

UNITED STATES PATENT OFFICE.

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CAN-RUNWAY.

SPECIFICATION forming part of Letters Patent No. 752,341, dated February 16, 1904.

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To all whom it may concern:

Be it known that we, ARCHIBALD E. HOPKINS and OLIN S. FELLOWS, citizens of the United States, residing in Middletown, Orange county, and State of New York, have invented certain new and useful Improvements in Can-Runways, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

Our invention relates to conduits or runways used for conducting cylindrical cans of greater length than diameter to and from can-manipulating apparatus of various kinds to which it is important that the cans be delivered in a prescribed position.

Our invention consists, essentially, in forming the runway with a central longitudinal opening of greater width than the diameter of the can to be conducted, but of less width than the length of the can, so that a can rolling with its longitudinal axis at approximately right angle to the ways will pass over said relief-opening; but a can sliding upon or with its longitudinal axis parallel to the ways, or approximately so, will drop through the relief-opening and out of the way of succeeding cans, thus insuring the presentation of each can in proper axial alinement with the can-manipulating apparatus.

It has for a further object to provide means whereby the width of said relief-opening can be easily varied to adapt the machine for cans of different dimensions.

As a matter of fact the proper alinement of the cans is of great importance in the treatment of cylindrical cans by automatic apparatus, since cans presented endwise not only block the entire line or system, but are also liable to cause damage to the apparatus or to succeeding cans.

In the accompanying drawings, Figure 1 is a plan of a portion of a can-runway embodying our invention. Fig. 2 is a side elevation of the same. Fig. 3 is a central longitudinal section; Fig. 4, a transverse section upon the plane of line 4 4, Fig. 2; and Fig. 5, a transverse section upon the plane of line 5 5, Fig.

2; Fig. 6, a transverse section showing a means of adjusting the width of the relief-slot. 50

A A' represent standards or other stationary supports for the transverse members or ties T, to which the supporting-tracks *t t* are secured. Brackets *b b*, carrying the side rails *s s*, are secured adjustably upon the ties T T by any suitable mechanical expedient. As shown in the drawings, provision is made for the adjustment of the side rails *s s* with relation to each other by forming the cross-ties T T with slots *t' t'*, through which pass the set-screws *t'' t''*, as will be seen by reference to Fig. 4. The space between the standards A A' is chosen in which to represent our relief-opening R. It is obvious that the floor of the runway herein represented by the supporting-tracks *t t* may extend the whole width of the runway or any portion of such width, as desired, the object being to afford a supporting surface or surfaces over which the cans may roll with their longitudinal axes at right angles to the length of the runway, the side rails *s s* preventing lateral play of the cans upon the said supporting-floor. 60 65 70

The relief-opening R consists of a longitudinal slot or aperture formed centrally in the floor of the runway between the supporting-tracks *t t*, the opening being of a greater width than the diameter of the can to be conducted over the ways, so that a can passing on end or lengthwise over the floor of the runway, as C' or C² in the drawings, will drop through said relief-opening R and out of the path of the cans C, which are in proper alinement with their longitudinal axes at right angles to the length of the runway, in which position they pass over the said relief-opening R, their ends being supported by the tracks or floor *t t* on either side of the relief-opening R. 75 80 85

Where the runway is to be used for more than one size of can, provision is made for adjusting the width of the relief-opening R to suit the diameter of the can to be conducted. This may obviously be accomplished by various mechanical expedients. The simplest way is to support the tracks *t t*, constituting the floor of the runway on either side of the re- 90 95

lief-opening R upon the side rails *s s*, by means of suspenders *s' s'*, so that when the side rails are adjusted to the length of the can to be conducted the width of the relief-opening R will be simultaneously adjusted to the diameter of the can. This arrangement is applicable where the dimensions of the different sizes of cans to be conducted are relatively the same. Where the relative proportions between length and diameter vary, however, we use separate means of adjusting the width of the relief-opening R. Thus the supporting-rails *t t*, constituting the floor of the runway at the sides of the relief-opening R, may be attached to laterally-projecting slotted arms *s² s²*, bolted adjustably to the suspenders *s' s'*, as illustrated in Fig. 6, so that the width of the relief-opening R may be regulated independently and with relation to the positions of the side rails *s s*.

It is obvious that the portions of the side rails *s s* parallel to the relief-opening R perform an important function in sustaining the ends of the cans upon the comparatively narrow strips of flooring on either side of the said relief-opening R, where they are deprived of central support.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A runway for cylindrical cans which are of greater length than diameter, formed with a relief-opening in the can-supporting floor of greater width than the diameter of the can to be conducted but of less width than the length of the said can, whereby cans traveling on the runway obliquely to the length thereof will automatically fall through said opening.

2. A runway for cylindrical cans which are of greater length than diameter, formed with a relief-opening in the can-supporting floor of greater width than the diameter of the can to be conducted but of less width than the length of the said can, whereby cans traveling on the runway obliquely to the length thereof will fall automatically through said opening,

together with means for adjusting the width of said relief-opening, for the purpose set forth.

3. In a runway for cylindrical cans which are of greater length than diameter, the combination with the can-supporting floor formed with a relief-opening of greater width than the diameter of the can to be conducted, but of less width than the length of the said can, whereby cans traveling on the runway obliquely to the length thereof will fall automatically through said opening, of side rails arranged parallel to said relief-opening, for the purpose set forth.

4. In a runway for cylindrical cans which are of greater length than diameter, the combination of a can-supporting floor formed with a relief-opening of greater width than the diameter of the can to be conducted, but of less width than the length of the said can, whereby cans traveling on the runway obliquely to the length thereof will fall automatically through said opening, means for adjusting the width of said relief-opening, parallel side rails for guiding the ends of the cans passing over said relief-opening, and means for adjusting the said parallel rails with relation to each other.

5. A runway for cylindrical cans which are of greater length than diameter, having a bottomless relief-opening of greater width than the diameter of the can to be conducted but of less width than the length of such can, and guides for the ends of the cans as they travel on the runway, the construction and arrangement being such as to allow a can moving with its length otherwise than transversely of said runway to drop through said opening.

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Witnesses:

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