

D. McKENZIE.

Improvement in Bakers' Ovens.

No. 132,305.

Patented Oct. 15, 1872.

Fig. 2.

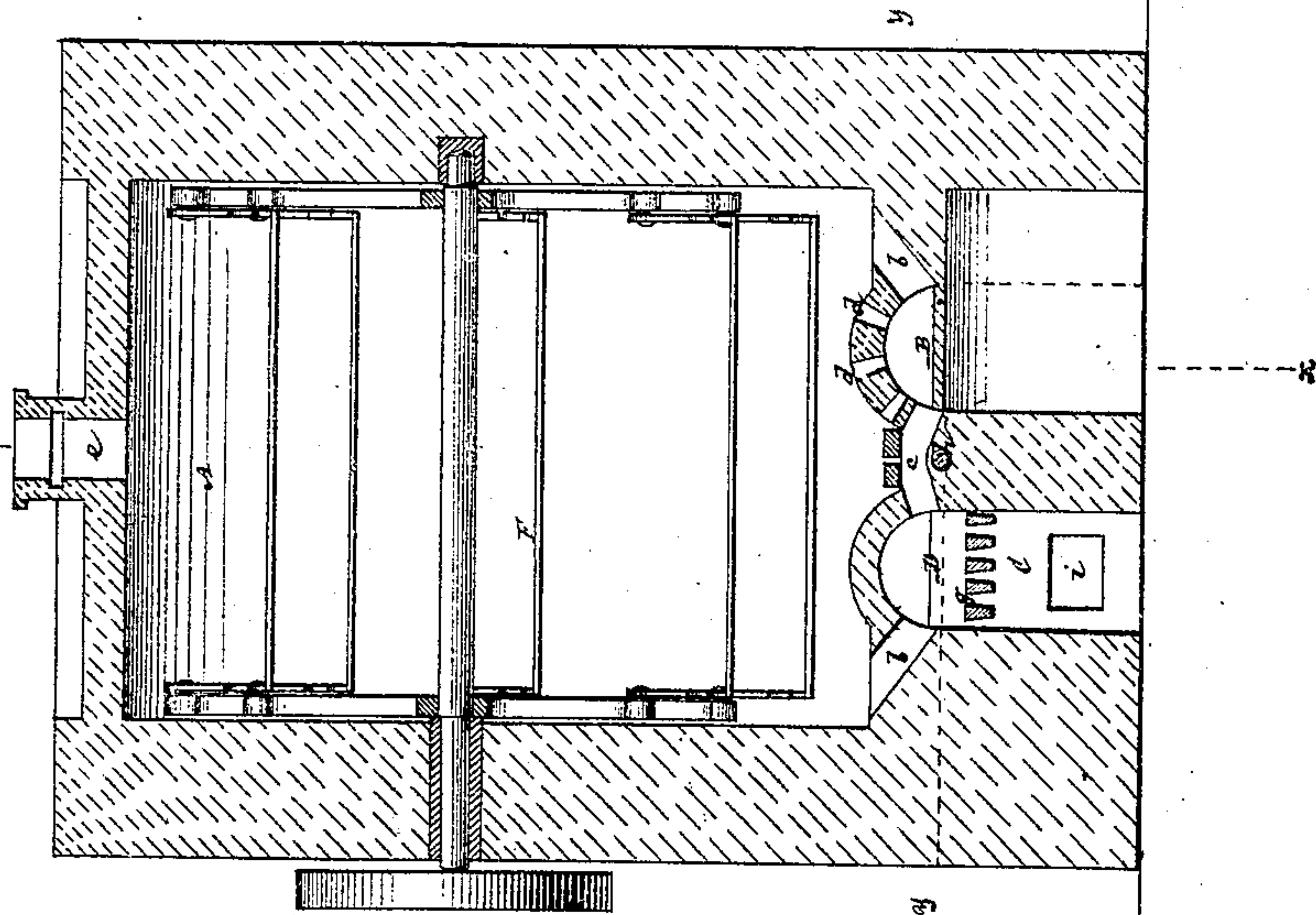
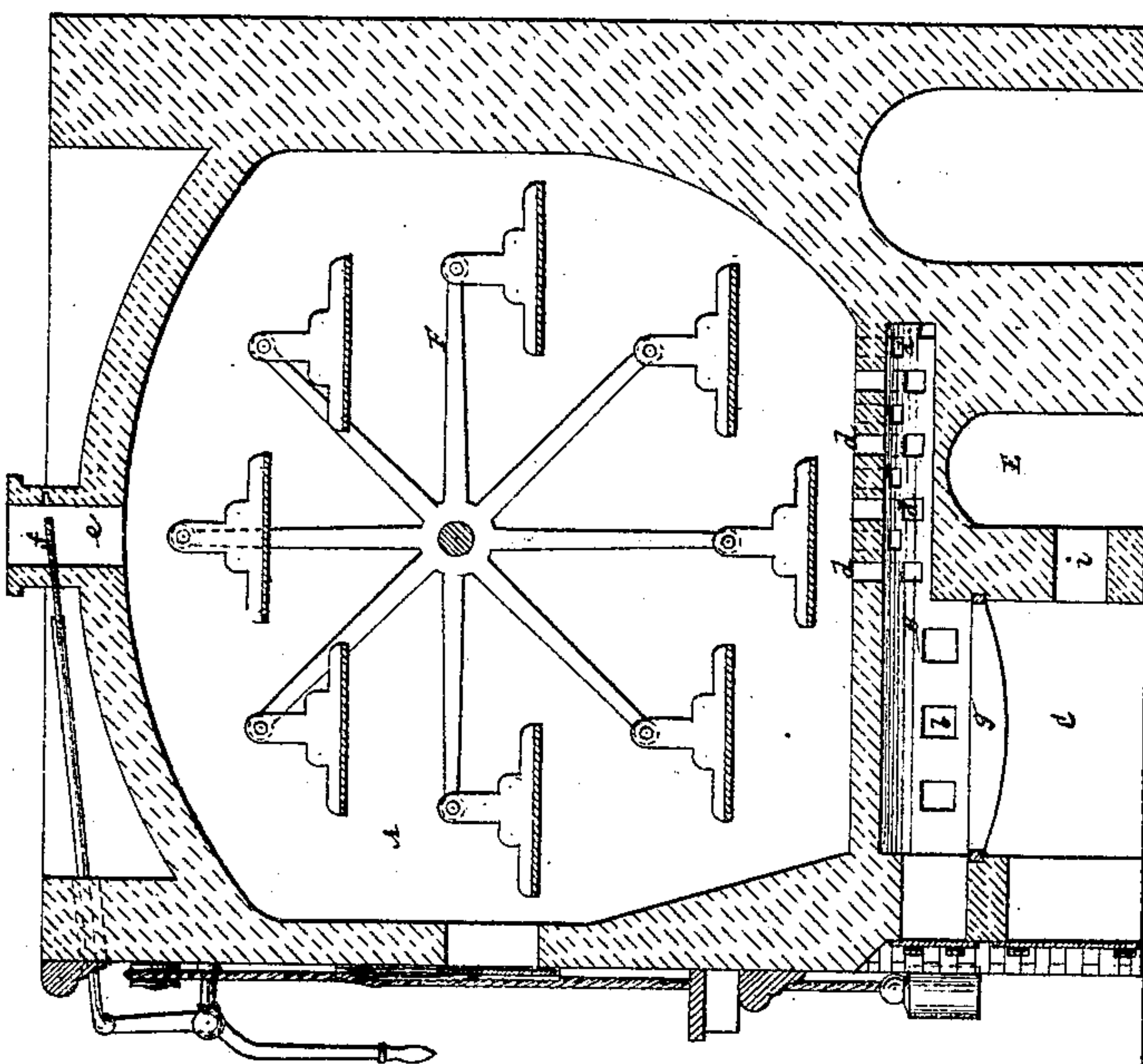


Fig. 1.



Witnesses.
Fred Haymer
Fred Quach

Duncan McKenzie

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Fig: 3.

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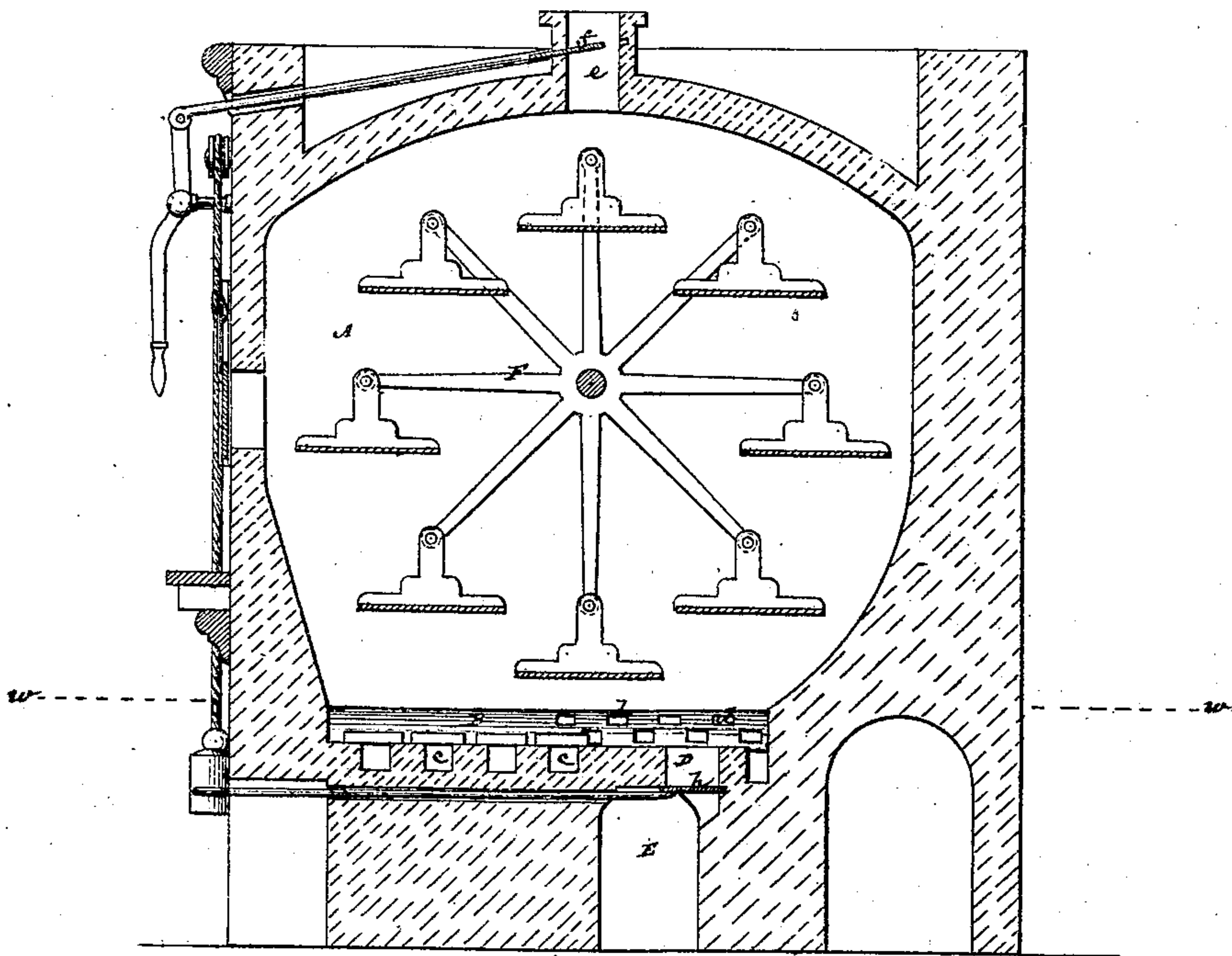
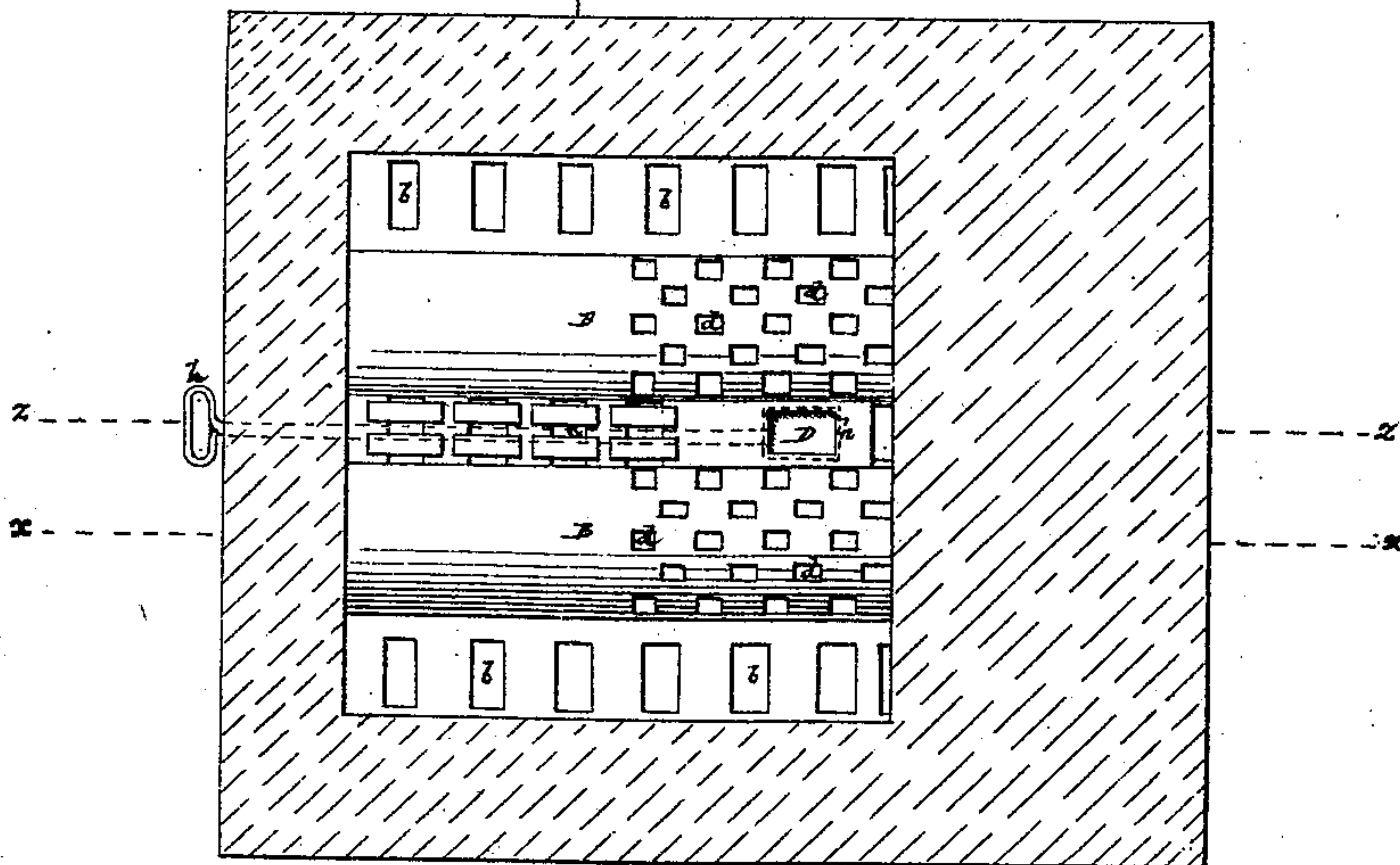


Fig: 4.



Witnesses.

Fred Haynes
Obed Gurch

Duncan McKenzie

UNITED STATES PATENT OFFICE.

DUNCAN McKENZIE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BAKERS' OVENS.

Specification forming part of Letters Patent No. 132,305, dated October 15, 1872.

To all whom it may concern:

Be it known that I, DUNCAN McKENZIE, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Ovens; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figures 1 and 2 represent sectional elevations, in planes at right angles to each other, of an oven constructed in accordance with my invention, Fig. 1 being a section taken at the lines *x x* in Figs. 2 and 4, and Fig. 2 being a section at the irregular line *y y* in Fig. 4; Fig. 3 is a sectional elevation at the line *z z* in Fig. 4, which latter is a horizontal section at the line *w w*.

Similar letters of reference indicate corresponding parts.

This invention relates to baking-ovens in which the bread or other substance is baked by the direct contact of the gaseous products of combustion from the fire or fires, and the same may be advantageously applied to the oven constructed substantially as described in reissued Letters Patent, No. 3,929, dated April 19, 1870, granted Mary Ann Elizabeth McKenzie as assignee of myself, or to an oven constructed as shown in Letters Patent No. 115,626, issued to me June 6, 1871, and in both of which a system of flues is used arranged to communicate between the fire-places and the interior of the oven, directly through the floor or bottom of the latter. The invention consists in a novel combination and arrangement of flues whereby, after the fire has been fairly lighted and the draft is shut off to prevent direct escape, the gaseous products of combustion, and steam or vapory matter eliminated from the substance being baked, are all returned from the oven back to the fire-place or ash-pit thereof, thus keeping up the draft from the fire by a return flue or flues back to the fire and utilizing the gaseous products of combustion and vapors of the oven in a most perfect and economical manner.

A represents the baking-chamber or oven,

heated by any suitable number of fire-places B B, the gaseous products of combustion from which are passed by a system of passages or flues, *b c* and *d*, in a direct manner through the bottom of the oven into and through the baking-chamber of the latter, from which the draft may be continued through the top by an opening, *e*, or otherwise, in a direct manner till the fires are fairly lighted, after which the opening *e* may be closed by a damper, *f*. The fire-places B B are extended in rear of their grates *g* and ash-pits C. After the fires have been fairly lighted and damper *f* closed, the draft is kept up and the gaseous products of combustion, as also the steam or vapory matter eliminated from the bread in baking, allowed to escape on opening a damper, *h*, through one or more passages, D, in the rear portion of the bottom of the oven, which passage or flue, that may be arranged between either pair of the fire-places, is in communication with a chamber, E, that connects by openings *i* with the ash-pit C of the fire-places, thus returning the gaseous products of combustion, after they have done their duty in the oven, back to the fire; also directing the steam or vapory matter within the oven, after a proper retention therein, in the same direction, and establishing a return draft through the ash-pits of the furnaces, whereby much economy of fuel is effected and a better baking of the bread or other substance within the oven obtained. F is a revolving bread-carrier, which may be constructed substantially as described in either of the two Letters Patent hereinbefore referred to.

What is here claimed, and desired to be secured by Letters Patent, is—

The combination, with the baking-chamber A of the oven, and one or more fire-places, B, for heating the latter by the gaseous products of combustion entering said chamber, of a return flue or flues D, arranged to connect with the ash-pits C of the fire-places, substantially as and for the purposes herein set forth.

DUNCAN McKENZIE.

Witnesses:

FRED. HAYNES,
FERD. TUSCH.