

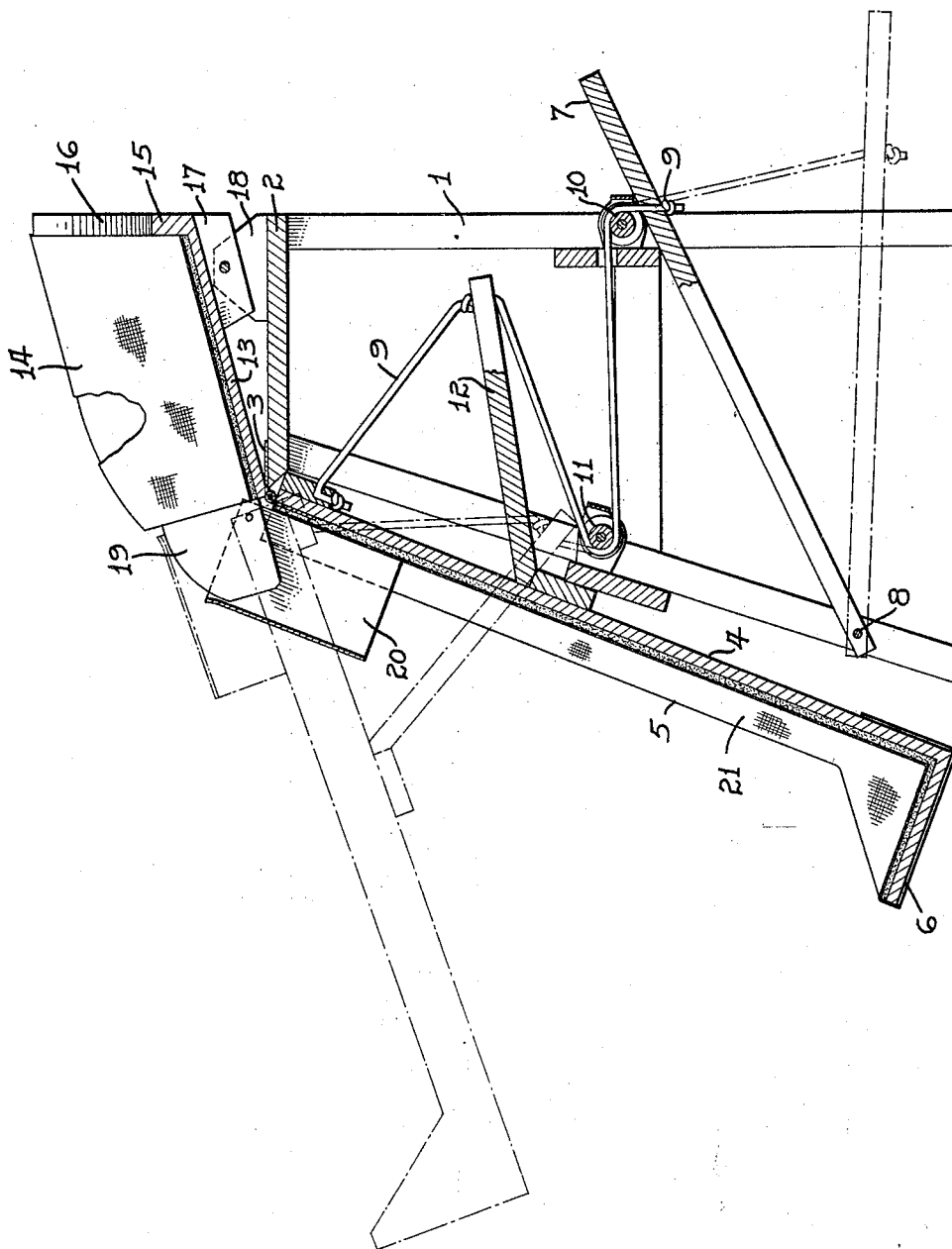
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L. H. DIETSCH

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APPARATUS FOR FILLING CONTAINERS

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Inventor

L. H. Dietsch

Wm. & Wm.

Attorneys

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UNITED STATES PATENT OFFICE

LEO H. DIETSCH, OF EDGERTON, OHIO

APPARATUS FOR FILLING CONTAINERS

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This invention relates to apparatus for filling bags, sacks, or other containers, with articles, such as apples, which bruise readily, and an object is to provide a simple and efficient apparatus to facilitate the filling of containers with articles which readily bruise in such manner that the containers may be readily and conveniently filled without injury to the articles.

Further objects and advantages of the invention will hereinafter appear, and for purposes of illustration, but not of limitation, the invention is shown on the accompanying drawing, in which:

The figure is a vertical sectional elevation of an apparatus embodying my invention for filling containers with articles which may be easily bruised.

The illustrated embodiment of the invention comprises a standard having supporting legs 1 and a top 2. Connected by a hinge 3 to the front edge of the top 2 is an elongate cradle 4 provided with relatively narrow sides 5 and an end wall 6, which extends at substantially right angles to the bottom wall. The cradle 4 is adapted to receive a container such as a sack, or carton, or the like, adapted to receive the material to be packaged. In the normal position of the cradle it is disposed at the inclined position shown by full lines on the figure.

The cradle 4 may be swung upwardly to the position shown in the dotted lines by means of a treadle 7, which is pivoted at 8 to one of the supporting legs, and connected to the outer end portion of the treadle is a cable 9. The cable 9 passes around a sheave 10 and thence forwardly to another sheave 11, and thence rearwardly through an opening formed in the rearward end of a bar 12 fastened to the underside of the cradle 4. The cable 9 extends from the bar 12 upwardly and is fastened at the end thereof to a front leg 1 of the standard.

It will be apparent that by depressing the treadle 7 the cradle 4 is swung outwardly to the dotted lined position shown on the drawing, and when in this position the cradle is substantially in alignment with a receiver 13, which is normally disposed in inclined posi-

tion with its forward end inclined downwardly.

The receiver 13 is provided with side walls 14 and a rear wall 15 having a rounded cut-out portion 16. The forward end of the receiver is open. The rearward end is provided with a depending bracket 17, which is pivoted to an upstanding bracket 18 mounted on the top 3 of the standard.

Extending forwardly from the sides 14 of the receiver are opposed extension plates 19, to which is pivoted a tubular guide 20, which extends forwardly from the receiver onto the cradle 4.

In use, a bag or other container is placed on the cradle 4 with the latter in the full line position shown on the drawing. The receiver 13 is first swung upwardly in order to move the guide 20 away from the cradle. After the container has been placed on the cradle the receiver 13 is swung downwardly and the guide 20 inserted into the mouth of the container. In the case of a paper or cloth bag the mouth of the latter is threaded or opened to permit insertion of the guide therein. Thereafter, the treadle 7 is depressed to swing the cradle into the dotted line position shown on the drawing, thereby positioning the cradle substantially in alignment with the receiver 13 and providing a gentle angle so that articles discharged into the receiver may roll by gravity into the container supported on the cradle. The angle is so chosen that the articles will roll or slide from the receiver into the container, but not with sufficient force to bruise or damage each other when coming into contact.

The operator, by keeping his foot on the treadle 7, may readily hold the cradle in the desired position until the container is filled. In practice, especially when filling a large bag with apples, or the like, it is found desirable to lower the cradle after the bag is about half filled to allow the apples to level or settle, and thereafter raise the cradle to complete the filling operation. After the container is filled the treadle 7 is released to permit the cradle to drop into its lowered position, as shown in full lines on the drawing. Thereafter, the receiver 13 is swung upward-

ly to remove the guide 20 from the mouth of the container.

The rounded cut-out portion 16 in the rear wall 15 of the receiver enables a basket, barrel, or other container, to be conveniently supported thereon for discharging its contents into the receiver. The walls of the receiver 13 and cradle 4 may have suitable padding 21 further to militate against bruising the articles.

It is to be understood that numerous changes in details of construction, arrangement and operation may be effected without departing from the spirit of the invention, especially as defined in the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. An apparatus for filling containers comprising an upright standard, a cradle hingedly connected at one end to the upper portion of said standard, a receiver pivotally mounted on the upper portion of said standard with the front end portion thereof normally inclined downwardly, a guide pivoted to the front end of said receiver adapted to extend a short distance over said cradle, and means for swinging said cradle upwardly substantially into the plane of said receiver, whereby articles in said receiver may roll or slide therefrom through said guide into a receptacle supported on said cradle.

2. An apparatus for filling containers comprising an upright standard, an elongate cradle hingedly connected at one end to the upper portion of said standard, a receiver pivotally mounted on the upper portion of said standard with the front end portion thereof normally inclined downwardly, a tubular guide pivoted to the front end of said receiver adapted to extend a short distance over said cradle, and a treadle connected for swinging said cradle upwardly substantially into the plane of said receiver, whereby articles in said receiver may roll or slide therefrom through said guide into a receptacle supported on said cradle.

3. An apparatus for filling containers comprising an upright standard, a cradle hingedly connected at one end to the upper portion of said standard, a receiver pivotally mounted on the upper portion of said standard with the front end portion thereof normally inclined downwardly, a guide pivoted to the front end of said receiver adapted to extend a short distance over said cradle, and a treadle accessible from the opposite side of said standard from said cradle connected to swing the latter upwardly substantially into the plane of said receiver.

4. A bag filling apparatus comprising a support, a receiver mounted on said support and having a downwardly and forwardly inclined bottom, a bag supporting cradle having a side wall normally disposed in vertical position, pivotal means connecting the inner

end portion of said cradle to said support to enable annular swinging movements of said cradle in a vertical plane, and means for swinging the outer end portion of said cradle until said side wall is substantially in alignment with the inclined bottom of said receiver whereby articles dumped into said receiver will roll or slide by gravity into a bag supported on said cradle.

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

LEO H. DIETSCH.