

No. 773,726.

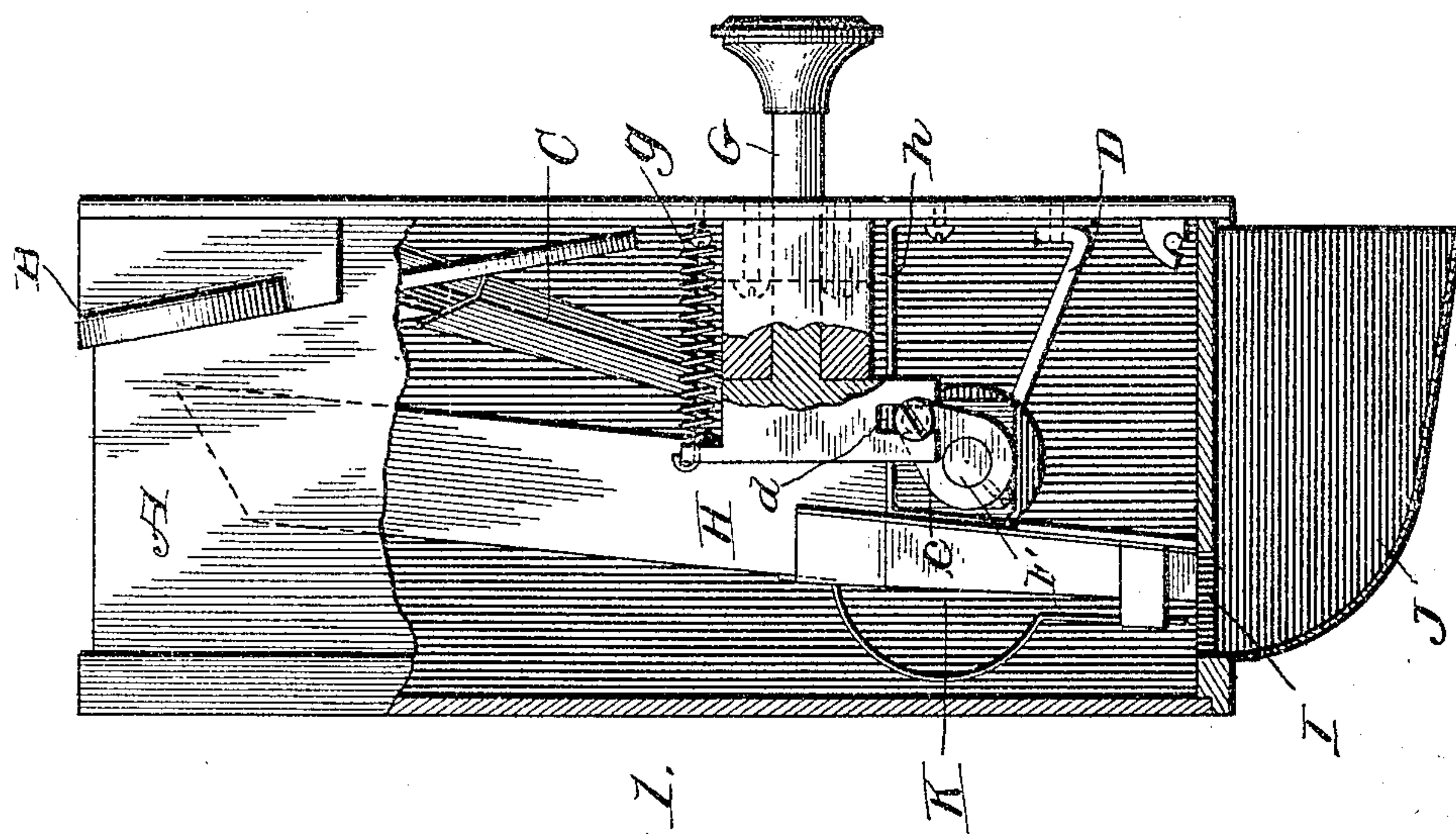
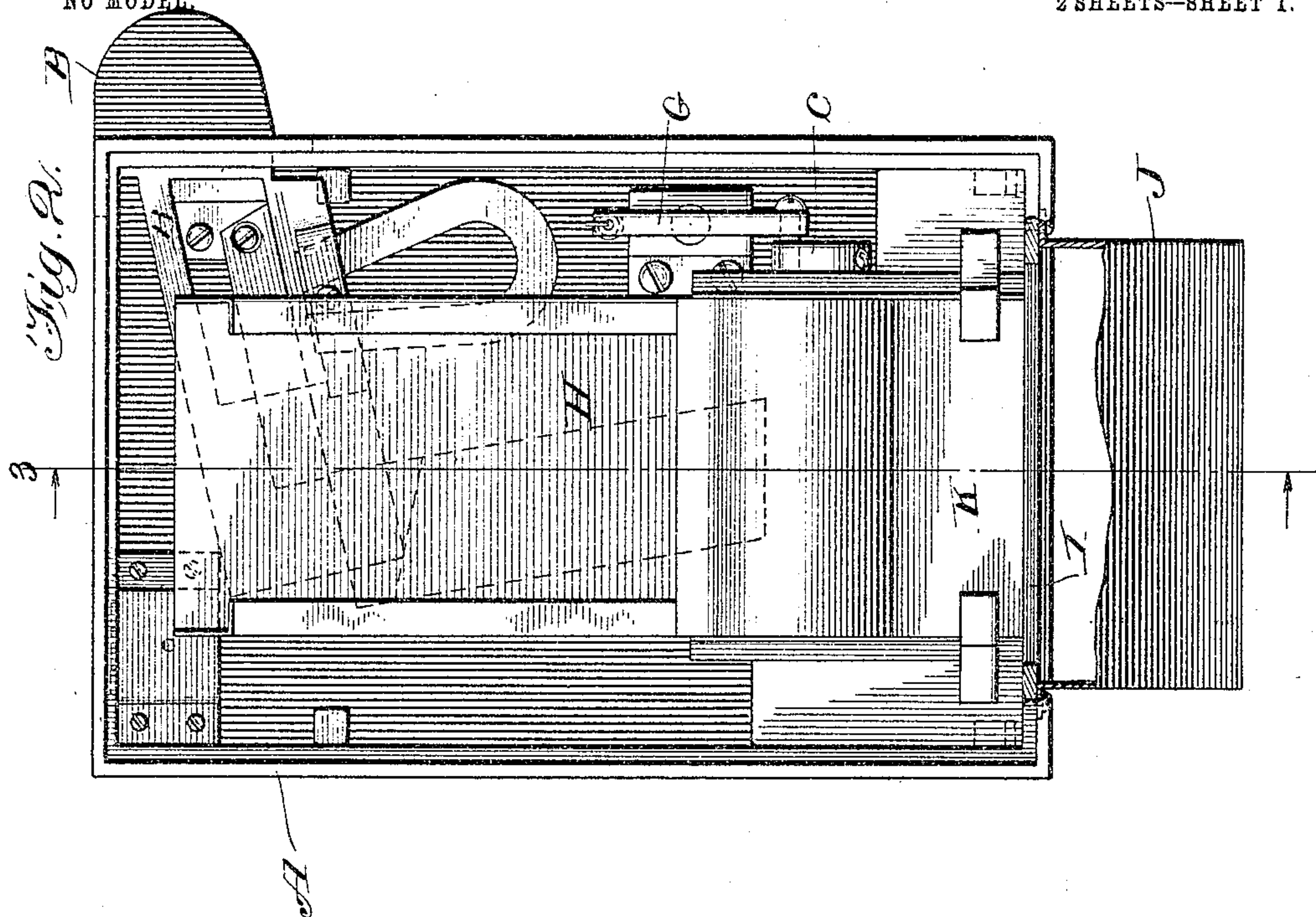
PATENTED NOV. 1, 1904.

C. T. FRANTZ.
COIN OPERATED VENDING MACHINE.

APPLICATION FILED AUG. 11, 1902.

2 SHEETS--SHEET 1.

NO MODEL



Witnesses:

H. S. Gaither

E. S. Limby

Inventor:
Charles T. Frantz.

by Frank D. Thompson
Attorney

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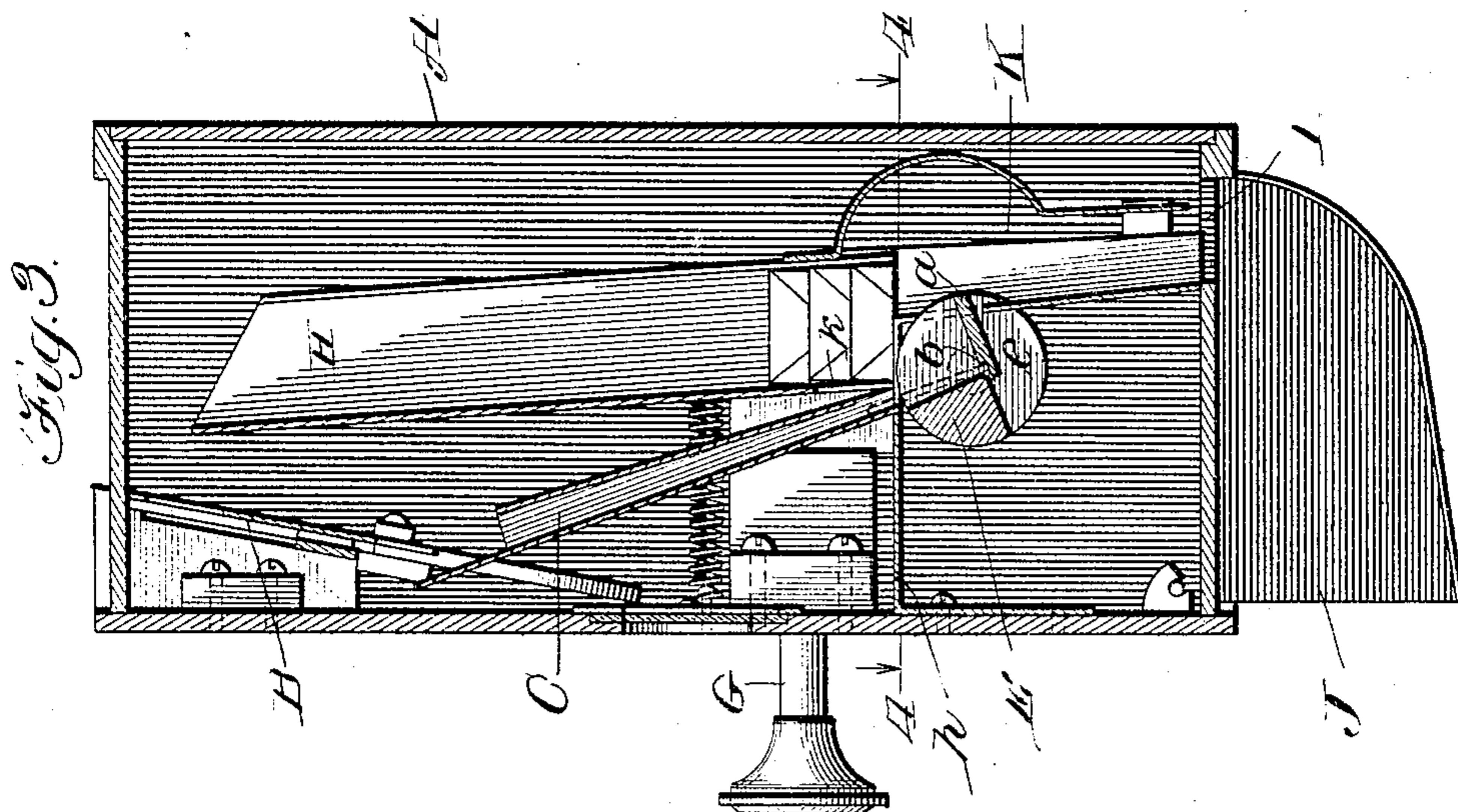
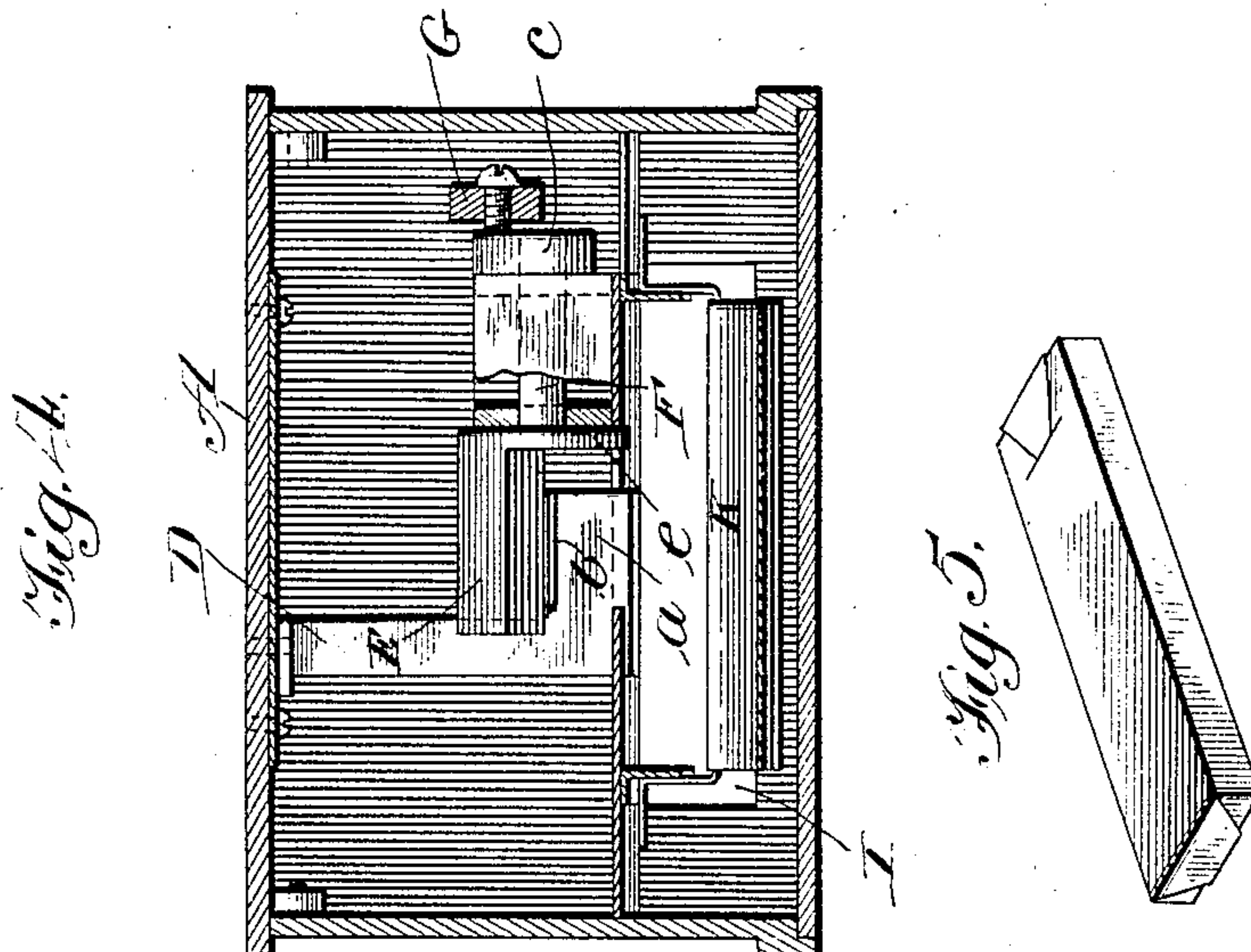
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H. S. Gaither

E. K. Leung

Inventor:

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UNITED STATES PATENT OFFICE.

CHARLES T. FRANTZ, OF CHICAGO, ILLINOIS.

COIN-OPERATED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 773,726, dated November 1, 1904.

Application filed August 11, 1902. Serial No. 119,263. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. FRANTZ, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coin-Operated Vending-Machines, of which the following is a full, clear, and exact description.

My invention more particularly relates to a machine for vending packages of matches, although it can be used for machines intended for disposing of other commodities whether done up in cartons or not.

The object of my invention is to dispense with the necessity of employing mechanism for expelling the packages and to use the coin itself for this purpose, and thus greatly cheapen and simplify the construction of the machine and render it less likely to get out of order. This I accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the case of a vending-machine having the side thereof removed to expose to view my improvements. Fig. 2 is a rear elevation of my said machine having the rear plate thereof removed. Fig. 3 is a vertical section taken on dotted line 3 3, Fig. 2, looking in the direction indicated by the arrows. Fig. 4 is a horizontal section taken on dotted line 4 4, Fig. 3, looking in the direction indicated by the arrows. Fig. 5 is a perspective view of one of the cartons employed in my improved machine.

My invention is preferably housed in a suitable case A, which may be of any suitable design, although shown in the drawings to be rectangular in shape. Near the upper right-hand corner of the case it is provided with a coin-chute B, which may be of any suitable construction so long as it will permit of a suitable coin to be inserted therein and by gravity or otherwise convey, direct, or deliver said coin into the vertically-disposed chute C. This chute C is preferably located about midway between the sides of the case back of the front plate of the same and inclines somewhat to the rear, and a coin fall-

ing into it will be discharged from its lower end edgewise onto the lateral offset *a* of a forwardly-inclined bracket D immediately in front of a suitable transverse shoulder *b* in said offset and reclining against the vertically-disposed flat side of an arm E, which projects laterally across offset *a* of the bracket from a rotary reciprocal head *e*. This arm E is preferably quadrant-shaped in cross-section, and the flat side thereof, against which the coin reclines when it falls from chute C, is in the same plane as the forward wall of said chute and in a plane striking diametrically (or nearly so) through the axis of rotation of head *e*.

Head *e* is secured on the end of a short transversely-disposed rock-shaft or spindle F, which is actuated through the medium of a crank *c*, on the end thereof nearest the side of the case, and a horizontal push-bar G, the shaft of which extends at right angles to the length of the spindle F to and through the front plate of the case and is provided with a suitable knob or push-button, as shown. The under edge or side of the rear portion of the shaft of the push-bar G is recessed at *d* to receive and establish an operative engagement with the crank-pin of crank *c*, and in order to keep said push-bar at the limit of its forward movement a coil contraction-spring *g* connects the rear upturned end of the shaft of said push-bar to the rear of the front plate of the case in a suitable manner, substantially as shown in the drawings.

Now when the rearward pressure which it is necessary to exert against the push-bar in order to operate my improved machine is removed arm E will move toward its original position until the flat side thereof, at right angles to that against which the coin impinges, strikes against bracket D. When the coin has been deposited in the machine and the push-bar is depressed, arm E (between the axial angle of which and shoulder *b* the lower edge of the coin is retained) will cause said coin to swing with its lower edge as its pivot to the rear until said coin is substantially parallel to the incline of the bracket, whereupon it will slide or gravitate down the inclined

surface of the offset off the forward edge of the same into the bottom of the case or into some suitable receptacle placed therein to receive the same. It is this swinging movement
 5 of the coin toward the rear of the machine that is utilized to expel the package or carton containing the commodity from the case. In order to utilize this movement of the coin, I provide a vertical hopper H, the width and
 10 depth of which corresponds to the length and width, respectively, of the package or carton containing the matches. The lower end of this hopper rests upon the rear portion of a platform L, extending rearward from the front
 15 plate of the case A in a horizontal plane touching the uppermost segment of the periphery described by arm E, and it is provided with an opening or recess M therein, up through which the part of the coin projecting beyond
 20 the periphery described by arm E passes when it is swung to the rear, and when the coin so moves it bears against and pushes the lowermost carton or package off of the rear edge of the platform L into a suitable inclosed pas-
 25 sage K, by which it is directed to an opening I of suitable proportions in the bottom of case A. When the carton or package falls through opening I, it drops into a suitable receptacle

J, from which it can be easily removed by the purchaser. 30

What I claim as new is—

1. A coin-operated vending-machine comprising a suitable hopper having an opening in its bottom, a vertically-disposed inclined coin-chute, a forwardly-inclined bracket lo- 35 cated beneath said coin-chute, and supported by the casing of said machine having a transverse shoulder upon which the coin discharged from said chute is originally supported edge- 40 wise in front of said shoulder, and a rotary reciprocal device having a flat surface in substantially the same plane as said chute against which said coin reclines when it is at rest, as and for the purposes set forth.

2. A coin-operated vending-machine com- 45 prising a suitable hopper having an opening in its bottom, a vertically-disposed coin-chute, a forwardly-inclined bracket beneath the same having a transverse shoulder and supported by the casing of the machine, a rotary recip- 50 rocal quadrant-shaped arm having a flat side in the same plane as said chute.

CHARLES T. FRANTZ.

Witnesses:

W. BUCHANAN,
 E. K. LUNDY.