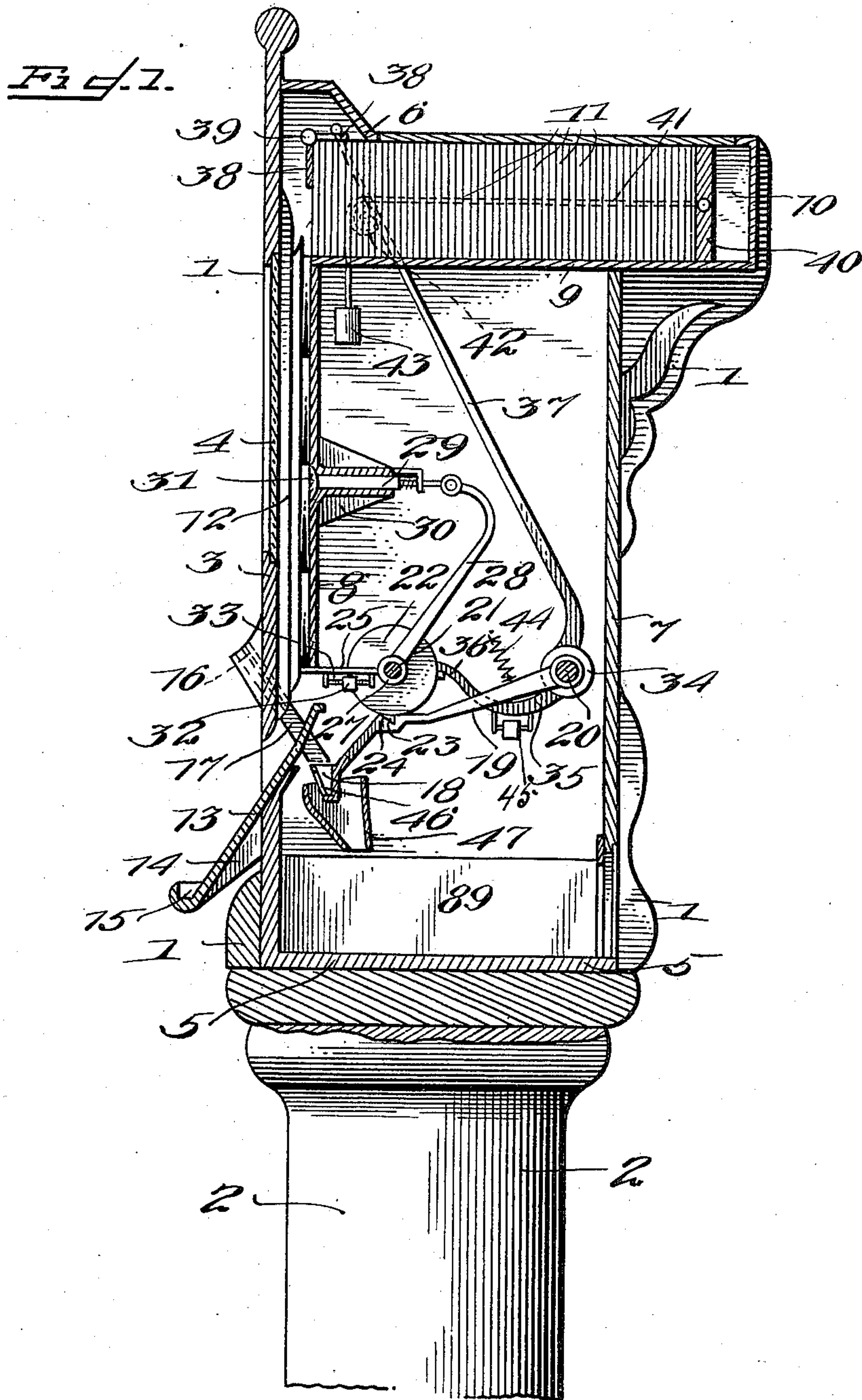


B. LOVATT.
VENDING MACHINE.
APPLICATION FILED DEC. 16, 1908.

987,634.

Patented Mar. 21, 1911.

4 SHEETS—SHEET 1.



Witnesses:
C. S. Ashley
Mira O. Norton

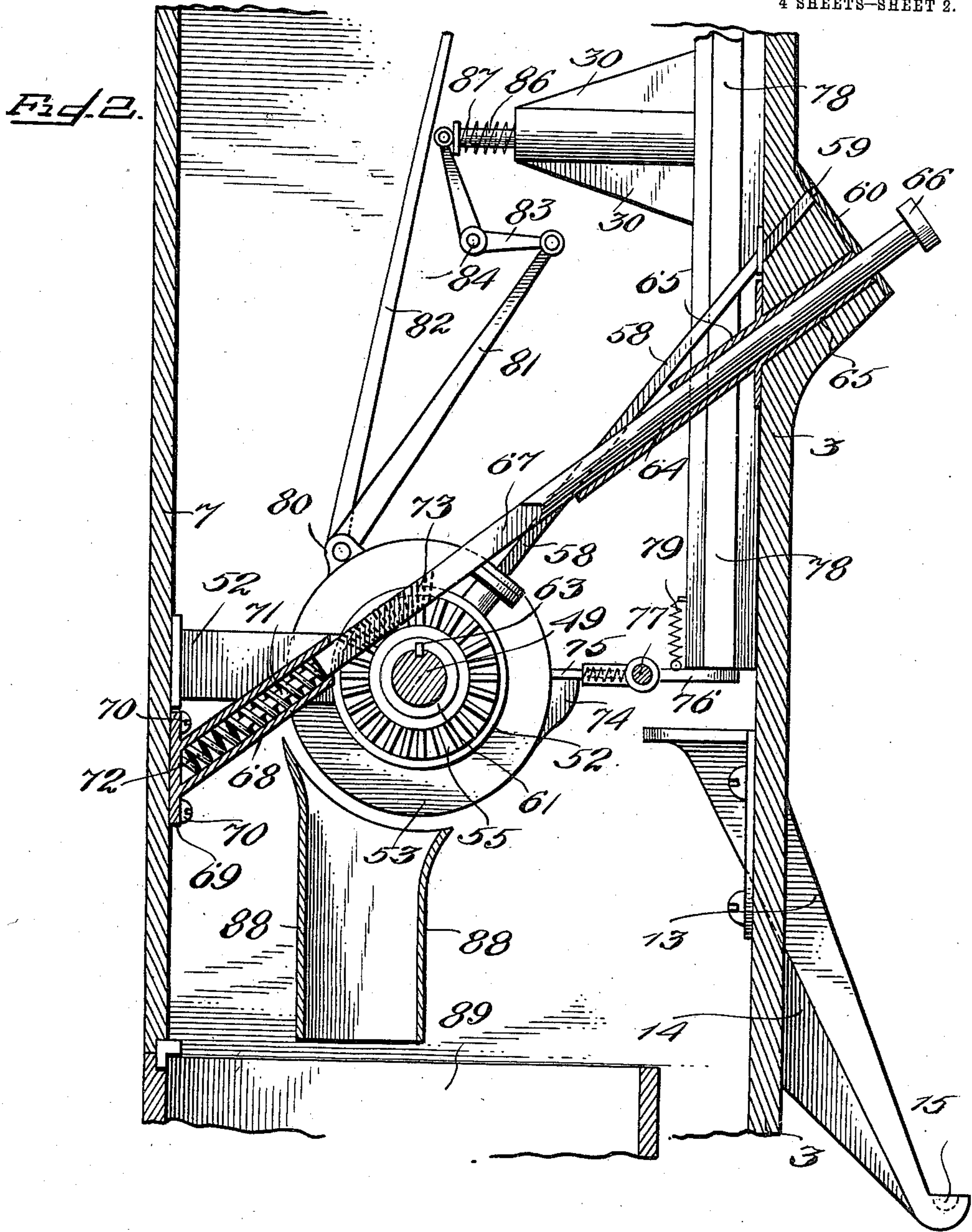
Inventor
Bernard Lovatt
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Robert W. Ashley

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4 SHEETS—SHEET 2.



Witnesses:
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Helen O. Norton

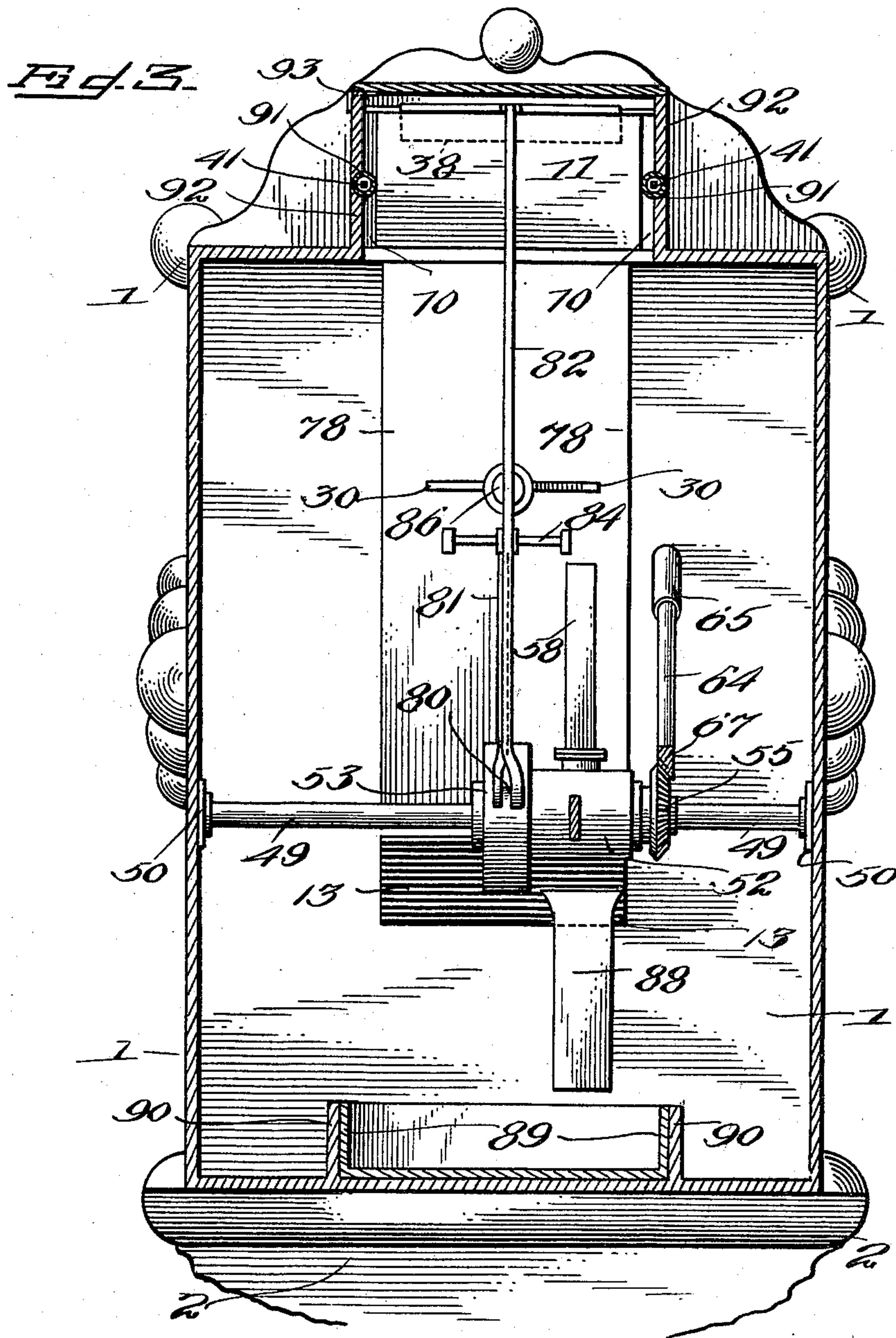
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4 SHEETS—SHEET 3.



Witnesses:
C. S. Ashby
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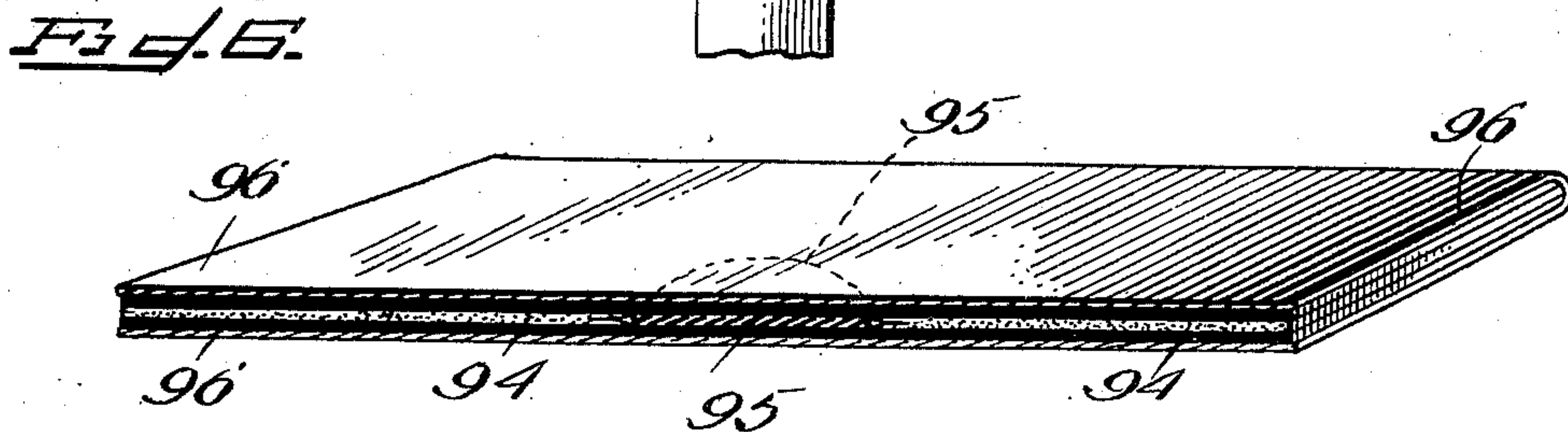
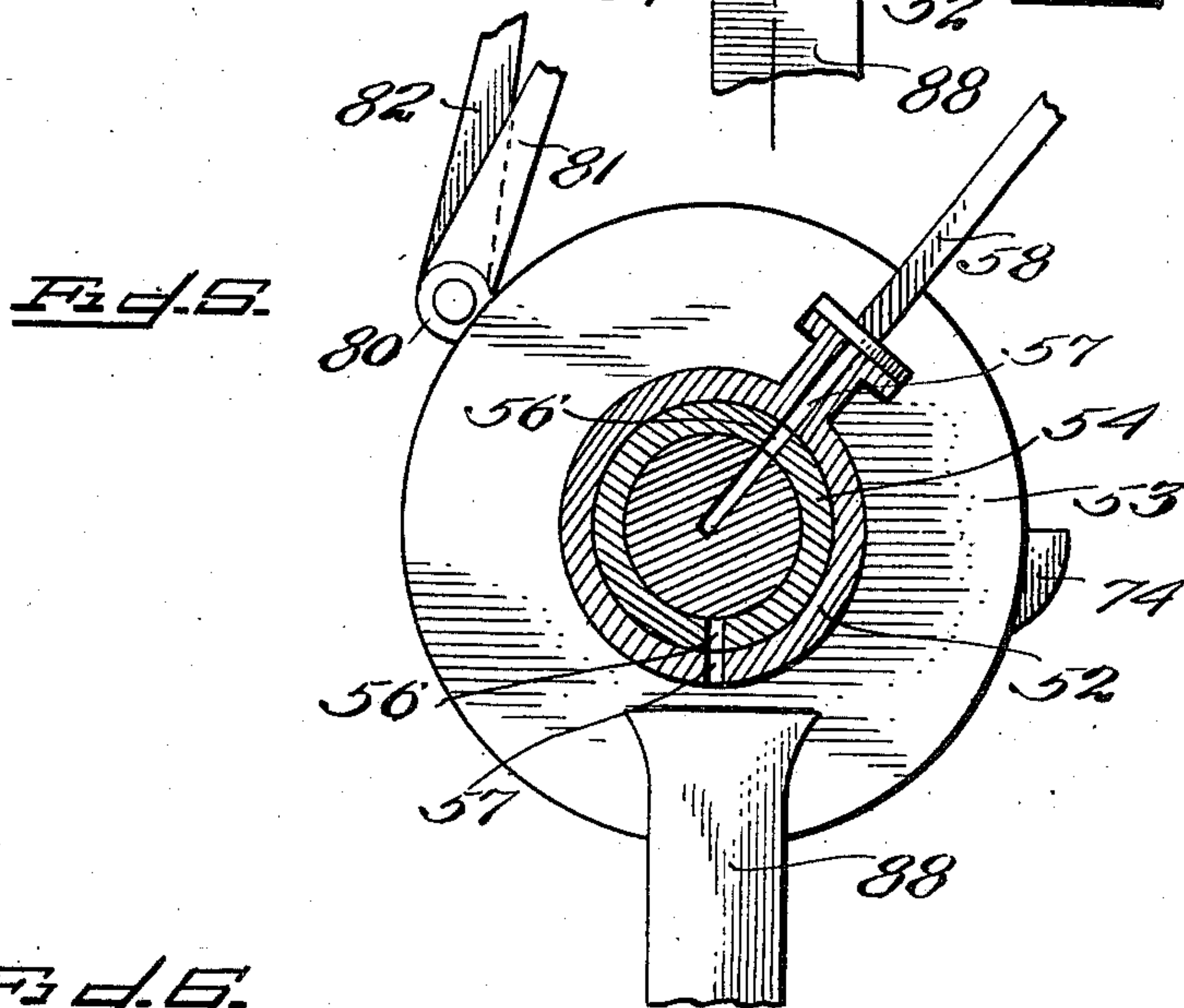
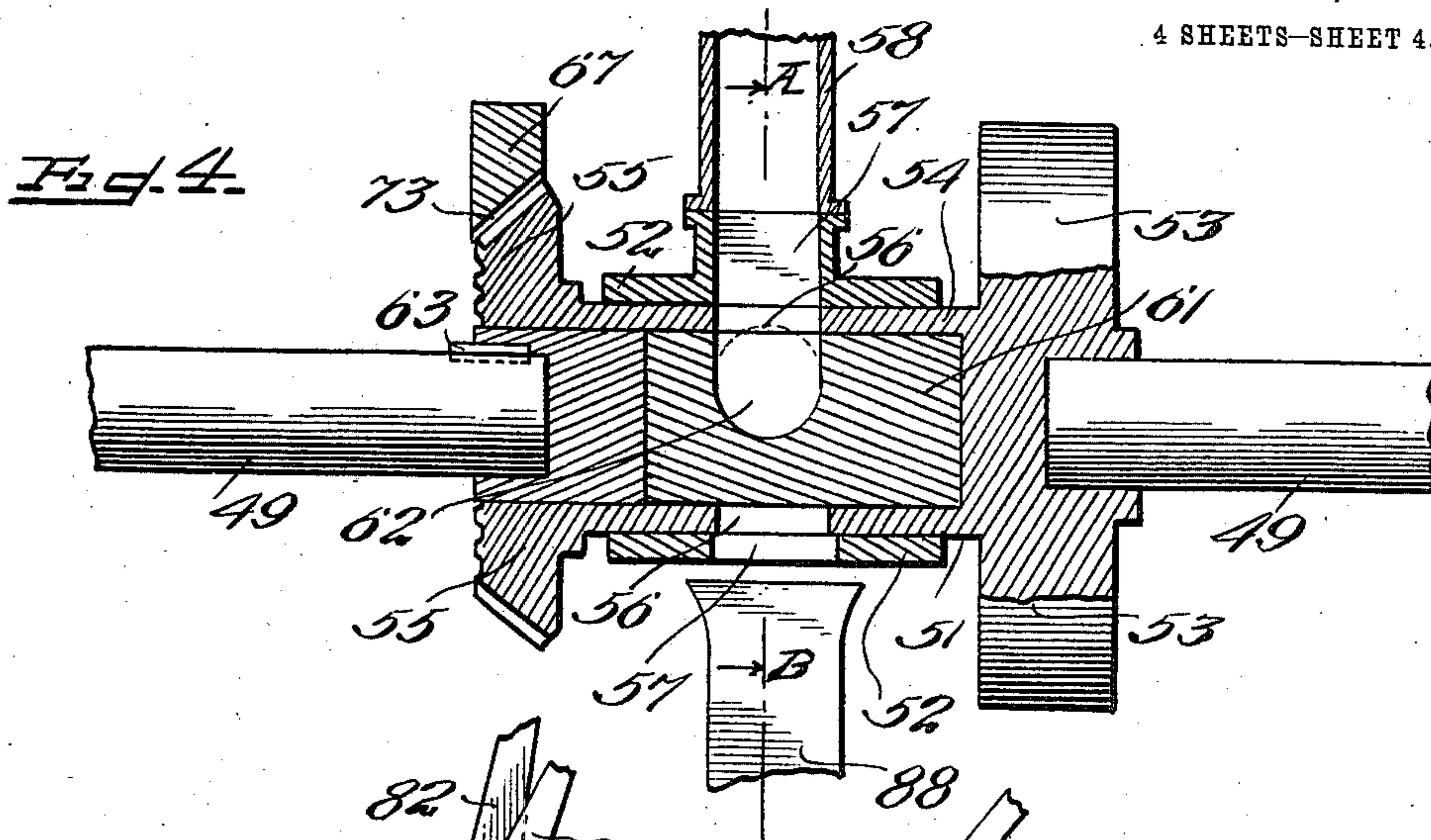
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4 SHEETS—SHEET 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

BERNARD LOVATT, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN SANITARY SUPPLY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

VENDING-MACHINE.

987,634.

Specification of Letters Patent. Patented Mar. 21, 1911.

Application filed December 16, 1908. Serial No. 467,777.

To all whom it may concern:

Be it known that I, BERNARD LOVATT, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

The invention relates to improvements in vending machines having particular reference to a device for vending or disbursing cartons, inclosing toweling and a wafer or shaving of soap. The device is designed particularly to be operated by means of placing a coin, preferably of the denominational value of a one penny piece, in a coin chute, and means whereby said coin will actuate the device, also means of manually operating the apparatus to disburse a carton.

In the following is described in connection with the accompanying drawings one embodiment of the invention, the features thereof being more particularly pointed out hereinafter in the claims.

In the drawings Figure 1 is a vertical sectional view of one form of the device, illustrating in partial diagram an automatic means of disbursing cartons; Fig. 2 is an enlarged vertical sectional view illustrating in detail the manual means of operating the device; Fig. 3 is a vertical sectional view from the rear of the device, illustrating in assembled form the structure shown in Fig. 2; Fig. 4 is a longitudinal sectional view of the coin receiver mechanism; Fig. 5 is a vertical sectional view on the line A—B of Fig. 4; and Fig. 6 is a perspective view partly in longitudinal section of one form of carton.

Similar numerals of reference indicate similar parts throughout the several views.

In the drawings 1 indicates a cabinet of preferably ornamental construction suitably mounted on pedestal support 2, comprising a front or face member 3 having mounted therein a glass panel 4, a bottom 5, top 6 and back or rear wall 7. Referring particularly to Fig. 1 of the drawings, said cabinet 1 has mounted therein an auxiliary wall 8 supporting the bottom 9 of an auxiliary

compartment 10 adapted to receive a plurality of cartons 11 comprising a towel and wafer of soap, the means of controlling the feeding of said cartons being hereinafter described. Face member 3 has fastened there- 55 to, intermediate of its rear face and said auxiliary wall 8, a guide or chute 12 adapted to convey said cartons 11 to receiving pocket 13 fastened to said cabinet 1 by means of bracket 14 and has formed thereon a groove 60 15 for catching and retaining the individual cartons fed therein. Said face member 3 has also mounted therein a coin slot 16 communicating with chute 17 suspended over coin cup 18 carried by lever 19 mounted on shaft 65 20. 21 indicates a shaft mounted in the sides of said cabinet 1 in suitable bearings (not shown) and has rigidly mounted thereon a barrel 22 provided with a pawl 23 engaging notch 24 in lever 19, the object of the same 70 being to hold the operative parts of the device in their locked positions. Said shaft 21 has also mounted thereon a plate 25 mounted in sleeve 27 carrying arm 28 pivotally connected at its upper end with plunger 29 mounted in bearing 30 cast with said auxiliary wall 8. Said plunger 29 has mounted on its inner end a head 31 adapted to assist in feeding said cartons and also act as a means of preventing the next succeeding carton from passing downwardly 80 in said chute 12. Plate 25 is assisted in its movement by means of weight 32 adjustably mounted on rod 33 mounted in suitable bearings on the under side of said plate 85 25. Shaft 20 has mounted thereon a sleeve 34 having cast therewith an arm 35 engaging lug 36 on the periphery of said barrel 22 and an upwardly extending lever 37 connected at its extreme upper end 90 with gate 38 pivotally mounted in said cabinet as at 39, the object of said gate being to provide means for controlling the feed of said cartons in said chute 12. Compartment 10 has slidably mounted therein a feed 95 shutter 40 having attached thereto chains 41 passing over pulleys 42, the disconnected ends of said chains having mounted thereon weights 43, the object of the same being to provide means adapted to continually feed 100

said cartons into the carton chute until the contents of said compartment is exhausted. Arm 35 is assisted in its movement by coil spring 44 and its excess movement equalized by means of weight 45. Coin cup 18 has cut therein an opening 46 adapted to permit said coin to pass therethrough into an auxiliary coin chute 47 through which it passes into coin receptacle 48 suitably placed in the bottom of said cabinet.

The device shown in Figs. 2, 3, 4 and 5 illustrates a manual means of operating the device and is preferably the preferred form of construction and comprises a shaft 49 mounted in bearings 50 fastened to the side walls of cabinet 1. Shaft 49 has mounted thereon a coin barrel 51 supported by means of bearing 52 fastened to the back 7 of said cabinet 1 and is free to turn thereon, and comprises a disk 53 having cast therewith a sleeve 54 carrying on its outer end a gear 55 and provided at its central portion thereof with slots 56 communicating with slots 57 in bearing 52, which in turn communicates with chute 58 connecting with coin slot 59 in plate 60 on face member 3 of said cabinet 1. Sleeve 54 has loosely mounted therein a core 61 having cut therein a coin receiving slot 62 of lesser diameter than that of a coin inserted therein, the edge of said coin overlapping or extending slightly beyond the interior surface and into the slot 56 in sleeve 54. Core 61 is fastened to one end of shaft 49 by means of feather 63 and at this point acts as part of said shaft 49 and rotates with it. 64 indicates a rod mounted in bearing 65 which is in turn mounted in face member 3, and has formed on its outer end a button 66. The shank of rod 64, or that part passing through bearing 65, is round in form, whereas the shank portion below that is squared off as shown at 67, its extreme lower end being mounted in bearing 68 fastened to rear wall 7 by means of bracket 69 and screws 70. The lower end of shank 67 has formed thereon a lug 71 carrying spring 72, one end of said spring bearing against the end of said shank, the other end thereof bearing against the lower end or inside bore of said bearing 68. Shank 67 of rod 64 has formed thereon gear teeth 73 meshing with gear 55 carried by said sleeve 54. Disk 53 has formed thereon a lug 74 adapted to engage arm 75 on shutter 76 which is pivotally mounted on shaft 77, the outer edge of said shutter 76 projecting under chute 78 and forms at that point a trap bottom for the carton chute 78. The return movement of said shutter 76 is assisted by means of spring 79. Disk 53 has also mounted thereon a lug 80 having pivotally mounted thereon arms 81 and 82, said arm 81 connecting at its upper end with bell crank lever 83 pivotally mounted in said cabinet as at 84, the upper

arm 85 of said bell crank lever being connected with plunger 86 of the carton feed. The return movement of plunger 86 in this instance is assisted by means of spring 87. Said arm 82 is connected at its upper end with said gate 38. The lower slots 56 and 57 in sleeve 54 and bearing 52 are in direct alinement with auxiliary coin chute 88 adapted to convey the coin to the coin receiving receptacle 89 mounted in guides 90. Chains 41 pass through tubes 91 fastened in side walls 92 of auxiliary compartment 10, the top 6 thereof being hinged as at 93, the object of the same being to provide means whereby the carton compartment when exhausted may be replenished without necessarily disturbing or dismantling any of the operative parts of the device.

Fig. 6 of the drawings illustrates the carton used in connection with the device and comprises a towel 94 folded in suitable form having placed therein a wafer of soap 95 which in turn is enveloped in a paper wrapper 96.

The operation of the device is as follows; particularly the structure shown in Fig. 1 of the drawings: A coin, preferably of the denominational value of a one penny piece, is inserted in slot 16, whence it passes to coin cup 18 causing arm 19 to release disk 22 and permitting the same to rotate a predetermined distance. In rotating disk 22 opens shutter 25 and causes plunger 29 to be actuated, the opening of said shutter 25 permitting a carton to pass to receiving pocket 13, said plunger 29 holding the next succeeding carton to be held in chute 12 until the actuating mechanism is returned to its neutral position. As above described, disk 22 in its rotation trips arm 35 by means of lug 36, causing lever 37 to open gate 38 and permit a carton to be fed into chute 12 from the carton feed or auxiliary compartment 10, the feed of said carton being controlled by means of slide 40 operated by means of weights 43.

The structure shown in Figs. 2, 3, 4 and 5 of the drawings is practically the same as that shown in Fig. 1, excepting that a manually operated plunger 64 is utilized to actuate a coin barrel 51 by means of a rack 73 engaging a gear 55 mounted on a sleeve 54 carrying a disk 53 having formed thereon means for engaging shutter 76, holding arm 81 and gate 38 actuating lever 82. A coin, after passing through chute 58, enters coin cup 61, a fractional part of said coin overlapping said cup and engaging the slot 56 in sleeve 54 which, when rotated, causes disk 53 to rotate a half revolution, the coin at this point being discharged through corresponding slots 56 and 57 into chute 88 which conveys same to a suitable coin receiving receptacle 89, spring 72 in this instance re-

turning the operative parts thereof to their normal positions.

The device as herein shown and described is applicable not only as a vending machine for disbursing cartons containing towel and soap, but may be utilized as a vending apparatus for other similar products, the structural features thereof being so assembled that the same may be varied in many ways without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent of the United States is:

1. A device of the character described comprising a casing, a support therefor, an auxiliary compartment formed in said casing, a discharge chute communicating with said compartment at the upper end of said casing, a discharge reception pocket mounted on said casing communicating with said discharge chute at its lower end thereof, a rotative barrel, primary actuating means associated with said rotative barrel, an arm pivotally mounted in said casing associated with said primary actuating means, means formed on said barrel engaging locking means on said arm, a shaft for said barrel, means mounted on said shaft controlling the movement of articles discharged from said auxiliary compartment into said discharge chute, a vertically disposed arm pivotally mounted in said casing, an auxiliary arm formed with said vertically disposed arm engaging tripping means on said barrel controlling the discharge of articles from said auxiliary compartment into said discharge chute, means mounted in said compartment for feeding articles contained therein from said compartment into said discharge chute, and weight controlled means mounted on the arms associated with said rotative barrel for assisting the movement of said arms.

2. A device of the character described comprising a casing, supporting means therefor, an auxiliary compartment formed in said casing adapted to receive a plurality of cartons, a discharge chute mounted in said casing communicating with said auxiliary compartment, a transparent casement mounted in said casing adjacent to said discharge chute, a discharge reception chute mounted on said casing communicating with said discharge chute at its lower end thereof, a reception pocket formed in said discharge reception chute, a transverse shaft mounted in said casing, a rotative barrel mounted on said shaft, arms pivotally mounted on said transverse shaft communicating with means controlling the movement of cartons downwardly within said discharge chute, an auxiliary transverse shaft mounted in said casing, means mounted on said auxiliary transverse shaft actuated from said rotative barrel adapted to

control the discharge of cartons from said auxiliary compartment into said discharge chute, means mounted on said auxiliary transverse shaft controlling the movement of said rotative barrel and said means controlling the discharge of the cartons from said auxiliary compartment into said discharge chute, means mounted in said auxiliary compartment controlling the movement of cartons within said compartment and weights associated with said rotative barrel and the actuating means on said auxiliary transverse shaft for assisting the movement of the means controlling the discharge of cartons from said auxiliary compartment into said discharge chute and from said discharge chute into said discharge reception chute.

3. A device of the character described comprising a casing, a supporting pedestal therefor, an auxiliary compartment formed in said casing adapted to receive a plurality of cartons, a discharge chute mounted in said casing communicating with said auxiliary compartment provided with a reception space adapted to receive a plurality of cartons, a transparent casement mounted in said casing adjacent to said discharge chute, a discharge reception chute mounted on said casing communicating with said discharge chute at its lower end thereof, a pocket formed in said discharge reception chute adapted to receive cartons discharged from said discharge chute, a transverse shaft mounted in said casing, a rotative barrel mounted on said shaft, a sleeve mounted on said shaft, arms mounted on said sleeve, means mounted on said discharge chute adapted to receive a plunger provided with means connecting one of said arms with said plunger, a shutter associated with said sleeve and arm controlling the discharge end of said discharge chute said plunger and shutter being actuated from said rotative barrel, an auxiliary transverse shaft mounted in said casing, a bell crank arm mounted on said auxiliary transverse shaft provided with means engaging said rotative barrel and the upper end of said auxiliary compartment, a shutter associated with said auxiliary compartment controlled by said bell crank arm and controlling the discharge of cartons from said auxiliary compartment into said discharge chute, tripping means mounted on said rotative barrel adapted to engage said bell crank arm, spring controlled means adapted to assist in the movement of said bell crank arm, a weight mounted on said arm, an auxiliary arm mounted on said auxiliary transverse shaft provided with primary actuating reception means, locking means mounted on said rotative barrel controlling the movement of said auxiliary arm on said auxiliary

transverse shaft, a door mounted on said casing permitting access to the interior thereof, weight controlled means mounted in said auxiliary compartment controlling
5 the movement of cartons therein, and a reception receptacle associated with said casing.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

BERNARD LOVATT.

Witnesses:

NEVA O. NORTON,

ANDREW SHAUGHNESSY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
