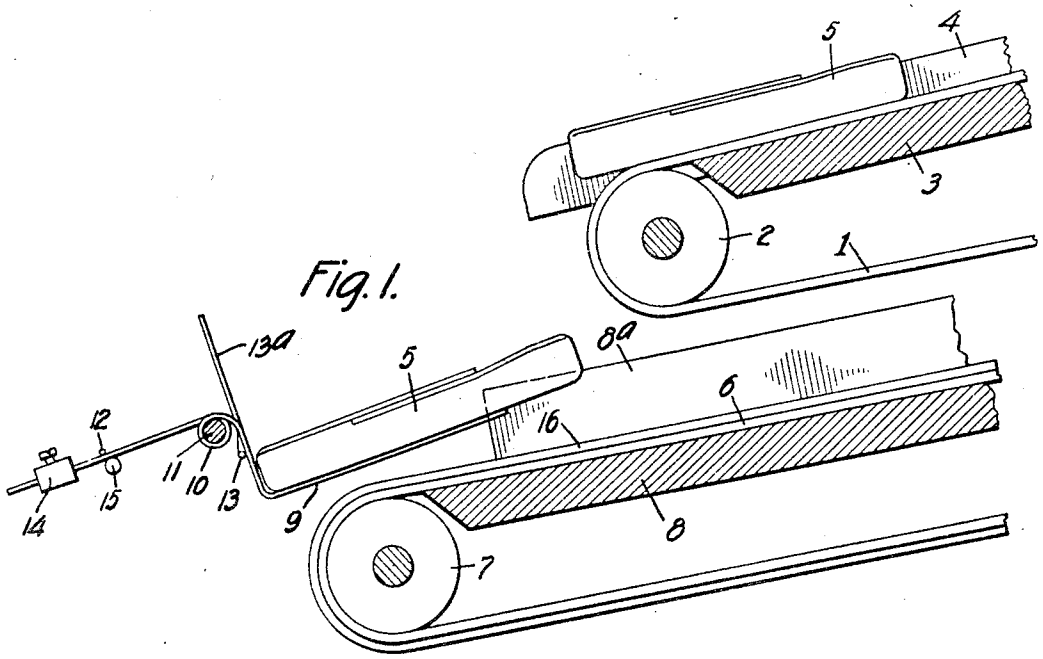
Oct. 27, 1931. H. R. WILLIAMS 1,829,322

CONVEYING MEANS

Filed May 4, 1929

Fig. 1.



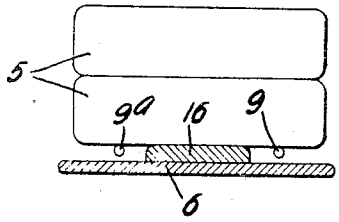


Fig. 4.

Fig. 2.

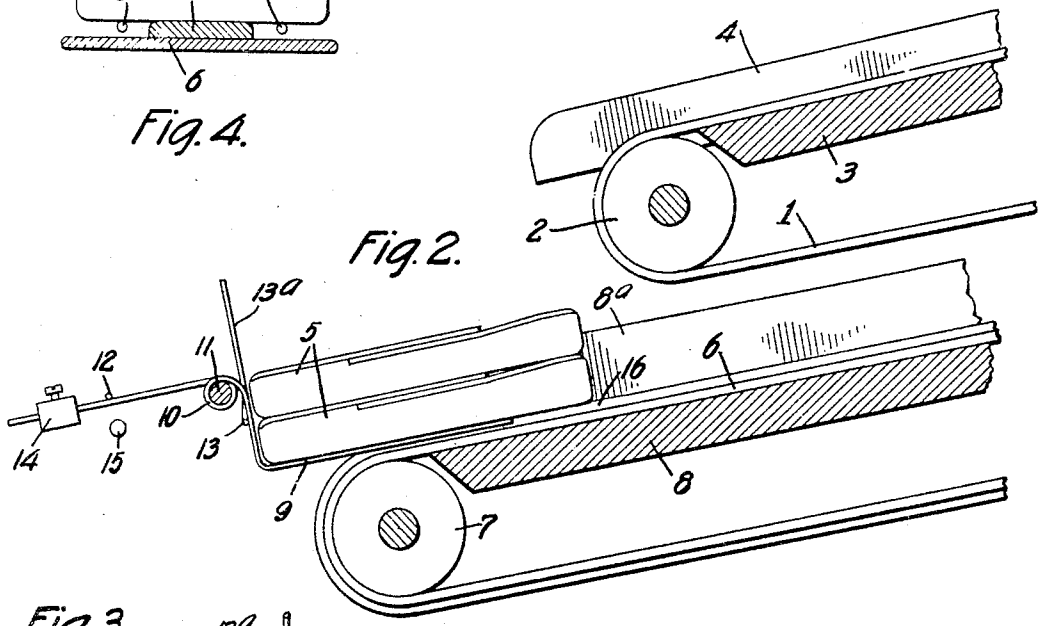
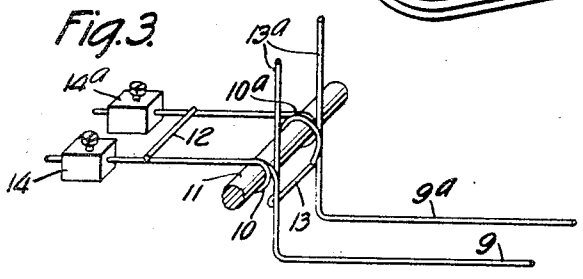


Fig. 3.



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UNITED STATES PATENT OFFICE

HARRISON R. WILLIAMS, OF NEW YORK, N. Y.

CONVEYING MEANS

Application filed May 4, 1929. Serial No. 360,353.

This invention relates to means for conveying articles herein shown as sanitary napkins.

In my application Serial No. 332,051, filed January 12, 1929, I provide a stationary device to which the articles are conveyed by a belt from suitable wrapper folding means; said device being in the nature of a transfer device by which the packages are transferred one at a time and successively to another conveyor belt, traveling in an opposite direction, and by which the articles are delivered to a station where they are picked off one at a time, by hand or otherwise, to be packed in bundles of ten or more in a box.

An object of the present invention is to automatically pile the pads in groups of two or more to facilitate their inspection and packing.

In carrying out the invention I provide a transfer device which holds the articles until a predetermined number has been collected thereon after which the predetermined number or group is deposited on the delivery conveyor to be carried to the packing station.

The invention will best be understood by reference to the accompanying drawings, wherein is illustrated the present preferred embodiment thereof, and in which

Figure 1 shows, partly in side elevation and partly in section, a pair of conveyor belts, and co-operative therewith a platform embodying the invention;

Figure 2 is a view similar to that of Figure 1, but showing the platform in a different position;

Figure 3 is a perspective view of a simple type of platform embodying the invention;

Figure 4 is a cross-section of the conveyor belt showing two superposed pads thereon.

Like reference characters indicate like parts throughout the drawings.

Referring to the drawings, a package conveyor belt 1 runs downwardly from wrapper folding means, not shown, over a rotating pulley 2, being supported by a table 3 which is provided at either side with a guide, such as 4, for retaining thereon packages 5, here illustrated in the form of a wrapped catamenial bandage. A conveyor belt 6 to deliver the articles to a packing station, not shown, runs in an upwardly direction over a rotating pulley 7, being supported by a table 8, which is provided at either side with a guide 8*a* for retaining packages thereon.

Referring to Figure 3, a receptacle or platform embodying the invention may consist of a pair of angularly bent wire arms, 9 and 9*a*, formed in each of which arms, respectively, are coils 10 and 10*a*, for embracing a supporting shaft 11, whereby said platform is pivotally movable with reference to said shaft.

Arms 9 and 9*a* are connected by means of a cross wire 12, having its end welded to said arms. Also welded to the arms 9 and 9*a* is another wire element 13 having portions 13*a* forming an upright back for the platform. Movably adjustable on arm 9 is a counterweight 14; and similarly adjustable on arm 9*a* is a like counterweight 14*a*.

As illustrated in Figures 1 and 2, the platform is mounted adjacent the delivery side of conveyor belt 1, and the receiving side of conveyor belt 6. A stop 15 limits the downward movement of the rear portions of arms 9 and 9*a*.

The conveyor belt 6 is provided with a raised portion 16 which runs between the arms 9 and 9*a* of the receptacle as shown in Figure 4.

The mode of operation of the device is as follows: the combined weight of counterweights 14 and 14*a*, and their positions on the arms 9 and 9*a*, are such that, as illustrated in Figure 1, they are not counterbalanced by the weight of a single package to forwardly tilt the platform and thereby transfer such single package to the receiving belt; but are so counterbalanced, as illustrated in Figure 2, by the weight of two such packages. The platform is thus caused to tilt downwardly until the stack of the piled up articles thereon is deposited on the raised or pick-up portion 16 of the delivery conveyor belt 6 to be carried thereby to a suitable packing station where they may readily be picked up by an attendant for inspection and for packing, two at a time, in a box which may contain ten or more.

It will be understood that the showing of the drawings of the platform tilting into the

discharge position upon the delivery thereto of two packages is merely illustrative, and that, if desired, the counterweights 14 and 14*a* may be so positioned on the arms 9 and 9*a* and their combined weight may be such that the platform tilts to discharge only under the condition of the delivery thereto of a larger number of packages.

I have described what I believe to be the best embodiment of my invention. I do not wish, however, to be confined to the embodiment shown, but what I desire to cover by Letters Patent is set forth in the appended claims.

I claim:

1. In a package conveying, stacking and counting mechanism, in combination, an upper conveyor, a transfer device pivotally mounted below and beyond the end of said conveyor in position to receive packages therefrom, and a lower conveyor running directly beneath the transfer device and in proximity to it, the transfer device being operable in response to the weight of a predetermined number of packages stacked upon it by the upper conveyor to move from a raised position in which it receives the packages from the upper conveyor, to a lower position in which it rests upon the lower conveyor and sets the stacked packages upon it, said transfer device including a skeleton bottom through which the lower conveyor may engage the lowermost of the packages supported by the transfer device to remove the stack of packages quickly from the transfer device.

2. In a package conveying, stacking and counting mechanism, in combination, an upper conveyor, a transfer device mounted below and beyond the end of said conveyor in position to receive packages therefrom, and a lower conveyor running directly beneath the transfer device and in proximity to it, the transfer device being automatically operable in response to the stacking of a predetermined number of packages upon it by the upper conveyor to move from a raised position in which it receives the packages from the upper conveyor to a lower position in which it rests upon the lower conveyor and sets the stacked packages upon it, said transfer device including a skeleton bottom through which the lower conveyor may engage the lowermost of the packages supported by the transfer device to remove the stack of packages quickly from the transfer device.

In testimony whereof I have affixed my signature to this specification.

HARRISON R. WILLIAMS.