Dec. 27, 1938. V. C. KIRBY 2,141,691

DISPENSING DEVICE

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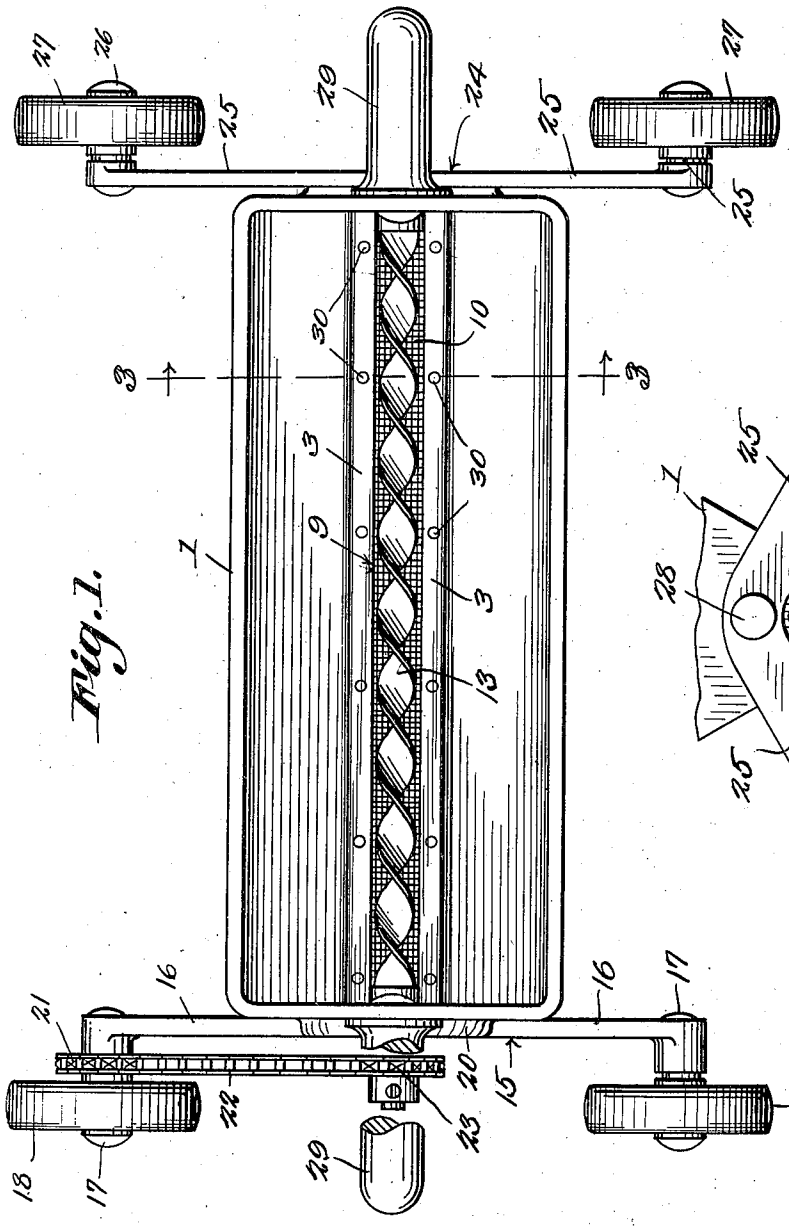


Fig. 1.

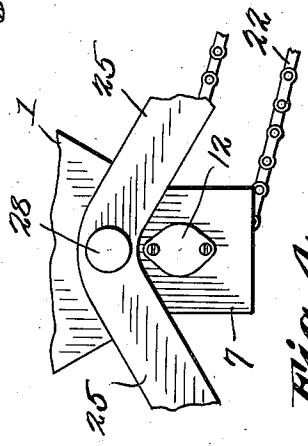


Fig. 4.

V. C. Kirby

INVENTOR.

BY C. A. Snow & Co.

ATTORNEYS.

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Fig. 2.

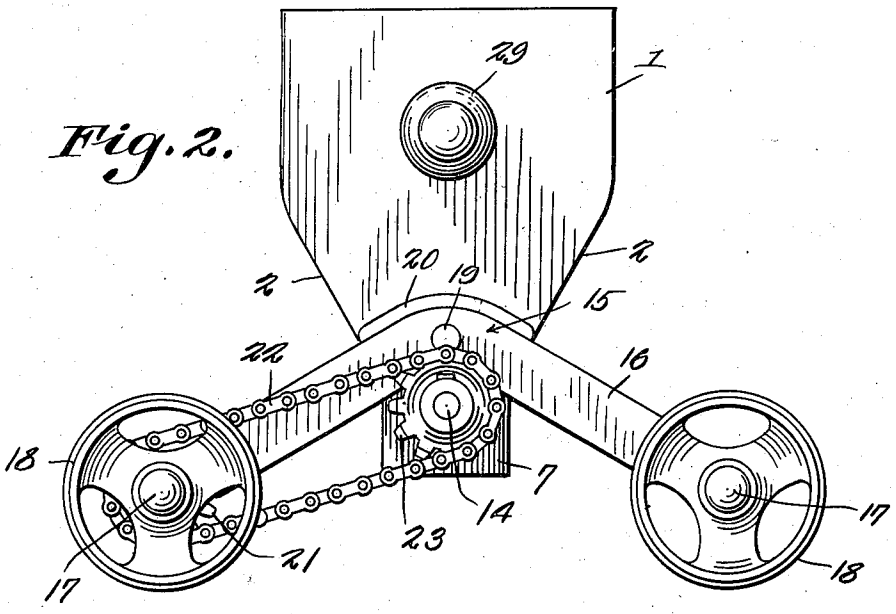
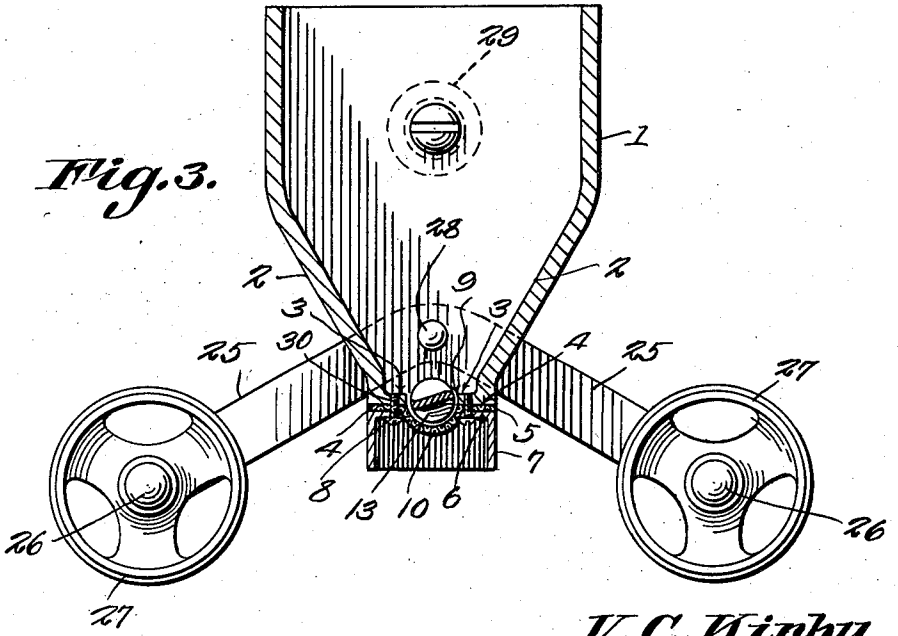


Fig. 3.



V. C. Kirby
INVENTOR.

BY C. A. Snow & Co.

ATTORNEYS.

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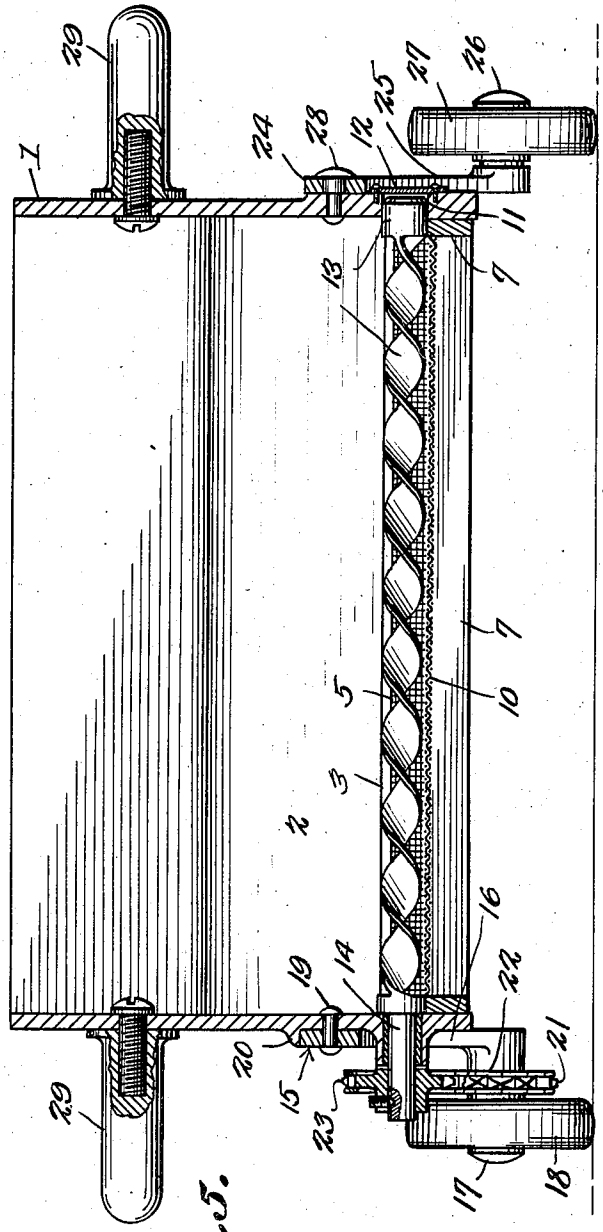


Fig. 5.

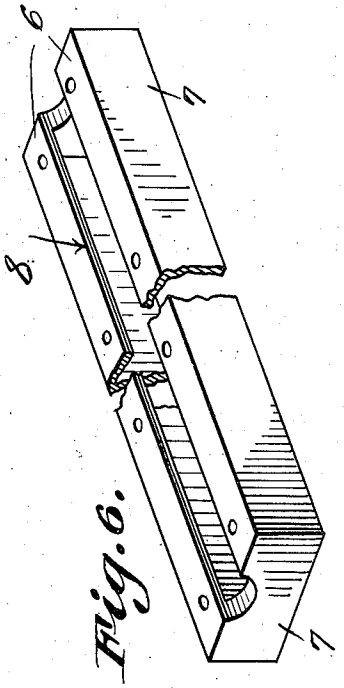


Fig. 6.

V. C. Kirby

INVENTOR.

BY C. A. Snow & Co.

ATTORNEYS.

Patented Dec. 27, 1938 2,141,691

UNITED STATES PATENT OFFICE

2,141,691

DISPENSING DEVICE

Virgil C. Kirby, Hutchinson, Kans., assignor of one-half to Dayul W. Donaldson, Hutchinson, Kans.

Application October 18, 1937, Serial No. 169,751

2 Claims. (Cl. 209—236)

This invention relates to a device designed primarily for use by bakers, the principal object being to provide a simple and efficient means whereby a mixture of ground cinnamon with pulverized sugar, can be distributed evenly over the surface of either cooked or uncooked dough, the distribution being effected in a sanitary manner and without creating an objectionable floating dust if cinnamon which might be inhaled with injurious results.

It is a further object of the invention to provide the dispensing device with a screen of novel construction and mounted in such a way that it can be readily detached and replaced, thus making it possible to use interchangeably screens of different mesh, according to the conditions under which the device is to be used.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is a plan view of the device, a portion of one of the handles being broken away.

Figure 2 is a side elevation thereof.

Figure 3 is a section on line 3—3, Figure 1.

Figure 4 is an elevation of a portion of that side of the device opposite to the one shown in Figure 2.

Figure 5 is a vertical longitudinal section.

Figure 6 is a perspective view of the combined discharge chute and dust shield.

Referring to the figures by characters of reference 1 designates an elongated hopper having downwardly converging portions 2 spaced apart at the bottom where said portions are formed with inwardly directed longitudinal flanges 3. These flanges cooperate with the bottom edges of the converging portions 2 to form a flat bearing surface 4 against which a screen 5 of desired mesh is clamped by a plate 6 from which depends a flange 7 extending along all sides of the plate and forming a combined chute and dust guard. Plate 6 has a slot 8 located between the outlet opening 9 which extends longitudinally of the hopper between flanges 3 and this opening 8 is adapted to receive a depending substantially semi-cylindrical intermediate portion 10 of the screen 5 which extends throughout the width and length of the opening 3 so as to form a gutter of screen material into which the contents of the hopper can gravitate.

One end wall of the hopper 1 is formed with an opening 11 adapted to be closed by a plate 12 constituting a thrust bearing for one end of a screw 13. The other end of this screw is formed with a stem 14 bearing within the other end wall of the hopper. Screw 13 is thus supported within the gutter-like portion of the screen but out of contact therewith.

Secured to one of the end walls of the hopper is a truck member 15 having downwardly diverging legs 16 the lower end of each of which has a laterally extending bearing stud 17 on which is mounted a supporting wheel 18. This truck member can be fastened by means of a rivet 19 and any suitable means, such as an overlying rib 20, can be used for holding the truck member against pivotal movement relative to the hopper. A sprocket 21 is secured to and rotates with one of the wheels 18 and is adapted to transmit motion through a chain 22 to a sprocket 23 secured to the stud 14.

Pivotally connected to the other end wall of the hopper is a truck member 24 having downwardly diverging arms 25 each of which has a steering stud 26 at its lower end supported by a wheel 27. Truck member 24 is connected to the hopper preferably by a pivot pin 28 so that this truck member 24 can thus have a swinging movement relative to the hopper in order to maintain its wheels 27 in contact with the surface thereunder while said surface is also being contacted by the two wheels 18. In other words this pivotal connection between truck member 24 and the hopper allows all four wheels of the device to engage a surface simultaneously irrespective of any irregularities in the surface.

Handles 29 are extended in opposite directions from the end walls of the hopper and are of such size as to afford convenient grips for use by the user of the device.

In practice a screen of the proper mesh is placed upon the bottom surface 4 of the hopper after which the plate 6 forming the top of the combined spout and shield is placed against the bottom surface of the screen and the parts all secured together by means of screws or bolts 30. When the screen is thus located the gutter portion thereof will be directly under the opening 9 in the bottom of the hopper and will extend throughout the width and length thereof,

a portion of the gutter projecting downwardly through the slot in the plate 6 as shown.

Hopper 1 is then partly or entirely filled with a mixture of granulated sugar and cinnamon in proper proportions or with a mixture of any other materials to be spread. The device is then placed astride the surface to which the mixture is to be delivered and after the handles have been grasped by the operator, the device is moved back and forth. Wheel 18 which is operatively connected to the chain 22 will cause motion to be transmitted to the screw 13 and this screw will thus serve to constantly agitate that portion of the mixture which has gravitated into the gutter portion of the screen, thereby causing the mixture to be spread evenly along the gutter and to be discharged evenly through the screen onto the surface thereunder.

As portions of the mixture are delivered downwardly through the screen they will gravitate within the chute 7 which extends close to the surface of the material being supplied with the mixture and the depending portion of this spout will also act as a shield or guard to greatly reduce the amount of dust permitted to float away into the atmosphere where it might be injurious to the operator.

What is claimed is:

1. A baker's appliance including a hopper having an outlet in the bottom thereof, a pair of supporting wheels connected to one end of the hopper and held against swinging movement relative thereto, a pair of supporting wheels pivotally connected to the other end of the hopper, oppositely extending handles on the ends of the hopper for receiving downward thrust from an operator along lines extending between the wheels of each pair, said wheels constituting means for maintaining four points of contact between the wheels of the appliance and a supporting surface thereunder, an agitating device mounted for rotation in the hopper, and means for transmitting motion from one of said wheels to the agitating device.

2. A baker's appliance including a hopper having an outlet slot extending from one end to the other of the bottom thereof, a gutter-like screen secured to the bottom of the hopper and extending longitudinally of the slot, means for detachably binding the edge portions of the screen to the hopper, said means including flanges constituting a combined chute and shield depending upon the screen, an agitating device within the hopper and extending into the gutter formed by the screen, a pair of supporting wheels fixedly connected to one end of the hopper, a pair of supporting wheels pivotally connected to the other end of the hopper, and handles extending in opposite directions from the respective ends of the hopper for receiving downward thrust along lines extending between the wheels of each shaft, and means for transmitting motion from one of the wheels to the agitating means.

VIRGIL C. KIRBY.