March 23, 1954

W. E. AMBERG

2,672,742

PICKUP HOLDER FOR PAPER CUPS

Filed Sept. 14, 1948

2 Sheets-Sheet 1

Fig. 1

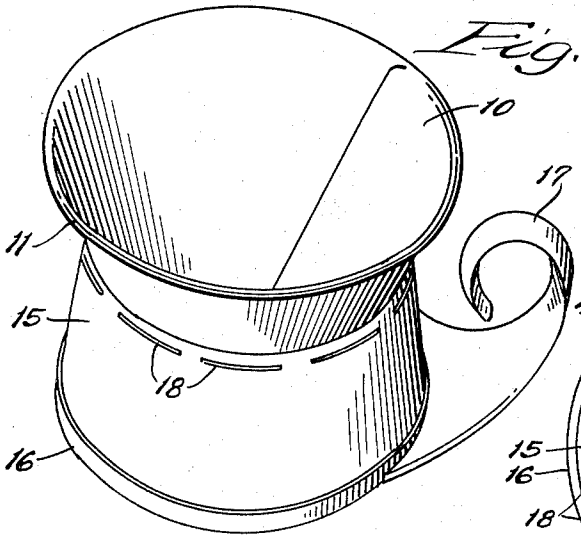


Fig. 2

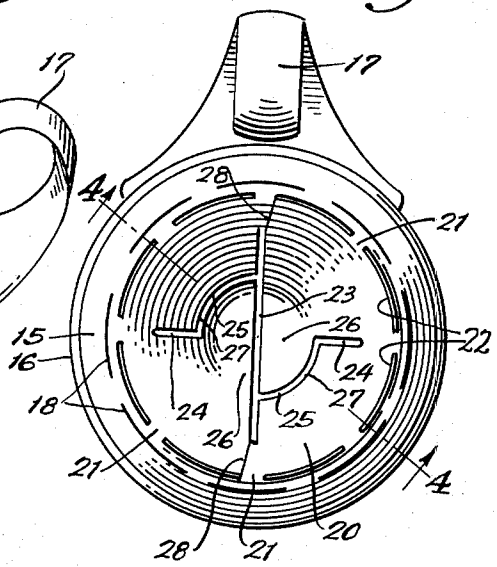


Fig. 3

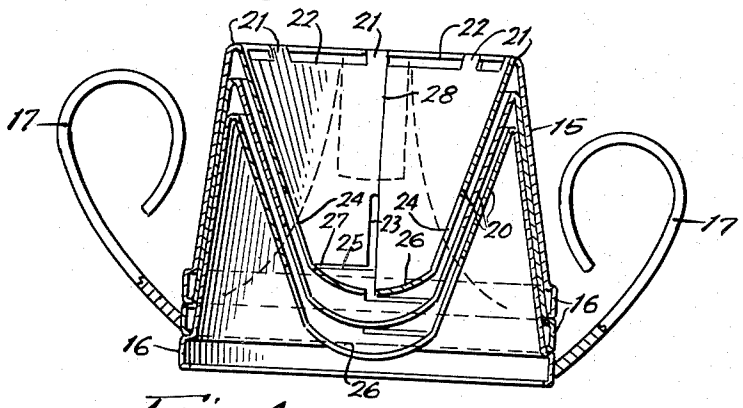
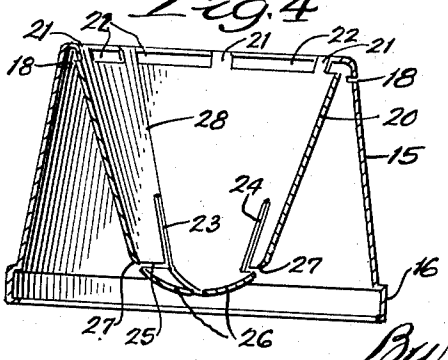


Fig. 4



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2 Sheets-Sheet 2

Fig. 5

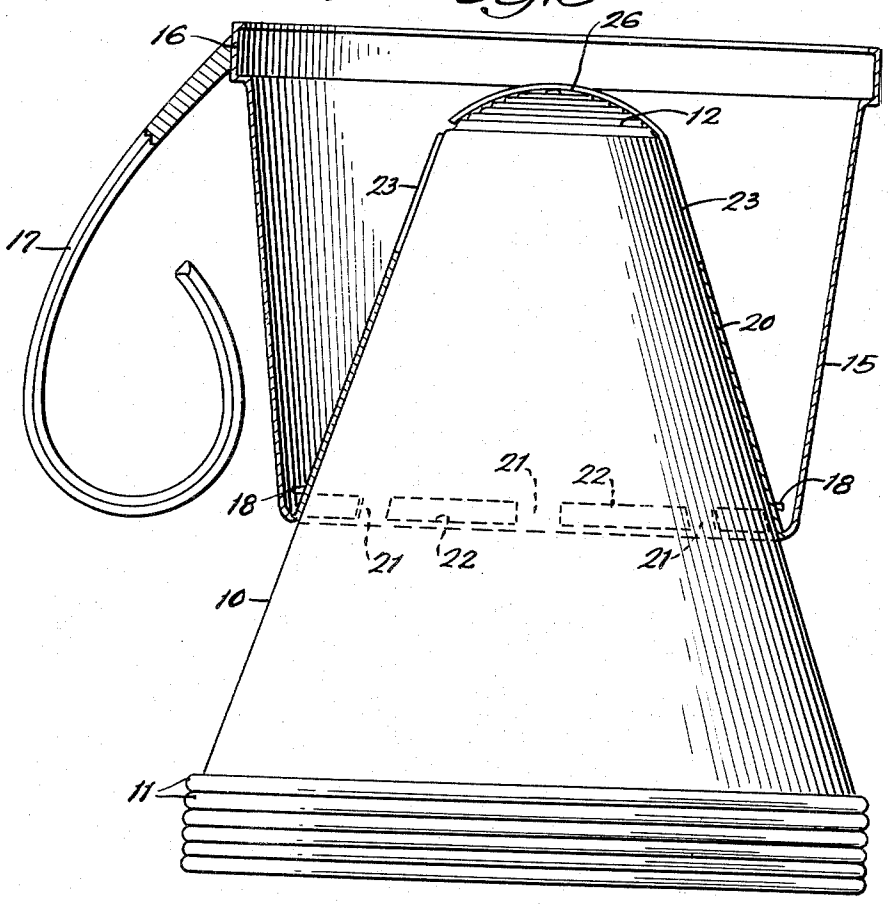
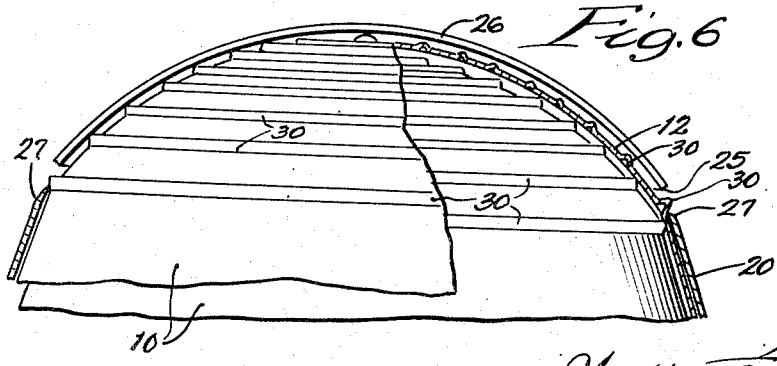


Fig. 6



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PICKUP HOLDER FOR PAPER CUPS

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4 Claims. (Cl. 65—61)

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This invention is directed to a pickup holder for paper cups and more particularly to a pickup holder for paper cups adapted to contain hot liquids, such as coffee.

A rounded bottom conical paper cup, such as disclosed and claimed in my co-pending application Ser. No. 789,608 filed December 4, 1947, now Patent No. 2,473,840 granted June 21, 1949, is particularly adaptable for hot liquids, such as coffee, wherein sugar and cream may be readily mixed with a spoon by reason of the rounded bottom feature thereof. Such paper cups may be readily nested or stacked for storage purposes thus rendering them particularly adaptable for fountain and counter use.

The principal object of this invention is to provide an improved pickup holder for paper cups adapted to contain hot liquids, such as the aforementioned rounded bottom conical paper cups, wherein a paper cup may be automatically picked up from a stack of paper cups by the pickup holder, wherein the rounded bottom of the rounded bottom conical paper cup may be firmly supported to prevent puncturing thereof, wherein transmission of heat from the hot contents of the paper cup to the outside of the pickup holder is maintained at a minimum, wherein the pickup holders may be readily nested in a stack for convenient fountain and counter use, wherein the pickup holder may be provided with a handle and still not interfere with the nesting of a plurality of such holders in a stack, wherein the pickup holders may be conveniently washed and dried, and wherein the pickup holders may be readily and inexpensively manufactured.

Further objects of this invention reside in the details of construction of the pickup holder and the cooperative relationship between the component parts thereof.

Other objects and advantages of this invention will become apparent to those skilled in the art upon reference to the accompanying specification, claims and drawings in which:

Figure 1 is a perspective view of the pickup holder of this invention with a rounded bottom conical paper cup received therein;

Figure 2 is a top plan view of the pickup holder;

Figure 3 is a vertical sectional view through the pickup holder and illustrating a plurality of pickup holders nested in a stack;

Figure 4 is a vertical sectional view through the pickup holder taken substantially along the line 4—4 of Figure 2;

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Figure 5 is an enlarged sectional view illustrating the pickup holder receiving the outer paper cup of a stack of nested rounded bottom conical paper cups, and

Figure 6 is an enlarged view partly in section illustrating the manner in which the pickup holder automatically grips the outer paper cup of a stack of nested rounded bottom conical paper cups.

The pickup holder of this invention is particularly adaptable for use with rounded bottom conical paper cups such as illustrated at 10 in Figures 1, 5 and 6. Such paper cups include conical side walls preferably provided with rolled rims 11 at the open end thereof and having the closed end thereof rounded as at 12. The rounded bottom 12 of the paper cups may be formed in various ways as disclosed in the aforementioned co-pending application such as by plaiting the apex of a conical paper cup in a series of plaits 30. Such a paper cup has many advantages over a conventional conical paper cup. For example, all substances served therein may be made accessible to a conventional spoon and substances may be readily mixed therein. Thus, the rounded bottom paper cup is particularly adaptable for serving coffee wherein sugar and cream may be readily mixed with a spoon therein. Such paper cups may also be readily nested or stacked for fountain and counter use as is illustrated in Figure 5.

The pickup holder of this invention includes a frusto conical base portion 15 with the small end at the top and the large end at the bottom. The bottom large end of the base portion 15 is preferably provided with an external annular rib 16 for strengthening the same and for providing abutment surfaces whereby a plurality of pickup holders may be readily nested in a stack. A handle 17 may be secured to the external annular rib 16 of the base portion and is preferably maintained spaced from the base portion so as not to interfere with the nesting of a plurality of pickup holders. When a plurality of pickup holders are nested, the handles are circumferentially spaced as illustrated in Figure 3. The top small end of the base portion is preferably provided with a plurality of slots 18 to permit air circulation thereby preventing a suction effect when the cup holder is placed on a supporting surface.

The pickup holder also includes a frusto conical receptacle portion 20 for receiving a rounded bottom conical paper cup. The receptacle portion 20 is preferably located wholly within the

base portion 15 and is supported at its large top end by the small top end of the base portion. In this connection the large top end of the frusto conical receptacle portion 20 is provided with a plurality of ears or strips 21 which are suitably secured to the small top end of the frusto conical base portion 15 as by welding, soldering or the like. The ears or strips 21 therefore provide a plurality of spaces 22 therebetween for the purpose of minimizing heat transfer between the receptacle portion and the base portion.

The bottom small end of the receptacle portion 20 is provided with an elongated radial slot 23, short radial slots 24 and circumferential slots 25 connecting the radial slots 23 and 24 as illustrated in Figure 2. The bottom part of the receptacle portion 20 is bent inwardly at 26 to form a concave surface conforming to the contour of the rounded bottom 12 of the rounded bottom conical paper cup for firmly supporting the same when received in the pickup holder. This concave supporting surface prevents rupturing of the rounded bottom of the paper cup. The edges of the receptacle portion adjacent the circumferential slots 25 are preferably bent inwardly as at 27 to form resilient gripping fingers for automatically gripping the rounded bottom conical paper cup adjacent the rounded bottom thereof as is illustrated in Figure 6. The radial slots 23 and 24 permit the resilient gripping fingers to flex and thereby resiliently grip the paper cup. The receptacle portion 20 is made of resilient sheet metal so that the gripping fingers formed therein are resilient.

The frusto conical receptacle portion 20, the concave supporting surfaces 26 thereof and the resilient gripping fingers 27 may be formed in a number of different manners as by punching and drawing either in one piece or in two pieces. As illustrated in the drawings, the receptacle portion is preferably made in two halves suitably joined together at 28 as by welding, soldering or the like.

In use the pickup holders of this invention may be nested in a stack as illustrated in Figure 3. The top pickup holder may then be removed from the stack and placed over the outer paper cup of a stack of nested rounded bottom conical paper cups as illustrated in Figure 5. The resilient gripping fingers 27 resiliently engage the outer paper cup of the stack of paper cups adjacent the rounded bottom thereof as illustrated in Figure 6 whereby the outer paper cup is firmly gripped by the pickup holder. When the pickup holder is raised, the outer paper cup is carried along with it and the paper cup may then be filled with a suitable liquid such as coffee. The concave supporting surface supports the rounded bottom of the paper cup and effectively prevents puncturing of the same when a spoon is utilized for mixing sugar and cream in the coffee. Since the receptacle portion 20 is carried within the base portion 15 by the fingers 21, the transfer of heat from the hot contents of the paper cup to the base portion 15 is effectively minimized. Thus, the base portion 15 of the pickup holder may be firmly grasped without danger of being burned by the hot contents within the paper cup. Likewise since the handle 17 is secured to the bottom of the base portion 15 transfer of heat to the handle 17 is maintained at a minimum.

After use the paper cup may be readily removed from the pickup holder by pulling the same therefrom since it is resiliently held in the pickup holder by the resilient gripping fingers 27. The pickup holder may be readily washed and dried and regardless of whether the pickup holder stands upside down or right side up water may readily drain therefrom. If the pickup holder stands right side up water may drain through the slots 23, 24 and 25 and if the pickup holder is upside down water may readily drain through the slots 18 and 22.

While for purposes of illustration one form of this invention has been disclosed, other forms thereof may become apparent to those skilled in the art upon reference to this disclosure, and therefore, this invention is to be limited only by the scope of the appended claims.

I claim as my invention:

1. A pickup holder for a rounded bottom conical paper cup comprising, a holder having a base portion and a frustoconical receptacle portion for receiving a rounded bottom conical paper cup, the bottom small end of the frustoconical receptacle portion being formed inwardly to provide a concave surface for supporting the rounded bottom of the rounded bottom conical paper cup and being slotted above and adjacent the concave surface to provide resilient gripping fingers adjacent the concave surface, said resilient gripping fingers having inwardly extending edges for automatically gripping the conical paper cup adjacent the rounded bottom thereof when a rounded bottom conical paper cup is received in the holder.

2. A pickup holder for a rounded bottom conical paper cup comprising, a holder having a base portion and a frustoconical receptacle portion for receiving a rounded bottom conical paper cup, the bottom small end of the frustoconical receptacle portion being formed inwardly to provide a concave surface for supporting the rounded bottom of the rounded bottom conical paper cup and being provided with radial and circumferential slots above and adjacent the concave surface to provide resilient gripping fingers adjacent the concave surface, said resilient gripping fingers having inwardly extending edges for automatically gripping the conical paper cup adjacent the rounded bottom thereof when a rounded bottom conical paper cup is received in the holder.

3. A pickup holder for a rounded bottom conical paper cup comprising, a hollow frustoconical base portion, a frustoconical receptacle portion for receiving the rounded bottom conical paper cup, strips connecting the large top end of the receptacle portion to the small top end of the base portion for supporting the receptacle portion in the base portion, the arrangement being such that a plurality of said holders may be nested in a stack, and the bottom small end of the receptacle portion being formed inwardly to provide a concave surface for supporting the rounded bottom of the rounded bottom conical paper cup and being slotted above and adjacent the concave surface to provide resilient gripping fingers adjacent the concave surface, said resilient gripping fingers having inwardly extending edges for automatically gripping the conical paper cup adjacent the rounded bottom thereof when a rounded bottom conical paper cup is received in the holder.

4. A pickup holder for a rounded bottom conical paper cup comprising, a hollow frustoconical base portion open at its bottom, a frustoconical receptacle portion for receiving the rounded bottom conical paper cup and supported at its large

top end by the small top end of the base portion and located within the base portion, the arrangement being such that a plurality of said holders may be nested in a stack, a concave bottom on the receptacle portion for supporting the rounded bottom of the rounded bottom conical paper cup, and resilient gripping fingers in the frusto-conical receptacle portion adjacent the concave bottom having inwardly extending edges for automatically gripping the conical paper cup adjacent the rounded bottom thereof when a rounded bottom conical paper cup is received in the holder.

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