Feb. 17, 1931. C. BARBIERI 1,792,724

PAPER CUP BLANK

Filed April 14, 1928

Fig. 1

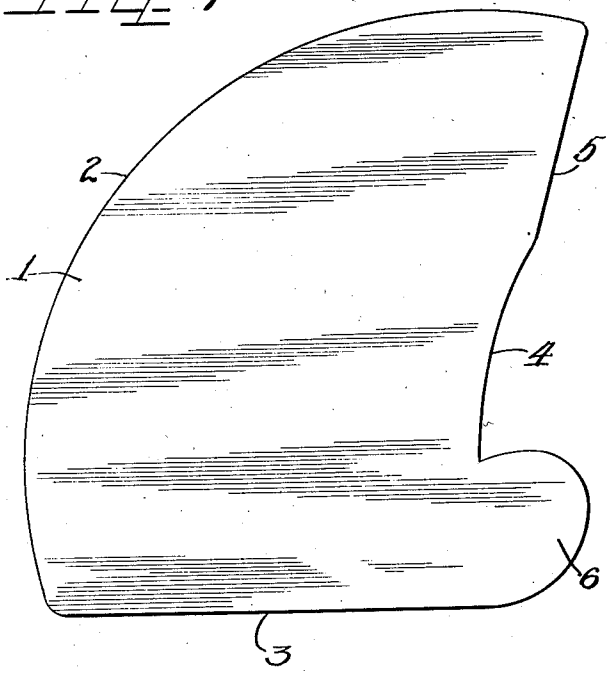


Fig. 2

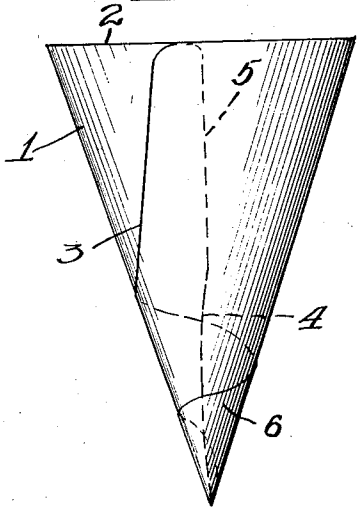
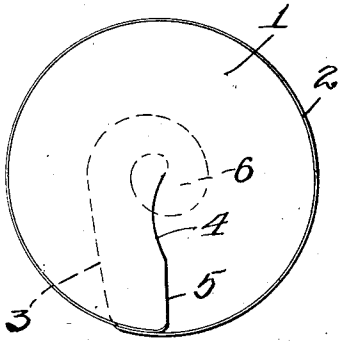


Fig. 3



Inventor

Cesare Barbieri

by Charles Hill & Co. Attys.

Patented Feb. 17, 1931 1,792,724

UNITED STATES PATENT OFFICE

CESARE BARBIERI, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO VORTEX CUP COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE

PAPER-CUP BLANK

Application filed April 14, 1928. Serial No. 269,894.

This invention relates to an improved type of paper cup blank adapted to be formed into a conical cup, said blank being designed to afford a considerable saving of material and, furthermore, including in its design a substantially radial composite edge divided substantially at its central portion to afford a straight edge section and a concave edge section, whereby said straight edge section may be suitably gripped during the formation of the blank into a conical cup upon a forming mandrel.

It is an object of this invention to provide a paper cup blank having one of its edges partly straight and partly curved to afford a gripping margin to facilitate forming of the blank into a conical cup.

It is an important object of this invention to provide an improved conical cup blank designed to effect a saving of material, and shaped to have converging edges leading from an arcuate edge and connected by an extension, one of said converging edges having the outer portion thereof straight and the inner portion curved to facilitate proper gripping of the blank when the same is being formed into a cup.

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

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

On the drawings:

Figure 1 is a plan view of a cup blank in developed form and embodying the principles of this invention.

Figure 2 is a side view of a conical cup formed from the blank.

Figure 3 is a top plan view of the formed cup.

As shown on the drawings:

The blank forming the subject matter of the present invention is cut from paper which may be treated with paraffin, if desired, or which may be plain. The blank is of approximately quadrantal form and comprises a body 1 having an arcuate edge 2 adapted to form a rim of the completed cup, a straight edge 3 and a combination curved and straight edge. The combination edge comprises an inner curved section 4 and an outer straight section 5. The composite edge 4—5 is substantially radial to the arcuate edge 2, while the straight edge 3 is parallel to a radius of the arcuate edge.

Connecting the straight edge 3 with the inner end of the curved section 4 of the composite edge is an extension or tab 6. By forming the blank with a composite edge 4—5, the straight section 5 of said edge affords a suitable gripping margin whereby grippers carried within a forming mandrel may grip and hold the blank and slightly deflect the same into a recess in the mandrel when the mandrel is rotated to cause the blank to be formed therearound until the extension 6 is wrapped around the apex of the body portion of the formed cup and pressed by means of a pressing cone or mandrel which coacts with the forming mandrel. One surface of the extension 6 and one side of the margin of the cup blank adjacent the straight edge 3 is provided with a layer of a cementitious material which stops short of the edges 3 and the curved edge of the extension 6, similar to the arrangement illustrated and described in my earlier Patent 1,610,192, dated December 7, 1926, covering a "conical paper cup and process for making the same".

The forming of a cup blank with a composite edge 4—5 affords an arrangement whereby the outer margin 5 of the composite edge may be gripped during the forming of a blank into a cup, while the concave edge 4 obviates any tendency of the inner section of the radial edge to wrinkle or become distorted during the forming process.

The grippers within the forming mandrel do not interfere with the operation of the pressing mandrel or cone which may act on the cup blank to press the adhesived member of the cup blank into engagement with the cup body and also cause the adhesived extension 6 to be coiled around the apex of the body of the cup, as illustrated in Figure 2.

The straight section 5 of the composite edge of the cup blank, after the forming of a blank into a cup, affords a cushioning lip or mar-

gin which is slightly separated or sprung inwardly away from the inner surface of the cup, so that the upper margins or edges of one cup may be spaced from the outer face of another cup nested therein. The curved or formed extension 6 of the cup blank formed around the apex of the cup also serves as a means for separating cups nested one within the other.

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

I claim as my invention:

A cup blank comprising a body of substantially quadrantal form having an arcuate edge, a pair of converging edges and an extension integral with said body and connecting said edges, one of said converging edges having a section thereof progressively curved inwardly until its innermost end meets said extension so as to obviate the said edge from becoming wrinkled or distorted during the forming of the blank into a cup, the outer end of said section terminating in a straight section extending outwardly to a junction with said arcuate edge and arranged to afford a means for gripping the blank to facilitate its formation into a cup, said extension comprising a curved tab having one side constituting a continuation of one of said converging edges and its other side curved inwardly to meet said progressively curved section.

In testimony whereof I have hereunto subscribed my name at New York, New York County, New York.

CESARE BARBIERI.