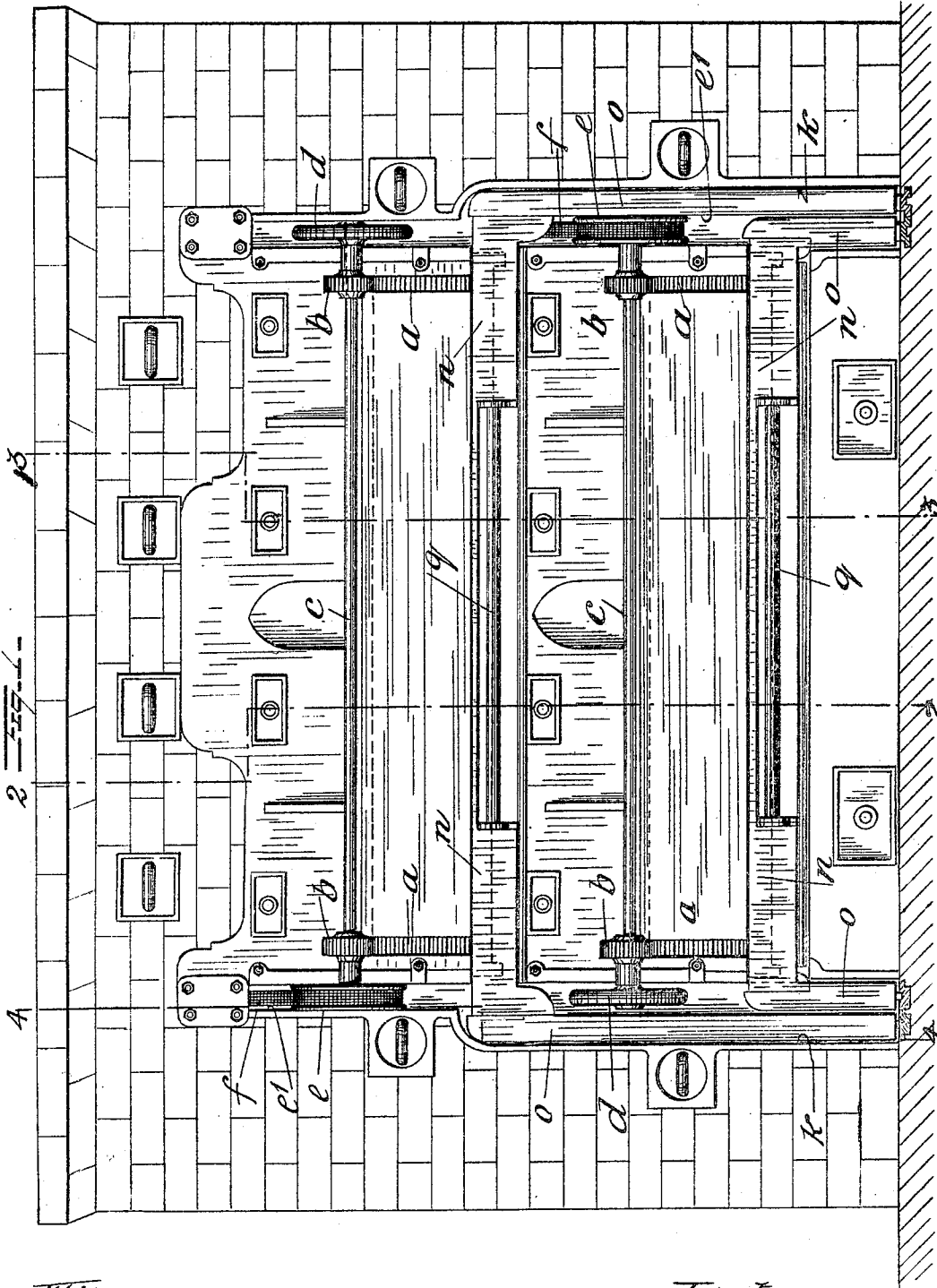


G. S. BAKER.
DRAW PLATE OVEN.
APPLICATION FILED APR. 27, 1903.

3 SHEETS—SHEET 1.



Witnesses
Agst. Adnan
E. M. Moore

Inventor
George Samuel Baker
by his Attorney *Adnan*

No. 798,004.

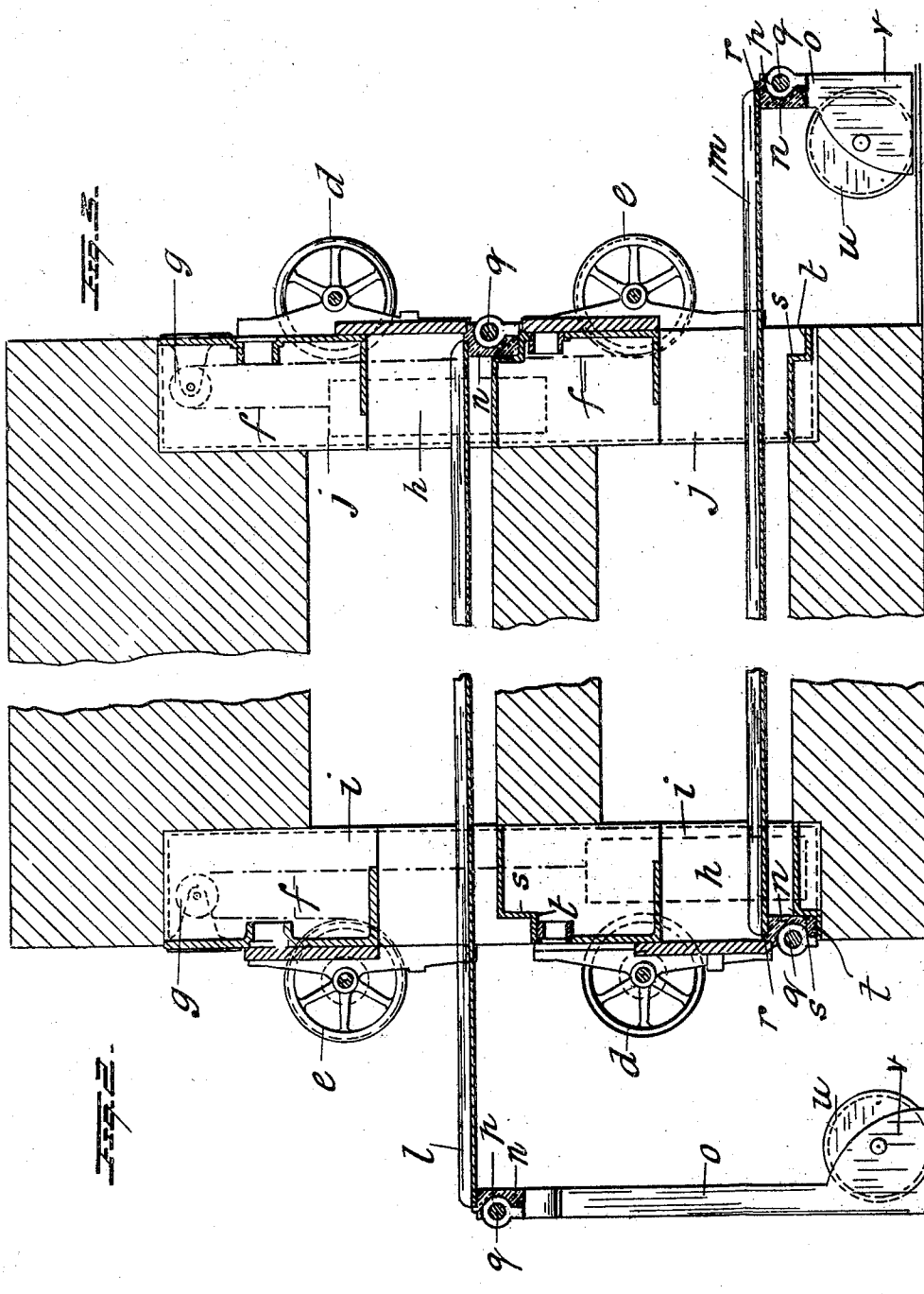
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3 SHEETS—SHEET 2.



Witnesses

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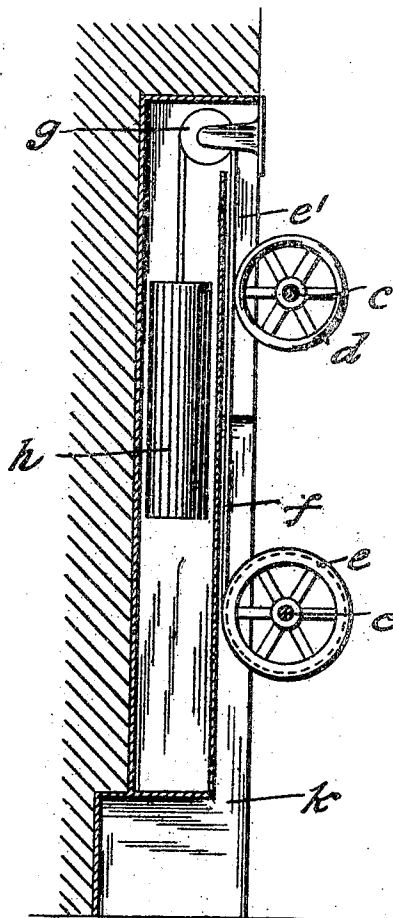
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3 SHEETS—SHEET 3.

Fig 4.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE SAMUEL BAKER, OF WILLESDEN JUNCTION, LONDON, ENGLAND.

DRAW-PLATE OVEN.

No. 798,004.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed April 27, 1903. Serial No. 154,515.

To all whom it may concern:

Be it known that I, GEORGE SAMUEL BAKER, a subject of the King of England, residing at Willesden Junction, England, have invented certain new and useful Improvements in Draw-Plate Ovens, of which the following is a specification.

This invention relates to draw-plate ovens, and more particularly to decker draw-plate ovens.

One object of the invention is to provide a draw-plate oven which when the draw-plates are within the oven may present as nearly as possible a flat front without unnecessary projections.

Another object is to so shape the frame-plate of the oven-front and the legs and wheels of the draw-plates that they are housed in the oven-front when closed.

A further object is to provide an improved construction of frame for the front of the draw-plate comprising the legs thereof.

The invention consists in the improved constructions hereinafter described, and specifically pointed in the claims, reference being made to the annexed drawings, in which—

Figure 1 is a front elevation of a two-decker oven-front embodying this invention. Fig. 2 is a section thereof on line 2 2 looking to the left. Fig. 3 is a section on line 3 3 looking to the right, the first of these two sections showing the upper oven-door raised and the second showing the lower oven-door raised, respectively, draw-plates being shown partially drawn out. Fig. 4 is a section on line 4 4 of Fig. 1.

The mechanism for raising the oven-doors comprises two racks *a a* on the door, one near each end; two pinions *b b*, engaging said racks, respectively; a shaft *c*, carrying said pinions, keyed on it; a hand-wheel *d*, keyed on one end of said shaft *c*, and a drum *e*, keyed on the other end of the shaft, the said drum being of such diameter that a portion of it projects into the slot *e'* in the oven face-plate. To this drum *e* is fastened one end of a band or chain *f*, passing over a pulley *g*, concealed within the oven-front and having attached to the other end the weight *h*. The drum *e* for the upper oven-door is at the opposite end to the drum *e* for the lower oven-door, and the hand-wheels are consequently also at opposite ends, respectively.

The casting or castings forming the oven-front is or are formed with the chambers *i j*, respectively, to accommodate the weights *h*

and pulleys *g* and with the recesses *k* to receive the front end frames and legs of the draw-plates.

l is the upper draw-plate; *m*, the lower draw-plate.

At the front end of each draw-plate is a frame comprising the horizontal member *n* and two leg members *o o*, the front faces of said horizontal member *n* and leg members *o o* being in the same vertical plane. The horizontal member is a bar substantially rectangular in section, having a recess *p* extending a convenient length along its center on its front face to accommodate a rod *q*, serving as a handle.

r is a rib extending vertically along the top surface of the bar, serving as a ledge, against the front of which the oven-door closes, as shown in Fig. 2 or 3.

The front edge of the draw-plate lies upon and is fixed to the upper face of the horizontal member *n* immediately back of the rib *r*, and the height of the rib *r* is such that its upper surface is flush with the upper surface of the draw-plate.

The part of the casting of the oven-front next below the draw-plate is bent rectangularly downward, as at *s*, and again outward, as at *t*, beneath the bar *n*, thus forming a recess or space on the oven-front into which the horizontal member of the draw-plate frame houses.

At each end of the bar *n* is fastened a straight leg *o*, having its outer or front face flat and its rear face extended rearwardly near the foot in the form of two cheeks *v* to form a convenient housing for the roller *u* between the cheeks *v* of the bar.

The frame for the lower draw-plate is narrower than that of the upper draw-plate to pass freely inside the latter.

It will be obvious from this construction that the first face of the draw-plate frame lies flush with and substantially throughout in the plane of the face of the oven-front plate when the draw-plate is in the oven.

I declare that what I claim is—

1. In a draw-plate oven the combination with a vertically-sliding oven-door, of a draw-plate, a frame for the front end thereof comprising a horizontal member located to form a transverse support to the front of the draw-plate, a rib on the upper face of said member back of the face thereof, adapted to coact with the back of said door, and two vertical straight leg members having rearward cheeks and at-

tached to the end faces of said horizontal member and wheels housed between the cheeks of the leg-frames respectively, said frame members having their front faces on the same plane.

2. In a draw-plate oven, the combination with a recessed oven-front plate of a draw-plate, a frame for the front end thereof comprising a horizontal member located to form a transverse support to the front of the draw-plate, and two vertical straight leg members having rearward cheeks and attached to the end faces of said horizontal member and wheels housed between the cheeks of said leg-frames respectively, the frame of the draw-plate being adapted to pass into the recess of the oven-front plate.

3. In a draw-plate oven, the combination with a recessed oven-front plate of a draw-plate, a frame for the front end thereof comprising a horizontal member located to form a transverse support to the front of the draw-plate, and two leg members having rearwardly-extended cheeks and attached to the end faces of said horizontal member in the same face plane and wheels housed between the cheeks of said leg-frames respectively, so as to be rearward of the said face plane, the frame of the draw-plate and the recesses being adapted so that the frame can be housed flush with the oven-front plate.

4. In a draw-plate oven, the combination with a recessed oven-front plate, of a draw-plate, a frame carrying the front end of said draw-plate, said frame comprising a horizontal member and two leg members having their front faces in substantially the same plane, the recesses in said oven-front being contrived for receiving said frame, so that its front face when it is closed is substantially flush with the oven-front.

5. In a double-decker draw-plate oven, the combination with a recessed oven-front plate, of draw-plates, frames carrying the front ends of said draw-plates, said frames comprising each a horizontal member and two leg members having their front faces in substantially the same plane, the recesses in said oven-front being contrived for receiving said frames so that their front faces when they are closed are substantially flush with the oven-front.

6. In a double-decker draw-plate oven the combination with a recessed oven-front plate, of draw-plates, frames carrying the front ends of said draw-plates, said frames comprising

each a horizontal member and two straight leg members having their front faces in substantially the same plane, the recesses in said oven-front being contrived for receiving said frames so that their front faces when they are closed are substantially flush with the oven-front, and the frames being so made that the frame of the lower draw-plate passes within the frame of the upper draw-plate.

7. In a double-decker draw-plate oven, the combination with a recessed oven-front plate, of draw-plates, frames carrying the front ends of said draw-plates, said frames comprising each a horizontal member supporting the front of the draw-plate, and two leg members having their front faces in substantially the same plane, the recesses in said oven-front being contrived for receiving said frame so that their front faces when they are closed are substantially flush with the oven-front, and vertically-sliding doors in said oven-front adapted to coact with the horizontal members of the said frames to close the openings of the oven-front.

8. In a double-decker draw-plate oven, the combination with an oven-front plate, having cavities for counterweights, and slots in the oven-front communicating with said cavities, behind the same, draw-plates, frames comprising horizontal members supporting the fronts of said draw-plates, vertically-sliding oven-doors adapted when lowered to coact with said horizontal members to close the oven-openings, and means for operating said oven-doors comprising two racks on each said door, two pinions engaging said racks, a shaft carrying the two said pinions, a hand-wheel on one end of said shaft, a drum on the other end of said shaft projecting into its respective slot, a band attached to each drum and leaving the latter tangentially within the respective cavity of the oven-front and a counterweight operating to revolve said drum, said counterweights having movement in the afore-said cavities respectively and the one being on the left and the other on the right of the oven-front, substantially as set forth.

In witness whereof I have signed this specification in the presence of two witnesses.

GEORGE SAMUEL BAKER.

Witnesses:

WALTER J. SKERTEN,
G. F. WARREN.