

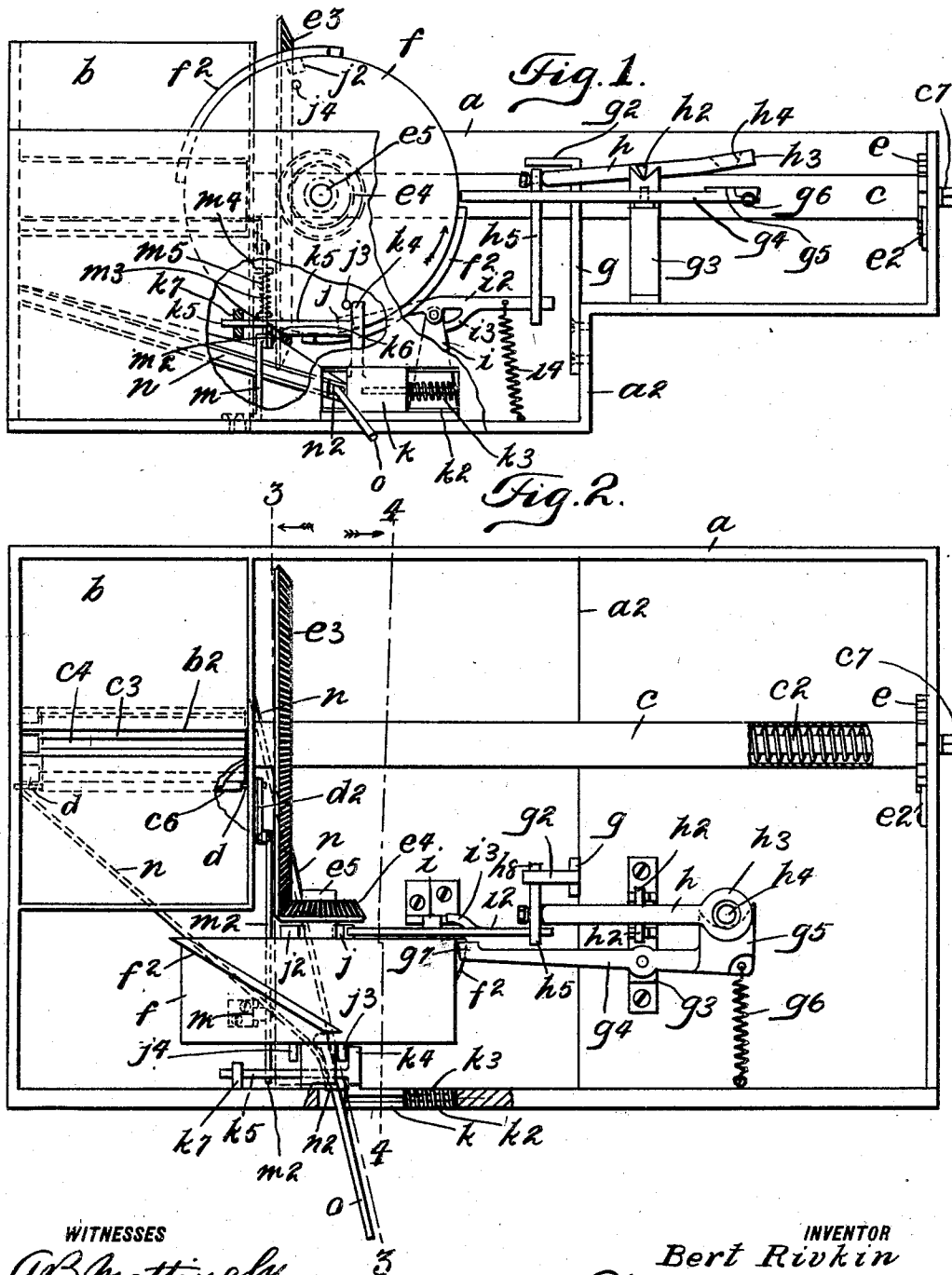
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B. RIVKIN.
COMBINATION MATCH SAFE AND CIGAR CUTTER.

APPLICATION FILED JULY 12, 1904.

2 SHEETS—SHEET 1.



WITNESSES

A. B. Mattingly
J. A. Stewart

INVENTOR

Bert Rivkin

Edgar Sale & Co

BY

ATTORNEYS

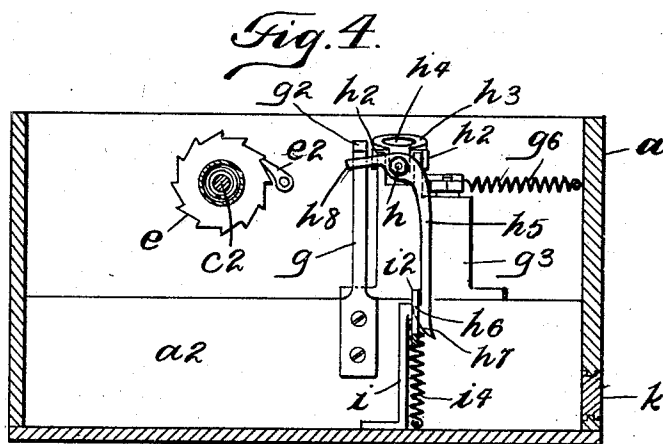
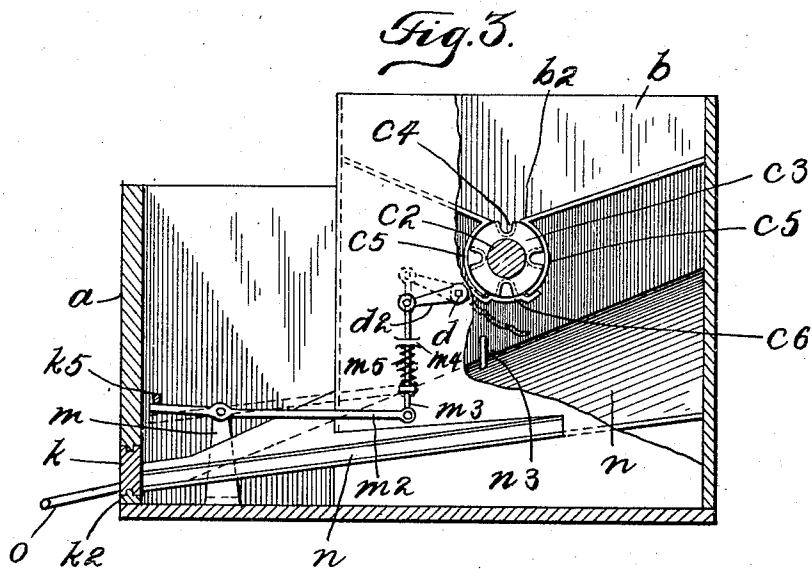
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PATENTED APR. 25, 1905.

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COMBINATION MATCH SAFE AND CIGAR CUTTER.

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2 SHEETS—SHEET 2.



WITNESSES

Ad3 Mattingly
Ed3 Stewart

INVENTOR

Bert Rivkin

Edgar S. K. Co

BY

ATTORNEYS

UNITED STATES PATENT OFFICE.

BERT RIVKIN, OF NEW YORK, N. Y.

COMBINATION MATCH-SAFE AND CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 788,331, dated April 25, 1905.

Application filed July 12, 1904. Serial No. 216,217.

To all whom it may concern:

Be it known that I, BERT RIVKIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in a Combination Match-Safe and Cigar-Cutter, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to match-safes and cigar-cutters; and the object thereof is to provide an improved combination device of this class which may be operated to cut off the tip of a cigar and at the same time discharge or partially discharge a single match, the construction and arrangement being such that the match is partially discharged automatically and is ignited when fully withdrawn; and with this and other objects in view the invention consists in a device of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of my improved combination cigar-cutter and match-safe, one side thereof being partially broken away, so as to better show the interior construction; Fig. 2, a plan view with parts broken away; Fig. 3, a section on the line 3 3 of Fig. 2, and Fig. 4 a section on the line 4 4 of Fig. 2.

In the practice of my invention I provide a main oblong rectangular box or case *a*, in the upper left-hand corner of which is a match-receptacle *b*, which in the form of construction shown extends above the top of the main box or case *a*, and the bottom of which is inclined from the front and back downwardly to the middle thereof and provided with an opening *b*², which ranges longitudinally of the main box or case *a*.

Beneath the opening *b*² in the bottom of the match-receptacle *b* and ranging longitudinally of the main box or case is a spring-roller *c*, provided with a central shaft *c*², and a

drum *c*³, having longitudinal grooves or recesses *c*⁴, spaced at regular intervals, and four of which are shown, and the grooves or recesses *c*⁴ are adapted to receive a match from the box or receptacle *b*, and said drum is incased on its opposite sides by segmental casings *c*⁵, and beneath said drum is a trap-door *c*⁶, secured to a shaft *d*, mounted parallel with the opening *b*² in the bottom of the match-receptacle *b* and provided at its inner end with a crank *d*².

The spring-roller *c* is of the ordinary spring-roller type and is adapted to be wound up by a key applied to the right-hand end thereof, which is formed for this purpose, as shown at *e*⁷, and said roller is provided with a ratchet-wheel *e*, having a pawl *e*², whereby the backward movement of said roller is prevented, and mounted on said roller adjacent to the match-receptacle *b* is a large gear-wheel *e*³, of which said roller forms the shaft, and the gear-wheel *e*³ meshes with a smaller gear-wheel *e*⁴, mounted adjacent to the inner corner of the match-receptacle *b* on a shaft *e*⁵ at right angles to the shaft of the wheel *e*³, and a drum *f* is mounted on the shaft *e*⁵, and said drum *f* is provided with two diagonally-arranged flanges or ribs *f*², which are arranged at opposite points on the perimeter thereof.

In the form of construction shown the right-hand end of the main case or box is of less depth than the remainder thereof, the bottom thereof being raised vertically, as shown at *a*², and secured to the vertically-arranged portion *a*² of the bottom of the main box or case is an upright *g*, having a finger *g*², which extends to the left, and at the right of the upright *g* is a standard *g*³, on which is pivoted a lever *g*⁴, the right-hand end of which is provided with a cutting-blade *g*⁵, and secured to the right-hand end of said lever is a contractile spring *g*⁶, which is also secured to the front side of the main box or case. The left-hand or longer arm of the lever *g*⁴ is provided with a head *g*⁷, adapted to operate in connection with the flanges or ribs *f*² on the drum *f*, and the rotation of the drum *f* will swing said lever *g*⁴ in a horizontal plane.

On the inner side of the lever *g*⁴ a part of the standard *g* is slightly higher than that

part thereof on which the lever g^4 is pivoted, and a supplemental lever h is pivoted thereon, as shown at h^2 , in such a manner as to spring in a vertical plane, and the right-hand end of the lever h is provided with a circular head h^3 , having an opening h^4 , through which the tip of a cigar may be inserted, and the longer or left-hand arm of the lever h is loosely connected with a crank-lever h^5 , the longer arm of which extends downwardly and is provided with an inwardly-directed tooth h^6 and a beveled head h^7 , and the shorter end of the crank-lever h^5 is directed backwardly, as shown at h^8 , and is adapted to operate in connection with the finger g^2 of the upright g .

Between the left-hand end of the lever h and the gear-wheel e^4 on the shaft e^2 is a standard i , to the top of which is pivoted a lever i^2 , having a finger i^3 , which is adapted to strike against the standard i and limit the downward movement of the right-hand end of said lever, and the lever i^2 ranges parallel with the lever g^4 , and the right-hand end thereof ranges transversely and backwardly of the longer arm of the crank-lever h^5 , and the right-hand end or arm of the lever i^2 is connected with the bottom of the main box or case by a spring i^4 .

The drum f is provided on its inner side at opposite points with two lugs or projections j and j^2 , (shown in full lines in Fig. 2 and in dotted lines in Fig. 1.) and these lugs or projections operate, as hereinafter described, in connection with the left-hand arm of the lever i^2 , and said drum is provided on the outer or front side thereof and at opposite points with pins or projections j^3 and j^4 . (Shown in full lines in Fig. 2 and in dotted lines in Fig. 1.) Mounted in the front side of the box or case a is a slide k , which is mounted in an oblong rectangular slot or opening k^2 in said front side of the main box or case, and between said slide and the right-hand end of the slot or opening k^2 is a spring k^3 , which serves at all times to force said slide to the left, and the slide k is provided with an upright arm k^4 , which sets inwardly therefrom and in connection with which the pins j^3 and j^4 on the drum f operate, and said arm k^4 is provided with a supplemental arm k^5 , which extends to the left and which is provided on its underside with a cam-surface k^6 , and the end thereof is reduced in size and passes through a support k^7 , connected with the front side of the main box or case, and in the operation of the drum f the slide k is moved to the right by the pins or projections j^3 and j^4 and to the left by the spring k^3 .

At the left of the shaft e^5 of the drum f is a standard m , to the top of which is pivoted a lever m^2 , the longer arm of which projects to the right and is connected with a vertically-arranged rod m^3 , which passes through keepers m^4 , secured to the right side of the match-

receptacle, and which is connected with the crank d^2 of the shaft d , and between the keepers m^4 is a spring m^5 , which normally serves to depress the rod m^3 and the right-hand arm or end of the lever m^2 , and the left-hand end or shorter arm of the lever m^2 passes beneath the supplemental arm k^5 of the upright arm k^4 of the slide k and is operated upon by the cam-surface k^6 of said arm k^5 .

Beneath the match-receptacle b is a triangular chute n , the wider end of which is beneath the drum c^3 and the narrower end of which is directly inside of the left-hand end of the slot or opening k^2 , in which the slide k is mounted, and said narrower end of said chute is formed in a neck n^2 , through which a match o is adapted to pass, and at the back of the wider end of the chute n is a pin n^3 , and when a match is dropped from the drum c^3 the head thereof will strike against the pin n^3 , and the other end of the match will turn downwardly in the chute n and transversely of the main box or case, and said match will slide down transversely of the main box or case, and if the left-hand end of the slot or opening k^2 is not closed by the slide k the end of the match will be projected, as shown in Figs. 1 and 2.

In the operation of this apparatus the shaft e^2 of the spring-roller c is wound up in the usual manner, and the said spring-roller c , which constitutes the shaft of the gear e^3 , is always under tension, and in practice the receptacle b is filled or partially filled with matches, the heads thereof being directed to the left, and these matches roll downwardly from both sides in the direction of the opening b^2 in the bottom of the receptacle, and one of the matches will always lodge in one of the grooves or recesses c^4 in the drum c^3 . If the tip of a cigar be inserted in the end h^3 of the lever h and pressure applied thereto, the said end of the lever h will be depressed, the left-hand end of said lever will be raised, the crank-lever h^5 will also be slightly raised, and the right-hand end of the lever i^2 will be raised, and the left-hand end thereof will be disconnected from the lug or projection j on the drum f , and the wheel e^3 will revolve said drum through one-half of a revolution. In this operation the pressure on the right-hand end of the lever h causes the end h^3 of the lever h^5 to strike the finger g^2 of the upright member g , and this forces the lower end of the lever h^5 out of engagement with the lever i^2 , and said lever i^2 assumes its normal position, and at the end of the half-revolution of the drum f the lug or projection j^2 strikes the left-hand end of the said lever i^2 . As the drum f turns, as above described, one of the flanges or ribs f^2 operates in connection with the head g^7 of the lever g^4 and forces the cutting-blade g^5 , at the right-hand end of the lever g^4 , transversely of the bottom of the head h^3 of the lever h and cuts off the tip of the

cigar, and these parts all assume their normal positions. In the turning of the drum f , as above described, the pin j^3 strikes the arm k^4 of the slide k and forces said slide to the right, and any match that may be in the chute n will pass partially out, as shown in Figs. 1 and 2, and may be fully withdrawn by catching hold thereof with the fingers, and in the operation of withdrawing the match it is ignited by friction in the end n^2 of the chute n . At each half-revolution of the drum f the drum c^3 at the bottom of the match-receptacle turns through a quarter of a revolution, and if the trap-door c^b is not closed, as shown in full lines in Fig. 3, one match will be discharged at each quarter of a revolution of said drum. The normal position of the trap-door c^b and the parts by which it is operated is that shown in dotted lines in Fig. 3, and if a match discharged from the drum c^3 is not withdrawn from the end n^2 of the chute n the said trap-door c^b will be closed and a match cannot be discharged from the drum c^3 as long as pressure is continued on the end of the lever h ; but when the pressure is removed from said lever all the parts, including the trap-door c^b , will assume their normal position, providing the match o is withdrawn from the chute n , and the apparatus may be again operated whenever desired in the manner herein specified.

In the drawings forming part of this specification the main box or case a and the match-receptacle b are shown without a cover; but in practice a suitable cover will be provided, and this cover may be of any desired form, shape, or ornamentation, and the entire device may also be of any preferred design.

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

1. In a combination match-holder and cigar-cutter, a main box or case, a match-receptacle in one corner thereof, the bottom of which is inclined downwardly from the opposite sides thereof and provided with a longitudinal opening, a spring-roller shaft mounted longitudinally in the main box or case and provided with a drum beneath said opening and having longitudinal grooves formed therein and provided at its opposite sides with casings, a crank-shaft mounted at one side of said drum and provided with a trap-door which is adapted to inclose the bottom of said drum, a gear-wheel mounted on the spring-roller shaft, a supplemental shaft mounted at right angles to the spring-roller shaft and provided with a small gear-wheel which meshes with the first-named gear-wheel, a drum mounted on the supplemental shaft and provided at its opposite sides with diagonal flanges or ribs, a cigar-cutting lever adapted to swing in a horizontal plane and to be operated by the flanges or rims on said drum, a lever mounted adjacent to the cigar-cutting lever and in a higher plane and adapted to swing in a vertical plane and pro-

vided with a head having an opening adapted to receive the tip of a cigar, a chute arranged below the match-receptacle and extending to the front side of the main box or case and communicating with the slot or opening formed therein, devices adapted to hold the drum on the supplemental shaft against rotation, means whereby the depression of the head of the lever over the cigar-cutting lever will release said devices and permit the said drum and the spring-roller shaft to turn through a part of a revolution, and other devices operated by the drum on the supplemental shaft to actuate the crank-shaft and cause the discharge of a match from the match-receptacle and to open and close the end of said chute, substantially as shown and described.

2. In an apparatus of the class described, a main box or case, a match-receptacle mounted in one corner thereof and the bottom of which is inclined downwardly from its opposite sides and provided with an opening, a spring-roller shaft mounted longitudinally of the main box or case and provided with a drum beneath said opening and having longitudinal grooves, said drum being also inclosed at its opposite sides, a trap-door mounted beneath said drum and adapted to inclose the bottom thereof, a gear-wheel mounted on the spring-roller shaft, a supplemental shaft mounted at right angles to the spring-roller shaft and provided with a gear-wheel which meshes with the first-named gear-wheel, a drum mounted on the supplemental shaft and provided at its opposite sides with diagonal ribs, a cigar-cutting lever mounted at right angles to the supplemental shaft and adapted to be operated in a horizontal plane by the flanges or ribs on said drum, a lever mounted over the cigar-cutting lever and adapted to swing in a vertical plane and provided with a head having an opening adapted to receive the tip of a cigar, a chute mounted beneath the match-receptacle and extending to the front of the main box or case and communicating with a slot or opening formed therein, a slide mounted in said slot or opening and adapted to close the end of said chute, devices whereby the drum on the supplemental shaft is locked against rotation, means whereby the depression of the head of the lever over the cigar-cutting lever will release said devices and allow said drum and the spring-roller shaft to turn through part of a revolution, and other devices actuated by said drum for operating the trap-door at the bottom of the drum on the spring-roller shaft and also for operating said slide, substantially as shown and described.

3. In a device of the class described, a main box or case, a match-receptacle mounted in one corner thereof and the bottom of which is provided with an opening toward which said bottom is inclined from the opposite sides of the match-receptacle, a spring-roller shaft

mounted in the main box or case and provided with a drum beneath the opening in the match-receptacle and having longitudinal grooves adapted to receive matches, said drum being
 5 provided at its opposite sides with casings, a trap-door mounted beneath said drum and adapted to close the bottom thereof, a chute mounted beneath the match-receptacle and extending to the front of the main box or case
 10 and communicating with a slot or opening formed therein, means for holding the spring-roller shaft against rotation, devices for cutting off the tip of a cigar and for allowing the said shaft to rotate through part of a revolution, and other devices for operating the trap-
 15 door beneath the drum on the spring-roller shaft and for discharging a match in said chute, substantially as shown and described.

4. In an apparatus of the class described, a
 20 main box or case, a match-receptacle mounted in one corner thereof and provided in the bottom thereof with an opening toward which the opposite sides of said bottom are inclined, a spring-roller shaft mounted in the main box
 25 and provided with a drum beneath the opening in the bottom of the match-receptacle, said drum being provided longitudinally with grooves, and at the opposite sides thereof with segmental casings, a supplemental
 30 shaft mounted at right angles to the spring-roller shaft and geared in connection therewith, a drum mounted on the supplemental shaft, a cigar-cutting lever pivoted adjacent to said drum and adapted to swing in a horizontal
 35 plane and to be operated by said drum, another lever mounted over the cigar-cutting lever and provided with a head having an opening adapted to receive the tip of a cigar, a chute placed beneath the match-receptacle
 40 and extending to the front of the main box or case and communicating with a slot or opening formed therein, a slide mounted in said slot or opening and adapted to close the end of said chute, devices operating to prevent the rotation of the supplemental shaft,
 45 means whereby the depression of the head of the lever over the cigar-cutting lever will actuate said devices and permit the supplemental shaft to turn through part of a revolution, and devices connected with said drum to operate
 50 said slide, substantially as shown and described.

5. In an apparatus of the class described, a
 55 main box or case, a cigar-cutting lever pivoted therein and adapted to swing in a horizontal plane, a supplemental lever pivoted over the horizontal lever and provided with a head

having an opening adapted to receive the tip of a cigar and to be depressed by the cigar, a
 60 shaft mounted at right angles to the cigar-cutting lever, a drum mounted on said shaft and adapted to operate said lever, a match-receptacle mounted in one corner of the main box or case, a chute arranged thereunder and extending to the front side of the main box
 65 or case and communicating with a slot or opening formed therein, devices whereby the depression of one end of the supplemental lever will rotate said shaft and the drum mounted thereon and operate the cigar-cutting lever,
 70 and other devices operated by said drum for discharging a match from said receptacle into said chute and for opening and closing the end of said chute, substantially as shown and described.

6. In an apparatus of the class described, a
 cigar-cutting lever adapted to swing in a horizontal plane, a supplemental lever mounted
 80 thereover and provided with a head having a hole adapted to receive the tip of a cigar, the head of said lever being adapted to be depressed in a vertical plane by the insertion of the tip of a cigar, a shaft mounted at right angles to the cigar-cutting lever and provided
 85 with a drum adapted to operate said lever, a match-receptacle in one corner of the main box or case and provided in the bottom with an opening toward which said bottom is inclined from the opposite sides of the receptacle, a spring-roller shaft mounted in the main
 90 box or case and provided with a drum beneath the opening in the bottom of the match-receptacle and having longitudinal grooves, a gear-wheel mounted on the spring-roller shaft and geared in connection with the first-named
 95 shaft, devices for locking the said shafts against rotation and adapted to be operated by the depression of the head of the supplemental lever, and other devices operated by the drum on the first-named shaft to discharge a match
 100 from the receptacle, a chute arranged beneath said receptacle and extending to the front of the main box or case and communicating with a slot formed therein, and devices operated by said drum for opening and closing said
 105 chute, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 8th day of July, 1904.

BERT RIVKIN.

Witnesses:

F. A. STEWART,
 C. J. KLEIN.