

P. COOPER.

PLATES FOR DESICCATING EGGS.

No. 172,611.

Patented Jan. 25, 1876.

Fig: 1

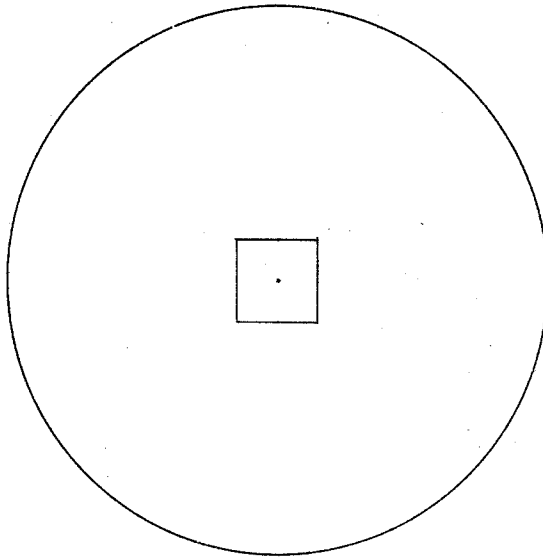
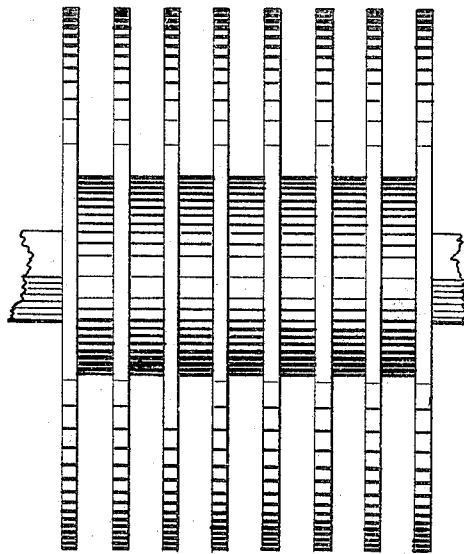


Fig: 2



Witnesses.

Archer Richards

Wm H Jones

Inventor.

Peter Cooper,

by David A Burr

Att'y.

UNITED STATES PATENT OFFICE.

PETER COOPER, OF NEW YORK, ASSIGNOR TO CHARLES A. LA MONT, OF
TURNER'S, N. Y.

IMPROVEMENT IN PLATES FOR DESICCATING EGGS.

Specification forming part of Letters Patent No. **172,611**, dated January 25, 1876; application filed
February 18, 1875.

To all whom it may concern :

Be it known that I, PETER COOPER, of the city and State of New York, have invented an Improvement in Apparatus for the Desiccation of Eggs, &c., of which the following is a specification :

My invention relates to an improvement in the construction of that class of apparatus for the desiccation of eggs, glue, and similar fluid or semi-fluid substances, wherein a film of the liquid egg or glue is taken up upon a revolving plate, and dried thereon by exposure to a current of heated air, until it can be removed in the form of hard thin scales or flakes. It has been found, in practical operation, extremely difficult to obtain a pure and merchantable article of desiccated egg upon suspended and revolving metallic plates, of sufficient thickness to admit of being scraped and cleaned by machinery, because of the chemical action of the fluid egg upon the metal, which produces a decomposition, and consequent discoloration, of the egg; and, moreover, it has been likewise found impossible to dry either eggs or glue upon such plates, when revolving, in sufficient quantity, with sufficient rapidity, to render the process profitable, because of the extreme tenuity of the film obtained thereon at a single dipping. Hence, in practical use, desiccating-machines containing revolving metallic dipping-plates have proved unavailable for the preservation of egg and glue for commercial purposes, and experimental tests with plates made of porcelain, glass, and other materials presenting a hard, smooth, and highly-polished surface, as a substitute for metal, have resulted in establishing the inutility thereof also for such purpose.

The object of my invention is overcome the difficulties mentioned, and to render the processes of La Mont, Guenther, and others of practical benefit to the public.

It consists in the employment of revolving disks or plates of suitably-prepared talc or slate in any of its varieties, or, as an equivalent, of properly-tempered, molded, and baked clay, as a medium for taking up and retaining the liquid egg or glue until it has been dried by a current of heated air, produced and

introduced into the desiccating apparatus in any suitable manner. By means thereof I obtain a desiccating-surface of precisely the quality needed for a thoroughly practical suspended revolving plate—viz., of sufficient roughness to take up a comparatively large volume of the liquid egg or glue at each dipping, and yet smooth enough to permit a ready detachment therefrom of the dried film, while at the same time entire purity and healthfulness of the egg product thus obtained at a low cost of manufacture is secured.

In the accompanying drawings, Figure 1 is a plan view of a desiccating-disk; and Fig. 2 is a section of a dipping-shaft, illustrating one manner of arranging the desiccating-disks thereon.

In manufacturing these improved desiccating disks or plates from slate, it is only needful to take the rough slabs as delivered from the quarry, and dress and polish the same into plates of suitable thickness—viz., a thickness of about one-half of an inch for a disk thirty-six inches in diameter. The surface thereof should be left perfectly smooth and true, and yet without high polish. The form of the plate is to be adapted to the description of machine in which it is to be used. For the La Mont apparatus they are cut into circular form, (see Fig. 1,) and a central aperture is formed therein to receive the supporting-shaft, by which they are made to revolve. In manufacturing them from clay, the clay is first properly tempered, as for the manufacture of fire-brick, and then molded into plates or disks of the required dimensions, but of a thickness somewhat greater than in a plate made of slate. These slabs are then baked or burned in a suitable kiln, at such a temperature as shall thoroughly harden and temper them without glazing the surface thereof, so that they shall remain hard and perfectly smooth, and yet to a certain degree porous. Where they are to be placed upon a central shaft the central aperture is formed in each disk in the process of molding, so that the plates, when baked, are ready for use. In using these improved disks of slate or unglazed earthenware upon a revolving shaft, a packing of canvas, felt, or other elastic material is

interposed between the several disks or their intermediate collars, (see Fig. 2,) and also between each disk and the shaft upon which it revolves.

I claim as my invention—

As an improvement in the art of desiccating eggs, glue, &c., a revolving non-metallic mineral plate or disk, formed with unglazed tena-

cious surfaces, adapted to collect and retain in their revolution the liquid film for desiccation, substantially as herein set forth.

PETER COOPER.

Witnesses:

S. R. GOODALE,
DAVID LAUGHLIN.