No. 832,204. PATENTED OCT. 2, 1906.

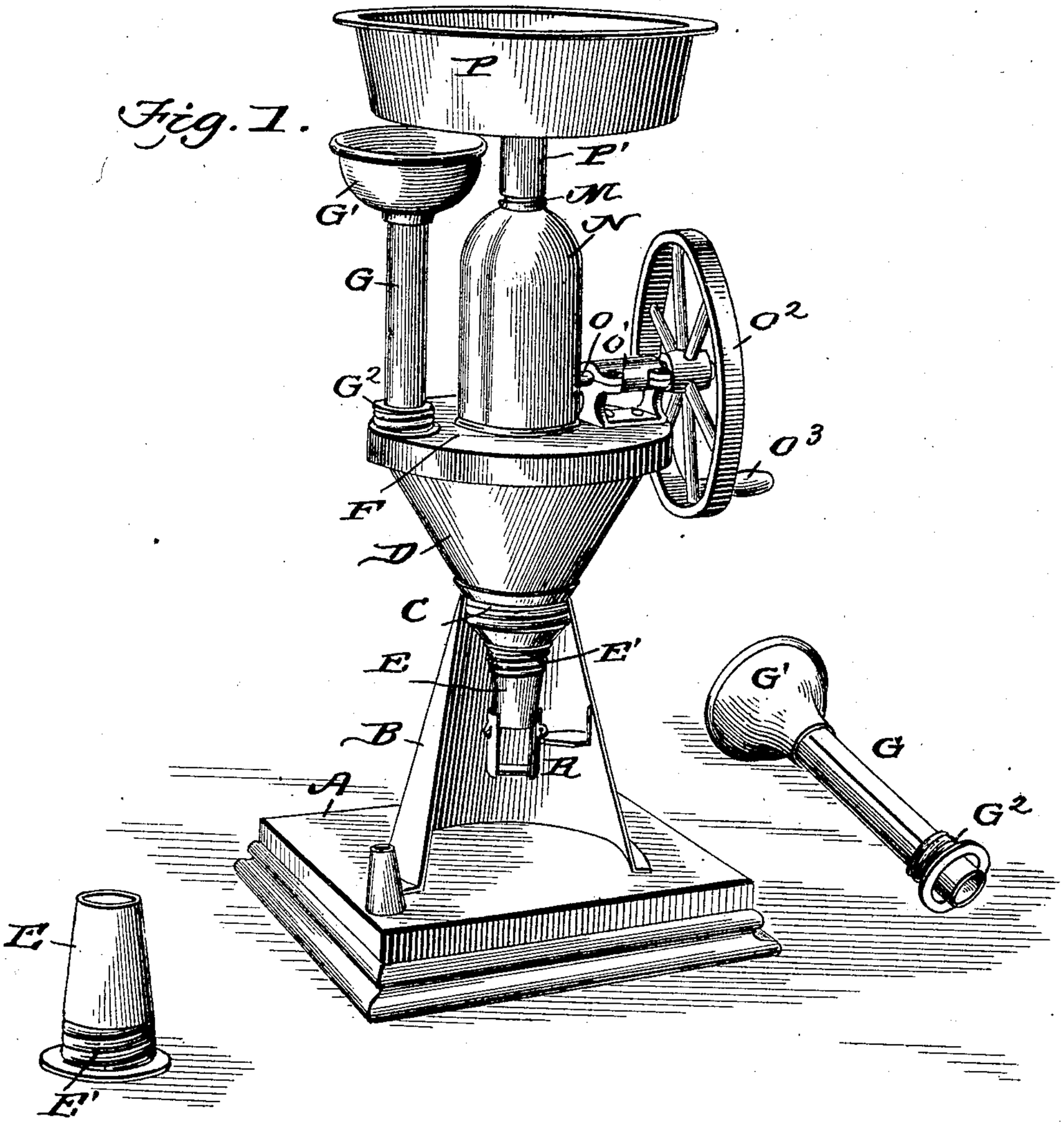
E. LINDLEY.

COIN COUNTER.

APPLICATION FILED JAN. 18, 1904.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses
M. T. Bloodel.
C. Shaw

Inventor
E. Lindley.
By Dinsmore & Brock
Attorneys

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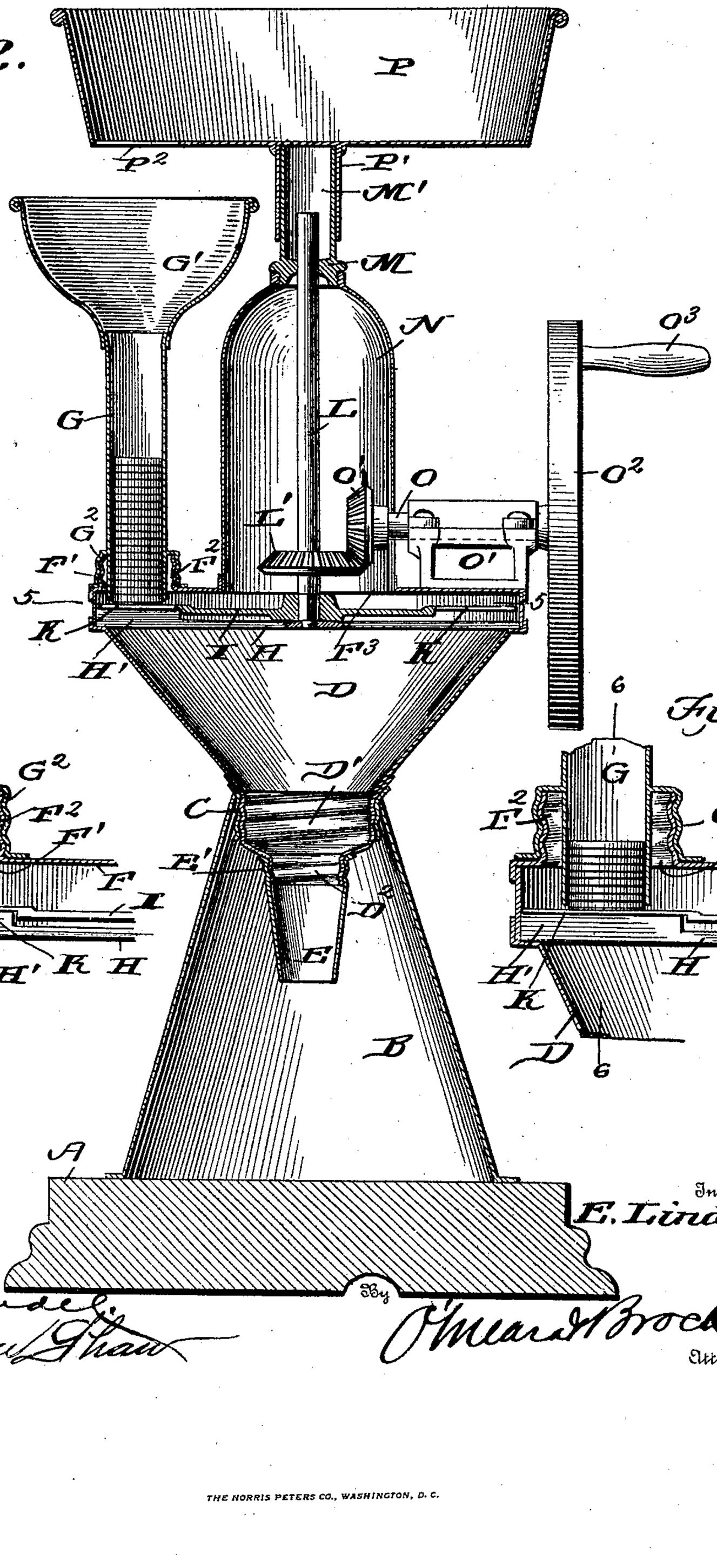
3 SHEETS—SHEET 2.

Fig. 2.



Witnesses

M. D. Blondel

Chas. L. Thad

Inventor

E. Lindley.

By

O'Meara & Brock

Attorneys

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3 SHEETS—SHEET 3.

Fig. 5.

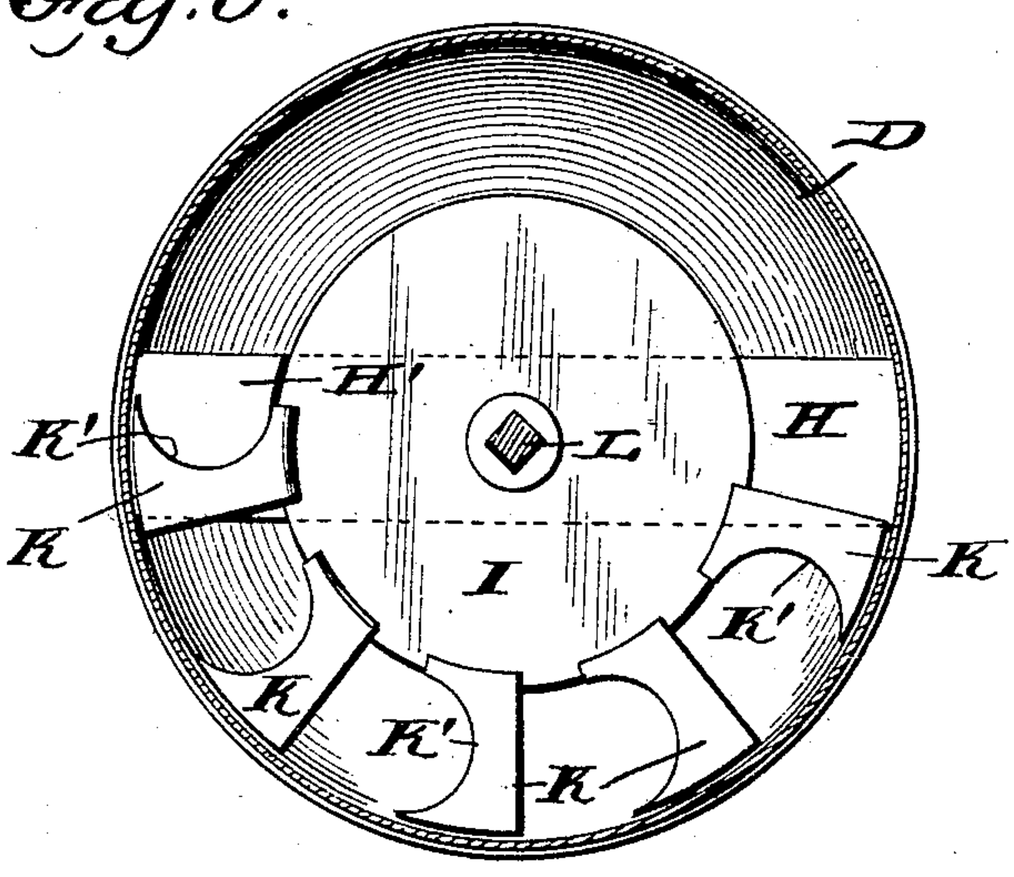
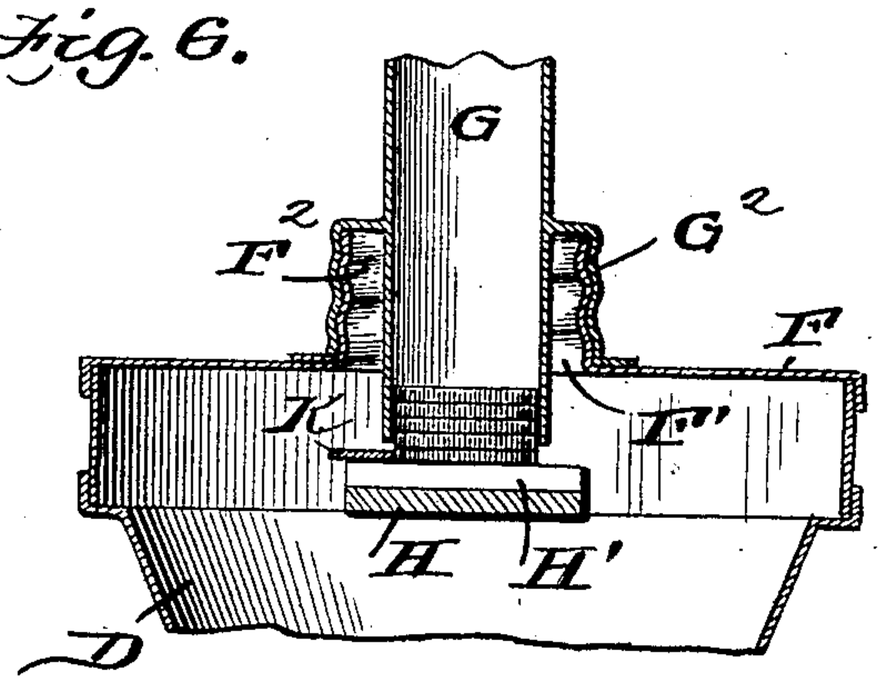


Fig. 6.



Witnesses
M. D. Blondel.
Clarence Shaw

Inventor
E. Lindley.
By Edward Brock
Attorney

UNITED STATES PATENT OFFICE.

ERNEST LINDLEY, OF KIRKWOOD, ILLINOIS, ASSIGNOR OF ONE-HALF TO WILLIAM E. FIELMAN, OF KIRKWOOD, ILLINOIS.

COIN-COUNTER.

No. 832,204. Specification of Letters Patent. Patented Oct. 2, 1906.

Application filed January 18, 1904. Serial No. 189,477.

To all whom it may concern:

Be it known that I, ERNEST LINDLEY, a citizen of the United States, residing at Kirkwood, in the county of Warren and State of Illinois, have invented a new and useful Coin-Counter, of which the following is a specification.

This invention is a combined coin counter and wrapper, the object of the invention being to provide a machine by means of which coins of any denomination can be mechanically counted out in any desired number and mechanically arranged or packed in a wrapper, thereby avoiding the tiresome operation of counting out the coins by hand and then wrapping them in the ordinary paper coin-wrappers.

Another object of my invention is to provide a machine which can be quickly and easily changed or adjusted to accommodate different coins of different denominations, it being necessary to change only the coin receiving and delivering tubes to effect the complete change in the machine.

With these and various other objects in view my invention consists, essentially, in the employment of a coin-receiving tube and plate, a rotary disk or wheel carrying a definite number of wiper-fingers adapted to act upon the coins and wipe them from the plate one at a time, a delivery-tube into which they are discharged, and a wrapper adapted to be attached to the lower end of the delivery-tube to receive and hold the counted coins, each revolution of the disk or wheel serving to discharge or count out a definite number of coins.

The invention consists also in providing interchangeable receiving and delivery tubes to accommodate the coins of different denominations; and the invention consists, still further, in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a machine constructed in accordance with my invention and also illustrating an additional coin-receiving tube and also an additional coin-delivery tube and an empty and a filled wrapper. Fig. 2 is a vertical sectional view taken through the machine. Figs. 3 and 4 are detail sectional views showing different sizes of receiving-tubes. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 2. Fig. 6 is a detail sectional view on the line 6 6 of Fig. 4.

In constructing the machine in accordance with my invention I employ a base A, which may be of any suitable size and shape and upon which is arranged a support B, which is preferably made tapering toward its upper end and carries at said upper end a threaded ring C, into which screws the threaded lower portion D′ of the funnel-shaped body D, the extreme lower end of said funnel-shaped body portion extending some distance down into the support B and considerably reduced in diameter and provided with an exterior thread, as shown at D^2, said lower end being open, as shown, to discharge the coins into the coin-delivery tube E, which is threaded at its upper end, as shown at E′, so that the said delivery-tube can be connected to the discharge end of the funnel-shaped portion D.

It will of course be understood that the main portion of the delivery-tube is made to conform to the diameter of the coin which passes therethrough, and a series of interchangeable different-sized delivery-tubes will be provided for each machine, the upper threaded end, however, being the same in each tube, so that they can be used interchangeably upon the reduced threaded end of the funnel-shaped body portion, thereby rendering the machine capable of counting and delivering coins of different denominations.

The funnel-shaped body portion D is closed at the upper end by means of a flat circular top F, having an opening F′ adjacent the edge, said opening surrounded by a threaded collar F^2, upon which screws the threaded sleeve G^2, connected to the coin-receiving tube G adjacent its lower end, the upper end of said tube having a cup G′ arranged thereon, into which coins to be counted are dropped, said coins passing down through the coin-receiving tube in horizontal series, the bottom one resting upon the coin-receiving plate H, arranged in the body portion D, said plate extending diametrically across the body portion adjacent the top, said plate having a raised portion H′ directly beneath the opening F′, and upon which the lowermost coin rests, and it will be noted that the

bottom of the coin-receiving tube is held above this coin-rest H′ a distance slightly greater than the thickness of the coin being counted, but less than the thickness of two coins, so that by the operation of a mechanism hereinafter described the bottom coin can be moved from the rest and dropped down into the body portion and through the delivery-tube and that simultaneously with the removal of one coin from the rest will be the deposit of the next succeeding coin upon the said rest.

It will of course be understood that the coin-receiving tube will be of the proper diameter to receive a coin of a definite denomination and also that its threaded sleeve G^2 is arranged at the proper distance from the end of the tube so that when the said receiving-tube is attached to the body portion its lower end will rest the proper distance above the coin-rest H′. Each machine will be provided with a number of coin-receiving tubes, one for each denomination, and inasmuch as the threaded sleeves G^2 are all of the same diameter it is obvious that the said coin-receiving tube can be used interchangeably.

For the purpose of moving the coins from the coin-rest one at a time I employ a rotary disk or wheel I, carrying a definite number of wiper-fingers K, the said fingers being cut away at one side, as shown at K′, in order to facilitate the engagement of the said wiper-fingers with the coin. These fingers pass over the rest H′ and under the lower end of the receiving-tube G and engage the bottom coin, wiping it from the rest, whence it drops into the funnel-shaped body portion and passes on down into the delivery-tube E for a purpose hereinafter explained. The rotary disk or wheel I is mounted upon a vertical shaft L, which has its lower end journaled in the plate H, the upper end of said shaft being journaled in a bearing M, which fits in the upper end of a dome-like casing N, which is arranged in the central opening F^3, produced in the top F of the body portion D, said dome-like casing being rigidly connected to the said top. The shaft L has a beveled gear L′ mounted thereon, which meshes with a beveled gear O′, mounted upon the end of a shaft O, which extends into the casing N, said shaft being journaled in a bracket O′, mounted upon the top F, and is provided with a wheel O^2 upon its outer end, said wheel being provided with a suitable crank-handle O^3, by means of which the machine is operated, it being understood that by turning the crank the shaft O is rotated, and the rotation of this shaft communicates motion to the shaft L, which in turn rotates the disk or wheel carrying the wiper-fingers, and as the said disk or wheel is provided with a definite number of fingers and inasmuch as they are arranged all upon one side of the diameter of the disk or wheel each revolution of the crank-wheel will serve to remove the predetermined number of coins from the receiving-tube and deliver them to the delivery-tube.

The bearing M is preferably constructed with a tubular extension M′, upon which fits the sleeve P′, depending centrally from the hopper P, into which the coins are first placed, said hopper having an opening P^2 at one side directly over the cup C′ of the receiving-tube. The coins are first dumped into the hopper P and then pushed by hand toward the opening P^2, where they drop through into the cup G′. Thus it will be seen that the coins can be fed to the machine in bulk or indiscriminate numbers and will be fed from the machine in definite numbers or in multiples. In order to receive and hold the coins thus counted by the machine, I employ a coin-wrapper R, which is held at the lower end of the delivery-tube and is adapted to receive a definite number of coins, and inasmuch as each machine is provided with interchangeable different-sized receiving and delivery tubes there will also be different-sized coin-wrappers, so that with each size delivery-tube there will be a corresponding wrapper, which will snugly fit upon the lower end of the said delivery-tube.

It will thus be seen that I provide an exceedingly simple and efficient machine by means of which coins of various denominations can be easily and rapidly counted and wrapped, as it is only necessary to feed the coins to the machine, place the wrapper upon the end of the delivery-tube, and turn the crank, and when it is desired to count coins of a different denomination it is only necessary to change the receiving and delivery tubes and arrange the proper wrapper at the end of the delivery-tube and then proceed as before described.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a machine of the kind described, the combination with the funnel-shaped body portion having a reduced and threaded lower end, of the detachable delivery-tubes each having its upper end threaded, and adapted to fit upon the lower end of the body portion, the lower end of each delivery-tube being of a size to correspond with the size of the coin it is intended to deliver, means for collecting the coins at the end of the delivery-tube, together with means for feeding the coins to the funnel-shaped body portion in definite quantities.

2. In a machine of the kind described, the combination with the funnel-shaped body portion closed at the top, the said top having an opening adjacent the edge, said opening being surrounded by a threaded collar, of the detachable interchangeable receiving-tubes, each receiving-tube having a threaded sleeve arranged adjacent its lower end, and adapt-

ed to engage the threaded collar, the diameter of the tube and the position of the threaded sleeve being regulated according to the coin which the tube is to receive, a coin-rest arranged within the body portion below the lower end of the receiving-tube, and means adapted to pass between the said coin-rest and end of tube for the purpose of removing the bottom coin from the rest.

3. In a machine of the kind described, the combination with the body portion, of the detachable interchangeable coin-receiving tubes adapted to be connected to the top of the body portion, the detachable interchangeable delivery-tubes adapted to be connected to the lower end of the body portion, the coin-rest arranged in the body portion below the end of the receiving-tube, the rotatory disk carrying a plurality of wiper-fingers, all upon one side of the diametrical line of said disk, means for rotating said disk, and a coin-wrapper adapted to be arranged at the end of the delivery-tube, as set forth.

4. A machine of the kind described, comprising a base and a support, said support having a ring at its upper end, a funnel-shaped body portion fitting in said ring, and having its lower end reduced and threaded, the detachable interchangeable delivery-tubes adapted to be connected to the said lower end of the body, the top of said body portion being closed, the detachable interchangeable coin-receiving tubes adapted to be connected to the top of the body, each receiving-tube having a cup at its upper end, and a collar adjacent its lower end, a coin-rest arranged within the body and below the end of the receiving-tube, the rotary disk carrying wiper-fingers the shaft upon which the disk is mounted, the gear carried by said shaft, and meshing with a gear carried by a horizontal shaft journaled in brackets upon the top of the body, the operating-wheel arranged upon the outer end of said horizontal shaft, the dome-like casing arranged upon the top and having a bearing at its upper end for the upper end of the vertical shaft, said bearing having a tubular extension, and the hopper having a depending sleeve, adapted to fit upon said tubular extension, said hopper having an opening in the bottom, adjacent the side for the purpose set forth.

ERNEST LINDLEY.

Witnesses:
WILLIAM E. FIELMAN,
R. H. MCLOSKEY.