Aug. 19, 1941. O. HALL 2,253,027

TOASTING MACHINE

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Fig. 1.

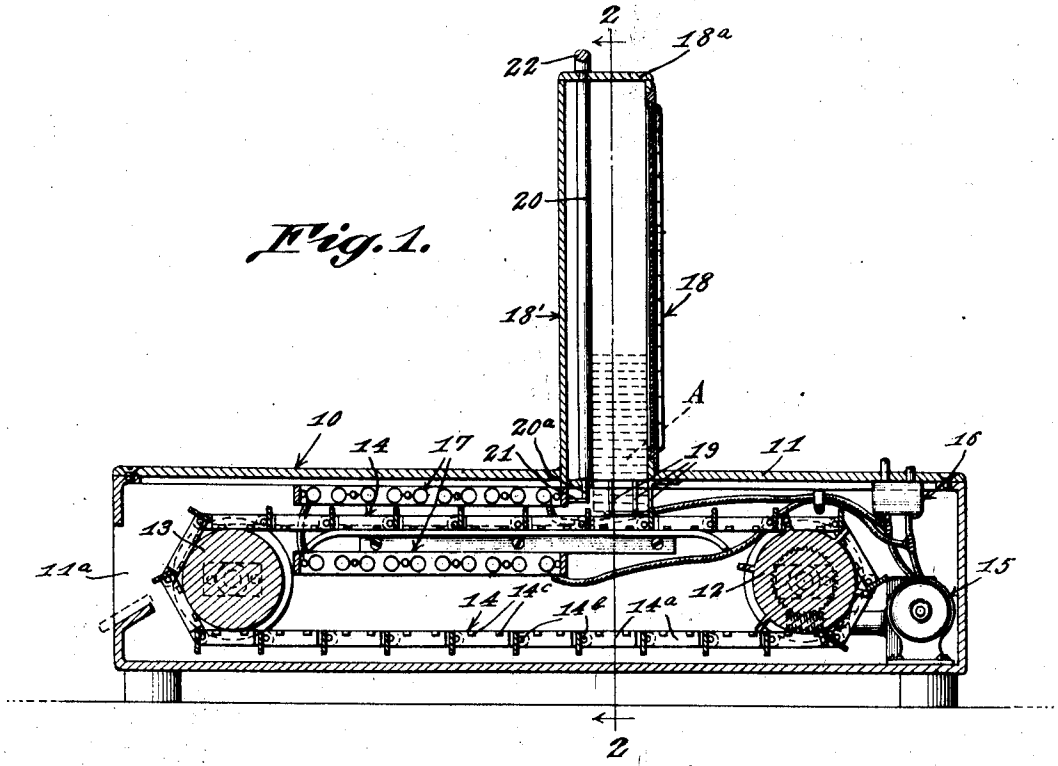
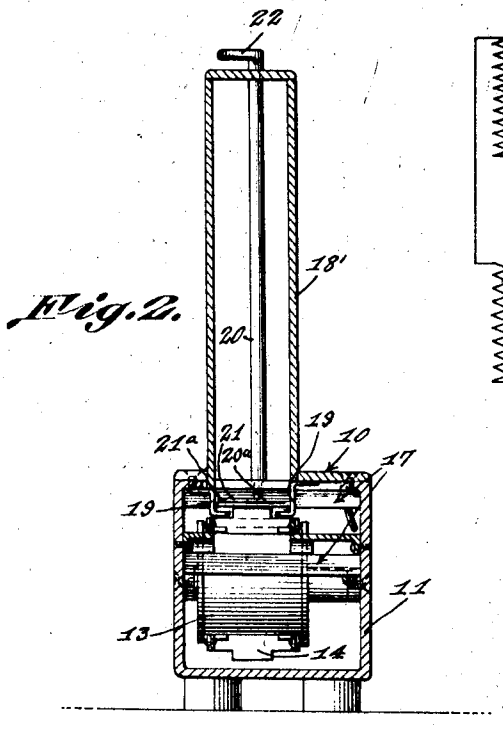
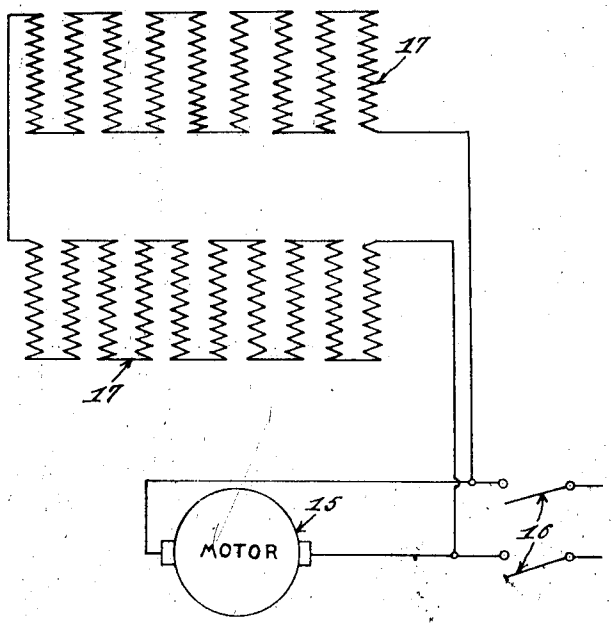


Fig. 2.





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Fig. 3.

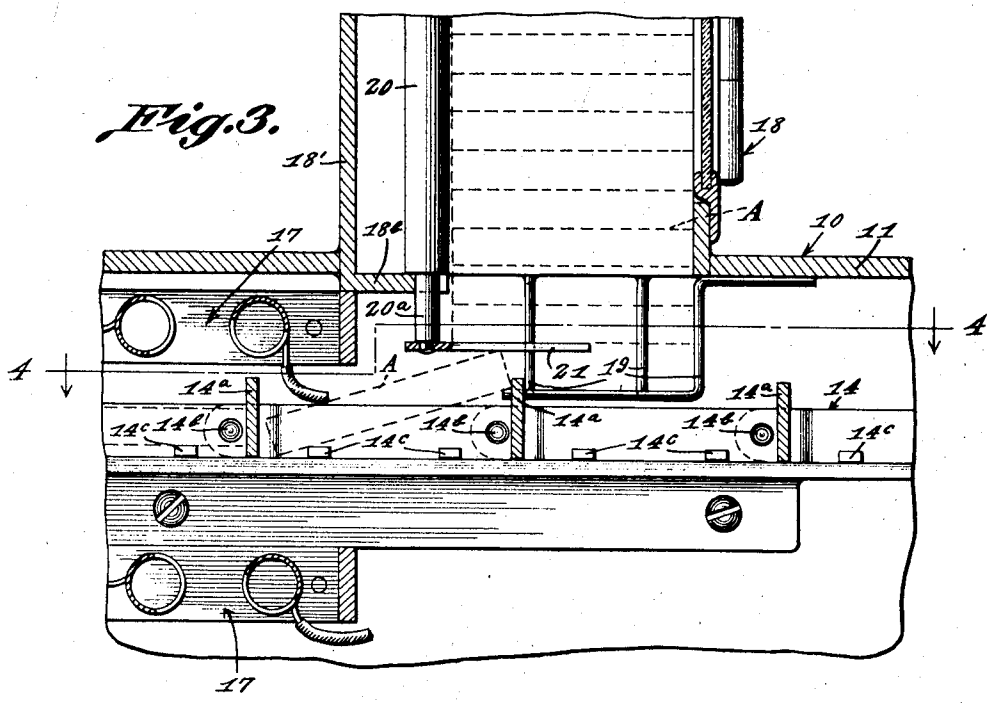


Fig. 4.

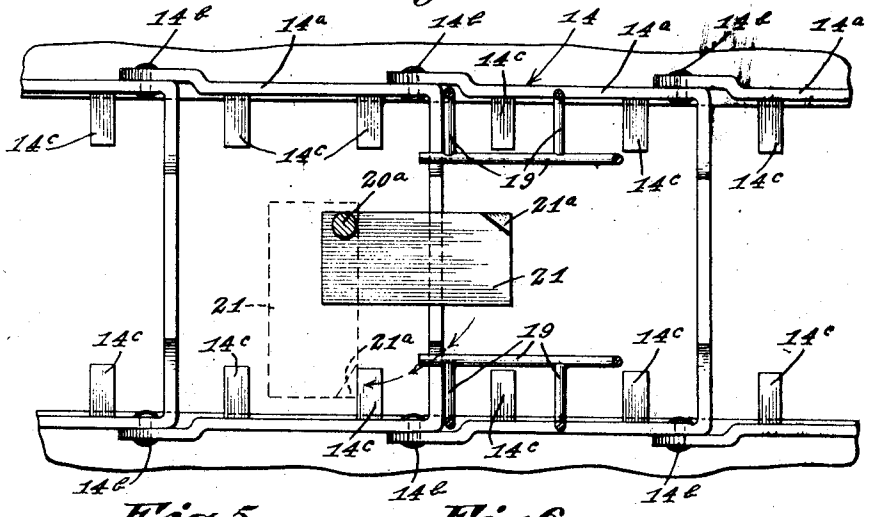


Fig. 5.

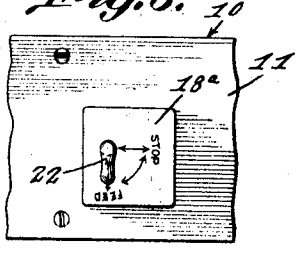
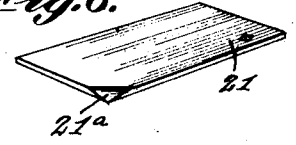


Fig. 6.



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TOASTING MACHINE

Otis Hall, Detroit, Mich.

Application February 19, 1940, Serial No. 319,750

4 Claims. (Cl. 214—8.5)

This invention relates to improvements in toasting machines and especially is concerned with improvements in the feed mechanism thereof.

It is an object of this invention to provide a simple device for expeditiously controlling the feeding of slices of bread or the like into a toasting machine.

An advantage of the novel and improved feed mechanism according to this over other devices intended to accomplish substantially the same purpose is its ready adaptability to attachment to existing types of toasting machines without requiring structural reorganization for the adaptation.

Noteworthy among the features of the novel toasting machine according to the present invention are its simplicity and ruggedness of construction, the former suiting the device to the requirements of manufacture under conditions of mass production and the latter assuring long useful life.

Other objects, advantages and features of the new and improved toasting machine according to the present invention will be apparent to those skilled in this art during the course of the following description.

Regarded in certain of its broader aspects the novel device according to the present invention comprises in combination with a toasting machine of the type including an endless conveyer for carrying objects to be toasted between radiant toasters, of the improvements which comprise a gravity feed magazine for receiving sliced objects positioned superjacent the conveyer; a swinging horizontally extending plate positioned beneath the next to the lowermost slice in the magazine for preventing delivery to the conveyer, said plate being movable into another position whereby discharge of sliced objects from the magazine to the conveyer is uninhibited; and means for facilitating swinging of said plate as mentioned.

In order to facilitate a fuller and more complete understanding of the present invention a specific embodiment thereof herein illustrated will be hereinafter described, it being clearly understood, however, that the illustrated embodiment, although presently preferred, is provided solely by way of example of the practice of this invention and not by way of limitation thereof except insofar as the invention is recited in the subjoined claims.

Referring then to the drawings,

Figure 1 is substantially a vertical sectional view of the presently preferred embodiment of this invention showing the same adapted to use upon a conventional toasting machine,

Fig. 2 is a vertical sectional view of Fig. 1 taken along the line 2—2 thereof,

Fig. 3 is an enlarged vertical sectional view of a portion of the device shown in Fig. 1,

Fig. 4 is a horizontal sectional view of Fig. 3 taken along the line 4—4 thereof,

Fig. 5 is a top plan view of the magazine and a portion of the toasting machine, and

Fig. 6 is substantially a perspective view of the feed control plate.

Fig. 7 illustrates the electrical interlock between the conveyer motor and the toaster elements.

In the drawings the presently preferred embodiment of this invention is generally designated by the reference character 10 and, it will be noted, comprises a hollow box-like casing 11 within which are mounted freely rotating transversely extending spaced essentially parallel rollers 12 and 13 upon which is mounted an endless conveyer 14 which comprises a plurality of links 14a connected by pivots 14b, each link being provided with inbent object-holding members 14c substantially as shown. The roller 12 is rotated by means including an electric motor 15 which is controlled by a switch 16, which switch also controls the electric radiant toasters generally designated by the reference character 17 which are mounted above and below a portion of the endless conveyer 14. As will be obvious from Fig. 7 of the drawings, neither motor nor toasters may be operated independently of the other since they are connected in parallel to the terminals of the switch 16.

A magazine generally designated by the reference character 18 comprising an essentially hollow box-like casing 18' extending vertically upwardly from a central portion of the casing 11 serves to receive and store sliced material designated by the reference character A which is free to feed by means of gravity through the open bottom of the casing onto the support bails 19 extending thereunder essentially as shown in Fig. 3. It is to be noted that the bails 19 are positioned with relation to the endless conveyer 14 in a manner such that parts of the links 14a will strike against the lowermost slice supported on the bails and will move the same therefrom onto the conveyer substantially as is shown in phantom in Fig. 3.

A vertically extending shaft 20, journaled in an opening formed in the top 18a of the casing 18'

formed integrally with the bottom portion of the casing, is reduced at its bottom end 20a and carries rigidly attached thereto a horizontally extending plate 21 having a pointed corner portion 21a formed for facilitating swinging of the plate between the lowermost and next lowermost slice resting upon the bails 19. A handle 22 is provided upon the upper end of the shaft 20 and serves to facilitate oscillation of the shaft whereby the plate 21 can upon occasion be moved into supporting position beneath the next to the lowermost slice in the magazine or, upon occasion, movable into another position whereby discharge of sliced objects from the magazine onto the conveyer is uninhibited. The first position of the plate is illustrated in full view in Fig. 4 and the second position is shown in the same figure in phantom.

As will be obvious to those skilled in this art from an inspection of the drawings the toaster proper functions in the conventional manner moving the sliced object received from the magazine between the radiant toasters 17 and discharging the toasted objects from the conveyer 14 through the discharge opening 11a formed in the casing 11.

It is to be understood that this invention is capable of extended application and is not confined to the precise illustrated forms nor described construction and, therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope of the appended claims.

Having thus described the present invention, what it is desired to secure by Letters Patent is:

1. The combination with an endless conveyor for conveying objects, comprising a magazine for receiving approximately flat superimposed objects and having its lower end spaced slightly above the endless conveyor, downwardly extending bails below the lower end of the magazine and adapted to receive and support one of the objects contained in the magazine, means for delivering the lowermost object in the magazine to the bails, and means carried by the endless conveyor and extending between the bails for removing the object thereon and allowing it to drop on the conveyor.

2. The combination with an endless conveyor for conveying objects, comprising a magazine for receiving approximately flat superimposed objects and having its lower end spaced slightly above the endless conveyor, downwardly extending bails below the lower end of the magazine and adapted to receive the lowermost object contained in the magazine, a horizontally swinging plate mounted near the bottom of the magazine and adapted to swing beneath the next to the lowermost object in the magazine, and means carried by the endless conveyor and extending between the bails for moving the lowermost object in the magazine from above the bails and allowing them to drop on the conveyor.

3. The combination with an endless conveyor for conveying objects, comprising a magazine for receiving approximately flat superimposed objects and having its lower end spaced slightly above the endless conveyor, downwardly extending bails below the lower end of the magazine and adapted to receive the lowermost object in the magazine, a horizontally swinging plate mounted near the bottom of the magazine and adapted to swing beneath the next to the lowermost object in the magazine, and extensions carried by the endless conveyor and extending between the bails for moving the lowermost object in the magazine from above the bails and allowing them to drop on the conveyor.

4. The combination with an endless conveyor for conveying objects, comprising a magazine for receiving slices of bread superimposed and having its lower end spaced above the endless conveyor, downwardly extending bails carried by the opposite sides of the magazine and having inwardly turned ends below a portion of the magazine, a horizontally swinging plate mounted near the bottom of the magazine and adapted to swing beneath the next to the last slice of bread in the magazine beyond the bails, and transverse vertically disposed plates carried by the endless conveyor between the bails for moving the lowermost slice in the magazine from above the bail and allowing the slice above the bails to drop thereon.

OTIS HALL.