

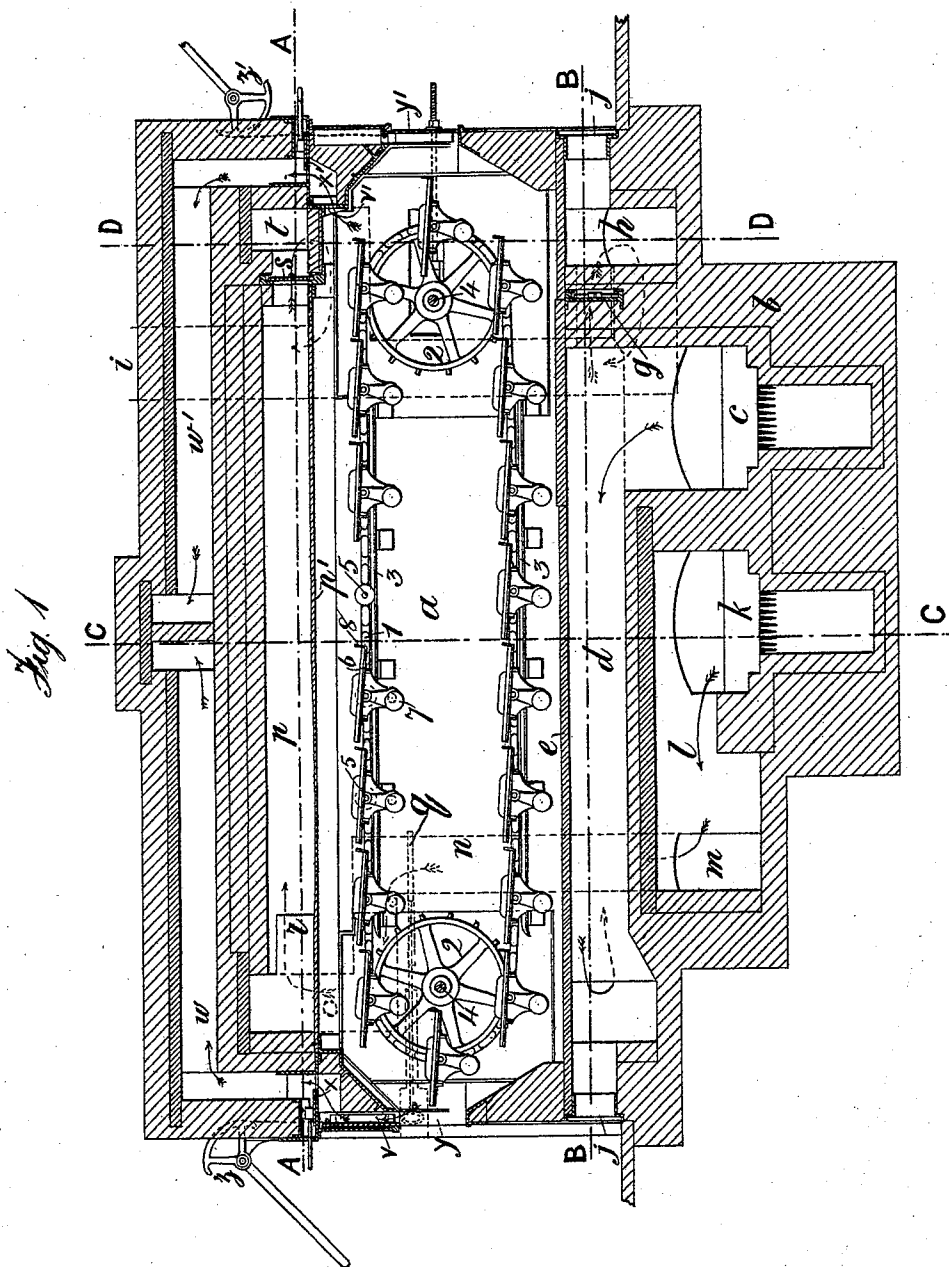
(No Model.)

3 Sheets—Sheet 1.

J. VICARS, T. VICARS & J. VICARS, THE YOUNGER.
BAKER'S OVEN.

No. 498,335.

Patented May 30, 1893.



Witnesses

George Stokes

Peter Parr

Inventors

John Vicars
Thomas Vicars

James the Younger

(No Model.)

3 Sheets—Sheet 2.

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Fig. 2

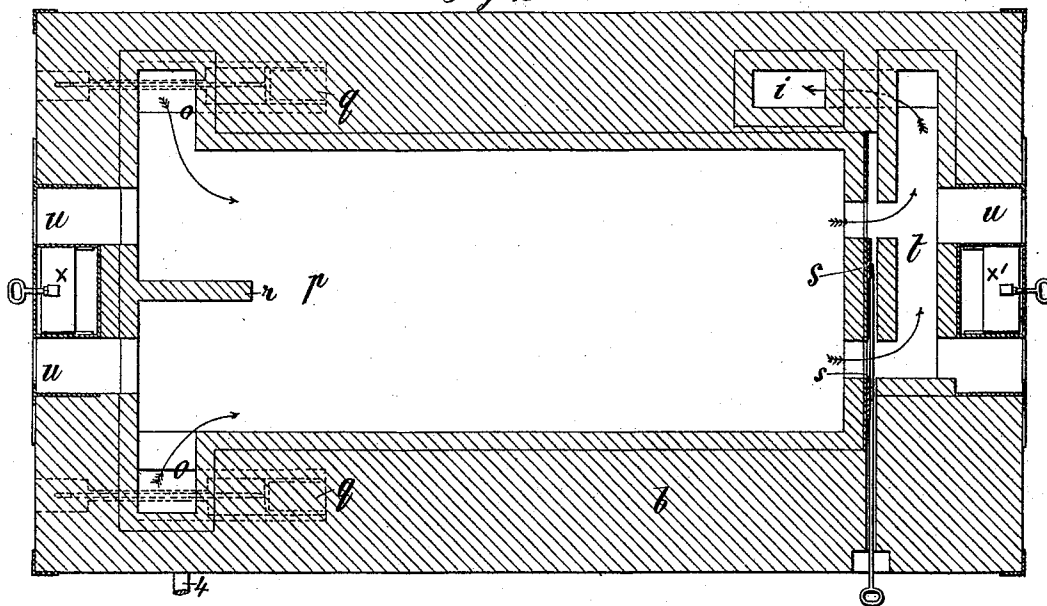
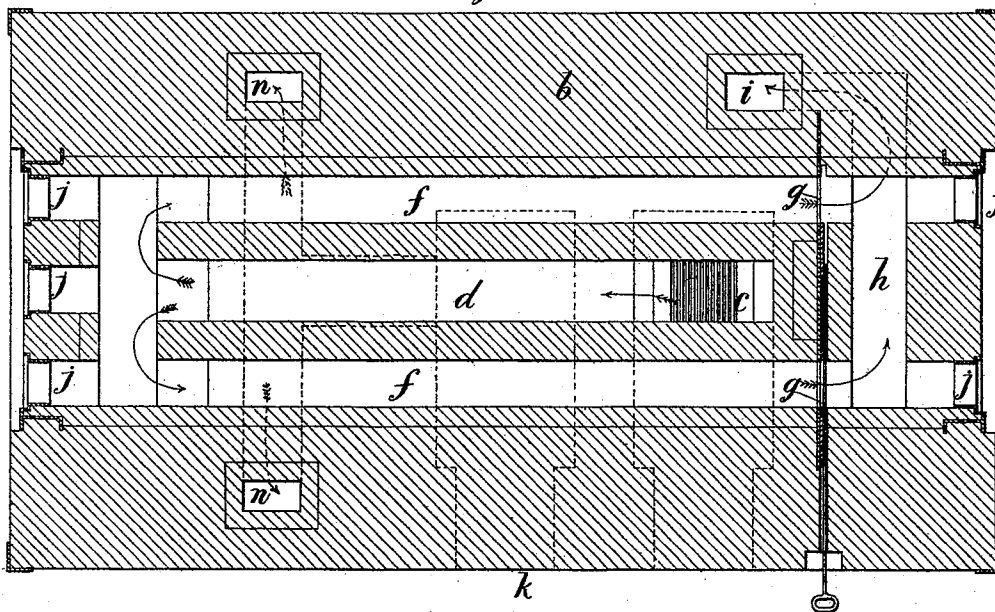


Fig. 3



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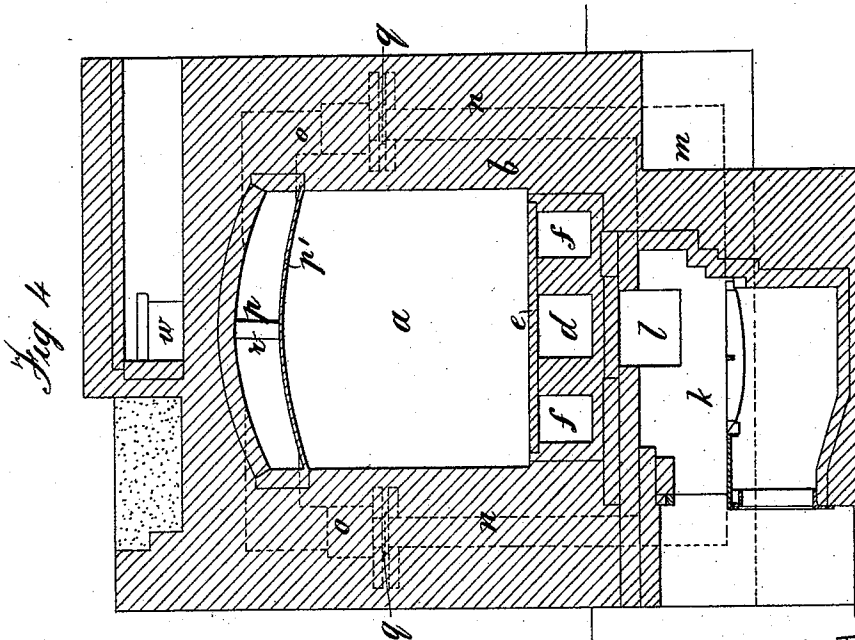
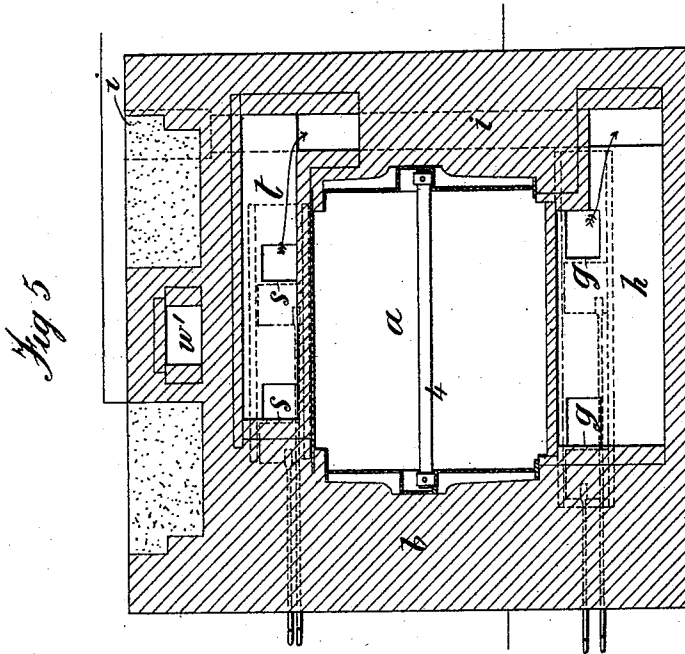
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Peter Parr

INVENTORS
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Thomas Vicars
John Vicars the Younger

UNITED STATES PATENT OFFICE.

JOHN VICARS, THOMAS VICARS, AND JOHN VICARS THE YOUNGER, OF
LIVERPOOL, ENGLAND.

BAKER'S OVEN.

SPECIFICATION forming part of Letters Patent No. 498,335, dated May 30, 1893.

Application filed September 19, 1892. Serial No. 446,317. (No model.)

To all whom it may concern:

Be it known that we, JOHN VICARS, THOMAS VICARS, and JOHN VICARS the Younger, subjects of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, England, have invented a new and useful Improvement in Bakers' Ovens, of which the following is a specification.

Figure 1 Sheet 1 is a vertical longitudinal section. Figs. 2 and 3, Sheet 2, are horizontal sections at the lines A A and B B, and Figs. 4 and 5 are vertical transverse sections, at the lines C. C. D. D., all of a baker's oven under our invention.

The invention relates to bakers' ovens in which endless chains are fitted with pans or trays which carry the bread, cakes, or biscuits from the feed door to the rear of the oven and back again.

Hitherto there has been great difficulty in properly applying the top and bottom heat and for controlling the amount of moisture in the oven so as to insure proper baking during the time the articles to be baked remain in the oven.

Now the object of our invention is to so construct an oven that the top and bottom heats and moisture are readily regulated and controlled and maintained.

a is the oven. *b* is the main structure of brickwork. *c* is the fireplace for supplying bottom heat to the oven. The products of combustion from the said fire place travel forward through a central flue, *d* under the oven bottom *e* then back through side flues *f* beneath the said oven bottom and finally past the dampers *g* through the cross flue *h* to the uptake *i*.

j are cleaning doors for the flues. By means of the dampers *g* the force of the draft and thereby the bottom heat is readily regulated.

k is the fireplace for supplying top heat. The products of combustion pass from the fireplace *k* through a central flue *l* into a cross flue *m* and thence by uptake *n* and elbow-flues *o* into the space *p* over the top *p'* of the oven.

q are dampers in the uptakes *n* so that the amount of products of combustion passing up each uptake may be adjusted.

r is a tongue for directing the flow of the products of combustion through the space *p* as they leave the elbow flues *o*. From the space *p* the products of combustion pass through dampers *s* into a cross flue *t* and thence into the uptake *i*.

u are cleaning doors for the flues. The draft and amount of heat in the space *p* over the oven is controlled by the dampers *s* and *q*.

v. v' are openings from each end of the oven leading into flues *w. w'* through which moisture from the oven escapes into the atmosphere; *x x'* dampers for regulating the outflow of the moisture; *y*, door in front of the oven through which the pans or trays containing bread, cakes, or biscuits are placed into and removed from the oven; *y'*, door for obtaining access to the back of the oven. The doors *y y'* are raised and lowered by quadrant levers *z z'*.

For carrying the pans or trays through the oven, there are endless chains 1 passing around sprocket wheels 2 and resting on rails 3 secured to the sides of the ovens. The sprocket wheels 2 are carried on shaft 4 and are driven in the usual way. The chains 1 are provided at equal intervals with bearings 5 to which are pivoted immediately above the center thereof and between the chains, plates 6, from which depend balance weights 7 eccentrically placed so as to cause the plates to be suspended in an inclined position with their upturned edges 8 along the low side. By the above means the plates for carrying the pans or trays are wholly between the chains and may be placed quite close together without interfering with one another by their oscillation which is not the case when they are suspended beneath the centers of the bearings. The pans or trays are slipped on to the plates 6 through the door *y* and are removed therefrom through the same door after traveling along the top of the oven to the back and along the bottom of the oven again to the front.

We claim—

1. The combination of the oven *a* with the fireplace *c*, flues *d* and *f*, dampers *g*, fireplace *k*, flues *l* and *m*, uptakes *n*, elbow flues *o*, space *p*, dampers *q* and *s*, flue *t* and uptake *i*.

2. The combination of the oven *a* with the
fire place *c*, flues *d* and *f* dampers *g*, fireplace
h, flues *l* and *m* uptakes *n*, elbow flues *o*, space
p, dampers *q* tongue *r*, dampers *s*, flue *t* and
5 uptake *i*.

3. The combination of the oven *a* with the
fireplace *c*, flues *d* and *f*, dampers *g*, fireplace
h, flues *l* and *m*, uptakes *n* elbow flues *o* space
p, dampers *q* and *s*, flue *t*, uptake *i* and clean-
10 ing doors *j* and *w*.

In testimony whereof we have hereunto set
our hands this 24th day of August, A. D. 1892.

JOHN VICARS.

THOMAS VICARS.

JOHN VICARS THE YOUNGER.

Witnesses:

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