E. B. AYRES.

APPARATUS FOR DRYING CLAY BODIES.

APPLICATION FILED JUNE 1, 1920.

1,429,997

Patented Sept. 26, 1922

Fig. 1.

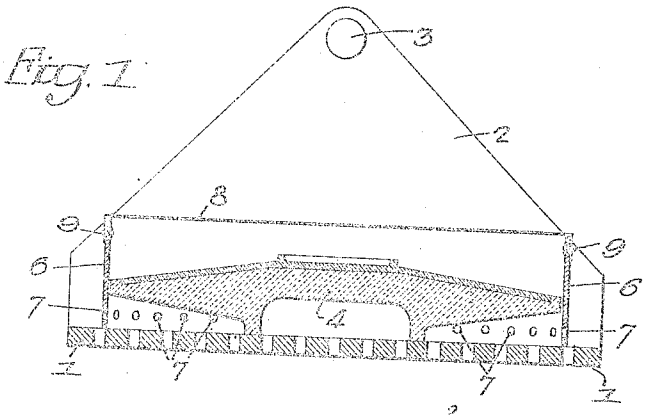


Fig. 2.

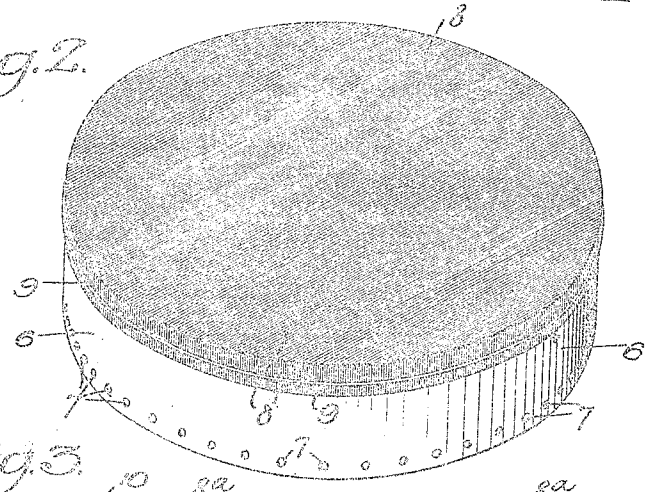


Fig. 3.

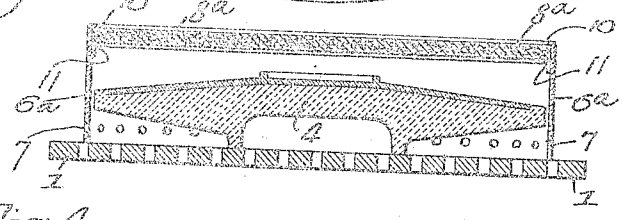
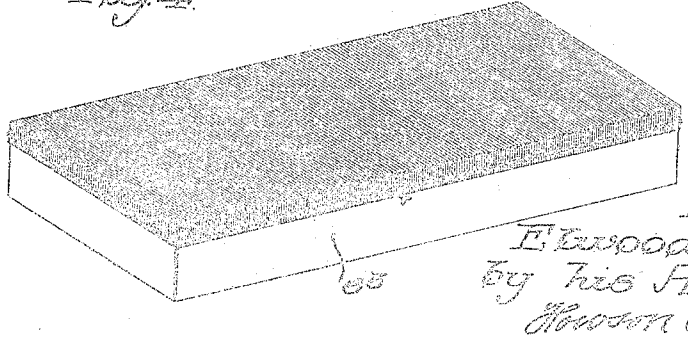


Fig 4.



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UNITED STATES PATENT OFFICE.

ELWOOD B. AYRES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO PROCTOR & SCHWARTZ, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

APPARATUS FOR DRYING CLAY BODIES.

Application filed June 1, 1920. Serial No. 385,563.

To all whom it may concern:

Be it known that I, ELWOOD B. AYRES, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Apparatus for Drying Clay Bodies, of which the following is a specification.

My invention relates to certain improvements in apparatus for drying clay bodies, particularly those of a delicate nature prior to their insertion in a kiln.

The object of the invention is to provide means for protecting the clay article as it is being dried and to improve its quality and to prevent, to a certain extent, discoloration, cracking and warping.

These objects I attain in the following manner, reference being had to the accompanying drawings, in which:

Fig. 1 is a sectional view of a tray of a drying machine, illustrating my improvement;

Fig. 2 is a perspective view of the cover used in connection with the tray to enclose the article to be dried;

Fig. 3 is a sectional view illustrating a modification; and

Fig. 4 is a perspective view illustrating a cover arranged to enclose a number of articles.

My invention is based on the application for patent filed by Joseph L. Buckley on the twenty-sixth day of May, 1920, under Serial No. 384,427.

The primary object of my invention is to substitute a cloth, or felt, covering for the cover section of plaster Paris, or equivalent described in the above application.

The invention can be used with any of the ordinary trays, or it can be used in connection with a drying apparatus in which the trays are carried by an endless conveyer.

Referring to the drawings, 1 is a tray, in the present instance, having side members 2 suspended from a pivot pin 3 of a conveyer, not shown. The tray is preferably perforated, as illustrated in Fig. 1, and mounted on the tray is a plaster Paris mold 4 on which the clay article has been formed, as shown in Fig. 1, the clay article, in the present instance, being a plate. 6 is a ring made of sheet metal, in the present instance, and having a series of perforations 7 near its edge. This is preferably of such a size as to have a comparatively neat fit around the mold 4. In some cases, packing may be provided between the mold and the sheet metal ring. Secured to the upper surface of the ring is a cover 8 of cloth, which is fastened to the ring by a wire band 9, the sheet metal ring preferably being recessed at the upper edge to receive this band.

In Fig. 3, I have illustrated a modification in which heavy felt 8^a is used instead of the cloth of Fig. 1. The ring 6^a is made with a flange 10 and the felt is clamped to this flange by an angle iron 11 riveted to the main ring 6^a, as shown.

In Fig. 1, the casing consists of the ring, and the cloth section is designed to cover a single article, but the casing may be made as shown in Fig. 4, to cover a number of articles, if found desirable. A rectangular frame 6^b of metal, or other suitable material, is provided and the cloth, or felt, cover is stretched over this frame and is secured thereto in any suitable manner.

I find that when the article and the mold on which the article is formed are placed on a tray without any covering means, the article is liable to crack and warp and to discolor. Furthermore, dirt is apt to settle on the damp article. By the use of the cloth covering, I prevent dirt settling on the article and also prevent to a certain extent, the cracking and warping of the article, the result being that a better article is produced than where it is not enclosed.

Where felt is used, or a heavy cloth, it has a tendency to draw moisture away from the upper surface of the damp article and the plaster Paris mold draws the dampness from the under side of the article. The heated air in circulation carries the moisture from the exposed surfaces of the mold and the cloth.

I claim:

1. The combination in apparatus for drying clay bodies, of a tray for holding a mold and the body, which is formed thereon; and a casing mounted on the tray and

enclosing the mold and body to be dried, said casing having a section of absorbing fibrous material located in close proximity to the body being dried.

2. The combination in apparatus for drying clay bodies while in a mold, of a perforated tray for holding the mold and the clay body, which is formed thereon; a ring enclosing the mold and clay body; and a cloth cover secured to the upper portion of the ring and extending in close proximity to the clay body being dried.

ELWOOD B. AYRES.