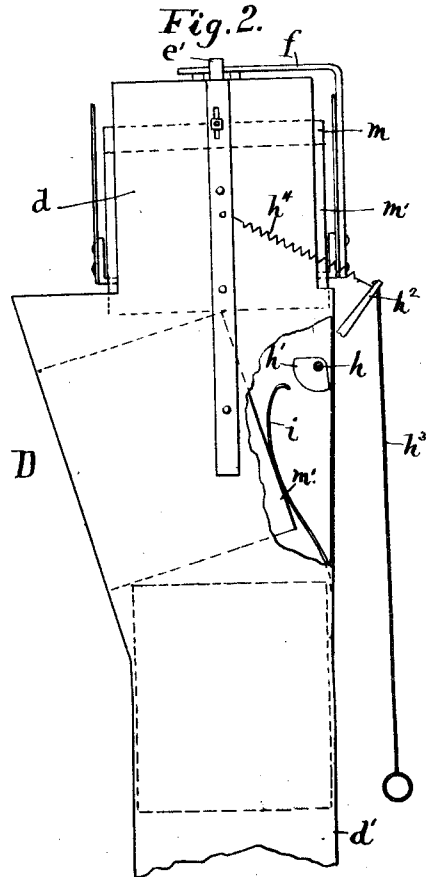
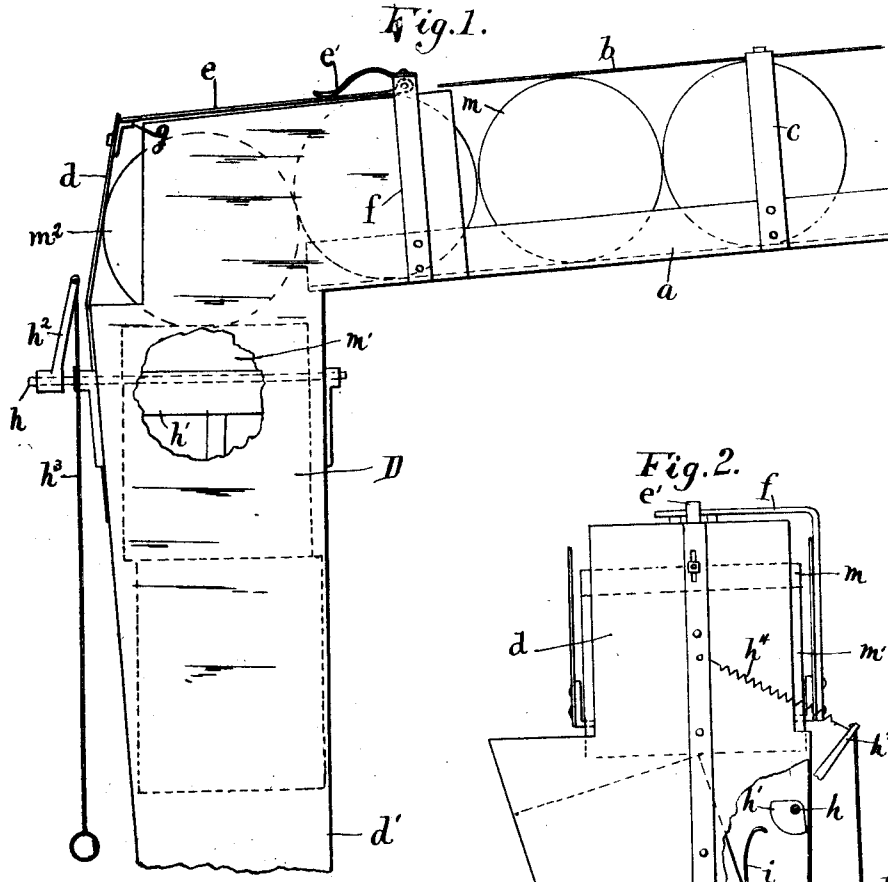


J. P. BAXTER, JR.
APPARATUS FOR TILTING CANS.
APPLICATION FILED DEC. 11, 1912.

Patented June 10, 1913.

1,064,277.



Witnesses:

B. M. Newell.
C. B. Crighton.

Inventor:

James P. Baxter Jr.
by S. W. Bates
th

UNITED STATES PATENT OFFICE.

JAMES P. BAXTER, JR., OF PORTLAND, MAINE.

APPARATUS FOR TILTING CANS.

1,064,277.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed December 11, 1912. Serial No. 736,081.

To all whom it may concern:

Be it known that I, JAMES P. BAXTER, JR., of Portland, in the county of Cumberland and State of Maine, have invented certain
5 new and useful Improvements in Apparatus for Tilting Cans, of which the following is a specification.

My invention relates to an apparatus for righting cans or converting them from a
10 horizontal to an upright position.

In canning corn and other food products the cans are fed to the filling machine through a vertical spout which connects with the upper portion of the factory where the
15 cans are usually stored. In feeding and handling these cans it is much easier to lay them on their sides in an inclined runway than to place them one on top of another in a vertical spout. Accordingly the cans are
20 first placed in a row on their sides in an inclined runway and are allowed to roll downward and to drop one at a time into the upper end of a vertical hopper connecting with a vertical spout from the lower end of which
25 the cans are removed one at a time. The cans as they drop from the runway into the hopper are righted or turned from a horizontal to an upright position.

My invention consists in the construction
30 and arrangement of the tilting mechanism located within the hopper whereby clogging or accidental stoppage of the column of cans is prevented.

I illustrate my invention by means of the
35 accompanying drawing, in which,

Figure 1 is a side view of an apparatus embodying my invention, and Fig. 2 is an
40 end view of the same.

The inclined runway for conveying the
45 cans *m* is made up of the parallel angle bars *a* and longitudinal guide *b* retained in place by the uprights *c*. The lower end of the runway connects with and discharges into a vertically disposed hopper *D*, the side walls
50 of the hopper extending upward and inclosing the lower end or outlet of the runway so that the cans as they fall into the hopper will be confined by the said walls. The upper end of the hopper *D* is of sufficient size
55 to allow the cans to turn at right angles to their original position. Means are provided to check or retard the cans as they reach the lower end of the runway and fall into the hopper. For this purpose I provide a pivoted arm *e* which is adapted to be struck by the cans as they roll off the end of the run-

way. This arm is pivoted to a standard *f* and is pressed normally downward by a spring *e'* secured to the standard. The lower end of this arm rests on a stop or rest *g*
60 which is adjustably secured to the face *d* of the hopper. The cans are tilted by dropping them from the end of the runway so that one end will strike a ledge or shoulder so placed as to turn the can from a hori-
65 zontal to a vertical position. This obstacle which is interposed in the path of the can to turn or tilt it, I prefer to make movable so that in case a can lodges it can be jarred and the column started along.

As here shown, I provide a shaft *h* journaled in bearings secured to the hopper on one side and secured to this shaft is a block
70 *h'* shaped so as to form the ledge against which the end of the can strikes as it falls. This block is shown as a circular segment in cross section and when the shaft is turned
75 the outer portion of the ledge is raised tending to lift the can if the latter lodges on the block. The shaft is provided with a handle
80 *h²* from which depends a pull cord, whereby the operator standing below may rotate the shaft and jar the can free from the block. A spring *h⁴* tends to bring the block back to
85 its normal position after it has been disturbed. The side of the hopper opposite the block is inclined so that as the can falls over against it, it is held in an inclined position presenting the corner of its top for
90 the support of the can above which rolls down and rests on said corner.

For the purpose of holding the can against the inclined side of the hopper I employ a
95 light spring *i* secured to the hopper beneath the block and acting lightly against the side of the can to retain it in a tilted position.

Connected with the lower end of the hopper is the vertical spout *d'* which discharges
100 the cans at the filling machines where they are filled.

The operation of my apparatus is as follows:—The vertical spout *d'* is first filled with cans, the lower can resting on the bed of the filling machine. One of the cans as
105 *m'* rests on top of the column of cans in the vertical spout tilted up as explained. Supported on this can *m'* is the lower can *m²* of the series held on their sides in the runway, and slightly below the lower end thereof. Above the can *m²* and retained by it are
110 the cans held in the runway in rollable position. The can *m²* is somewhat above the

level of the block h' so that as it droops it will strike the block with more or less force. The cans being in the above described positions, the lower can in the spout d' is suddenly removed causing the entire column to drop and allowing the can m' to drop one space and to take its place in the top of the spout d' . The support being now removed from the can m^2 the latter falls, its end strikes the block h' and the can turns over into an upright position resting in an inclined position against the opposite wall of the hopper. The spring i gently holds it against the side of the hopper and in such a position that its corner alone supports the next can above.

If the cans stick on the block or clog in any way, a pull on the cord h^3 will jar them and set them loose so that they will move along.

This apparatus has no normally moving parts, it is extremely simple and never gets out of order.

I claim:—

1. In an apparatus for righting cans, the combination of a vertical spout, a hopper at the upper end thereof, an inclined runway for discharging a line of rolling cans into the top of said hopper, a ledge on one side of said hopper for engaging one end of each can to tilt the same to an upright position and means for moving said ledge from its normal position to jar the tilting can.

2. In an apparatus for righting cans, the combination of a vertical spout, a hopper at the upper end of said spout, an inclined runway for discharging a line of rolling

cans into the top of said hopper, a ledge on one side of said hopper for engaging one end of each can to tilt the same to an upright position and a yielding checking device opposite the lower end of the runway to retard the velocity of the rolling cans.

3. In an apparatus for righting cans, the combination of a vertical spout, a hopper at the upper end of said spout, an inclined runway for discharging a line of rolling cans into the top of said hopper, a shaft on one side of said hopper, a block on said shaft having a ledge adapted to engage the end of each can to tilt the same to an upright position, a handle for turning said shaft to disturb the position of a lodged can and a spring for returning the same to its normal position.

4. In an apparatus for righting cans, the combination of a vertical spout, a hopper at the upper end of said spout, an inclined runway for discharging a line of rolling cans into said hopper, a ledge in said hopper positioned to be struck by the end of each can as it falls into said hopper to turn the same to an upright position and a spring for pressing each can as it is righted against the inclined side of the hopper whereby its upper corner is made to support the next can above.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JAMES P. BAXTER, JR.

Witnesses:

S. W. BATES,

C. B. CREIGHTON.