(No Model.)

S. H. DICKERSON & F. S. GILBERT.

MATCH DELIVERING DEVICE.

No. 542,333. Patented July 9, 1895.

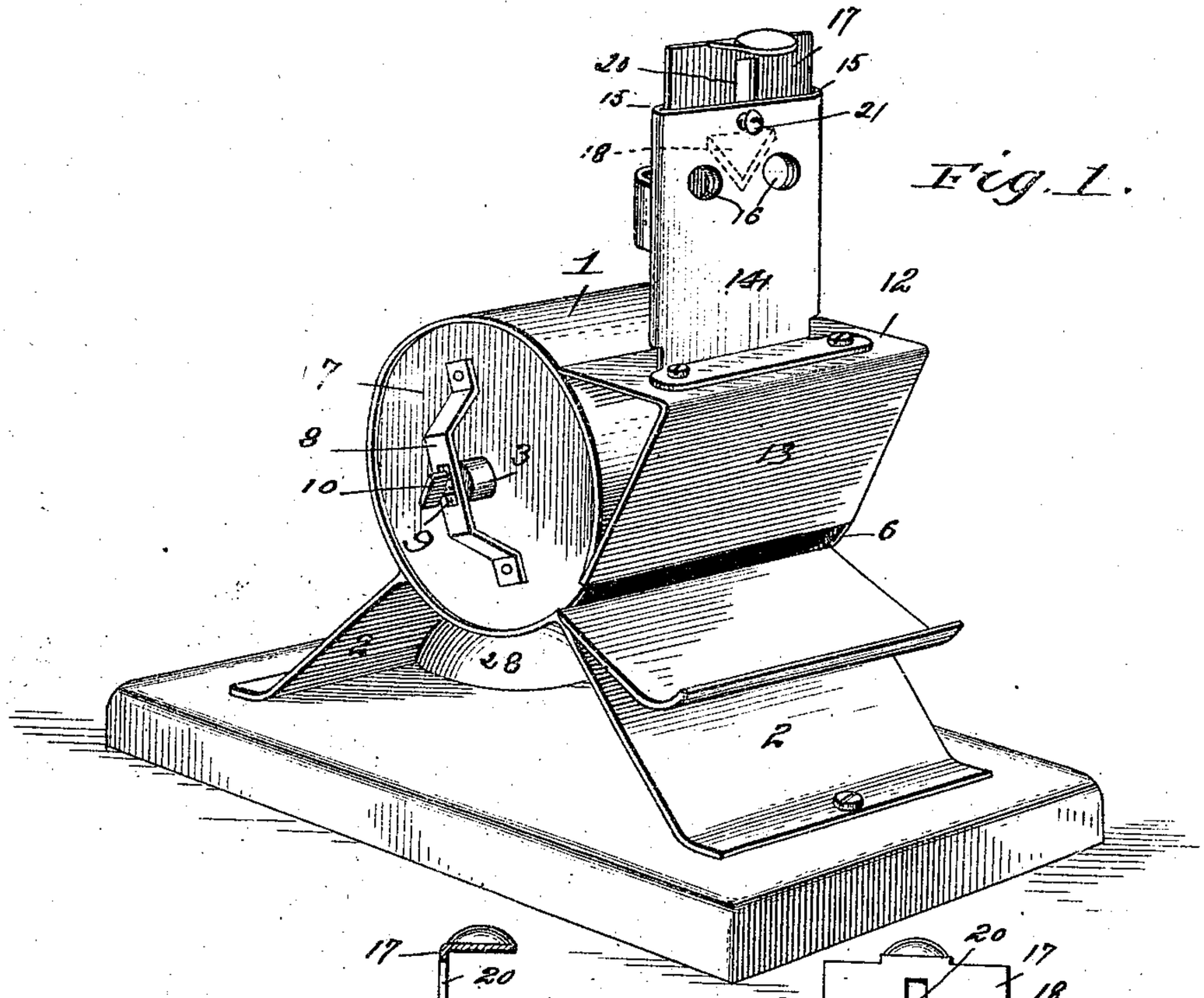

Fig. 1.

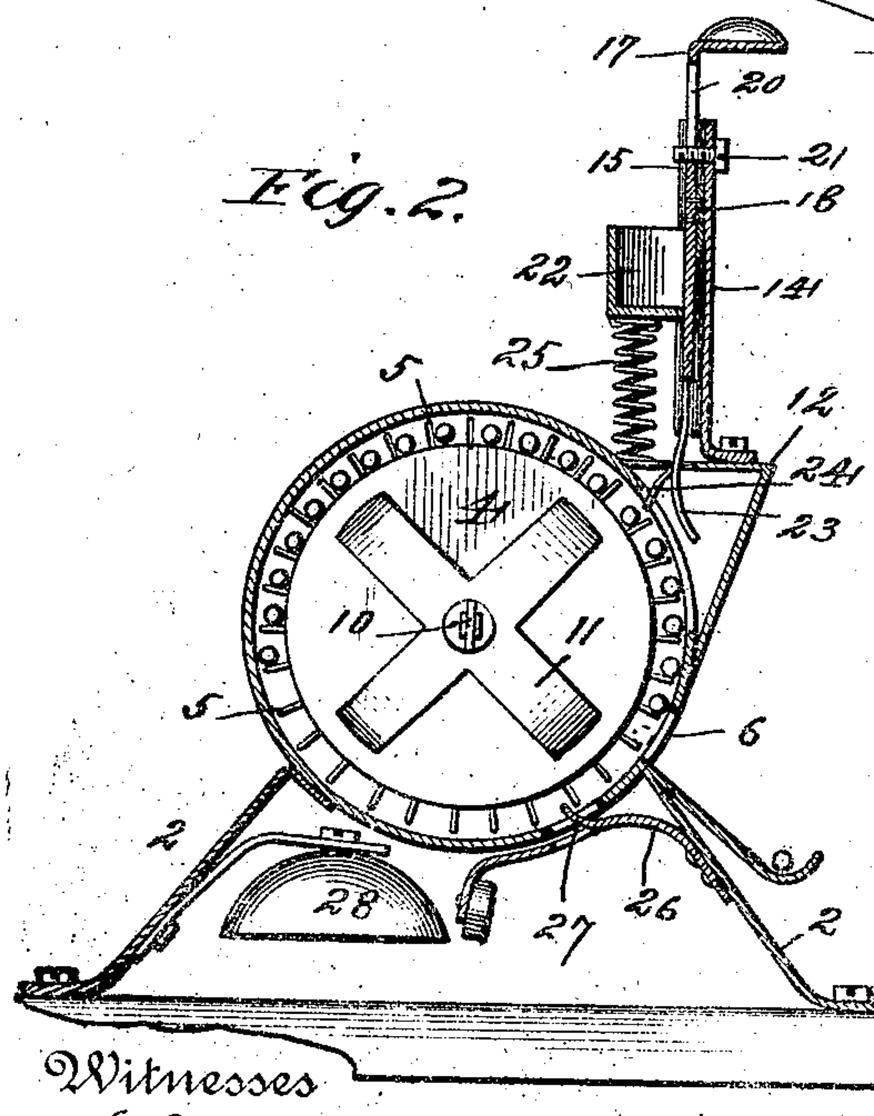

Fig. 2.

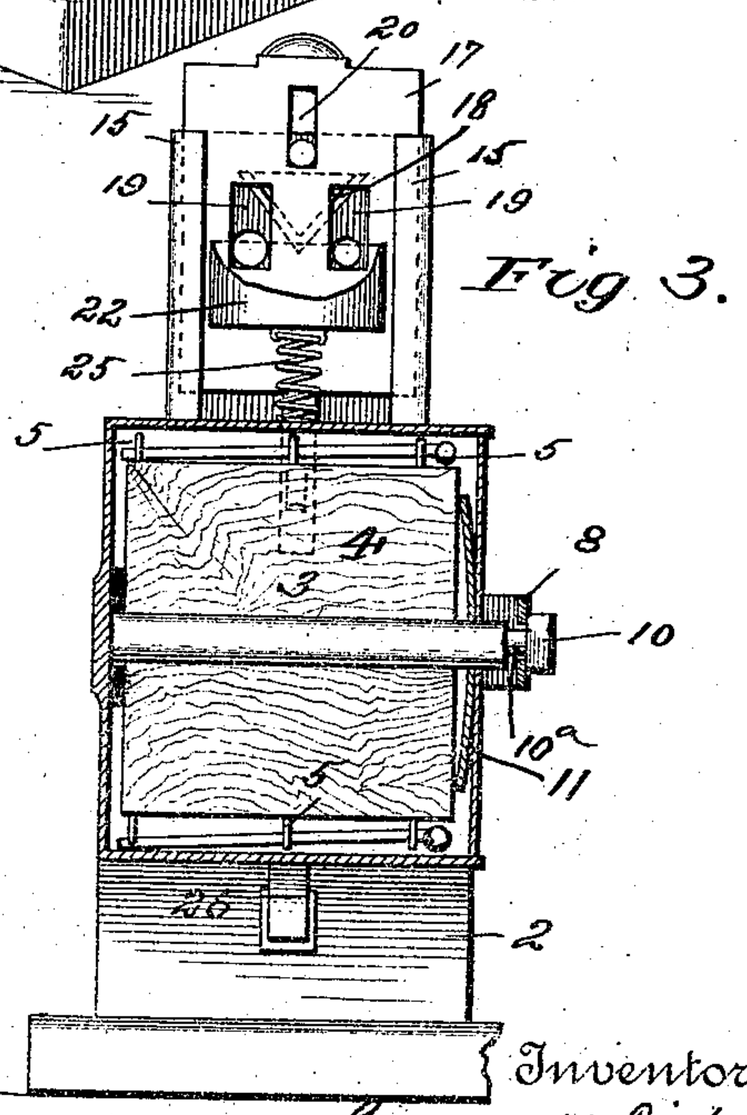

Fig. 3.

Witnesses
Chas. Wm. Burdett
C. Sedgwick.

Inventors
Samuel H. Dickerson
Frank S. Gilbert
By Alexander & Davis
Their Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL H. DICKERSON AND FRANK S. GILBERT, OF CLEVELAND, OHIO.

MATCH-DELIVERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 542,333, dated July 9, 1895.

Application filed September 10, 1894. Serial No. 522,629. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL H. DICKERSON and FRANK S. GILBERT, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Match-Delivering Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to certain new and useful improvements in match-safes; and its objects are to provide an improved and compact device whereby matches can be delivered singly from a receptacle upon the depression of a spring-actuated slide, and also to secure a cutter to this reciprocating slide whereby the end of a cigar may be clipped off simultaneously with the delivery of the match.

Another object of the invention is to provide an automatic alarm mechanism which will operate at the delivery of each match to give notice that a match has been drawn from the match-receptacle.

The invention consists of the novel combination and construction of parts of the device, which will be hereinafter specifically described, and particularly pointed out in the claims appended.

In the drawings, Figure 1 is a perspective view of the match-safe; Fig. 2, a longitudinal vertical sectional view thereof, and Fig. 3 a transverse vertical sectional view of the device.

Referring to the various parts by numerals, 1 designates a cylindrical receptacle, of a suitable diameter, supported in a horizontal position by means of the two legs or supports 2, which are secured to a suitable base. The receptacle 1 is closed at one of its vertical ends and open at its other, and from the center of the closed end a stationary shaft 3 projects inwardly through the receptacle and extends out slightly beyond the open end thereof. On this shaft and within the receptacle is loosely mounted the cylinder 4, which is of a diameter slightly less than the internal diameter of the receptacle 1. From the circumference of the cylinder 4 project three rows of radial pins 5, one of said rows being near each end of the cylinder and the other row being in the center thereof. These pins form pockets or compartments for holding the matches, extend within a very slight distance of the inner surface of the receptacle 1, and the pins in each row are a sufficient distance apart to receive between them a match or other article to be delivered, and the pins of the three rows are in line with each other, in order that the article placed between them will be held in the proper position for delivery through the longitudinal delivery-opening 6 in the receptable, said opening being below the horizontal center of the receptacle.

In order to close the open end of the receptacle 1, I provide a disk 7, which closely fits within the receptacle 1 and is provided with a central aperture, through which the free end of the shaft 3 projects. Secured to the outer side of this disk is a bail 8, which is formed with a rectangular slot 9, through which the rectangular head 10, formed on the outer end of the shaft 3, extends. This head 10 is secured to the shaft by means of a reduced neck 10^a. To retain the disk 7 in position in the receptacle it is simply necessary to turn it by means of the bail 8, so that the slot 9 in said bail will be placed at an angle to or out of alignment with the rectangular head formed on the outer end of the shaft 3, and when it is desired to remove the disk from the receptacle it is simply necessary to bring the slot 9 in alignment with the head 10 on the shaft 3.

Between the outer end of the cylindrical conveyer 4 and the disk 7 is placed a spring-washer 11, the tension of which forces the conveyer inwardly against a suitable washer placed between the inner end of the conveyer and the closed end of the receptacle and holds the conveyer against any accidental movement and also prevents it from revolving too far when operated by the delivery mechanism, which is hereinafter described. The tension of this washer also forces the disk 7 outwardly and causes the bail 8 to bind against the inner surface of the rectangular head 10 and prevents any accidental displacement of the disk.

Secured to the forward side of the receptacle 1 and extending the entire width of the same is a horizontal support 12, whose forward end is suitably braced by an inclined bracket 13. Mounted on this support 12 is a

vertical plate 14, of a suitable width, the vertical edges of said plate being turned back upon itself to form the vertical guideways 15. Circular openings 16, of different diameters, are formed in this plate near its upper end for the passage of the cigar-tip, which is to be clipped off by the reciprocating cutter, as will be set forth.

A plate 17 is mounted to slide vertically in the ways 15 and carries on its forward side a V-shaped knife 18, which is so located on said plate that when the plate is depressed the knife will clip off the end of the cigar placed in either of the openings 16. Slots 19 19, which register with the openings 16, are formed in this plate to permit of the reciprocation of the plate 17 without injury to the uncut cigar-tip. A slot 20 is formed in the upper end of the plate 17 and a screw 21 is passed through the plate 14 and through said slot 20 to limit the movement of the plate 17, and a receptacle 22 is secured to the rear side of the plate 17, below the slots 19, to receive the clipped-off ends of the cigars. To the lower end of the plate 17, in the center thereof, is secured a downwardly-extending bar 23, which extends through a slot formed in the support 12, and said bar carries a rearwardly-extending finger 24, which finger extends through a slot formed in the receptacle 1. The lower end of this finger engages one of the central row of radial pins 5 when the plate 17 is depressed and revolves the conveyer 4 sufficiently to bring one of the articles held by said pins opposite the delivery-opening 6 of said receptacle. In order to raise the plate 17 after it has been depressed to operate the delivery mechanism, I interpose a coil-spring 25 between the bottom of the receptacle 22 and the support 12.

Secured to the rear side of the forward leg or support 2 of the receptacle is a spring-arm 26, which carries at its free end a small weight, as shown, and said arm is provided with an upwardly-extending finger 27, which extends through a slot in the receptacle 1 and into the path of one of the rows of pins 5, said pins depressing the arm 26 by engaging the finger 27. Secured to the rear leg 2 is an arm which supports a bell 28 in a suitable position to be struck by the weight on the free end of the arm 26 when the finger of said arm is released from engagement with one of the pins 5, which will be simultaneously with the delivery of the match.

A suitable delivery-spout or receiving-shelf receives the matches from the delivery-opening 6, and a suitable operating-handle or thumb-piece is secured to the plate 17.

From the foregoing it will be readily understood that I provide a simple and easily-operated delivering device, which may be used for the delivery of articles other than matches. By providing the removable end 7 all the compartments of the conveyer are exposed at one time and may be very readily filled. It will also be readily seen that by the use of the radial pins 5 for holding the artiticles to be delivered the proper delivery of the article through the opening 6 is insured, as there will be very little friction between the article and the pins to retard its delivery.

Having thus fully described my invention, what I claim is—

1. A match delivering device consisting of a horizontally supported cylindrical receptacle, open at one of its ends and provided with a longitudinal delivery opening below the horizontal center of said receptacle, a cylindrical conveyer loosely mounted therein, and provided with means for carrying articles to be delivered, a removable cover for the open end of the receptacle, a friction device carried by the receptacle and interposed between the removable cover and the end of the conveyer and adapted to prevent any accidental movement of said removable cover and means for intermittently revolving the conveyer, substantially as described.

2. A match delivering device consisting of a horizontally supported cylindrical receptacle provided with a longitudinal delivery opening, located as described, a cylindrical conveyer mounted to revolve therein, a spring-controlled sliding plate supported on the receptacle and provided with a projection adapted to enter the receptacle and engage the conveyer and revolve it when said plate is depressed, a spring arm carried by the device and provided with a projection which enters the receptacle and is adapted to be intermittently engaged by the conveyer, and a bell supported in a position to be struck by the free end of said spring arm, substantially as described and for the purpose set forth.

3. A match delivering device consisting of a horizontal cylindrical receptacle open at one of its ends, and provided with a longitudinal delivery opening, a shaft in said receptacle, a cylindrical conveyer on said shaft, a removable cover or end 7 for the open end of the receptacle, means for removably securing said end in place, said means consisting of the slotted bail 8 carried by the end 7, the head 10 and neck 10^a formed on the shaft 3 and means for revolving the conveyer, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

SAMUEL H. DICKERSON.
FRANK S. GILBERT.

Witnesses:
B. B. AVERY.
T. J. GILBERT.