

C. P. YOUNG.
VENDING MACHINE.

No. 523.826.

Patented July 31, 1894.

Fig. 1.

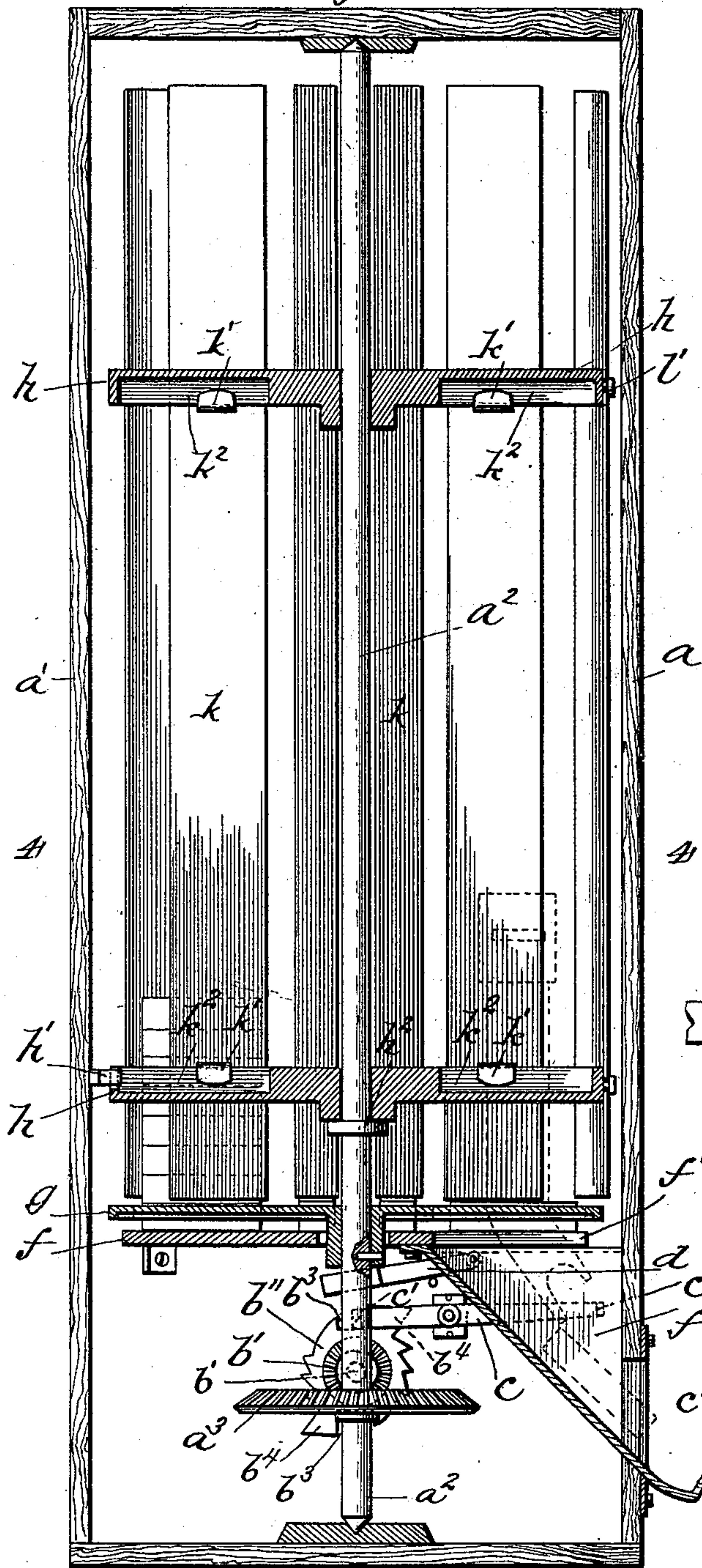


Fig. 2.

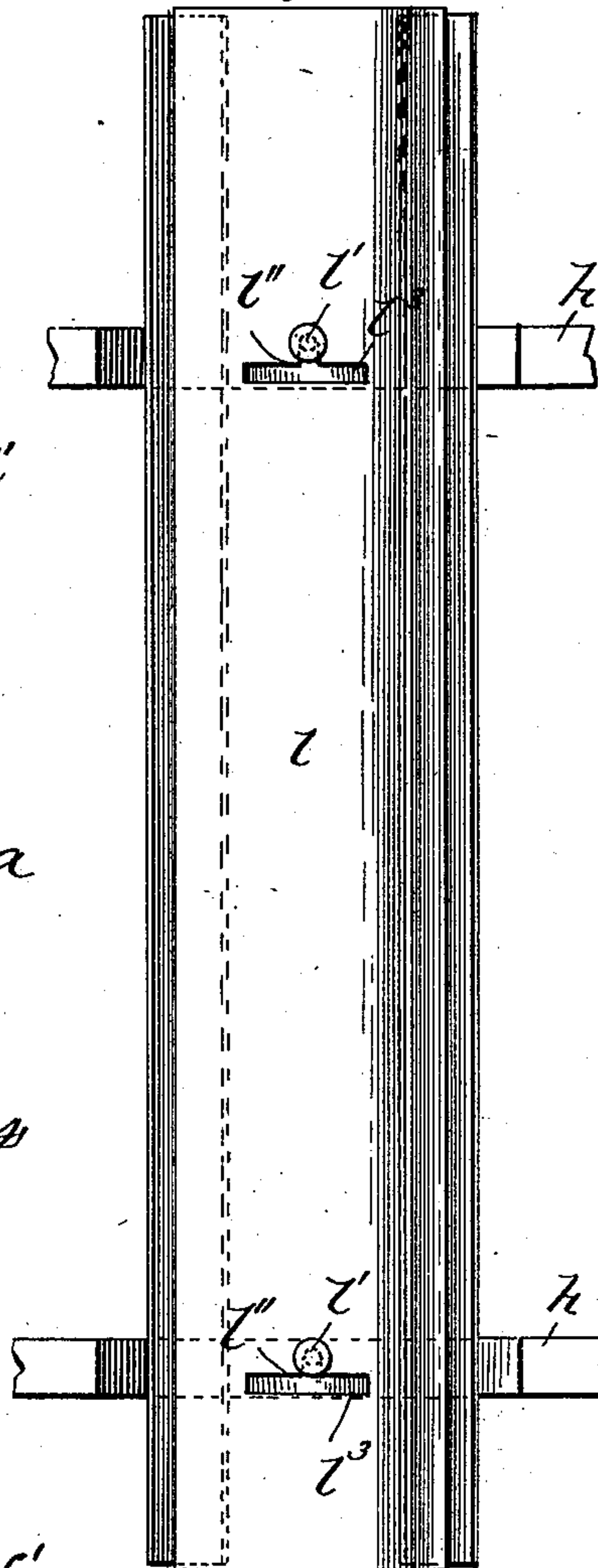
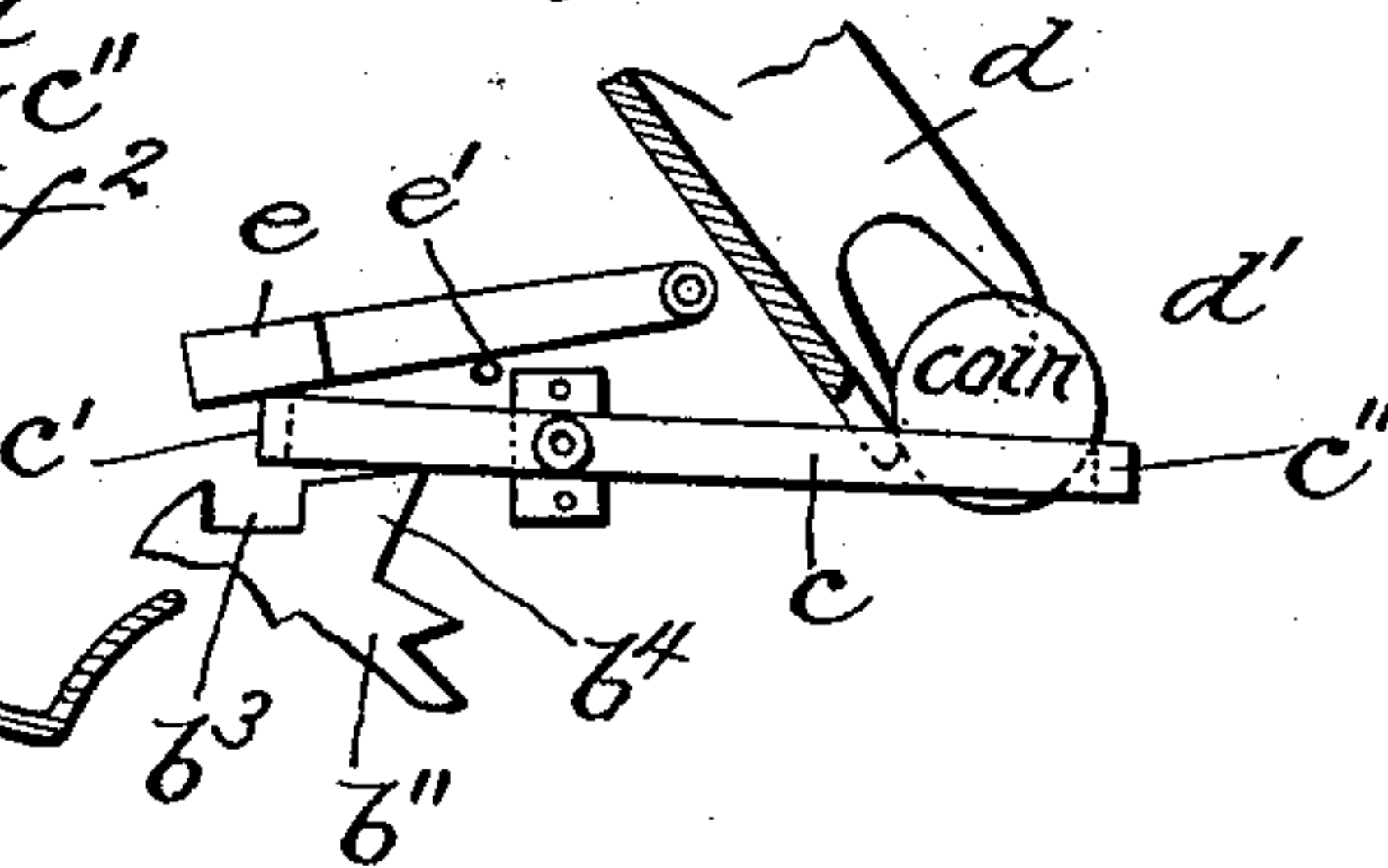


Fig. 3.



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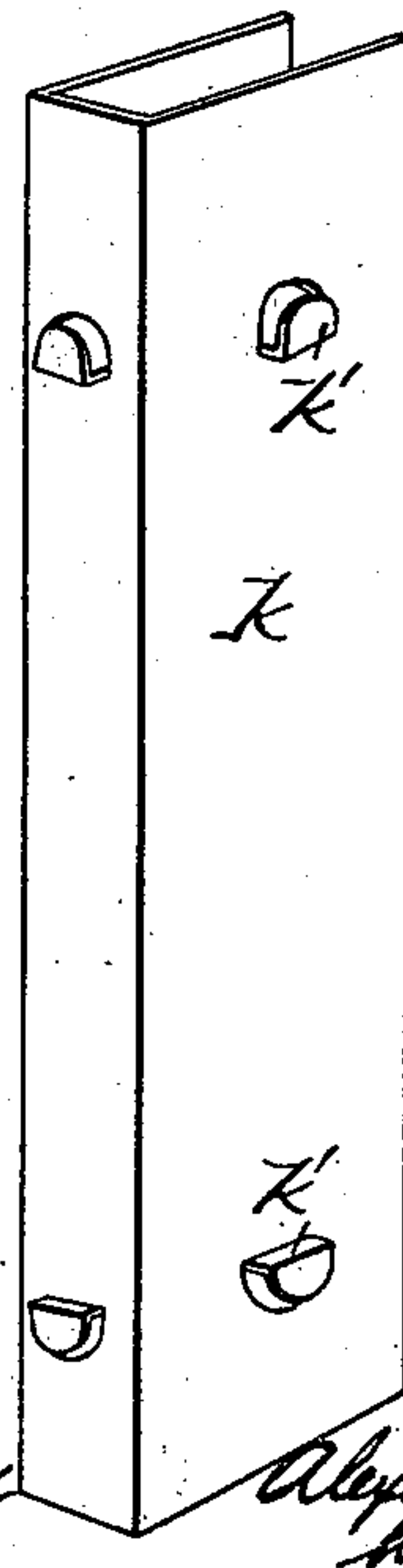
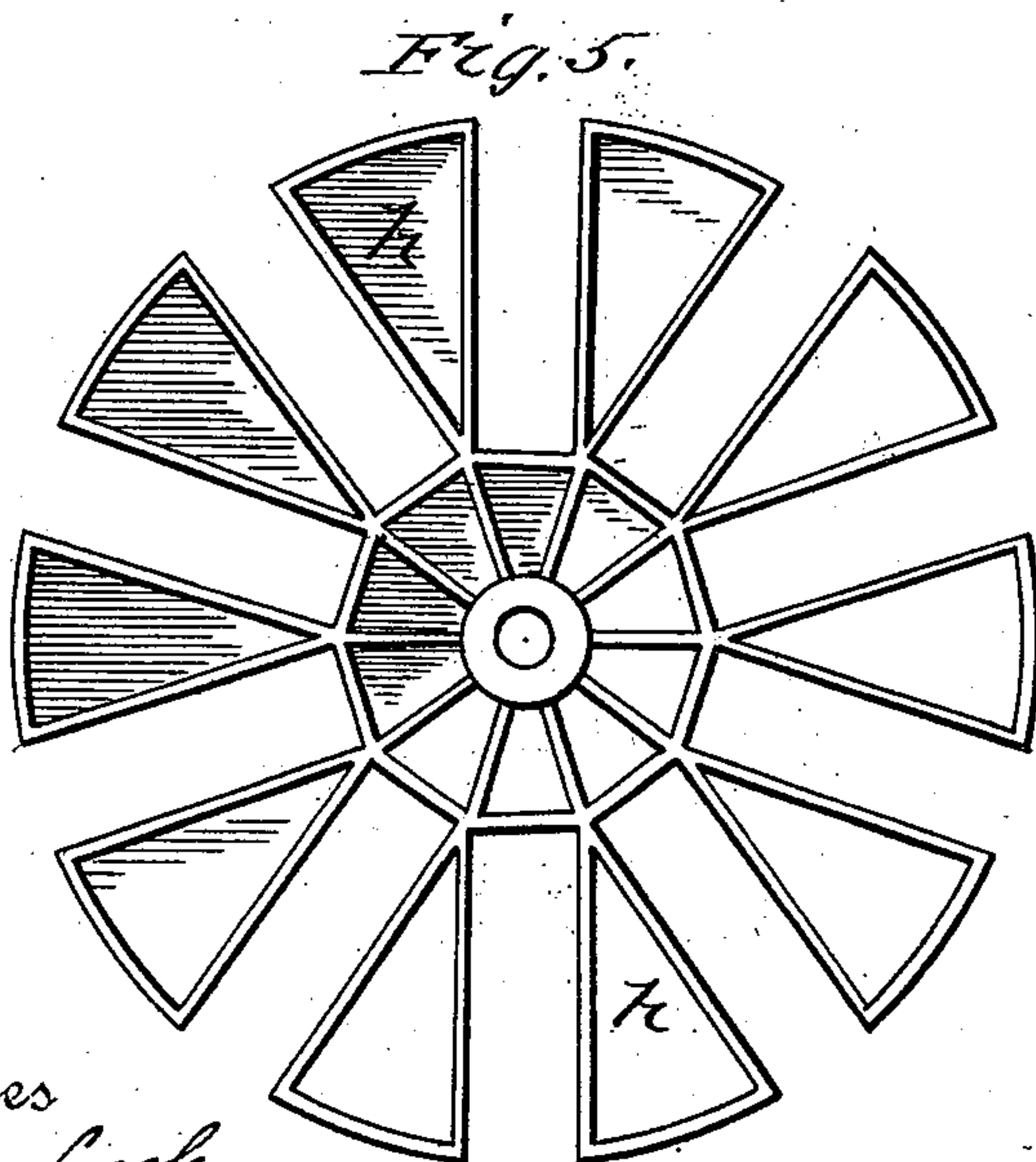
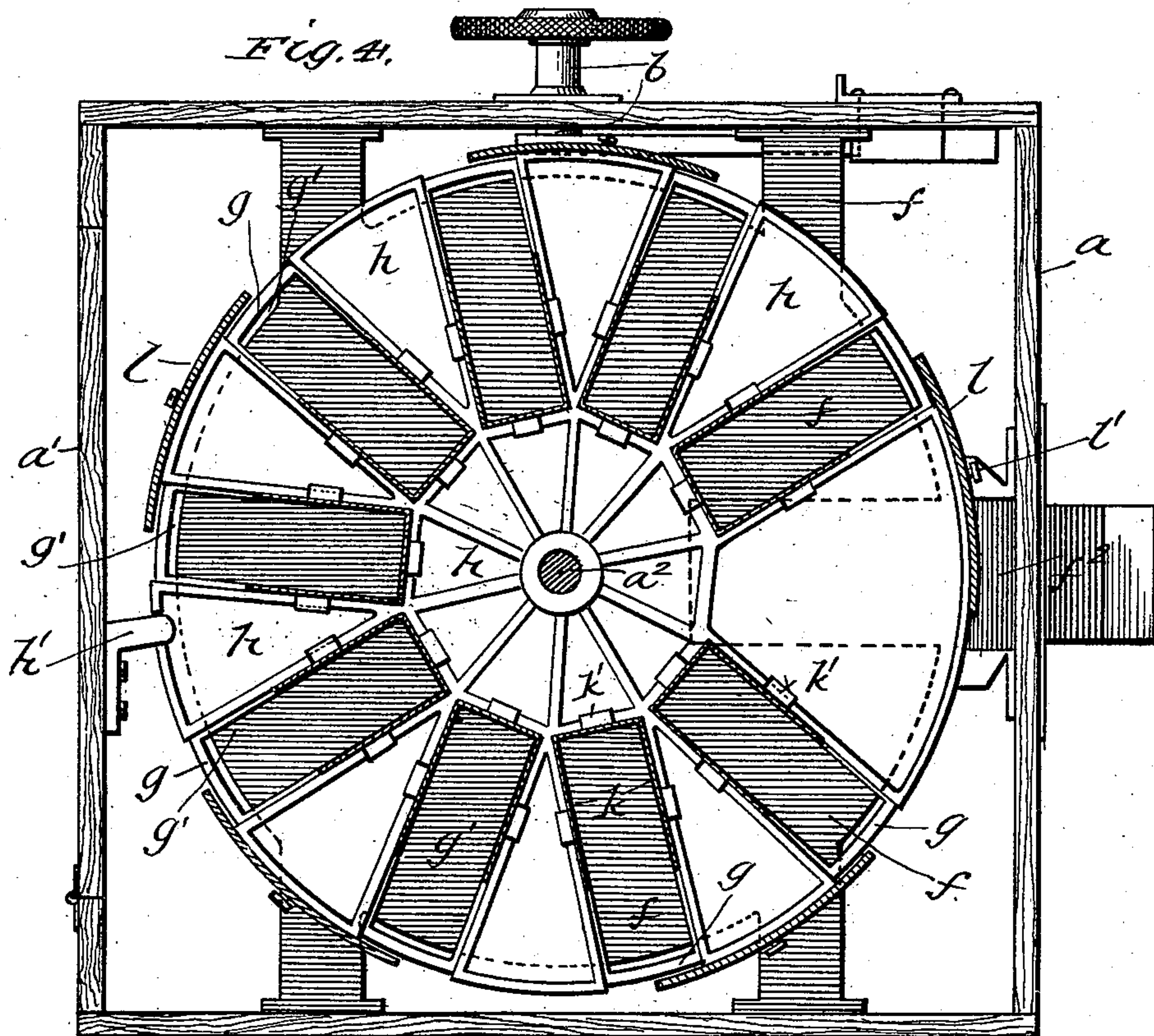
(No Model.)

2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

CHARLES P. YOUNG, OF YORK, PENNSYLVANIA.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 523,826, dated July 31, 1894.

Application filed December 11, 1893. Serial No. 493,353. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. YOUNG, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 designates a vertical sectional view of my machine; Fig. 2 a detail side elevation of a portion of the rotatively adjustable magazine; Fig. 3 a detail view showing the coin operated devices more clearly; Fig. 4 a horizontal sectional view taking on the line 4—4 of Fig. 1; Fig. 5 a detail plan view of one of the flanged plates supporting the vertical receptacles, and Fig. 6 a detail perspective of one of the vertical receptacles.

This invention relates to improvements in coin-operated vending machines, and it consists of certain novel features of construction and arrangements of parts, that will be fully hereinafter described and claimed.

In the drawings the letter *a* designates a vertical casing or box having one of its vertical sides hinged to form a door *a'*. Stepped in the center of this casing is a vertical shaft *a²* having secured on it near its lower end a beveled gear wheel *a³*. Meshing with this gear is a beveled pinion *b'* which is mounted on the inner end of a horizontal shaft *b* which extends outside of the casing and is provided with an operating knob. This shaft *b* is locked against rotation by means of a pivoted gravitating lever *c*, whose inner, heavier end *c'* normally rests into a notch *b³* formed in the periphery of a ratchet-wheel *b''* rigidly secured on said shaft. The ratchet wheel shown is provided with two of the notches *b³* but a less or greater number may be employed according to the relative sizes of the gear wheels and the number of openings in the rotating delivery plate hereinafter described. Formed on the ratchet wheel alongside each notch *b³* is a beveled lug *b⁴*. Pivoted upon the casing above lever *c* is a weighted lever *e* which is supported a short distance above the ratchet-wheel by means of a stop pin *e'*. The free end *c''* of the lever *c* is bent laterally and terminates below the exit end of the coin chute *d*.

The operation of the foregoing devices is as follows: When a coin is dropped into the chute it runs down the same until it is caught between the bent end *b''* and the adjacent end of the chute and there suspended. The weight of the coin raises the end *c'* out of notch *b³* until it rests lightly against the weighted lever *e*, in which position the parts remain until the operator rotates shaft *b*, whereupon the beveled lug *b⁴* forces the adjacent end *c'* of the lever *c* upward a sufficient distance to drop the coin.

In its general features this coin-operated mechanism is similar to the construction covered in my former application filed November 14, 1893, Serial No. 490,905; and I do not therefore claim anything in this application covered by my said former application.

Rigidly secured to the interior of the casing above the coin operated lever is a horizontal plate *f*, which is provided with a central opening for the passage of the shaft *a²* and an opening *f'* at one edge for the passage of the articles of merchandise carried by the magazine above. Secured to the plate below the opening *f'* is a delivery chute *f²* which receives the articles as they are ejected and conveys them out at one side of the casing. Secured rigidly on the shaft immediately above the plate *f* is a rotating plate *g*, which is provided with a series of openings *g'* through which the articles of merchandise successively pass. Mounted loosely upon the shaft above the rotating plate is the merchandise magazine, which consists of a pair of slotted disks *h* connected rigidly together by a series of vertical open-ended receptacles *k*, said magazine being held against rotation and in proper position by means of a lug *h'* carried by the door *a'* and resting in a notch in the adjacent edge of one of the disks *h*; the magazine is supported at the proper distance above the rotating plate by means of a collar *h²* on the shaft. The plates *h* are each provided with a series of radial slots in which are fitted the long vertical receptacles *k*, which latter are formed of sheet metal bent into shape and have their outer sides open. The receptacles are secured rigidly to the disks *h* by means of lips *k'*, struck up from the receptacle and bent over flanges *k²* formed on the plates *h* around the slots therein, the

flanges being formed on the upper side of the lower plate and on the lower side of the upper plate, in order that the receptacles themselves will support the plates *h* the proper distance apart.

To retain the articles in the receptacles—that is to say, to close the vertical open sides of the receptacles—a series of vertical transversely-curved plates *l* is secured to the peripheries of the disks *h*. As will be observed, one plate answers to protect each adjacent pair of receptacles—that is one of the plates is secured between each pair of holders and extends far enough in each direction to cover the two adjacent holders as shown. The plates are secured to the disks *h* by means of pins *l'* which pass through short vertical slots *l''* formed in the plates *l* and communicating at their lower ends with horizontal slots *l'''*; the object of this construction is to enable the plates *l* to be moved to one side while filling the receptacles with the articles of merchandise, thereby enabling the receptacles to be filled along their vertical edges instead of at their ends.

It will be observed that as the rotating plate is revolved by means of the shaft and gear wheels, the articles of merchandise successively drop into the openings in said plate as said openings register with the receptacles and are carried around by the plate and successively dropped into the delivery chute, one receptacle being emptied after another until the entire series have discharged their contents.

Having thus fully described my invention, what I claim is—

1. The combination of a casing, a vertical shaft therein, a series of vertical receptacles mounted rotatively upon said shaft said receptacles being open at their lower ends, means for locking the receptacles against rotation, a rotating plate rigidly secured on said vertical shaft below the receptacles and provided with a series of openings adapted

to register with said receptacles, a stationary plate secured below said rotating plate and provided with a delivery opening, and means for rotating said shaft, substantially as described.

2. The combination of a casing, a vertical shaft and means for rotating the same, a rotatable magazine mounted on said shaft and adapted to rotate independently thereof, a movable lug on the interior of the casing, said lug engaging an adjacent part of the magazine, and a rotating delivery plate below the magazine, substantially as described.

3. The combination of a rotatable magazine consisting of a series of vertical receptacles and a pair of plates provided with radial slots in which said receptacles rest and are secured, said slots being open at their outer ends substantially as described.

4. A magazine for vending machines consisting of a pair of disks provided with flanged openings and a series of vertical receptacles fitted in said openings and provided with lips engaging over said flanges, substantially as described.

5. The combination of a series of vertical receptacles open along their outer vertical sides or edges and vertical plates secured over said open sides or edges, said vertical plates being laterally adjustable, in order that the open sides or edges of the receptacles may be uncovered substantially as described.

6. A rotatable magazine for vending machines consisting of a series of vertical receptacles open along their outer vertical edges, a series of vertical plates mounted on said magazine and extending over the open edges of the receptacles and adapted to be laterally adjusted, substantially as described.

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

CHARLES P. YOUNG.

Witnesses:

W. H. SHETLEY,
H. B. BROOKS.