

(No Model.)

2 Sheets—Sheet 1.

J. M. DAVIES.
DEVICE FOR PACKING FRUITS.

No. 464,150.

Patented Dec. 1, 1891.

Fig. 1.

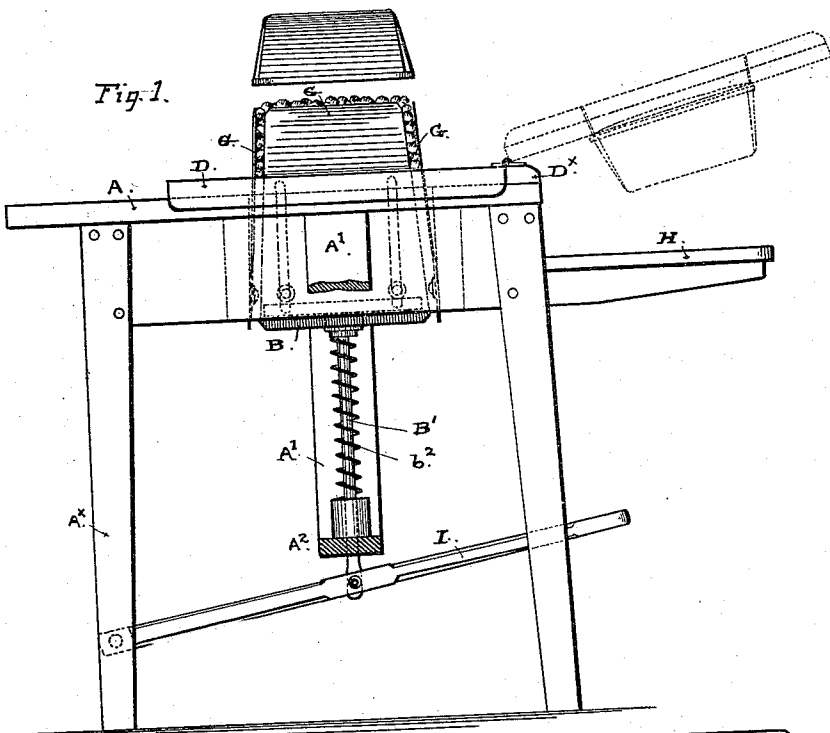


Fig. 2.

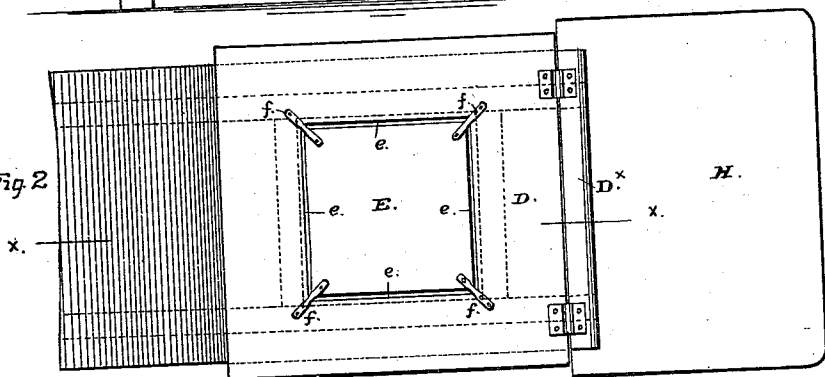
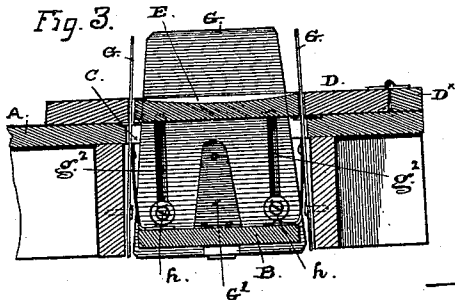


Fig. 3.



Witnesses:

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W. S. May

Inventor:

John M. Davies

By *Smith & Debn* Attys.

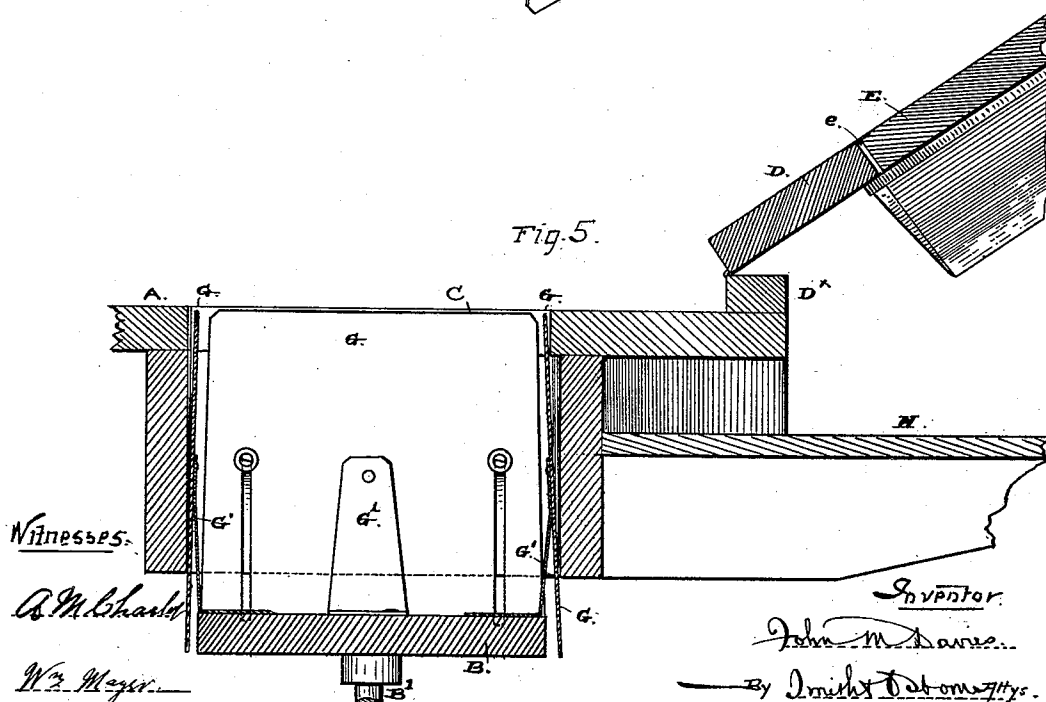
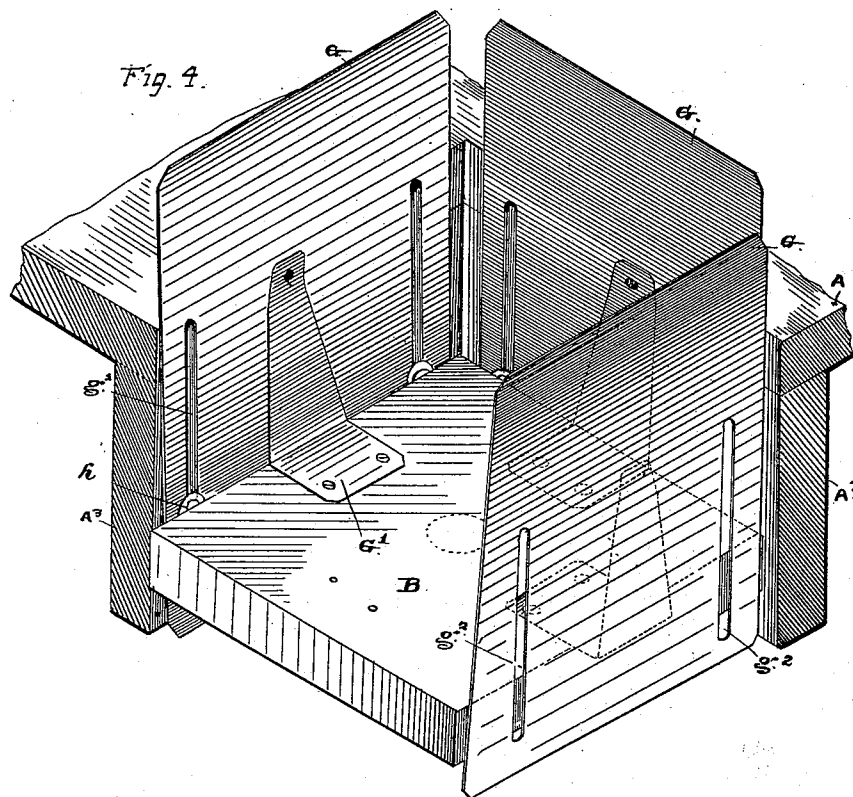
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2 Sheets—Sheet 2.

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Witnesses.

A. M. Charles

W. S. Meyer

Inventor.

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By Imrich Dabomegys.

UNITED STATES PATENT OFFICE.

JOHN M. DAVIES, OF FLORIN, CALIFORNIA.

DEVICE FOR PACKING FRUITS.

SPECIFICATION forming part of Letters Patent No. 464,150, dated December 1, 1891.

Application filed September 29, 1890. Serial No. 366,542. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. DAVIES, a citizen of the United States, residing at Florin, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Fruit-Packing Devices, of which the following is a specification.

My invention relates to a device or machine for packing fruits in baskets or boxes for the market; and it consists in the described construction and combination of parts by which I produce a machine or device to facilitate the work of filling and packing fresh fruits and berries of all kinds in boxes or receptacles for market.

The principal parts of the machine consist of a table or bed hinged at one side to a bench or fixed support and capable of being inverted or turned over upon that point of attachment and four upright plates or thin wings projecting through slits or apertures in the invertible table around the four sides of a square or rectangle and attached at their lower ends to a reciprocating head, by which they can be withdrawn from beneath the table downward below the top surface of the table. When projected through the slots in the table, the four plates form standing sides of a receptacle equal in capacity to the fruit-box and of suitable size to take or be covered by the inverted box, that part of the hinged table inclosed between the standing plates forming the bottom of the fruit-receptacle. These parts are constructed and combined for operation substantially as represented in the accompanying drawings, in which—

Figure 1 represents the machine in side elevation with the fruit-receptacle filled and the fruit-box in inverted position over the receptacle ready to be brought down around it. Fig. 2 is a top view. Fig. 3 is a vertical section taken longitudinally through the hinged table and adjacent parts at about the line *x x*, Fig. 2. Fig. 4 is a view in isometrical perspective, on an enlarged scale, of the parts that form the fruit-receptacle. Fig. 5 is an elevation in vertical section of the stationary bench or support, the hinged table, and the plates that form the sides of the fruit-receptacle, with the table thrown back or raised

and the plates drawn down below the top of the bench.

A indicates a stationary platform or bench with supports *A** to raise it a convenient height above the floor, and B a vertically-movable head on a spring-elevated rod or plunger *B'*, for which a support and guide are provided in a cross-bar *A²*, suspended below the bench by hangers *A'*.

C is a rectangular opening in the top of the bench.

D is a hinged table attached at one side to a fixed strip *D** at the front of the bench and capable of being turned over one hundred and eighty degrees from its position of rest upon the platform A.

E is a center block with a concave top surface fixed in the center of a rectangular opening in the table by straps *f f* at the corners and of such smaller size than the opening that slits or narrow apertures *e e* are left around the four sides of the block.

G are four plates of sheet metal attached by spring-arms *G'* to the movable head B and held by those parts away from the head in upright position. They set in line with and are projected through the slits *e* by the upward movement of the head, while the reverse movement of that part draws them down below the top of the table. In these movements the plates are confined and kept in position by screws *h h*, that take through slots *g g* in the plates and into the stationary sides *A³ A³* of the framing beneath the bench.

I is a depressing-treadle pivoted at one end to a cross-piece between the legs of the bench and having the rod or plunger *B'*, attached to it by the end that is brought through the guide *A²*. By pressing down the front end of the treadle the head B is drawn down and the spring *b²* is compressed. That part then acts to throw up the head and project the plates through slits in the table when the treadle is released.

In their upward movement the plates G bear against the overhanging edges of the opening C and are bent inward toward the center to conform to the tapering sides of the boxes or receptacles that are most commonly used for berries and small fruits; but for

boxes with straight sides the plates do not require to assume such inclined positions. The opening C can then be formed to let the plates take a perpendicular position. At that side or end of the bench where the invertible table is hinged is a shelf H, so placed that it presents a surface for the bottom of the filled box to rest on when the table is turned over one hundred and eighty degrees from off the top of the bench. This requires the shelf to be set below the plane of the bench-top a vertical distance about equal to the depth of the boxes which are to be filled, and this supporting-surface can be fixed permanently to the side of the bench, or provision can be made for moving it up or down and fixing it at any point, as the sizes of the boxes may require.

The operation of filling boxes in this machine is carried on substantially as follows: When the invertible table is turned down flat upon the bench, the movable wings or plates that form the sides of the fruit-receptacle are projected through the slits or openings and are held up by the coil-spring beneath the head. Into the receptacle thus formed the fruit is nicely arranged in layers, beginning on the bottom and working upward until the space is filled with the fruit. The fruit-box held in inverted position is then brought over the receptacle and pressed down until its rim rests upon the table. The sliding plates are then withdrawn from the box by depressing the treadle, and the box containing the fruit remains on the table in inverted position. To bring it into upright position it is only necessary to hold the box by one hand placed upon its bottom and with the other hand raise the hinged table and turn it down over the shelf at one side. As the fruit is laid and packed from the top of the fruit-box downward or that the top layers are laid first in the operation of packing, a close, regular, and attractive appearance can be produced without any special skill on the part of the operator.

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

1. In a machine or device for packing fruit, the combination of an invertible table forming a base for receiving the fruit and being slotted, as described, with sliding wings or plates having a spring for keeping them normally projected through the invertible table, and means for withdrawing the wings or plates, substantially as set forth.

2. In a machine or device for packing fruit, the combination of a stationary bench or table, an invertible table capable of movement one hundred and eighty degrees, sliding plates or wings constituting standing sides of a fruit-receptacle of which the invertible table forms the bottom, having slits or openings through which said plates are projected, a sliding or movable head beneath said invertible table having the plates attached thereto, a spring applied to hold up said head, and a lever or treadle having connection with the head as means to withdraw the plates from position above the surface of the invertible table, substantially as described.

3. The herein-described machine for filling and packing fruit in boxes for market, consisting, essentially, of a suitable bench or table, the plates or wings projected through the table and constituting standing sides of a fruit-receptacle adapted to take the fruit-box over it in an inverted position, the standing head having the plates attached to it, an invertible device forming the bottom of said fruit-receptacles, a spring holding the head in elevated position, and a lever or treadle connected with said head to draw it down, constructed and arranged for operation substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

JOHN M. DAVIES. [L. S.]

Witnesses:

W. O. DAVIES,
J. D. MCKERCHER.