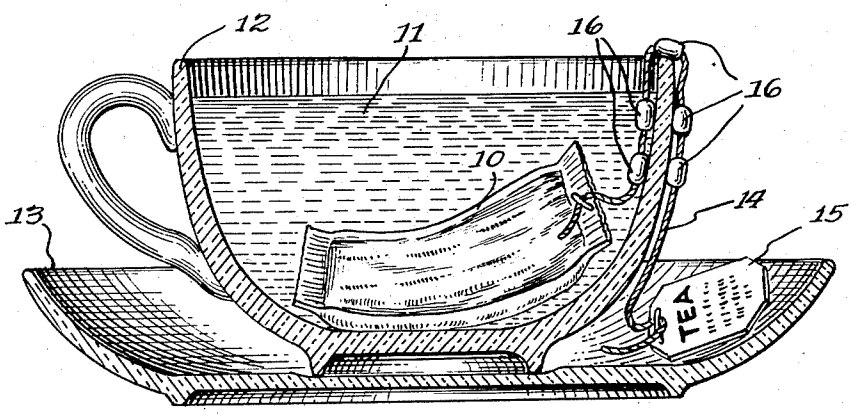
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TEA BAG CONSTRUCTION

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Inventor
Ernest C. Shaw

By Mann, Brown & McWilliams
Attys.

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TEA BAG CONSTRUCTION

Ernest C. Shaw, Flossmoor, Ill., assignor of one-half to Herman E. Krebs, Upper Montclair, N.J.

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This invention relates to infusion bags of the type that includes a string or similar wick-like handling or supporting member.

Infusion bags have become extremely popular for brewing beverages such as tea or coffee directly in each individual drinking cup because of the convenience and cleanliness features which they offer while accommodating a suitably efficient brewing action. These infusion bags are carried by a support or handling string that may be provided with a paperboard display tab that conveniently serves as a handle for use in immersing and removing the bag and to permit of dipping or jiggling the bag for accelerating the brewing or steeping action. There is, however, a pronounced tendency for the handling string of these infusion bags to act as a wick and draw off several drops of the steeping liquid. The liquid is drawn along the string and ultimately deposited on the table or saucer on which the cup is resting. This wicking action is aggravated when the handling string is draped over the wall of the cup so as to lie immediately adjacent thereto and define a capillary flow passage therebetween. The residue of liquid thus deposited in the base of the saucer is a constant annoyance as it must repeatedly be wiped off the bottom edge of the cup. Soiling of tablecloths and clothes frequently results.

The principal object of the invention is to provide a string-like support arrangement for infusion bags that is impermeable to capillary liquid flow.

Another object is to provide a plurality of spacer beads at spaced points along the string-like member to permit of immersing the infusion bag in a cup of liquid with the string material draped over the wall thereof and maintained in adequate clearance therefrom at all times to prevent the establishment of a capillary flow path between the wall and the string.

Other objects and advantages will become apparent during the course of the following description.

The drawing illustrates the improved infusion bag arrangement in its usual association with a cup and saucer, the cup and saucer being shown in section for purposes of illustration.

For purposes of disclosure, the infusion bag **10** is shown immersed in liquid **11** contained within a conventional type of cup **12** that is seated in a conventional saucer **13**.

Such infusion bags are commonly used for brewing beverages such as tea or coffee directly in the drinking cup, and it is customary practice at the present time to utilize a wick-like handling or supporting string **14** that is usually provided with a paperboard display tab **15** for labeling or advertising material, with the tab serving as a handle for the bag.

As noted hereinbefore, there is an observable wicking action produced by the handling string **14** in the presence of the hot water or other liquid and since, as illustrated in the drawing, the string is usually draped over the cup wall to hang down into the saucer, this wicking action results in drawing the liquid from the cup and depositing

it in the saucer, where it adheres to the base of the cup and if it is not properly wiped off each time the cup is raised from the saucer, the liquid will drip onto and soil clothes, tablecloths, etc. A principal factor in this wicking action results from the coaction that exists between the string and the cup wall when they are immediately adjacent or touching.

According to the present invention, it is proposed to eliminate the wicking characteristic of the string by dipping the string into a bath of a suitable film-forming plastic material to impregnate it and fill the minute passages present in the string material to render the same impermeable to capillary liquid flow. After setting, the plastic coating must be stable in boiling water. Many materials having the above characteristics are known to those skilled in the art of plastics. The thus impregnated string is free of internal wicking and, in fact, has less tendency to coact with the wall of the cup in providing a capillary liquid flow path.

In the drawing, there is illustrated a plurality of beads **16** carried on the string at spaced points therealong. The beads may have a diameter on the order of $\frac{1}{16}''$ to act as spacers and maintain a clearance at all times between the string and the cup wall to prevent the establishment of a capillary liquid flow path therebetween. The beads are preferably of a plastic material that is stable in the presence of boiling water and preferably are secured to the string in the form of solid encapsulations that cling to the string in compressing, surrounding engagement therewith so that the beads alone are sufficient to block internal capillary flow paths of the string material. The provision of the bead arrangement completely eliminates any wicking of the liquid in the cup. In this latter instance wherein the beads are tightly compressed around the string, it is not necessary to dip the string in the bath of film-forming material.

Thus it will be seen that the objects of the invention have been accomplished in that an infusion bag arrangement having a wick-like handling string is rendered impermeable to internal capillary liquid flow to prevent the depositing of liquid in the saucer. In addition, the string is prevented from coacting with the cup wall for setting up a capillary flow. These goals are achieved at very low cost, a vital factor, and the arrangement enhances the sales appeal since the beads may be gaily colored.

It should be understood that the description of the preferred form of the invention is for the purpose of complying with section 112, Title 35, of the U.S. Code and that the claims should be construed as broadly as prior art will permit.

I claim:

1. An infusion bag assembly for use in brewing liquid in situ in a drinking cup or the like and comprising an infusion bag immersible in the liquid, a handle tab for said bag disposable externally of the cup, a string draped over the cup and connecting the bag and handle tab, and a plurality of beads in compressing, surrounding relation on said string at spaced points therealong to prevent capillary liquid flow along said string, said beads being engageable with the cup to space the string therefrom.

2. An infusion bag assembly for use in brewing liquid in situ in a drinking cup or the like and comprising an infusion bag immersible in the liquid and handling means for said bag and comprising a string connected to said bag and draped over the cup, and a plurality of plastic beads in the form of solid encapsulations mounted in compressing, surrounding relation on said string at spaced points therealong to prevent capillary liquid flow along said string, said beads being engageable with the cup to space the string therefrom.

3. An infusion bag assembly for use in brewing liquid in situ in a drinking cup or the like and comprising an

infusion bag immersible in the liquid, a handle tab for said bag disposable externally of the cup, a string draped over the cup and connecting the bag and handle tab, and a plurality of separate beads of hardened plastic material in compressing, surrounding relation at spaced points along a portion of said string medially between said bag and said handle tab to prevent capillary liquid flow along said string, said beads being engageable with the cup to space the string therefrom.

4. An infusion bag assembly for use in brewing liquid in situ in a drinking cup or the like and comprising an infusion bag immersible in the liquid, a handle tab for said bag disposable externally of the cup, a string of wick-like material draped over the cup and connecting

the bag and handle tab, and at least one bead in compressing surrounding relation on said string at a point intermediate the ends thereof to prevent capillary liquid flow along said string, said bead being engageable with the cup to space the string therefrom.

References Cited in the file of this patent

UNITED STATES PATENTS

1,023,676	Pancoast	Apr. 16, 1912
1,667,609	Tamassy	Apr. 24, 1928
2,177,007	Smith	Oct. 24, 1939

FOREIGN PATENTS

28,734	Norway	Apr. 15, 1918