E. McFARLAND.

Tray for Fruit-Drier.

No. 218,892. Patented Aug. 26, 1879.

Fig. 1

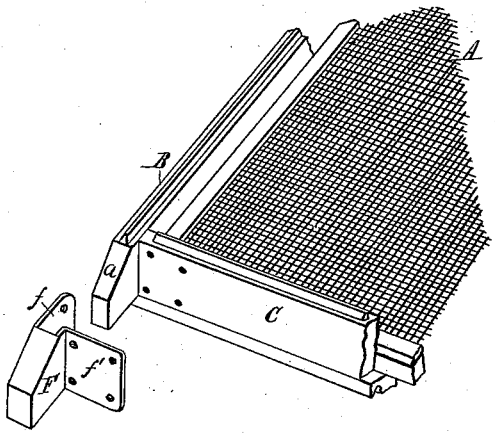


Fig. 2.

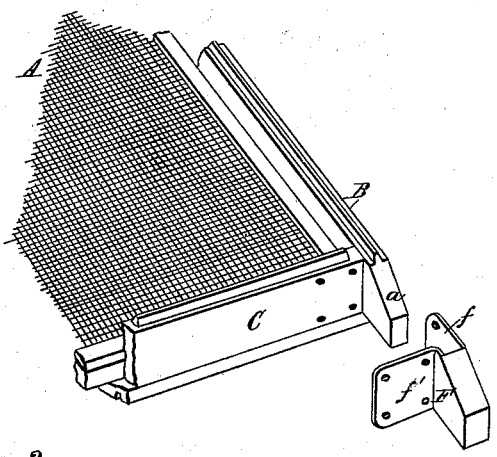


Fig. 3.

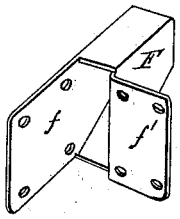
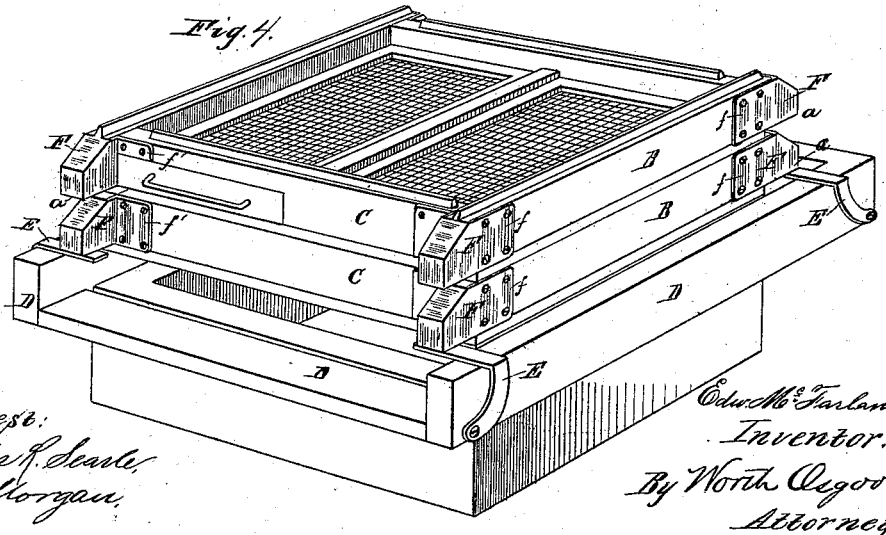


Fig. 4.



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UNITED STATES PATENT OFFICE

EDWARD McFARLAND, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TRAYS FOR FRUIT-DRIERS.

Specification forming part of Letters Patent No. **218,892**, dated August 26, 1879; application filed June 26, 1879.

To all whom it may concern:

Be it known that I, EDWARD McFARLAND, of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Trays for Fruit-Driers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view illustrating a fragment of one corner of my improved tray with the protecting-shoe detached from the projecting side piece, and Fig. 2 is a similar view of the opposite corner of the tray with its protecting-shoe likewise detached. Fig. 3 is a perspective view of one of the separated shoes, showing the same in reversed position, so as to obtain a view of its under side. Fig. 4 is a perspective view illustrating the application of the improved tray in a stack of two or more, and with one form of an elevating contrivance applied in connection with the stack.

Like letters in all the figures indicate corresponding parts.

My invention has special relation to that class of trays for fruit and vegetable driers wherein the walls of the trays make up sections of the walls of the drying-flue, and wherein it may be desirable to elevate the whole stack for the purpose of inserting a fresh tray below, or a part of the stack for any reason whatever; but obviously my several improvements may be applied in any form of drier wherein their advantages may be desirable.

The invention consists, essentially, in extending the side walls of the tray beyond the end walls, thereby affording a strong and convenient coupling or bearing for the elevating contrivance, of whatever character this latter may be; and it involves, further, the application to such extended side wall of a protecting-shoe calculated to prevent any undue wear thereof either at the bottom, sides, or top by contact of the elevating device, to prevent damage thereto by concussion, to strengthen the corner-joints, and to admit of the easy adjustment of the elevating-bar during the building of the stack.

These features of the invention and others subordinate thereto will be hereinafter first fully described, and then pointed out in the claims.

A is the foraminated bottom of the tray, and B and C, respectively, the side and end walls. In the style of driers herein alluded to the trays are generally of large size and nearly square in form, so that the terms "side wall" and "end wall" may be regarded as referring to either wall at pleasure. The side walls, B, are continued or projected beyond C a short distance, as at *a a*, forming thereby a strong handle or catch, against which the elevating-bar may be made to bear whenever it is desirable to apply it.

The trays are generally made of wood, on account of its lightness, and this form or construction of the bearing for the elevator is manifestly more strong and durable than any separate attachment could be.

In Fig. 4 the elevating device is shown to be a frame-work, D D, which is made to surround the base of the stack, and to rise and fall a short distance by the application of some suitable form of raising and lowering apparatus—as a lever and chains, &c. The lowermost tray (and of course all those above it) is carried with this frame when it ascends, and an explanation of this style of elevator will suffice to give a clear idea of the utility of my improvements and their adaptability for use in connection with other styles of elevators.

Upon the frame D D are the locking-bars E E, so hinged as that they will automatically assume a position beneath the projections *a a* as soon as the frame is sufficiently lowered. Whenever the frame is elevated they will serve to connect the tray and frame in such manner that all must move upwardly together. Upon lowering the frame the hinged arms or bars E E ride down upon the inclined upper edges of the projecting pieces *a a*. The stack is built up, tray by tray, by inserting one at the bottom as soon as the others have been sufficiently elevated. This method of building the stack is now well known, and is not claimed herein.

In order to prevent undue wear of the projecting ends by contact therewith of the elevating-arms E E, I provide the parts *a a* with a metallic shoe, F, either of cast or wrought metal, serving to protect the under side of the projections. This shoe is also made to protect the inclined faces of the projections, and their sides as well, either feature being within the

limits of my invention. The part *f* of shoe F is extended back upon the outer wall of the tray, and secured thereto by suitable tacks or screws, and the part *f'*, bent at right angles to the side wall, is secured to the end wall, all as plainly shown. This metallic casing for the projections *a a* protects them from damage, and forms at the same time a stiffening corner-block for the corners of the trays, whereby they are made less liable to become disarranged.

Instead of making the shoe F in one piece, it might be formed of several pieces of metal, either one of which might be omitted at pleasure. For instance, the elevator might be of such construction as to offer no wearing-surface to come in contact with the top part of the shoe, in which event the top would be omitted. Again, as in Fig. 4, it may be desirable to make a portion of the bottom of the tray removable through the end wall, in which case the whole or part of the plate *f'* may be omitted.

When thus constructed and arranged the improved tray and its appendages are found to admirably answer the several purposes and objects of the invention, as previously stated.

The shoes, if made to envelop the projecting ends or handles, as shown, must be made in pairs, one of which fits upon one corner and one on the opposite.

No claim herein is based upon the sectional bottom of the tray, that feature being made the subject of a separate application for patent.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the elevating-bar, the matched walls of the drying-tray, adapted to form independently-removable sections of the drying-flue, the projecting ends *a a*, and a protecting-plate located on the under side of said projecting ends, substantially as and for the purposes set forth.

2. The combination of the elevating-bar, the matched walls of the drying-tray, adapted to form independently-removable sections of the drying-flue, the projecting ends *a a*, and a protecting-plate located upon the upper side of said projecting ends, substantially as and for the purposes set forth.

3. The combination of the elevating-bar, the matched walls of the drying-tray, adapted to form independently-removable sections of the drying-flue, the projecting ends *a a*, and a metallic shoe for protecting the same, said shoe being made to cover the top, bottom, and sides of the projections, substantially as shown and described.

4. The combination of the elevating-bar, the matched walls of the drying-tray, adapted to form independently-removable sections of the drying-flue, the projecting ends *a a*, inclined at top, and a metallic shoe for protecting the same, said shoe being made to cover the top, bottom, and sides of the projections, and being provided with the side plates, *f f'*, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

EDWARD McFARLAND.

Witnesses:

WORTH OSGOOD,

CHARLES R. SEARLE.