April 8, 1924. 1,489,698

D. F. CURTIN

CLAMP FOR LINERS FOR SANITARY CUPS

Filed Jan. 27, 1921

Fig. 1

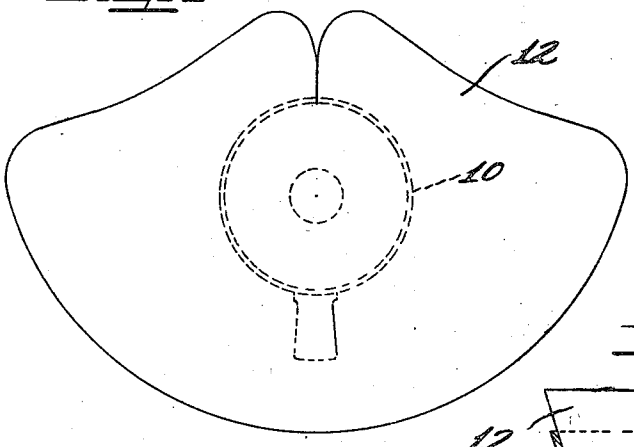


Fig. 2

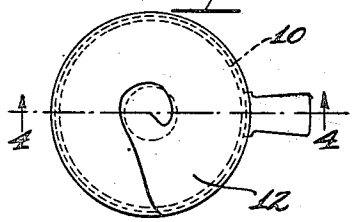


Fig. 4

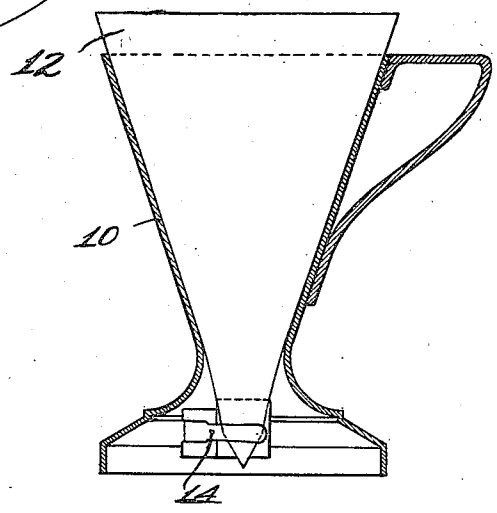


Fig. 3

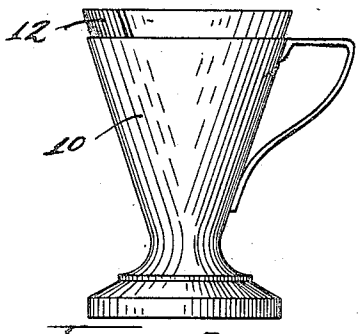


Fig. 5

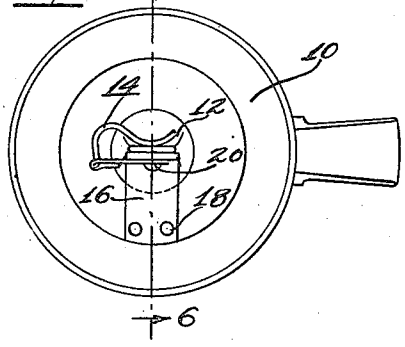
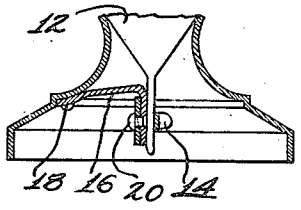


Fig. 6



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID F. CURTIN, OF CHICAGO, ILLINOIS.

CLAMP FOR LINERS FOR SANITARY CUPS.

Application filed January 27, 1921. Serial No. 440,313.

To all whom it may concern:

Be it known that I, DAVID F. CURTIN, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Clamp for Liners for Sanitary Cups; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to improvements in sanitary cups adapted for the purpose of serving and dispensing sodas and like beverages and has for its object the provision of a metallic or rigid holder which is adapted to retain in position a liner or cup which is composed of paraffined paper or other like collapsible material. These cups are adapted to be inserted in the form of cones into such rigid holders and this invention particularly relates to clamping means for such liners as are not made to shape or held together by glue or other adhesive, the construction of such a liner being shown in my copending application for United States Letters Patent entitled "Liner for sanitary soda holders," filed January 3, 1921, Serial No. 434,446. In the application as aforesaid the cup liner is composed of a blank formed of paraffin coated paper or the like and is adapted to be inserted into a conical holder, when it will thereupon assume a conical shape to conform to the interior of the holder and it will closely fit therein so as to hold any contained liquid without danger of leakage, no adhesive being used in the construction or assembling of the cup. In the use of these liners the natural resiliency of the paper or other material will tend to force the same upward out of the conical holder after it has been inserted therein, especially if a liquid be not immediately placed in the cup.

The particular object of this invention is the provision of a clamping means adapted to be connected to the holder which will positively retain a liner in position in the same and without the necessity of immediately placing therein a beverage or the like to hold the cup from springing upwardly.

Another object of this invention is the provision of a clamp adapted to be attached to a holder for liners for sanitary cups and which will act positively at all times and which will not interfere with the use of the holder in any manner and which moreover will be invisible and therefore inconspicuous.

A further object of this invention is the provision of a clamping means for liners for sanitary cups which can be readily applied to a cup or holder while in the process of manufacture and which is also adapted to be put on holders already in use with a minimum of trouble and expense and which further will be easy of manufacture and simple in its operation.

Another and further important object of the invention is the provision of such a clamping means which will be adapted to be used with any style or size of liner or holder, and which will moreover tend to reinforce the apex or lowermost portion of the cup or liner when formed into conical shape, this portion naturally being the part most liable to puncture and leakage.

Other and further important objects of this invention will be apparent from the disclosures in the accompanying drawings and specification.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 represents a top plan view of an improved liner adapted to be held in position in a holder by the retaining means of this invention, and the figure shows the liner as originally applied to a cup or holder before being inserted therein, the cup or holder being indicated in dotted lines.

Figure 2 is a top plan view of the cup and liner after the liner has been inserted into the cup, and showing it as held in position by the clamping means.

Figure 3 is a side elevation of the assembled cup and liner, the top plan of which is shown in Figure 2.

Figure 4 is a sectional view showing the method of application of the clamp to the apex of the liner, taken on the line 4—4 of Figure 2.

Figure 5 is a bottom plan view of the

assembled holder and liner showing the clamp in its operative position.

Figure 6 is a partial sectional view taken on the line 6—6 of Figure 5.

As shown on the drawings:

The reference numeral 10 indicates a metallic cup or holder of interior conical shape such as is commonly used in connection with conical paper cups for the dispensing of sodas or other like beverages. In this embodiment of the invention a liner 12 made of paraffined paper or some other suitable material is shown as applied to the cup 10, this liner being of such a shape that upon being inserted into the holder it will assume a conical form and be adapted to hold a beverage therein without any danger of leakage, and without the use of any adhesive to hold the liner together. In order to hold the liner in such a position in the holder before the beverage is inserted therein and prevent the same from springing up out of the holder on account of its natural resiliency, a clamp or retaining means 14 is provided in the form of a clip which is normally spring-held in closed position and which is attached to a bracket 16 extending from the under side of the interior of the base of the holder, being attached thereto by rivets 18 or the like. The plate 16 is attached to the interior of the base of the holder by the rivets 18 and is bent downwardly at its end in such a manner as to have its downwardly projecting portion at about the exact center of the holder. The clip 14 is affixed to this downwardly extending portion by means of a rivet 20 or the like, and, on account of this central positioning, the clip is adapted to engage and hold in position the downwardly extending apex of the cup liner 12 after the same has been inserted into the holder and caused to assume a conical shape.

The operation is as follows:

The liner 12 is inserted into the cup or holder 10 by merely pushing the same downwardly into the holder, and the construction of the liner is such that this insertion is adapted to automatically fit the liner with the interior conical shape of the holder. The upper edge of the liner 12 projects for a short distance above the upper edge of the cup 10, and if the beverage to be used in the cup be not immediately inserted therein there will naturally be some danger of the liner springing up out of position in the holder on account of its natural resiliency. In order to overcome this difficulty, the retaining means 14 is provided and this is readily adapted to engage the liner and hold it in position, being merely opened up into open position when the liner is being inserted into the holder, and after the same has been pushed down into the holder so as to assume a conical shape and correspond with the interior of the holder, the clip 14 is snapped back into normal position thereby gripping the apex of the liner and holding the same in position in the cup, and this action also, by compressing the apex of the cup, renders the same less liable to leakage or to being punctured if a straw or the like is pushed too vigorously against the bottom thereof.

It will be seen that herein is provided a clamp or retaining means for cup liners which will positively hold said liners in position in the cup holder whether the liners are already formed into a conical shape and adapted to fit the holders, having been previously made and held in position by adhesive, or whether the liners are of the shape shown in this application, where they are merely to be placed in the holders and eventually held therein by the weight of the contained liquid. This retaining means will be found to be very useful to hold said liners in the holders especially when a number of cups are about to be filled and the liners cannot all be simultaneously held down in position awaiting the insertion of the beverage thereinto. If desired, a number of the holders 10 may be fitted with the liners 12 and the retaining means 14 snapped into position to hold the liners in place ready for the insertion of beverages into the cups whenever required.

Another advantage of this retaining means is the fact that it is absolutely invisible and constitutes such a retaining means which will not tend to mar the outline of the cup as a whole, and moreover it can be readily operated, as with a little practice the dispenser of the beverages can push the liner into position with one hand and operate the clip with the thumb of the other hand which is holding the holder.

I am aware that many changes may be made and numerous details of construction varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. A retaining means for sanitary cup liners including a bracket adapted to be attached to the interior of the base of the cup, and a spring-pressed clip coacting with said bracket and attached to the end thereof.

2. A retaining means for sanitary cup liners including a bracket adapted to be attached to the interior of the base of the cup, and a spring-pressed clip co-acting with said bracket and attached to the end thereof, said clip being mounted in such a position so as to engage the apex of the liner when formed into cup shape.

3. A sanitary cup including a holder for

a conical cup liner, a bracket secured in said holder, a member secured to said bracket, and a spring pressed member pivoted on the member adapted to grip and pinch the apex of said liner when placed in the holder.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

DAVID F. CURTIN.

Witnesses:
ALBERT J. FIHE,
JAMES M. O'BRIEN.