UNITED STATES PATENT OFFICE.

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DENTAL INVESTMENT-CUP.

1,013,028.


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To all whom it may concern:

Be it known that I, THACKER E. LEE, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Dental Investment-Cups, of which the following is a specification.

The present invention relates to certain novel and useful improvements in dental cups or flasks, and has particular application to a device of the class described designed to be used by the dentist in doing bridge-work.

It is usually the practice for the dentist when working upon a bridge to bend a piece of wire or wire gauze to the shape suitable for the work in hand, the wire or gauze so shaped forming a mold or receptacle for the plastic mass or investment material in which the teeth are embedded during the backing and fusing process. The formation of these crude, temporary receptacles occupies considerable time and labor on the part of the dentist.

One of the objects of my invention is to provide a flask or cup which will take the place of the mold above referred to, and which may be instantly placed in use when desired, without entailing any work on the part of the dentist in forming the same, thereby achieving a considerable saving of time and labor.

A still further object of my invention is to provide a dental flask embodying in its construction the desired features of simplicity, durability and strength, and it is also my purpose to provide an article of the class referred to which will be found convenient and efficient in use, and which may be manufactured and marketed at a relatively low cost.

With the above recited objects and others of a similar nature in view, my invention consists in the construction, combination and arrangement of parts set forth in and forming the scope of the appended claims.

In the accompanying drawing—Figure 1 is a top plan view of a flask or cup embodying my invention. Fig. 2 is a vertical sectional view, taken on the line 2—2 of Fig. 1. Fig. 3 is a view, partly in elevation and partly in section and showing the bell or cover for my flask. Fig. 4 is a plan view of a modified form of cup or flask. Fig. 5 is a sectional view of another modification of flask. Fig. 6 is a view of still another modification in the form of a band or ring.

Fig. 7 is a perspective view of the flask shown in Figs. 1, 2 and 3, illustrating the manner of employing the invention in working upon a tooth bridge.

Referring now to the accompanying drawings in detail, and particularly to Figs. 1, 2 and 3 thereof, the numeral 1 designates the body portion of a preferred form of my flask or cup, said body portion in this instance being approximately elliptical in horizontal cross section and is formed of any suitable refractory material. Where I have in this specification and in any of the claims used the expression "refractory material", I wish it to be understood that I employ this term to mean and include any suitable heat resisting material, such as asbestos, cement, fire clay or a metal such as copper, iron, brass, sheet metal or the like. This cup or flask which is of any suitable size and proportion is formed with a suitable number of perforations 2 of any desired shape and size for the purpose of allowing the steam and heat to pass from the investing material, as is hereinafter described. The upper longitudinal edges of the cup or flask are preferably cut away or curved as is shown at 3.

The numeral 4 indicates a bell or cover 55 for the cup or flask and this bell is also formed of any suitable material and is provided with suitable perforations 3, for the escape of steam or heat from the investing material. At the top of the bell, I provide a ring or eye 6 by means of which the bell may be raised with a small pair of pliers or other suitable tool.

In Fig. 4, I have shown a slightly modified form of flask; in this case the latter indicated by the numeral 7 being crescent in horizontal cross section and is also provided with suitable perforations 8.

In the further modification shown in Fig. 5, the body of the cup is formed of a wire 100 mesh or gauze, as at 9, the upper edge or rim of the cup body being rolled or turned, as at 10 and is reinforced or stiffened by the wire 11, running through the rolled edge.

The form of flask shown in Fig. 6 is in the nature of a metallic band or ring 12 having the lower edge, or rim tapered or turned inward, as is shown at 13, thus constituting an open flask. This ring or band is also formed of any suitable material, such as sheet metal, wire metal or gauze or the like.
From the above description, taken in connection with the accompanying drawings, the construction and manner of employing my improved flask or cup will be readily apparent to those skilled in the art. When the dentist desires to make a bridge, he selects a flask or cup of the proper size, shape and proportion, and fills the same with a plaster mass or investing material, such as shown at M in Fig. 7. The work W is then embedded in the mass and the backing or solder placed in position and fused in the usual manner, the plastic mass or investing material covering those portions of the work which it is not desired to work on at the time. When the fusing has been completed, the cover may be placed in position and the plastic mass will be not too rapidly cooled by the escape of the vapor, steam and heated air through the perforations in the cover and flask.

My invention will be found exceedingly useful and convenient by dentists as the flasks are always ready for use, and enables the operator to save time and labor in making a mold for the investing material.

While I have shown and described the forms comprising the preferred embodiment of my invention, I wish it to be understood that I do not limit myself to the precise details herein set forth by way of illustration, as modification and variation may be made in the form, proportion and minor details of the invention without departing from the spirit of the invention or exceeding the scope of the appended claims.

Having thus described my invention, I claim:

1. A dental investment cup comprising a body portion of refractory material for containing the investment material and dental work embedded therein, said body portion having vent openings for the escape of heated vapors therefrom.

2. A dental investment cup for containing investment material and the dental work embedded therein, said cup comprising a perforated body portion having curved upper longitudinal edges.

3. A dental investment cup for containing investment material and the dental work embedded therein, said cup comprising a perforated body portion and a perforated cover therefor.

In testimony whereof I affix my signature in presence of two witnesses.

THACKER E. LEE.

Witnesses:

RICHARD B. CAVANAGH,

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