

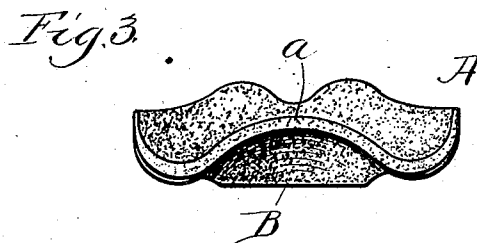
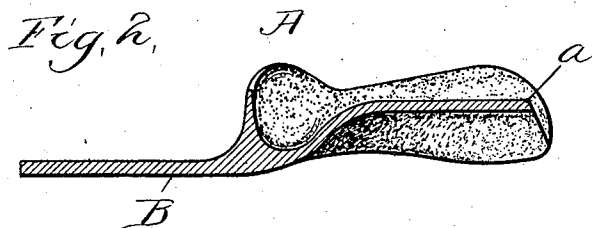
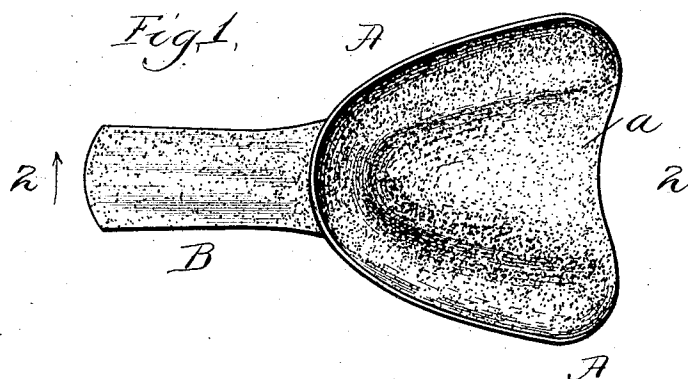
No. 650,350.

Patented May 22, 1900.

L. A. BLOCK.
DENTAL IMPRESSION TRAY.

(Application filed Oct. 16, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS A. BLOCK, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO ROSS C. GRAHAM, OF SAME PLACE.

DENTAL IMPRESSION-TRAY.

SPECIFICATION forming part of Letters Patent No. 650,350, dated May 22, 1900.

Application filed October 16, 1899. Serial No. 733,706. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. BLOCK, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Dental Impression-Trays, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to that class of dental impression-trays which are used in the formation of molds or mouth-impressions of plastic material, such as plaster-of-paris; and its object is to provide a cheap, convenient, and sanitary tray.

The invention consists in making the tray of a material that is readily soluble in water, a suitable bonding agent being used, as also a fibrous material for reducing its frangibility, all as fully hereinafter described.

In the accompanying drawings, Figure 1 represents a plan view of an upper tray. Fig. 2 is a longitudinal section of the same, and Fig. 3 is a front elevation of the same.

I have deemed it necessary to show only one form of tray, for the reason that the invention resides not in the particular shape of the article, but in the manufacture of a material having a distinctive characteristic.

The lower tray will of course be formed with the usual central recess for the accommodation of the tongue of the patient.

The tray consists of a body portion A, having a U-shaped depression adapted to receive a mass of plastic material, within which an impression of the upper jaw of the patient may be formed. The central portion of the tray shown in the drawings is provided with a strengthening-web *a*, and to the rearward end of the tray is secured a stem B, preferably of the same material as the body. The article is made of any plastic granular material intermixed with a fibrous material, a suitable bonding agent, such as glue, being used to cause them to cohere.

In practice I have made the tray of a mixture of plastic and fibrous material, such as a chalk, pipe-clay being employed, and Manila fiber, bonded with any suitable cement, such as glue. I do not limit myself to any particular material, as any granular material may be used as a base which will readily soften

when moistened with water, and any fibrous material may be employed which will reduce the frangibility of the tray when dry.

Dental trays have heretofore usually been made of metal. When so made, they are heavy and cumbersome, and it is very difficult to keep them clean. A decided disadvantage in their use is that they are permanent in their character and are used successively in the mouths of a large number of patients, and hence are unsanitary. Furthermore, not infrequently the material does not firmly adhere to the surface of the tray, so that in attempting to withdraw it from the mouth it may leave the mold and adhere to the jaw, to the great inconvenience of both the operator and the patient and sometimes resulting in the destruction of the mold. Again, the mold frequently adheres too tenaciously to the metal tray, and in attempting to loosen it therefrom it is broken, necessitating the making of a new mold, consuming the time of the operator and greatly increasing the discomfort of the patient.

In use the inner surface of the tray forming the subject of this application softens as soon as the wet plaster comes into contact with it sufficiently so that as the plaster sets it adheres firmly to the tray, enabling the operator to withdraw the tray and mold easily from the patient's mouth. As soon as the mold is sufficiently set it is immersed in water and the tray quickly softens, so that it may be readily peeled from the plaster. Of course the tray is thus necessarily destroyed in the using.

The cost of manufacture of such trays is so slight that they may be economically used notwithstanding the fact that they perish in the using, and it is obvious that from a sanitary point of view they possess great superiority over the trays now in use.

I claim as my invention—

As an article of manufacture, a dental impression-tray formed of a mixture of absorbent granular material and fiber and a bonding agent.

LOUIS A. BLOCK.

Witnesses:

PAUL CARPENTER,
LOUIS K. GILLSON.