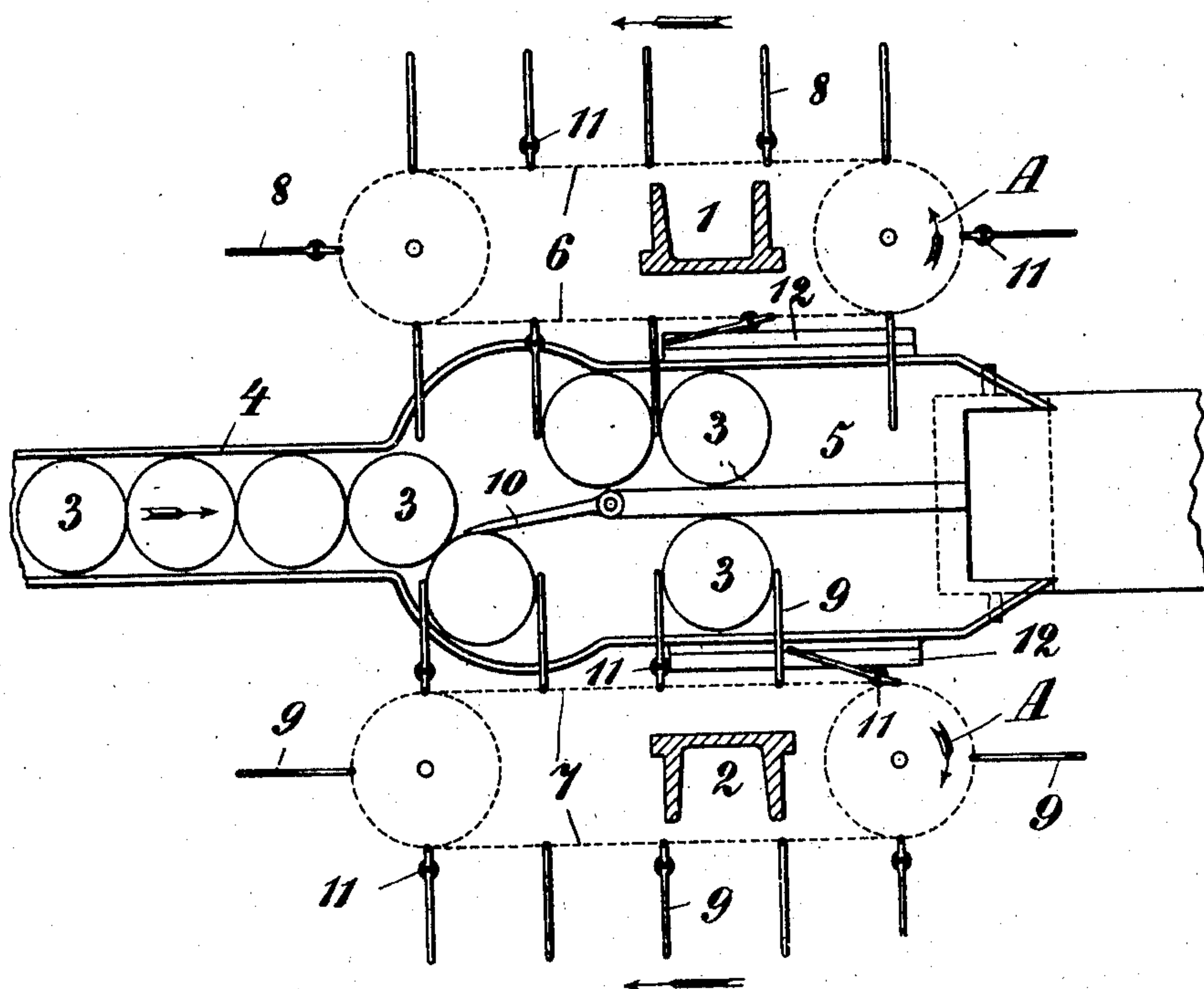


H. H. W. BERGNER.
 DEVICE FOR FEEDING BOTTLES TO CORKING MACHINES.
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976,540.

Patented Nov. 22, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

HUGO HEINRICH WILHELM BERGNER, OF ALTONA, GERMANY.

DEVICE FOR FEEDING BOTTLES TO CORKING-MACHINES.

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Specification of Letters Patent.

Patented Nov. 22, 1910.

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To all whom it may concern:

Be it known that I, HUGO HEINRICH WILHELM BERGNER, a subject of the German Emperor, and resident of Altona, Germany, have invented a certain new and useful Device for Feeding Bottles to Corking-Machines and the Like, of which the following is a specification.

This invention refers to a device for feeding bottles to corking-machines and more particularly to a device of this description by the aid of which bottles filled with liquor are fed to two corking machines, which are placed opposite to one another and work alternately, so that one machine operates to cork a bottle, while a bottle is being fed to the other machine.

The device comprises an endless feeding-belt or apron having upright axes of rotation, the apron being provided on its outer surface with projecting ribs, by which cell-like sections or receptacles are formed into which the bottles are placed at one end of the belt.

By the present invention the device is so constructed and operated as to give the bottles to be corked a sufficient time to be operated upon in the corking machine, while the transporting belt continues to move constantly and requires no intermittent motion.

The accompanying drawing is a diagrammatic plan of a machine constructed according to this invention.

1 and 2 designate standards or frames of the two corking machines, the corking operation being carried out in front of the surfaces of these standards facing each other. The bottles 3 are fed from a chute 4 to the supporting surface 5, the two longitudinal edges of which run along the two endless belts 6 and 7, to which plates or wings 8 and 9 respectively are attached at right angles. In front of the chute 4 an arm or tongue 10 is pivotally attached, which is oscillated by any convenient means, not shown in the drawing.

The operation of this device is as follows: The endless belts 6, 7 are given a constant progressive motion in the direction of the arrows A, by any desired means and the arm 10 is set to oscillate, to alternately direct the bottles emerging from the chute 4 to the belts 6 and 7, so as to feed a bottle to every second section of each belt, which carries the bottles slowly on the surface 5 forward. Every second plate 8 or 9 is pivotally

attached to its belt 6 or 7 and provided at its lower edge with a lateral stud, cam-pin or roller 11. The plates, which are provided with rollers are disposed on the belts, in such way, that they catch hold of the bottles, presented to them by the arm 10, and press and push them on forward to the corking machines. In front of each corking machine on each side of the support 5 is mounted a fixed abutment 12 which consists of a straight strip of any suitable material preferably secured to the support and running parallel to its longitudinal edges. These abutments lie below the plane of travel of the plates 8, 9, so as not to engage the rigid plates, but are of such height as to extend into the path of the lateral studs or rollers 11. When a roller strikes an abutment 12, during the course of its travel, said roller together with the plate carrying it is pressed or swung toward the belt. This movement of the plate frees the bottle therefrom and allows the bottle to come to a rest until the following plate, which is rigidly fixed to the belt and is not engaged by the abutment, reaches the bottle and moves it away from the machine. The length of time between the releasing of a bottle from a pivoted plate and its engagement by the following rigid plate is sufficient to allow the machine to drive a cork into the bottle. The abutments 12 are of such length as to hold the pivoted plates depressed until they have passed the bottle, and as soon as a roller has passed an abutment the plate, which is spring-controlled, is caused to assume its normal position at right angles to the belt. Any suitable spring controlling means may be provided to yieldingly hold the pivoted plates in their normal position and which will allow them to be swung out of said position toward the belt.

A device as described above can also be constructed to feed the corks instead of bottles, or to feed other articles for instance sockets or ferrules or the like to dressing, shaping or finishing machines or the like.

I claim:

1. In a device of the character described, the combination with a support, of a continuously traveling carrier adapted to move articles along the support, and means to momentarily free an article from the carrier without removing it from the support and without interrupting the movement of the carrier.

2. In a device of the character described, the combination with a support, of continuously traveling carriers mounted on opposite sides of the support adapted to move a plurality of articles along the support, and means to momentarily free one of the articles from its carrier without removing it from said support and without interrupting the movement of the latter.
3. In a device of the character described, the combination with a support, of a continuously traveling carrier adapted to move articles along the support, and means to momentarily free an article from the carrier without removing it from the support and without interrupting the movement of the carrier, said carrier adapted to subsequently move the freed article.
4. In a device of the character described, the combination with a support, of continuously traveling endless carriers mounted on upright axles on opposite sides of the support, said carriers comprising laterally projecting pivoted members and means to swing the latter on their pivots.
5. In a device of the character described, the combination with a support, of continuously traveling endless carriers mounted on upright axles on opposite sides of the support, said carriers comprising laterally projecting pivoted members and means to guide articles fed to the support into the path of the pivoted members.
6. In a device of the character described, the combination with a support, of continuously traveling endless carriers mounted on upright axles on opposite sides of the support, said carriers comprising laterally projecting pivoted members, rigid members mounted between the pivoted members and means to swing the latter on their pivots.
7. In a device of the character described, the combination with a support, of continuously traveling endless carriers mounted on upright axles on opposite sides of the support, said carriers comprising laterally projecting pivoted members, means to guide articles onto the support between the carriers and means to move each alternate article toward the same carrier.
8. In a device of the character described, a support, endless belts having upright axes of rotation mounted on opposite sides of the support, carrier plates secured to the belts adapted to carry articles along the support, each alternate plate being pivotally secured to the belts and provided with studs, and a fixed member in the path of the studs adapted to engage the latter to turn the pivoted plates toward the belt, for the purpose set forth.
9. In a device of the character described, a support, endless belts having upright axes of rotation mounted on opposite sides of the support, carrier plates secured to the belts adapted to carry articles along the support, each alternate plate being pivotally secured to the belts and provided with studs, a fixed member in the path of the studs adapted to engage the latter to turn the pivoted plates toward the belt and a tongue pivotally mounted on the support adapted to alternately guide the articles to one side or the other, for the purpose specified.
10. In a device of the character described, a support, endless belts having upright axes of rotation mounted on opposite sides of the support, carrier plates fixed to the belts adapted to carry articles along the support, carrier plates pivotally connected to the belts between the fixed plates and provided with studs, a chute to feed articles to the support, a tongue pivoted on the latter in front of the chute and adapted to guide articles to opposite sides of the support into the path of the carrier plates, and a fixed member in the path of the studs adapted to engage the latter to turn the pivoted plates toward the belts, for the purpose specified.
11. In a device of the character described, the combination with a support; of a continuously traveling carrier having an engaging member adapted to move articles along the support, and means cooperating with said member during the movement of the carrier to move said member away from the articles to permit said articles to remain stationary on the support for a period of time without interrupting the continuous movement of the carrier.

HUGO HEINRICH WILHELM BERGNER.

Witnesses:

WILHELM BERGER,
AUGUST FUGGER.