Sept. 23, 1930. E. MOSS 1,776,475

OVEN

Filed May 14, 1929

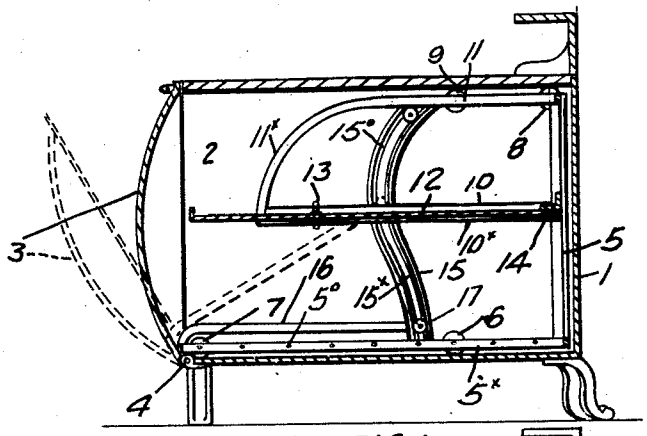


FIG. 1

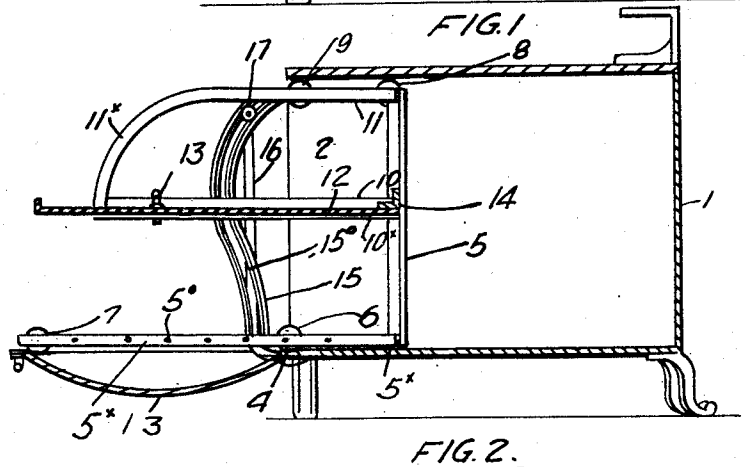


FIG. 2.

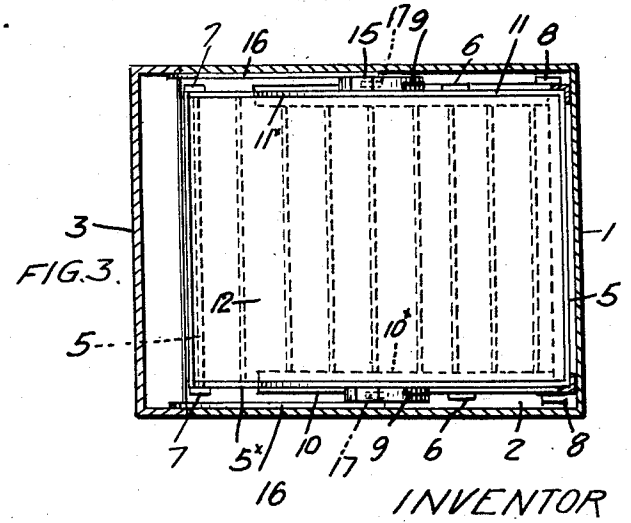


FIG. 3.

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Patented Sept. 23, 1930

1,776,475

UNITED STATES PATENT OFFICE

ERNEST MOSS, OF MOOSE JAW, SASKATCHEWAN, CANADA

OVEN

Application filed May 14, 1929. Serial No. 363,075.

My invention relates to improvements in ovens, and the object of the invention is to devise means whereby the contents of the oven may be automatically withdrawn by the opening of the oven door and thereby permitting of the oven contents being more easily gotten at for inspection or removal without danger of burning the hands, and it consists essentially of the arrangement and construction of parts as hereinafter more particularly explained.

Fig. 1 is a sectional view through an oven showing my device in the normal position within the oven and showing the oven door closed in full lines and in a partially open position in dotted lines.

Fig. 2 is a similar view to Fig. 1 showing the oven door in the full open position and my device drawn thereby from the oven.

Fig. 3 is a sectional plan view through the oven showing the door in the closed position and my device within the oven or in its normal position.

In the drawings like characters of reference indicate corresponding parts in each figure.

1 indicates the body of a stove provided with an oven chamber 2 having an oven door 3 hingedly conencted to the stove at 4. 5 is a carriage provided with carrier wheels 6 and 7 at each side thereof and with wheels 8 and 9 journalled on the upper portion of the carriage to have rolling contact with the interior surface of the oven top. The rollers 6 and 7, 8 and 9, are arranged in such a position as to prevent any tilting of the carriage.

The lower bars 5× of the carriage are connected together by cross-rods 5° or other suitable means for forming a shelf on which the articles to be cooked are placed. The carriage is also provided with horizontal side bars 10, preferably shorter than the bars 5× and supported from the top bars 11 of the carriage by the downwardly curved portions 11×.

The bars 10 are in the form of angle bars, the horizontal flanges 10× thereof extending inwardly so as to form a support for a supplemental shelf 12 secured in position by pins 13 extending through aligned orifices in the shelf 12 and flange 10×. The inner ends of the bars 10 are preferably connected together by a transverse angle bar 14.

15 is a curved bar. A curved bar 15 is secured to each side of the carriage and is provided with a longitudinal slot 15×, the lower portion of the slot 15× being concentric, when in its inner position within the oven, to the door handle 4. The upper portion of the slot 15× is curved in an opposite direction to the lower portion for a purpose which will hereinafter appear. 16 is an arm. An arm 16 is secured to the oven door 3 at each side thereof adjacent the hinge 4. The outer end of each arm 16 is provided with a roller 17 operating within the slot 15×. The sides of the slot 15× are preferably overhung as indicated at 15° so as to retain the roller 17 within the slot, the pin of the roller extending between the overhung portions 15°.

It will of course be understood that when large articles are being cooked in the oven the shelf 12 is removed. When it is deisred to inspect the contents of the oven the oven door is opened to the dotted line position shown in Fig. 1. By this movement of the door the arms 16 are swung upward, the roller 17 traveling in the lower portion of the slot 15× which, as before stated, is concentric to the handle 4 of the oven door. It will therefore be seen that by this opening movement of the door the carriage is retained in its normal position. If it is desired to withdraw the carriage from the oven, the oven door is swung downward from the dotted position shown in Fig. 1 to the full line position shown in Fig. 2. By this movement the roller 17 of the arm 16 is carried into the upper portion of the slot 15× which then has a cam action, the arms 16 carrying the carriage 5 forward from the position shown in Fig. 1 to the position shown in Fig. 2.

When in this position, the contents of the oven may be easily removed without any danger of burning the hands. When the contents of the oven are removed the closing of the door will carry the carriage in the reverse or inward direction back to its normal position within the oven.

From this description it will be seen that I

have devised a very simple device whereby the contents of an oven may by withdrawn from the oven automatically by the opening of the oven door, thereby eliminating any danger of burning the hands, and yet will permit of the oven door being partially opened so as to permit of the contents of the oven being inspected from time to time without effecting the position of such contents within the oven.

What I claim as my invention is:

The combination with an oven chamber and an oven door hingedly mounted at the bottom of the chamber opening, of a carriage adapted to travel in and out of the chamber, an arm secured to the oven door, a roller mounted upon the end of the arm, and a slotted bar carried by the carriage in a substantially vertical position the lower portion of the slot being concentric to the centre of swing of the arm, the upper portion being curved in reverse direction to the lower portion, and in which the roller travels during the opening and closing of the door.

ERNEST MOSS.