

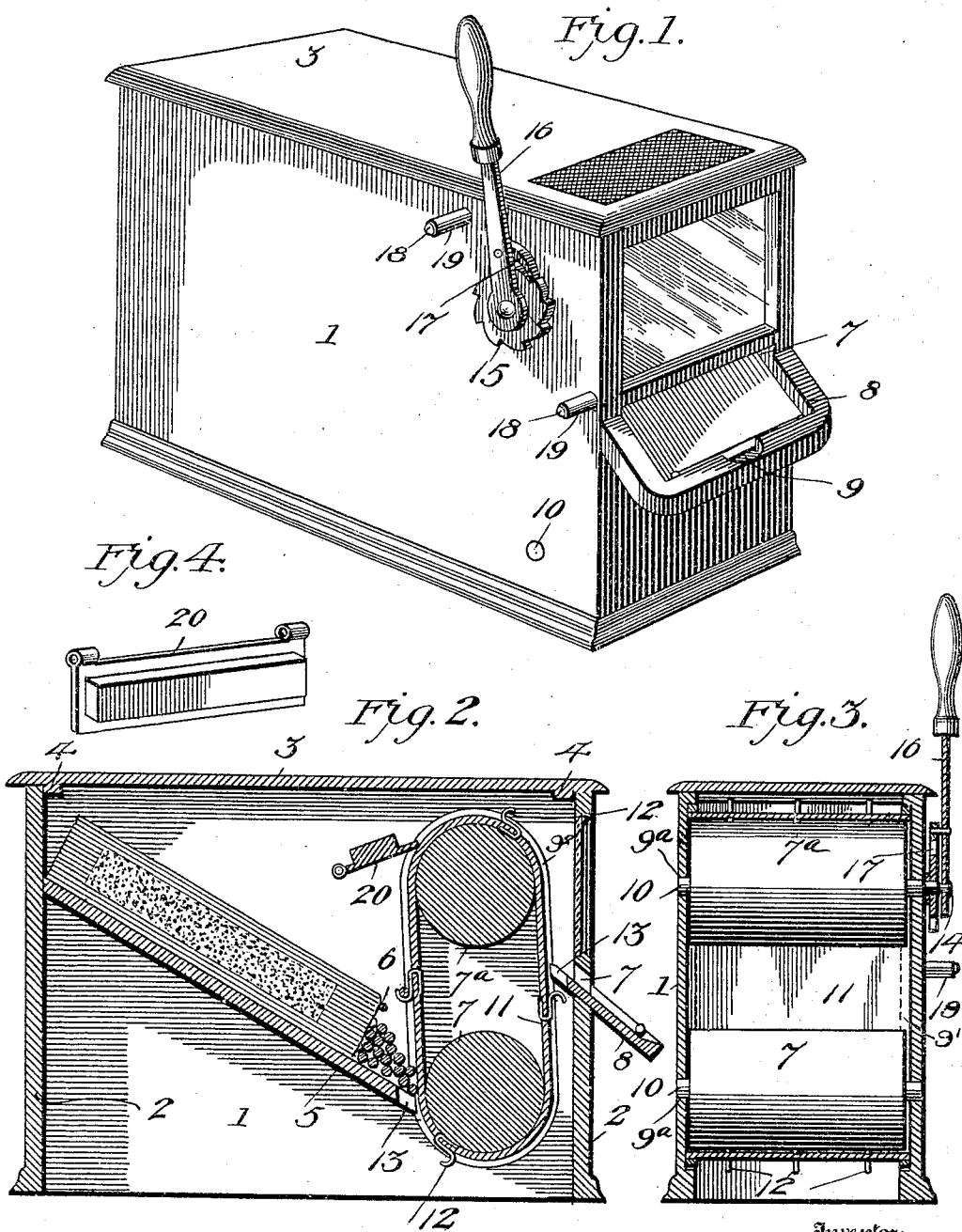
No. 774,615.

PATENTED NOV. 8, 1904.

A. TARNER,
MATCH BOX.

APPLICATION FILED FEB. 27, 1904.

NO MODEL.



Witnesses

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MATCH-BOX.

SPECIFICATION forming part of Letters Patent No. 774,615, dated November 8, 1904.

Application filed February 27, 1904. Serial No. 195,582. (No model.)

To all whom it may concern:

Be it known that I, ALONZO TARNER, a citizen of the United States, residing at Shippensburg, in the county of Cumberland and State of Pennsylvania, have invented new and useful Improvements in Match-Boxes, of which the following is a specification.

My invention relates to single-delivery match-safes; and its primary object is to provide a new and useful device of this character which is so constructed that all liability of more than one match being delivered at a time is obviated and which will be cheap of construction, durable, and efficient.

The invention consists in the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, which disclose the preferred form of my invention, and in which—

Figure 1 is a perspective view of a match-safe constructed in accordance with my invention. Fig. 2 is a central longitudinal sectional view thereof. Fig. 3 is a transverse sectional view, and Fig. 4 is a detail perspective view of a gravitating guard.

Referring to the drawings by reference-numerals, 1 1 designate the sides, 2 2 the ends, and 3 a cover, of a casing which may be constructed from wood, metal, or any other suitable material and which may be of any artistic design. The cover 3 is readily removable to permit of easy access to the interior of the casing, and it is prevented from horizontal displacement by means of flanges 4, situated on the under side thereof to adapt them to engage the inner faces of the ends 2. A support 5 is situated within the casing and is inclined from a point at or near the upper end to a point at or near the lower end of the casing, said support being adapted to receive a box of matches, and to prevent the box from gravitating a rod 6 is secured above the support 5 and near the lower edge. One end of the casing is provided with a discharge-opening 7, having a delivery projection 8, secured in alinement therewith. The inner edge of the delivery projection is adapted to extend within the casing beyond the inner face of the end 2 to receive a match which is adapted to

be precipitated thereon from a device which is designed to pick up a match from the support. The outer end of the delivery projection is recessed to prevent a match from sliding therefrom, and its lower edge is provided with a cut-out portion 9 to permit of the match being easily grasped. The sides of the casing are provided with recesses 9', in which are bearings 9", adapted to receive pintles 10, carried by rollers 7 and 7'. The rollers are journaled one above the other, and a belt 11, having vertical flanges 9" on opposite sides, is carried thereby to permit of motion being imparted thereto when the upper roller 7' is caused to rotate. A series of carriers 12 are secured to the belt 11, and each series is adapted to pick up a match from the support 5 and deposit it upon the inner edge of the delivery projection 8. The carriers 12 comprise hooks, each having one of its ends passed through the belt and bent to firmly secure the carrier in applied position. The lower extremity of the support 5 and the inner extremity of the delivery projection 8 are provided with slots 13, through which the carriers are adapted to pass when motion is imparted to the belt, the flanges of the belt serving to prevent lateral movement of said belt when the rollers are rotated.

One of the pintles 10 carried by the roller 7' is provided with a lateral projection 14, upon which is rigidly secured a ratchet-wheel 15 and upon which is loosely secured a lever 16. The lever 16 is provided with a dog 17, which is adapted to engage the teeth of the ratchet-wheel when the lever is moved in one direction to cause the roller to rotate and to freely slide over the ratchet-teeth when the lever is moved in a reverse direction. To limit the movement of the lever, I provide stops 18, which are secured upon either side of the ratchet and at points above and below the same. The lower stop will permit the lever to be moved downward a sufficient distance to permit of one series of the carriers 12 to convey a match from the support 5 to the delivery projection. The upper stop will permit the lever to have a reverse movement imparted thereto sufficient to engage the ratchet-wheel at a point so that the down-

ward movement of the lever will cause the upper roller 7^a to rotate sufficiently to cause one series of the carriers 12 to pick up a match from the support 5 and carry it and deposit it upon the projection 8. The stops 18 are provided with rubber sleeves 19 to render the contact of the lever 16 therewith noiseless.

To obviate all liability of the carriers 12 depositing more than one match upon the delivery projection, I provide a gravitating guard 20, which is fulcrumed within the casing at a point above the plate 5 to permit of its free end resting upon the belt 11. It will be perceived that when motion is imparted to the belt 11 the carriers 12 are adapted to pass under the guard 20 before they are in position to deposit a match upon the delivery projection. The engagement of the carriers 12 by the guard 20 will cause a match, when the carriers have picked up more than one, to drop back upon the plate 5 in a manner that is apparent. The guard 20 is sufficiently weighted to prevent its being accidentally turned upon its pivot sufficiently to be thrown out of operative position.

It is apparent from the above description, taken in connection with the accompanying drawings, that when a downward movement is imparted to the lever 16 the upper roller 7^a will be caused to rotate. The rotation of the roller 7^a will impart motion to the belt 11 and cause the carriers 12 to pick up a match from the support 5 and carry it to a point obliquely to a vertical plane, from which point the match will be precipitated upon the inner edge of the delivery projection 8, from which point a match will roll out of the casing into the recessed portion of the delivery projection. It is further apparent that all liability of a match

dropping below the plate is obviated. Of course it is to be presumed that one end of the match-box is to be removed prior to placing it within the casing.

Having described my invention, what I claim is—

A match-box comprising a casing having a discharge-opening therein, an inclined platform secured within the casing whereby to support a box of matches, means coacting with said end of said box to prevent the same from gravitating, said platform being also provided with slots at its inner end, a delivery-chute secured to said opening and having its inner end projecting into the casing and provided with slots corresponding in shape to those in the platform, said chute also extending outwardly from the said opening and provided on its upper surface with a surrounding flange having a recess in its front portion, recesses formed on opposite inner surfaces of the side walls of the casing, rollers journaled within the recesses, means for rotating the rollers, a belt having vertical flanges on opposite sides mounted on the rollers and having hook-carriers therewith, a weighted gravitating dog having a forwardly-projecting end which serves to coact with said carriers, said slots of the platform and chute serving as a passage-way for said carriers, and the flanges of the belt engaging the said recesses to prevent lateral movement of the belt, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ALONZO TARNER.

Witnesses:

THOS. J. RANE,
FRANK LEHMAN.