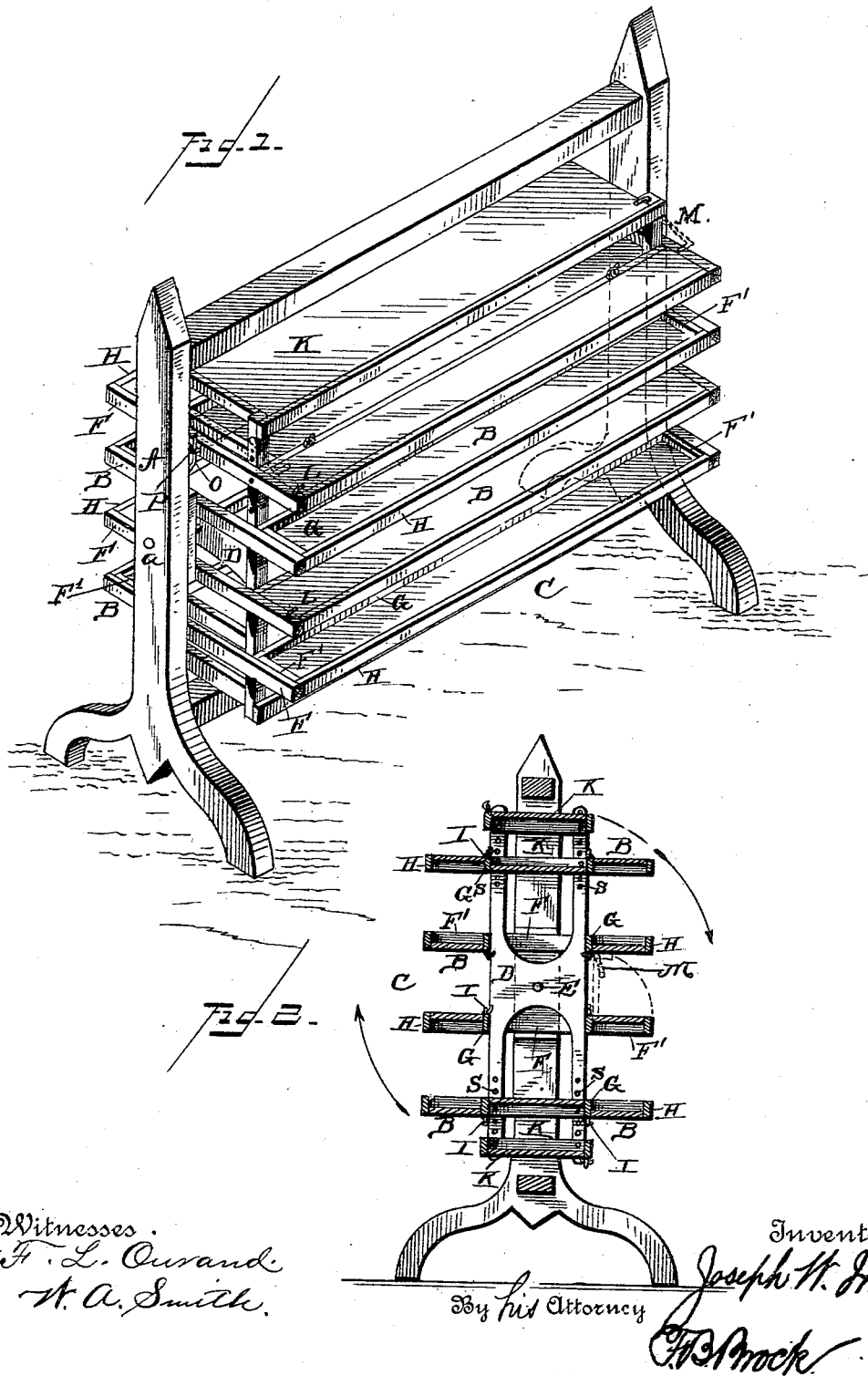


(No Model.)

J. W. IRONS.
CHEESE RACK.

No. 457,604.

Patented Aug. 11, 1891.



Witnesses.
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By his Attorney

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UNITED STATES PATENT OFFICE.

JOSEPH WILLIAM IRONS, OF SIMONS, OHIO.

CHEESE-RACK.

SPECIFICATION forming part of Letters Patent No. 457,604, dated August 11, 1891.

Application filed August 30, 1889. Serial No. 322,398. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WILLIAM IRONS, a citizen of the United States, residing at Simons, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Cheese-Racks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to cheese-racks for holding, drying, and curing cheese. My invention may, however, be used for any other purpose for which it may be found applicable.

My improvements consist in the following construction and combination of parts, which will first be fully described, and the features of novelty then pointed out in the claims.

Figure 1 is a perspective view of a rack to which I have applied my improvements, and Fig. 2 is a vertical transverse section of the same.

In the drawings, a frame or standard A is shown, consisting of vertical and cross timbers. This frame is adapted to support in suitable bearings a series of racks B. The racks and other timbers combined constitute as a whole a revolving rack-frame C. The rack-frame C has end pieces D, in which are the journals E. The end pieces D constitute the vertical frame-work, to which are attached the cross-timbers F, which directly support the racks B.

F' are short cross pieces or ledges integral with or attached to the cross-timbers F, and form, in conjunction with the latches L, a series of stops for the racks or shelves to hold the racks in position and to prevent any end-wise movement of the cheese thereon.

G are longitudinal timbers running lengthwise of the rack-frame, and are or may be attached to both the vertical and cross timbers D and F. To the timbers or scantling G are hinged by their inner edges the shelves or racks B.

H are ledges formed of timber, which are attached to the outer edges of each rack B, so as to project inwardly on the upper and lower racks and outwardly upon the two inner

racks of shelves. The timbers G form corresponding projecting ledges upon the inner edges of the shelves B, while the cross-timbers F constitute similar projecting ledges upon or at the ends of the shelves.

I are the hinges upon which the shelves swing. Both the upper and lower racks on each side of the rack-frame swing outwardly, and both the inner racks or shelves on each side swing inwardly.

K represents two racks arranged centrally of the rack-frame C at top and bottom thereof. These racks are preferably wider than those arranged on the sides of the frame for wider or larger cheese.

L represents latches, which serve to lock the shelves in place or to unlock them, so that they may be swung open upon their hinges. The racks K open outwardly.

The words "inwardly" and "outwardly" in the specification, in connection with the operation of the parts, mean toward or from the center or axis of the rotating frame.

M represents a hook or device for holding the shelves when thrown back, as shown in dotted lines in Fig. 2.

The rack-frame C is free to revolve upon its trunnions E, so as to swing either side up.

O is a spring-catch located upon the standard A, and P are stops adapted to engage the rack-frame and hold it in either position. The arrows, Fig. 2, indicate the rotation of the rack-frame.

In the manufacture of cheese, it is usual and customary in making or molding each cheese to place them upon a stationary rack side by side in the process of curing them for the market. This curing process, which consumes from thirty to sixty or ninety days, under varying conditions, consists in turning each cheese over by hand about every twenty-four hours, and in greasing them on top and bottom to prevent their cracking.

In my invention the cheese are loaded upon each rack or shelf and the adjacent shelf brought down and locked, so as to effectually confine the cheese upon the shelf. After being left in that position for a day the rack-frame is revolved a half-revolution, or so as to bring it opposite end up. Every cheese upon the rack-frame is thus turned completely over at one operation upon a balanced

rack easy to manipulate, the projecting ledges at the sides and ends of the shelves preventing the cheese from being dislodged from the shelf.

5 By the use of my invention I also secure a more even drying and curing temperature. It is well known that the temperature of the upper portion of a room is higher than the lower portion, and that cheese cured upon a
10 high shelf will cure more quickly than upon a low shelf.

In my invention the cheese are placed in different altitudes in the room each day, and all the cheese are cured at substantially the
15 same time, and consequently require less care and attention.

I have illustrated and described, in setting forth the principle of my invention, a particular structure which practically carries out
20 my invention; but I do not wish it understood that I limit my construction to the details herein described. On the contrary, I may modify the revolving rack by using one or any number of series of shelves, and I may
25 construct and dispose them in various ways, such as would suggest themselves to a skilled mechanic, so long as I come within the scope of the appended claims. The shelves may be slats of wood or metal, if desired, instead of
30 solid boarding, and other means than the projecting ledges may be used to keep the cheese upon the shelf—such, for instance, as projecting brads upon the shelves, or in other obvious manner. I may use the cheese-rack,
35 if desired, without rotating it. The racks may, if desired, be adjustably secured to the rack-frame, so as to vary the distance between each pair of shelves, in order to accommodate different sizes of cheese.

40 S are a series of holes for adjusting the end pieces which carry the shelves. Similarly the stringers G and end pieces D may have holes and pins when the stringers are supported directly by the end pieces D instead of by
45 the cross-pieces F.

In the drawings I show a portable rack; but I may hang the rack in permanent standards or suspend it any known way.

The details of the construction of the rack-frame and shelves may be carried out in various ways. In the present instance the timbers G serve the purpose of bracing the frame, hinging the shelves, and as a guard or ledge to prevent the cheese slipping off. After
50 turning the rack and cheese I prefer to throw 55 up the series of shelves above the cheese, in order that they may be wiped off and dried preparatory to serving again as the under shelves in the succeeding reversal of the rack. This gives the shelves proper airing and prevents mold. 60

What I claim is—

1. In a cheese-rack, the combination of a standard and a revolving rack-frame hung thereon, consisting of upright and cross
65 pieces and timbers, as G, shelves, as B, hinged to said timbers, and a lock for securing the shelves, the timbers G forming ledges or stops for the shelves.

2. In a cheese-rack, the combination, in a
70 revolving rack-frame, of cross-timbers, as F, side timbers, as G, shelves, as B, hinged to the timbers of the frame, and a lock for securing the shelves, said timbers F forming ledges at the ends of the shelves. 75

3. The combination of a standard, a rack-frame journaled therein, whereof the horizontal frame-timbers are adjustably mounted upon the end pieces, having shelves, as B, hinged to the frame-timbers G, and a lock
80 for securing the shelves, said timbers G forming ledges or stops for the shelves.

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

JOSEPH WILLIAM IRONS.

Witnesses:

A. G. FOBES,
ROY E. SMITH.