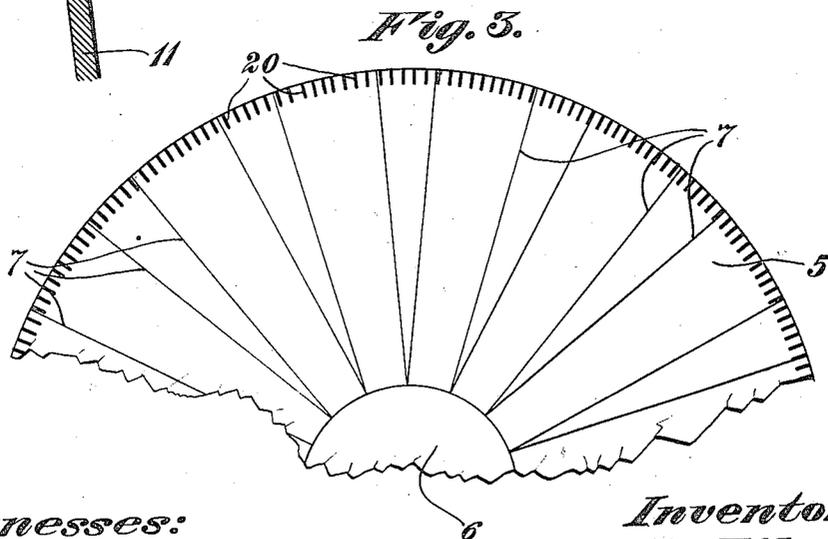
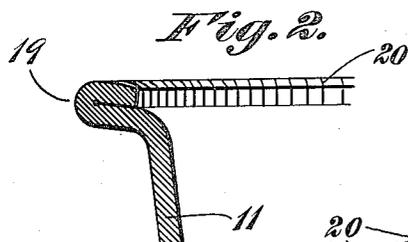
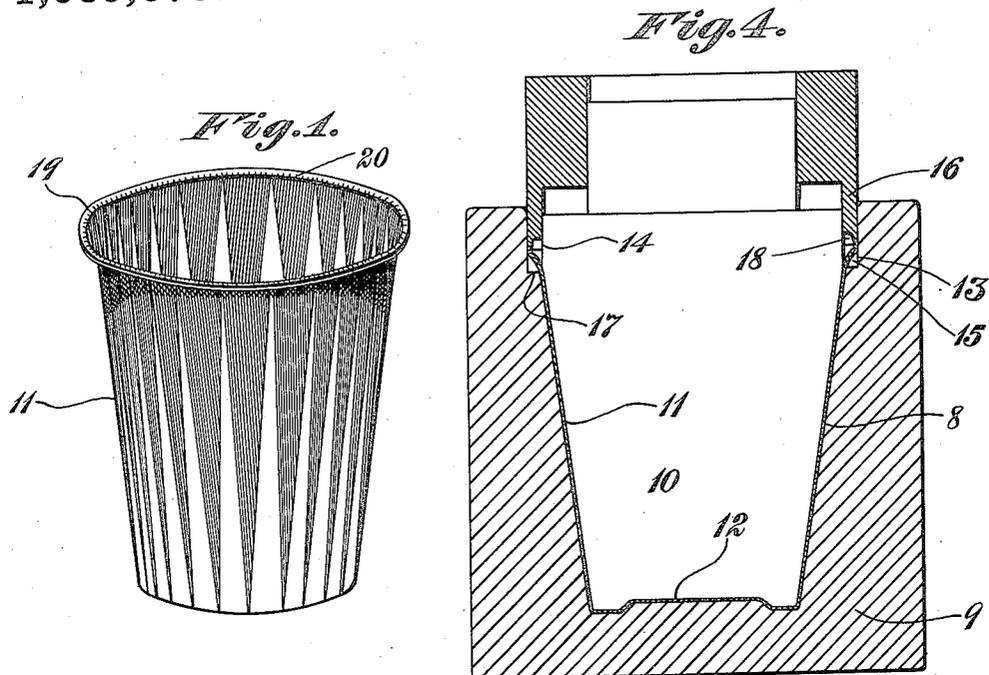


W. E. CLAUSSEN.
PAPER DRINKING CUP.
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1,069,675.

Patented Aug. 12, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

WALTER E. CLAUSSEN, OF HARTFORD, CONNECTICUT.

PAPER DRINKING-CUP.

1,069,675.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER E. CLAUSSEN, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Paper Drinking-Cups, of which the following is a specification.

This invention relates to paper drinking cups, the object of the invention being to provide a simple and effective article of this character which is especially strong at and around the brim or rim, and preferably this result is obtained by doubling on itself, the stock or material of which the cup is composed, at and preferably throughout the entire extent of the brim, by reason of which the cup is materially strengthened and reinforced by what might be considered an integral bead.

While I do not limit the incorporation of the invention in cups of any particular kind, the same is of especial utility when associated with a cup having a plaited body, in that the bead in addition to reinforcing the brim in the manner indicated, also effectually prevents the plaits from opening out which is a matter of great advantage. I am familiar with a drinking cup having a plaited body, and in the old cup the brim is provided with a reinforcing bead of paraffin or equivalent waterproofing substance which in theory at least, is supposed to reinforce the cup. This paraffin fuses easily and cracks, so that its advantages are only of an exceedingly temporary character. When the paraffin bead becomes soft and breaks its reinforcing effect is at once destroyed, and there is then nothing to prevent the plaits opening. By doubling the brim portion of the cup on itself and then compressing said brim portion I not only adequately reinforce and strengthen the cup, but I positively prevent under all conditions, the plaits from being opened. Besides this a plaited body in the absence of my invention, is objectionable in that there will be on the edge thereof protrusions or projections which collectively form what is known as "saw teeth," and these actually cut the lips of the user. By folding or doubling the brim of the cup in the manner indicated by me the exterior of the brim or that part thereof which comes immediately in contact with the lips, is smooth, so that there is no possibility of injury to the lips. The dies or equivalent

means in making these folds also flatten down these projections so that they are practically eliminated.

In the drawings accompanying and forming part of the present specification I have shown in detail one convenient form of embodiment of the invention, which to enable those skilled in the art to practice the same will be set forth fully in the following description, while the novelty of the invention will be included in the claims succeeding said description. From this it will be clear that I do not restrict myself to such showing; I may depart therefrom in several respects within the scope of my invention covered in the claims following said description. In said drawings I also show apparatus by which the article can be readily made, although other means might as well be provided and employed for this purpose.

Referring to said drawings: Figure 1 is a perspective view of a drinking cup involving my invention. Fig. 2 is a sectional view of the upper or brim portion of the same. Fig. 3 is a blank from which the cup can be made, and, Fig. 4 is a cross sectional view of die mechanism by which the cup can be made.

Like characters refer to like parts throughout the several figures.

In making the cup, paper is usually employed and after the cup is finished it is usually coated with paraffin or some equivalent waterproof material all as familiar in this art. The cup is generally made in one piece, although this is not essential, and a suitable blank for this purpose is that shown in Fig. 3, said blank as represented consisting of a disk comprising two portions as 5 and 6, the portion 5 constituting the body, and a portion 6 the bottom of the cup. The portion 5 of the blank as shown is radially creased or plaited as at 7. This blank after being plaited or creased is centered over the cavity 8 of the die member 9, said cavity being approximately of frusto-conical form, after which the die member or plunger 10 is thrust downward into the companion die member 9, thereby forming the tapered plaited body 11 and the bottom 12 of the cup. This in itself is not uncommon in this art, so that it is not essential for me to describe the same in detail. It will be clear, however, that the plaits 7 in the tapered cup body 11 extend from the base to the top thereof and naturally the upper edge of

the said body is serrated, but I remove this serrated portion or at least flatten it down as will hereinafter appear, so that no evil results can follow. The upper portion of the cavity 8 is cylindrical as shown at 13, while the upper part of the die member or plunger 10 is similarly shaped as at 14, there being a space 15 between these two cylindrical portions into which the brim portion of the conical cup body 11 extends so as to be acted upon by a die member 16 which has a movement toward the annular seat 17 at the bottom of the space 15 and on the die member 9. The die member 16 is slidable on and guided by the die member 10, its lower edge having an annular rabbet 18 and the lower portion of this die member 16 has a movement in the annular space 14. After the cup body 11 has been formed the die member is lowered and the rabbeted portion 18 thereof is brought against the free upper part of the cup, thereby doubling or folding said free part upon itself and making a bead 19. The pressure applied to the article by the die 16 is preferably considerable, so as to prevent the fold or bead 19 from being opened. As before remarked this bead thoroughly strengthens the cup and prevents the plaited body from opening out and also possesses the other many advantages to which I have already referred.

The bead 19 extends outwardly from the body of the cup by reason of which I can obtain all the advantages to which I have already referred, while at the same time this bead will not interfere with the proper nesting of the cups which are usually disposed in this order in vending machines and which to facilitate such nesting are also made tapering.

In some cases there is a tendency on the

part of the bead 19 to pucker and to prevent this possibility I prefer initially to slit the blank inward from its perimeter with a multiplicity of slits 20, the result being that when the bead 19 is formed there is no possibility of the same puckering. Said slits also extend partially across the bead so that it becomes a simple matter to form the latter which would not be the case were there a series of ears or tabs as in the latter construction it is necessary to fold down each tab or ear.

What I claim is:

1. A paper drinking cup formed from a circular blank, shaped to present a bottom, a tapered plaited body, and a brim, said brim being doubled to present superimposed portions, the doubling of the blank at the brim reinforcing said brim, the lower portion of the brim extending outward from the body of the cup and the upper portion thereof extending inward away from the fold, said portions being compressed together.

2. A paper drinking cup formed from a circular blank having a multiplicity of slits extending a short distance inwardly from its periphery, shaped to present a bottom, a tapered plaited body and a brim doubled to present superimposed portions, the doubling of the blank at the brim reinforcing said brim and also preventing the plaits from accidentally opening, said slits extending across the upper portion of the doubled brim.

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

WALTER E. CLAUSSEN.

Witnesses:

L. L. MERKEL,
HEATH SUTHERLAND.