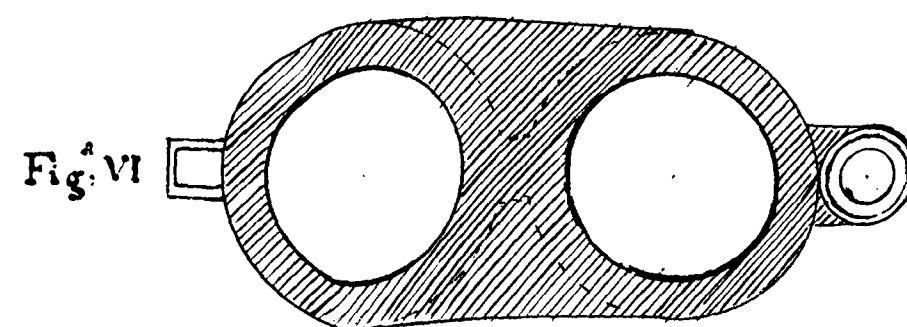
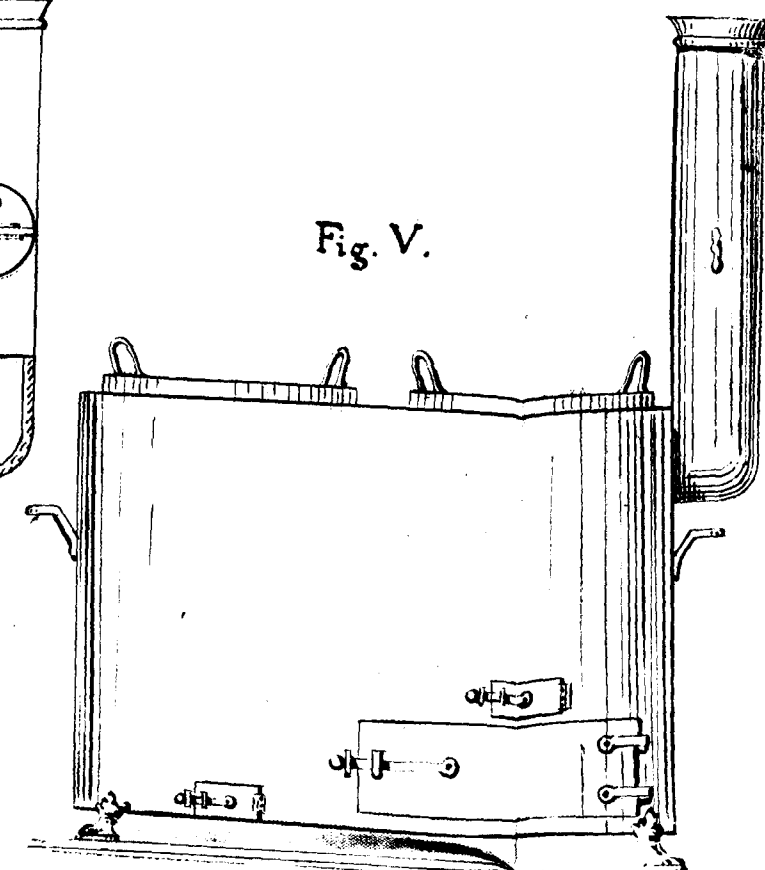
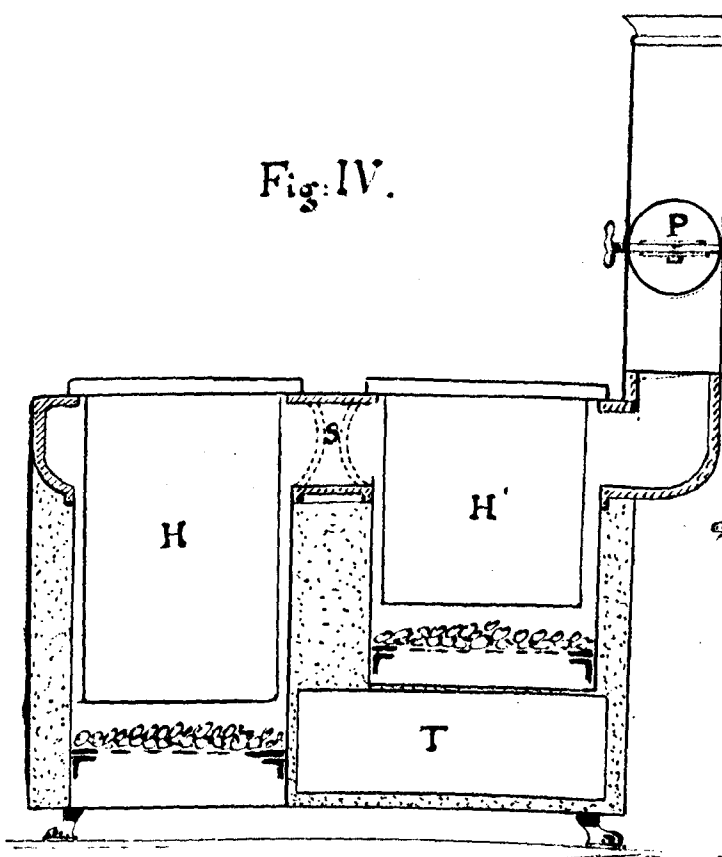
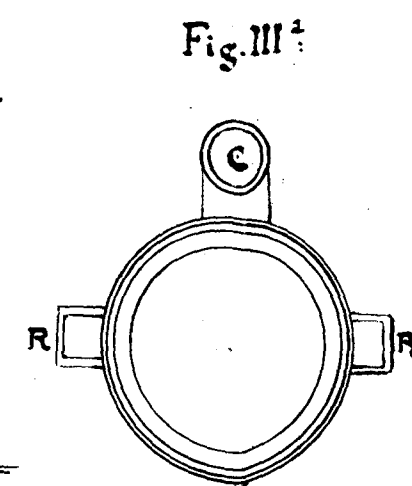
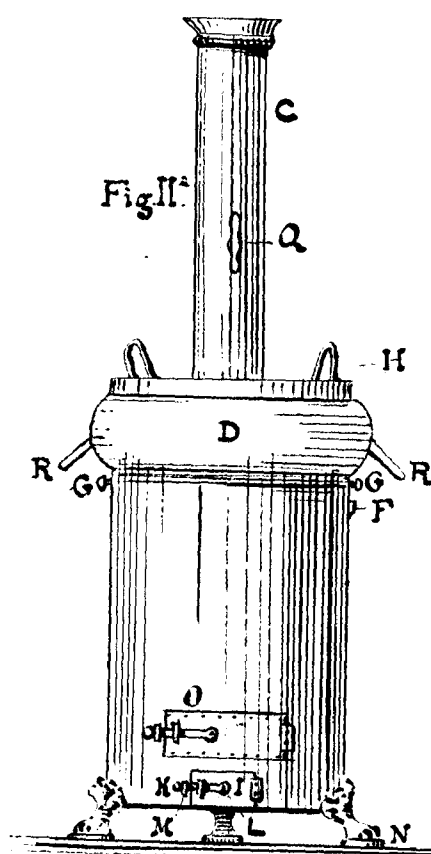
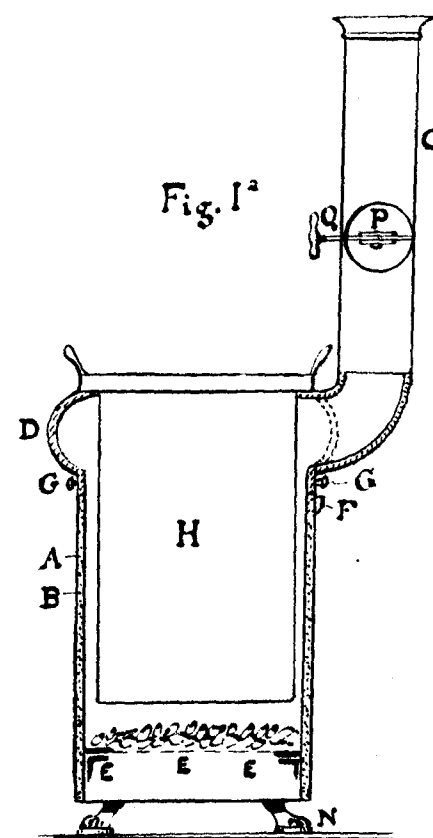




SPECIFICATION.

TO ALL WHOM IT MAY CONCERN.

BE IT KNOWN that we, FELICE BALSAMELLO and DOMENICO MANGANI of Rome in the Kingdom of Italy, are in possession of an invention for "IMPROVEMENTS IN AND RELATING TO STOVES" and we the said Felice Balsamello and Domenico Mangani do hereby declare the nature of the said invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:-

This invention has for its object an improved portable stove, and is illustrated in the accompanying drawings, in which:-

Figure 1 is a sectional elevation.

Figure 2 an elevation.

Figure 3, a plan of a single furnace, and

Figures 4, 5 and 6, similar views of a double furnace.

The improved stove is composed of two cylinders A B (see Figure 1) which are arranged one within the other as shown, they are made of sheet iron of different thicknesses, that is to say, the walls of the

internal

internal cylinder B are thicker than those of the external cylinder A. The thicker cylinder B may however be made of cast metal, when it is a question of small portable stoves and it may in that case be cast in one piece with the throat D and the bottom. In the cylinder three small brackets L are arranged which support a grate L'. When it is a question of large stoves and more particularly of cooking stoves for military purposes, the cylinders must be constructed of sheet metal in order to better resist variations of temperature and shocks. Between one cylinder and the other, there is a free space of about a centimetre in width, which is filled with wood, ashes, or some other suitable substance which is a non-conductor of heat. By this means, the water boils more quickly and the cook hardly feels the heat of the stove. The ashes are inserted between the two cylinders by means of a hole F (figures 1 and 2) which is afterwards suitably closed, or luted up. The cylinders are connected by means of screws G. The mouth or throat is circular and forms a kind of crown which has a hole at the top for receiving a boiler H and at the ^{side} is provided with a curved or elbow pipe on which a stove pipe or chimney C is attached to increase the draught and cause the heat to impinge energetically on the entire surface of the boiler. The opening at the bottom of the throat is of larger diameter, so that between the boiler H and the cylinder B there remains a space of about a centimetre to allow of the flame better lapping round it. The mouth or throat D has an internal space equal to the opening in the chimney. The said throat or mouth also serves for drawing the heat over the whole surface of the boiler. The height of the cylindrical part of the

boiler

boiler is one and a half times its diameter.

A grid or door I pivoted on hinges Y, Figure 2, serves for lighting the fire and for admitting air. This grid or door I is provided with a catch K which turns on a pivot L and engages in a loop or hook M fixed on the stove and it carries a tooth which slips into a guide fixed in the grating or door with the object of holding the catch in place. Three lions' feet N form the feet of the stove and are fixed thereto by means of screws.

The dotted lines O, Figure 2, show the place where a second door is arranged in case wood be employed as fuel. In the chimney C a valve or damper P is fixed on a spindle Q (Figures 1 and 2), the latter being bent in such a way as to form a handle. Two lugs or handles R serve for carrying the stove about.

If it be desired to cause water to be boiled rapidly, the fire must be first well lighted closing the stove with a cover, or with a low vessel containing a little water, and then keeping the door I and the damper P open. When the fire is quite finished and it is desired to keep the boiler still boiling, the damper P and the door I must be closed, thus utilising the heat contained which is sufficient to cause the boiler to boil for an hour. The damper and the door are closed when it is desired to roast anything.

Figure 4 shows a vertical section of the stove with double furnace which has a single chimney, the throats of the two furnaces communicate with each other by a pipe S. A large boiler H and another smaller one H¹ which serve for various foods are placed in this stove. Below the furnace where the boiler H¹ is placed, is a vacant space T which serves

as an oven receiving heat from both fires.

Figure 5 shows a front elevation of such a portable stove:

Figure 6 a plan view.

It will readily be understood that three, four, five, six or any suitable number of furnaces may be combined in one stove, the arrangements being substantially similar to those employed in the case of the double furnace stove, but each of these connected furnaces must have its own separate fire place whilst a single chimney serves for all. This arrangement allows of any one or more of the furnaces being lighted separately as may be required, when it is not desired to light all the fires.

It will also be seen that the stove need not be limited to a cylindrical form (although such is preferable) but may be made of any desired suitable shape.

HAVING now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:-

1. The construction and combination of parts forming an improved portable stove substantially as hereinbefore described and illustrated.

2. The construction and combination of parts forming an improved portable multiple-furnace stove with a single chimney substantially as hereinbefore described and illustrated.

PUBLIC DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following endorsement of the Assistant Secretary to the Government of India, Revenue and Agricultural Department, dated *30th November* 1895, No. P. *2985*.

ORDER, dated *19th December* 1895, R. No. *1490*

THE following Notification will be published in the *Gazette* once.

The following specification of an invention has been filed in accordance with Section 11 of Act V of 1888 (the "Inventions and Designs Act"), and is open to inspection at the office of the Chief Secretary to Government, Fort St. George, on the payment of a fee of one rupee:—

*Improvements in and relating to
Stoves.
(By Felice Balsamello and Domenico
Mangani of Rome in the Kingdom
of Italy.)*

*th pub.
17/12*

Gazette. 17/12/95

4/46
No. *2985* P.



The accompanying copy of a ^{Specification} ~~Section~~, of which the original (bearing register number *116* of 1895) was ^{filed} ~~registered~~ on the *1st* of *November* 1895 in the Office of the Secretary to the Government of India in the Department of Revenue and Agriculture, is forwarded to the ^{Government} ~~Chief Commissioner~~ of *Madras* in conformity with the provisions of Section *11* of the Inventions and Designs Act, 1888.

M. P. C.

*Asst. Secretary under the Inventions
and Designs Act.*

CM

DEPARTMENT OF REVENUE & AGRICULTURE,

(PATENTS),

Calcutta, the 30th Novbr 1895.

Specifcatoin.

Public

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