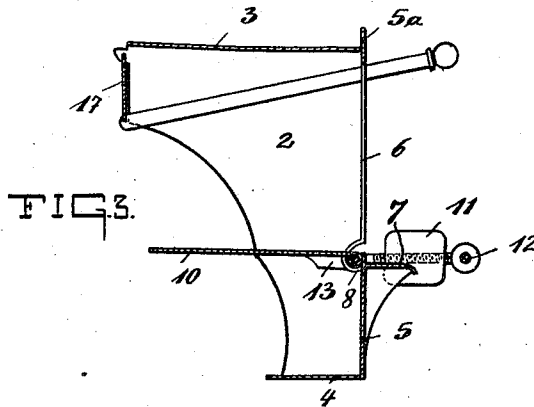
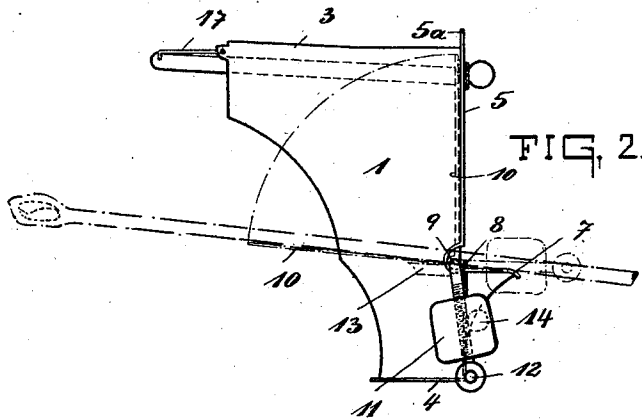
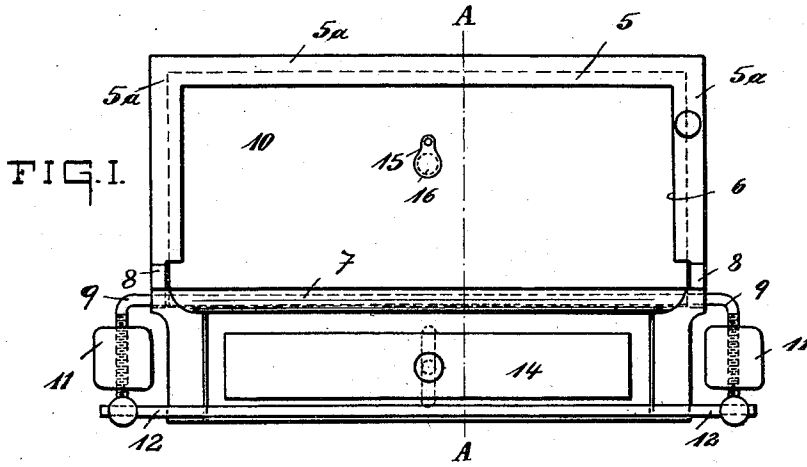


K. HÖFFLER.
 DOOR FOR OVENS.
 APPLICATION FILED JAN. 21, 1911.

1,000,910.

Patented Aug. 15, 1911.



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UNITED STATES PATENT OFFICE.

KARL HÖFFLER, OF NEUERBURG, GERMANY.

DOOR FOR OVENS.

1,000,910.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed January 21, 1911. Serial No. 603,906.

To all whom it may concern:

Be it known that I, KARL HÖFFLER, a subject of the German Emperor, and resident of Neuerburg, Germany, have invented certain new and useful Improvements in Doors for Ovens, of which the following is a specification.

The hitherto known doors for bakers' ovens are mostly constructed as sliding doors, which for their being opened must be shifted or drawn upward. To balance the weight of the door, heavy counterweights are provided, which on both sides of the door are suspended from roller-guided chains. Owing to the friction produced thereby, said doors are rather cumbersome, so that great power is required for their operation, which again results in damages to the oven. Also the unhandy manipulation of said doors forms a great disadvantage, as they cannot generally be opened or closed quickly enough, whereby great loss of heat in the oven is caused.

The present invention relates to an improved door frame with a balance or trap door, by which said drawbacks are entirely overcome, while at the same time the frame is fitted with an adjustable flap by which the water vapors, necessary for pastries and the like, can be kept back in the oven.

The accompanying drawing represents the subject matter of the invention.

Figure 1 is a front view of the same with closed door; Fig. 2 is a side view, also with closed door and with the flap mentioned in inoperative position, the dot and dash lines indicating the open position of the door; Fig. 3 is a sectional side view on the line A—A of Fig. 1, with open door and with the flap in operative position.

The door frame consists preferably of one piece of cast iron with side walls 1 and 2, a top wall 3, a short bottom 4 and a front wall 5, which on its upper part is provided with an opening 6 for the door, while the frame is open toward the rear. At the upper end and on both sides, the front wall carries a projecting edge 5^a to rest therewith against the brickwork of the oven. Beneath the opening 6, the front wall carries a projecting bench 7. On both sides of the front wall bearings 8 are cast at the lower end of the opening 6, which are open toward the front. In said bearings the turning axle 9 of the balance door 10 fixed on said axle is revolvably mounted in such a way that it can to-

gether with the door be entirely taken out of the open bearings 8. In closed position, the door 10 lies from inward tightly against the edge of the door opening 6. For this purpose, the turning axle of the door is on its outer rectangularly bent ends provided with counterweights 11, while in front these said ends are connected by a rod 12. The counterweights are adjustable on the ends of the turning axle, in order to balance the weight of the door to suit requirements. At the inner sides, the side walls carry rests 13 for supporting the door in open position.

For opening the door a slight pressure thereon exerted by the peel, which rests on the bench 7 is sufficient, the counterweights 11 being preferably so adjusted that the door lies in open position with a slight pressure against the peel (see Fig. 2) and falls after removal of the peel automatically back into its closed position. On the other hand, the door can also be opened or closed without any difficulty by means of the rod 12, the counterweights being then preferably so adjusted that the weight of the door is balanced in the open as well as in the closed position, that is the door remains in both end positions and requires only a slight pressure on the rod in order to close or open it.

In the lower part of the frame, the front wall 5 carries a flap 14 for allowing the cleaning of the space beneath the door. In the door itself, preferably an opening 16, which may be closed by a cover 15, may be provided for inspection purposes.

At the rear upper end of the frame a flap 17 is hingedly mounted and adapted, by means of a bar 18 guided in the frame, to be operated from outside, that is to be folded up in the inoperative position or folded down in the operative position, the object of said flap being, as already mentioned, to keep, when in folded-down position, the water vapors back in the oven.

I claim:

A door for bakers' ovens, comprising a frame of one piece of cast iron, an inwardly opening balance door in the front wall of said frame, a turning axle fixed to the lower end of said door and provided with rectangularly bent outer ends, open bearings in the front wall of said frame designed to receive said turning axle and to allow the removal of the same together with the door, adjustable counterweights on the bent ends of said axle, a rod to connect said ends, a

bench on the outside of said frame directly
beneath said door, a hinged flap at the upper
rear end of said frame, and a bar connected
to said flap and adapted to operate the same
from the outside, all for the purpose set
forth.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing
witnesses.

KARL HÖFFLER.

Witnesses:

LOUIS VANDORY,
OSCAR DEPNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."