G. W. AYRES.

Portable Oven.

No. 34,726. Patented March 18, 1862.

Fig. 1.

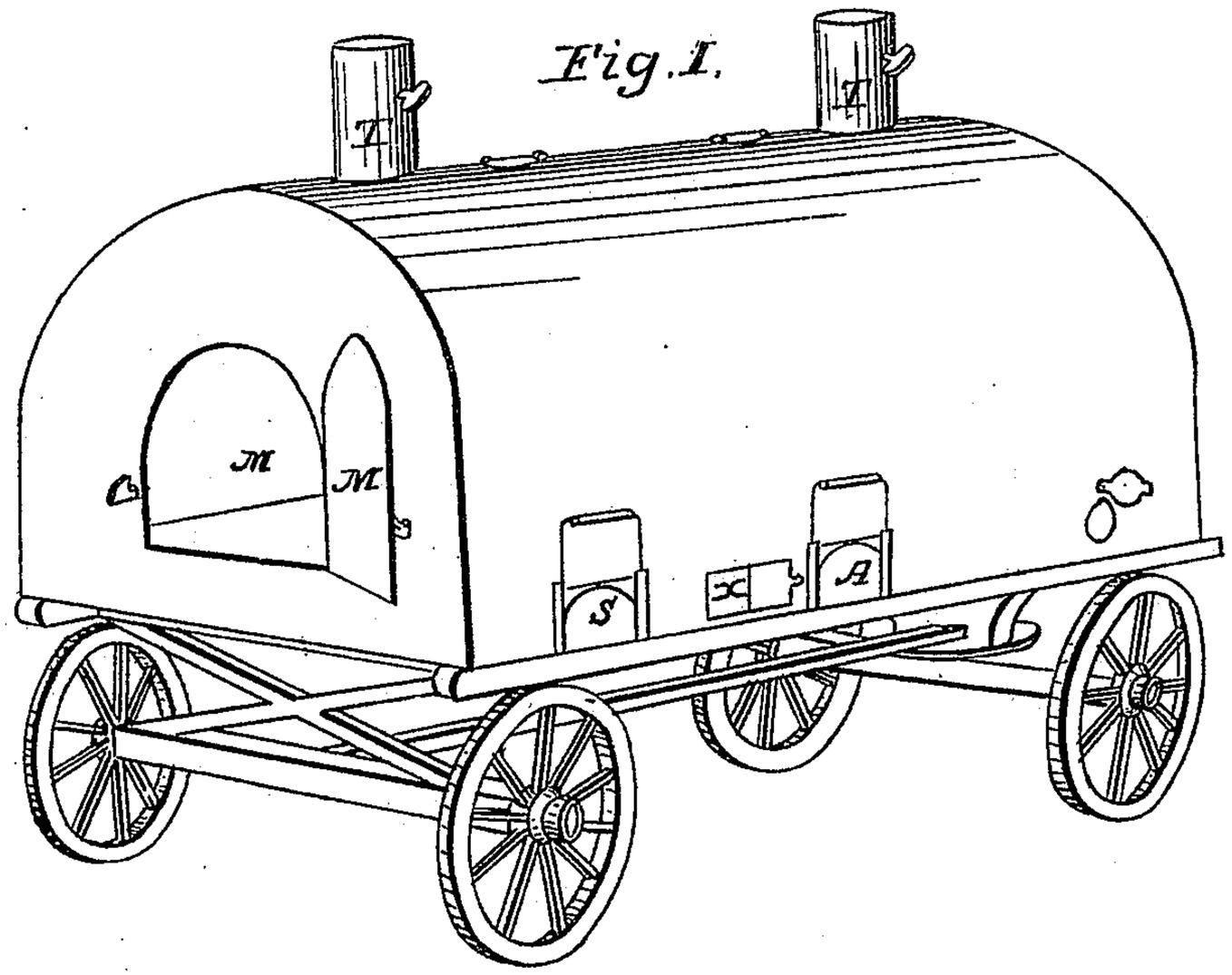


Fig. 2.

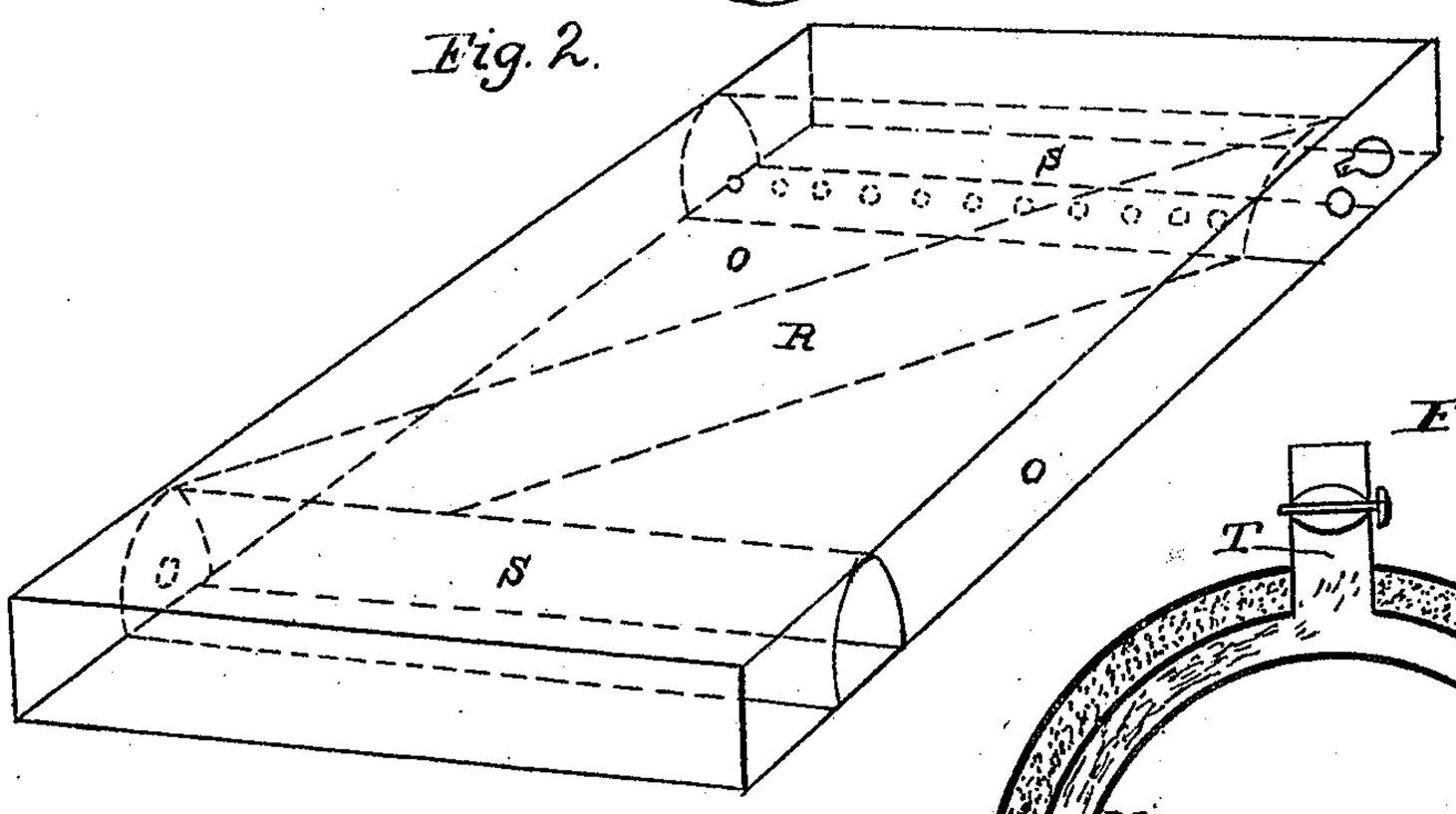
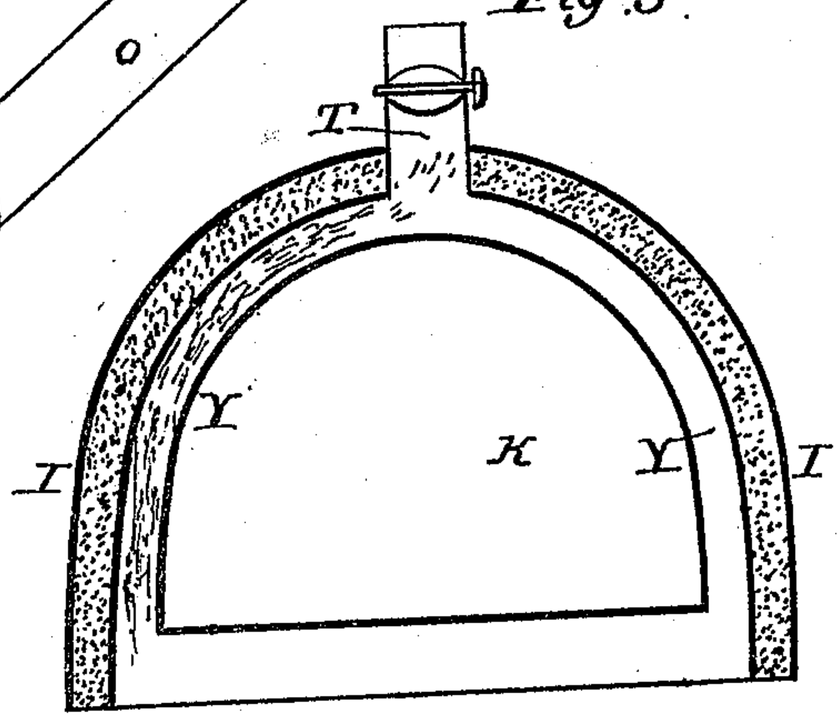


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. AYRES, OF RAHWAY, NEW JERSEY.

IMPROVEMENT IN PORTABLE OVENS.

Specification forming part of Letters Patent No. **34,726**, dated March 18, 1862.

To all whom it may concern:

Be it known that I, GEORGE W. AYRES, of the city of Rahway, in the county of Union and State of New Jersey, have invented a new and Improved Portable Baker's Oven; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, the same being a part of this specification.

The nature of my invention consists in constructing a baker's oven of such material and in such form and manner as to enable the user thereof to transport it from place to place on a vehicle and have it always in readiness for use wherever an oven may be required.

To enable others skilled in the art of making and using bakers' ovens to make and use my improved oven, I will proceed to describe its construction and operation.

The oven is constructed of sheet or plate iron of a thickness proportionate to its size, plates one-sixteenth of an inch thick answering for an oven capable of baking seventy-five small loaves of bread at a time.

In the accompanying drawings, Figure 1 is a perspective view of the oven as seen mounted on the vehicle ready for use. Fig. 2 is a view of the bottom of the apparatus with the furnaces mounted thereon; and Fig. 3 is a cross-section showing the arrangement of the shell, or rather the various shells, surrounding the baking-space of the oven.

It is constructed as follows: A bottom plate O O, Fig. 2, is first prepared, of the proper length and width, and upon this is mounted the two furnaces S S. They are made to extend nearly across the width of the bottom. The sides of the furnaces facing each other are perforated with holes, about two inches in diameter, through which the flame passes into the space between them. This space is divided diagonally by the plate R, said plate being as wide as the height of furnaces.

Now, supposing the above-described bottom plate to be eight feet long and five feet wide, then the oven proper inclosing the space K, Fig. 3, is made seven and a half feet long and four feet wide, and is set immediately on the top of the two furnaces S S. Another shell is now placed over the shell of the oven, surrounding it on all sides, except the bottom and front, leaving a space about three inches wide all around between it and the open shell, as shown at Y Y, Fig. 3. Through this space the draft passes to the smoke-stacks T T, and outside of this shell still another is placed, leaving a space between to be filled with some non-conducting material—such as sand or clay. The door X is for the purpose of cleaning soot and ashes from the space between the furnaces. The openings F F are for the purpose of filling the space I I between the shells with sand, and the openings A A to allow the same to be discharged to lighten the apparatus, and consequently to facilitate transportation.

The operation of this oven is as follows: The fires being lighted in the furnaces S S, the flame circulates first under the bottom of the oven and is there divided by the diagonal partition R, so that the flame from one furnace passes up on one side of the oven and that from the other furnace on the other to the smoke-stacks T T. This distribution of the flame insures an even heating of the oven, which is indispensable to good baking. The bread to be baked is entered through the door M.

I claim—

1. The arrangement of the shells of the oven forming the flues and the space for the non-conducting material, the exterior shell having the openings, as described, for the putting in and taking out of the non-conducting material, in combination with the furnaces and diaphragm, as herein recited.

2. The arrangement of the furnaces, diaphragm, and flues, as set forth.

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Witnesses:

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