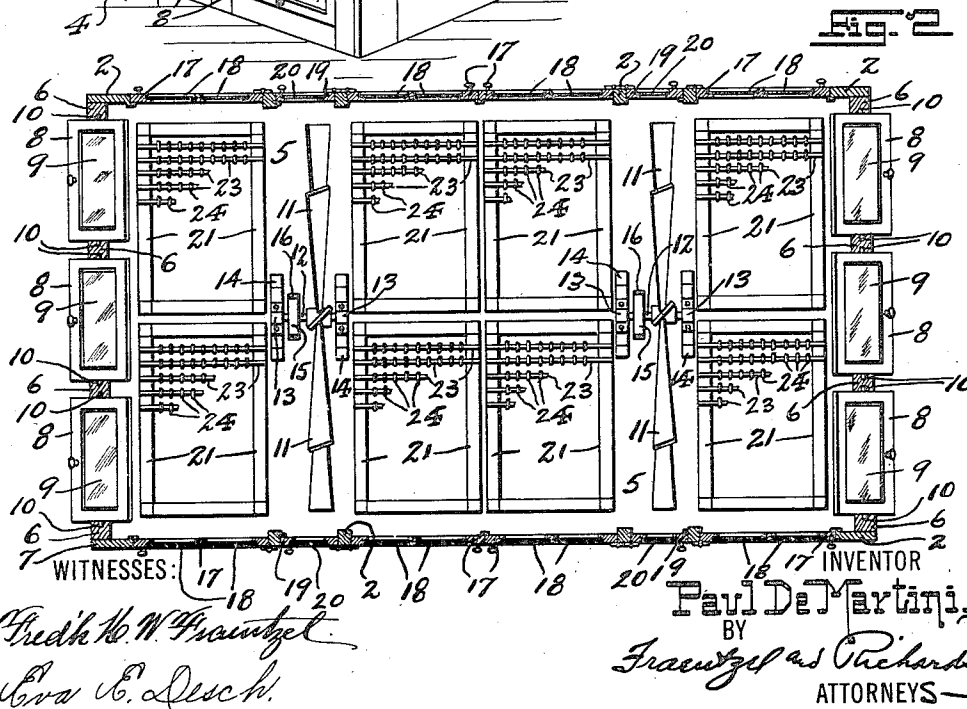


1,276,500.

Fig. 1

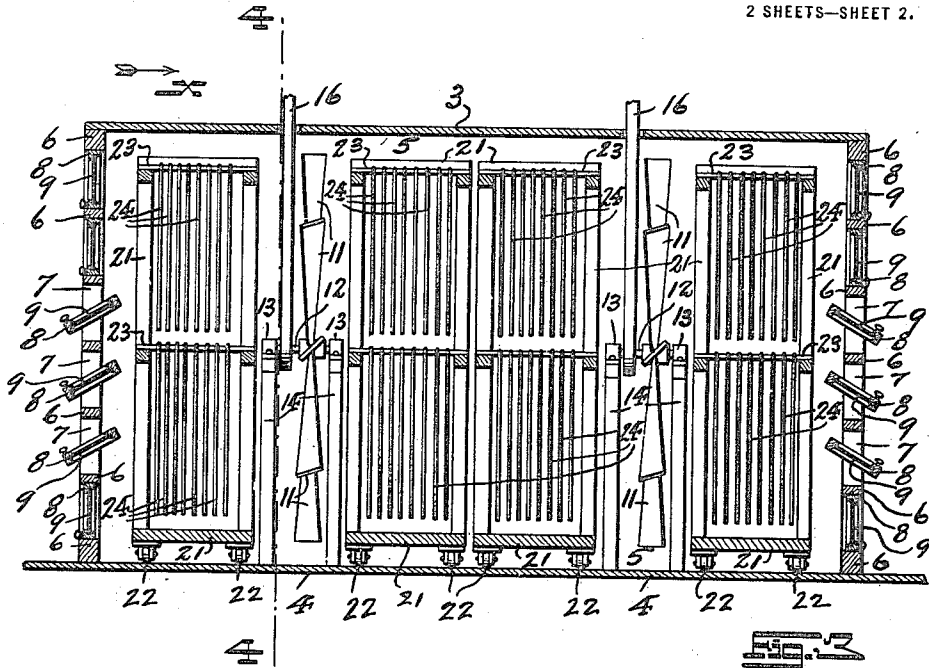
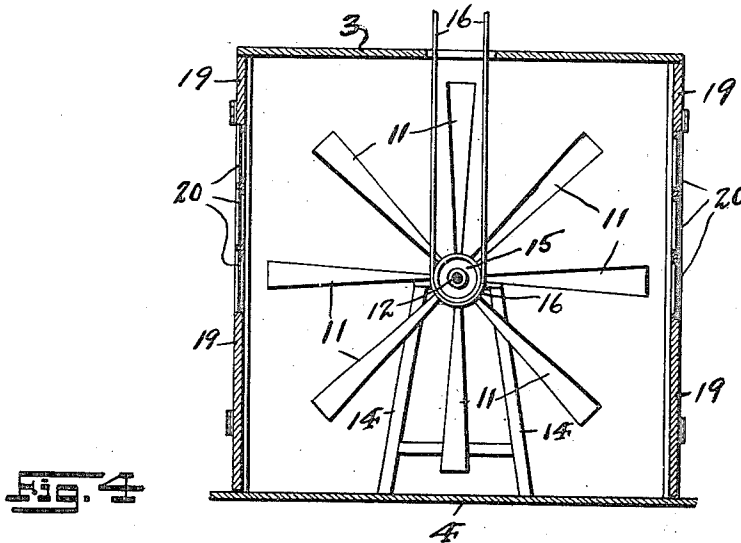


P. DE MARTINI.
DRIER FOR ALIMENTARY PASTE.
APPLICATION FILED JAN. 15, 1918.

1,276,500.

Patented Aug. 20, 1918.

2 SHEETS—SHEET 2.



WITNESSES:
Fredk H. W. Frautzel
Eva E. Desch

INVENTOR
Paul DeMartini
BY
Frautzel & Richards
ATTORNEYS—

UNITED STATES PATENT OFFICE.

PAUL DE MARTINI, OF JAMAICA, NEW YORK.

DRIER FOR ALIMENTARY PASTE.

1,276,500.

Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed January 15, 1918. Serial No. 211,929.

To all whom it may concern:

Be it known that I, PAUL DE MARTINI, a citizen of the United States, residing at Jamaica, in the county of Queens and State of New York, have invented certain new and useful Improvements in Driers for Alimentary Paste; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The present invention has reference, generally, to drying apparatus for alimentary paste; and the invention relates, more particularly, to an improved construction of apparatus for drying and seasoning macaroni, spaghetti, noodles, and other paste products, expeditiously and under highly efficient sanitary conditions.

The invention has for its principal object to provide a novel drying apparatus provided with means for both controlling and directing air currents against the material to be dried, and admitting light into the drying compartment, whereby a sanitary condition is maintained within the same, rendering the interior of the compartment and the macaroni or other alimentary paste stored therein for drying, little liable to attacks of germ growths which are so prone to propagate themselves in dark places.

Another object of the present invention is to provide in a novel compartment drying apparatus of the kind above mentioned, means giving ready access therein for the storing and removing of the material therein; and also means for circulating the air admitted therein through the novel air controlling and directing means.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

With the various objects of my present invention in view the same consists, primarily, in the novel construction and arrangement of compartment drying apparatus for alimentary paste products hereinafter set forth; and the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts,

as well as in the details of the construction of the same, all of which will be hereinafter more fully described, and then finally embodied in the claims appended to this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of the exterior of the novel compartment drying apparatus made according to and embodying the principles of my present invention; Fig. 2 is a horizontal section through the same looking downward; Fig. 3 is a vertical longitudinal section through the same; and Fig. 4 is a vertical cross section through the same taken on line 4—4 in said Fig. 3, looking in the direction of the arrow *x*.

Similar characters of reference are employed in all of the hereinafter described views, to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the complete novel construction of compartment drying apparatus for alimentary paste products made according to and embodying the principles of my present invention, the same comprising side walls 2, roof or ceiling 3, and floor 4, all providing an inclosed compartment 5, the ends of which are closed by my novel air and light-admission and controlling means to be subsequently described.

The novel construction of regulatable air and light controlling and admission means arranged at each end of said compartment 5 comprises a suitable frame-work or supporting structure 6, which divides said ends of the compartment into a plurality of rectangular openings 7.

Arranged within each opening 7 is a pivoted laterally extending sash-frame 8 having a transparent panel 9 of glass or other light transmitting material. Each sash-frame is centrally pivoted by fulcrum pins 10 to the frame work 6 so as to mount said sash-frames and their light admitting panels in said openings 7 in such a manner that by turning the same upon their fulcrum pins they may be individually opened or closed to any desired degree and inclination to cause the same to both regulate the amount of air admitted through said openings 7, and also direct the same in desired currents or paths through the interior of the compartment, while the transparent panels admit light at all times to the said interior of the

compartment. The openings 7, and the sash-frames supported therein, may be made of any desired area or size, and consequently may be increased or decreased in number within the entire area to be closed thereby, as may be desired, or as may seem most convenient and suitable to the location and size of the novel drying apparatus.

Located within said compartment 5, so as to rotate in a transverse vertical plane therein, are one or more air circulating or driving fans 11, the shafts 12 of which are journaled in bearings 13 secured upon suitable supporting structures or standards 14. Said fans may be driven by any suitable means from a source of power either within or without the compartment 5, although, as illustrated, the same are shown driven by a pulley 15 mounted on the shaft 12, over which runs a driving belt 16, extending exteriorly of said compartment 5 to some suitable power generating or transmission means. The fans thus mounted are capable of rotation in either direction.

The spaces at either side of the fan or fans 11 are provided to receive the paste supporting racks upon which the product to be dried is supported in the presence of the light and air admitted to the interior of the compartment, and to the drying influence of the air as circulated or moved through said compartment by said fan or fans.

Arranged in the side walls 2 of said compartment opposite the location of each fan 11 therein are doors 19 having light admitting panels 20, which doors may be utilized for gaining admission to the interior of the compartment at points where the fans are located. In like manner said side walls 2 are further provided with wider doors 17 having light admitting panels 18 located opposite the spaces of the compartment devoted to the storage racks for the products to be dried, so that the product may be properly taken into and removed from the interior of said compartment therethrough. While in the drawings I have shown said doors 17 and 19 in both side walls of said compartment, if desired, they may be omitted in one side thereof.

The most convenient form of rack for the support of the product to be dried comprises a movable rack 21 mounted on rollers or casters 22. These racks may be loaded with the material to be dried exteriorly of the compartment 5, and then wheeled into the same through a door 17, and subsequently, when the product is properly dried, wheeled out again and unloaded. The said racks 21 may be adapted to support the cross-rods 23 from which long paste 24 such as macaroni or spaghetti may be suspended (as shown), or they may be adapted to support trays into which short or cut paste is spread for drying, as illustrated in Fig. 6 of the

drawings in Letters Patent #1,237,874, heretofore issued to me, and dated August 21st, 1917.

In operating my novel drying apparatus the racks 21 are loaded and then rolled through the open doors 17 into proper position on either side of the fans 11, and the doors 17 closed. The sash-frames 8 are opened in the desired numbers and positions to admit the air. The sash-frames are set at the desired angles to direct the air currents and distribute the same so that the air is brought into contact with all portions of the supported product on the racks, and then the fans 11 are set in motion to keep the air currents moving through the compartment. Since the sash-frames 8 and the doors 17 and 19 are all provided with light admitting panels, the interior of the drying compartment is thus open to the admission of plenty of light with the air, consequently, the sanitary condition of the compartment is greatly improved, and the presence of the light is greatly discouraging to the propagation of injurious germ life within the compartment or in contact with the product stored therein for drying. At the same time, by thus rendering the interior of the compartment light at all times the presence of any dirt or other unsanitary condition is readily detected, so that prompt measures may be adapted to remove the same, and thus forestall any detrimental effects due thereto.

The fans 11 exert a pulling and propelling action on the air within the compartment, so that fresh air passes through the opened spaces 7 of the compartment and out of the opened spaces 7 at the opposite end. In this manner a direct continuously flowing and constantly renewed current of air is passed in contact with the product to be dried, the force of the air being broken by the inclination of the opened sash-frames 8 admitting the air through said openings 7, so that a not too violent draft or current of air is set in motion, which would tend to shatter or break the suspended product with consequent waste or loss. The inclination of the sash-frames also tends to so deflect the incoming air from a too straight path of movement, and thereby tends to force the same with proper distributive effect into contact with the entire mass of paste product supported by the racks, and in this manner, said sash frames with their transparent panels, serve substantially the same purpose, and are an improvement upon the louver board construction of my earlier Letters Patent #1,237,874, dated August 21st, 1917.

The said sash-frames 8 and their panels also lend themselves to individual or group adjustment, so that the deleterious effect of too rapid drying of the product, due to ex-

cess of air at any given location, may be quickly checked, by regulating and adjusting the several sash-frames, much in the same manner as already described in my earlier patent above mentioned.

I am aware that some changes may be made in the arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, without departing from the scope of my present invention as set forth in the foregoing specification, and as defined in the appended claims. Hence, I do not limit my invention to the exact arrangements and combinations of the several devices and parts as described in the foregoing specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

I claim:—

1. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, and regulatable air admission and controlling means at each end of said compartment, said air admission and controlling means having transparent means admitting light into the interior of said compartment.

2. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, regulatable air admission and controlling means at each end of said compartment, said air admission and controlling means having transparent means admitting light into the interior of said compartment, and a side wall of said compartment having doors provided with transparent light admitting panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment.

3. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, regulatable air admission and controlling means at each end of said compartment, said air admission and controlling means having transparent means admitting light into the interior of said compartment, a side wall of said compartment having doors provided with transparent light ad-

mitting panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment, and additional doors provided with transparent light admitting panels providing means of entrance and exit to the fan occupying spaces of said compartment.

4. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, a plurality of regulatable air admission and controlling means at each end of said compartment, said means in totality being substantially coextensive with the area of the ends of said compartment, and said means comprising a plurality of transversely pivoted sash-members, independently movable, and provided with transparent panels admitting light into the interior of said compartment.

5. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, a plurality of regulatable air admission and controlling means at each end of said compartment, said means in totality being substantially coextensive with the area of the ends of said compartment, said means comprising a plurality of transversely pivoted sash-members, independently movable, and provided with transparent panels admitting light into the interior of said compartment, and a side wall of said compartment having doors provided with transparent light admitting panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment.

6. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there-through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, a plurality of regulatable air admission and controlling means at each end of said compartment, said means in totality being substantially coextensive with the area of the ends of said compartment, said means comprising a plurality of transversely pivoted sash-members, independently movable, and provided with transparent panels admitting light into the interior of said compartment, a side wall of said compartment having doors provided with transparent light admitting panels, said doors providing means of entrance and exit to the rack occupying

spaces of said compartment, and additional doors provided with transparent light admitting panels providing means of entrance and exit to the fan occupying spaces of said 5 compartment.

7. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for supporting material in exposure to air passed there- 10 through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, a frame-work at each end of said compartment providing a plurality of 15 openings, a sash-frame transversely pivoted in each opening, each sash-frame being independently movable and adjustable in its opening to admit and direct the flow of air through the latter, and each sash-frame hav- 20 ing a transparent panel admitting light into the interior of said compartment.

8. In a device of the kind described, a main compartment, transverse racks spaced apart within said compartment for support- 25 ing material in exposure to air passed there- through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a transverse plane, a frame-work at each end of 30 said compartment providing a plurality of openings, a sash-frame transversely pivoted in each opening, each sash-frame being independently movable and adjustable in its opening to admit and direct the flow of air 35 through the latter, each sash-frame having a transparent panel admitting light into the interior of said compartment, and a side wall of said compartment having doors provided with transparent light admitting 40 panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment.

9. In a device of the kind described, a main compartment, transverse racks spaced 45 apart within said compartment for supporting material in exposure to air passed there- through, a rotary fan situated in the intermediate space between adjacent racks, said fan being adapted to be rotated in a trans- 50 verse plane, a frame-work at each end of said compartment providing a plurality of openings, a sash-frame transversely pivoted

in each opening, each sash-frame being inde- 55 pendently movable and adjustable in its opening to admit and direct the flow of air through the latter, each sash-frame having a transparent panel admitting light into the interior of said compartment, and a side wall of said compartment having doors pro- 60 vided with transparent light admitting panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment, and additional doors provided with transparent light admitting 65 panels providing means of entrance and exit to the fan occupying spaces of said compartment.

10. In a device of the kind described, a main compartment, transverse racks within 70 said compartment for supporting material in exposure to air passed therethrough, a frame-work at each end of said compartment providing a plurality of openings, a sash-frame transversely pivoted in each 75 opening, each sash-frame being independently movable and adjustable in its opening to admit and direct the flow of air through the latter, and each sash-frame hav- 80 ing a transparent panel admitting light into the interior of said compartment.

11. In a device of the kind described, a main compartment, transverse racks within 85 said compartment for supporting material in exposure to air passed therethrough, a frame-work at each end of said compartment providing a plurality of openings, a sash- 90 frame transversely pivoted in each opening, each sash-frame being independently movable and adjustable in its opening to admit and direct the flow of air through the latter, 95 each sash-frame having a transparent panel admitting light into the interior of said compartment and a side wall of said compartment having doors provided with trans- 100 parent light admitting panels, said doors providing means of entrance and exit to the rack occupying spaces of said compartment.

In testimony that I claim the invention set forth above I have hereunto set my hand this 9th day of January, 1918.

PAUL DE MARTINI.

Witnesses:

GEORGE D. RICHARDS,
ADOLPH HANSEN.