

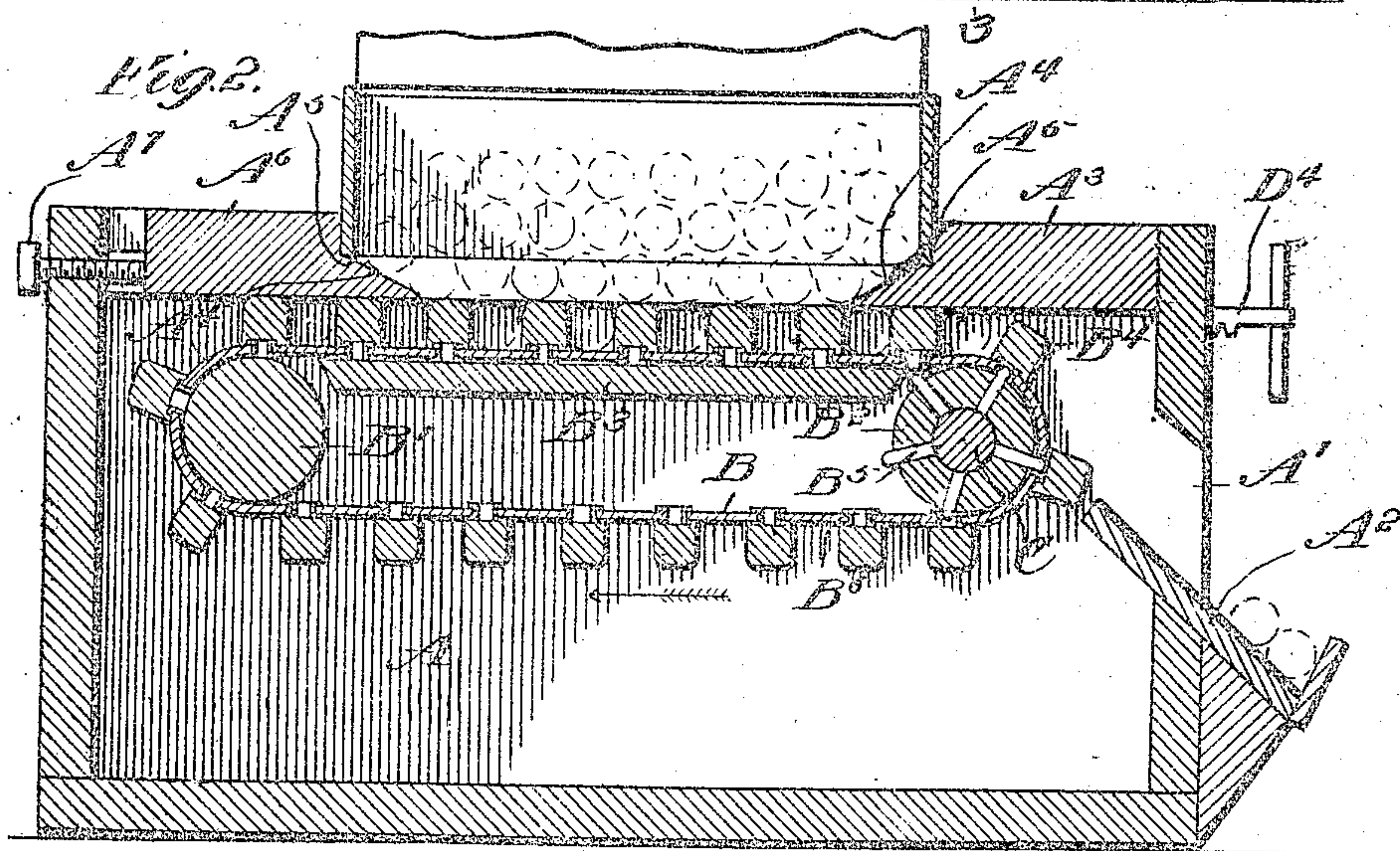
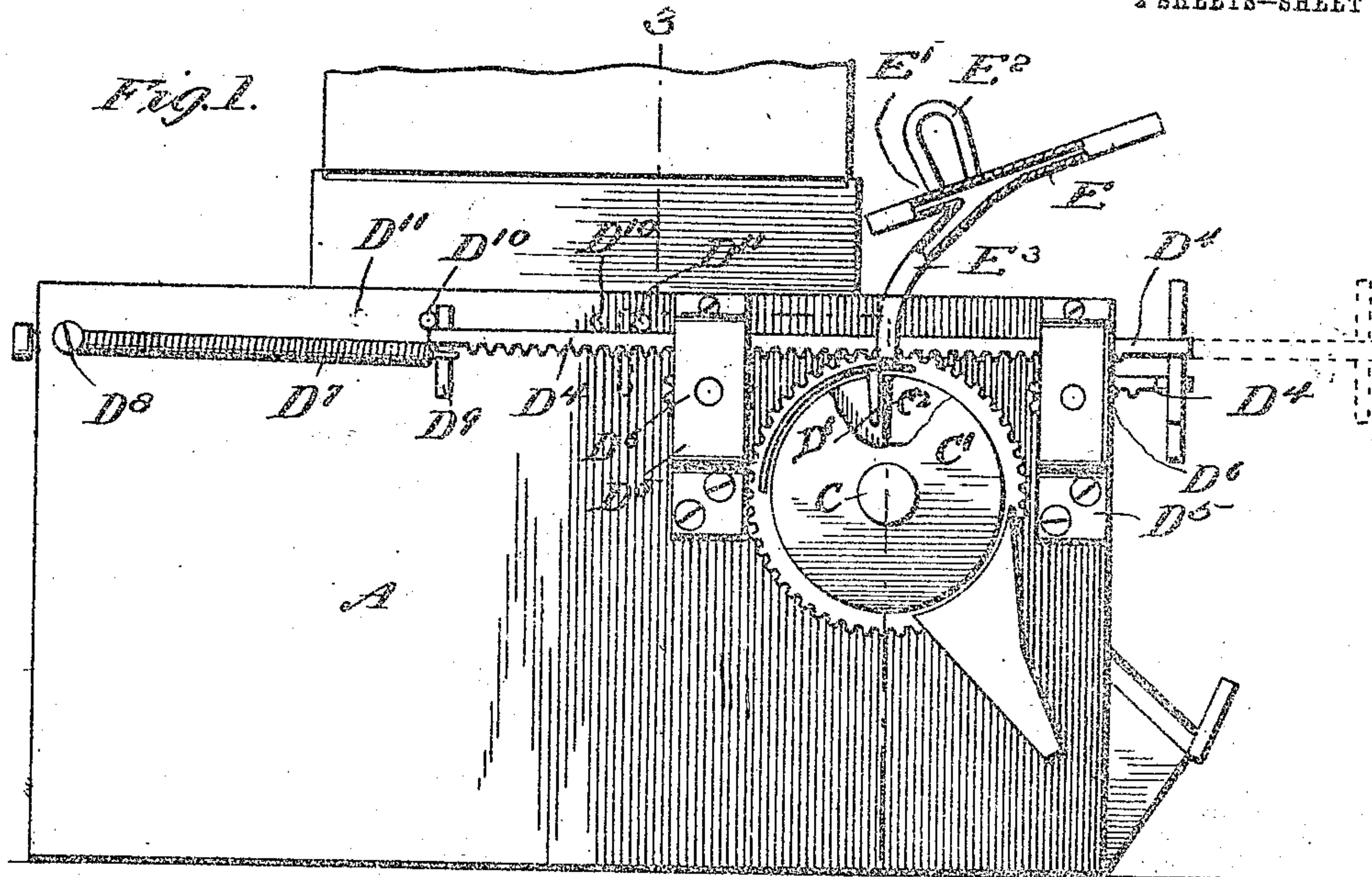
No. 810,856.

PATENTED JAN. 23, 1906.

A. T. HALLOCK.  
COIN CONTROLLED APPARATUS.

APPLICATION FILED FEB. 18, 1906.

2 SHEETS--SHEET 1.



*WITNESSES:*

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Alfred T. Gage

INVENTOR

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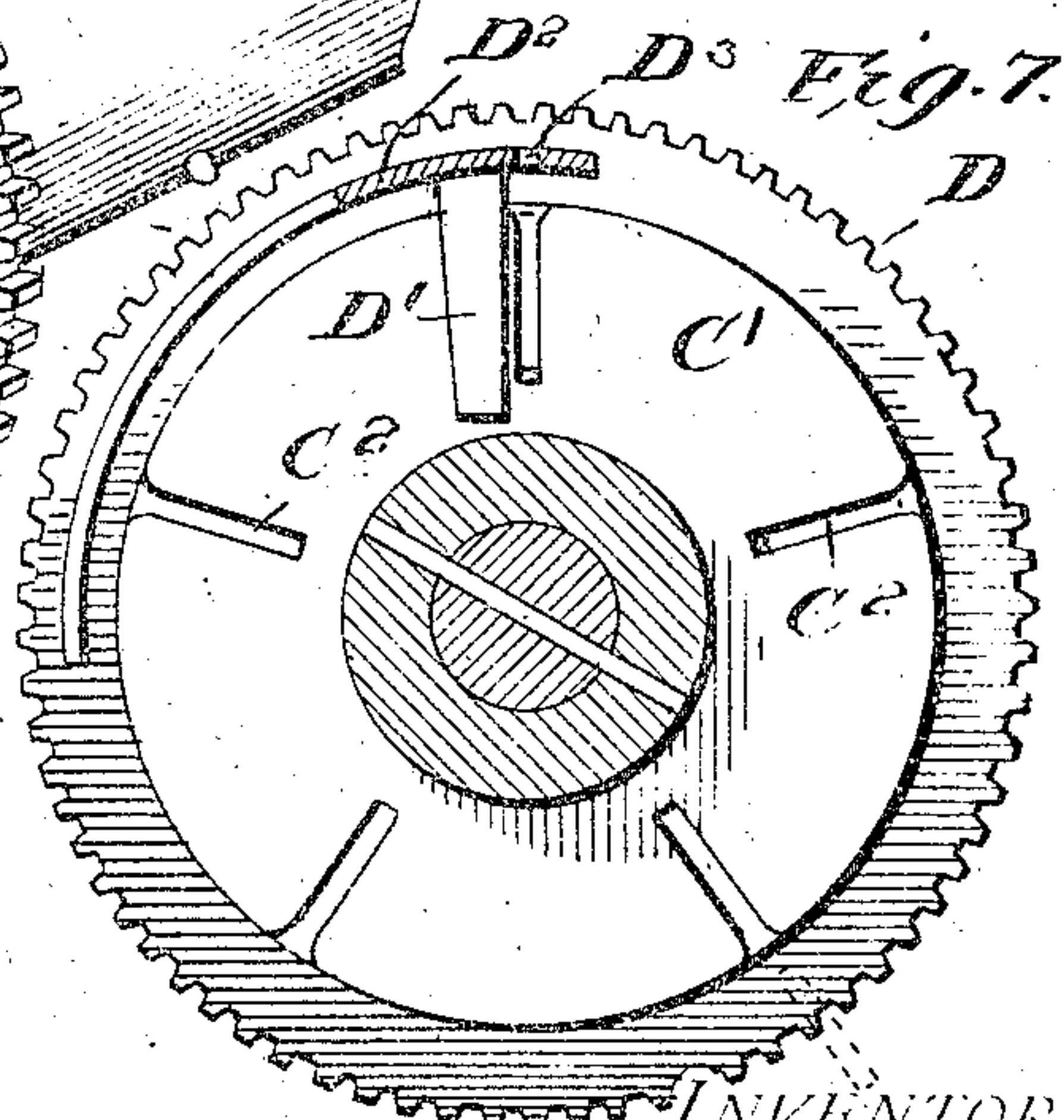
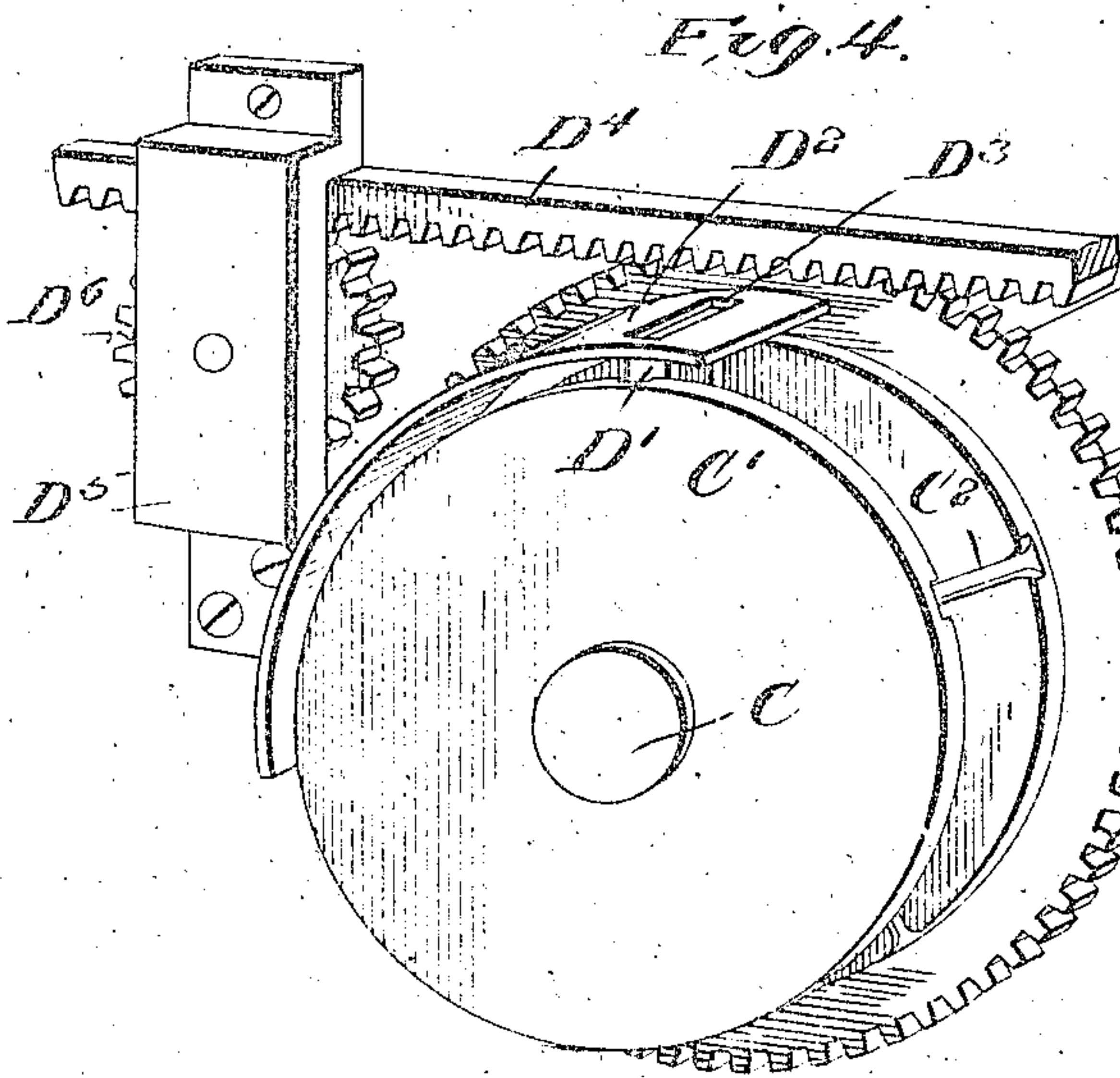
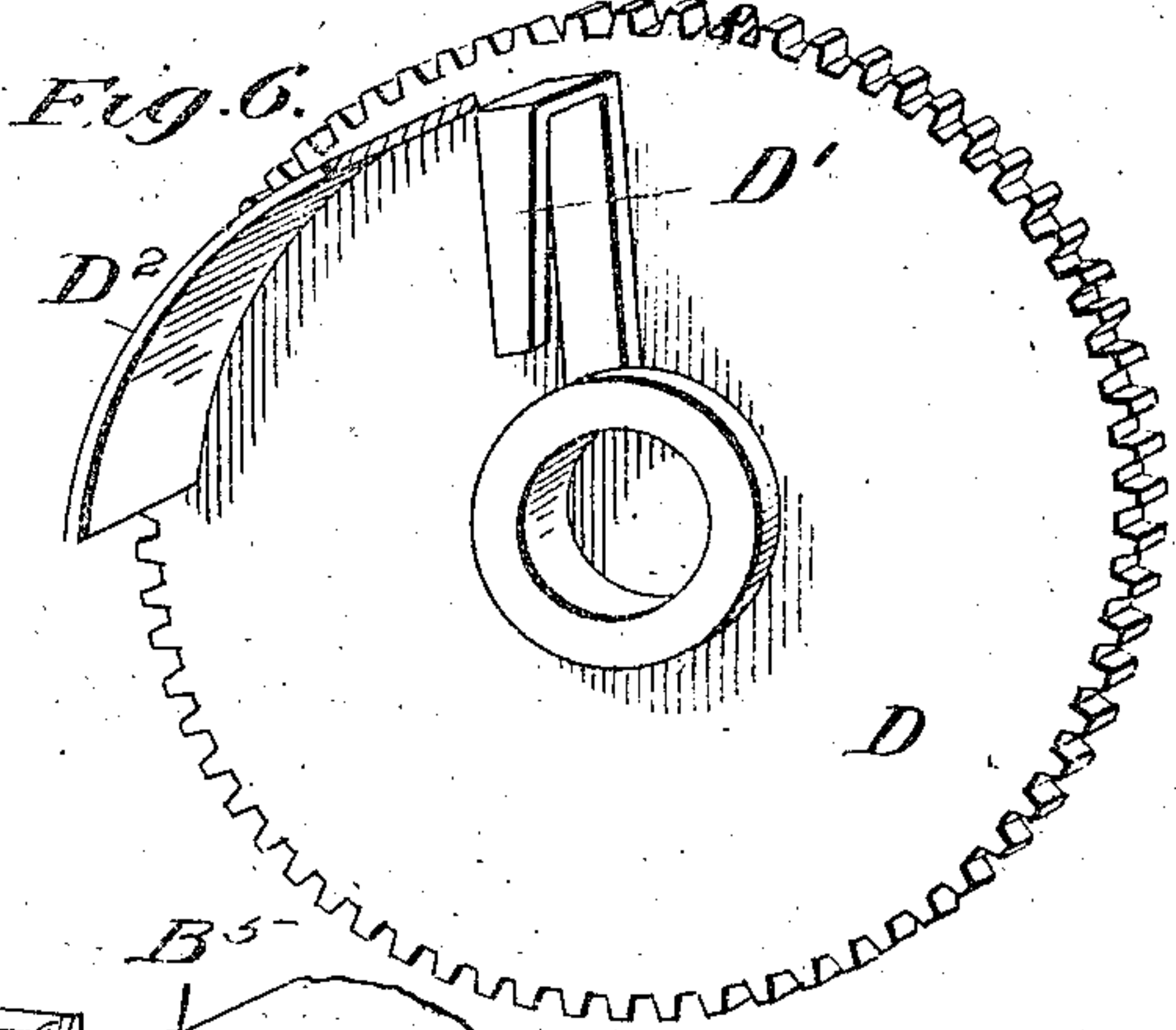
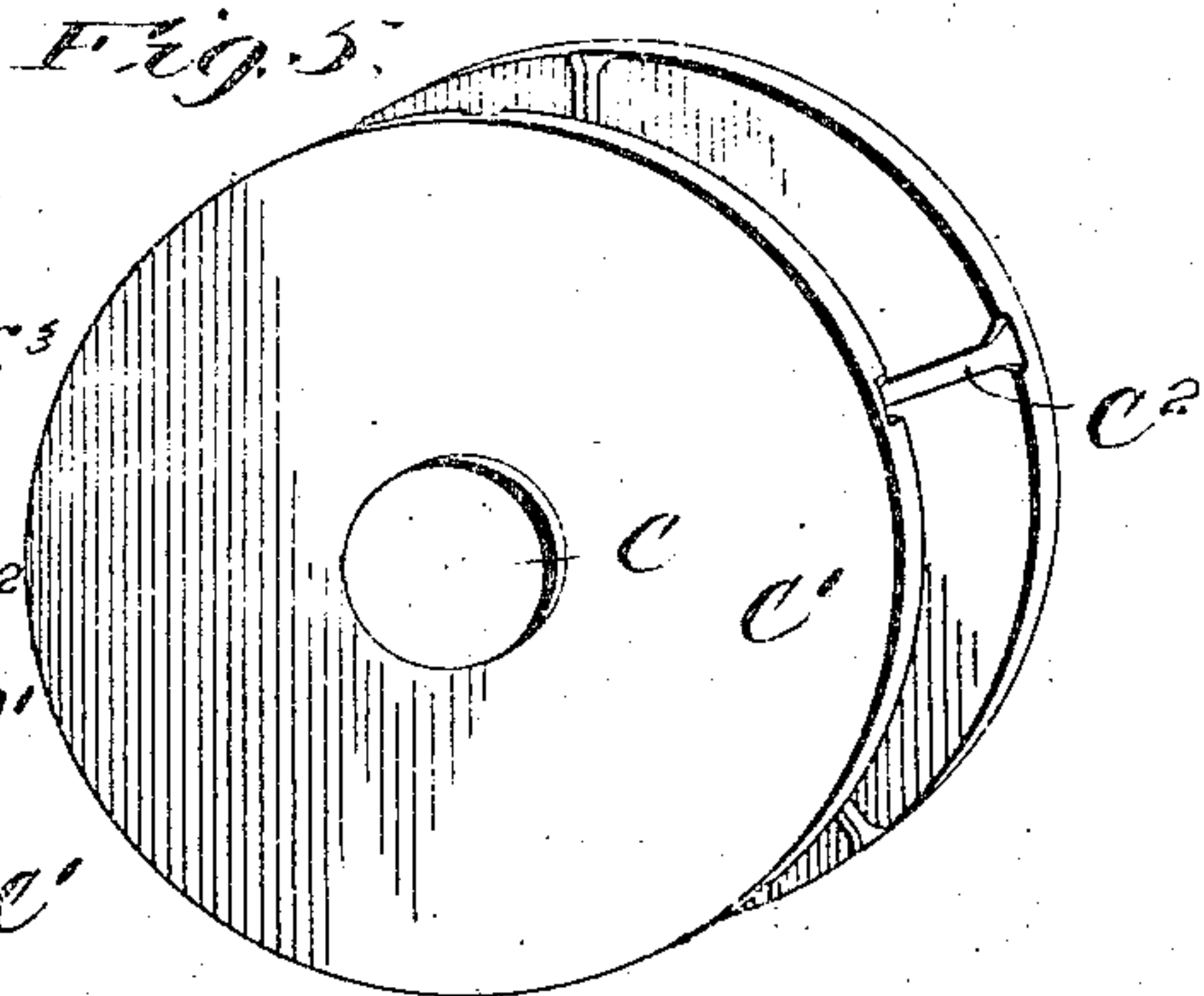
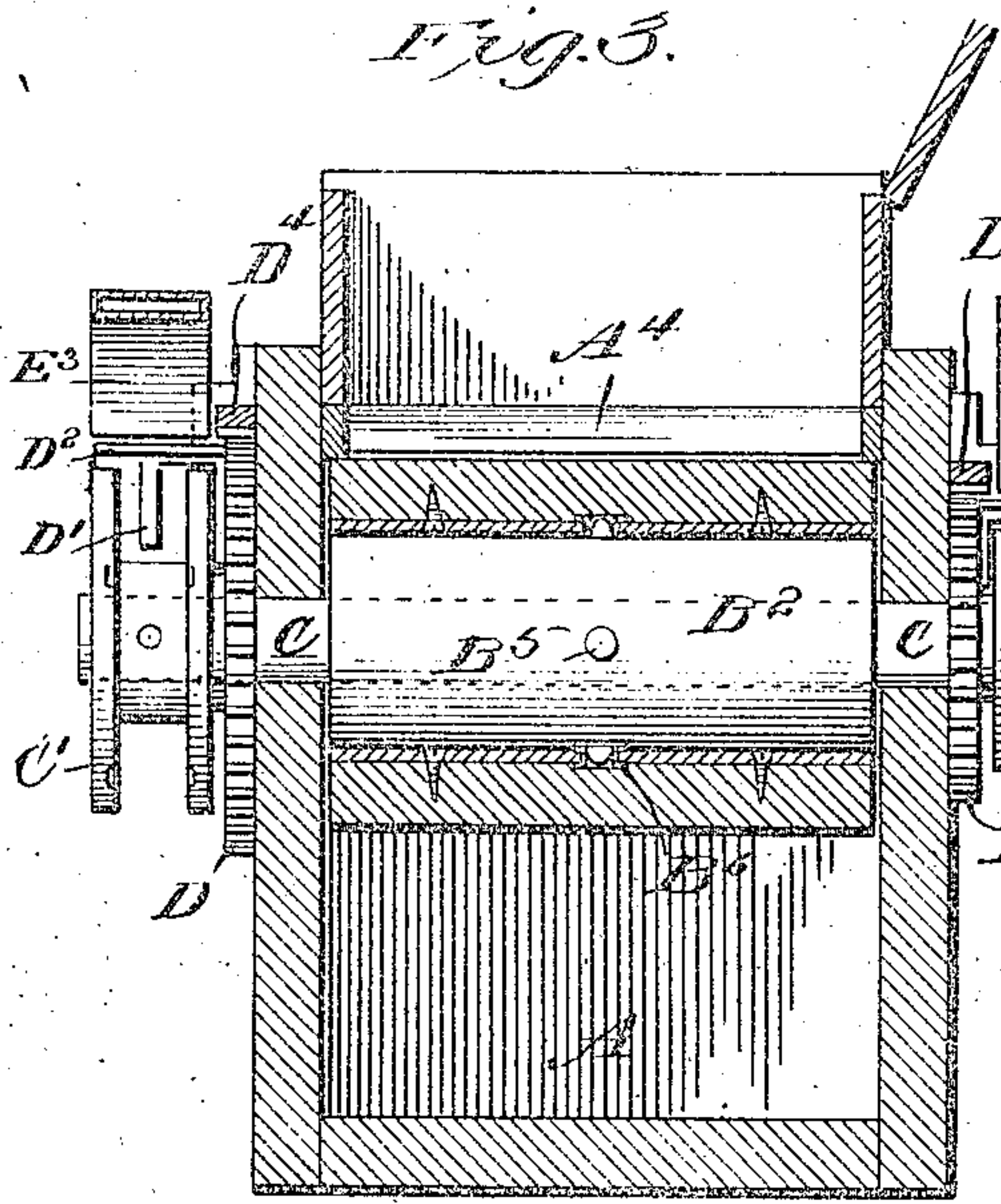
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

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## COIN-CONTROLLED APPARATUS.

No. 810,856.

Specification of Letters Patent,

Patented Jan. 23, 1906.

Application filed February 18, 1905. Serial No. 246,279.

*To all whom it may concern:*

Be it known that I, ARTHUR T. HALLOCK, a citizen of the United States, residing at Canandaigua, in the county of Ontario, State of New York, have invented certain new and useful Improvements in Coin-Controlled Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a coin-controlled apparatus, and particularly to a vending-machine for the delivery of articles controlled by the introduction of a coin.

The invention has for an object to provide an improved construction and arrangement of delivery-apron by which the articles may be taken directly from an original package or box and delivered in different quantities.

A further object of the invention is to provide means for imparting to said apron a different length of travel controlled by a different coin or check used for that purpose.

Another object of the invention is to provide an improved construction and arrangement of the coin-controlled means by which the coin coöperates with a finger actuated by a reciprocating part to impart motion to the apron-driving shaft.

Another object of the invention is to provide this coin-receiving means with a guard or shield to prevent the introduction of a second coin while the first is in operative position or during the movement of the parts controlled by said coin.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features of the invention defined by the appended claims.

In the drawings, Figure 1 is a side elevation illustrating the invention; Fig. 2, a central longitudinal section thereof; Fig. 3, a vertical cross-section on the line 3-3 of Fig. 1; Fig. 4, a detail perspective of the coin-controlled mechanism assembled; Fig. 5, a similar view of the coin-receiving wheel or drum; Fig. 6, a perspective of the gear carrying the dog to coöperate with the coin, and Fig. 7 a vertical section through the coin-wheel.

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

The letter A designates the frame of the machine, which may be of any desired construction and configuration and is here shown

as provided at one portion with an opening A' and a delivery-trough A<sup>2</sup> adjacent thereto to receive the articles as discharged from the apron B. This apron is supported upon any desired construction of roller—for instance, as shown at B' and B<sup>2</sup> in Fig. 2—said rollers being pivotally mounted in the sides of the frame. Beneath the upper surface of the belt a table B<sup>3</sup> is provided, which supports the belt against sagging and forms a level surface spaced at a proper distance from the under side of the cover-plate A<sup>3</sup> to permit the passage of the cross-bars B<sup>4</sup> and to prevent any vertical movement thereof. These cross-bars are secured in position upon the apron in any desired manner; but for the purpose of preventing any slipping of the apron and insure a correct feed thereof one of the rollers may be provided intermediate of its ends with pins B<sup>5</sup>, adapted to register with sockets B<sup>6</sup>, carried by the apron and inserted in the blocks. The top of the frame A<sup>3</sup> is formed with an inclined hopper portion A<sup>4</sup> and a seat or shelf A<sup>5</sup> to receive the walls of a box or original packages containing the articles to be delivered which in the present instance is illustrated as a box of cigars. The rear portion A<sup>6</sup> of this top wall is similarly provided with the seat A<sup>5</sup> and hopper portion A<sup>4</sup> and is slidably mounted so as to be adjustable for boxes of different size. This adjustment is effected and the parts held in position by any preferred means—for instance, a set-screw A<sup>7</sup>, extended through the rear wall of the frame, as shown in Fig. 2.

For the purpose of rotating the roll-driving delivery-belt B a shaft C, extending therefrom, is provided and journaled in the side walls of the frame and is provided beyond the frame with a coin wheel or drum C', preferably formed of a single casting properly turned or finished and provided with radially-disposed slots C<sup>2</sup> upon the opposite inner faces thereof, into which a coin passes. The walls of this wheel are disposed at proper distance apart to receive the coin desired to be used therein and to permit any other coin to drop from the radial slots or to prevent its entrance therein. For instance, if the machine is adapted for use with a five-cent piece the walls are so spaced as to permit either a penny or a dime to fall from the slots without operating the parts, while a larger



coin, such as a quarter, could not be introduced therein. Upon the shaft C is a gear-wheel D, loosely mounted to freely rotate thereon, and is provided upon its face next to the coin-wheel with a finger D', traveling between the walls of said coin-wheel and adapted to engage a coin deposited in the recesses of the wheel. Extending from this dog a guard-plate D<sup>2</sup> is provided, which travels with the gear D and is provided with a coin-slot D<sup>3</sup> at the front of the finger D'. This guard extends segmentally of the coin-wheel and prevents the introduction of a coin therein at any time except when the slot D<sup>3</sup> is in position beneath the coin-introducing device. For the purpose of driving the gear D a rack-bar D<sup>4</sup> is provided and mounted in suitable bearings upon the side of the frame, as shown in Fig. 1. These bearings may comprise keepers D<sup>5</sup>, having pivotally mounted therein gears D<sup>6</sup>, while the inner end of the rack-bar is connected to a fixed point by means of a tension-spring D<sup>7</sup>, secured at D<sup>8</sup> to the frame and at its opposite end to a projecting pin D<sup>9</sup>, carried by the rack-bar. This pin projects above the bar and in its movement in opposite directions contacts with stops D<sup>10</sup>, by which the travel of the bar is limited. The extent of travel of this bar determines the travel of the delivery-belt, and consequently the number of articles discharged therefrom, so that by varying the position of this pin the travel may be increased or diminished to deliver the desired number of articles. This adjustment may be effected in any desired manner—for instance, by shifting one of the pins D<sup>10</sup> to a hole D<sup>11</sup>, as shown in Fig. 1. Any desired means may be provided for introducing the coin into the wheel—for instance, a chute E, preferably disposed diagonally to the top of the machine and provided with a discharge portion E' for iron or other objects which would be attracted by the magnet E<sup>2</sup>, mounted above the junction of this portion with the downwardly-forked portion E<sup>3</sup>, through which a proper coin will proceed and pass through the slot D<sup>3</sup> in the guard-plate when said slot is in alinement with the coin-tube. At other times the coin will rest upon the upper surface of the guard-plate until this slot is again brought into alinement. In this chute the magnet E<sup>2</sup> acts as a detector and holds any magnetic disks or objects introduced into the chute in contact with the upper wall thereof, so that the next coin passing through the chute forces the object thus held outward through the discharge portion E', while the coin itself, being not attracted by the magnet, passes downward through the portion E<sup>3</sup>.

The parts so far described are adapted to operate the delivery-belt intermittently by the introduction of a coin of predetermined character; but in the use of a machine of this type it is often desirable to provide for the

delivery of more than one article upon the introduction of a proper coin in payment thereof or permit the purchaser to use coins of different denomination, and for that reason the driving-shaft C of the delivery-belt is provided at both ends with coin-wheels C', the same being identical in construction, but differently proportioned to receive the proper coin. For instance, in the form illustrated in Fig. 3 the wheel at the left is proportioned for the delivery of a single article from the belt in its rotation, while the wheel at the right of said figure, being similar, is geared to produce a longer travel of the belt and deliver two articles therefrom instead of one. It will be apparent that this construction may be varied to any desired or convenient extent in the use of the machine, the object in view being the provision of independent coin-controlled means for imparting to said belt different lengths of travel relative to each of said means. The length of travel for any coin may also be determined by adjusting the stop-pins.

In the operation of the invention a proper coin introduced through the chute passes through the aperture in the guard and into the slot in the coin-wheel. The rack-bar is then reciprocated and brings the finger into contact with such coin, thus producing a rotation of the coin-wheel for a proper distance to deliver one article from the delivery-belt. When the pull upon this rack-bar is released, the gear returns to its initial position, carrying the guard and finger therewith and leaving the coin-wheel in its previously-rotated position, so that the coin last introduced and acted upon by the finger is clearly in view, so that it may be observed, and thus act as a preventive against fraud by the introduction of foreign material into the machine, Fig. 7. If the person using the machine does not have the required coin—for instance, a five-cent piece—to operate one of the wheels attached to the shaft of the delivery-belt, he can introduce into the opposite wheel a predetermined coin of greater value—for instance, a ten-cent piece—and thus adapt the machine for the delivery of either a single or a plurality of articles and also for use with predetermined coins of different character for which the machine is constructed.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a coin-controlled apparatus, a driving-shaft provided with a coin-wheel having means to support a coin between its sides, a gear loosely mounted upon the shaft of said coin-wheel parallel to one side thereof, a lat-



eral extension from said gear, a finger carried by said extension and disposed between the sides of said wheel in the path of the coin held thereby, and operating means for driving said gear.

2. In a coin-controlled apparatus, a driving-shaft provided with a coin-wheel having means to support a coin between its sides; a gear loosely mounted upon the shaft of said coin-wheel adjacent thereto, a laterally-disposed guide-plate carried by the gear and covering said wheel, a depending finger at one end of said plate, and means for oscillating said gear.

3. In a coin-controlled apparatus, a driving-shaft provided with a coin-wheel having means to support a coin between its sides, a gear loosely mounted upon the shaft of said coin-wheel, a finger carried by said gear and disposed between the sides of the wheel in the path of the coin held thereby, a guard-plate carried by the gear and extending over said wheel at the rear of said finger, and a reciprocating rack-bar for driving said gear.

4. In a coin-controlled apparatus, a coin-wheel, a gear provided with a finger cooperating with said wheel, a rack-bar meshing with said gear and means constructed and arranged to permit different lengths of travel of said bar.

5. In a coin-controlled apparatus, a driving-shaft, a delivery device driven by said shaft provided with coin-supporting means on its opposite inner walls, a coin-wheel upon said shaft, a gear freely rotatable upon said shaft and provided with a finger cooperating with said coin-wheel, a guard extending segmentally from one side of said finger, a rack-bar mounted to reciprocate in mesh with said gear, means for limiting the travel of said

rack-bar, and means for restoring said bar to its initial position.

6. In a coin-controlled apparatus, a driving-shaft, a delivery device driven by said shaft provided with coin-supporting means on its opposite inner walls, a coin-wheel upon said shaft, a gear freely rotatable upon said shaft and provided with a finger cooperating with said coin-wheel, a guard extending segmentally from one side of said finger, a rack-bar mounted to reciprocate in mesh with said gear, means for limiting the travel of said rack-bar, means for restoring said bar to its initial position, and a coin-chute adapted to deliver into said wheel at the forward side of said finger.

7. In a coin-controlled apparatus, a driving-shaft, a delivery device controlled thereby, a plurality of coin-wheels secured to said shaft each adapted to receive a coin of different denomination, and means rotatively mounted on said shaft for independently rotating each of said wheels by engagement with the coin carried thereby.

8. In a coin-controlled apparatus, a driving-shaft, a delivery device controlled thereby, a plurality of coin-wheels carried by said shaft each adapted to receive a coin of different denomination, a gear rotatable upon the shaft of said coin-wheels and provided with a finger extending between the walls thereof, and independent rack-bars for driving said gears.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR T. HALLOCK.

Witnesses:

ALFRED T. GAGE,

JOHN E. LANSDALE.