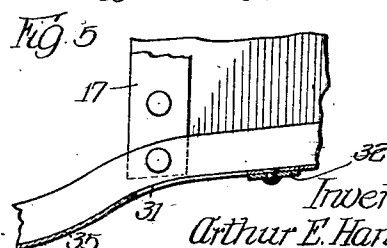
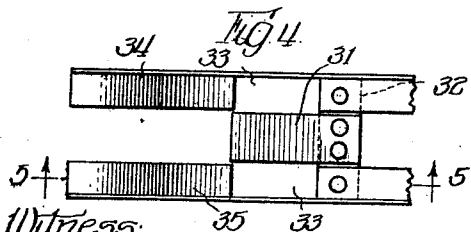
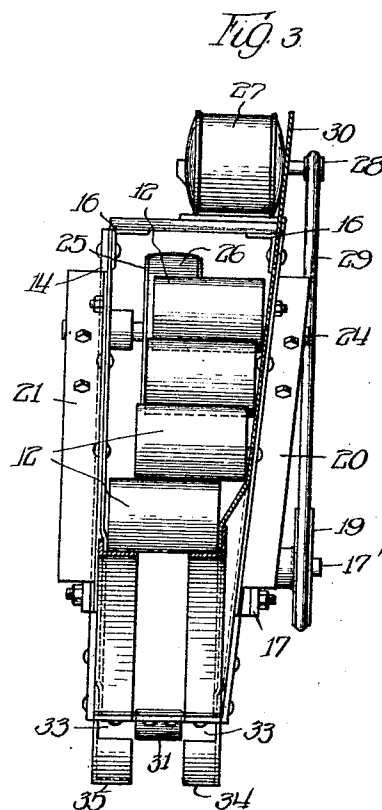
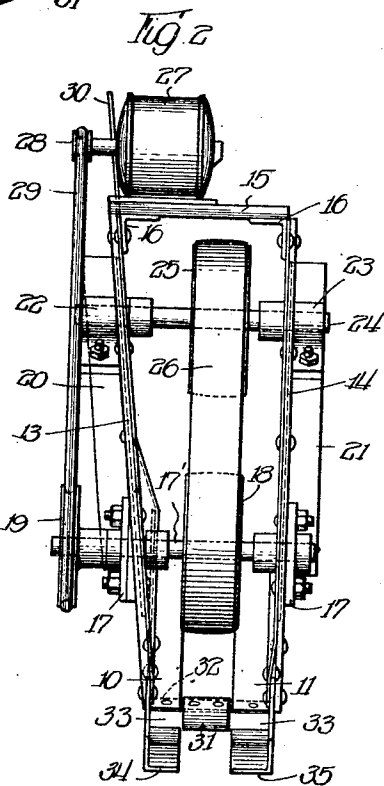
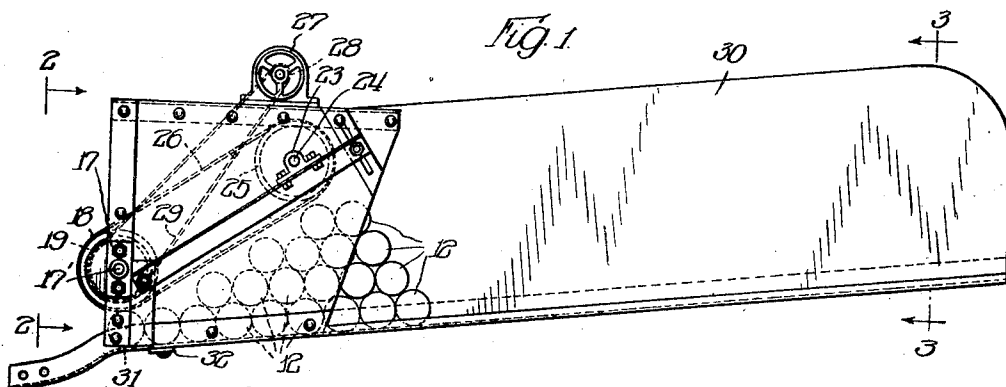


Aug. 4, 1925.

A. E. HANSEN
POWER DRIVEN CAN RACK
Filed Aug. 14, 1922

1,548,600



Witness:
A. Burkhardt.

Inventor:
Arthur E. Hansen,
By William, Hurdley, Bryant & Knight
attys.

UNITED STATES PATENT OFFICE.

ARTHUR E. HANSEN, OF WHITEWATER, WISCONSIN, ASSIGNOR TO LIBBY, McNEILL & LIBBY, OF CHICAGO, ILLINOIS, A CORPORATION OF MAINE.

POWER-DRIVEN CAN RACK.

Application filed August 14, 1922. Serial No. 581,575.

To all whom it may concern:

Be it known that I, ARTHUR E. HANSEN, a citizen of the United States, residing at Whitewater, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Power-Driven Can Racks, of which the following is a specification.

The present invention relates to power driven can racks.

The present invention is particularly applicable to the ordinary cylindrical type of can which is commonly used for containing fruits, vegetables, milk, and similar materials. It is common practice to transport such cans whether in loaded or unloaded condition with said cans stacked in tiers, their cylindrical axes lying in horizontal planes. In handling such cans it is common practice to use a tool commonly referred to as a fork, the prongs of which enter the spaces between the tiers of cans. By means of such forks a workman may conveniently handle a large number of cans. According to the present invention, means are provided for receiving a stack of cans having their cylindrical axes parallel and feeding same in a continuous file to a predetermined point.

An object of the present invention is to provide an improved can rack whereby stacks of cans may be conveniently fed in a moving file to a predetermined point.

A further object is to provide an improved can rack which will expeditiously deliver a moving file of cans.

Further objects will appear as the description proceeds.

Referring to the drawings—

Figure 1 is a view in side elevation illustrating one embodiment of the present invention;

Figure 2 is an end view looking in the direction of the arrows 2—2 of Figure 1;

Figure 3 is a sectional view taken in the direction of the arrows 3—3 of Figure 1;

Figure 4 represents a detail; and

Figure 5 is a sectional view taken along the line 5—5 of Figure 4.

The numerals 10 and 11 indicate a pair of angle-irons, which are arranged in parallel relation and inclined with respect to a horizontal plane. Said angle-irons 10 and 11 have the insides of their angles facing one another and constitute a runway for

cans, certain of which cans are indicated by the numerals 12—12. Mounted in cooperative relationship with the members 10 and 11 are the side plates 13 and 14, which side plates are connected at their upper extremities by means of the cross member 15, angles 16—16 being provided for supporting said cross member 15. At the left-hand extremities of plates 13 and 14, as viewed in Figure 1, are the supporting bars 17, which support the shaft 17' carrying the pulleys 18 and 19. Mounted on the outer sides of the side plates 13 and 14 are the angles 20 and 21 which carry the bearings 22 and 23 respectively. Said bearings support the shaft 24 which carries the pulley 25. An endless belt is carried by pulleys 18 and 25. The angles 20 and 21, which may be mounted in any preferred manner, are inclined with reference to members 10 and 11, and the belt 26 is supported in such a position that it impels cans stacked upon said members 10 and 11 to roll beneath the pulley 18 and belt 26, one at a time. As will be referred to hereinafter, spring means are provided whereby variations in size of the cans 12—12 may be compensated for.

The cross member 15 supports the motor 27 which drives the pulley 28. The pulley 28 is connected, by means of belt 29, to the pulley 19, which is fast upon the same shaft as pulley 18. Pulley 18 may be so mounted as to have a vertical adjustment on supporting members 17—17, and pulley 25 may be adjustably mounted on angles 20 and 21, the supporting members 17—17 and side members 13 and 14 being suitably apertured to permit movement of shafts 17' and 24 in directions parallel with their axes. Mounted in cooperative relation with the member 10 is the side wall 30, which may be of sheet metal. Said side wall 30 preferably lies in a plane displaced more than 90 degrees from the plane of the bottoms of members 10 and 11 and acts as a back stop for supporting the stacked cans 12—12 in the manner indicated in Figure 3.

Mounted in a position below the pulley 18 is the spring 31, which may be supported from the members 10 and 11 by means of the cross bar 32, which cross bar 32 is riveted or otherwise secured to said members 10 and 11. Said members 10 and 11 have their bottom portions cut away to the left of the cross bar 32, as viewed in Figures 4 and 5.

The gaps indicated by the numerals 33—33 permit the spring 31 to serve as the sole support, in a vertical direction, of the cans as they pass beneath pulley 18 and belt 26.

5 The members 10 and 11 are extended beyond the spring 31, as indicated by the numerals 34 and 35. Said extensions 34 and 35 may lead the cans to any preferred place.

In operation, the motor 27, acting through the belt 29 and pulley 19, will communicate motion to pulley 18 and belt 26. Said pulleys 18 and 25 will be adjusted in position so that the belt 26 is in relatively taut condition. The operator will stack cans 12—12

15 upon the members 10 and 11, which cans, due to the inclined position of members 10 and 11, will gravitate toward the belt 26. Said belt 26 will feed the cans in a continuous single file over the spring 31, which will flex to accommodate variations in size of

20 said cans 12—12.

It will be clear that due to the adjustable mounting of pulleys 18 and 25, the rack according to the present invention may be

25 used with cans of widely varying diameters.

One embodiment of the present invention has been described in detail. Many modifications will occur to those skilled in the art. It is intended in this patent to cover all

30 such modifications that fall within the scope of the invention as defined by the appended claims.

I claim:

1. A power driven can rack comprising

35 an inclined runway adapted to have cans stacked thereupon and positively driven belt means arranged at an angle to said runway for causing said cans to assume a single layer in passing from said runway.

2. A power driven can rack comprising

40 members forming an inclined runway and a power driven endless belt having a portion

converging towards said runway and cooperating with said runway to cause cans placed upon said runway to move between

45 said belt and said runway in a single layer, said runway being provided with spring means in proximity to said belt to compensate for variations in sizes of cans.

3. A power driven can rack comprising a

50 pair of side members, a pair of pulleys mounted between said side members, an endless belt mounted upon said pulleys, members comprising a runway mounted between

55 said side members and adapted to deliver cans to a position in proximity to said belt, and a motor mounted upon said side members for positively driving said belt, said

60 runway being provided with a spring member in proximity with said belt for accommodating cans of different diameters.

4. A can rack comprising a runway inclined to the horizontal, a side wall inclined to the vertical, a pair of pulleys mounted

65 above said runway, said pulleys being provided with an endless belt, said belt having a portion converging toward said runway in a position to pass cans between said belt

70 and said runway in a single layer.

5. A can rack comprising a runway inclined to the horizontal, a side wall inclined

75 to the vertical, a pair of pulleys mounted above said runway, said pulleys being provided with an endless belt, said belt having a portion converging toward said runway in

80 a position to pass cans between said belt and said runway in a single layer, said runway including a resilient portion adjacent to said belt to accommodate cans of varying diameters.

Signed at Whitewater, Wisconsin, this 5th day of August, 1922.

ARTHUR E. HANSEN.