R. STONE.

ENVELOP EJECTOR.

APPLICATION FILED FEB. 8, 1921.

1,390,175. Patented Sept. 6, 1921.

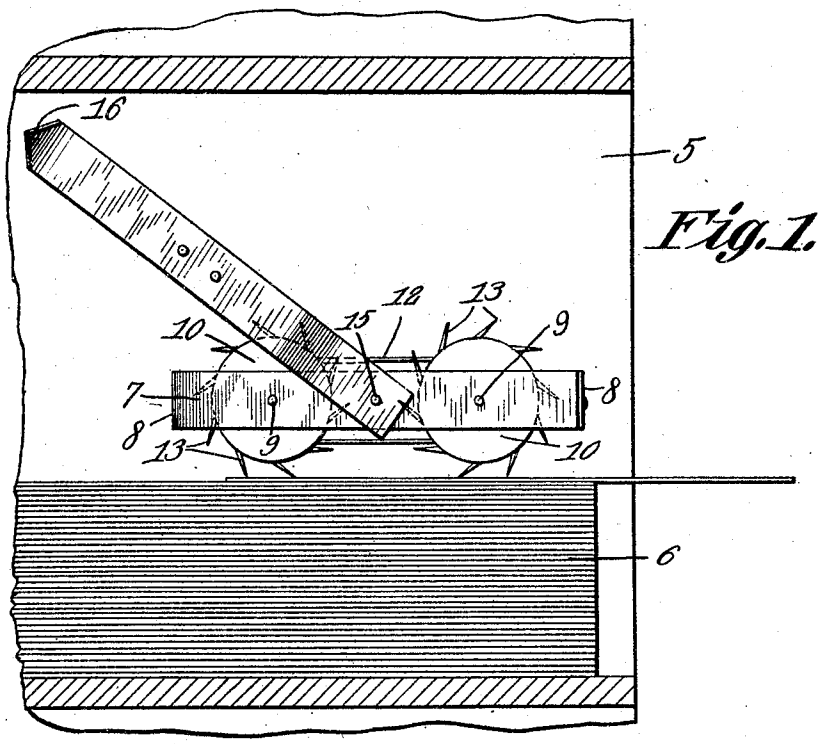


Fig. 1.

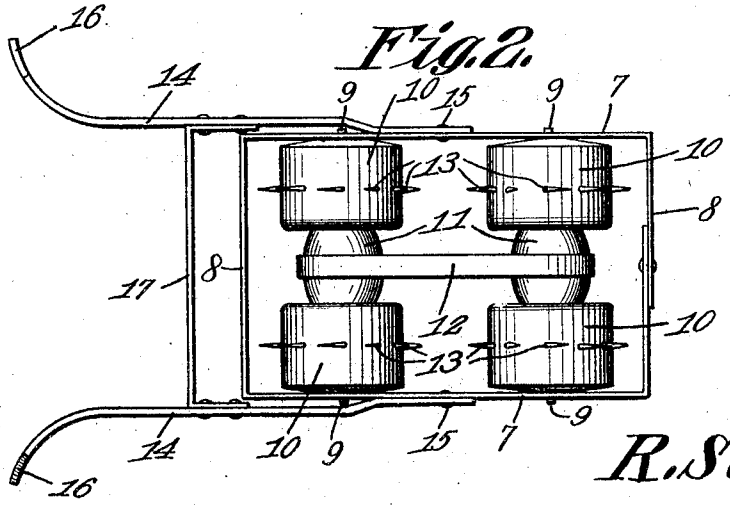


Fig. 2.

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UNITED STATES PATENT OFFICE.

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ENVELOP-EJECTOR.

1,390,175. Specification of Letters Patent. Patented Sept. 6, 1921.

Application filed February 8, 1921. Serial No. 443,358.

To all whom it may concern:

Be it known that I, REUBEN STONE, a citizen of the United States, residing at Ogema, in the county of Price and State of Wisconsin, have invented a new and useful Envelop-Ejector, of which the following is a specification.

This invention relates to devices employed for ejecting cards, envelops or the like from their containers, it being the primary object of the invention to provide an ejector of this character to be positioned within desk compartments for automatically moving the uppermost envelops of a stack of envelops that the forward end thereof will extend beyond the front edges of the remaining envelops of the stack.

A further object of the invention is to provide a novel support for the ejector whereby the same will automatically move into engagement with the next adjacent envelop of the stack, after the uppermost envelop has been removed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:—

Figure 1 illustrates a sectional view through a compartment of a desk showing the invention as applied.

Fig. 2 is a plan view of the device.

Referring to the drawing in detail, the reference character 5 designates one of the side walls of a pigeon-hole or envelop compartment of a desk in which are supported the envelops or cards indicated at 6, on which the ejector is supported.

The ejector comprises a frame-like structure formed of the side bars 7 and end bars 8 which are constructed of any suitable sheet metal, the side bars 7 being apertured to accommodate the shafts 9 of the ejecting rollers 10.

These ejecting rollers 10 are arranged in pairs, the rollers of each pair being connected by a hub 11 over which operates the flexible band 12, whereby movement of one roller will result in a relative movement of the remaining rollers to accomplish the ejecting result.

As shown, each roller is provided with a plurality of peripheral pins 13 which are disposed in spaced relation with each other and supported at angles with respect to the peripheries of the rollers.

The pins of the forward roller extend toward the rear of the compartment in which the device is positioned, while the pins of the rear roller are inclined toward the front thereof. From the foregoing it will be seen that as the rollers revolve, the pins on the forward roller pierce the uppermost envelop, causing the roller to revolve and consequently revolve the rear roller. As the rear roller is revolved, the pins thereof pick up the next envelop and force the same from the compartment.

Forming a part of the ejector, are the spaced arms 14 which have their forward ends pivotally connected to the frame at a point intermediate the ends thereof as indicated at 15, thereby allowing the frame or body portion of the ejector to pivot with respect to the arms 14.

These arms 14 have their free ends extending laterally away from each other, the extreme ends thereof being tapered as at 16 to pierce the side walls of the container, and since these arms 14 are formed of resilient metal, the arms may be moved toward each other, whereupon the same will expand when they are positioned in the container, to bite into the walls of the container, and secure the device against movement.

In order that the arms 14 will be supported in spaced relation with each other, a bracing bar 17 is provided, which bracing bar has right angled extremities bolted to the arms 14, so that movement of the arms 14 will be directed to points adjacent to the free ends thereof.

In the operation of the device, assuming that the uppermost envelop is being removed, it is obvious that during the removal of the envelop the rollers 10 are revolved, and as the rear edge of the envelop passes the rear rollers, the rear rollers fall into engagement with the adjacent envelop of the stack. As the uppermost envelop is further moved to remove the same, rotary movement of the forward rollers of the device imparts rotary movement to the rollers at the rear of the device, whereupon the pins

13 of the rear rollers engage the next adjacent envelop and move the same to bring the forward edge thereof to a position in a plane beyond the plane of the front edges of the remaining envelops of the stack, thereby permitting a person to easily grasp an envelop to remove the same.

Having thus described the invention, what is claimed as new is:—

1. In combination with the side walls of an envelop container, an ejecting device including a frame, pairs of rollers carried by the frame, means for connecting the pairs of rollers to cause movement of one pair of rollers when the opposite pair is moved, pins carried by the rollers, supporting arms pivotally connected with the frame and having their free ends extending outwardly and contacting with the side walls of the container to support the device within the container.

2. In combination with the side walls of an envelop container, a frame, ejecting rollers carried by the frame, supporting arms having pivotal connection with the frame, and having their free ends extending outwardly, said free ends being tapered to provide piercing extremities, said piercing extremities adapted to embed themselves in the walls of the envelop container to support the frame, and means carried by the rollers for ejecting envelops from the container.

3. In a device of the class described, a frame, ejecting rollers carried by the frame, angularly disposed pins extending from the peripheries of the rollers, the pins of one pair of rollers extending in directions opposite to the directions of extension of the pins of the other pair of rollers, and resilient arms having connection with the frame and adapted to support the frame.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

REUBEN STONE.

Witnesses:
N. S. SMITH,
E. A. HEDEN.