

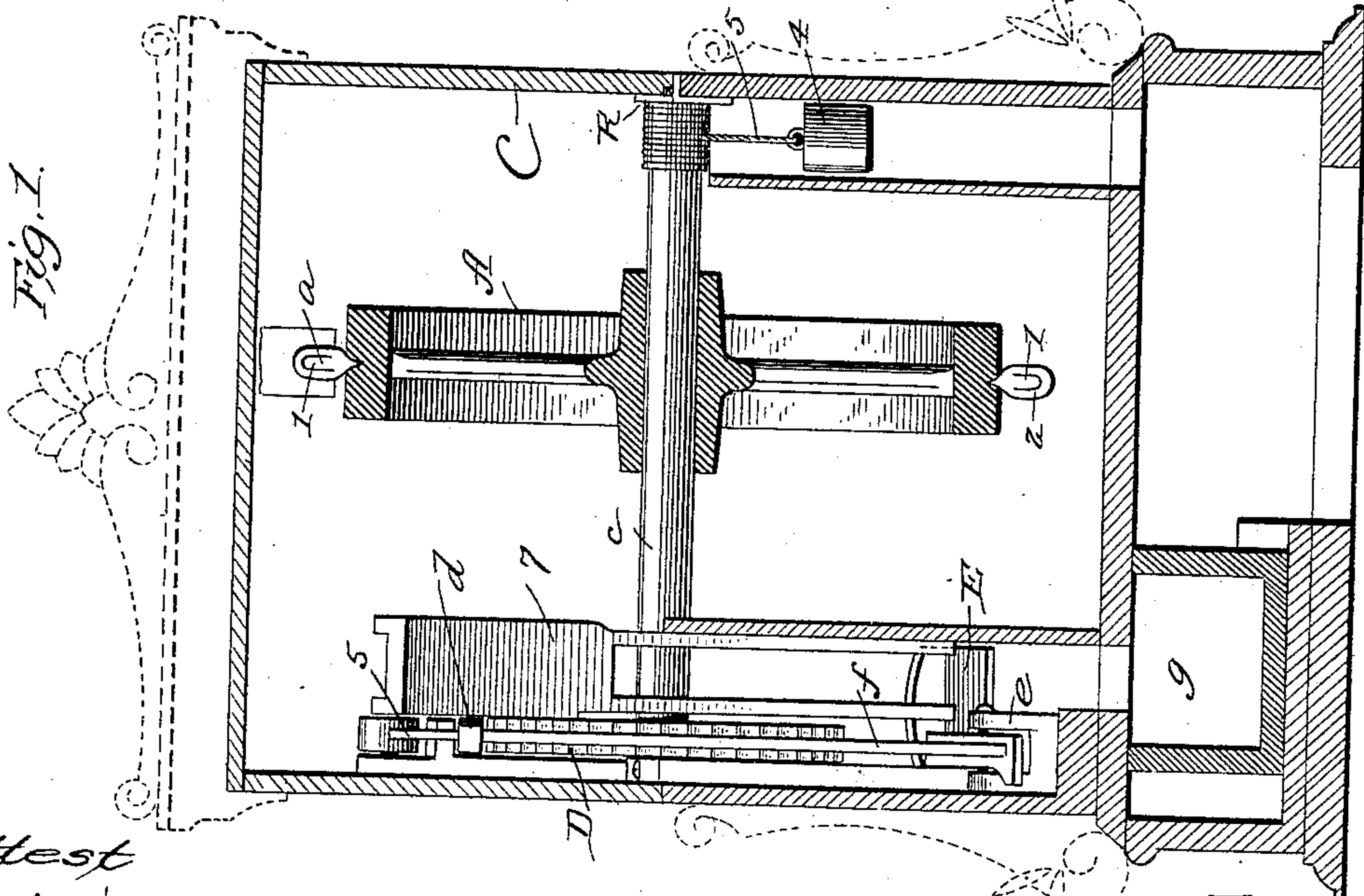
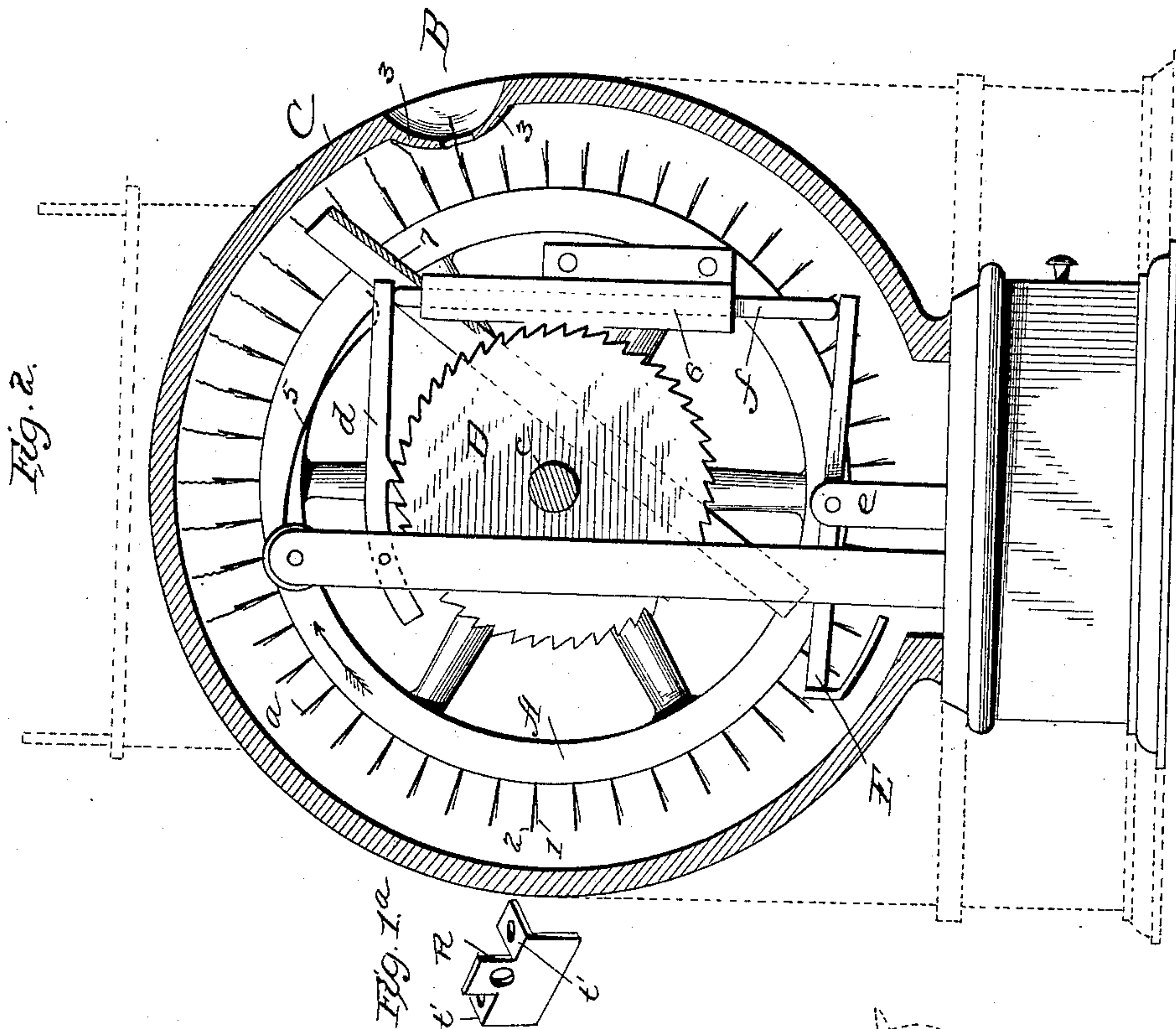
(No Model.)

2 Sheets—Sheet 1.

J. SCHOFIELD.
VENDING APPARATUS.

No. 437,048.

Patented Sept. 23, 1890.



Attest
J. L. Middleton
J. E. Middleton

Inventor
John Schofield
by *Walter Donaldson & Co*
Attys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

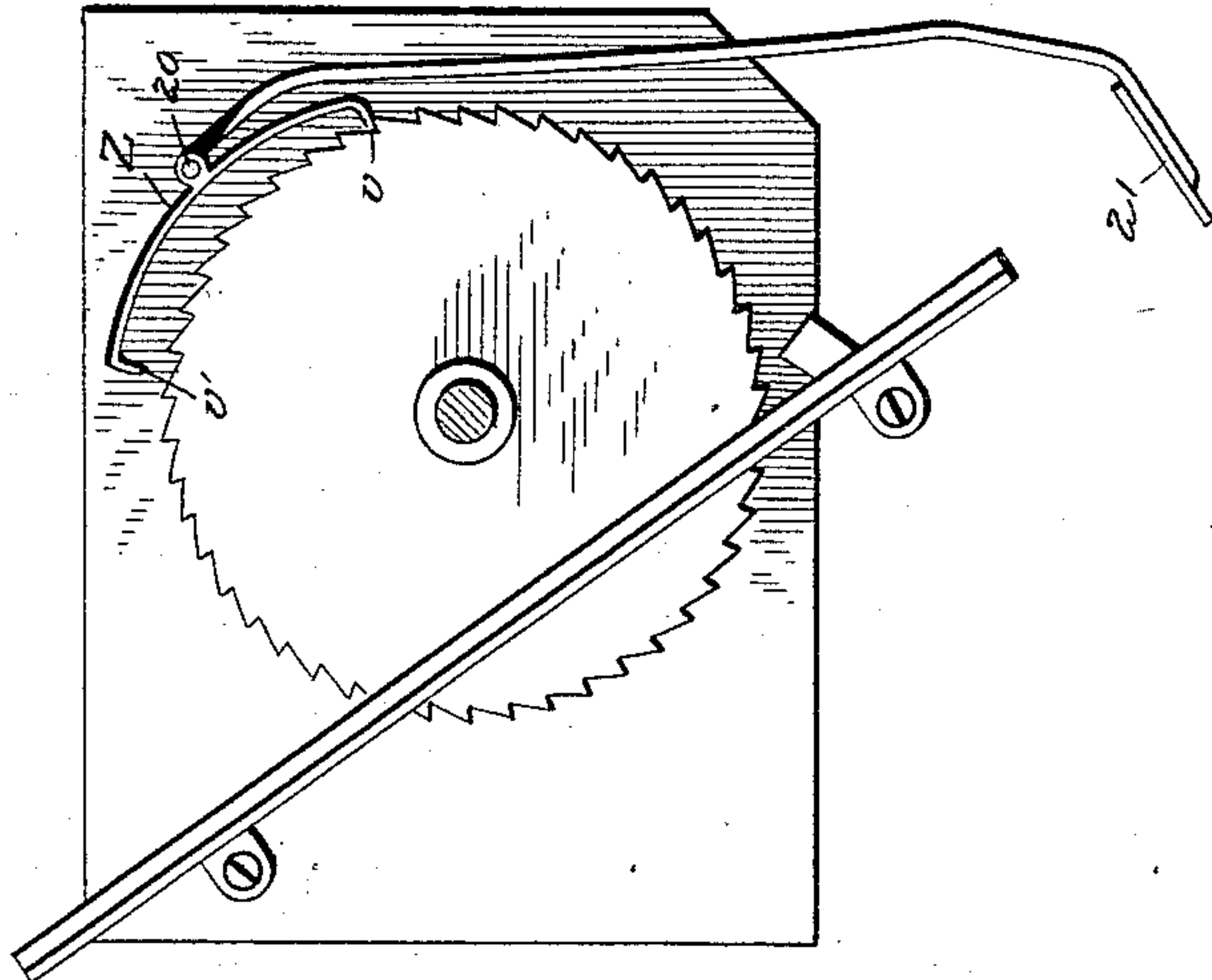
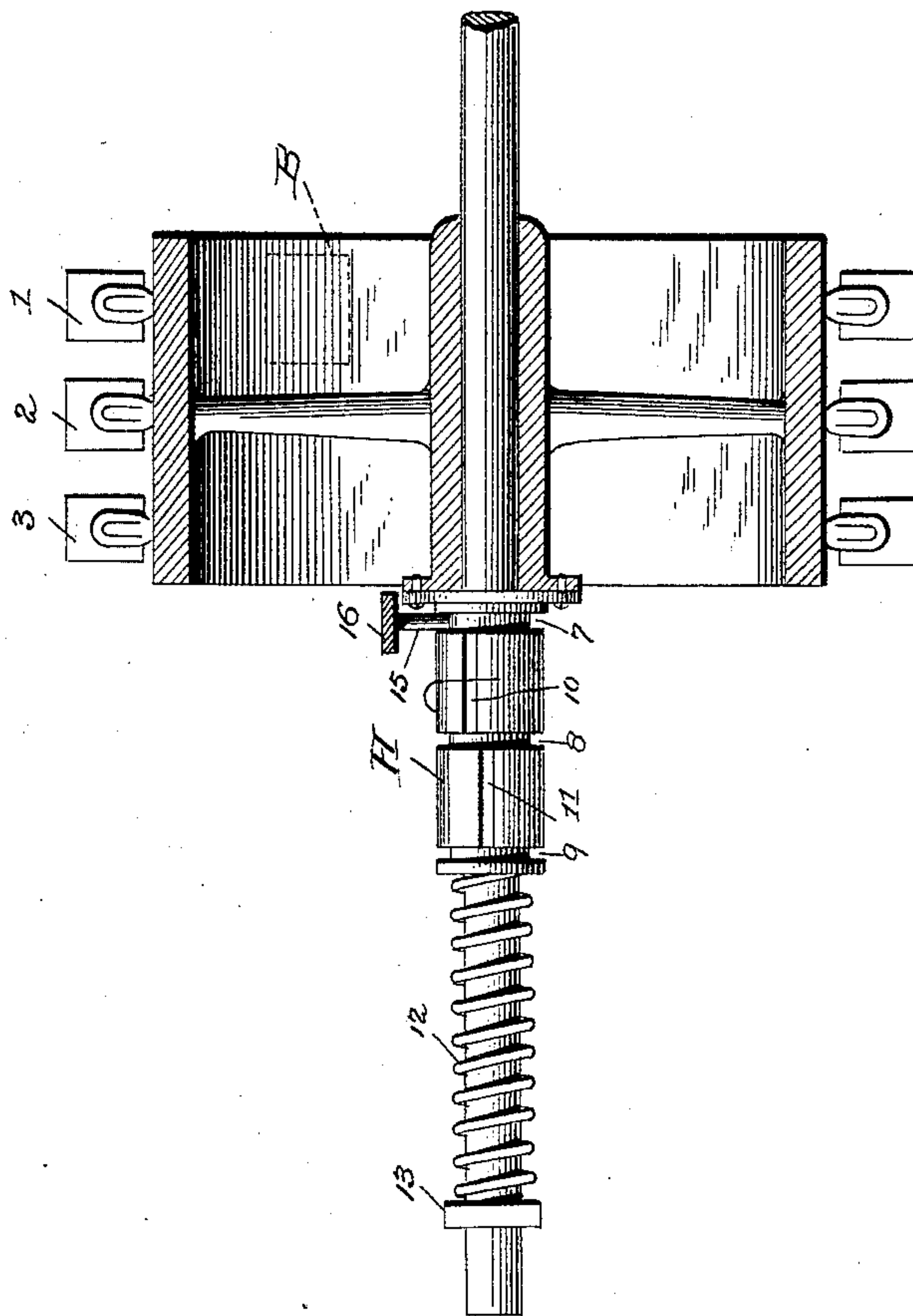


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN SCHOFIELD, OF NEW HAVEN, CONNECTICUT.

VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 437,048, dated September 23, 1890.

Application filed May 20, 1890. Serial No. 352,475. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHOFIELD, a citizen of the United States of America, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Vending Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The apparatus is designed especially for the sale of flexible articles—such as postage-stamps, papers, and the like—though its use is not limited in this respect, as it may be employed for vending other articles.

15 My object is to provide an apparatus simple in construction, compact in form, and cheap to manufacture.

In the accompanying drawings, Figure 1 is a transverse vertical section with parts in elevation. Fig. 1^a is a detail view of the shaft-bearing; Fig. 2, a section from front to rear of the case with the working parts in elevation, and Fig. 3 a detail view of a wheel adapted to hold several rows of articles and the means for operating said wheel laterally. Fig. 4 is a modification of the escapement mechanism.

The carrying-wheel A for the articles is provided with a series of spring-clips *a*, by which the stamps are held, they being inserted between the spring-tongue 1 and the body of the clip 2. They are arranged radially around the periphery of the wheel and are intended to be brought in succession to the opening B of the casing. The casing C may be of various shapes, and I have indicated in Figs. 1 and 2 a form in full lines and another form which may be desired in dotted lines. At the opening B the relation between the casing and the wheel and clips is such that the flexible articles as they are brought in succession to said opening will bear upon the interior of the casing and be bent back until they come directly opposite the opening, when they assume their normal position, their upper ends springing out through the opening, and thus extending out through the casing to be easily grasped by the fingers. This effect may be secured by having the wheel arranged close to the casing, so that the space between the clips and the inner side of the casing will be less than the length of

the flexible articles, or, as shown in Fig. 2, the casing may be extended inward by means of the projections 3, forming a flaring cavity about the opening B, and said projection will act as a cut-off to prevent the extraction of the articles above the opening, it being understood that the wheel revolves in the direction of the arrow, Fig. 2. A shaft *c*, under tension of a weight and rope 45, supports the carrying-wheel A, and this shaft also has the toothed wheel D at one end, which is engaged by a pawl-lever *d*, which holds it against the action of the weight 4, the teeth of said wheel being of such size as to allow a movement of the carrying-wheel equal to the distance between the clip-holders. The pawl-lever is pressed into engagement with the ratchet by a spring 5, and it is operated to release the ratchet and allow the carrying-wheel to move one step by means of the coin-lever E, pivoted in ears *e* below the ratchet-wheel and bearing against a push-bar *f*, the upper end of which engages with the end of the pawl-lever *d*. The push-rod *f* slides vertically in a bearing 6, which may be secured to the casing. A coin-slide 7, located alongside the ratchet, directs the coins to the lever E, and thus the mechanism is operated one step through the levers E and *d* and weight 4 each time a coin is introduced of the proper size. A money-box *g* is located directly beneath the lever E, and the coin-slide is formed with an open bottom, as shown in Fig. 1, and this also is arranged directly over the money-box, so that the coins, both of proper and improper size, will fall directly into the money-box.

In Fig. 4 is shown a simpler and the preferred form of escapement mechanism, consisting of an anchor Z, having a holding-pallet *v* and a check-pallet *v'*. The anchor is pivoted at 20, and an arm extends from the anchor downwardly on the same side with the holding-pallet and carries at its lower end a simple plate 21, located across the path of the coin. The weight of the plate and arm keeps the holding-pallet in engagement with the ratchet-teeth, and the normal position of said arm and plate is near the ratchet; but when a coin is introduced it will strike the plate and move the arm outwardly away from the ratchet, lifting the holding-pallet and allow-

ing the ratchet to move one tooth under the action of the weight. The bearing R, Fig. 1^a, for the shaft consists of a plate of brass cut so that a central tongue is left vertical to receive the shaft, and the two side tongues *t'* may be bent to horizontal position and secured to the casing.

In Fig. 3 is shown a wheel carrying three rows of holding-clips, and my object here is to increase the capacity of the machine without increasing materially the size of the wheel or other parts. The discharge-opening B is represented in dotted lines in alignment with the first row of articles, and it is designed to bring the second row of articles into line with the opening when the first is exhausted, and for this purpose the wheel is adapted to slide laterally, and is provided with a hub-extension H, having three peripheral grooves 7 8 9 and two longitudinal grooves 10 11. A spring 12 about the shaft and bearing against the stationary collar 13 tends constantly to force the wheel to the right by bearing against the hub-extension H. This tendency is resisted by a pin 15, projecting into the groove 7, said pin being held by any suitable cross-bar 16, attached to the casing. This pin holds the parts in the position shown until in the revolution of the wheel in the direction of the arrow the groove 10 comes opposite the pin, when the spring 12 will act and force the wheel to the right until the side of the groove 8 strikes the pin, and thus holds the parts with the second row of articles in line with the opening, and when this row is exhausted the arrangement is such that the longitudinal groove 11 will come in line with the pin, and the spring 12 will then act again to shift the wheel to the right and bring the third row of articles into line with the opening.

I claim as my invention—

1. In combination with the carrier and its shaft, the ratchet-wheel, the cord and weight, the anchor with holding and check pallets, the arm extending on the same side of the pivot as the holding-pallet and having a plate, the weight of which will retain the holding-pallet in engagement with the ratchet-wheel, and the coin-slide extending across the face of the ratchet to direct the coin against the plate, whereby the plate and arm will be moved to disengage the holding-pallet from the ratchet and throw in the check-pallet, substantially as described.

2. In combination, the carrier and operating means therefor, the shaft, and the bearing for said shaft, consisting of the plate having a vertical tongue and the side tongues *t'*, secured to the casing.

3. In combination, the carrier arranged to have lateral movement and having two or more independent rows of holders, means for forcing the carrier laterally when one row is exhausted, and holding means, substantially as described.

4. In combination, the carrier having two or more rows of holders, the hub having peripheral and longitudinal grooves, the pin adapted thereto for holding the carrier, and the spring for forcing the carrier laterally when the longitudinal groove is brought in alignment with the pin, substantially as described.

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

JOHN SCHOFIELD.

Witnesses:

CHARLES L. ULLMAN,
CHARLES H. FOWLER.