

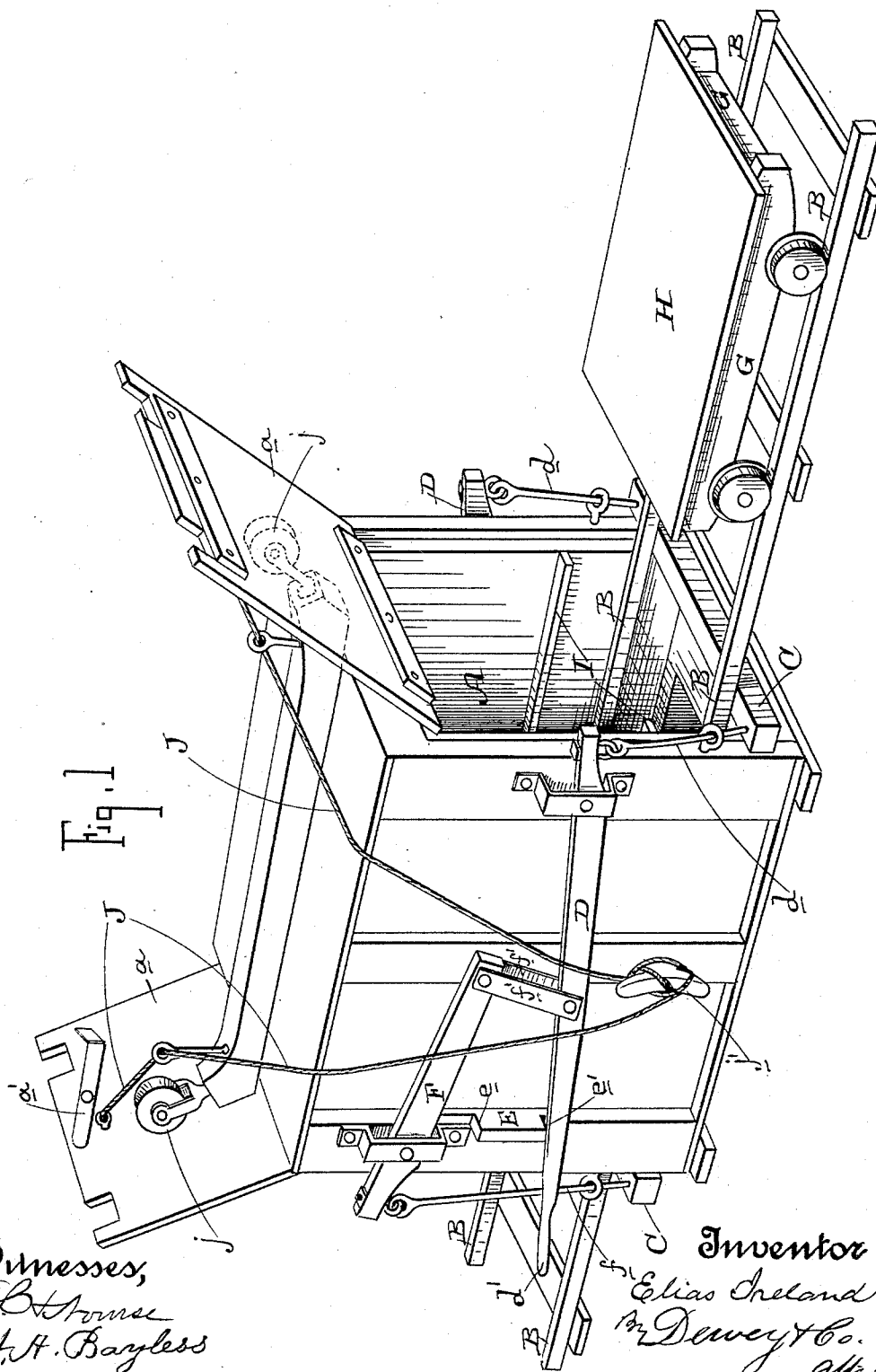
(No Model.)

2 Sheets—Sheet 1.

E. IRELAND.
APPARATUS FOR BLEACHING FRUIT.

No. 485,940.

Patented Nov. 8, 1892.



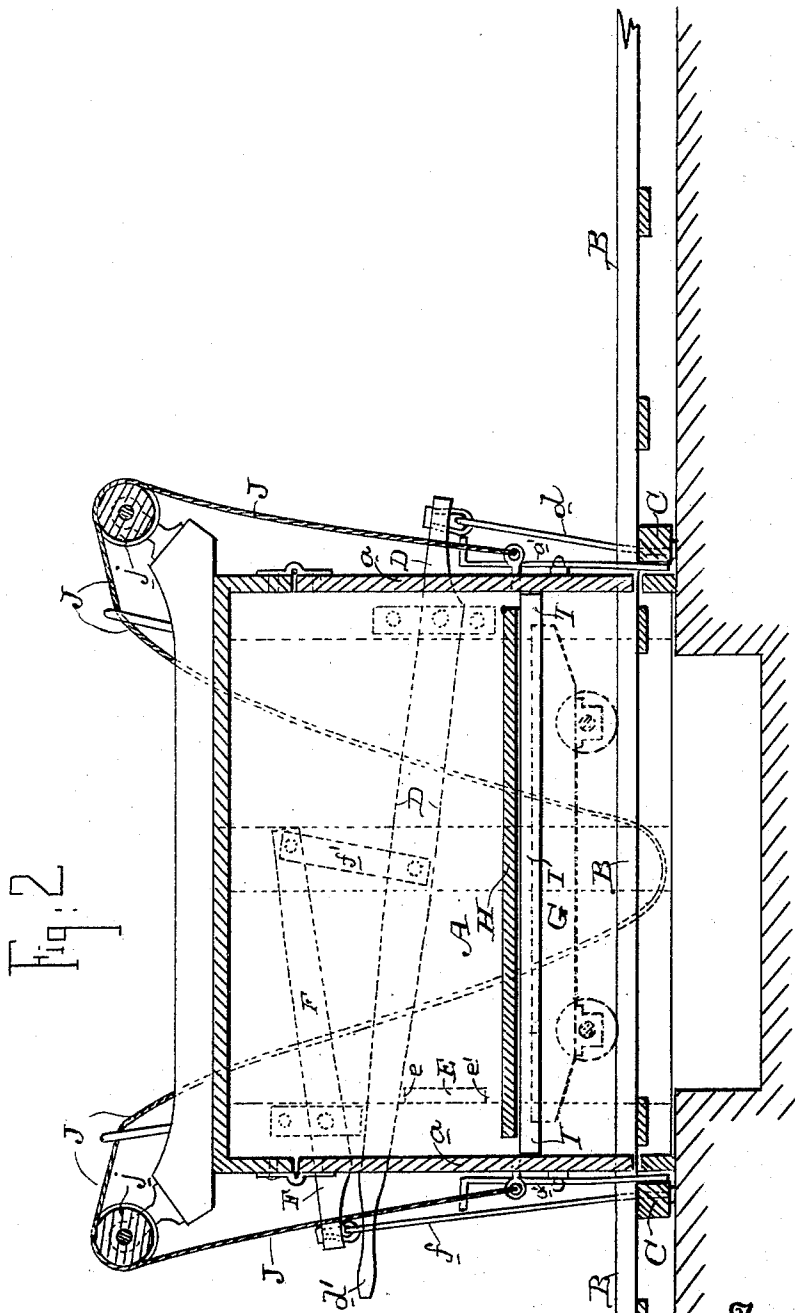
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UNITED STATES PATENT OFFICE.

ELIAS IRELAND, OF WINTERS, CALIFORNIA.

APPARATUS FOR BLEACHING FRUIT.

SPECIFICATION forming part of Letters Patent No. 485,940, dated November 8, 1892.

Application filed August 4, 1892. Serial No. 442,164. (No model.)

To all whom it may concern:

Be it known that I, ELIAS IRELAND, a citizen of the United States, residing at Winters, Yolo county, State of California, have invented an Improvement in Fruit-Bleaching Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of apparatus in which fruit is confined and subjected to the action of the fumes of sulphur, whereby it is bleached.

My invention consists in a novel apparatus composed of a chamber or casing to which the fumes of the sulphur have access, a vertically-movable track within said chamber and upon and by which a load-carrying truck is introduced therein, a removable load-platform carried by the truck, supports within the chamber upon which the platform is borne when relieved of the truck by the downward movement of the track, and a novel arrangement of levers whereby the track is vertically moved to cause the truck to be relieved of the load-platform and to receive it again, all of which, together with details of construction, arrangement, and combination, I shall hereinafter fully describe and specifically point out in the claims.

The object of my invention is to provide an apparatus for bleaching fruit, in the bleaching-chamber of which an entire car or truck load may be introduced with readiness and deposited therein while the car or truck is removed, said car or truck being adapted when returned to the chamber to receive the load again and withdraw it.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my apparatus, showing the car with its load-platform about to enter the bleaching-chamber. Fig. 2 is a vertical longitudinal section, showing the load-platform resting on the cleats I within the closed chamber, the car G being at this time removed, but here shown in dotted lines to indicate its position just before removal and when it is lowered to relieve itself of the platform by transferring it to the cleats.

A is the fuming or bleaching chamber, consisting of an inclosed casing having swinging end doors *a*, which may be raised up out of the way to admit the loaded truck and may

be lowered to close the chamber when the load is left in it to be subjected to the fumes. The casing or chamber has an open bottom and is built or supported over a suitable receptacle or pit in which the sulphur is burned, whereby the fumes may rise into the chamber. Within the chamber are the tracks B, which extend outwardly on either side thereof to any suitable distance. These tracks, where they issue from the ends of the chamber, rest upon lifting-bars C, which pass transversely under them. There is one of these bars at each end of the chamber and they are adapted to be raised and lowered by means of the compound levers now to be described.

Upon each side of the chamber or casing A is pivoted near one end thereof the main levers D, the short ends of which are connected with each end of the lifting-bar by means of the links *d*. Their other ends project beyond the other end of the casing, and are formed into the handles *d'*, whereby they are operated. These levers engage with the upper notch *e* of a fixed rack-bar E to hold them up and with the lower notch *e'* to hold them down.

Pivoted on each side of the casing A near the other end thereof are supplementary levers F, the short ends of which are connected with the ends of the other lifting-bar C by links *f* and their long ends are connected by links *f'* with the main levers D. Now, it will be seen that by releasing the main levers from the upper notches *e* of the rack-bars E and pressing them downwardly until they engage the lower notches, both lifting-bars C will be raised, and these bars lifting up under the track will raise said track within the chamber A. This leverage has great power, so that it will require but a single hand to operate it and to raise a loaded car on the tracks.

G is a car or truck. Upon this is mounted removably a platform H, upon which the load is to be carried, said platform having its edges projecting over the sides of the truck or car. Within the chamber or casing A on the inner surface of its sides are secured supporting-cleats I.

The operation is as follows: The end doors *a* of the casing being raised and the main levers D depressed so as to raise the track, the car with its load-platform is run in on the track into the chamber. The track being in

an elevated position, the load-platform is lifted high enough to carry its projecting edges over the supporting-cleats I in the chamber, while the wheels of the truck or car pass under them. When the car, with its loaded platform, is in proper position within the chamber, the levers D are released and allowed to move upwardly, whereby the lifting-bars C descend and the track B lowers, thereby lowering the truck away from the load-platform which rests now and is supported by the cleats I. The car is then run out of the chamber, the end doors are lowered, and the casing being tight the sulphur is ignited, whereby its fumes rise into the chamber and bleach the fruit. The fruit is allowed to remain as long as necessary, whereupon the doors are again opened and the car run into a position under the load-platform. The levers D are then forced down, whereby the track is raised and the truck is lifted up under and raises the load-platform from the supporting-cleats I. The car with its load-platform may then be removed and another load brought in. Thus the handling is done rapidly and with ease, irrespective of the amount of the load. The end doors *a* are fastened in place when dropped down to close the chamber, by means of pivoted latch-bars *a'*, which pass down behind the lifting-bars C and said doors are rabbeted into the casing and notched upon the tracks, whereby they form tight joints. The doors are lifted and held up in an open position by means of the cords or cables J, attached to them, and which pass over pulleys *j*, and suitable guides on the top of the casing and down to a cleat *j'* on the side where they are fastened.

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

1. An apparatus for bleaching fruit, consisting of a casing or chamber for confining the fruit and bleaching-fumes, said chamber having supports within it, vertically-movable tracks extending into said casing or chamber, whereby a load-car may be introduced therein, and a removable load-platform carried by the car and adapted to be transferred from the car to the supports and back again from the supports to the car by the movement of the tracks, substantially as herein described.

2. An apparatus for bleaching fruit, consisting of a chamber or casing for confining the fruit and the bleaching-fumes, supporting-cleats upon the interior of the chamber or casing, a load-platform adapted to be supported by said cleats, tracks entering said chamber or casing, a car adapted to travel on said tracks, and means for vertically raising said tracks within the chamber or casing, whereby the load-platform is successively

transferred from the car to the supporting-cleats and back again, substantially as herein described.

3. An apparatus for bleaching fruit, consisting of a chamber or casing for confining the fruit and the bleaching-fumes, supporting-cleats upon the interior of the chamber or casing, a load-platform adapted to be supported by said cleats, tracks entering said chamber or casing and upon which a car is adapted to travel, and means for vertically raising said tracks within the chamber or casing to transfer the load-platform from the car to the cleats and back again, consisting of lifting-bars at each end of the chamber or casing passing under the tracks and levers connected therewith, whereby they are operated, substantially as herein described.

4. An apparatus for bleaching fruit, consisting of a chamber or casing for confining the fruit and the bleaching-fumes, supporting-cleats upon the interior of the chamber or casing, a load-platform adapted to be supported by said cleats, tracks entering said chamber or casing and upon which a car is adapted to travel, and the means for vertically raising said tracks within the chamber or casing to transfer the load-platform from the car to the cleats and back again, consisting of the lifting-bars at each end of the chamber or casing passing under the tracks, the pivoted main levers D, connected at one end by links with one lifting-bar, the supplemental levers F, connected by links with the other lifting-bar, and the links *f'*, connecting the two levers, whereby they operate in unison, substantially as herein described.

5. An apparatus for bleaching fruit, consisting of a chamber or casing for confining the fruit and bleaching-fumes, said casing having upon its inner surface the supporting-cleats and at each end the swinging doors, the vertically-adjustable track entering said chamber or casing, the lifting-bars under said tracks, the main levers D, pivoted to the sides of the casing and connected with one of the lifting-bars by links, the supplemental levers F, pivoted to the casing and connected by links with the other lifting-bar, the links connecting the two levers, the traveling car, and the removable load-platform adapted to rest upon said car and to be transferred to the supporting-cleats in the chamber or casing by the vertical movement of the tracks, substantially as herein described.

In witness whereof I have hereunto set my hand.

ELIAS IRELAND.

Witnesses:

J. L. DUPREY,
W. J. MCARTHUR.