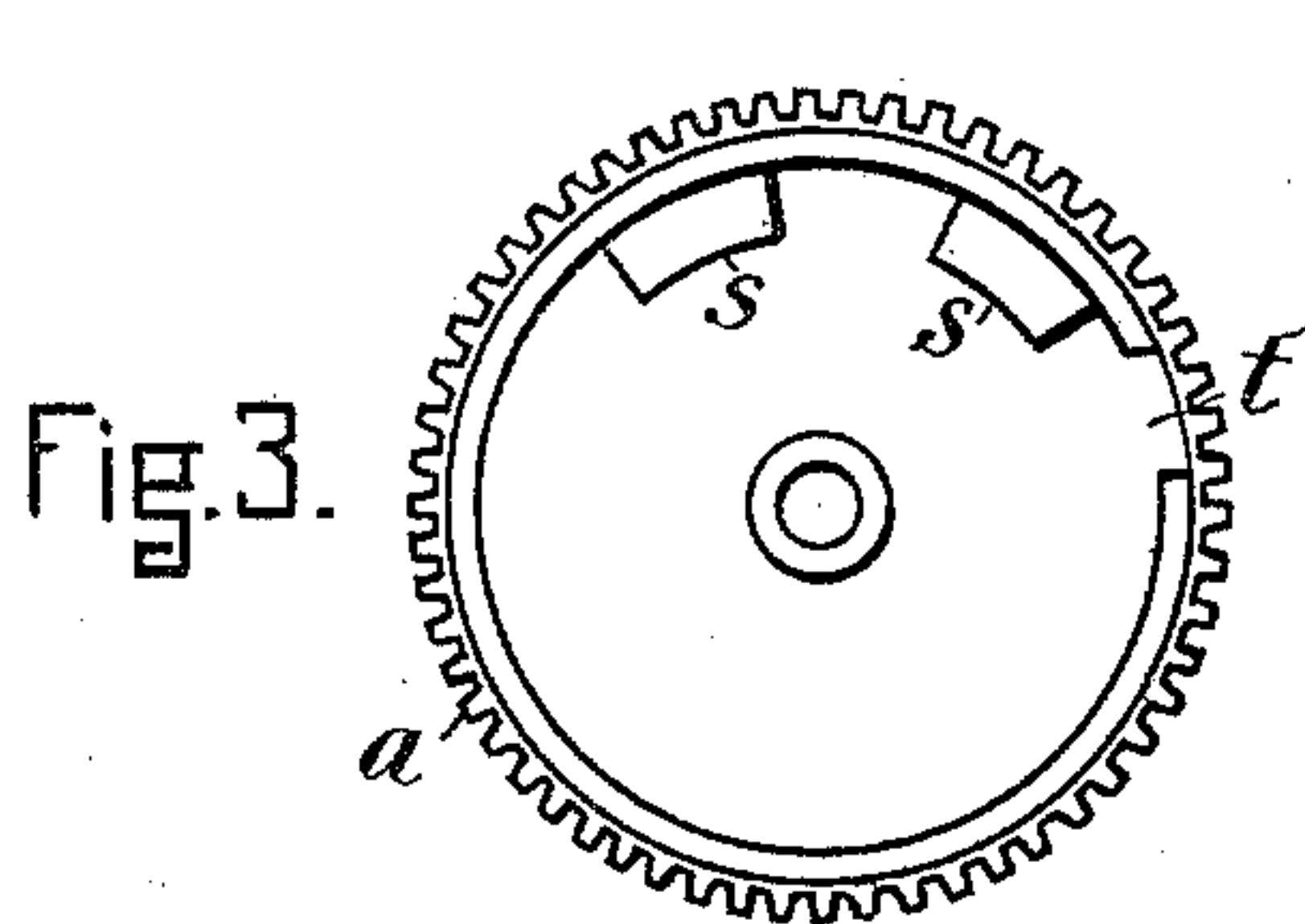


Fig. 3.

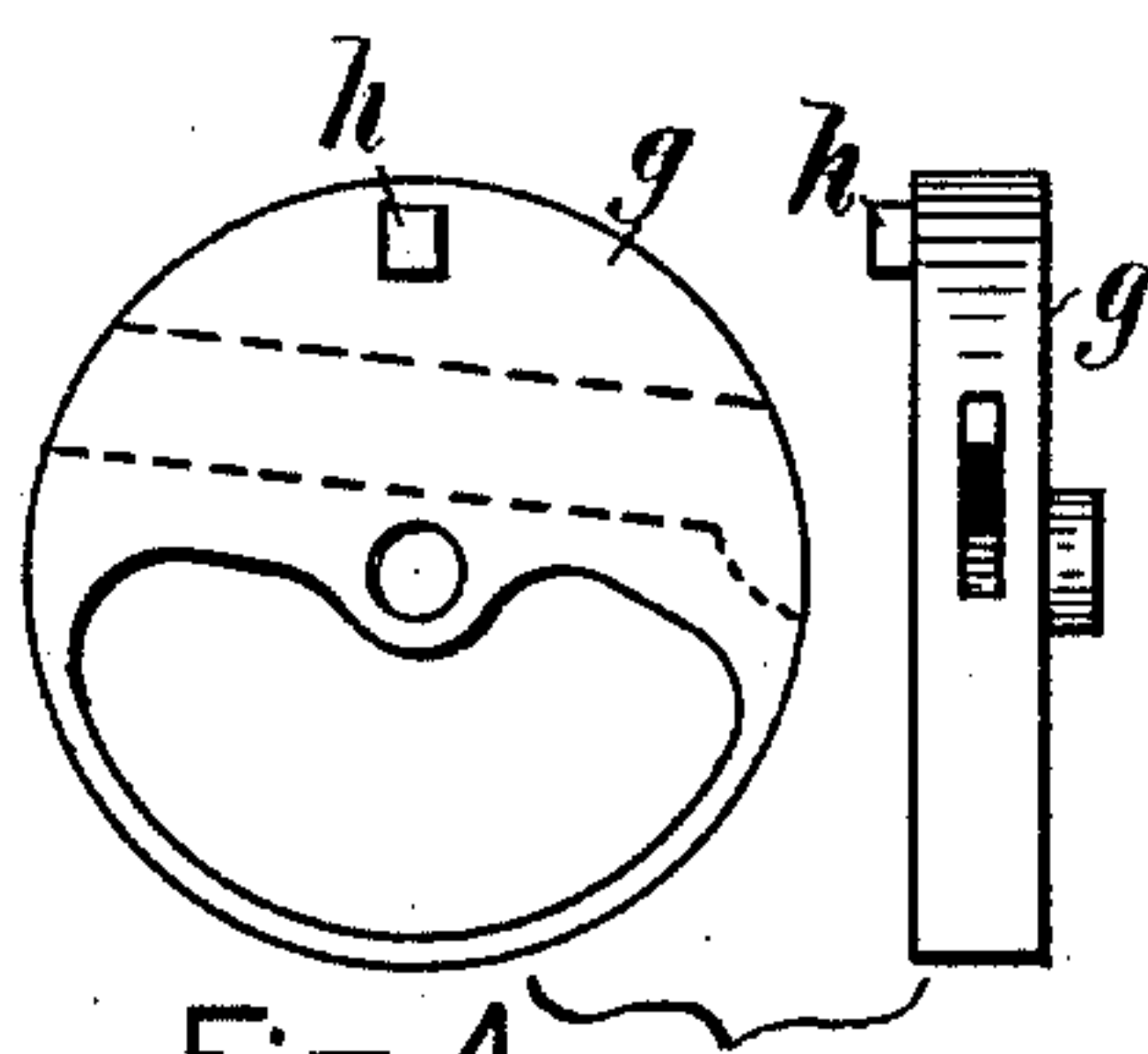


Fig. 4.

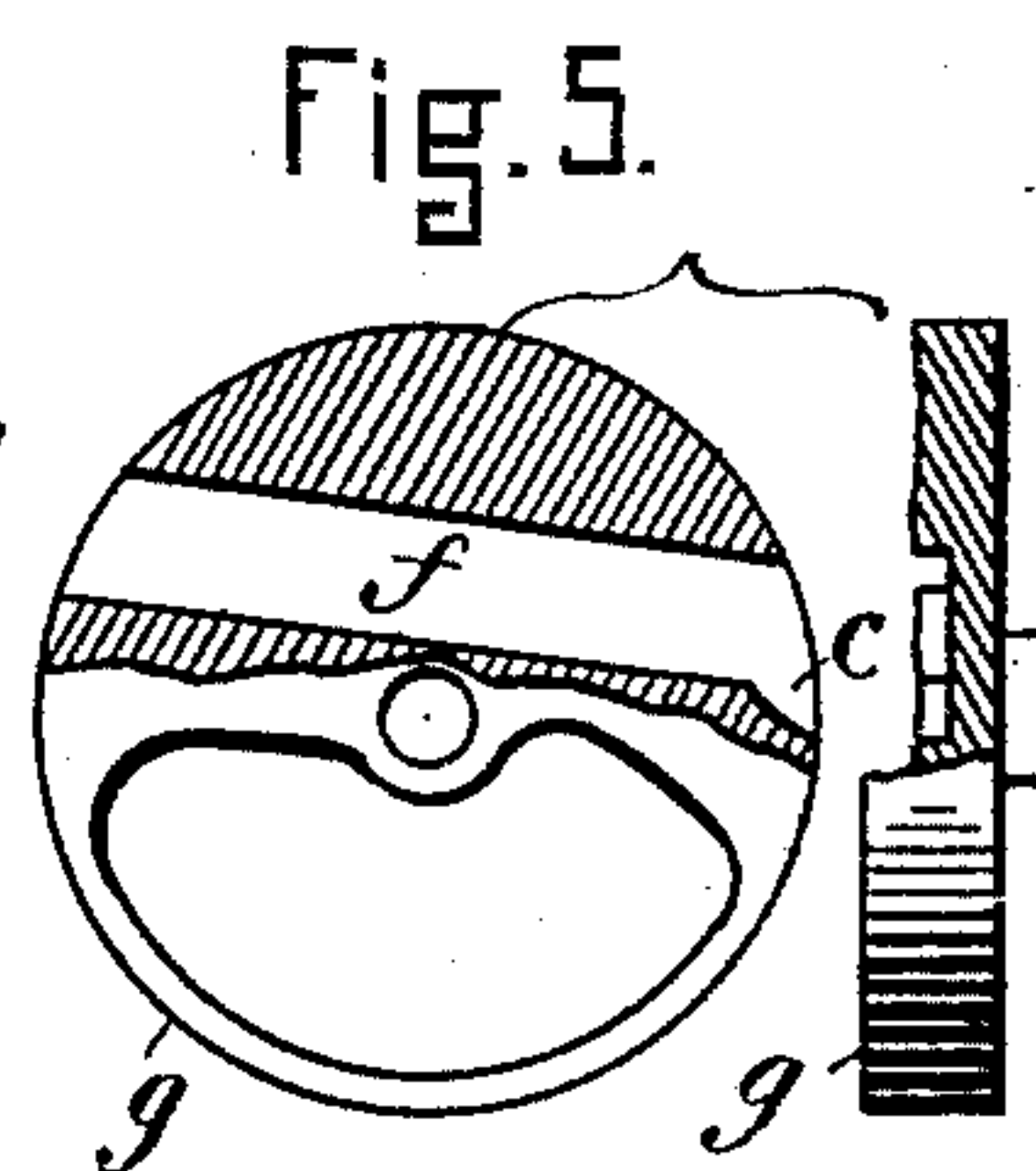


Fig. 5.

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COIN-ACTUATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 462,479, dated November 3, 1891.

Application filed June 13, 1891. Serial No. 396,089. (No model.)

To all whom it may concern:

Be it known that I, JOHN EVANS, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Coin-Actuating Mechanism; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of coin-actuated machines intended to deliver articles upon the deposit of a proper coin in a receptacle provided for it, and is designed for the purpose of obviating some of the objections met with in using machines of that class as heretofore constructed.

The special object of the machine in this case is the delivery of toilet-paper. It is fully illustrated in the accompanying drawings.

Figure 1 is an elevation of the back of the machine, a part of the case being removed to show the parts inside. Fig. 2 is a side elevation, the side of the case being removed to show the arrangement of the operating parts. Fig. 3 shows the outer face of the main gear-wheel *a*. Fig. 4 is a separate face and edge view of the wheel *g*, that receives the coin. Fig. 5 is a view of the same as Fig. 4, with a portion removed to show the recess for the coin and a passage from that recess to the other side of the wheel.

One serious objection to the coin-actuated machines for this purpose has been the liability of the machine to become choked up and prevented from operating by having other articles besides the coin intended inserted in the opening that was provided for the coin. This trouble is avoided and the machine much simplified by these improvements.

An oblong case *A* is provided, either of metal or wood, to hold the mechanism. A partition *C* is inserted lengthwise of the case a short distance in from one side to separate the coin-actuating devices from the paper to be delivered and the rolls for passing it out.

B is the roll of paper, which is held by the journals of the roll in slots *v*, made in the side of the case *A* and the partition *C*, so as to rest on the top of the main delivery-roll *D*, which has one end of its shaft held in a

bearing in the side of the case and the other end in a bearing in the partition *C*, through which it extends far enough to receive a gear-wheel *H*. A large gear-wheel *a* is held loosely on a short shaft *d*, that has a bearing for its inner end in the partition *C* and its other end extended out through a bearing in the side of the case far enough to receive the knob *E*, which is made fast to it. A wheel *g* is also made fast on this shaft *d* outside of the wheel *a*. This wheel *g* has a stud *h* on its inner face, (see Fig. 4,) that projects into a recess between two stops *s s*, fast on the outer side of the gear-wheel *a*, so that the stud will turn the wheel *a* when the wheel *g* is turned by the knob *E*. The recess between the stops *s* is made wider than the stud *h* to allow some movement of the wheel *g* before the wheel *a* is started. The wheel *g* has a pocket or recess *c* made in its periphery of the proper size to hold the coin intended to operate the machine and leave a portion of the coin projecting above the surface of the wheel, (see Fig. 2,) and a passage *f* is made extending from the bottom of the recess *c* through to the other side of the wheel. This passage is made narrower than the recess *c*, so that the coin shall not pass into it, but will be held, as stated, partly exposed above the surface of the wheel for the purpose of operating a pawl *j*, which is pivoted by one end to the partition *C* and has its other end shaped to enter a notch *t* in a projecting rim on the wheel *a* and hold it from turning when the pawl is not raised by a coin passing under it. The passage *f* is made for the purpose of allowing such articles as buttons, matches, &c., that may be put into the coin-entrance *e*, to pass clear through and not remain in to prevent a coin afterward from passing into the recess to operate the pawl *j*. An opening is made at *e* in the front of the case for the insertion of the coin, and a chute or passage *o* extends from this entrance down to the recess *c* in the wheel *g* to guide the coin to that place. Another pawl *k* is pivoted at one end to the partition *C* and has its other end fitted to enter between the teeth of the wheel *a* and prevent it from being turned backward. A small roll *b*, made preferably of metal for the sake of the weight, is held loosely by its journals in openings in the side of the case and

in the partition C, so as to rest on the roll D or on the paper between, and by holding it down in contact with that roll assist in drawing the paper off of its roll and passing it into the opening between the plates *n n'*, which form the delivery. The front side of the roll D comes in contact with the plate *n*, which is made smooth and springy, so as to press the paper against the roll D and insure its drawing off of the roll. A light spring *i* is placed over the pawl *j* to insure its dropping in the recess *t* in the wheel *a*.

The operation is as follows: A roll of paper B is placed in position with its journals in the slots *v*, as shown in Fig. 1, resting on top of the roll D, which is held from being turned to deliver it by the pawl *j* in the notch *t* in the gear-wheel *a*, which wheel engages with the gear-wheel H on the shaft of the roll D. In this position a coin—say a cent or a “nickel,” so called—is put into the opening *e* and slides down the chute *o* into the recess *c* in the wheel *g*, leaving a part of the coin *l* projecting above the surface of the wheel. Then by turning the knob E the wheel *g* will be turned a short distance before the stud *h* comes against the sides of the recess in the wheel *a*, and in moving this short distance it will carry the coin *l* under the end of the pawl *j*, which projects over the wheel *g* for that purpose, and will raise that pawl out of the notch *t* in wheel *a*, leaving the wheel free to be turned by the stud *h* when it strikes against the side *s*, and by continuing to turn the knob the wheel *a* will turn the wheel H and roll D, which will cause the paper-roll to turn and unwind the paper, which will be guided down between the roll D and side *n* of the delivery-opening and out until the knob E has made a whole turn, when the coin *l*, having dropped out of the recess *c* when it was on the lower side in turning the pawl *j*, will drop into the notch *t* in wheel *a* again and lock it until another coin is inserted. When the wheel *a* is locked,

as stated, upon leaving the knob E free the wheel *g* will turn back until the stud *h* rests against the front side of the recess *s*, so that the recess *c* is directly under the end of the chute *o* to receive another coin. This turning back of the wheel *g* is caused by that side of the wheel having the recess *c* being made heavier than the other for that purpose. The strip of paper that is delivered below the lower opening is severed by drawing it against the edge of the plate *n*, which is made sharp for that purpose. The length of this strip is governed by the size of the roll D and gears *a* and H—that is, if the roll D is about four inches in diameter and the gear-wheels *a* H three to one, respectively, the strip will be about one yard in length; but it may be constructed to deliver more or less, if desired.

Having thus described my improvements, I claim as my invention—

1. In a coin-actuating machine, the wheel *g*, having the recess *c* made in its periphery, and the passage *f* from said recess through to the other side of the wheel, and a stud *h*, in combination with the wheel *a*, having a recess to receive said stud large enough to allow the wheel *g* to turn a short distance before the stud *h* shall turn the wheel *a* and provided with a recess *t* and a pawl *j*, adapted to engage said recess, substantially as described.

2. The combination of the case A, delivery-plates *n n'*, delivery-roll D, paper-roll B, friction-roll *b*, gear-wheel *a* on the knob-shaft, gear-wheel H on the shaft of the delivery-roll, and a coin-wheel *g*, having coin-seat *c*, with pawls *j* engaging with the wheel *a*, said pawl *j* adapted to be released by the coin in said coin-wheel, and chute *o*, substantially as set forth.

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Witnesses:

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