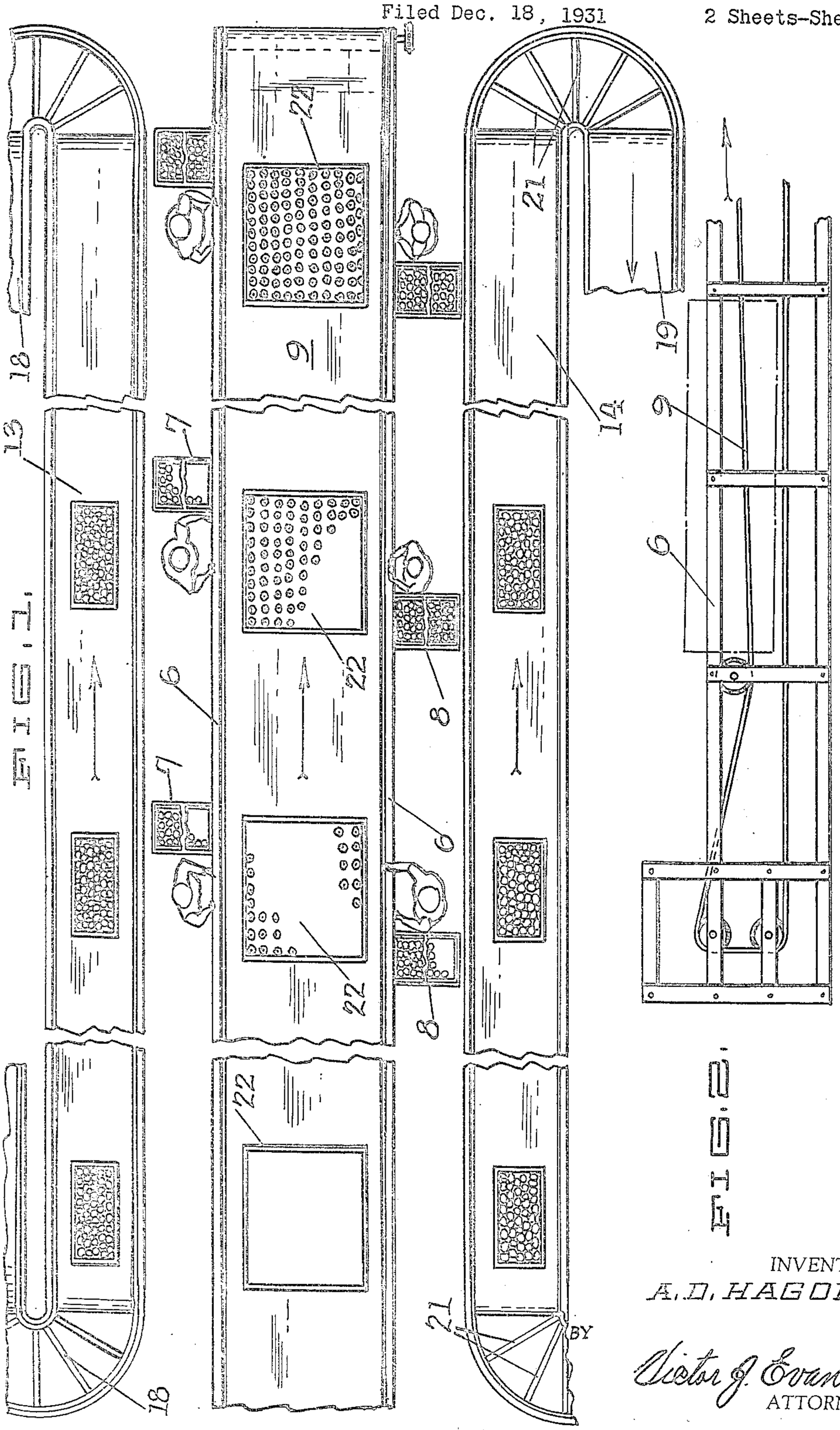
Feb. 14, 1933. A. D. HAGOPIAN 1,897,901

FRUIT HANDLING EQUIPMENT

Filed Dec. 18, 1931 2 Sheets-Sheet 1



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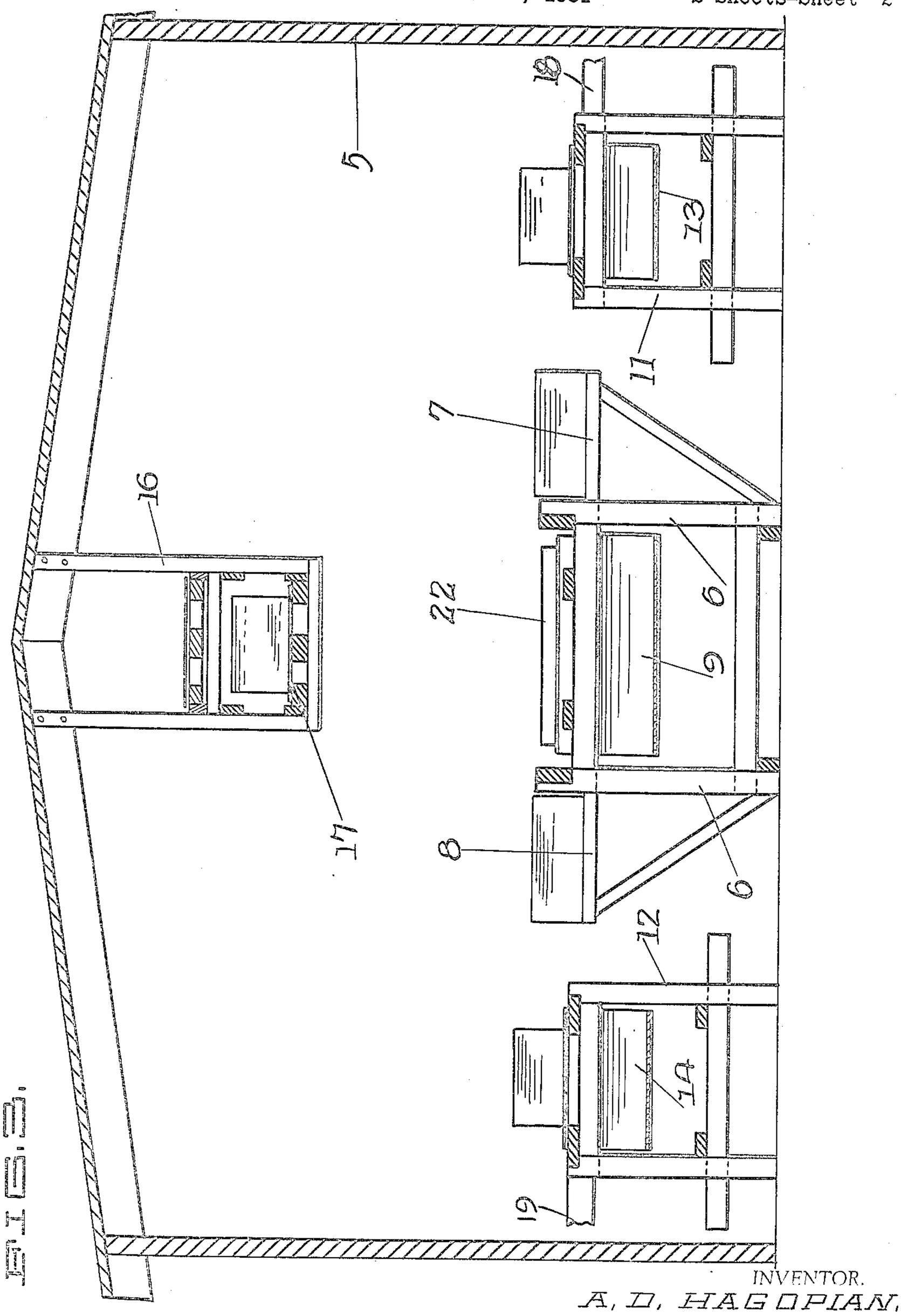

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UNITED STATES PATENT OFFICE

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FRUIT HANDLING EQUIPMENT

Application filed December 18, 1931. Serial No. 581,944.

This invention relates to improvements in fruit handling equipment and has particular reference to means for conveying fruit, to be sliced or packed, to the operators and for conducting the sliced or packed fruit away from the operators.

The principal object of the invention is to provide means for conveying fruit to the operators in such a manner that there will be no delay in the work of the operators as now occurs when it is necessary for the operators to stop and secure their own fruit and to afterwards dispose of the empty trays and also the packed trays.

A further object is to produce a device which occupies a minimum amount of space and one which is continuous in operation.

A still further object is to produce a device which is economical to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a top plan view of my system of packing,

Figure 2 is a fragmentary side elevation showing a driving means for my conveyor, and

Figure 3 is an enlarged detail cross section of the conveyor belt system.

In the handling of fruit, either in the slicing of such fruit as peaches, apricots and the like, or in the packing of fruit for shipment, it is customary to employ a large number of operators, who sit upon opposite sides of a packing table, and said operators fill the trays or packing boxes, from lug boxes brought in from the fields. It has been customary for the operators to have a lug box setting beside them to prepare the fruit, place it in or on the trays or shipping boxes, and to then remove the trays or shipping boxes to a convenient spot, and to then bring back an empty tray or box for packing. As soon as the lug box is empty it has been necessary for the operator to remove the empty lug box and to return to the in-coming supply, and secure another lug box. This handling operation requires a great deal of waste effort and necessitates laborious work of handling full heavy boxes. Applicant has, accordingly, devised a conveyor system, wherein the empty trays or packing boxes are continuously moved past the operators, and the full lug boxes are continuously passed in the rear of the operators, so that it is only necessary for the operators to reach rearwardly, to pick a full lug box from the conveyor and to then place it upon a suitable stand beside him, from which box, he can readily fill the tray passing in front of him. As soon as the lug box on the stand has been emptied, this empty lug box is placed upon a conveyor in front and above the operator.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a suitable building, the numeral 6 a central packing table upon the opposite sides of which are stands 7 and 8. A conveyor 9 passes over the top of the table 6 and returns beneath the table. Positioned on opposite sides of the table and spaced therefrom, are conveyor frames 11 and 12. Each frame has a moving conveyor as shown at 13 and 14 respectively, which conveyor passes oved the top of these frames and returns therebeneath. Suspended from the building 5 and extending to a suitable height above the table 6, is a frame 16, over which is movable a conveyor 17, the conveyor travelling in such a manner as to convey boxes positioned thereon in a manner, hereinafter described.

By referring to Figure 1 it will be noted that the conveyors 13 and 14 have mounted parallel thereto and running in opposite directions, conveyors 18 and 19, respectively. The ends of these parallel conveyors are in axial alignment and through the medium of rollers 21 positioned at opposite ends of the conveyors, a box is placed upon the conveyor 19, for instance, which will pass to the end of the conveyors, thence to the rollers 21 and back on the conveyor 14, and if not removed from the conveyor 14, will pass over the rollers 21 at the opposite end of the device and

return over the same path on the conveyor 19, again.

The manner of employing my device is as follows:—

Filled lug boxes are placed by a single operator upon the conveyors 18 and 19. As these boxes pass from the conveyors 18 and 19 to the conveyors 13 and 14, they will pass to the rear of the operators standing at the packing table 6. The operators will remove these boxes, place them on stands 7 or 8 and will then commence to fill the trays 22 as they pass the operators. The tray 22, moving over the conveyor 9, enters the conveyor at one end empty. As the same passes, each operator places as much fruit as possible thereon, and when the tray reaches the opposite end of the conveyor it will be filled. As soon as one of the boxes on the stands is emptied, this empty box is placed upon the conveyor 17, and a new box is moved from the conveyor to the rear of the operator.

It will thus be seen that I have produced a device which will accomplish all the objects above set forth.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. In a device of the character described, a table, a conveyor movable over said table, stands positioned on opposite sides of said table, a pair of parallel conveyors positioned on each side of said table and spaced therefrom, and rollers radially arranged at the ends of said parallel conveyors.

2. In a device of the character described, a table, a conveyor movable over said table, stands positioned on opposite sides of said table, a pair of parallel conveyors positioned on each side of said table and spaced therefrom, rollers radially arranged at the ends of said parallel conveyors, and a conveyor positioned above said table.

In testimony whereof I affix my signature.

ALBERT D. HAGOPIAN.