W. O. STODDARD.

MACHINERY FOR DESICCATING EGGS.

No. 184,188. Patented Nov. 7, 1876.

Fig. 2

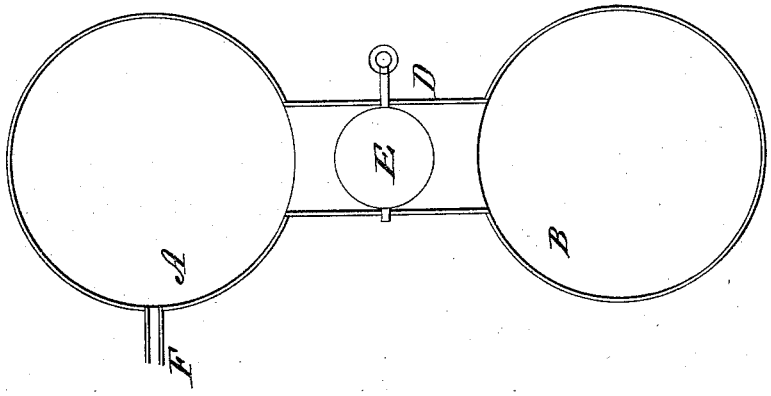
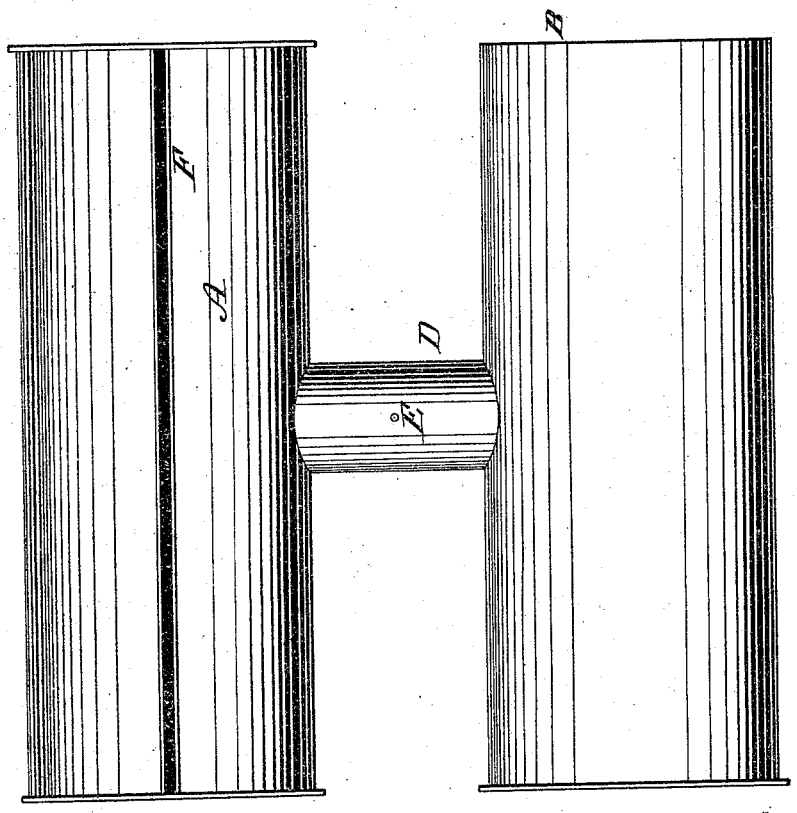



Fig. 1




Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM O. STODDARD, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN EGG COMPANY, OF SAME PLACE.

## IMPROVEMENT IN MACHINERY FOR DESICCATING EGGS.

Specification forming part of Letters Patent No. **184,188**, dated November 7, 1876; application filed March 31, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM O. STODDARD, of the city of New York, in the county of New York and State of New York, have invented a certain new and useful improvement in machinery for applying blasts of air in the desiccation of eggs and for other purposes; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a front elevation of an apparatus embodying my improvements. Fig. 2 is a vertical transverse section therough same.

Whenever, in machinery used for the application of a blast or blasts, current or currents, of air, heated or otherwise, any such blast or current is to be applied or delivered through a longitudinal slot, mouth, or flattened pipe, it is desirable that such delivery or application should be approximately uniform and even throughout the extent of each such slot, mouth, or flattened pipe. Should the machinery indicated be of any considerable extent, its several parts or sections, or more or less distinct machines, will, of necessity, be placed at varying distances from the blower or other agency employed in causing or propelling the moving column of air to be utilized; and yet it is desirable, in various manufactures, that the currents or blasts of air should be of approximately uniform force and efficiency at the point of their delivery or application.

To obtain the results thus set forth, and in a simple and inexpensive manner, is the object of my invention.

I employ for this purpose, and for each separate set of sections or parts, or more or less distinct pieces of machinery, a main air tube, pipe, or conduit, as B, Figs. 1 and 2, into and through which the air is forced or caused to flow by any of the ordinary and known methods or machinery. At suitable points on this main tube, pipe, or conduit, as D, Figs. 1 and 2, I construct and open from it subsidiary feeding-pipes, as shown, proportioned in size to that of the main pipe, and to the volume and force of air required and attainable, and these subsidiary feeding-pipes lead to and open into separate and independent air chambers or reservoirs, as A, Figs. 1 and 2. The several subsidiary feeding-pipes opened from any one main air tube, pipe, or conduit should be approximately uniform in size, both as to length and diameter, in order to secure uniformity of force at the point of application or delivery of the blasts or currents of air. I have found the cylindrical form best adapted for the construction of the air chambers or reservoirs, and I regulate and control the force and volume of the current of air passing through any subsidiary feeding-pipe by means of a simple cock or valve, as E, Figs. 1 and 2. Each air chamber or reservoir is provided with a slot or slots, mouth or mouths, as F, Figs. 1 and 2, for the delivery and application of the supply of air for the purposes indicated. Each and every such air chamber or reservoir should be, in its least diameter, not less than double the least diameter of the subsidiary feeding-pipe D, by which it is supplied. Where the shape of the machinery used permits the use of the cylindrical shape in the construction of any such air chamber or reservoir, for the purposes indicated, the slot or slots, mouth or mouths, should be opened on lines parallel to the axis of such cylinder, and, if more than one, nearly equally distant from the center of the mouth of the subsidiary feeding-pipe D. The air contained in the air chamber or reservoir A being of approximately uniform density and a perfect fluid, the pressure of the current or blast entering through the subsidiary feeding-pipe D is at once communicated to the entire volume, and to every part of the air so contained, and the expulsion or escape of the same through the slots or mouths F becomes approximately uniform and even throughout the entire extent of said slots or mouths, and throughout the extent of any flattened pipe or pipes attached to them, for the purposes indicated.

I claim as my invention—

1. The improved apparatus for effecting an even, uniform, and equal delivery of a blast or blasts of air, consisting essentially of the main reservoir or chest B, supply pipe or

pipes D, and the receiving and delivery reservoir A, having one or more elongated discharge-openings, F, extending lengthwise of the axis of said reservoir, substantially as described.

2. In combination with the main air reservoir or chest B and the subsidiary feeding pipe or pipes D, having controlling-valve E, the receiving and delivery reservoir A, consisting of a horizontal cylinder of elongated form, having a discharge opening or aperture, F, of narrow elongated shape, parallel with the axis of said cylinder, and adapted to the discharge of air from the interior of the latter, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of March, 1876.

WILLIAM O. STODDARD.

Witnesses:

LUCIEN BIRDSEYE,

BENJ. H. BAYLISS.