

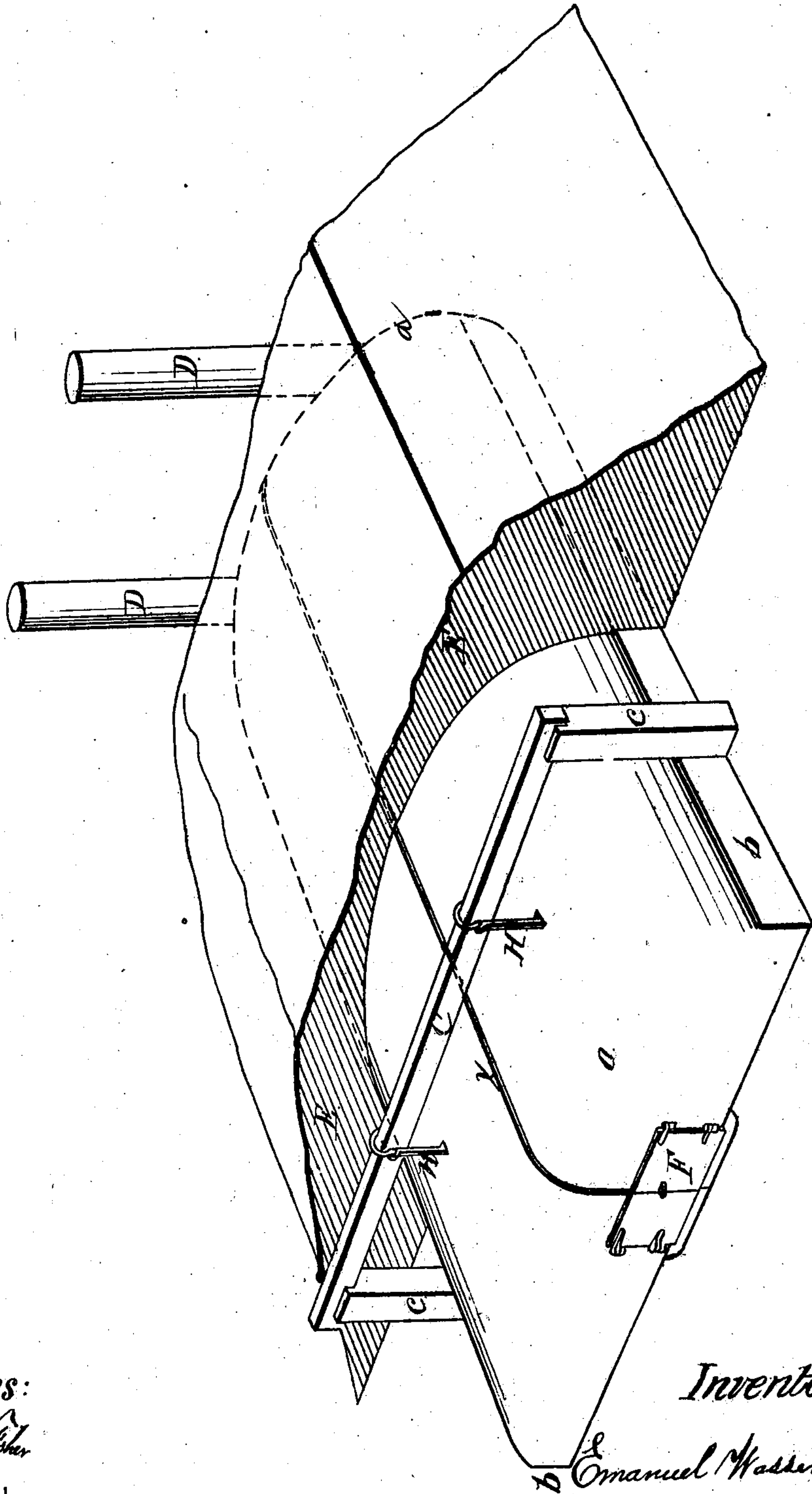
*E. Wassernich* *Sheet 1-2, Sheets.*

*Portable Furnace.*

*Nº 34,540.*

*Patented Feb. 25, 1862.*

*Fig. 1*



*Witnesses:*  
*Charles L. Fisher*  
*Geo. Ryburn*

*Inventor:*

*Emanuel Wassernich*

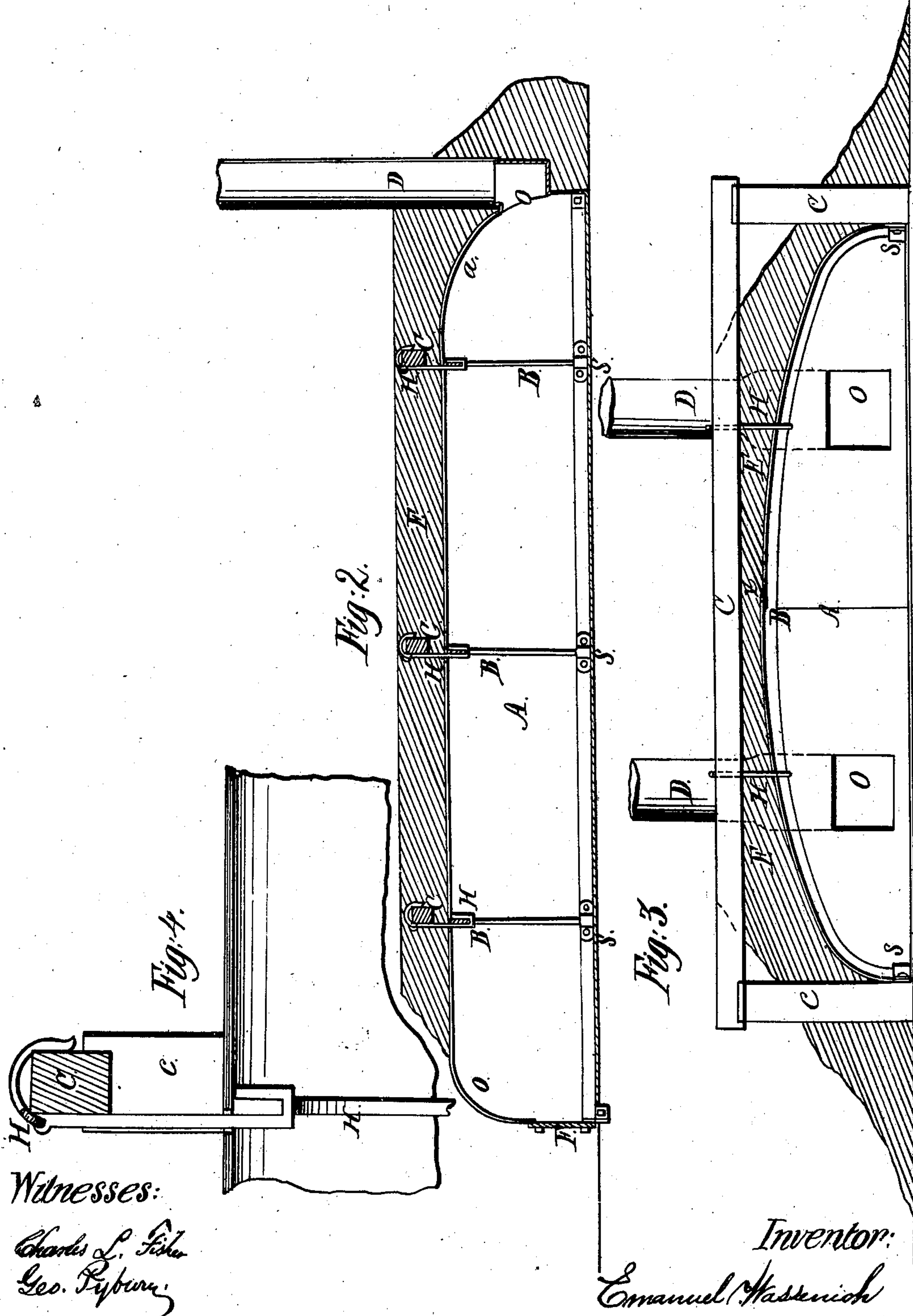
*E. Wassernich*

*Sheet 2-2 Sheets.*

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# UNITED STATES PATENT OFFICE.

EMANUEL WASSENICH, OF CINCINNATI, OHIO.

## PORTABLE OVEN.

Specification of Letters Patent No. 34,540, dated February 25, 1862.

*To all whom it may concern:*

Be it known that I, EMANUEL WASSENICH, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented  
5 a new and useful Improvement in Portable Wrought-Iron Army-Ovens; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings  
10 and letters of reference marked thereon, which form part of this specification.

My invention refers to the form and construction of a wrought iron chamber, fitted for the use of an army, or portion thereof,  
15 in camp, as an oven for baking bread and other viands; and of easy portage when the army is marching.

In order that those duly skilled may be enabled to understand, and construct, and  
20 use my invention, I shall proceed to describe it in detail.

In the accompanying drawings: Figure 1 is a perspective of the entire oven, showing one half covered with earth, and the other  
25 half uncovered for more effectually showing the position of outer beams. Fig. 2 is a longitudinal section through the oven. Fig. 3 is a transverse section of same. Fig. 4 is a drawing to a larger scale, of the hooks  
30 connecting the inner ribs and outer beams.

Like letters of reference designate like parts in all the drawings.

The oven, when set up for use is simply a semi-elliptical prismatic chamber A; the  
35 ends *a, a*, being rounded off as shown in drawings. It is constructed of boiler plate, in two halves, and strengthened inside by wrought iron arched ribs B, B, which in their turn are supported by outer beams, of  
40 wood C, C. The floor of the oven is of light boiler iron, laid on the bare earth, or where convenient it may be formed of flat stones laid on the earth; the oven is then laid down, its several parts fastened to-  
45 gether, the flues D, D, fixed, and the whole oven covered with soil or earth as shown at E. Combustible materials are now introduced into the inside and lighted; and the fire kept up until the oven and surrounding  
50 earth-cover are well and sufficiently heated; the hot embers are then quickly raked out at the door F, and the bread or other matters to be cooked introduced—the door being closed, nothing further requires to be done  
55 but attend to the proper timing of the proc-

ess, and the ultimate removal of the cooked viands.

The shell of oven is semi-elliptical, in transverse section; not springing as an elliptic arch from the ground, but at a  
60 short distance, say a few inches, therefrom, the portion below springing line, being perpendicular, as shown at *b, b*.

On the inside of perpendicular portion of shell, on each side, sockets *s, s*, are formed, or riveted, for the purpose of receiving the  
65 ribs B, B. The outer shell of oven is so formed at the edges of each half, as to overlap along the line of junction *x*, running longitudinally. The door F, is double,  
70 of heavy wrought iron, hinged on each half of oven, and fastening with a latch in the middle.

The flues D, are constructed of sheet iron, and communicate with the inside of the  
75 oven, by two openings O, O, in the end thereof, as shown in Fig. 3.

C, C, are beams of wood, supported on stakes *c, c* driven in to the ground at the  
80 sides of oven. They are for the purpose of supporting the inner wrought iron ribs B, B, against the weight of superincumbent earth E. In order to do this, double hooks of wrought iron H, are passed from the in-  
85 side, through small openings, and receiving the iron rib in its lower hook, with its upper hook it embraces the wooden beam C. Earth is now piled over all, and battered down, as before described.

Having now described my invention, and the mode of its operation, I shall speak of its  
90 advantages: The first heating will take say two or three hours; but after the first batch of cooking has been completed, the subse-  
95 quent heatings will be very speedily accomplished. My invention is easily constructed, easily set up, and as easily taken apart and packed for carriage—it is not liable to get out of order, and above perhaps  
100 all other ovens, it is efficient and useful and easily managed. In particular, the form of arch is needful in order to give great strength, when a large size of oven is made.

Now, I do not claim constructing a sheet  
105 iron oven, to be covered with earth, as I am aware that such an oven is already in use; but, such ovens, from their shape, are necessarily of small size, and from their height do not bake properly. In my inven-  
110 tion, the crown of the arch is low, and the



ends being arched as well as the sides, equality of radiation is secured, and a large surface of bread may be baked at once—in fact the bread for an entire regiment may  
5 be baked in one oven 6 feet x 8 feet, in 8 hours.

I claim—

Constructing a portable (army) oven A of boiler iron, of the shape described, viz.,

semi-elliptically prismoidal, with arched 10 ends *a, a*, and strengthened by ribs B, B, connecting hooks H, and beams C, C, substantially as, and for the purpose set forth.

EMANUEL WASSENICH.

Witnesses:

CHARLES L. FISHER,  
GEO. PYBURN.