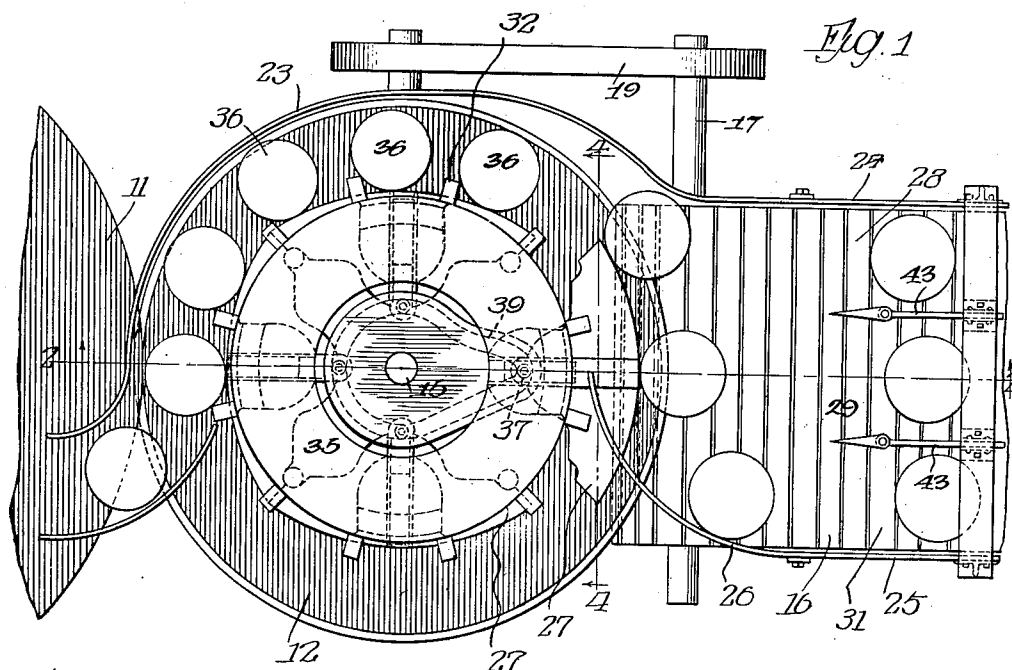
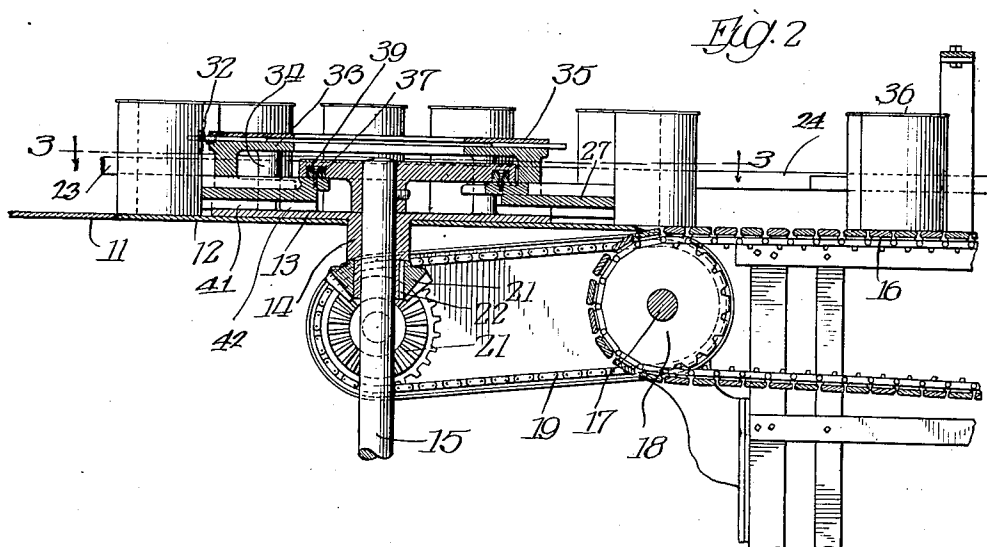


1,284,638.

F. G. FOSS.
CAN FEEDING MECHANISM.
APPLICATION FILED JUNE 1, 1915.

Patented Nov. 12, 1918.

2 SHEETS—SHEET 1.



Witnesses
[Signature]
J. C. Carpenter

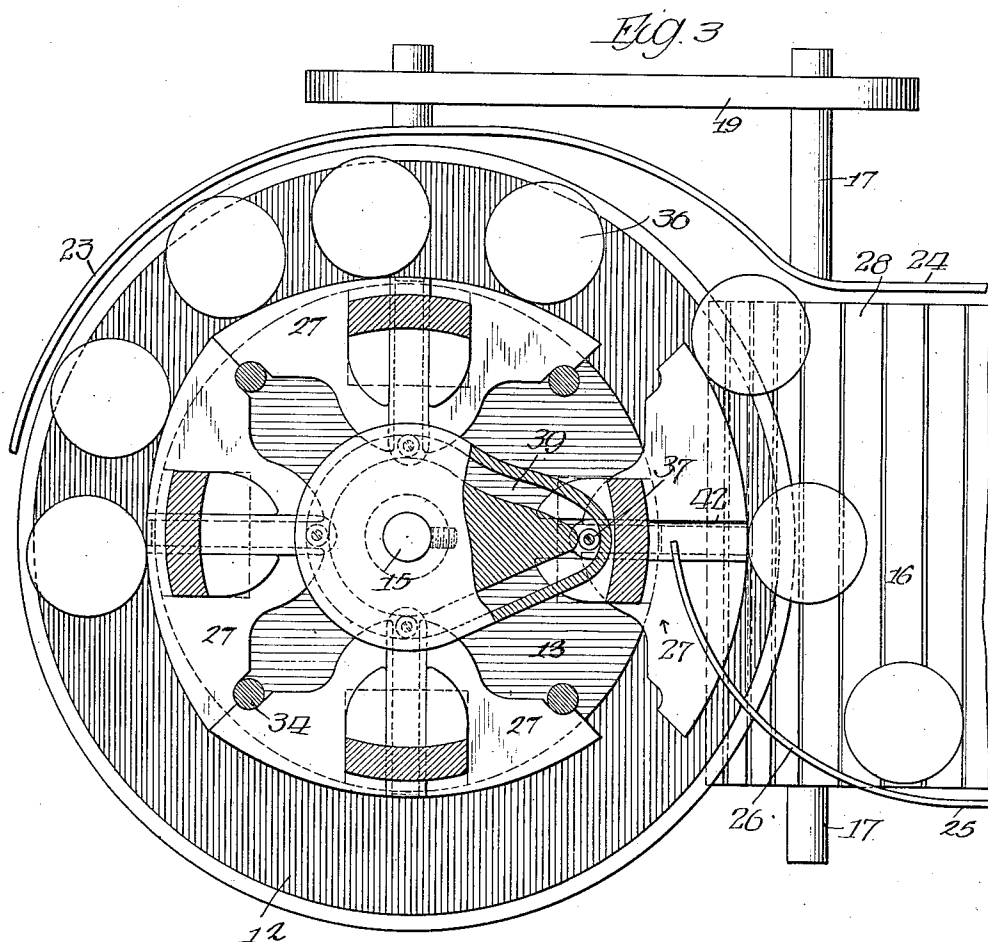
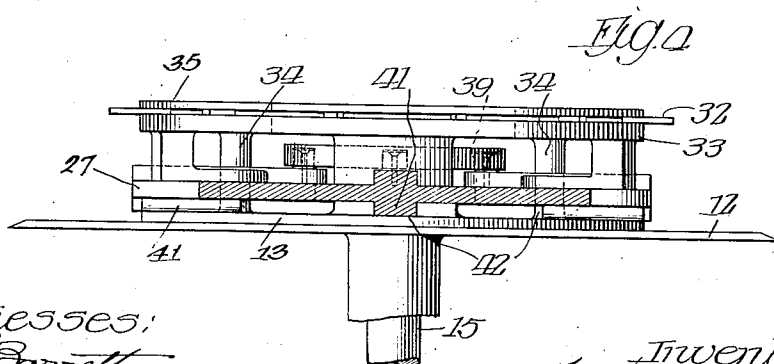
Inventor
Fred G. Foss
By *[Signature]* Monday, Grant, Adcock
+ Clarke Attys

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Witnesses:
A. E. Barrett
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Fred G. Foss
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UNITED STATES PATENT OFFICE.

FRED G. FOSS, OF BROOKLYN, NEW YORK, ASSIGNOR TO AMERICAN CAN COMPANY,
OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CAN-FEEDING MECHANISM.

1,284,638.

Specification of Letters Patent.

Patented Nov. 12, 1918.

Application filed June 1, 1915. Serial No. 31,350.

To all whom it may concern:

Be it known that I, FRED G. FOSS, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Can-Feeding Mechanism, of which the following is a specification.

This invention relates in general to can-feeding mechanism and has more particular reference to can-feeding mechanisms of the character described in a companion application executed by me on the 27th day of May, 1915.

A principal object of the present invention is to produce a novel and effective way of operating can ejectors to deliver the cans distributed at appropriate intervals.

A further object of the invention is the provision of a simple and economic construction for feeding cans from the filling or other machine to heading or closing machines or the like.

Other objects and advantages of the invention will be apparent as it is better understood from the following description when considered in connection with the accompanying drawing illustrating a preferred embodiment thereof.

Referring to the drawing,

Figure 1 is a top plan view of a can-feeding mechanism embodying my invention;

Fig. 2 is a section taken substantially on the line 2—2 thereof;

Fig. 3 is a section taken substantially on the line 3—3 of Fig. 2; and

Fig. 4 is a section on the line 4—4 of Fig. 1.

Cans are delivered to the feeding mechanism in any manner suitable and from any suitable machine, being shown deposited thereon from a disk or table 11. From the disk 11 the cans are received upon a rotating disk 12 secured to a plate 13 having a depending collar 14 loosely and rotatably embracing a stationary shaft 15. The disk 12 is given a continuous rotation from a conveyer 16 through the medium of a shaft 17 carrying sprocket wheels 18 over which the conveyer is trained, a sprocket chain 19

driven by this shaft and miter or beveled gears 21 (Fig. 2) driven by the chain, one of the gears 21 being keyed to the collar 14 at 22. The cans are received at one side of the disk and delivered at the other, and a guide 23 extends about the operative travel of the disk. This guide, in the present instance, forms a continuation of the guide 24 at one side of the conveyer 16. A similar guide 25 is provided at the other side and this guide is continued as at 26 over the disk, for a purpose to be later described. As in my companion application, a ring formed of segmental parts or ejectors 27 slidable upon the upper base of the plate 13 is provided. These segmental parts lie in retracted position until, or nearly until, the cans in front of them are opposite the discharge station, when they are given an outward reciprocation to eject the cans. The conveyer 16 in the present instance, is divided into three lanes, 28, 29 and 31 by preferably fixed guides or rails 43, and it is intended that cans shall be delivered in a line of successive cans to each lane. To this end the segmental parts 27 are of length sufficient to permit three cans to be disposed of in front of each as it travels from the disk 11 toward the conveyer 16. The spaced position of the cans is assured by spring plungers or fingers 32 extending radially outwardly beyond the outer faces of the segmental parts 27. These plungers are carried between an annular plate or ring 33 carried upon posts 34 from the plate 13, and a second plate 35 positioned thereabove. This structure is only shown generally on the drawing, as it forms no part of my present invention, being described and claimed in my companion application already referred to. It may be said, however, that these plungers or fingers cause the positioning of three cans, as indicated at 36 in Fig. 1 in front of each segmental part. The segmental parts are caused to reciprocate in accordance with my present invention by the rollers 37 taking into an appropriately shaped cam curve 39 best seen in Fig. 3. These rollers force the segmental parts 27 outwardly when they arrive at an appropriate point in their travel

and then return them to normal position thereafter, the outward movement ejecting the cans from the disk 12 onto the conveyor and the return movement bringing the ejectors back into position to receive a subsequent charge. The form of the cam curve 39 is preferably such that each segmental part is first started outwardly slowly as it approaches discharge position and is then accelerated and is then gradually retarded without any abrupt movement which would cause spilling of the cans. The segmental parts are held in proper position by ribs 41 extending downwardly from their own faces and sliding in grooves or slots 42 in the upper face of the plate 13. The cans are moved off of the rotating disk in accordance with my invention as follows: The one for the lane 31 by the action of its ejector and by coming in contact with the guide 26 and the two for the lanes 28 and 29 by the ejecting devices.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing any of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A can-feeding and distributing mechanism comprising a continuously rotating disk upon which the filled cans are received and held upright, ejecting means for moving a plurality of cans off said disk at a predetermined station in the travel, a cam for operating said ejecting means, and spacing devices by which the cans are caused to slide and be spaced across the ejecting face of said ejecting means.

2. A can-feeding mechanism comprising a rotating disk upon which the cans are received, a segmental member rotatable with said disk, a stationary cam and connections between said cam and the segments of said member for imparting to such segments successively a radial reciprocation for ejecting cans from said disk.

3. A can-feeding and distributing mechanism comprising a continuously rotating disk upon which the cans are received and held upright, a member for ejecting cans therefrom and adapted to eject a plurality of cans in spaced relation at each ejection, each can at a different circumferential point, and a cam for operating said member at a predetermined station in the travel of said disk.

4. A can-feeding mechanism comprising, in combination: a continuously rotatable table; a plurality of can ejecting members

carried by said table, means whereby a plurality of cans may be arranged in the path of each of said can ejecting members; a substantially centrally located stationary cam; and means by which said can ejectors may be successively radially actuated at an accelerating and diminishing velocity by said cam at predetermined points.

5. A can-feeding mechanism comprising, in combination: a rotary can-distributing table; a plurality of can ejecting members carried by said table; means for arranging a plurality of cans in the paths of said ejecting members; a fixed cam having an extension toward the delivery station of said rotary table and shaped for the gradual acceleration and slowing of the movement of the cans as they are delivered; and means by which said can ejecting members may be successively actuated by said cam for delivery from the table at said station.

6. A can-feeding mechanism comprising, in combination: a continuously rotatable table; a plurality of can ejecting members carried by said table, means whereby a plurality of cans may be arranged on said table in front of each of said can ejecting members; a cam by which said can ejectors may be successively radially actuated at an accelerating and diminishing velocity at a predetermined station; and means which receive the ejected cans from said table in separate parallel lines.

7. A can-feeding mechanism adapted to deliver a plurality of cans in a series of lines of successive cans comprising, in combination: a continuously rotatable table; a plurality of can ejecting members carried by said table, means whereby a plurality of cans may be arranged in the path of each of said can ejecting members; a cam; means by which said can ejectors may be successively radially actuated at an accelerating and diminishing velocity by said cam at predetermined points; and means for maintaining the ejected cans in separate lines.

8. A can-feeding mechanism adapted to deliver a plurality of cans in a series of lines of successive cans comprising, in combination: a continuously rotatable table; a plurality of can ejecting members carried by said table, means whereby a plurality of cans may be arranged in the path of each of said can ejecting members; a stationary cam; means by which said can ejectors may be successively radially actuated at an accelerating and diminishing velocity by said cam at predetermined points; and can receiving and guiding means leading from the points where the cans are severally delivered.

9. A can-feeding mechanism adapted to deliver a plurality of cans to a series of lanes comprising, in combination: a continuously rotatable table; a plurality of can

ejecting members carried by said table, means whereby a plurality of cans may be arranged in the path of each of said can ejecting members; a cam; means by which
5 said can ejectors may be successively radially actuated at an accelerating and diminishing velocity by said cam at predetermined points; and a receiving conveyer having

lanes for maintaining the ejected and distributed cans in separate lines.

Signed in the presence of two subscribing
witnesses. 10

FRED G. FOSS.

Witnesses:

W. D. FOSTER,

D. F. MENNIS.