J. JOHNSON.

Fruit-Drier.

No. 166,385. Patented Aug. 3, 1875.

Fig. 1.

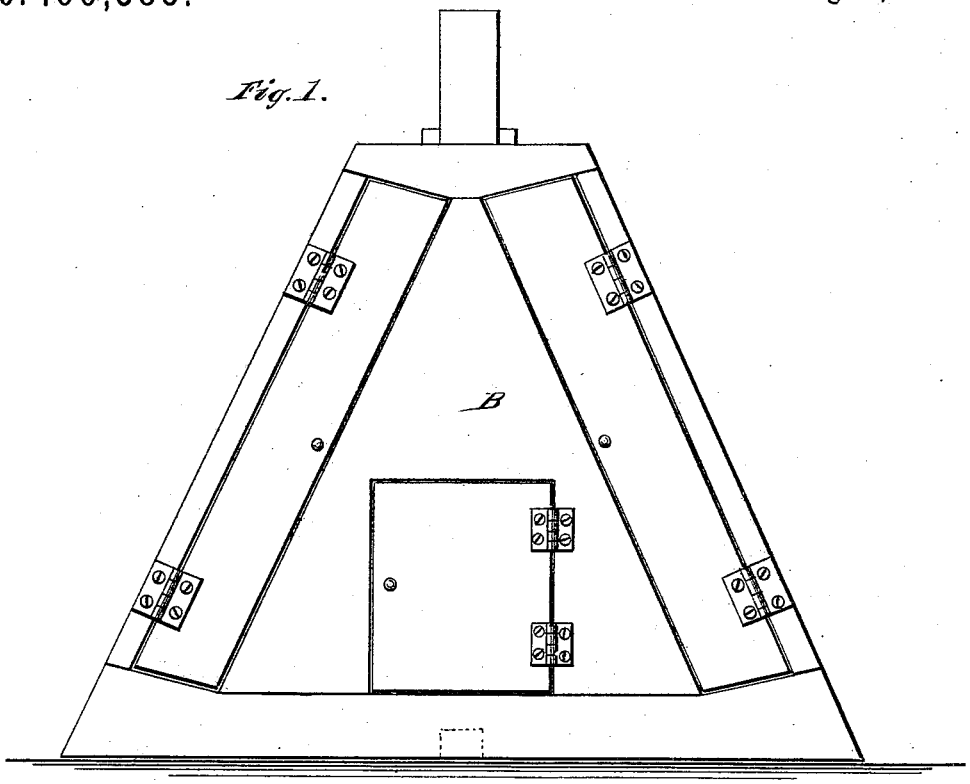

Fig. 3.

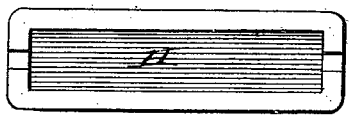

Fig. 2.

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JOSEE JOHNSON, OF NEW YORK, N. Y.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. **166,385**, dated August 3, 1875; application filed April 5, 1875.

To all whom it may concern:

Be it known that I, JOSEE JOHNSON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fruit-Driers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form part of this specification.

My invention relates to devices for drying fruit or vegetables; and the nature of my invention consists, first, in a metallic dome arranged to allow the heated air to pass out from beneath its wings or sides; second, in inclined walls tapering upward, and provided with shelves having a space between the shelves and walls; third, in the combination of a central dome and side shelves, having a space between them and the walls of the drier; and, fourth, in the combination of a central dome, longitudinal vertical partitions therein, inclined side walls, and shelves, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front elevation of my fruit-drier. Fig. 2 is a vertical section of the same. Fig. 3 is a plan view of one of the shelves.

The shell of my fruit-drier is composed of two inclined side walls, A A, tapering from the bottom upward, a front, B, and back, C, with an exit-flue, D, in the center of the top, as shown, and a suitable air-hole at the bottom of the back C. Within this shell is secured a sheet-metal dome, E, extending from the front to the back walls. The sides of the dome at the bottom are turned outward, forming wings *a a*, and leaving passages *b b* at the bottom for the exit of the heated air from the interior of the dome to the inside of the drier. Between the inclined side walls and the dome on each side of the drier is arranged an inclined frame-work, which forms a series of shelves, G G, which are inclined from the walls inward and downward. These shelves are so arranged that when the trays H H are placed thereon there will be left a space, *e*, between the trays and shelves and the side walls for the passage of the hot air.

In the construction of this dry-house; the side walls may be made perpendicular, but I prefer to make them inclined, as shown, because the hot air as it ascends is retarded and deflected inward and around the trays better than if there were a vertical passage for the air to pass up.

The trays H consist simply of a frame with a bottom made of rods, wire-cloth, or perforated metal, and have their ends notched to fit over the longitudinal bars of the shelves.

Within the dome E is placed the furnace I, of any suitable construction, and on each side thereof is a vertical partition, J, extending the entire distance from front to back, and from the ground upward for a suitable distance. These partitions cause the hot air from the furnace to be retarded, so as to heat the top of the dome, and then pass downward to and out through the passages *b b*.

In the front B of the drier are suitable doors to gain access to the interior of the dome, and to the shelves on each side thereof. The side walls A A may be lined with tin or other metal, in order to thoroughly deflect the hot air.

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

1. In a fruit-drier, the side shelving G G, in combination with the metal dome E, said dome extending from the front to the back of the drier, thus forming a reservoir for heated air, and supplying the same to the drier beneath the wings *a a*, all substantially as set forth.

2. In combination with the furnace I, provided with the deflectors J, the dome E, the top of which extends a considerable distance above said furnace to inclose a reservoir of heated air, and the lower edges or wings of which are provided with the upturned deflecting-flanges *a*, to cause the heated air to pass outwardly.

3. The combination, in a fruit-drier, of the furnace I, the dome E *a*, the passages *b e*, and the shelves G.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEE JOHNSON.

Witnesses:

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C. ALEXANDER.