

R. SANDERSON.

Oven .

No. 120,901.

Patented Nov. 14, 1871.

Fig. 1.

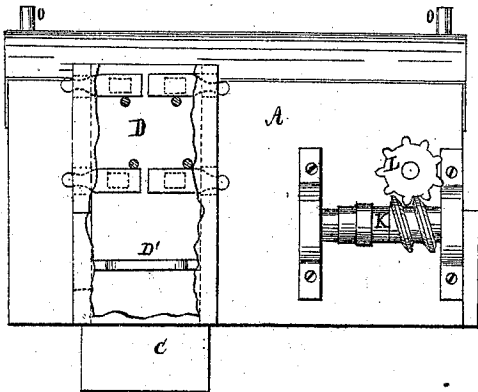


Fig. 2.

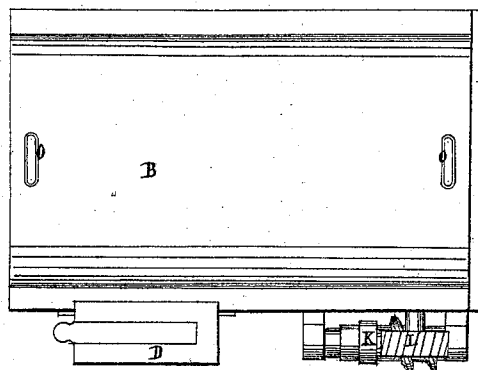


Fig. 3.

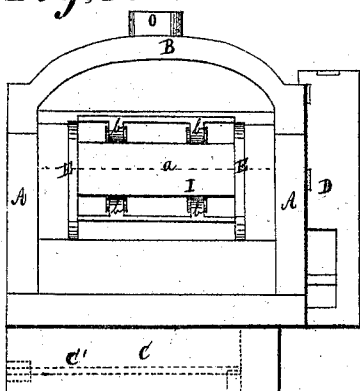


Fig. 4.

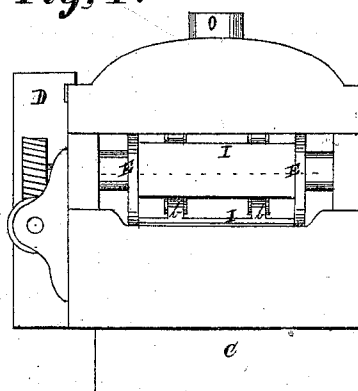


Fig. 5.

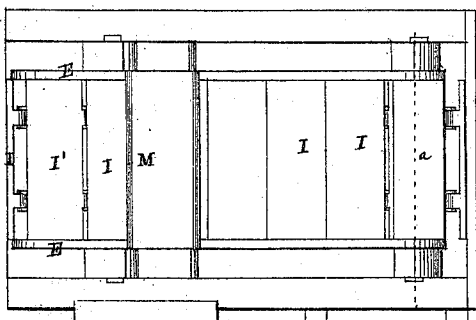
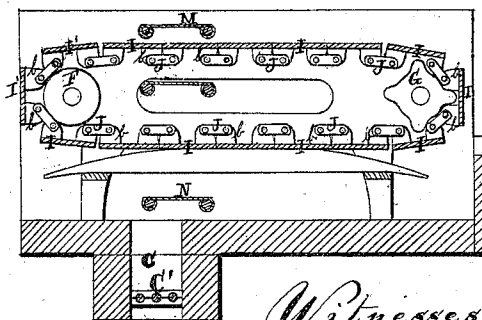


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROBERT SANDERSON, OF CLEVELAND, OHIO.

IMPROVEMENT IN BAKERS' OVENS.

Specification forming part of Letters Patent No. 120,901, dated November 14, 1871.

To all whom it may concern:

Be it known that I, ROBERT SANDERSON, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Bakers' Oven, of which the following is a description, reference being had to the accompanying drawing making part of this specification:

Figure 1 is a side elevation of the oven. Fig. 2 is a plan view. Figs. 3 and 4 are end elevations. Fig. 5 is a plan view with the top removed. Fig. 6 is a longitudinal vertical section.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a baker's oven of peculiar construction. The articles to be baked are placed upon a series of revolving plates at one end of the oven, and discharged when baked at the other, substantially in the manner as follows, viz.:

In Fig. 3, A A represent the side walls of the oven, of which B is the arch or crown. C is the furnace or fire-place, whereby the bottom or lower part of the oven is heated. D is also a furnace, whereby the upper part of the oven is heated. The construction of the furnace is or may be in the ordinary way for the use of anthracite coal. C' and D' are grate-bars. Within said walls are secured stays E, in each end of which is journaled a shaft, indicated by the dotted lines *a*, Figs. 4 and 5. On each end of the front shaft is secured a plain smooth wheel, F, Fig. 6, whereas on each end of the shaft, at the rear end, is secured a sprocket-wheel, G, Fig. 6, over which wheels runs an endless chain. Said chain consists of a series of plates, I, extending across the oven. The plates are connected to each other by means of lugs *b b* depending from the under-side edge of each of the plates, and which are connected to each other by links J. Said links and plates form a kind of endless chain or succession of plates, which pass around over the wheels F G, the chain being carried by the sprocket-wheel G, in the lugs of which the links J engage, as shown in Fig. 6. Motion is obtained to the chain of plates by means of the worm and wheel K L, Figs. 1 and 2, which drive the shaft of the sprocket-wheel G, said worm and wheel being actuated by any appropriate power. M N, Figs. 5 and 6, are aprons, the purpose of which will presently be shown.

The practical operation of the above-described

oven is as follows, viz.: The oven is heated as aforesaid by the furnaces C D, the lower part by the furnace C and the upper part by the furnace D. The bread, crackers, or other articles to be baked are laid upon the plate I', the first horizontal one in the upper range, which, as the series of plates revolves, is carried back into the oven under the apron M. The time required to move the plate I' into and back to the rear end of the oven is sufficient to bake the articles thereon. The speed of the plates being made greater or less, according to the time required to bake the bread or other article, these, when baked, slide off from the plate at the rear end as the plate passes down over the wheel on its return to the front end of the oven, to be again loaded with articles to be baked. The purpose of the guard-plates M N referred to is to prevent too much heat from being thrown upon the plates and baking articles as they pass the furnaces, but which is thereby distributed more equally over the oven, so that the crackers or other articles are less liable to be burned. The gas, steam, and smoke that may be generated in the oven during the process of baking escapes through the vents O in the crown of the oven, and may be conducted into the chimney and thereby prevented from filling the room.

The advantage of having two furnaces, one below and the other near the top, is that a more uniform heat is obtained to the oven than can be done by having but one furnace, and that at or near the bottom, in the usual way.

By having a furnace near the top the upper side of the baking articles receives a more direct heat, instead of a reflected one from the arch of the oven; hence the articles are more quickly baked, and with greater uniformity of color.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the plates I, wheels F G, worm and pinion K L, guard-plates M N, and oven A, substantially in the manner described and for the purpose set forth.

2. The two furnaces C D, arranged in relation to the bottom and side of the oven A in the manner substantially as described, and for the purpose specified.

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Witnesses:

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