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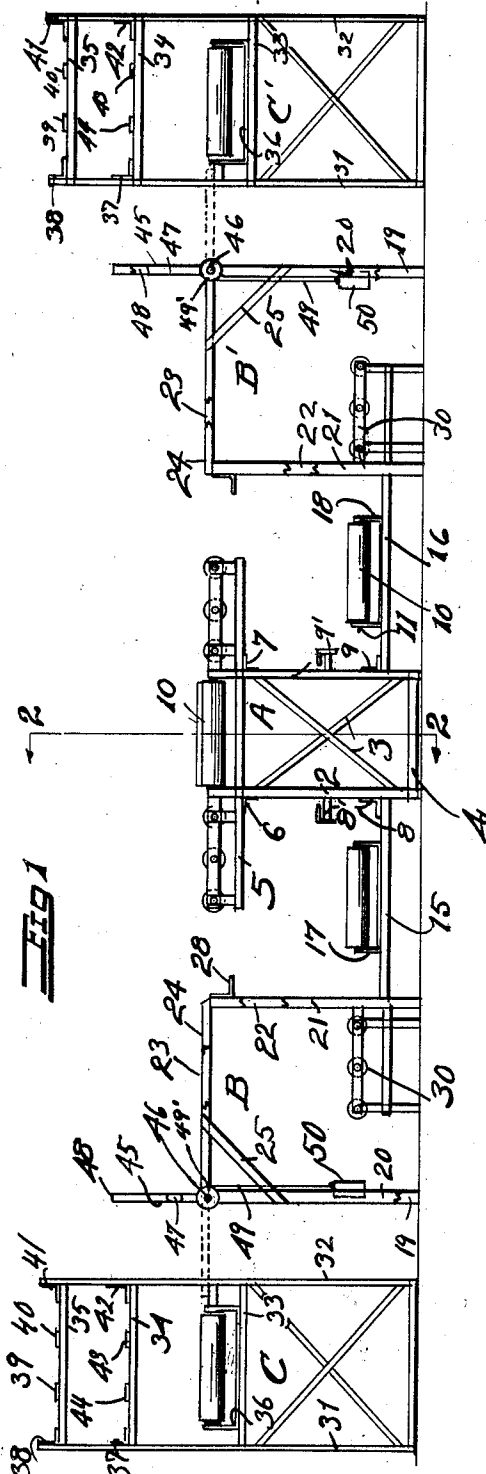
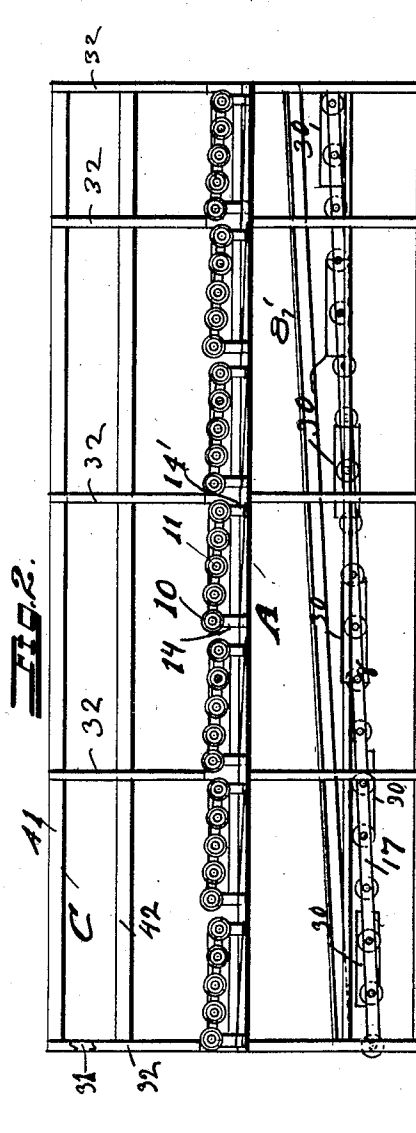
1,558,014

W. H. JAENICKE

CONVEYING AND PACKING TABLE

Filed July 17, 1923

2 Sheets-Sheet 1



INVENTOR.
William H. Jaenicke
BY
Carlos P. Griffin
ATTORNEY.

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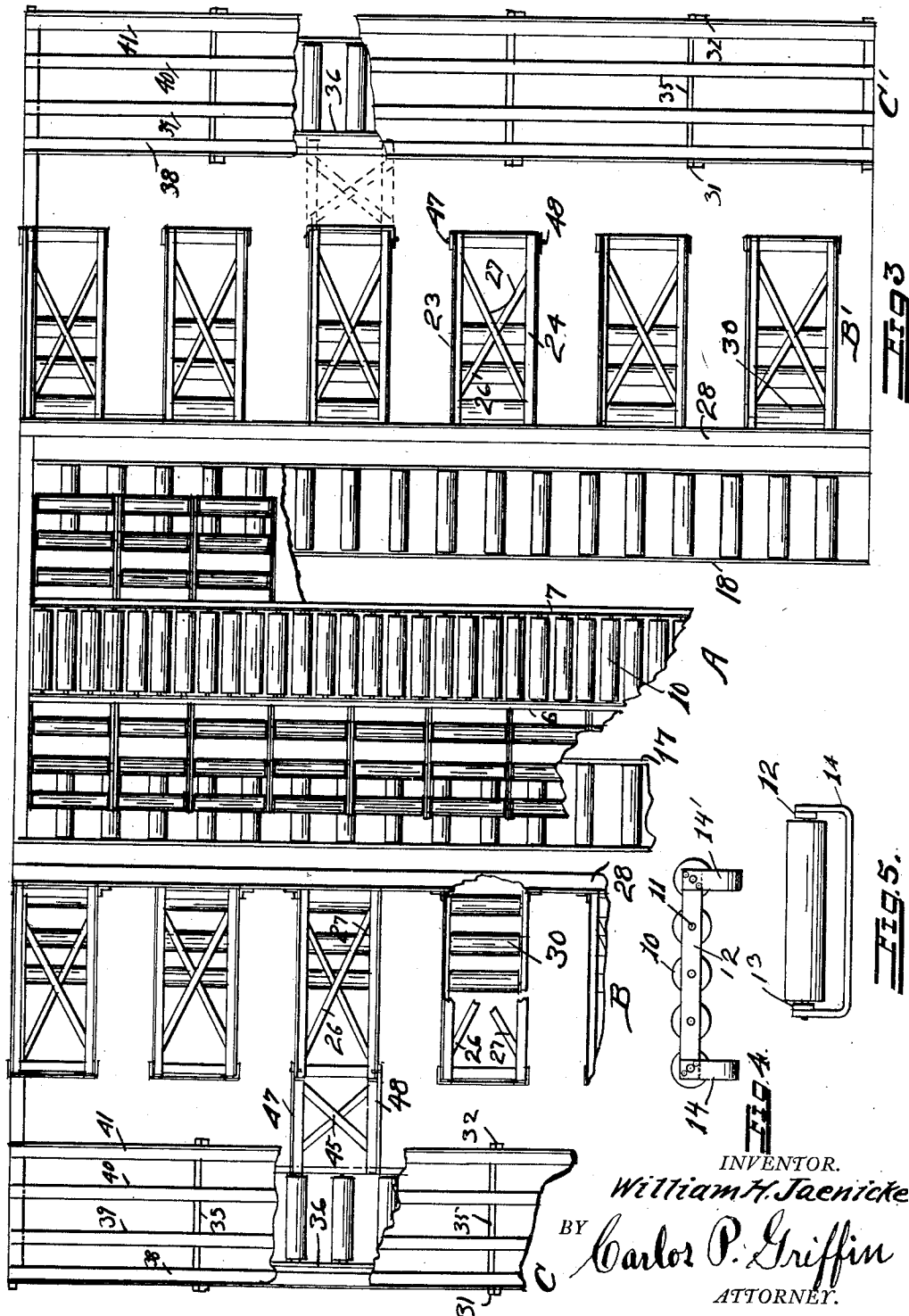
W. H. JAENICKE

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CONVEYING AND PACKING TABLE

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2 Sheets-Sheet 2



INVENTOR.
William H. Jaenicke
BY
Charles P. Griffin
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM H. JAENICKE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO MAILLER SEARLES, INCORPORATED, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

CONVEYING AND PACKING TABLE.

Application filed July 17, 1923. Serial No. 652,098.

To all whom it may concern:

Be it known that I, WILLIAM H. JAENICKE, a citizen of the United States, residing at San Francisco, in the county of San Francisco, State of California, have invented a new and useful Conveying and Packing Table, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to a conveying and packing table used for the purpose of handling fruit or other objects where the objects are delivered to the packers in boxes or crates to be sorted and packed in other boxes, crates, or baskets.

An object of the invention is to provide a table which will have sufficient clear space to provide ample room for the workers as well as room for the inspectors to walk around and examine the work of the packers.

Another object of the invention is to provide an apparatus which will make possible the handling of the boxes or crates with the minimum lifting, suitable supports being provided to always keep the loaded containers at the same elevation as the conveyers (or a little higher) upon which they are to be placed when they are to be carried away.

Another object of the invention is to provide means for supporting the boxes when taken off the main conveyer in such a way as to make the handling of the boxes easy for female help, since women are largely employed in the packing houses.

Another object of this invention is to so arrange the conveyer table system with respect to the cull and empty box conveyer that there will be space to drop down an empty box to the empty box conveyer at any point along the conveyer line, no obstructions being placed along the conveyer line where the boxes are to be dropped down.

Other objects of the invention will appear as the description proceeds.

In the drawings in which the same reference numeral is applied to the same parts throughout the several views,

Figure 1 is an end view of the complete apparatus,

Figure 2 is a sectional view of the apparatus on the line 2—2 of Figure 1,

Figure 3 is a plan view of the complete apparatus a portion thereof being broken away to show other figures,

Figure 4 is a view in side elevation of one of the roller supporting frames, and

Figure 5 is a view in end elevation of one of the roller supporting frames.

It will be understood by those skilled in the art that while this apparatus is shown with space for the operatives at both sides of the conveyer that the same ideas may be carried out with a table having space for the operatives on one side only.

The apparatus consists of a main conveyer section A, packing stands B, B', and the outside conveyers C, C'. The main conveyer A consists of a plurality of vertical posts 1, 2 which are connected by a series of braces 3 extending transversely of the frames thus produced, and which frames are additionally secured together by means of the transverse horizontal members 4 and 5. The member 5 is duplicated at each post and extends far enough on both sides of the main conveyer frame to support two series of roller frames as will be presently explained. The several series of frames thus produced are joined together by longitudinally extending angle bars 6 to 9 inclusive. Bumper angles 8' and 9' prevent the packages from moving off the side of the return conveyer.

The rollers 10 are mounted on pivots 11 in holes in the plates 12 and 13, which plates are in turn secured together by means of the two U shaped cross members 14 and 14'. These roller frames are all duplicates of one another in sets of three or five rollers as the case may be. These roller frames are then simply secured in position on the table frames as may be required and in such number as any given table may make necessary. The roller frames of the table A are secured in the frame with one end lower than the other in order to cause the separation of the boxes on the rollers, thereby aiding the girls at the sorting tables in pulling out a fresh box whenever they have finished the boxes they may be working on. The laterally extending roller frames of the

main table A have only three rollers each and they are placed level in order to prevent the box from sliding off when it is pulled out of the main line of boxes.

5 The stands or work tables B and B' are connected to the main frame A by means of cross members at such intervals as may be necessary to provide adequate support for the roller frames 17 and 18 and said
10 rollers are set at an incline so the empty boxes and filled boxes of culls will return to the sending end of the table by gravity. The frames B and B' are each made up of a series of four posts 19 and 22 inclusive
15 connected by the two horizontal members 23 and 24 and suitably braced at 25, there also being the horizontal braces 26 and 27 to hold the frames square. All of the frames are then connected together by
20 means of a long angle bar 28 which is placed just a little below the level of the top of the rollers in the laterally extending frames so that when the boxes are taken off the main conveyer and pulled into a position
25 to have fruit removed therefrom that the box will be inclined enough to allow the fruit to work down into one end thereby aiding the operative in packing the fruit. The frames B and B' are long enough to
30 receive two boxes so the operative can pack firsts and seconds at one time, if that is desired. Under each packing stand there is a set of rollers 30 placed at the same elevation as that immediate part of the conveyer system for the returned empty boxes,
35 the object being to allow the operative to push off the filled cull box and have it returned to the sending end whenever necessary.

40 Outside the packing stands there are the two conveyer systems C and C', said systems being supported from the floor of the building in which the conveyer is installed, in order to allow space for a walkway
45 between that conveyer and the packing stands to permit the inspector to pass through and examine the packing done by each operative. The conveyer C comprises a series of posts 31 and 32 connected by means of
50 the cross braces 33, 34 and 35. The lower braces form the support for the roller frames 36, while the cross members 34 and 35 form the support for a series of longitudinally extending bars and angles 37 to
55 44 inclusive, said bars forming a chute for the incoming empty boxes. The frame is also provided with suitable diagonal bracing.

60 When the operative has filled the box of fruit or other material it is slid along the supporting stand until it strikes the hinged supports 47, 48 which are suitably braced together at 45 and which are hinged to the sorting frame at 46 to allow the weight
65 50 on the cable 49 attached to wheel 49' to

lift the supporting bars 47 and 48 whenever there is no load on them to the position shown in Figure 1 to allow the operative to pass through. The bars 47 and 48 are placed at just the right level to allow the
70 fully packed box to be slid from the packing position over onto the rollers of the conveyer C without lifting and as the rollers of the conveyers C and C' are set at an incline the filled boxes of fruit will pass
75 down the incline to the operatives who close them.

In operation the apparatus works as follows: An operative is stationed at the place where the boxes of material are delivered
80 and he then places the filled boxes on the inclined rollers of the conveyer A, and pushes the box out of reach, he then places another box on said rollers and with the aid of the second box pushes the first box
85 along. This is continued as long as there is room on the rollers for the filled boxes. The sorters working at the side of the conveyer A pull off as many boxes as they may require to work with and proceed with the packing
90 of the objects in the empty boxes at hand. The clean, bright and sound objects only are packed while all the culls are dropped into a box on one of the stands 30, from
95 which stand that box is afterward pushed onto the conveyer 17 or 18, as the case may be to be returned to the sending end of the conveyer system. When the operative has filled a box the raised rails 47 and 48 will
100 be lowered and the box will be pushed over onto the conveyer 36. The empty boxes are from time to time pushed down the upper two chutes of the stand C and are removed therefrom as needed by the packers.

Having thus described my invention what I claim and desire to secure by Letters
105 Patent of the United States is as follows:

1. An apparatus as described comprising a conveyer table, several series of substantially horizontal rollers at the side of the
110 conveyer, a packing stand with a clear space at the ends and on both sides of its upper portion spaced from each set of rollers, an angle bar connecting the packing stands and forming a support for filled boxes in
115 conjunction with one of the rollers at the side of the conveyer, a roller support for a cull receiving box under each packing stand and a roller conveyor below the side box supporting rollers, the clear space at the end of
120 the stand allowing the boxes to be dropped down directly on the lower conveyor.

2. An apparatus as described comprising a conveyer table having a series of inclined rollers in sets, a series of sets of horizontal
125 rollers at the sides of the conveyer, several packing stands adjacent the latter rollers having a clear space at their sides and ends, an angle bar connecting said stands and forming with one of the latter rollers a sup-
130

port for filled boxes, a discharge conveyer at the side of the packing stands, and a pivoted gate on each stand to allow the filled boxes to be moved from the packing stands to the discharge conveyer without being lifted.

3. An apparatus of the class described comprising a conveyer table having series of rollers in inclined sets, several series of horizontal rollers at the sides of the first rollers, packing stands having a clear space at their sides and ends at one side of the conveyer, an angle bar connecting the packing stands placed below the level of the second set of rollers whereby loaded boxes may be placed on a roller and on said angle bar in an inclined position, and a return conveyer placed in a position to receive the empty boxes when dropped between the angle bar and the sets of horizontal rollers.

4. An apparatus of the class described comprising a conveyer table having several sets of inclined rollers, several sets of horizontal rollers at the side of the first rollers, packing stands having clear spaces at their sides and ends and extending longitudinally away from the horizontal rollers, an angle bar on said stands to support one end of a box the other end being supported on one of the rollers at a higher elevation, a return conveyer under the latter rollers, a loaded box conveyer near the packing tables, and means on each packing table to bridge the space between said table and the loaded box

conveyer to allow the loaded boxes to be transferred to the conveyer without lifting them.

5. An apparatus of the class described comprising a conveyer table having a series of inclined rollers in sets, a series of horizontal rollers at the side of conveyer to support a plurality of boxes, a series of packing stands adjacent the conveyer, a return conveyer under the horizontal rollers, a bar to support the boxes in a convenient position for taking the objects therefrom for packing, a loaded box conveyer at the ends of the packing stands the supports therefor having an empty box chute, and a pivoted support to transfer the loaded boxes from the packing stands to the loaded box conveyer without lifting them.

6. An apparatus of the class described comprising a conveyer table having a series of horizontal rollers in inclined sets, overhanging series of horizontal rollers at the side of the first rollers, packing tables with a clear space at sides and ends adjacent the sets of overhanging rollers, means on the packing tables to support one end of a box with one of the side rollers at each packing table, and a return conveyer under the overhanging sets of rollers, the space thereover being clear of braces to allow boxes to be placed on the return conveyer at any point.

In testimony whereof I have hereunto set my hand this 12th day of July A. D. 1923.

WILLIAM H. JAENICKE.