

Neubauer & Adelman,

Drying Glue,

No 24,325,

Patented June 7, 1859.

Fig. 1

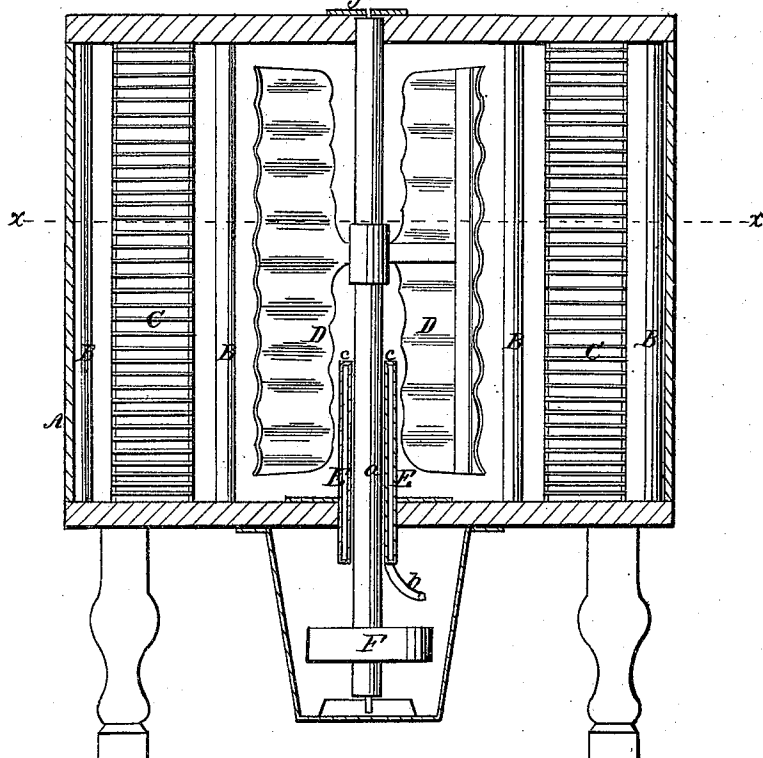
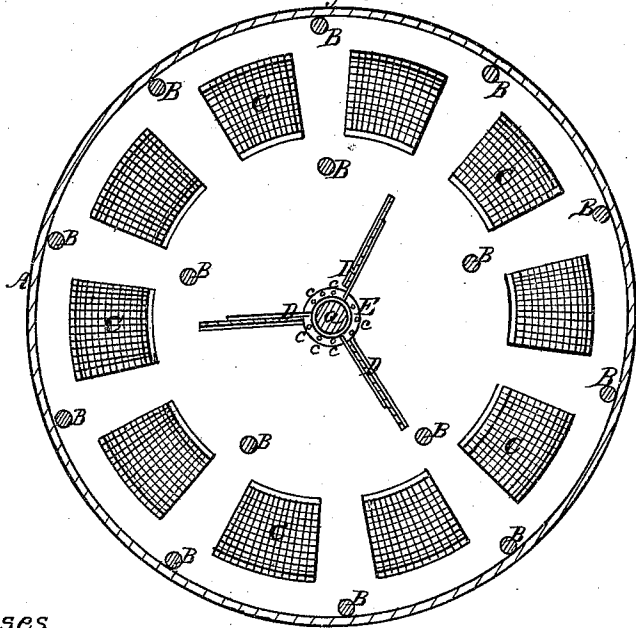


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

M. NEUBAUER AND P. ADELMANN, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR DRYING GLUE.

Specification forming part of Letters Patent No. 24,325, dated June 7, 1859.

To all whom it may concern:

Be it known that we, M. NEUBAUER and P. ADELMANN, both of the city, county, and State of New York, have invented a new and Improved Apparatus for Drying Glue; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a vertical central section of our invention. Fig. 2 is a horizontal section of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate corresponding parts in the two figures.

The object of our invention is to obviate a serious difficulty now existing in the manufacture of glue—namely, the length of time necessary for drying the same, even under the most favorable circumstances, a large amount of glue being spoiled by the influence of the weather during the drying operation; and our invention consists in arranging the nettings on which the cakes are placed for the purpose of drying in a circular or polygonal chamber, in the center of which a fan-blower is placed to which air of the required temperature and dryness is conducted by means of a tube which surrounds the vertical arbor of the blower, so that the air is equally divided over the cakes of glue on the nettings, and the glue may thus be dried irrespective of season, temperature, or weather, and in a much shorter time than it can be accomplished by the present mode of drying it.

To enable others skilled in the art to make and apply our invention, we will proceed to describe it.

A is a chamber, the size of which depends on the amount of glue which it is expected to dry in a certain time, and which may be made round or in a polygonal form, perfectly closed with the exception of the door, through which access must be had to the chamber in order to introduce the glue and to take the same when dried out of the chamber. Two series of columns B divide the chamber in two separate spaces, the inside space being reserved for the fan-blower, and the outside space between the columns serving to receive the nettings on which the cakes are placed as they come from the forms.

C represents the nettings, which ought to

be of such a size that a passage may be left between them and the columns on each side, and they are placed one on the top of the other from bottom to top of the chamber. Room enough is left between the several layers to insure a free passage of the air, and the nettings are placed far enough apart to leave room for the workmen to pass freely between the same. The width of the space between the columns, and in fact the size of the chamber, may be accommodated to the size of the nettings already in use for drying glue, and the nettings in common use for drying glue serve for our apparatus, so that no additional expense is required, with the exception of the cost of the chamber and its appendages.

Arranged in the center of the chamber, on a vertical arbor *a*, is the fan-blower D, having wings which extend nearly from top to bottom of the chamber, and these wings may either be corrugated, as represented in the drawings, or they may be made plain. We prefer, however, the former plan, as the air is more effectually distributed by the aid of the corrugations in the wings. The arbor *a* of the fan-blower extends through a tube E, which has double walls and to which air of the proper temperature is conducted by a pipe *b*, which escapes to the wings of the blower by the openings *c* in the top of the tube E. The arbor *a* of the blower extends far enough down to receive a driving-pulley F, and motion is conveyed to the same from some suitable source, and the arbor must be extended through the top of the chamber into a second chamber, if such a one be required, and a second fan-blower may thus be attached to the same arbor and operated by the same pulley.

The operation is as follows: The nettings are fitted with the cakes in the usual manner, and they are placed one on the top of the other and in several rows into the chamber, as above described, and the chamber is closed. One or more openings may be left in the walls of the chamber, if required, for the better circulation of the air, and the blower is now set in motion. The air conducted to the blower by means of the pipe *b* and tube E is heated to a temperature of about 70° by passing the same through a furnace or by some other means, and it is thus freely circulated over

the cakes by the action of the blower, and while at present it takes from five to six days to dry glue under the most favorable circumstances, by the aid of our apparatus the same result can be obtained in from twelve to fifteen hours, and the state of the weather or the temperature in the open air never interrupt the operations.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The arrangement of a chamber of circular

or polygonal form which is provided with a fan-blower or its equivalent, to which air of the proper temperature is conducted by means of a pipe *b* and tube *E* for the purpose of drying the cakes of glue, substantially as described.

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Witnesses:

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