

No. 714,420.

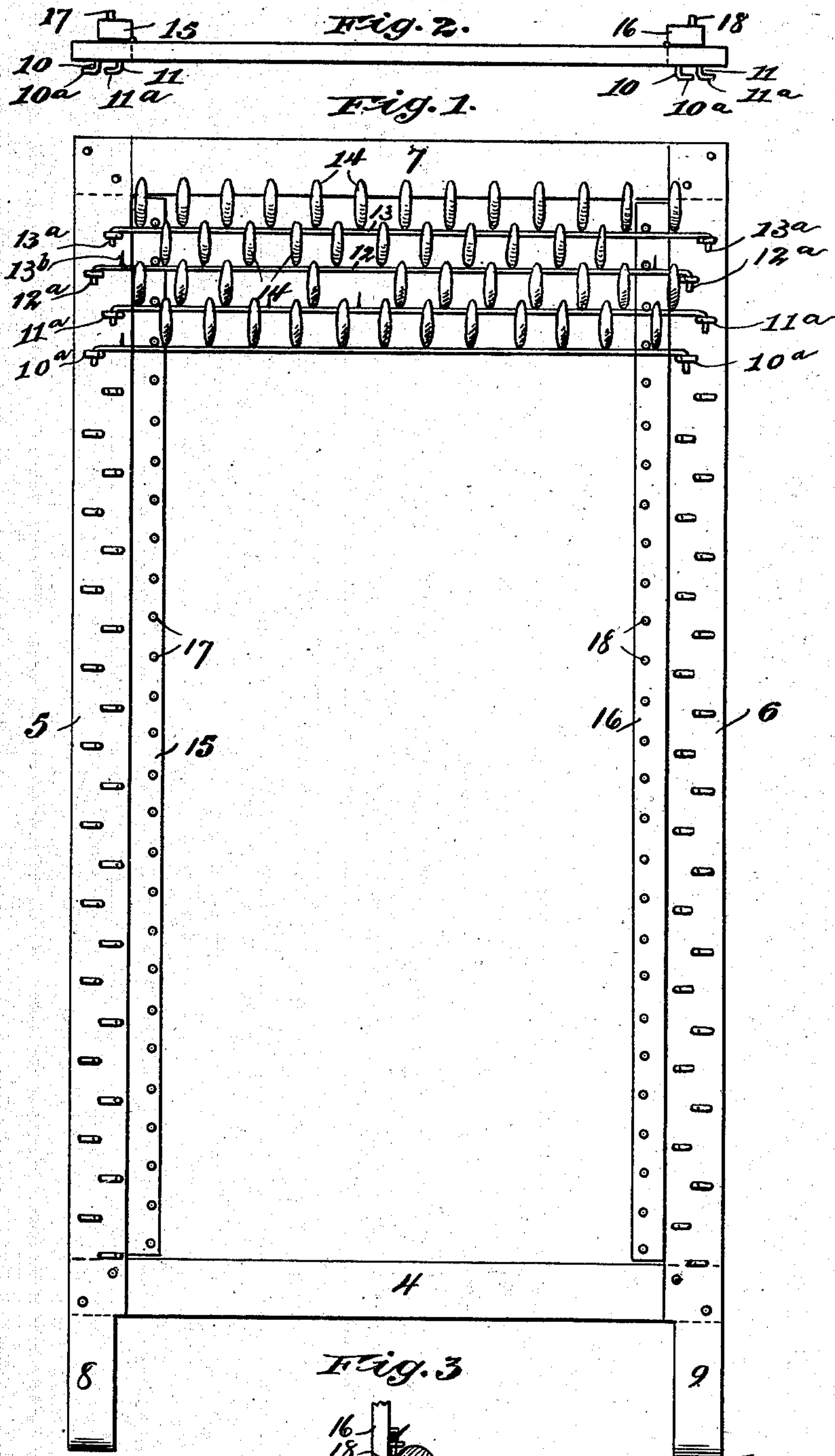
Patented Nov. 25, 1902.

F. L. WETZEL.

DRIER FOR BAKERY OR SIMILAR ICED GOODS.

(Application filed July 5, 1902.)

(No Model.)



Witnesses,
J. C. Mann
S. N. Ford.

Inventor,
Frederick L. Wetzel,
By Offield, Fowler & Lathrop
Attys.

UNITED STATES PATENT OFFICE.

FREDERICK L. WETZEL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO NATIONAL BISCUIT COMPANY, OF JERSEY CITY, NEW JERSEY, AND CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

DRIER FOR BAKERY OR SIMILAR ICED GOODS.

SPECIFICATION forming part of Letters Patent No. 714,420, dated November 25, 1902.

Application filed July 5, 1902. Serial No. 114,466. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK L. WETZEL, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented
5 certain new and useful Improvements in Driers for Bakery or Similar Iced Goods, of which the following is a specification.

My invention relates to drying devices, and has reference more particularly to frames on
10 which iced bakery goods and similar articles are supported for a period of time sufficient to effect the thorough drying of the icing or other coating previously applied thereto. In the manufacture of many kinds of bakery
15 products the individual cakes are dipped in a viscous or semiliquid coating, after which it is necessary to support the cakes separately and out of contact with each other until the coating has become thoroughly dry in order to
20 prevent the cakes from sticking together. Various kinds of devices for this purpose have been used; but my present invention relates to improvements in that class of drying-frames wherein the cakes are individually
25 impaled upon supporting-rods provided with prongs, these rods being arranged in close proximity upon a common support or frame in order to provide for the maximum capacity of each frame, at the same time holding the
30 individual cakes isolated or separated from each other.

The principal object of my invention is to provide a drying-frame of the characters specified wherein the removable rods supporting
35 the cakes shall be securely held against displacement in any direction, as well as against rotation on their own longitudinal axes, during the operation of stripping the dried cakes from their impaling-prongs, at the same time
40 permitting the series of supporting-rods to be unlocked and simultaneously removed from the frame by a single upward stripping movement of the operator.

Another leading object of my invention is
45 to provide a drying-frame of the class referred to possessing a greater capacity than frames hitherto known and used.

Other minor objects of my invention will appear later in the following description.

50 To these ends my invention consists in an

improved drying-frame for the class of goods referred to possessing the peculiar features of construction and operation, all substantially as hereinafter described and claimed.

My invention in a preferred form is illus- 55 trated in the accompanying drawings, wherein—

Figure 1 is a front elevational view of my improved drying-frame, showing a sufficient number of the cake-supporting rods in place 60 thereon to illustrate the manner of supporting and locking said rods and also the offset relation of said rods to each other. Fig. 2 is a top plan view of the same, the supporting-rods and cakes carried thereby being re- 65 moved; and Fig. 3 is a detail vertical sectional view through a portion of the frame and the supporting-rods, further illustrating the manner in which said rods are locked against vertical displacement in the frame. 70

In the drawings, 4 designates the horizontal sill or base member, 5 and 6 the parallel uprights or side members, and 7 the top transverse member, of a rectangular structure constituting the supporting-frame, to which are 75 applied the cake-supporting rods hereinafter described. The lower ends of the side members 5 and 6 are provided with short legs 8 and 9, respectively, extending below the sill 4, which legs are designed to coöperate with 80 vertical side grooves formed in the outer faces of the horizontal sill members of a novel supporting-truck, which constitutes the subject-matter of an application by me filed concurrently herewith, Serial No. 114,463. In the 85 faces of the vertical side members of the framework are a number of pins, the outer ends of which, as shown in Fig. 2, are outwardly bent to lie parallel with the face of the frame. These pins are arranged in two vertical and 90 relatively offset series, the outer series of one side member and the inner series of the other side member being hereinafter designated by the numeral 10 and their outwardly-bent ends by the numeral 10^a, while the alternate 95 inner and outer vertical rows of pins are correspondingly indicated by 11, with their outwardly-bent ends identified by the numeral 11^a. These pins 10 and 11 are designed to afford supports for a number of transversely- 100

extending rods provided with prongs on which the cakes are impaled for drying purposes. These rods in constructional respects are all alike, but are composed of two offset or staggered series, (designated by 12 and 13, respectively.) The rods 12, which engage and rest upon the two left-hand rows of pins 10, are provided with downwardly-bent ends 12^a, which lie flat against the vertical faces of the side members of the frame, and being embraced by the outwardly-extending ends 10^a of the pins are securely held against movement either away from the frame or rotation upon their own axes. The rods 13 are correspondingly provided with downwardly-bent ends 13^a, which perform the offices already described for the rods 12. The rods 12 and 13 are further provided with a series of upwardly-inclined prongs or tines 12^b and 13^b, respectively, upon which the iced cakes 14 are impaled. These cakes are of various sizes and shapes, but are for the most part of circular form, and it will be observed that by laterally offsetting the rod-supporting pins in the manner shown the two series of rods 12 and 13 are enabled to be placed much closer together than would otherwise be the case, owing to the fact that each cake on any one of the rods occupies to some extent the space lying between the two adjacent cakes on the next rod thereabove. This manner of supporting the rods therefore effects a material economy in the space required for drying purposes, (which, of course, is limited by the dimensions of the frame,) and thus materially increases the capacity of each frame over a construction wherein the rods are supported on a single vertical series of pins arranged in single rows on each side member of the frame.

I will now describe the improved means I have invented for simultaneously locking and unlocking all of the rods 12 and 13 upon the frame.

15 and 16 designate a pair of bars disposed parallel with the side members 5 and 6 of the frame and hinged to the latter at the rear inner corners thereof in the manner plainly illustrated in Fig. 2, wherein these bars are represented as swung rearwardly in an unlocking position and lying back to back with their respective supports. From the faces of these bars project pins 17 and 18, respectively, the pins on each bar being arranged, preferably, in a single vertical row, there being one pin for each of the rod-supporting pins 10 and 11 of the adjacent frame members, each pin being disposed in a horizontal plane, which is higher than the horizontal plane of its appropriate rod-supporting pin by the thickness of the rod itself. From this construction it will be readily seen that when the bars 15 and 16 are swung forwardly into locking position, as shown in Fig. 1, the pins 17 and 18 will all simultaneously ride over their respective rods 12 and 13, securely locking the latter against vertical displacement.

This is a great advantage, in that it enables the operator to use both hands in stripping the cakes from the prongs, the rod remaining on the frame, while heretofore it has been necessary for the operator to remove the rod from the frame, and then holding the rod with one hand strip it with the other.

The manner of using my improved drying-frame will be readily apparent from the foregoing description. The rods having the freshly-iced cakes impaled thereon are readily placed upon the frame one after another, during which operation the locking-bars 15 and 16 are swung backwardly, as shown in Fig. 2. As soon as the frame is loaded the locking-bars are swung forward to the locking position shown in Fig. 1, whereupon the frame may be allowed to stand a sufficient length of time until the coating of the cakes is thoroughly dry. As soon as the cakes are ready to be removed this may be done in the manner already described, whereupon the operator simply turns back the locking-bars 17 and 18, and then placing both hands beneath the lowest rod 12 or 13 removes all the rods substantially simultaneously by a single upward movement of the hands, whereupon the rods may be washed, ready for reuse in the manner already described.

It will be noticed that the above-described construction serves to hold the rods absolutely rigid while the locking-bars are in operative engagement therewith. The downwardly-turned ends of the rods render longitudinal displacement of the latter impossible, and also in coöperation with the outwardly-bent ends of the supporting-pins prevent outward movement or rotative movement of the rods, while the pins of the locking-bars prevent vertical movement. At the same time by the mere swinging back of the locking-bars the entire series of rods may be quickly stripped from the frame by a single movement of the operator.

It is evident that various modifications and changes might suggest themselves to the skilled mechanic in connection with my invention, and hence I do not limit the same to the precise details and relative arrangement of the parts shown and described except to the extent indicated in certain of the claims.

I claim—

1. In a drier of the character described, the combination with a supporting-frame, of parallel cake-supporting rods removably mounted on opposite side members of the frame, said rods being provided with impaling-prongs so positioned that the prongs on any two adjacent rods are offset or staggered relatively to each other, substantially as described.

2. In a drier of the character described, the combination with a supporting-frame having two laterally offset or staggered series of rod-supporting devices carried by each of the opposite sides of the frame, of two correspondingly offset or staggered series of removable

cake-supporting rods carried by said rod-supporting devices, said rods having each a series of similarly-spaced prongs adapted to receive the cakes, substantially as described.

5 3. In a drier of the character described, the combination with an upright rectangular supporting-frame having in the faces of its opposite side members two laterally offset or staggered vertical series of pins, of two correspondingly offset or staggered series of removable cake-supporting rods adapted to seat at their extremities upon said pins, and means mounted on said frame whereby said rods may all be simultaneously locked upon 10 the frame or simultaneously unlocked therefrom, substantially as described.

4. In a drier of the character described, the combination with an upright rectangular supporting-frame having in the faces of its opposite side members two laterally offset or staggered vertical series of pins, said pins being further provided with outwardly-bent ends, of two correspondingly offset or staggered series of removable cake-supporting rods having downwardly-bent ends adapted to seat upon and interlock with said supporting-pins and their outwardly-bent ends, and a vertical locking-bar hinged to the back of said frame and provided in its face with a series of projecting pins adapted, when said bar is swung forward, to overlie and lock said cake-supporting rods against vertical movement upon the frame, substantially as described.

5. In a drier of the character described, the combination with an upright rectangular supporting-frame having in the faces of its opposite side members two laterally offset or staggered vertical series of pins, said pins being 40 further provided with outwardly-bent ends,

of two correspondingly offset or staggered series of removable cake-supporting rods having downwardly-bent ends adapted to seat upon and interlock with said supporting-pins and their outwardly-bent ends, and a pair of 45 vertical locking-bars hinged in rear of the side members of the frame, respectively, and each provided with a vertical series of locking-pins adapted, when said bars are swung forward, to overlie and lock said cake-supporting rods against vertical movement upon the frame, substantially as described.

6. In a drier of the character described, the combination with a supporting-frame having a series of rod-supporting devices carried by 55 each of the opposite side members of the frame, of a series of removable cake-supporting rods carried by said rod-supporting devices, and means mounted on said frame whereby said rods may all be simultaneously 60 locked upon the frame or simultaneously unlocked therefrom, substantially as described.

7. In a drier of the character described, the combination with an upright rectangular supporting-frame having projecting from the 65 face of each of its opposite side members a vertical series of pins, of a series of removable cake-supporting rods adapted to seat at their extremities upon said pins, and a vertical locking-bar hinged to the back of each 70 of said side members of the frame and provided in its face with a series of projecting pins adapted, when said bar is swung forward, to overlie and lock said cake-supporting rods against vertical movement upon the 75 frame, substantially as described.

FREDERICK L. WETZEL.

Witnesses:

W. B. HOUSTEN,

EDWARD FITZGERALD.