No. 749,404. PATENTED JAN. 12, 1904.

H. E. SMITH.

FRUIT DRIER.

APPLICATION FILED SEPT. 3, 1903.

NO MODEL.

Fig. 1.

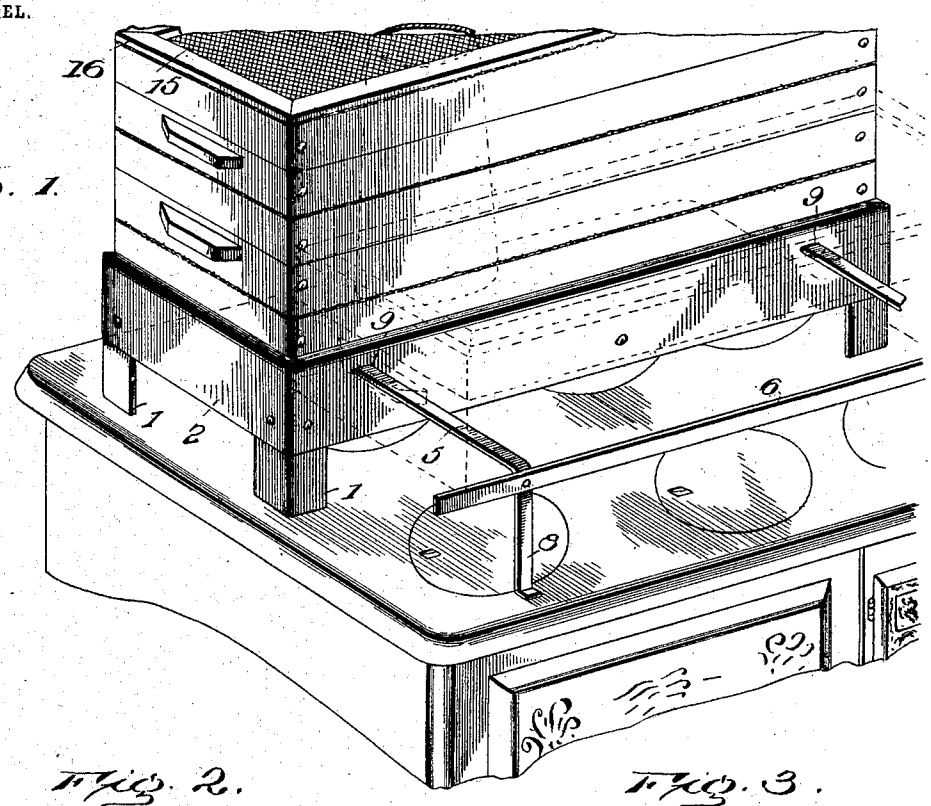


Fig. 2.

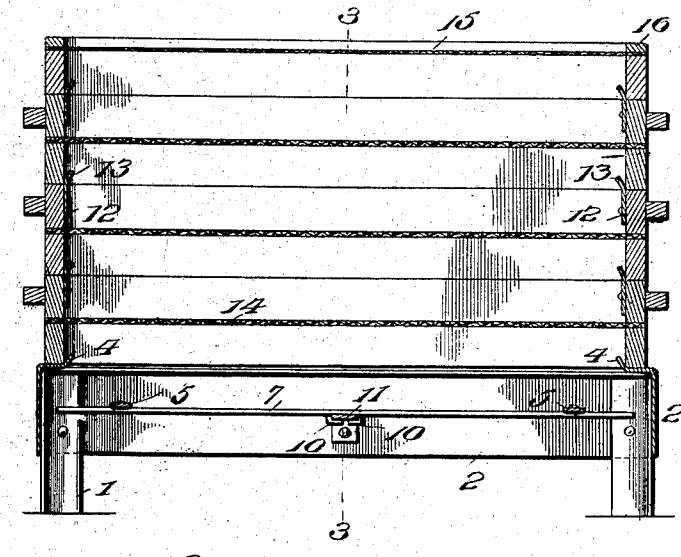
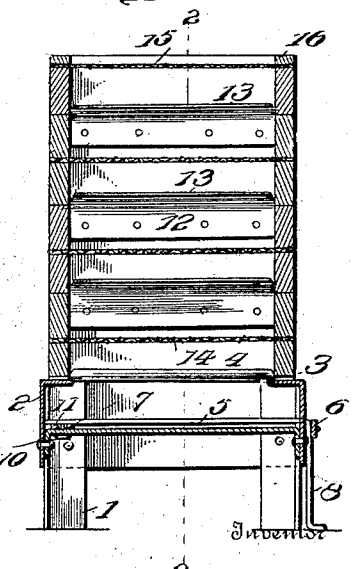


Fig. 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 749,404. Patented January 12, 1904.

UNITED STATES PATENT OFFICE.

HARRY E. SMITH, OF MERCERSBURG, PENNSYLVANIA.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 749,404, dated January 12, 1904.

Application filed September 3, 1903. Serial No. 171,812. (No model.)

To all whom it may concern:

Be it known that I, HARRY E. SMITH, a citizen of the United States, residing at Mercersburg, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Fruit-Driers, of which the following is a specification.

This invention appertains to means for desiccating fruit and the like cured by driving off excess of moisture.

The purpose of the invention is to provide a mechanism designed most especially for domestic use whereby the housewife may prepare dried fruit, vegetables, and the like without having recourse to the tedious process of curing the same in the sun and exposing it to insects and dust.

In accordance with this invention a stand of sheet metal is constructed of a size to be placed upon the top of any cook-stove and is provided with an extensible support for receiving the frames containing the fruit or the like to be cured, said support being adapted to be slid within the stand, so as to be out of the way when it is required to use a portion of the stove-top for cooking or other end. A series of frames are provided to be placed upon the stand and are adapted to interlock, so as to prevent longitudinal and lateral displacement, said frames receiving the article to be desiccated.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a fruit-drier embodying the invention, showing it placed upon the top of a stove and the support drawn out. Fig. 2 is a central longitudinal section of the device on the line 2 2 of Fig. 3. Fig. 3 is a transverse section of the drier on the line 3 3 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The stand is approximately constructed of sheet metal of proper gage and is approximately of rectangular form and comprises a frame mounted upon legs 1. The frame of the stand comprises vertical walls 2 and an inner flange 3, the latter forming a support for the drier-frames placed thereon. The flange 3 projects horizontally inward from the end and longitudinal walls of the frame, and the end flanges have upper extensions 4 to enter the lowermost drier-frame and prevent lateral and longitudinal movement thereof when properly placed upon the stand, as shown most clearly in Figs. 2 and 3. The extensions 4 incline inward and upward and are of a length to fit snugly between the longitudinal bars of the lowermost drier-frame to prevent lateral displacement thereof. The extensions 4 besides forming interlocking means also stiffen the end flanges 3. The legs 1 are constructed of pieces of sheet metal of proper length and width bent intermediate of their longitudinal or vertical edges to form wings arranged relatively at a right angle to each other and which snugly fit within the angle or corner of the frame, to the walls of which they are riveted or otherwise secured in any substantial way. The legs are of a height to insure the formation of a space below the frame 2 for the ingress of air, which when heated circulates through the tier of drier-frames and carries off the moisture from the fruit or other article to be desiccated. The extensible support is slidable with reference to the stand, so as to be drawn out, as indicated in Fig. 1, or pushed in, as shown in Fig. 3. The support comprises slide-bars 5, an outer longitudinal bar 6, an inner longitudinal bar 7, and legs 8, the latter being bent portions of the slide-bars 5 and having their lower ends bent to provide feet. The slide-bars 5 are arranged to pass through openings 9 in a longitudinal wall of the stand and are supported at their inner ends thereby. The longitudinal bar 7, riveted or otherwise secured to the inner ends of the slide-bars 5, connects them and prevents outward displacement of the support when pulled

outward, as shown in Fig. 1. To insure proper and steady movement of the support and to maintain the same in proper position, ears 10 are pressed from the inner longitudinal bar 7 and embrace a transverse bar 11, secured at its ends to the longitudinal walls of the stand, as shown most clearly in Fig. 2. When the support is moved inward, as shown in Fig. 3, a portion of the stove-top is exposed and may be utilized for any desired purpose; but when the support is drawn out, as indicated in Fig. 1, it may be utilized for supporting one or more of the drier-frames, as will be readily comprehended.

Any number of drier-frames may be employed and are substantially of duplicate construction, being adapted to be arranged in a pile or tier, as indicated in the several figures of the drawings, whereby the hot air ascending may carry off the moisture eliminated from the fruit or other article placed upon the screen or wire fabric secured to the respective frames. Plates 12 are secured to the inner sides of the end pieces of the drier-frames and project upward therefrom, the projecting portions being inwardly inclined, as shown at 13, to form extensions similar in purpose and result to the interlocking extensions 4, so as to hold the series of drier-frames in superposed relation against casual longitudinal or lateral displacement. Each of the drier-frames is composed of upper and lower sections of similar formation, between which the wire fabric 14 is secured and upon which the fruit or other article is placed to be desiccated. The topmost frame constitutes a cap or cover, and the wire fabric 15 is close-meshed to prevent insects gaining access to the fruit or other article placed upon the screens. The wire fabric 15 is secured to the cap-frame by means of thin strips 16, as clearly indicated.

The drier may be constructed of any size and of suitable material and is portable and adapted for use in connection with any type of cook-stove by being placed upon the top thereof, as indicated most clearly in Fig. 1.

The support when drawn out, as indicated in Fig. 1, provides a convenient means for receiving the pile of frames when it is required to change their relative position, as by placing the topmost frame at the bottom, and so on in inverse order.

Having thus described the invention, what is claimed as new is—

1. A fruit-drier for domestic use comprising a stand consisting of a rectangular frame and supporting-legs, the frame comprising vertical walls and a flange projected inward from the respective walls to form a support, the flange of opposite walls having its inner end portion upwardly deflected to form guide and interlocking extensions, and a rectangular drier-frame arranged upon the stand and held from longitudinal and lateral displacement by the said guide and interlocking extensions engaging with opposite portions thereof, substantially as set forth.

2. In a fruit-drier for domestic use, the combination of a stand comprising a rectangular frame consisting of vertical walls and a flange projected inward from said walls, the flanges of opposite walls having their inner end portions bent upwardly to form guide and interlocking extensions, a series of rectangular drier-frames supported upon the inner flange of the walls and held from longitudinal and lateral displacement by the aforesaid guide and interlocking extensions, said drier-frames having the lower edge of one resting upon the top edge of the other, and plates secured to opposite end portions of the frames and projected upward to engage with the frames next above to hold the frames in proper position, substantially as specified.

3. In a fruit-drier, the combination of a stand having spaced openings in a wall, bars mounted to slide in the said openings, a bar connecting the slide-bars at their inner ends and limiting their outward movement, a companion bar connecting the slide-bars at their outer ends, and means for supporting the slide-bars at their outer ends, substantially as set forth.

4. In combination, a stand having spaced openings in a wall, a transverse bar connecting opposite walls of the stand, bars mounted to slide in the said openings, a longitudinal bar connecting the inner ends of the slide-bars, connecting means between said longitudinal and transverse bars to insure proper position and movement of the slide-bars, and means connecting and supporting the slide-bars at their outer ends, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY E. SMITH. [L. S.]

Witnesses:
W. F. TRAYER,
M. J. SLICK.