March 9, 1937. A. R. UPP 2,073,127

PORTABLE PACKING AND WEIGHING STAND

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Fig. 1

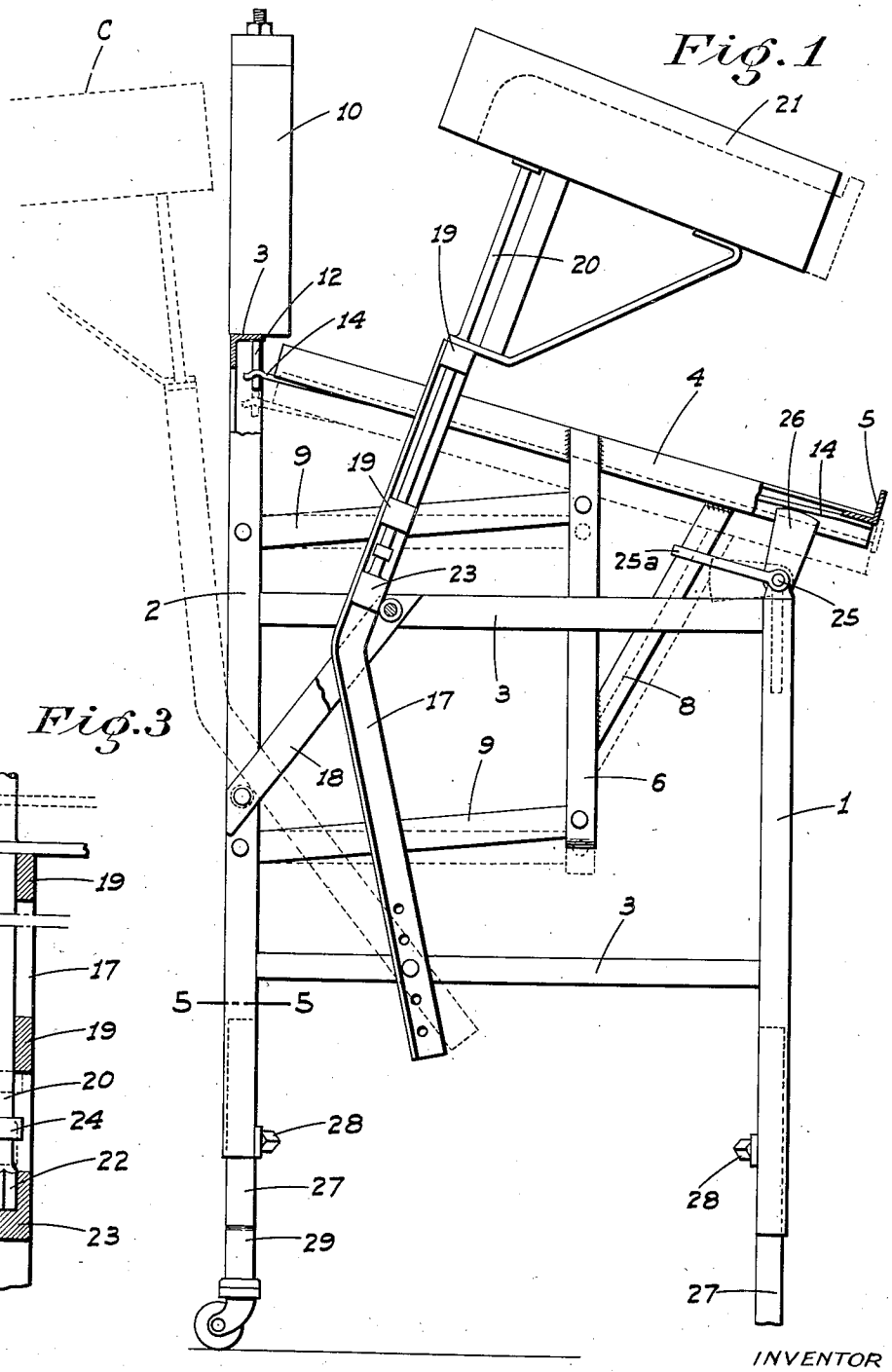


Fig. 3

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Fig. 2

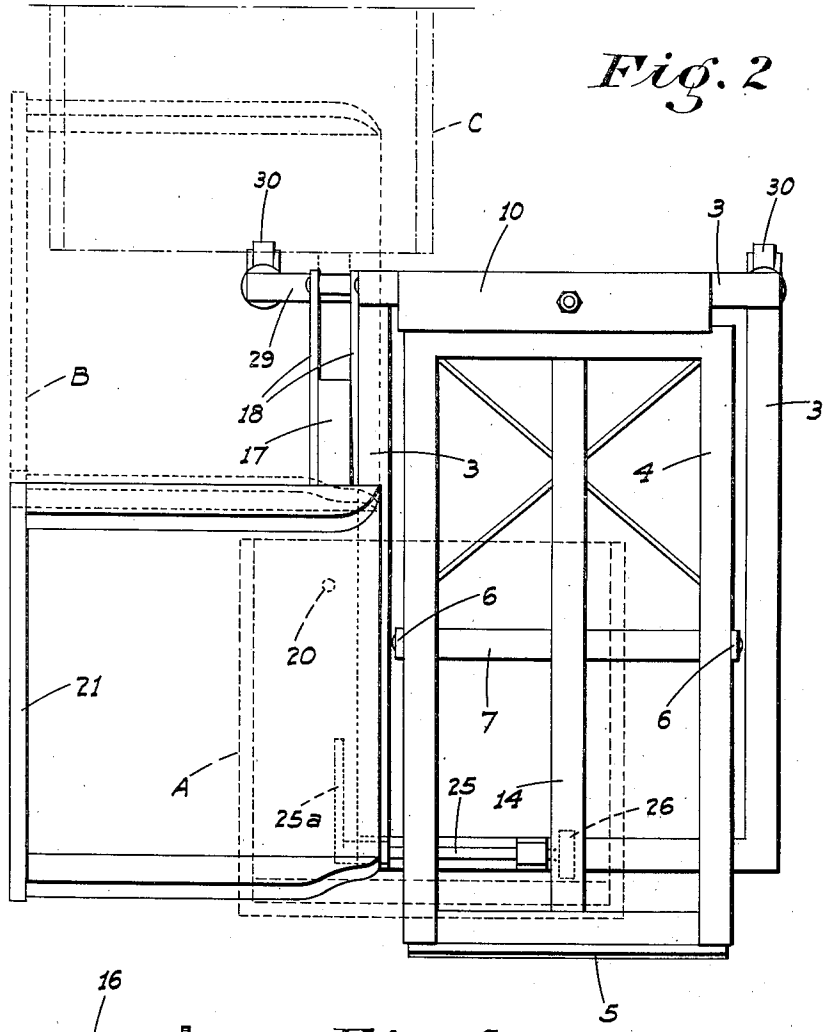


Fig. 4

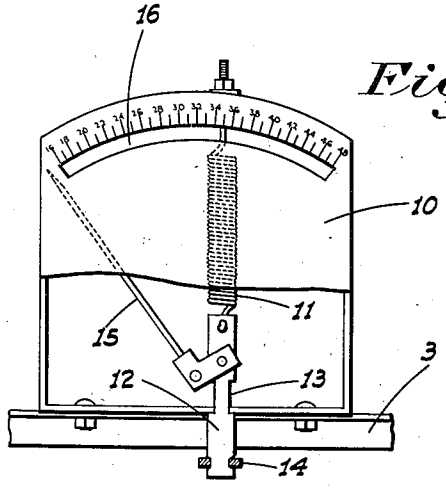
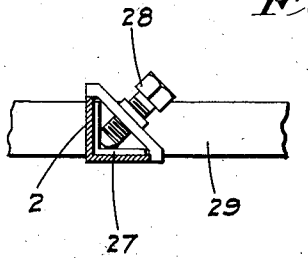


Fig. 5



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PORTABLE PACKING AND WEIGHING STAND

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Application July 15, 1935, Serial No. 31,394

5 Claims. (Cl. 226—129)

This invention relates to the fruit and vegetable packing industry, and particularly to the packing of fruit in lug boxes for shipment, being an improvement over the structure shown in my copending application for patent, Serial No. 706,646, filed January 15, 1934.

The principal object of my invention therefore is to provide a supporting tray for a stack of wrapping papers, said tray being mounted on the stand so that the wrappers are convenient to the packer, but so said tray may be readily moved out of the way without detachment when it is not in use. I have also provided a means to enable the box supporting platform to be held against movement when desired as when packing each layer of pears in a box, in order to avoid the "jiggling" of the platform which would otherwise be had.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a side elevation of my improved device.

Figure 2 is a top plan view of the same.

Figure 3 is a fragmentary sectional elevation showing the mounting of the tray supporting post.

Figure 4 is a front view of the scale device with the cover partly broken away.

Figure 5 is a fragmentary cross section on the line 5—5 of Figure 1.

Referring now more particularly to the characters of reference on the drawings, the stand comprises pairs of front and rear legs or uprights 1 and 2 respectively rigidly connected together by upper and lower horizontal bars 3 so as to provide a rigid frame of rectangular form in plan, and of greater area than that of a standard fruit box. The back legs are somewhat taller than the front ones and the upper cross bar 3 thereof supports the weighing or scale unit, as will be seen later.

Disposed above the level of the front portion of the frame and in front of the rear legs is a flat platform 4 for the support of a shipping box. This platform is disposed with a convenient downward slant toward the front, its rear end lying adjacent the back cross bar 3 and being provided across its front end with an upstanding flange 5 which prevents forward sliding movement of the box from position.

Rigidly secured to and depending from the sides of the platform inwardly of the stand frame are arms 6 connected at their lower ends by a cross bar 7. Diagonal brace straps 8 between the arms and platform prevent possible movement of the platform relative to the arms.

Vertically spaced and horizontally braced pairs of parallel links 9 are pivoted on the arms 6 intermediate their ends and on the rear legs 2. The platform is thus floatably supported from the stand for direct vertical movement relative thereto.

Upstanding from the top bar 3 of the back legs 2 is a housing 10, the top of which supports a depending tension spring 11. To the lower end of this spring is secured a depending link 12 having a reduced neck 13 intermediate its ends slidably engaging a suitable slot formed in the bottom of the housing. The bottom of the neck forms a shoulder normally engaging the under side of the bottom of the housing, thereby limiting the possible contracting of the spring and enabling the latter to be always kept under a certain tension. The link below the housing is swivelly connected to a bar 14 rigid with and projecting rearwardly from under the platform 4 centrally of its width.

Pivotally mounted in the housing is a pointer 15 whose upper end is visible through a circular slot 16 in the front of the housing, said slot being graduated along its length to indicate pounds or other units of weight. The pointer is operatively connected in any suitable manner to the link 12 to be swung across the slot as said link descends.

It will thus be seen that as a box is loaded the increase in weight as it occurs will be indicated on the dial behind and above the box and the packer will know the instant the box has the necessary and predetermined weight of fruit therein, without further time in handling the box being necessary.

The structure so far described is substantially the same as before, and is all that is necessary for packing and weighing ordinary produce. For use with certain fruits such as pears, which are individually wrapped, I provide an attachment arranged as follows:

Pivoted for vertical adjustment on the lower transverse cross bar 3 on the left hand side of the stand is a free arm 17, preferably projecting upwardly to a level adjacent that of the platform. This arm is guided above its pivot for limited

swinging movement in a direction from front to back of the stand between diagonal straps 18 secured to the adjacent leg 2 and top bar 3.

Mounted on the upper portion of said arm are vertically spaced blocks 19 serving as bearings for a turnable post 20 which projects above the arm some distance. Supported by the post at its upper end and rigid therewith is a tray 21 of suitable size to receive a stack of individual wrappers such as are used for pears.

This post is connected to the tray near its open right-hand side and near its rear side; this relationship of the post to the sides of the tray obtaining when said tray is in an operative position as shown in Figure 2. By thus positioning the post relative to the tray, the latter when in operative position does not overhang the platform 4, but is disposed to one side of the same. By turning the tray however through a 90° arc it may be moved to overlie the platform as indicated at A in Figure 2. This position of the tray reduces the overall width of the device so that it is more conveniently arranged for transportation. When the arm 17 is swung back as far as possible the tray without being turned is substantially out of the way of packing operations, as indicated at B in Figure 2; and said tray may then if desired be swung through another 90° arc so that it is disposed in a plane back of the stand as shown at C where it is entirely out of the way.

In order to enable the tray to be easily swung when desired through any 90° arc, while normally preventing such turning, the lower end of the post below the lower bearing 19, is squared as at 22 and slidably fits in a socket of similar shape formed in a block 23 secured to the arm 17, as shown in Figure 3. A collar 24 on the post between the block 23 and the adjacent block 19 permits the upward movement of the post only sufficient to clear the squared end from the socket, so as to free the post for turning.

To prevent "jiggling" of the platform when desired, a shaft 25 having an operating handle 25*a* on one end is turnably mounted on the top of the stand at the front and extends across the stand under the platform 4. A cam or stop element 26 is fixed on the shaft under the central bar 14 of the platform and is adapted only when the shaft is turned to a certain position, to engage the under side of said bar as shown in Figure 1 and prevent any downward movement of the platform.

To enable the height of the stand to be adjusted I provide the legs 1 and 2 with telescopic extensions 27, adapted to be clamped at any position by set screws 28 mounted on the corresponding legs, as shown in Figure 5. The extensions of the rear legs 2 are connected at their lower end by a bar 29 which in the left-hand end projects beyond the corresponding leg 2 some distance, as shown in Figure 2. This bar at its ends supports castors 30. By this construction any tendency for the stand to upset laterally due to the overhanging weight of the tray is eliminated. The stand can be easily moved about by lifting the same at the front slightly, and since it is of relatively light though sturdy construction, this can be readily done without any great physical effort being necessary.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. A fruit box packing device comprising a stand, a box supporting platform mounted on the stand, an upstanding arm pivoted on one side of the stand for swinging movement in a plane parallel to said side, a post turnably mounted on and upstanding from the arm, a tray to support a stack of wrappers disposed above the arm and arranged to one side of the platform when in operative position; the post being secured to and then depending from the tray from adjacent the rear corner thereof on the side nearest the platform.

2. A structure as in claim 1, with releasable means normally preventing rotation of the post and allowing of such rotation to three different positions 90° apart.

3. A fruit box packing device comprising a stand, a box supporting platform mounted on the stand, an arm pivoted on one side of the stand for swinging movement in a plane parallel to said side, a tray to support a stack of wrappers disposed above the arm, and a post turnably mounted on and supported from the arm and supporting the tray so that the latter is disposed to one side of the platform when in operative position.

4. A fruit box packing device comprising a stand, a box supporting platform mounted on the stand, an arm pivoted on one side of the stand for swinging movement in a plane parallel to said side, a tray to support a stack of wrappers disposed above the arm, a post turnable and slidable in the arm and secured at its upper end on the tray to support the latter, a square-socket block on the arm adjacent the lower end of the post, and a squared end on said post normally seated in the socket, and removable therefrom by upward movement of the post an amount sufficient to clear the socket, and means to limit the upward movement of the post to such amount.

5. A fruit box packing device comprising a stand, a box supporting platform mounted on the stand, an arm pivoted on the stand on one side thereof for swinging movement in a plane parallel to said side, and a tray to support a stack of wrappers disposed above and supported from the arm for swinging movement therewith.

ADA R. UPP.