

(No Model.)

3 Sheets—Sheet 1.

J. F. BAPTEROSSES.
SUPPORTING PLATES, DISHES, AND OTHER LIKE ARTICLES OF POTTERY
WARE IN THE SAGGERS IN WHICH THEY ARE BAKED.

No. 309,680.

FIG. 1. Patented Dec. 23, 1884.

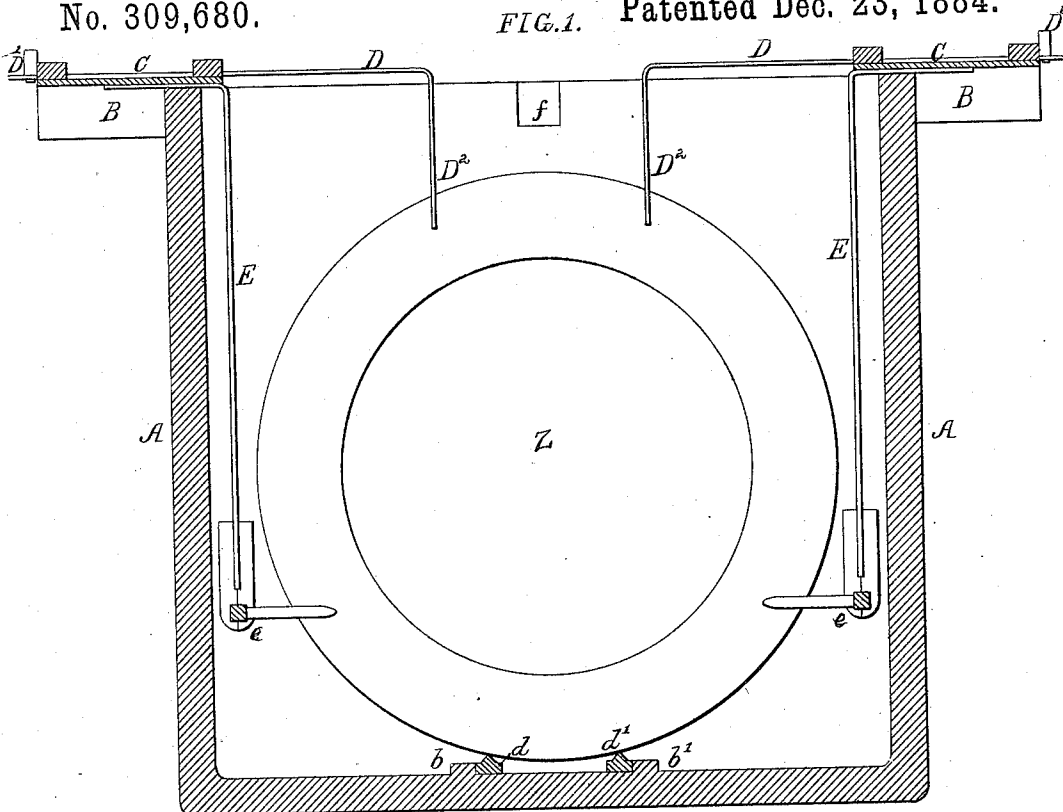


FIG. 6.

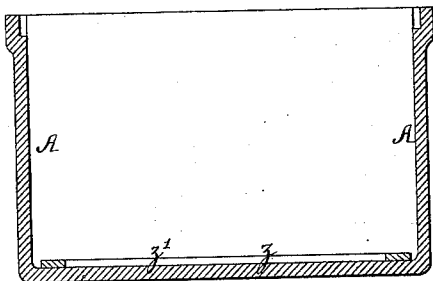


FIG. 8.

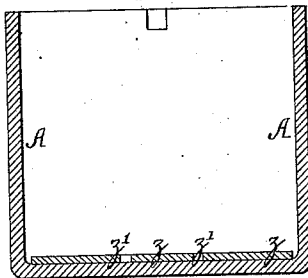


FIG. 5.

FIG. 7.

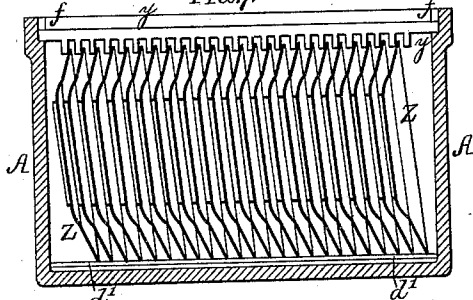
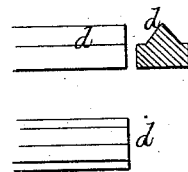
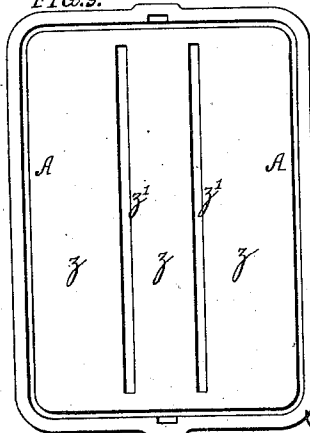


FIG. 9.



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(No Model.)

3 Sheets—Sheet 3.

J. F. BAPTEROSSES.

SUPPORTING PLATES, DISHES, AND OTHER LIKE ARTICLES OF POTTERY WARE IN THE SAGGERS IN WHICH THEY ARE BAKED.

No. 309,680.

Patented Dec. 23, 1884.

FIG. 3.

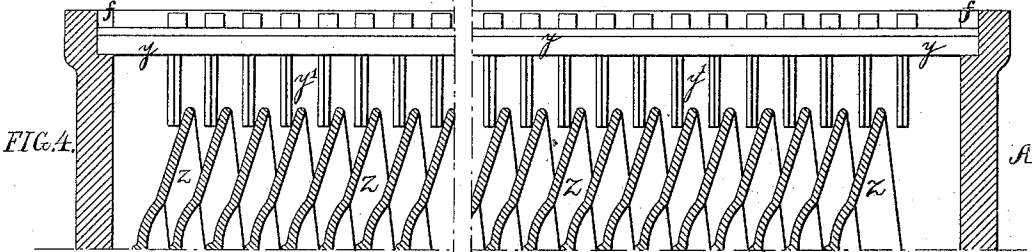
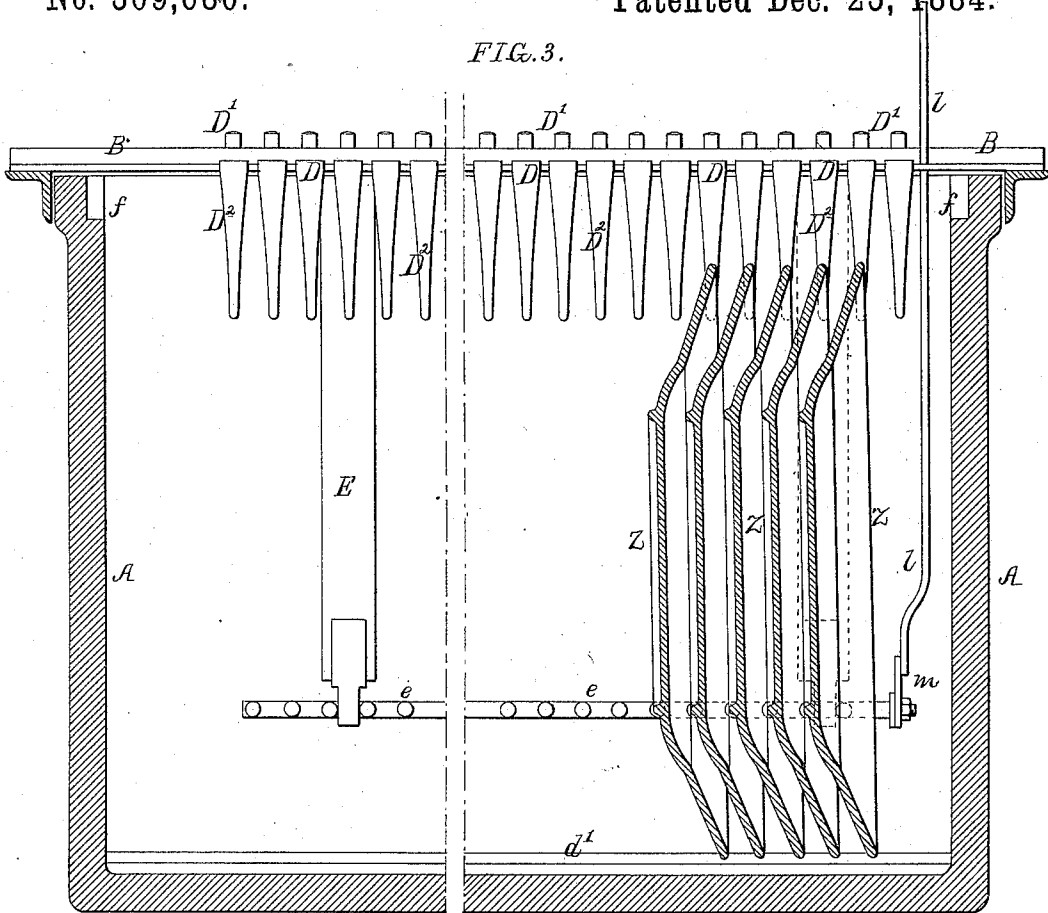


FIG. 11.

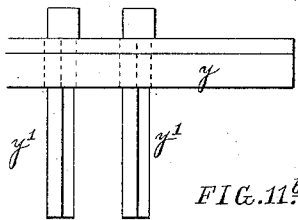


FIG. 11^b

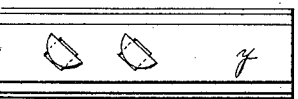


FIG. 11^a

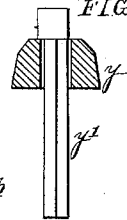


FIG. 10.

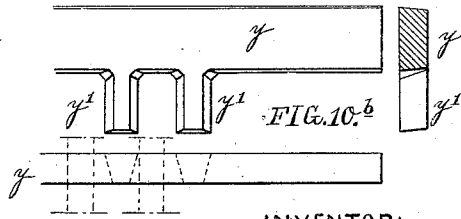
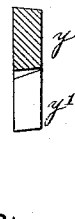


FIG. 10^b

FIG. 10^c



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UNITED STATES PATENT OFFICE.

JEAN FELIX BAPTEROSSES, OF BRIARE, LOIRET, FRANCE.

SUPPORTING PLATES, DISHES, AND OTHER LIKE ARTICLES OF POTTERY-WARE IN THE SAGGERS IN WHICH THEY ARE BAKED.

SPECIFICATION forming part of Letters Patent No. 309,680, dated December 23, 1884.

Application filed March 3, 1884. (No model.) Patented in France November 15, 1882, No. 152,120; in Belgium November 17, 1882, No. 59,596; in England November 18, 1882, No. 5,497, and in Germany November 26, 1882, No. 22,953.

To all whom it may concern:

Be it known that I, JEAN FELIX BAPTEROSSES, a citizen of the Republic of France, and residing in Briare, Loiret, France, have invented improvements in or connected with saggers or apparatus in which articles of pottery-ware or the like are arranged and held apart while being baked, of which the following is a specification.

This invention relates to improved means for arranging and supporting plates, dishes, and other like articles of pottery-ware in the saggers in which they are baked.

According to this invention temporary points of support are provided, which enable the articles which are to be baked and the permanent supports therefor to be arranged in position with facility and precision. These temporary supports, which are removed when the sagger is full, consist, essentially, of a frame carrying sliding bars for temporarily supporting the plates or other articles of pottery-ware at their upper edges, and swiveling racks or combs for spacing or adjusting the said plates or articles at their lower edges, as hereinafter described; and in order that the said invention may be fully understood I shall now proceed more particularly to describe the same, and for that purpose shall refer to the several figures on the annexed sheet of drawings, the same letters of reference indicating corresponding parts in all the figures.

Figure 1 of the accompanying drawings is a transverse vertical section of a sagger for baking plates, with the improved devices and apparatus applied thereto, according to this invention, for supporting the articles to be baked. Fig. 2 is a plan, and Fig. 3 is a longitudinal section, of the same. Fig. 4 is longitudinal section of the upper portion of a sagger, showing the permanent lateral supports for the upper edges of the plates. Fig. 7 (drawn to a smaller scale) is a vertical section of a sagger filled with plates, showing the supports for the lower edges of the latter; and Figs. 5, 6, 8, and 9 are details of or connected with these supports, as hereinafter explained. Figs. 10, 10^a, and 10^b are respectively an elevation, transverse section, and plan of a support for the upper edges of the plates, and Figs. 11, 11^a, and 11^b are

similar views of a modified form of this support.

The apparatus employed for arranging the plates Z in the sagger A consists of a metal frame, B, Figs. 1, 2, and 3, placed upon the sagger, and provided with guides or grooves C, for the reception of sliding bars D, operated by keys D', and provided with fingers D², corresponding to the number of plates Z to be packed in the sagger. This frame is also provided with pendent arms E, carrying comb-shaped swiveling racks e, the fingers or teeth of which are arranged at the same distance apart from center to center as the sliding fingers D². The said racks e are capable of turning in bearings provided at the extremities of the arms E, and are provided with levers m, Fig. 3, operated by means of rods l, Figs. 2 and 3, which enable the teeth of the racks e to be either supported in a horizontal position, so as to project between and support the plates Z, or to be turned out of the way of the latter when required. The fingers D², acting in combination with the racks e, form temporary lateral supports on both sides of the sagger, and enable the plates Z to be arranged in the sagger with facility and precision. The plates incline slightly to one side, as shown in Figs. 3 and 7, so that the under side only of each plate comes in contact with the supports D² and e. The permanent supports upon which the plates rest at the bottom of the sagger, and which support the plates laterally at the upper part of the sagger, are so formed as to present the smallest possible points of contact with the surfaces of the plates, as hereinafter described.

In order to form the permanent supports upon which the plates rest at the bottom of the sagger, a plate, z, of zinc, (see Figs. 6, 8, and 9, which are views of a sagger drawn to a small scale,) presenting two longitudinal slots or openings, z', is laid on the bottom of the sagger after the latter has been molded and while it is still soft. Two bars or strips of fire-clay are then placed in the openings z' and firmly pressed down to cause them to adhere to the bottom of the sagger. These strips of fire-clay are baked with the sagger when the plate z is removed and form two parallel ribs or ridges,

b b', Figs. 1 and 2, on the bottom of the sagger, which constitute stops to maintain in position two bars, *d d'*, made of the ceramic material ordinarily employed to form points of support for articles of pottery-ware during baking. One of these bars is shown separately in elevation, plan, and transverse section in Fig. 5. The upperside of these bars presents an edge, as shown in the section, Figs. 1 and 5, which forms the permanent point of support for the lower edges of the plates, when the latter are arranged in the sagger, by the aid of the temporary supports hereinbefore described. The plates are thus supported at the bottom of the sagger at two points only.

In molding the sagers a recess, *f*, is formed at the center of the upper edge of each end of the sagger for the reception of the extremities of a rack or bar, *y*, Figs. 4 and 7, hereinafter described, which is provided with pins or teeth *y'*, and which may be secured in position by means of a piece of clay. The teeth *y'* of this rack are molded of ceramic materials in special molds, and are beveled, as shown in Fig. 10, so as to present triangular edges as points of support for the plates. The distance between the centers of these teeth is the same as the distance between the centers of the fingers *D*², hereinbefore described.

The plates, when set on edge in the sagger, are so arranged that the bottom only of each plate comes in contact with the teeth *y'*, which afford the requisite lateral support for the upper edges of the plates, and by reason of the edge or bevel present the smallest possible surface of contact.

The teeth *y'* may be molded in one piece with the bar *y*, as shown in Figs. 7, 10, 10^a, and 10^b, or they may be made in the form of pins with heads, as shown in Figs. 4, 11, 11^a, and 11^b. In the latter case the bar *y* is made with holes for the reception of the pins *y'*, which act as teeth, and the combination thus forms a rack or comb with movable teeth. This latter arrangement possesses the advantage of enabling the surfaces or points of contact to be renewed by turning the pins *y'* so as to present a fresh edge to the plate, thus enabling each pin to be used in four different positions, the holes in the bar *y* being square, with their sides forming an angle of forty-five degrees with the length of the bar, so that the pins may be readily withdrawn, turned round, and reinserted, so as to present a fresh angle or point of support for the plates when required.

The operation of setting the plates in the sagers is performed by the aid of the apparatus constructed according to the invention, as follows: The supports or bars *d d'* are first placed in position against the ridges *b b'* on the bottom of the sagger A, as shown in Fig. 1. The frame B is then placed in position upon the sagger, with the fingers *D*² drawn back and the comb-shaped racks *e* in a horizontal position, as shown in the drawings. By means of the keys *D'* one finger, *D*², on each side of the frame at one end of the sag-

ger, is then pushed forward as far as possible. A plate is then introduced into the sagger, so that its lower part passes between the first four teeth, *e*, of the rack or comb at the lower part of the sagger, and rests upon the edges of the bars *d d'*, as shown in Fig. 1, the upper part of the plate being supported laterally by leaning against the two fingers *D*², that have been previously pushed forward for this purpose, as hereinbefore described. The first plate being thus adjusted in position, the next pair of fingers, *D*², is pushed forward and another plate introduced, and so on until the sagger is filled. When the sagger has been filled with plates adjusted and supported in the proper position, as hereinbefore described, the permanent support or rack *y* is placed in position over the plates, so that the extremities of the rack rest in the recesses *f* in the ends of the sagger, and the teeth *y'* pass between the upper edges of the plates, as shown in Figs. 4 and 7. The teeth *e* are then turned down by means of the rod *l* and lever *m*, and the frame B, together with all the parts connected therewith, is removed bodily, leaving the plates supported solely by the triangular edges of the bars *d d'* at the bottom of the sagger, and by the edges of the teeth or pins *y'* at the upper part. The surfaces of contact are thus reduced to a minimum, and the articles are arranged in an orderly and regular manner in the sagger with speed and precision.

I claim as my invention—

1. The combination of a sagger having supports to hold the pottery-ware while being baked with a detachable frame adapted to the sagger, and having temporary supports for arranging the articles, substantially as set forth.
2. The combination of a pottery-ware sagger with a detachable frame adapted thereto, and having a series of movable guide-bars, *D*, as and for the purpose set forth.
3. The combination of a pottery-ware sagger with a detachable frame having movable guide-bars *D* and arms *E*, with swiveled racks, substantially as described.
4. The combination of a pottery-ware sagger with a detachable frame, B, having sliding guide-bars *D*, with keys *D'* and fingers *D*², substantially as specified.
5. The combination of a pottery-ware sagger with a detachable frame, B, having arms *E*, swiveled rack *e*, lever *m*, and rod *l*, substantially as set forth.
6. The combination of the pottery-ware sagger having edge bars, *d d'*, and notches *f f*, with detachable bar *y*, having teeth *y'*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEAN FELIX BAPTEROSSES.

Witnesses:

BACOT (RAYMOND DOURSOT),
ALFRED COINY.