

March 30, 1926.

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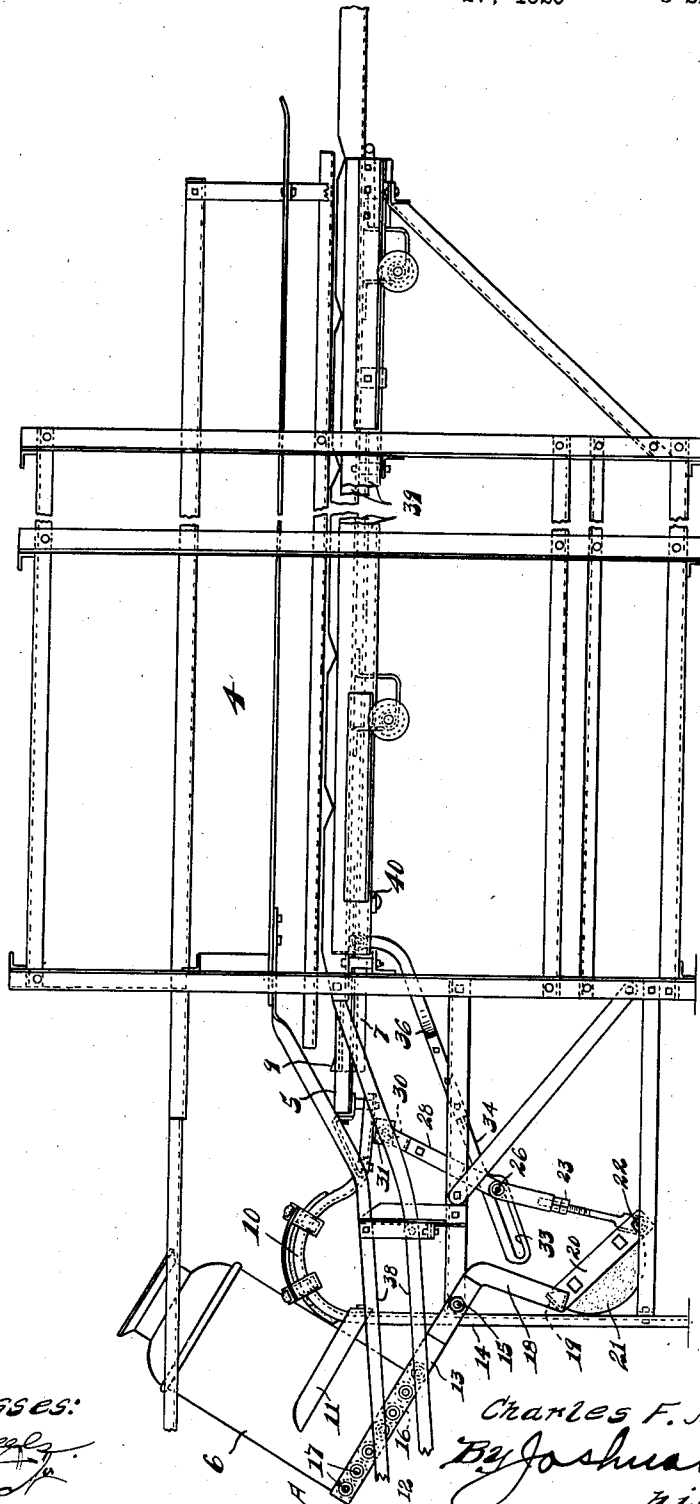
C. F. McEWAN

CAN DELIVERING MECHANISM

Filed Feb. 27, 1925

3 Sheets-Sheet 1

Fig. 1



Witnesses:

C. E. W. [Signature]
[Signature]

Inventor:

Charles F. McEwan,

By Joshua R. H. [Signature]
his Attorney.

March 30, 1926.

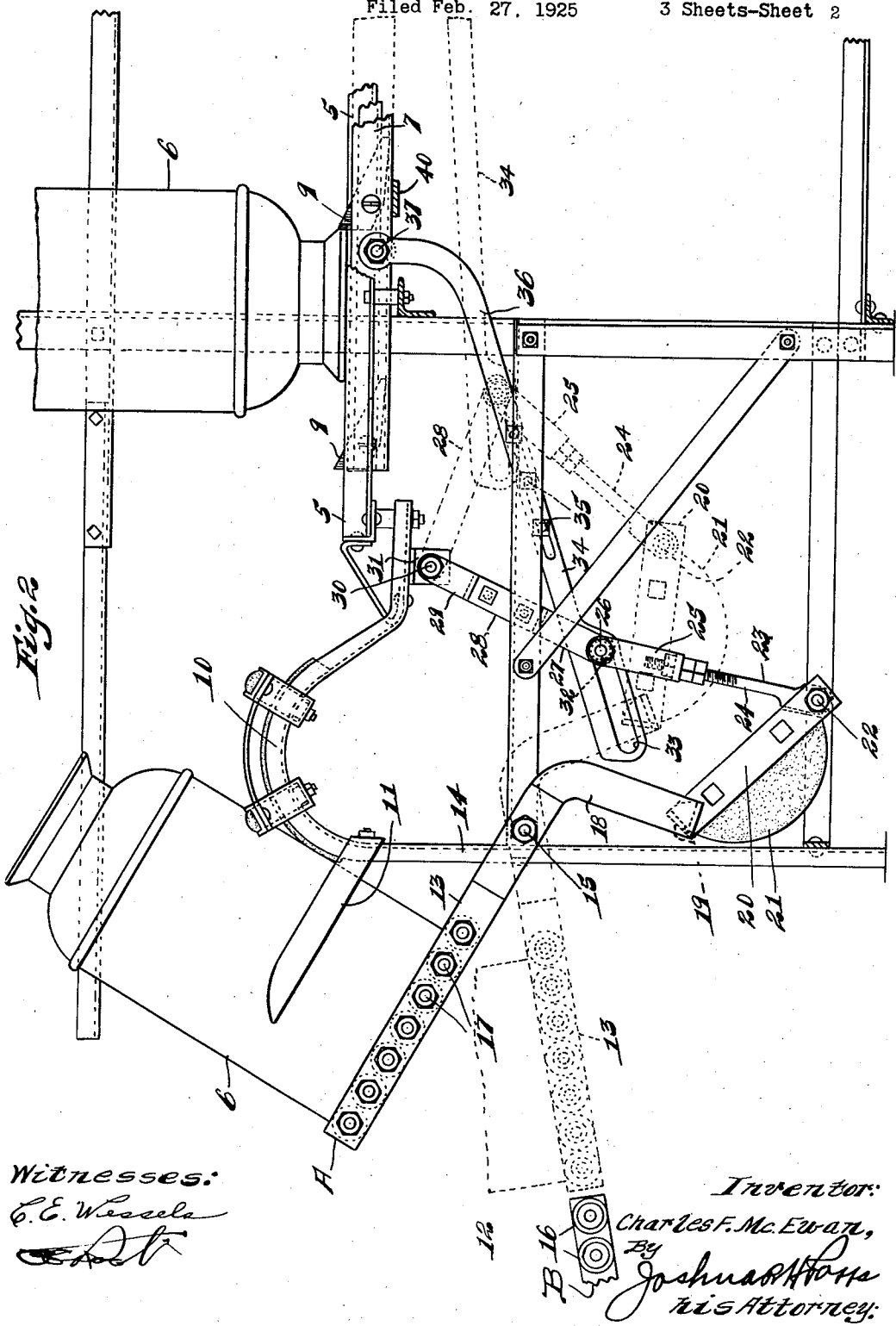
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C. F. McEWAN

CAN DELIVERING MECHANISM

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March 30, 1926.

C. F. McEWAN

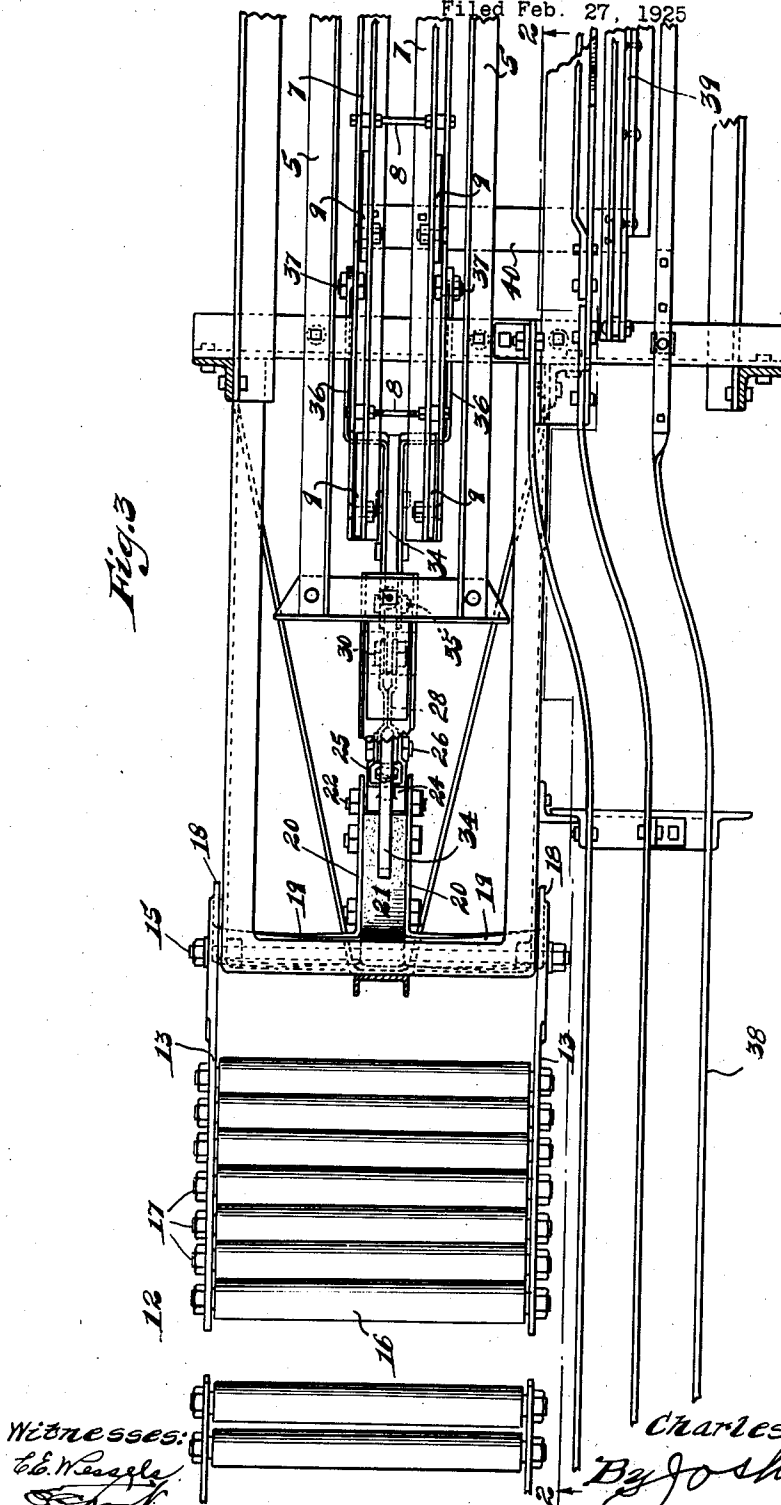
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CAN DELIVERING MECHANISM

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Fig. 3



Witnesses:
C. E. W. Reagle
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Inventor:
Charles F. McEwan
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UNITED STATES PATENT OFFICE.

CHARLES F. McEWAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO HARRY D. LATHROP, OF CHICAGO, ILLINOIS.

CAN-DELIVERING MECHANISM.

Application filed February 27, 1925. Serial No. 11,926.

To all whom it may concern:

Be it known that I, CHARLES F. McEWAN, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in a Can-Delivering Mechanism, of which the following is a specification.

My present invention relates to can delivering mechanism, especially adapted for use in connection with milk can washing machines and in other places and capacities where it will be desirable to effect automatically the delivery or discharge of milk and similar cans, and the main object of my invention is the provision of a new and useful can delivering mechanism which will be highly efficient and durable in use as well as economical in manufacture.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 represents a side elevational view of my improved mechanism as applied to a can washing machine, fragmentally shown;

Fig. 2 represents a side elevational view and section, taken substantially on line 2—2 of Fig. 3; and

Fig. 3 represents a top plan view of my improved mechanism in association with a can washing machine.

In setting forth the preferred form of construction, I prefer to associate my improvements with a well-known type of can washing machine, in which the numeral 4 designates as a whole the frame work of the machine and 5 denotes slide rails whereon the milk cans 6 are advanced through the machine while being subjected to the various washing operations. In this machine, the cans are advanced on the slide rails by means of a pair of operating bars 7 suitably mounted on the frame 4 for reciprocation and suitably held together for uniform movement by the cross connections 8; the said reciprocating bars 7 carrying dog members 9 arranged when the reciprocating bars are moved forwardly, to advance the milk

cans on the slide rails and adapted further when the reciprocating bars are moved backwardly, to be tilted out of engagement with said cans. The cans are thus advanced to the exit end of the machine where they are tumbled over a camel back 10 from which they fall bottom downwards through a guide member 11 carried by said camel back.

The preferred embodiment of my improvements as illustrated in the accompanying drawings, includes a U-shaped frame 12, the sides 13 whereof are pivotally mounted upon the legs 14 of the camel back by means of a horizontal axis 15. Between the sides 13 of the U-shaped frame, in position to receive and support the cans as they fall from the camel back, are rotatably mounted a plurality of rollers 16, the mode of mounting, by preference, consisting of securing in the sides 13 the axes 17 upon which the rollers are mounted for free rotation by means of any suitable anti-friction devices.

On the side of the axis 15 which comes opposite to the position of the rollers 16, the sides 13 of the frame are offset to provide downwardly projecting portions 18, then are bent inwardly to form portions 19 directed towards each other, and finally are bent rearwardly at an angle to form the parallel portions 20 between which is bolted a half round weight 21 arranged to serve as a counter-balance for the end of the frame containing the rollers 16.

Pivotally connected at 22 between the parallel portions 20 is a link member 23 comprising a stem 24 upon which is threaded for adjustment a yoke element 25 carrying a pivot pin 26. Also mounted upon this pivot pin 26 is the yoked end 27 of a swing arm 28 whose upper yoked end 29 is engaged upon a pivot stud 30 carried by a bracket 31 attached to the frame of the camel back. Upon the pivot pin 26 is rotatably arranged a roller 32 on which is operatively mounted the slotted end 33 of a shifter bar 34 having adjustably connected thereto at 35 a yoked portion 36 the members whereof curve upwardly and have their extremities pivoted as at 37 to the operating bars 7 of the washing machine.

The frame 12 carrying the series of independently rotatable rollers 16 is thus rockably mounted upon the camel back 10 in

such manner that when the frame is inclined upwardly to occupy a position as shown at A, the rollers will receive the can as it is tumbled over the camel back; and also that when the rockable frame is tilted to incline downwardly so as to occupy the position as shown at B, the rollers will automatically turn under the weight of the can and thereby effect the discharge of the can. The entire arrangement is such that as the operating bars 7 are moved forward to tumble a can over the camel back, the rockable frame will be moved upwardly to receive the can thereon as it is tumbled over the camel back, and further the arrangement is such that when the operating bars 7 are retracted, the rockable frame will be inclined downwardly to effect automatically the discharge of the sustained can.

The can delivering or discharging mechanism is thus located at the exit end of the can washing machine and in convenient relation to a guideway 38 designed for the discharge or delivery of the lids or covers for the milk cans, the covers being discharged into said guideway by means of a lid advancing mechanism 39 which is operated in synchronism with the operating bars 7 by means of a cross connecting bar 40.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. Mechanism of the class described comprising a pivoted platform characterized by having means for effecting the delivery of a can placed thereon, a counterweight for said platform, and means for tilting said platform, substantially as described.

2. Mechanism of the class described comprising a pivotally supported frame, rollers operable by the weight of the can thereon mounted in the frame, a reciprocating bar, and means under the control of said reciprocating bar for rocking said frame first into can receiving position and then into can discharging position, substantially as described.

3. Mechanism of the class described comprising a frame having pivotal support and characterized by having means arranged at one side of its place of pivoting for effecting the delivery of a can placed thereon, a reciprocating bar, and means under the control of said bar attached to said frame at the opposite side of the place of pivoting

for rocking said frame, substantially as described.

4. Mechanism of the class described comprising a support in the form of a camel back for inverting cans, an operating bar for advancing cans thereto, a frame pivoted on said support for rocking movement, rollers in the frame to receive the can from the camel back, and an operative connection between said frame and said operating bar, substantially as described.

5. Mechanism of the class described having, in combination, a reciprocating bar, a support, a frame pivoted on said support for rocking movement, rollers operable by the weight of a can thereon mounted in the frame at one side of the pivot, a counterweight on the frame at the opposite side of the pivot, and an operative connection between said frame and reciprocating bar, substantially as described.

6. Mechanism of the class described comprising a frame pivoted for rocking movement, a plurality of rollers mounted in the frame and adapted to receive a can thereon, an angular offset end on said frame, a counterweight carried by the offset end, an operating bar, and means attached to said offset end and arranged to be actuated by said operating bar for rocking said frame, substantially as described.

7. In combination with a frame pivotally supported intermediate its ends, rollers rotatably arranged in the frame at one side of the place of pivoting, a counterweight applied to the frame at the opposite side of the place of pivoting, said rollers being operable by the weight of a can thereon, and means for tilting said frame to cause said rollers to effect the discharge of a can, substantially as described.

8. In mechanism of the character set forth, the combination with a frame pivotally supported intermediate its ends, of rollers mounted in the frame at one side of the place of pivoting, a weighted offset portion in opposition to said rollers, a reciprocating bar, and connections between said bar and said offset portion whereby the reciprocation of said bar will rock said frame, substantially as described.

9. In mechanism of the character set forth, the combination with a frame pivotally supported intermediate its ends, of rollers arranged in the frame at one side of the place of pivoting, an offset portion in opposition to said rollers, a pair of pivotally connected members the extremity of one being pivoted to said offset portion while the extremity of the other swings on a fixed pivot stud, and means associated with said connected members at the pivotal junction thereof for pushing them forwardly and pulling them backwardly, substantially as described.

10. In combination, a rockably mounted

member carrying means for discharging a can and operable by the weight of the can thereon, an operating bar, a pair of pivotally connected members the extremity of one 5 being pivoted to said rockably mounted member while the extremity of the other is engaged with a pivot stud, and a shifter bar connected between said operating bar and said connected members for pushing the last named members forwardly and pulling 10 them backwardly, substantially as described.

In testimony whereof I have signed my name to this specification.

CHARLES F. McEWAN.