Aug. 13, 1940. E. D. NYE 2,211,349

BREAD DISPENSER

Filed April 8, 1939 2 Sheets-Sheet 1

Fig. 1.

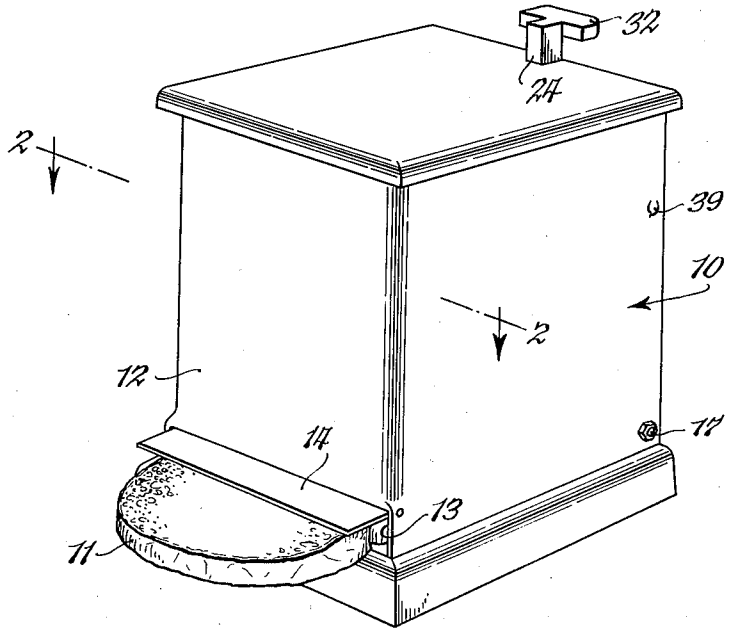
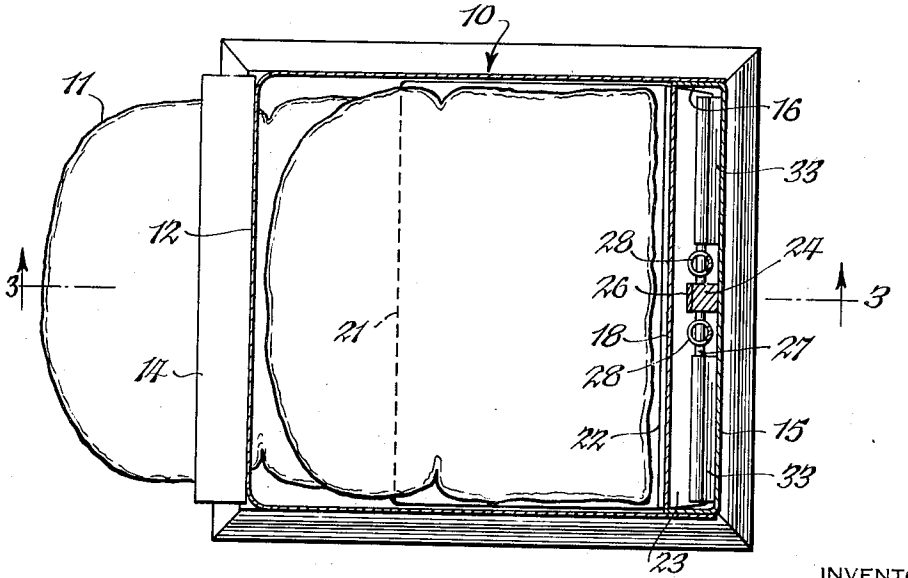


Fig. 2.



INVENTOR
Earl D. Nye
BY
John S. Powers
ATTORNEY

Aug. 13, 1940. E. D. NYE 2,211,349

BREAD DISPENSER

Filed April 8, 1939 2 Sheets-Sheet 2

Fig. 3.

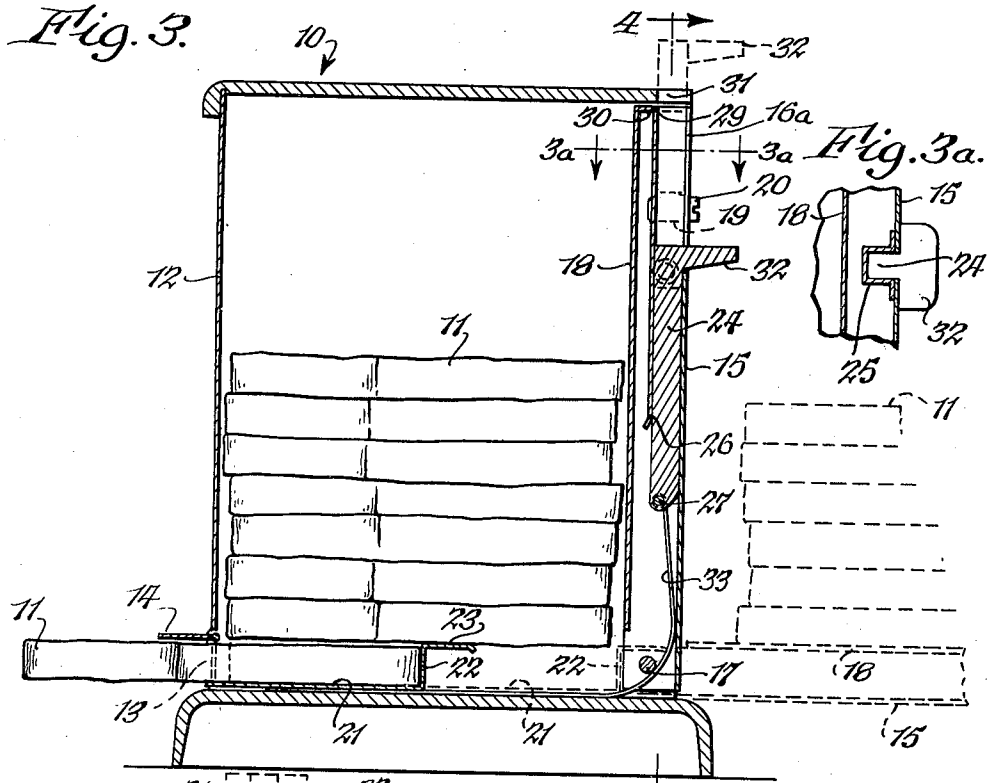


Fig. 3a.

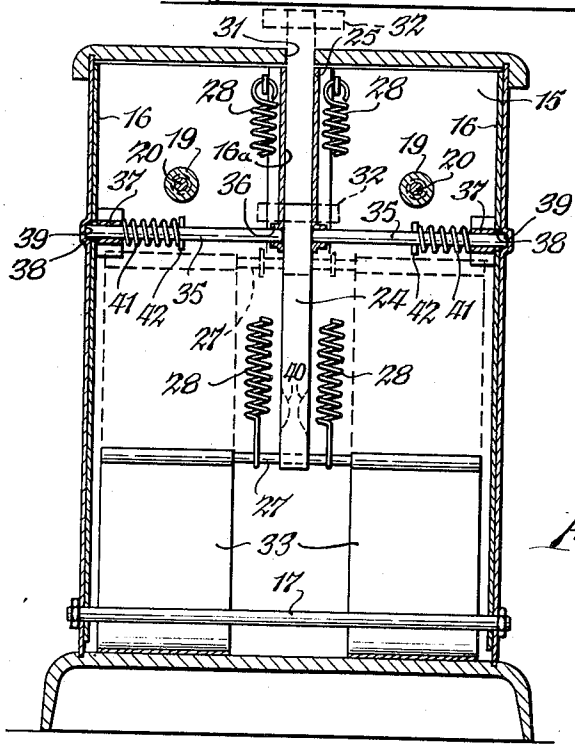


Fig. 4.

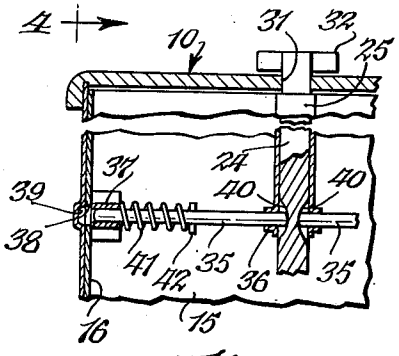


Fig. 5.

INVENTOR
Earl D. Nye
BY
John S. Powers
ATTORNEY

Patented Aug. 13, 1940

2,211,349

UNITED STATES PATENT OFFICE

2,211,349

BREAD DISPENSER

Earl D. Nye, Buffalo, N. Y., assignor of one-half to Harry Stierer, Buffalo, N. Y.

Application April 8, 1939, Serial No. 266,817

4 Claims. (Cl. 312—67)

This invention relates to a device which, although not necessarily limited to such use, is characterized by features which render it of particular utility as a dispenser for sliced bread, being adapted when so employed to be placed upon tables and counters in restaurants, hotels and the like so as to be conveniently available to the guests.

One object of the invention is to provide a dispenser which is so designed that the slices of bread are readily accessible, are maintained in a fresh and sanitary condition and are protected against handling by other than the individual users.

A further object is to provide a dispenser which may be refilled with facility.

A still further object is to provide a novel design and arrangement of the parts of the dispenser, whereby to insure simplicity and economy in construction.

The invention is illustrated in the accompanying drawings in which:

Figure 1 is a perspective view of a dispenser embodying the features of the invention.

Figure 2 is a horizontal section taken along line 2—2 of Figure 1.

Figure 3 is a vertical section and is taken along line 3—3 of Figure 2.

Figure 3*a* is a detail section taken along line 3*a*—3*a* of Figure 3.

Figure 4 is a vertical section taken along line 4—4 of Figure 3.

Figure 5 is a fragmentary section through the door locking mechanism.

The dispenser, as illustrated, includes a receptacle-like body 10 in which slices of bread 11, or other similarly shaped articles, are arranged in a stack, the front wall 12 being formed with an outlet 13 which is normally closed by a flap 14 and through which the said slices are withdrawn. The back wall of the body 10 is provided by a door 15 having side flanges 16, the door being pivotally mounted at its bottom upon a rod 17 which passes through suitable openings formed in the flanges and which is mounted between the side walls of the body. A false back 18 is preferably carried by the door 15, the former being provided with spacing bosses 19 and being removably secured to the latter by screws 20 which enter threaded openings in the bosses.

The slices of bread are partially expelled through the outlet 13 by an ejector 21. The latter is in the form of a plate and normally occupies the dotted-line, or retracted, position shown in Figure 3. At its inner end it is formed with a vertical wall 22 which is of a height substantially the same as the thickness of the slices of bread and which carries a tail-piece 23. In this connection it will be noted that the false back 18 terminates short of the bottom of the door, whereby when the ejector is in its retracted position the end wall 22 thereof is located in substantially the same plane as the false back while the tail-piece 23 extends thereunder and across the rod 17. When the ejector occupies the position described the lowermost slice of bread in the stack rests upon it, the inner end of the slice being located against, or in close proximity to, the end wall 22.

The ejector is actuated by a member 24 having an elongated body which is slidably mounted in a guideway provided by a channel 25. The latter is suitably secured to the door substantially midway between the flanges 16 and is formed with a depending finger 26. The lower end of the member 24 carries a cross-piece 27. Springs 28 which are located at opposite sides of the channel 25 are connected at their lower ends to the cross-piece 27 and at their upper ends to the channel. They serve to normally hold the actuating member 24 at the upper limit of its range of movement (see dotted-line position in Figure 3). When held in this position the upper end of the actuating member, upon which a thumb piece 32 is preferably formed or provided, extends through an opening 29 formed in the top flange 30 of the false back 18 and an aligned opening 31 formed in the top of the body 10. Spring metal strips 33 are connected at one end to the cross-piece 27 and at their opposite ends to the under side of the ejector, the said strips passing around the rod 17 which acts against them to change their direction.

From the foregoing it will be apparent that a slice of bread may be withdrawn from the dispenser by depressing the actuating member 24, it being noted that the opening in the top of the body 10 and the opening in the flange 30 have entrances which are in alignment with and which cooperate with a slot 16*a* in the door 15 to provide a continuous passage for the shank portion of the thumb piece 32. As the actuating member is moved from its upper to its lower limit it is operative through the agency of the spring strips 33 to effect movement of the ejector 21 from its retracted position to its extended position, the rod 17 serving as a guide and effecting the necessary change in direction of the strips. The lowermost slice in the stack is thereby partially expelled through the outlet 13 so that it may be

grasped and withdrawn from the dispenser, the flap 14 moving aside as the slice is withdrawn and thereafter returning by gravity to its closed position. Upon release of the actuating member the springs 28 automatically return it and the ejector to their original positions, the tail-piece 23 sliding under the succeeding slice of bread until the ejector approaches the limit of its return movement, whereupon the succeeding slice is released by the tail-piece and permitted to come to rest upon the ejector in substantially the same position as that originally occupied by the preceding slice. It in turn, therefore, may be partially expelled by again operating the actuating member in the manner described.

In order to lock the door 15 in its closed position axially movable pins 35 are mounted in sleeve-like guides 36 and 37 (Figure 4), the former being formed or provided upon the channel 25 while the latter are carried by the panel of the door. The pins project through openings 38 formed in the flanges 16 and are normally held in recesses 39 formed in the side walls of the body 10 by the engagement of their opposite ends with the sides of the actuating member. When the pins are held in this position the door cannot be opened. However, when this is desired for refilling purposes, for example, the actuating member 24 may be depressed slightly as best illustrated in Figure 5 to move depressions 40 which are formed in it to positions opposite the pins. As the actuating member is moved to the position described springs 41 which are arranged upon the pins between the sleeves 37 and keys 42 act upon the pins to cause them to enter the depressions 40, whereby to effect withdrawal of their outer ends from the recesses 39. The door may thereupon be opened. Locking of the door in the manner described minimizes the possibility of its being opened by unauthorized persons as the mode of operation of the release mechanism is not apparent by mere inspection and cannot be readily determined.

The dispenser has the advantage that the bread is maintained in a fresh and sanitary condition while handling of the slices is limited to the individual users. A further advantage obtained is that it may be refilled with facility, it being noted in this connection that the door 15 is movable to an open substantially horizontal position, as best shown in Figure 3. In this position the door serves as a support upon which the bread may be arranged in a stack and then moved horizontally into the body 10.

I claim as my invention:

1. A device of the character described including a receptacle-like body in which the articles to be dispensed are arranged in a stack, said body being formed with an opening through which the articles are introduced and having an outlet, a horizontally movable ejector for expelling said articles through said outlet, a door which normally closes said opening, an actuating member carried by said door which is movable vertically between predetermined limits and a spring strip connecting said ejector and actuating member and by which the movement of the latter is transmitted to the former, said door being movable to a substantially horizontal open position in which it provides a supporting platform upon which said articles may be initially arranged.

2. A device of the character described including a receptacle-like body in which the articles to be dispensed are arranged in a stack, said body being formed with an opening through which the articles are introduced and having an outlet, a horizontally movable ejector for expelling said articles through said outlet, a door which normally closes said opening, a rod upon which said door is mounted, an actuating member carried by said door which is movable vertically between predetermined limits and a spring strip connecting said ejector and actuating member and by which the movement of the latter is transmitted to the former, said rod acting as a guide for said spring strip.

3. A device of the character described including a receptacle-like body in which the articles to be dispensed are arranged in a stack, said body being formed with an opening through which the articles are introduced and having an outlet, a horizontally movable ejector for expelling said articles through said outlet, a door which normally closes said opening, means for locking said door in a closed position, an actuating member carried by said door which is movable vertically between predetermined limits, a spring strip connecting said ejector and actuating member and by which the movement of the latter is transmitted to the former and means controlled by said actuating member for releasing said locking means.

4. A device of the character described including a receptacle-like body in which the articles to be dispensed are arranged in a stack, said body being formed with an opening through which the articles are introduced and having an outlet, a horizontally movable ejector for expelling said articles through said outlet, a door which normally closes said opening, a rod upon which said door is mounted, a vertically movable actuating member mounted on said door, a cross-piece carried by said actuating member and a spring strip connecting said cross-piece and ejector and by which the movement of the actuating member is transmitted to the ejector, said rod acting as a guide for said spring strip.

EARL D. NYE.