Sept. 4, 1928. 1,682,933

P. T. POTTS

STACK OF NESTED CONTAINERS AND METHOD OF PACKING THE SAME

Filed Oct. 9, 1924

FIG. 4

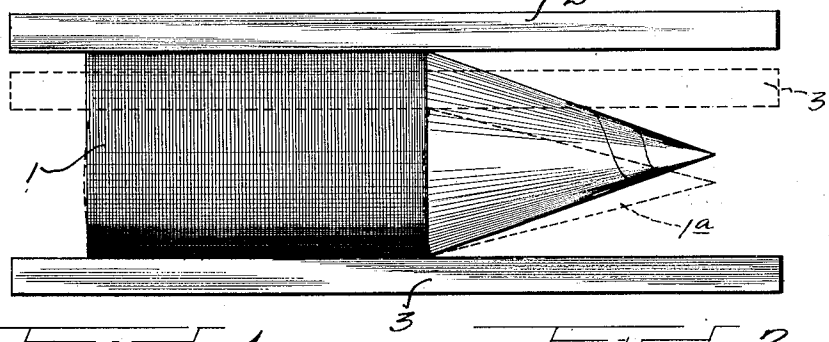


FIG. 1

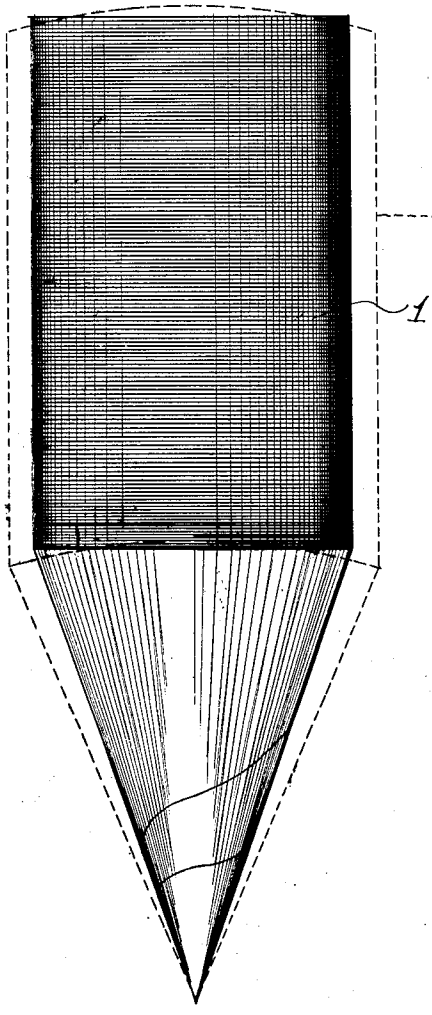


FIG. 2

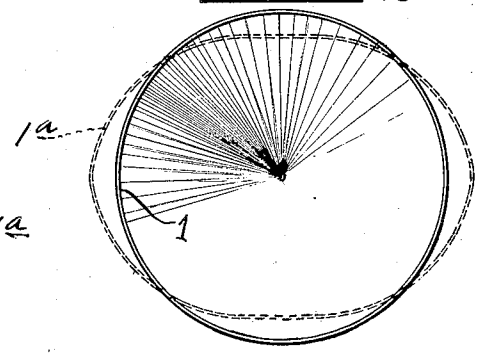
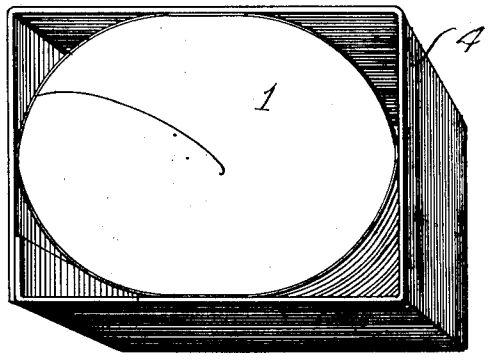


FIG. 3



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ATTYS

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UNITED STATES PATENT OFFICE.

PETER T. POTTS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE VORTEX MFG. CO., A CORPORATION OF ILLINOIS.

STACK OF NESTED CONTAINERS AND METHOD OF PACKING THE SAME.

Application filed October 9, 1924. Serial No. 742,499.

This invention relates to a stack of nested containers and the method of packing the same and particularly to a stack of nested cone-shaped drinking cups constructed of paper or other suitable material which are compressed within a dispensing container or previous to insertion therein, in a direction normal to the axis of the stack whereby the open ends are distorted into elliptical form and their edges permitted to separate in the direction of the longer axis of the ellipse, due to such compression in the line of the shorter of the axis of the ellipse.

It is an important object of this invention to provide a stack of nested containers which are compressed in the manner described above to insure compactness and to facilitate the individual dispensing of the articles therefrom by virtue of the compression in one direction normal to the axis of the stack and expansion in the other direction.

It is another object of this invention to provide a stack of articles which are compressed as described above and which are packed within a container designed to retain a stack thus compressed.

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

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

On the drawings:

Figure 1 is a front elevation of a stack of nested conical paper receptacles; the dotted lines indicating the position assumed by the receptacles when the stack is compressed in accordance with this invention.

Figure 2 is a top plan view of the stack shown in Figure 1.

Figure 3 is a perspective view of the compressed receptacles placed within a shipping container.

Figure 4 is a side elevation illustrating a method of compressing the stack in a direction normal to its axis; the dotted lines showing the position assumed by the stack and the compressing board when the stack is compressed.

As shown on the drawings:

The reference numeral 1 indicates a stack of nested conical containers such as paper drinking cups which in accordance with the present invention are compressed to the form indicated by the dotted lines to which I have applied the reference numeral 1^a. This stack of containers may be compressed within a suitable dispensing container or if desired prior to insertion to such a dispensing container by the application of pressure in a direction normal to the axis of the stack.

In Figure 4 I have shown this compressing force applied by a plate or board 2 resting on the top side of the stack, the bottom side of the stack resting on a similar board 3; the stack being either forced between such boards as the articles are discharged from a forming machine; or being pressed between said boards by having pressure applied to one or both thereof.

As will be noted, the articles when so compressed are permitted to expand in the direction of right angles in the line of compression, whereby the edges thereof separate along the expanded portions and the articles assume an elliptical or oval shape at their open ends (Figures 2 and 3), this shape, of course, depending upon the degree of pressure applied and the initial shape of the articles in the stack after the stack of articles has been so compressed.

If such compression is effected prior to insertion in a dispensing container the same may be retained in the form assumed after such compression in a suitable shipping container such as I have designated at 4 in Figure 3; by thus previously compressing the articles, the insertion thereof in certain types of dispensing containers is facilitated.

I am aware that changes in the manner of compressing the stack and in the form of articles compressed may be varied, 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 stack of nested open end flangeless articles of flexible resilient material and conical

form, and a container therefor shaped to compress the series of articles along one diameter normal to the longitudinal axis of the stack and permit of expansion of the articles along the remaining portions of the peripheries thereof, so that the open ends of the articles are maintained in elliptical form and the edges thereof are separated along the expanded portions to facilitate individual removal of the articles from the stack.

In testimony whereof I have hereunto subscribed my name.

PETER T. POTTS.