June 26, 1923.

1,459,912

G. IANIERI

DRYING MACHINE

Filed Jan. 27, 1922

2 Sheets-Sheet 1

Fig. 1.

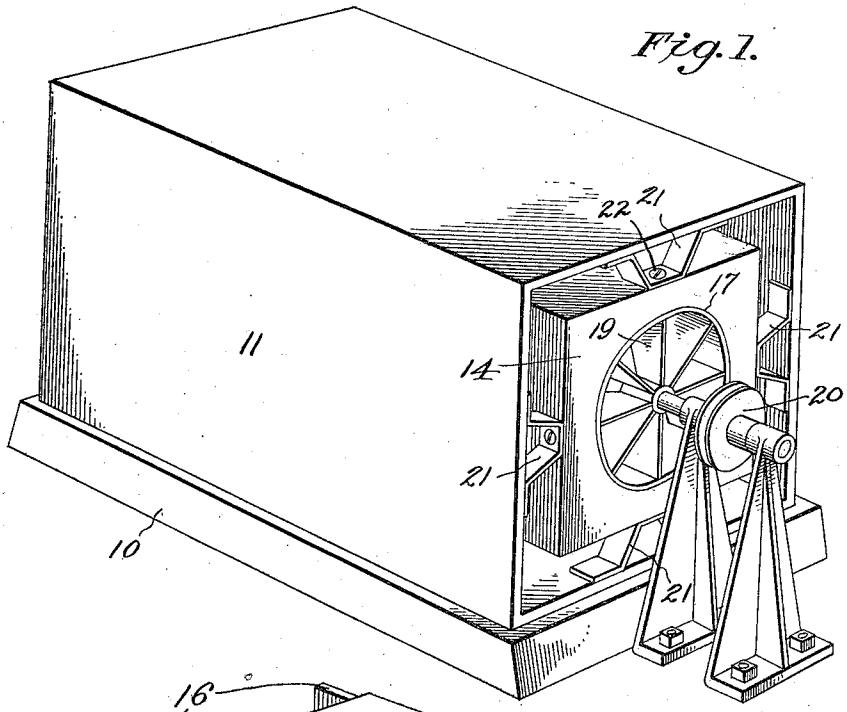
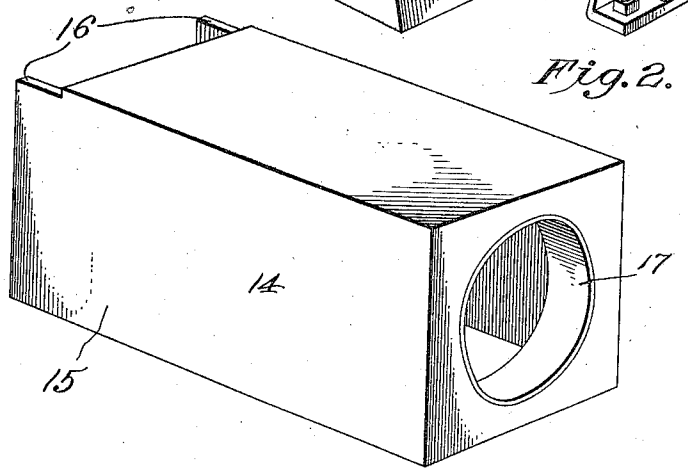



Fig. 2.




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2 Sheets-Sheet 2

Fig. 3.

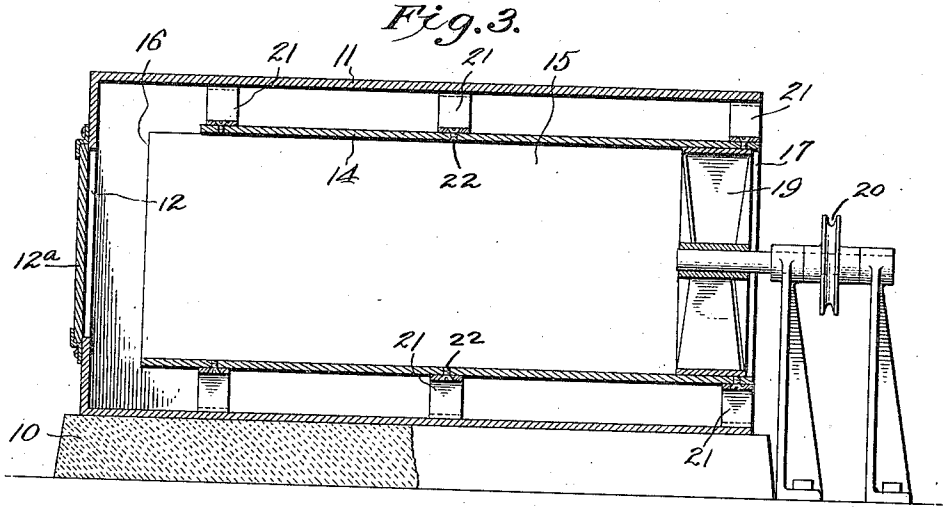



Fig. 4.

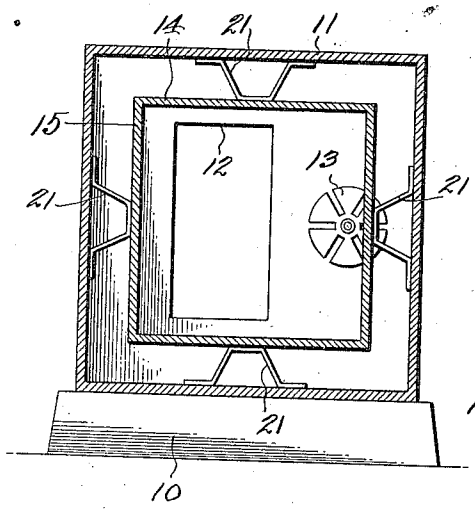
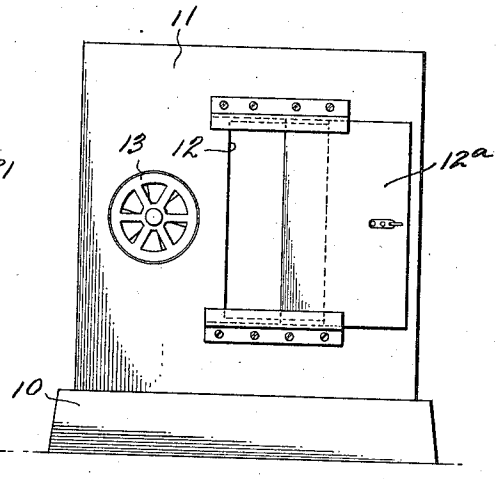



Fig. 5.




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# UNITED STATES PATENT OFFICE.

GIOVANNI IANIERI, OF PHILADELPHIA, PENNSYLVANIA.

## DRYING MACHINE.

Application filed January 27, 1922. Serial No. 532,308.

*To all whom it may concern:*

Be it known that I, GIOVANNI IANIERI, a subject of the King of Italy, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Drying Machines, of which the following is a specification.

This invention relates to drying machines, particularly to devices for drying macaroni, and has for its object the provision of a machine of this character which is of novel formation and which is provided with novel ventilating means whereby to provide suction through the device which will operate to carry away all the moisture evaporating from the macaroni with the view of thoroughly drying the material in a short time and in a highly efficient manner.

An important and more specific object is the provision of a drying machine of this character which includes an outer casing and an inner casing removably associated therewith and arranged in spaced relation thereto whereby to define a continuous chamber through which circulation may be produced by means of a suction fan whereby to insure proper drying action.

An additional object is the provision of a device of this character which will be simple and inexpensive in manufacture, highly efficient in use, positive in action, durable in service and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which,

Figure 1 is a perspective view of the complete device.

Figure 2 is a perspective view of the inner member removed.

Figure 3 is a longitudinal sectional view.

Figure 4 is a cross-sectional view and

Figure 5 is a rear elevation.

Referring more particularly to the drawings the numeral 10 designates a suitable foundation which may be brick work, concrete, cement or the like and which supports the entire device. Mounted upon the foundation 10 is a rectangular outer casing 11 which has its rear end wall provided with an opening 12 with which is associated a sliding door 12[a] and which is for a purpose to be described. The rear wall is provided with a small ventilator 13 which is capable of regulation and which is provided for the purpose of permitting passage of air. The forward end of this casing 11 is entirely open as clearly indicated.

Disposed within this outer casing 11 is an inner casing 14 which is likewise rectangular in shape and which has its side walls 15 extending rearwardly beyond the top to provide projecting flanges 16 as clearly disclosed. By this construction it will be seen that when the inner member 14 is in position within the outer casing there will be provided a vertical passage at the rear end of the inner member. It is likewise to be observed that the walls of the inner member are spaced from the walls of the outer member at all points so as to provide a continuous chamber between the outer and inner casings or members. It is to be understood that the macaroni to be dried is placed within the inner casing 14 and supported therein in the usual manner or by any other preferred means. The door opening 12 permits filling and emptying of the inner casing. The forward end of the inner casing 14 is formed with a circular opening 17 within which is mounted a ventilator fan 19 having its shaft provided with a pulley 20 adapted to be driven by a belt from any suitable source of power. The fan 19 of course includes a plurality of blades of the usual shape whereby to exert a blowing action when rotation occurs.

It is of course apparent that any one of a wide variety of means might be employed for supporting the inner casing within the outer casing though in actual practice I prefer to make use of a plurality of brackets 21 which are clearly disclosed in Figure 1 and which engage the inner faces of the sides, top and bottom of the outer casing and which are connected with the inner casing 14 as by means of screws 22. There may be any desired number of brackets and it is of course necessary that a plurality should be employed in order to support the inner member in spaced relation to the walls of the outer casing.

Assuming that the device has been constructed and assembled as above described, the operation is as follows; the macaroni or spaghetti to be dried is passed through the door opening 12 into the inner casing

and the door is then closed. When the fan 19 is rotated by means of whatever power device is provided, it is apparent that there will be a powerful suction created which will operate to draw in the air through the ventilator 13 in the rear wall of the casing and cause this air to pass around through the inner casing 14 in contact with the macaroni or spaghetti and this will naturally result in effecting a rapid drying action. It is also apparent that air will be drawn in at the front end of the casing between the inner member and the outer shell and will pass through the space between these two members and then be drawn through the open rear end of the inner member so as to pass in contact with the macaroni or spaghetti. By adjusting the ventilator 13 and by varying the speed of the fan 19 it is apparent that the degree of suction and flow of air may be readily controlled to meet various conditions.

Owing to the simplicity of the construction and the fewness of the parts it is apparent that there is practically nothing to get out of order and the device should consequently have an extremely long life and efficiently perform all the functions for which it is intended.

While I have shown and described the preferred embodiment of the invention, it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A device of the character described comprising an outer casing, an inner casing disposed in said outer casing in spaced relation to the walls thereof, said outer casing being provided with air inlet openings, the forward end of the inner casing being formed with an opening, and suction producing means within said last named opening.

2. A device of the character described comprising an outer casing, an inner casing disposed in said outer casing in spaced relation to the walls thereof, said outer casing being provided with air inlet openings, the forward end of the inner casing being formed with an opening, and suction producing means within said last named opening, said suction means consisting of a ventilator fan and means for rotating the same.

3. A device of the character described comprising an outer casing open at one end and having its other end provided with air inlet openings, means for regulating the passage of air through said inlet openings, an inner casing disposed within said outer casing in spaced relation to the walls thereof and having its rear end open and its forward end provided with a large opening, and a rotary ventilator fan mounted in said large opening.

4. A device of the character described comprising an outer casing open at one end and having its other end provided with air inlet openings, means for regulating the passage of air through said inlet openings, an inner casing disposed within said outer casing in spaced relation to the walls thereof and having its rear end open and its forward end provided with a large opening, and a rotary ventilator fan mounted in said large opening, the sides of the inner casing extending beyond the top thereof whereby to define a vertical air passage.

5. A device of the character described comprising an outer casing open at one end and having its other end provided with a ventilator, means for regulating the passage of air through said ventilator, an inner casing disposed within said outer casing in spaced relation to the walls thereof and having its rear end open and its forward end provided with a large opening, and a rotary ventilator fan mounted in said large opening, and a plurality of brackets secured upon the outer faces of the top, bottom and sides of the inner casing and supporting said inner casing in spaced relation to said outer walls.

In testimony whereof I affix my signature.

GIOVANNI IANIERI.