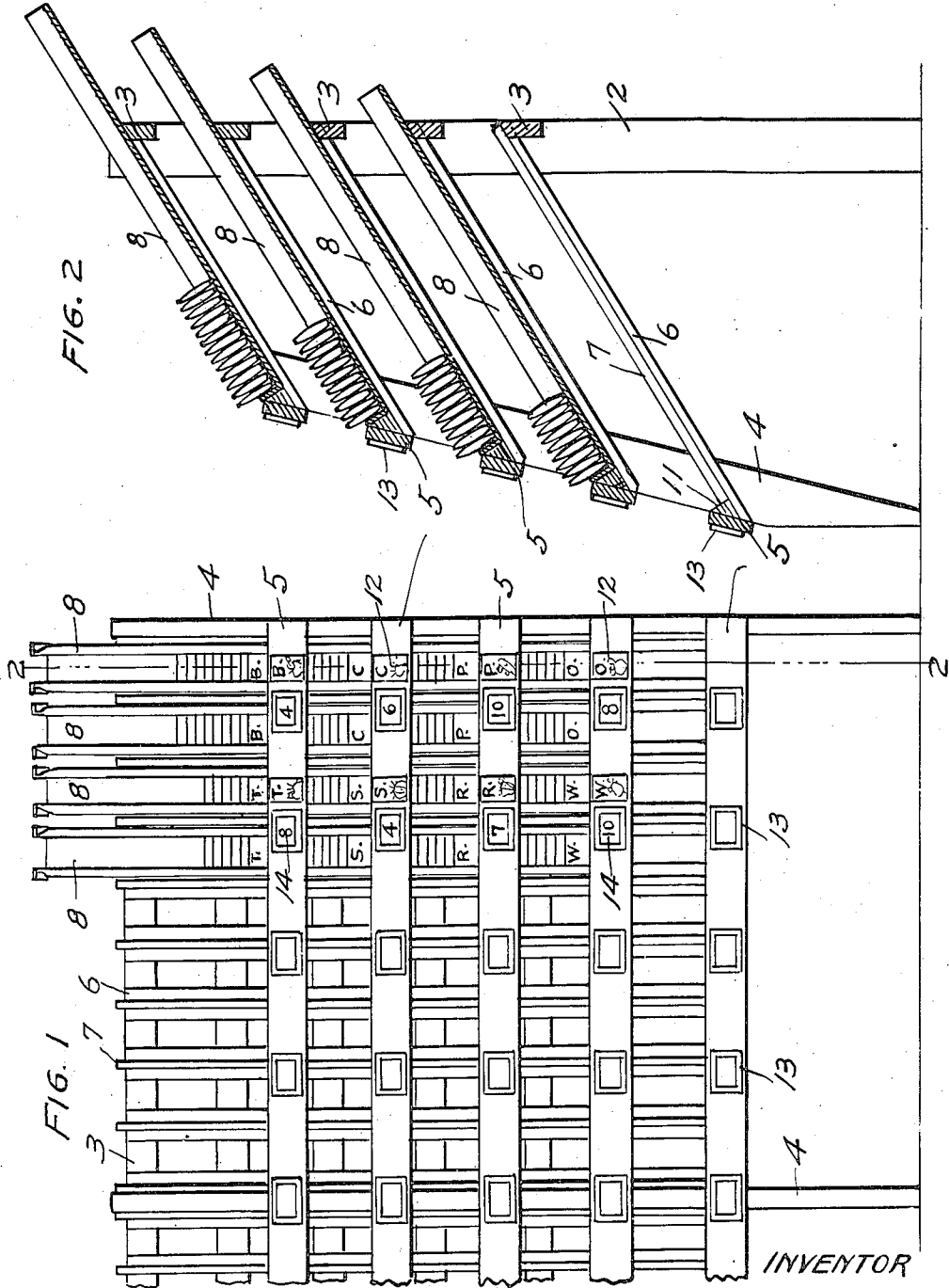


H. H. WILLIAMS.
FILLING RACK.
APPLICATION FILED DEC. 3, 1918.

Patented Sept. 30, 1919.
2 SHEETS—SHEET 1.

1,317,534.



WITNESS
J. Jensen

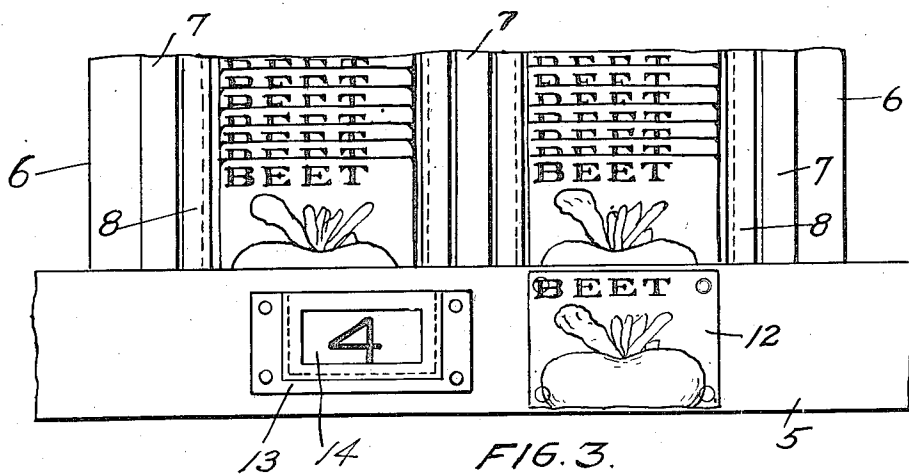
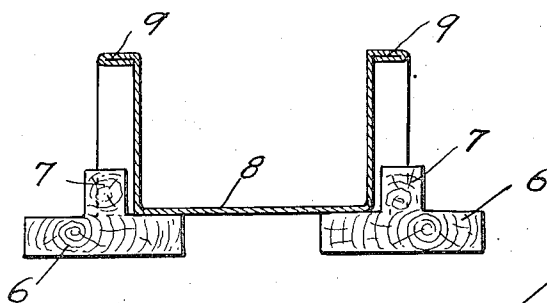
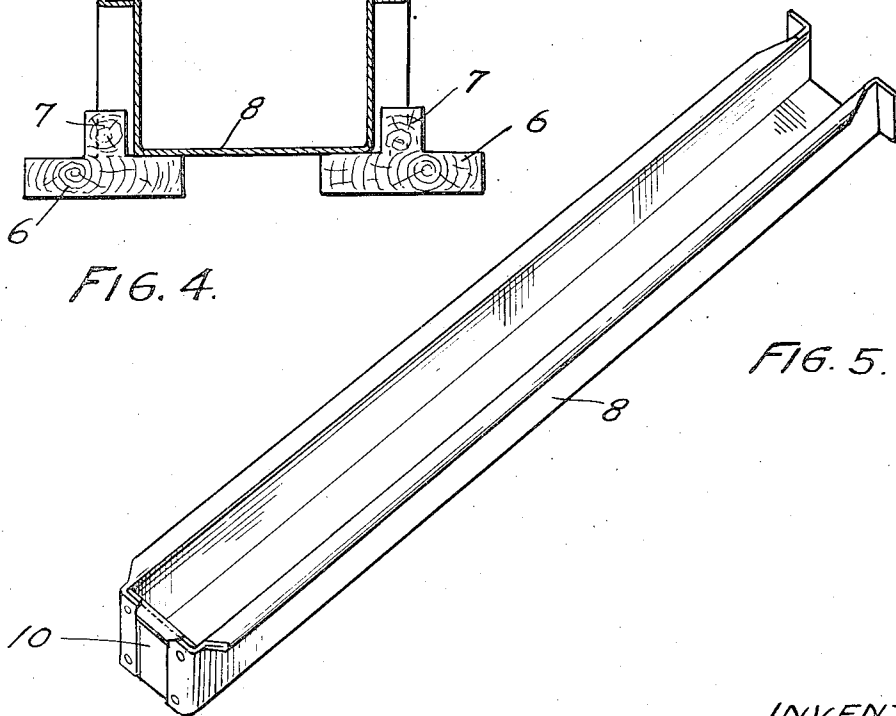
HERMAN H. WILLIAMS.
BY *Paul & Paul*
HIS ATTORNEYS

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INVENTOR.
HERMAN H. WILLIAMS.

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UNITED STATES PATENT OFFICE.

HERMAN H. WILLIAMS, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO NORTHRUP, KING & CO., OF MINNEAPOLIS, MINNESOTA, A CORPORATION.

FILLING-RACK.

1,317,534.

Specification of Letters Patent. Patented Sept. 30, 1919.

Application filed December 3, 1918. Serial No. 265,152.

To all whom it may concern:

Be it known that I, HERMAN H. WILLIAMS, a citizen of the United States, resident of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Filling-Racks, of which the following is a specification.

In filling display cabinets or cases with filled seed packages, it has been the custom to pick the packages out of the storage cases or boxes in which the packages are piled, one upon the other, and in various positions, and arrange these packages in suitable pockets within the display cabinet. I have found that such a procedure involves considerable labor and an unnecessary loss of time. The clerk has to make so many unnecessary motions in picking out the packages from the boxes and arranging them before placing them in the cabinet that only a comparatively few cabinets can be filled in one day by each clerk, and where a large number of cabinets are sent out and each cabinet contains a variety of seeds, it has been customary to employ a large force to select the packages and fill the cabinets.

The object of my present invention is to provide a means for handling these filled seed packages which will save considerable time and labor and thereby enable each clerk to fill a much larger number of cabinets in a given time and hence the work can be performed with a much smaller force of clerks.

A further object is to provide a means for filling the cabinets which will enable an inexperienced clerk to do the work with but little danger of error.

Other objects of the invention will appear from the following detailed description.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a front elevation of a portion of a filling rack embodying my invention,

Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1,

Fig. 3 is a detail view of a portion of the front of the rack, showing how the packages are identified and the means employed to indicate how many packages are to be selected of a particular seed for the cabinet,

Fig. 4 is a sectional view of the supports or guides for the seed package tray,

Fig. 5 is a perspective view of the tray in which the packages are kept.

In the drawing, 2 represents the rear legs of the rack, of which there may be any suitable number, according to the length of the rack. These legs are connected by bars 3 arranged in parallel relation with a suitable space between them which determines the distance between the trays in which the seeds are kept. 4 represents the front legs of the rack, which are upwardly and backwardly inclined from their lower to their upper ends and these legs are connected across the front of the rack by bars 5 which hold them in parallel relation and in their proper position with respect to the rear legs 2. The opposite bars 3 and 5 are connected between the legs by suitable guides which consist preferably of bars 6 having centrally arranged longitudinal tongues 7 formed thereon and projecting upwardly, preferably from end to end of the bars. These bars are arranged in parallel relation, suitably spaced apart, and the adjacent bars form supports for a tray 8, preferably of metal, in which the seed packages are placed. These trays are shallow, with upright side walls turned out preferably at their upper edges to form flanges 9 and the bars 3 being on a higher level than the corresponding bars 5 at the front of the rack; the tray supported by these bars and the bars 6 will in consequence be inclined forwardly and downwardly. The trays are preferably open at one end and have a closed end 10 which is seated against a block 11 at the lower ends of the supporting bars 6, as shown in Fig. 2, and when the trays are in this position the upper ends of the seed packages therein will project above the trays and be visible to a person standing in front of the rack and the name of the seed on the lower package in the tray can easily be read. These trays, filled with the seed packages of various kinds, two or more trays being filled with the same seeds, are placed on the supporting bars 6, being removed from the storage racks for that purpose. This is preparatory to filling the seed display cabinets. The rack may be of sufficient length to contain all the variety of seeds which the clerk will place in the cabinet.

I prefer, when the tray is placed in the

rack, to fasten the top of one of the packages, as indicated at 12, to the bar 5 adjacent the tray containing similar packages, so that the clerk at a glance can see what seeds are in the tray in the rear of this bar. I also prefer to provide a card holder 13 secured to the front bars and adapted to contain a card 14 on which a number is placed to indicate to the clerk the number of packages to be selected from the trays in the rear and placed in the cabinet. For instance, referring to Fig. 3, the rack is shown as equipped with two rows of trays containing beet seeds, the top of one of the beet packages being secured to the front of the rack as an indicator of the contents of the adjacent trays, while the card bearing the number 4 is contained in the card holder near by as a reminder to the clerk that four beet packages are to be selected for the display cabinet. An inexperienced clerk may therefore be employed to fill the seed cabinet and can readily determine how many packages of each kind of seed are to be selected for the cabinet.

As shown in Fig. 2, the backward inclination of the forward portion of the rack provides for the exposure of the lower packages in each tray and the clerk, standing in front of the rack, can determine at a glance what kinds of seeds are in the trays without the necessity of stooping to examine the contents of the lower trays.

The rack is so made that the clerk, standing directly over the lower trays, can look down thereon and ascertain the kind of seeds in the different trays. The inclination of the trays is such that when the lower packages are removed, those above will slide down by gravity and maintain a constant supply at the lower end of each tray until all the packages have been removed. As shown in the drawing, the horizontal rows of the trays have spaces between them of sufficient depth to allow the convenient endwise removal of the forward packages from their respective trays.

In filling the cabinet (not shown) it is moved on a suitable support in front of the rack and parallel therewith and the clerk, as the cabinet is moved along, selects and removes the indicated number of seed packages and can rapidly fill the cabinet and save a considerable amount of time and labor usually required for this purpose. When a tray has been emptied, it is removed and a filled one from the storage rack substituted therefor.

I claim as my invention:

1. A seed distributing rack comprising a frame, a series of seed package trays mounted in said frame and forwardly and downwardly inclined therein, said trays being substantially the same length and interchangeable in said rack and adapted to

contain seed packages placed on end therein, said trays being arranged in rows, one above the other, with the upper ends of the packages of seeds exposed above the tops of the trays, the inclination of the trays feeding the packages forward by gravity as the lower ones are removed, the lower end of each tray and the forward packages therein projecting in front of the corresponding end of the tray above, whereby a person standing upright in front of and near the rack can read the labels on the packages in each vertical row of trays, said rack being open at the rear to allow the rear ends of the upper trays to overhang the corresponding ends of the lower trays.

2. A rack comprising upright rear legs and bars arranged at intervals between them, forward legs upwardly and backwardly inclined and bars connecting said forward legs across the front of the rack, said forward bars being below the level of the corresponding rear bars, inclined bars connecting the corresponding forward and rear bars, seed package trays seated upon said inclined bars and having their lower ends adjacent said forward bars, the packages of seeds in said trays feeding forward by gravity as the forward packages are removed and each tray through the inclination of said forward legs projecting in advance of the tray above for the convenient examination and removal of the lower packages in a tray.

3. A filling rack comprising a frame, a series of comparatively shallow seed package trays mounted in said frame and forwardly and downwardly inclined therein, said trays being arranged in rows, one above the other, with the upper ends of the packages of seed exposed above the tops of the trays, the forward and downward inclination of said trays feeding the packages forward by gravity as the lower ones are removed, said frame including forwardly and downwardly inclined bars whereon said trays are loosely seated, the front of said rack receding from the bottom toward the top to expose the labels of the seed packages in each lower tray in front of the corresponding packages in the upper trays, said trays being of substantially the same length and the rear ends of the upper trays overhanging the corresponding ends of the lower trays and all the trays being interchangeable in said rack.

4. A filling rack comprising a frame, a series of seed package trays mounted in said frame and forwardly and downwardly inclined therein, said trays being adapted to contain seed packages placed on end therein, said trays being arranged in rows, one above the other, with the upper ends of the packages of seeds exposed above the top of the trays, the inclination of the trays feeding the packages forward by gravity as the

lower ones are removed, the supports for said trays comprising a plurality of forwardly and downwardly inclined bars arranged in parallel relation and having opposite rabbeted edges wherein said trays are seated.

5 5. A rack comprising upright rear legs and bars arranged at intervals between them, forward legs upwardly and backwardly inclined and bars connecting said forward legs across the front of the rack, said forward bars being below the level of the corresponding rear bars, seed package trays supported between said forward and rear bars and having their lower ends adjacent said forward bars, the packages of seeds in said trays feeding forward by gravity as the forward packages are removed, and each tray through the inclination of said forward legs projecting in advance of the tray above for the convenient examination and removal of the lower packages in a tray.

6. A filling rack comprising a frame, a series of seed package trays mounted in said frame, one above the other and forwardly and downwardly inclined therein, said trays being open at the top and adapted to contain packages of seeds placed on end, one against the other therein, the upper ends of the packages projecting above the tops of the trays and the inclination of the trays feeding the packages forward by gravity as the lower ones are removed, the horizontal rows of said trays having spaces between them of sufficient depth to allow the endwise removal of the forward packages from their respective trays, the front of said rack receding from the bottom toward the top to expose the labels of the seed packages in each lower tray in front of the corresponding packages in the upper trays.

In witness whereof, I have hereunto set my hand this 26th day of November, 1918.

HERMAN H. WILLIAMS.