(No Model.)

J. C. NICHOLLS.

BREAD RAISER.

No. 494,018. Patented Mar. 21, 1893.

Fig. 1.

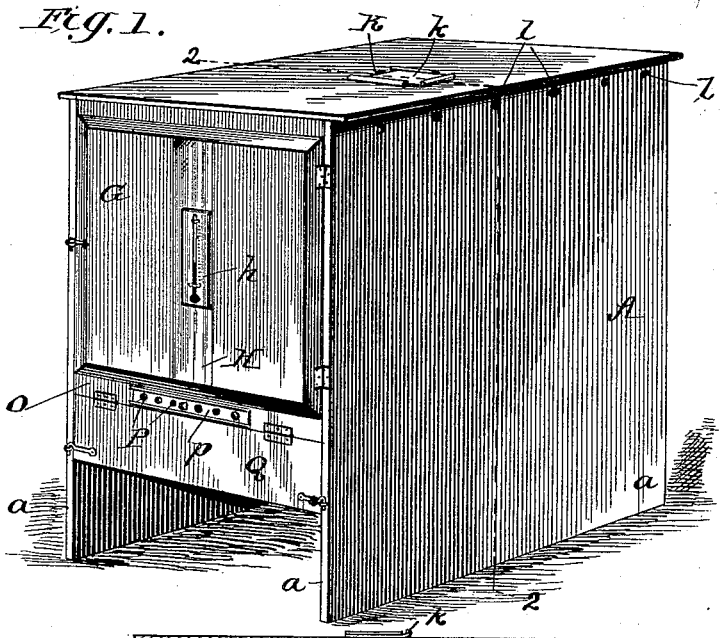
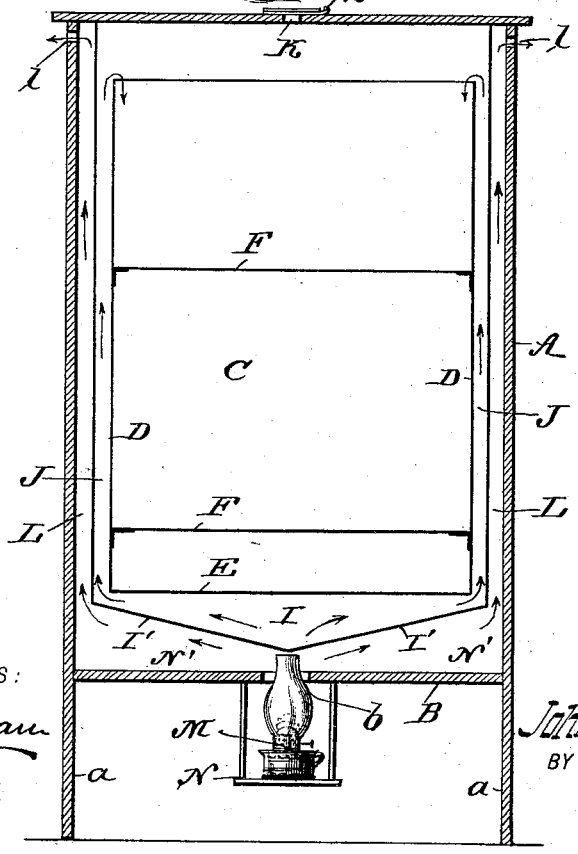


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN C. NICHOLLS, OF BLUE MOUND, ILLINOIS, ASSIGNOR OF ONE-HALF TO PHILIP D. SPOONER, OF SAME PLACE.

BREAD-RAISER.

SPECIFICATION forming part of Letters Patent No. 494,018, dated March 21, 1893.

Application filed July 20, 1892. Serial No. 440,682. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. NICHOLLS, of Blue Mound, in the county of Macon and State of Illinois, have invented a new and useful Improvement in Bread-Raisers, of which the following is a specification.

My invention is an improved bread raiser and seeks among other improvements to provide means for evenly distributing the heat to the different portions of the raising chamber, to effectually prevent any contamination of the contents of the raising chamber by the products of combustion, and for regulating the degree of heat.

The invention consists in the novel constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings Figure 1 is a perspective view of the apparatus. Fig. 2 is a vertical section thereof on about line 2—2 of Fig. 1.

My apparatus includes an outer casing A having its sides extended at *a* below its bottom B to form legs. The raising chamber C has sides D and bottom E and is provided with removable foraminous or grating shelves F and a door G the latter having a transparent portion H in rear of which is supported a thermometer *h* arranged within the raising chamber and visible from without. Below the raising chamber is formed a hot air chamber I from which flues J extend up alongside the raising chamber and open into the latter at and for a short distance from its upper end. An outlet opening K is formed from the raising chamber and is controlled by a valve *k* which may be simply a slide as shown. The bottom of the hot air chamber I is formed in two sections I′ which incline upward from their juncture centrally below the raising chamber to their outer ends where the heat is delivered into the flues. The described inclination of the bottom sections I′ is important for several reasons. It serves to conduct the smoke gases &c. from the lamp to the smoke flues L L which extend up alongside the air flues and discharge through perforations *l* in the casing A. The inclination also serves to divide the heat from the lamp and to cause the same to be applied partly to each side of the raising chamber so securing an evenness of distribution of heat which is further aided by the fact that the inclination of the bottom sections tends to locate the direct application of the lamp heat more remotely from the bottom of the raising chamber. The lamp M which is supported in a holder N below the bottom B of the casing has its chimney projected through an opening *b* in said bottom and arranged to discharge against the bottoms I′ I′ and into the space N′ which may be termed the heating chamber. Where desired or necessary several lamps may be employed.

The plate O closing the front end of the hot air space is provided with air inlet openings P controlled by a damper like valve *p* and the front end of the heating chamber is closed by a door Q which permits access to said heating chamber, for cleaning or other purposes. The pans or bowls containing the bread may be placed on the removable shelves or the latter may be removed and large vessels, jars for instance containing sponge, be inserted.

It will be seen that I provide three means of regulating the heat one is by adjusting the flame of the lamp, another the valved air inlet openings and the third the valve controlled outlet opening, and these may singly and together be employed to secure the desired temperature.

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

1. In an apparatus substantially as described the combination of the casing, the raising chamber, the hot air chamber having its end plate provided with inlet openings, valve devices for controlling said inlet openings, the hot air flues for conducting the air from said chamber to the raising chamber and the heating chamber substantially as set forth.

2. The improved apparatus substantially as herein described and shown consisting of the casing having an outlet K and smoke outlets *l*, the raising chamber, the hot air chamber be-

low the raising chamber and having its bottom I′ I′ inclined as described, the air flues leading from the hot air chamber and arranged to discharge into the raising chamber, means whereby to admit air to the hot air chamber and the heating chamber having a door Q and smoke flues leading up alongside the hot air flues all substantially as and for the purposes set forth.

JOHN C. NICHOLLS.

Witnesses:
E. T. CLEMENTS,
CAL. H. REEMSNYDER.