



US00RE36554E

**United States Patent** [19] **Chedville**

[11] E

**Patent Number: Re. 36,554**

[45] **Reissued Date of Patent: Feb. 8, 2000**

[54] **APPARATUS FOR APPLYING COATINGS TO FOOD**

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[76] Inventor: **Darryl J. Chedville**, P.O. Box 1088,  
Gonzales, La. 70707-1088

*Primary Examiner*—Laura Edwards  
*Attorney, Agent, or Firm*—Garvey, Smith, Nehrass &  
Doody, LLC

[21] Appl. No.: **09/197,081**

[22] Filed: **Nov. 19, 1998**

[57] **ABSTRACT**

**Related U.S. Patent Documents**

Reissue of:

[64] Patent No.: **5,575,848**  
Issued: **Nov. 19, 1996**  
Appl. No.: **08/350,896**  
Filed: **Dec. 7, 1994**

A method and apparatus for coating food with batter, the apparatus including two hollow generally cylindrical containers open at one end and closed at the other end, and a generally hollow cylindrical coupling member open at both ends, each end being adapted to receive the open end of each of said cylindrical containers, the coupling member having a perforated platform therein which divides the coupling member into two cylindrical sections; the method including placing batter in one of the two containers, placing food in one of the two containers, connecting the coupling member to the container having batter therein, connecting the other container to the coupling member to the coupling member, and shaking the assembled coupling member and two containers to cause batter to coat the food.

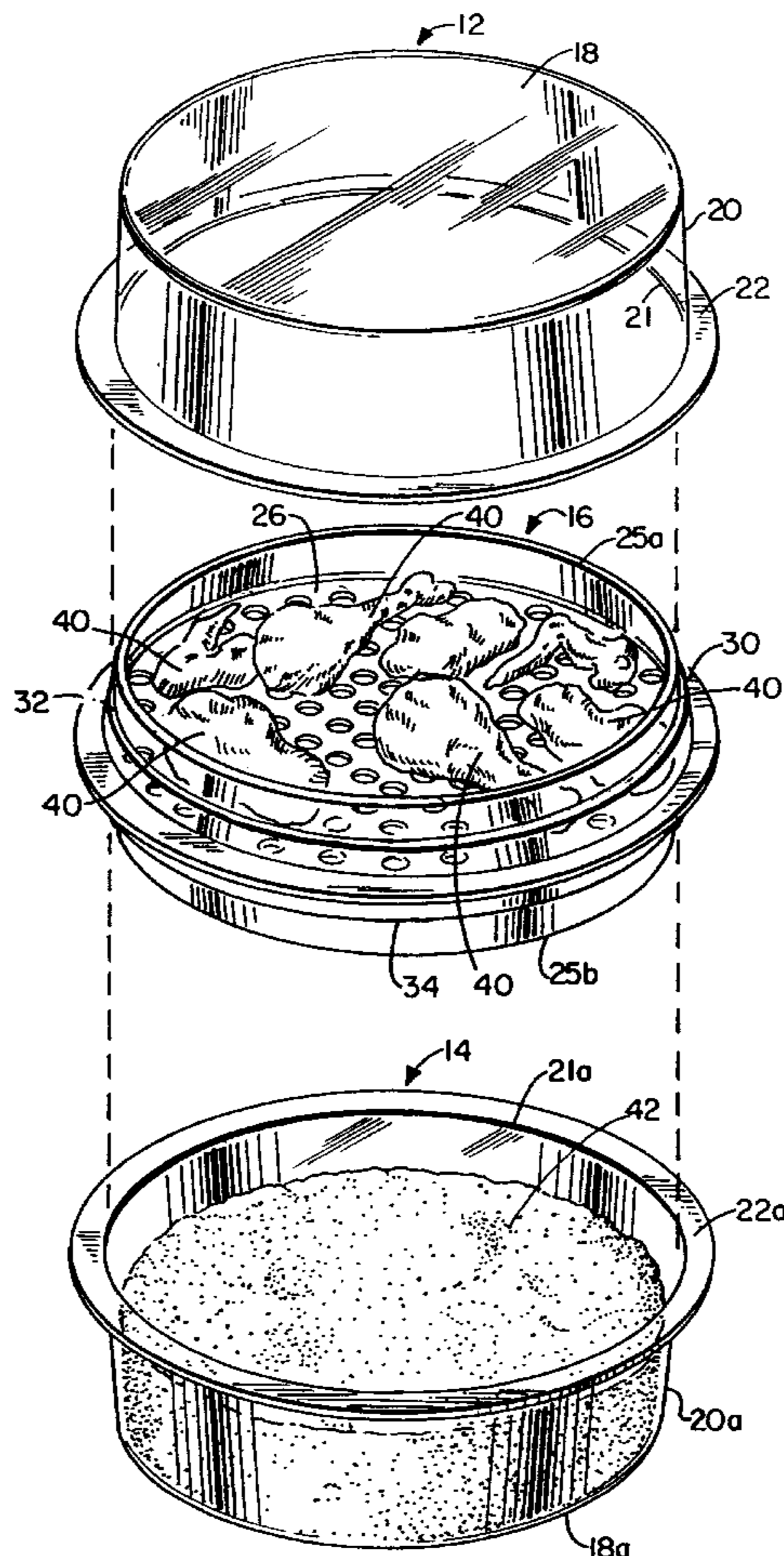
[51] **Int. Cl.<sup>7</sup>** ..... **A23G 3/00**  
[52] **U.S. Cl.** ..... **118/13; 118/19; 99/494;**  
**220/501; 366/130**  
[58] **Field of Search** ..... **118/13, 19, 417;**  
**99/494; 126/348, 369, 383, 377, 373; 366/130,**  
**226; 220/4.21, 4.24, 501**

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**29 Claims, 5 Drawing Sheets**



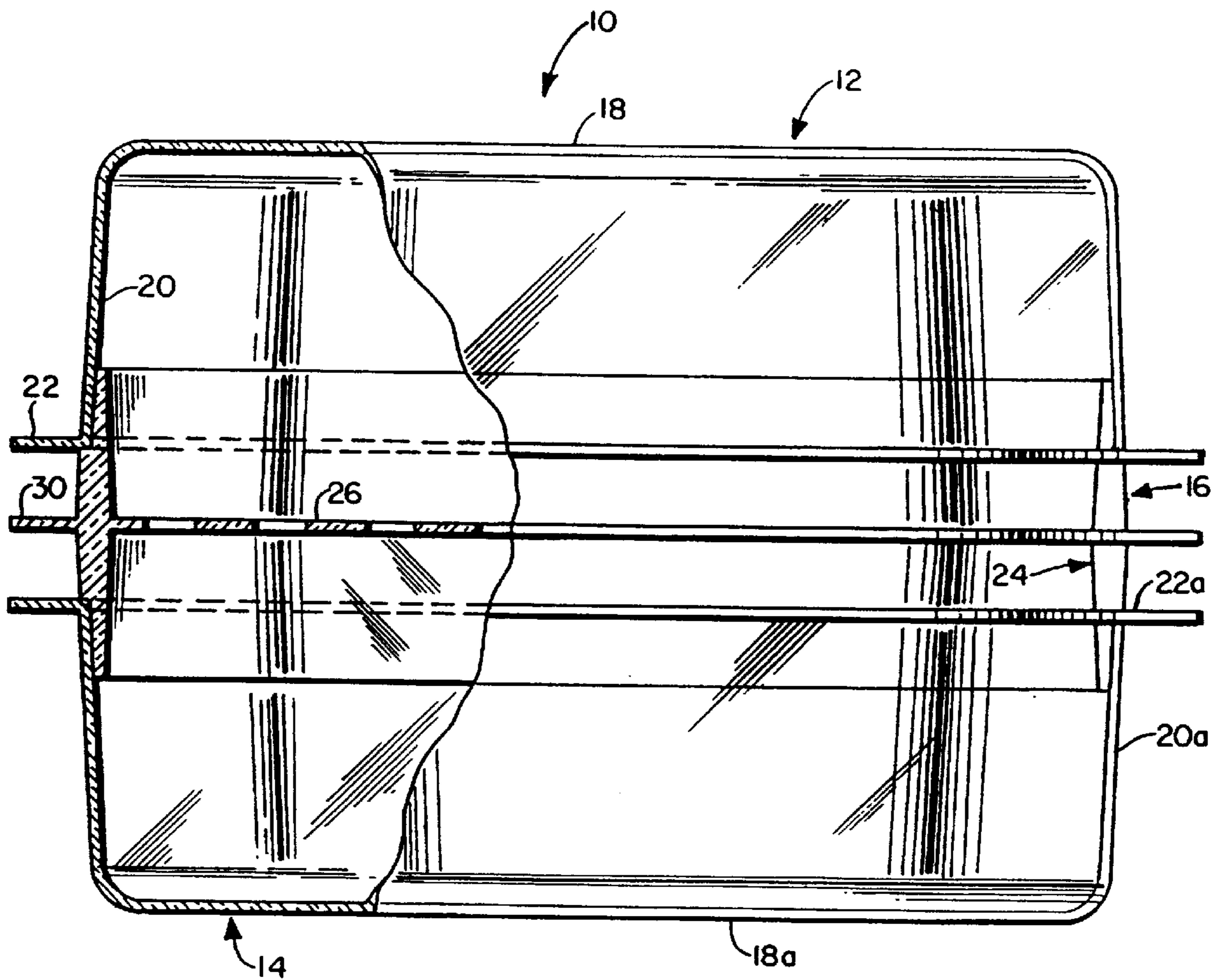


FIG. I.

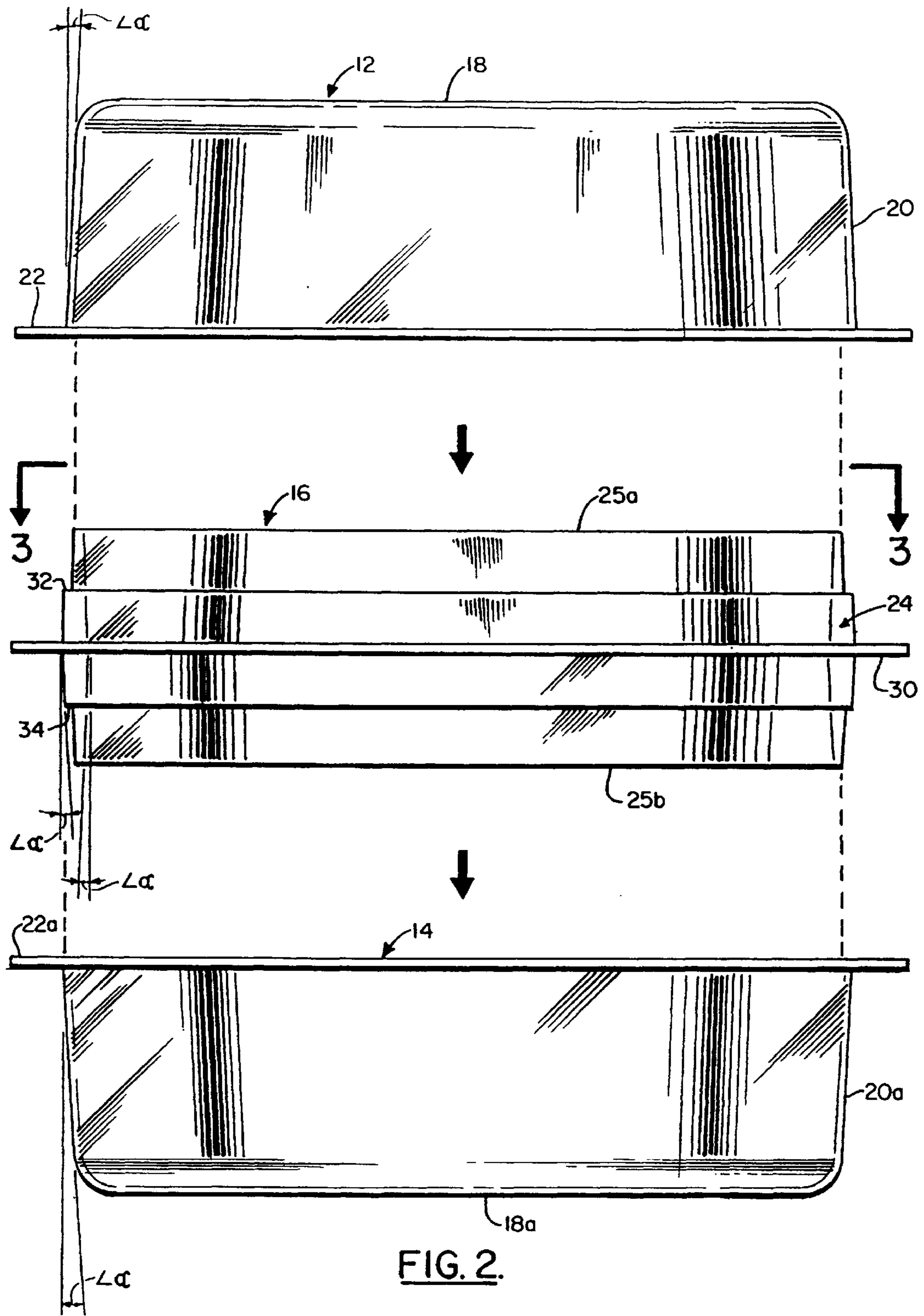


FIG. 2.

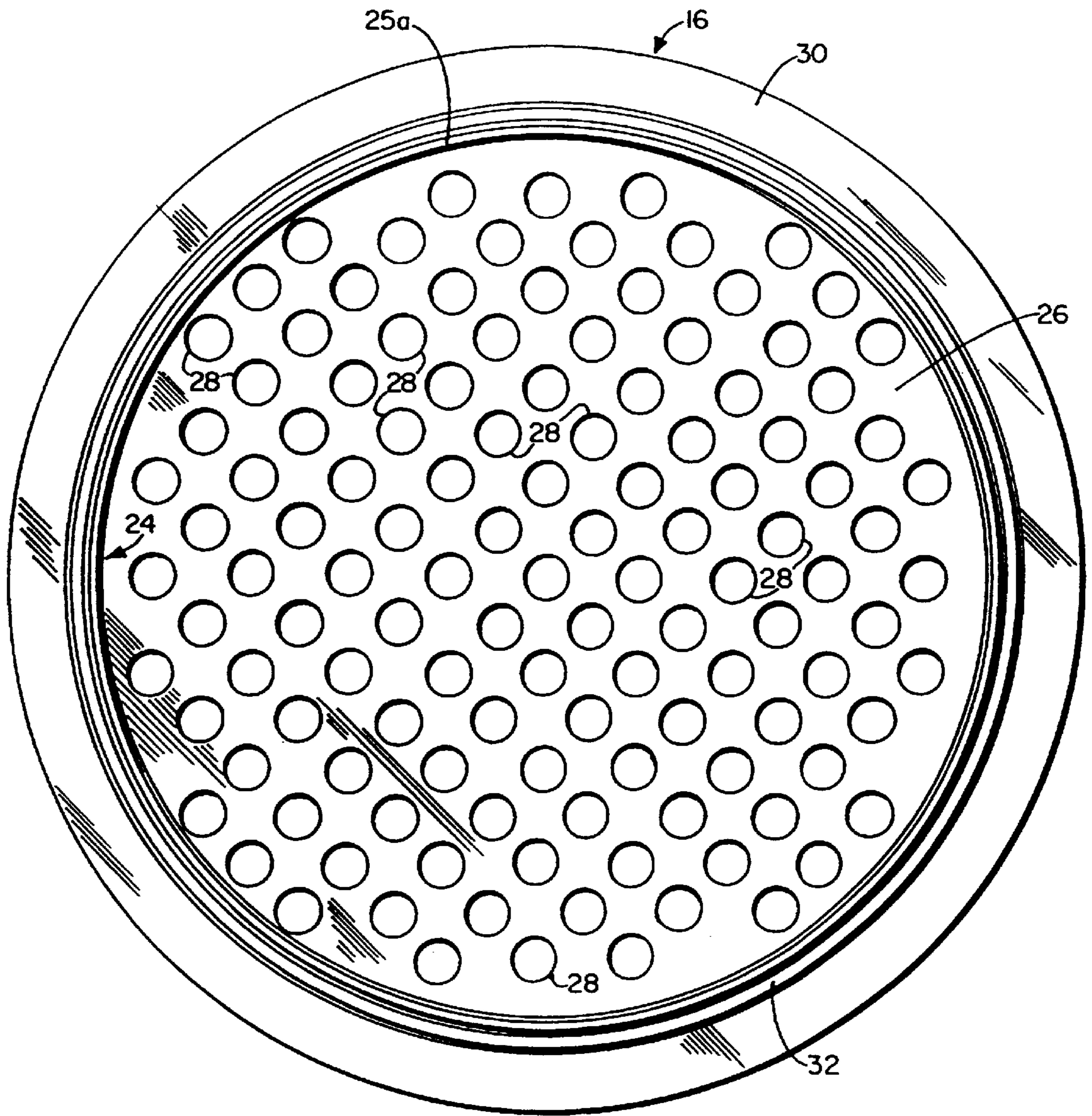
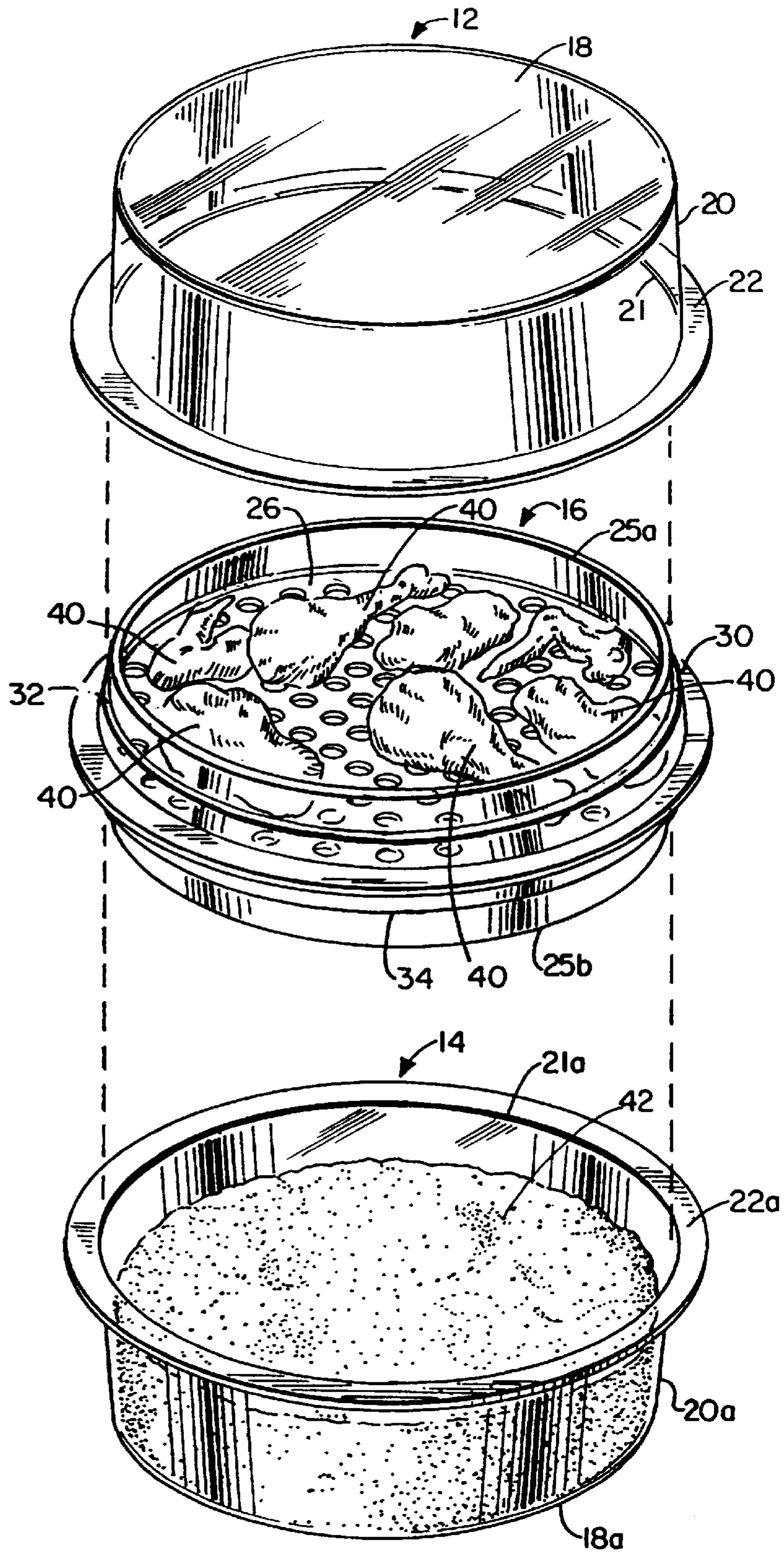


FIG. 3.



**FIG. 4.**

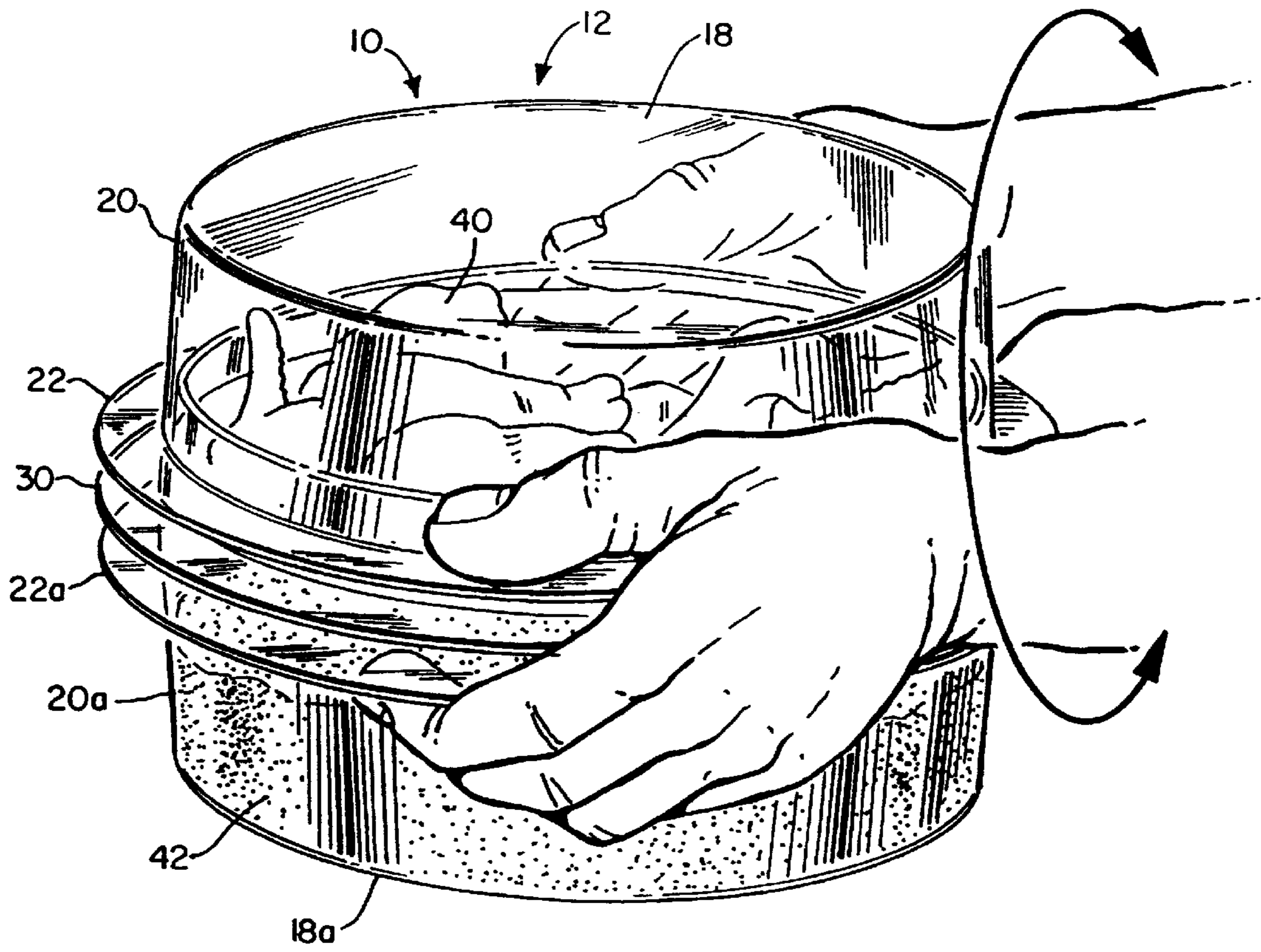


FIG. 5.

## APPARATUS FOR APPLYING COATINGS TO FOOD

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

The invention relates to food products, and, in particular, to coating food before cooking, serving, or storing the food product. More particularly, the present invention relates to a method and apparatus for coating food with flour, corn meal, seasoning, or the like prior to cooking the food product.

#### 2. Description of the Related Art

It is common practice to place food to be coated with a material such as flour or the like in a paper bag and shake the bag until it is assumed proper coating of the food with flour has occurred. The food may be wet, and the moisture from the food may weaken the bag and cause the bag to rupture.

If the bag does not rupture, the food is removed by reaching into the paper bag and removing the coated food therefrom. If sufficient coating of the food with flour has not been achieved, the food must be placed in the bag and shaken again. The food may be dipped in a liquid such as oil or raw eggs prior to being placed in the paper bag to increase the amount of coating retained by the food. Such liquids often weaken the paper bag and may cause the bag to rupture and spill the contents therefrom.

Common coatings for food include flour, corn meal, seasoning such as salt, pepper, and the like, and combinations thereof. Such coatings and mixtures of coatings are hereinafter referred to as "batter". Exemplary of food which may be coated with batter in accordance with the present invention include poultry such as chicken, quail, duck and the like, red meat such as beef, pork, lamb, and the like, and seafood such as fish, shrimp, oysters, and the like.

### SUMMARY OF THE INVENTION

In accordance with the present invention there is provided a method and apparatus for coating food with batter. The apparatus of the invention includes two hollow generally cylindrical containers open at one end and closed at the other end, and a generally hollow cylindrical coupling member open at both ends, each end being adapted to receive the open end of each of said cylindrical containers, the coupling member having a perforated platform therein which divides the coupling member into two cylindrical sections.

The method of the invention includes placing batter in one of the two containers, placing food in one of the two containers, connecting the coupling member to the container having batter therein, connecting the other container to the coupling member, and shaking the assembled coupling and two containers to cause batter to coat the food.

The present invention has the advantage of securely sealing all batter and food inside during application of the batter to the food.

Furthermore, the invention enables the user to view the food items during application of batter to determine when the application of batter is complete.

In addition, the invention enables separation of unused batter to a container separate from the container holding the food coated with batter.

The present invention also decreases the time necessary to thoroughly apply batter to food.

Also, the present invention provides a rigid container which will not rupture when wet or oily food is shaken therein.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevational, partly cut-away, partly cross-sectional view of the apparatus of the invention;

FIG. 2 is an exploded, elevational view of the apparatus of the invention;

FIG. 3 is a plan view taken along lines 3—3 of FIG. 2;

FIG. 4 is an exploded, perspective view of the apparatus of the invention; and

FIG. 5 is a perspective view of the assembled apparatus of the invention having food and batter therein being held by the user.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, in FIG. 1 is shown the apparatus of the invention generally indicated by the numeral 10. Apparatus 10 includes a first container generally indicated by the numeral 12, a second container generally indicated by the numeral 14, and a coupling member generally indicated by the numeral 16.

Container 12 has a flat bottom 18 from which extends generally cylindrical sidewall 20. Preferably sidewall 20 is about three inches in height.

At the top of side wall 22 of container 12 is a flat, generally circular ledge 22 extending outward from sidewall 20. Preferably, ledge 22 extends completely around the outside of sidewall 20 at the top, open end 21 of sidewall 20. Also, ledge 22 is preferably parallel to bottom 18. Preferably, open end 21 is about 10 inches in diameter, although open end 21 of container 12 may be larger or smaller in diameter if desired.

The size of bottom 18, sidewall 20, and ledge 22 may be selected as desired. Preferably, ledge 22 is large enough to permit grasping by the hands 24 of the user as shown in FIG. 5. A preferred outside diameter of ledge 22 is 11.5 inches.

Preferably, the thickness of bottom 18, sidewall 20, and ledge 22 is identical and uniform throughout container 12. It is preferred that container 12 is formed from a polymeric material such as polyethylene. Other polymeric materials may also be used if desired. Furthermore it is preferred that container 12 is made from a transparent material so that the contents can be viewed by the user when apparatus 10 is assembled as shown in FIGS. 1 and 5.

Sidewall 20 preferably forms an angle  $\alpha$  with bottom 18 as indicated in FIG. 2 to enable container 12 to be easily removed from a mold in which container 12 may be formed from a molten polymeric material.

Container 14 is preferably identical to container 12, and has bottom 18a from which extends generally cylindrical sidewall 20a. Preferably sidewall 20a is about three inches in height.

At the top of sidewall 20a of container 14 is a flat, generally circular ledge 22a extending outward from sidewall 20a. Preferably, ledge 22a extends completely around the outside of sidewall 20a at the top, open end 21a of sidewall 20a. Also, ledge 22a is preferably parallel to bottom 18a. Preferably, open end 21a is about 10 inches in diameter, although open end 21 of container 14 may be larger or smaller in diameter if desired.

The size of bottom **18a**, sidewall **20a**, and ledge **22a** may be selected as desired. Preferably, ledge **22a** is large enough to permit grasping by the hands **24a** of the user as shown in FIG. **5**. A preferred outside diameter of ledge **22a** is 11.5 inches.

Preferably, the thickness of bottom **18a**, sidewall **20a**, and ledge **22a** is identical and uniform throughout container **14**. It is preferred that container **14** is formed from a polymeric material such as polyethylene. Other polymeric materials may also be used if desired. Furthermore, it is preferred that container **14** is made from a transparent material so that the contents can be viewed by the user when apparatus **10** is assembled as shown in FIGS. **1** and **5**.

Sidewall **20a** preferably forms an angle  $\alpha$  with bottom **18a** as indicated in FIG. **2** to enable container **14** to be easily removed from a mold in which container **14** may be formed from a molten polymeric material.

Coupling member **16** has a generally cylindrical sidewall generally indicated by the numeral **24** which is open at both ends **25a** and **25b**. Preferably sidewall **24** is about three inches in height, although the height could be increased or decreased if desired. A platform **26** is centrally located in sidewall **24** and has holes or perforations **28** therein. Platform **26** is preferably has the shape of a disk. Platform **26** divides coupling member **16** into two parts. The size of perforations **28** in platform **26** is selected to prevent passage of food therethrough while enabling passage of batter there-through from container **12** to container **14**, and/or from container **14** to container **12**. Preferably, perforations **28** are circular and about one-half inch in diameter.

Aligned with platform **26** and connected to sidewall **24** is ledge **30**. Preferably, ledge **30** extends completely around the outside of sidewall **24**. Ledge **30** is useful as a handle when connecting coupling member **16** to container **12** and/or **14**. Furthermore, ledge **30** is useful when removing container **12** and/or **14** from coupling member **16**.

Sidewall **24** has two shoulders **32** and **34** on the outside thereof. Shoulders **32** and **34** limit the movement of containers **12** and **14**, respectively, when they are coupled to coupling member **16** as shown in FIG. **1** to prevent containers **12** and/or **14** from being forced too tightly on coupling member **16**. Preferably the distance between shoulders **32** and **34** is about 1.5 inches, although the distance between shoulders **32** and **34** may be any desired distance. The outside of sidewall **24** is tapered from ledge **30** to shoulders **32** and **34** by the angle  $e$  as indicated in FIG. **2**, and the outside of sidewall **24** between shoulders **32** and **34** and the outer edges of sidewall **24** is parallel thereto.

It is preferred that coupling member **16** is formed from a polymeric material such as polyethylene. Other polymeric materials may also be used if desired. Furthermore, it is preferred that coupling member **16** is made from a transparent material so that the contents can be viewed by the user when apparatus **10** is assembled as shown in FIGS. **1** and **5**.

The inside of sidewall **24** is tapered from platform **26** to the outer edges of sidewall **24** by the angle  $e$  as indicated in FIG. **2**.

Angle  $\alpha$  may be any desired angle although an angle of about  $2^\circ$  is preferred.

The thickness of the sidewalls, ledges, and bottoms of containers **12** and **14** and coupling member **16** are preferably identical. A preferred thickness is about 0.080 inches, although other desired thicknesses could be utilized if desired.

The dimensions of openings **21** and **21a** and the outside diameter of the ends **25a** and **25b** of sidewall **24** are selected

to achieve a snug, slightly force fit between containers **12** and **14** and sidewall **24** when assembled as shown in FIGS. **1** and **5**.

In the preferred method of using the present invention to batter food such as chicken parts **40** shown in FIGS. **4** and **5**, batter **42** is placed in container **14**, and coupling member **16** is then fitted into the open end **21a** of container **14** as shown in FIGS. **1** and **5**. Food **40** is then placed on the platform **26** in coupling member **16**, and container **12** is then fitted onto the coupling member **16** as shown in FIGS. **1** and **5**. The assembly of containers **12** and **14** and coupling member **16** is then shaken as indicated by the arrows in FIG. **5**.

After food **40** is coated with batter, apparatus **10** is oriented as shown in FIG. **5** and shaken to cause excess batter to fall from container **12** through perforations **28** into container **14**. Container **12** is then removed from coupling member **16**, and the food removed from coupling member **16**. The excess batter is held in container **16**, and the procedure may be repeated for additional food to be coated with batter.

In an alternative method of using the present invention to batter food such as chicken parts **40** shown in FIGS. **4** and **5**, batter **42** such as flour is placed in container **14**, and food is placed in container **14** on the batter. Coupling member **16** is then fitted into the open end **21a** of container **14** as shown in FIGS. **1** and **5**. Container **12** is then fitted onto the coupling member **16** as shown in FIGS. **1** and **5**. The assembly of containers **12** and **14** and coupling member **16** is then shaken as indicated by the arrows in FIG. **5**, although the food **40** is in container **14**.

After food **40** is coated with batter, apparatus **10** is oriented as shown in FIG. **5** and shaken to cause excess batter to fall from container **12** through perforations **28** into container **14**. Container **12** is then removed from coupling member **16**, and the food removed from coupling member **16**. The excess batter is held in container **16**, and the procedure may be repeated for additional food to be coated with batter.

Although the preferred embodiments of the invention have been described in detail above, it should be understood that the invention is in no sense limited thereby, and its scope is to be determined by that of the following claims:

What is claimed is:

1. An apparatus for applying batter to food comprising, in combination:

a first hollow generally cylindrical container open at one end and closed at the other end, said first container having a planar annular ledge on an exterior thereof, said ledge being disposed on said first container adjacent to said open end;

a second hollow generally cylindrical container open at one end and closed at the other end, said second container having a planar annular ledge on an exterior thereof, said ledge being disposed on said second container adjacent to said open end, said second container receiving a batter coating to be applied to said food; and

a generally hollow cylindrical coupling member open at both ends, said coupling member including a centered planar annular ledge with tapered shoulders extending from an upper portion and a lower portion of said centered ledge and a perforated platform therein which divides the coupling member into two cylindrical sections, said platform supporting said food, wherein said first and second hollow cylindrical containers



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slidably engage said shoulders of said coupling member to form a sealed container enabling coating of said food upon shaking said sealed container.

2. The apparatus of claim 1 wherein said first container is identical in size to said second container.

3. The apparatus of claim 1 wherein said ledge on said first container extends completely therearound.

4. The apparatus of claim 1 wherein said ledge on said second container extends completely therearound.

5. The apparatus of claim 1 wherein said ledge on said coupling member extends completely therearound.

6. The apparatus of claim 1 wherein said first container has said ledge on the outside thereof extending completely therearound, said second container has said ledge on the outside thereof extending completely therearound, and said coupling member has said ledge on the outside thereof extending completely therearound.

7. The apparatus of claim 6 wherein said ledge on the outside of said coupling member is horizontally aligned with said perforated platform.

8. The apparatus of claim 6 wherein said ledge on said first container is adjacent to said open end of said first container.

9. The apparatus of claim 1 wherein each of said ledges is of sufficient size to be grasped by the hands of a user to force said ledges toward, or away from, each other.

10. The apparatus of claim 1 wherein said ledge on said second container is adjacent to said open end of said second container.

11. The apparatus of claim 1 wherein said platform on said coupling member is located in the center of said coupling member.

12. The apparatus of claim 11 wherein said platform is perpendicular to the central axis of said generally cylindrical coupling member.

13. The apparatus of claim 11 wherein said platform is disk-shaped.

14. An apparatus for applying batter to food comprising, in combination:

a first hollow generally cylindrical container open at one end and closed at the other end, said first container having a planar annular ledge on an exterior thereof, said ledge being disposed on said first container adjacent to said open end;

a second hollow generally cylindrical container open at one end and closed at the other end, said second container having a planar annular ledge on an exterior thereof, said ledge being disposed on said second container adjacent to said open end, said second container receiving a batter coating to be applied to said food; and

a generally hollow cylindrical coupling member open at both ends, said coupling member including a centered planar annular ledge with tapered shoulders extending from an upper portion and a lower portion of said centered ledge and a perforated platform therein which divides the coupling member into two cylindrical sections, said platform supporting said food, wherein said first and second hollow cylindrical containers are slidably forced longitudinally onto said shoulders of said coupling member without rotating said first or second hollow cylindrical containers to form a sealed container enabling coating of said food upon shaking said sealed container.

15. An apparatus for applying batter to food comprising, in combination:

a first hollow container open at one end and closed at the other end, said first hollow container being configured to receive food;

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a second hollow container open at one end and closed at the other end, said second container receiving a batter coating to be applied to said food; and

a generally hollow coupling member open at both ends, said coupling member including upper and lower portions that have respective tapered shoulders extending therefrom, and a perforated platform therein which divides the coupling member into two sections, said platform enabling a supporting of said food during use, wherein said first and second hollow containers sufficiently engage said shoulders of said coupling member to form a sealed container therewith, for enabling coating of said food with said batter upon inverting and shaking said sealed container.

16. The apparatus of claim 15 wherein there is an annular ledge on said first container.

17. The apparatus of claim 15 wherein there is an annular ledge on said second container.

18. The apparatus of claim 15 wherein there is an annular ledge on said coupling member.

19. The apparatus of claim 16 wherein said first container has said ledge on the outside thereof extending completely there around, said second container has said ledge on the outside thereof extending completely there around, and said coupling member has said ledge on the outside thereof extending completely there around.

20. The apparatus of claim 18 wherein said ledge on the outside of said coupling member is horizontally aligned with said perforated platform.

21. The apparatus of claim 16 wherein said ledge on said first container is adjacent to said open end of said first container.

22. The apparatus of claim 15 wherein each container has an annular ledge thereon, and each of said ledges is of sufficient size to be grasped by the hands of a user to force said ledges toward, or away from, each other.

23. The apparatus of claim 17 wherein said ledge on said second container is adjacent to said open end of said second container.

24. The apparatus of claim 18 wherein said platform on said coupling member is located in the center of said coupling member.

25. The apparatus of claim 24 wherein said platform is perpendicular to the central axis of said generally cylindrical coupling member.

26. The apparatus of claim 24 wherein said platform is disk-shaped.

27. An apparatus for applying batter to food comprising, in combination:

a first hollow container open at one end and closed at the other end, said first container having an interior configured to receive food therein;

a second hollow container open at one end and closed at the other end for receiving a batter coating to be applied to said food; and

a hollow coupling member open at both ends, said coupling member including opposed tapered shoulders extending from said coupling member in opposite respective directions toward said first and second containers, said coupling member including a perforated platform therein which divides the coupling member into two sections, said platform supporting said food, wherein said first and second hollow containers are connectable to said shoulders when forced longitudinally onto said shoulders of said coupling member without rotating said first or second hollow containers to form a sealed container enabling coating of said food upon shaking said sealed container.

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28. An apparatus for applying batter to food comprising, in combination:

a first hollow container open at one end and closed at the other end, said first container having a planar annular ledge on an exterior thereof, said ledge being disposed on said first container adjacent to said open end;

a second hollow container open at one end and closed at the other end, said second container having a planar annular ledge on an exterior thereof, said ledge being disposed on said second container adjacent to said open end, said second container receiving a batter coating to be applied to said food; and

a generally hollow coupling member open at both ends, said coupling member including a centered planar annular ledge with tapered shoulders extending from an upper portion and a lower portion of said centered ledge and perforated platform therein which divides the coupling member into two sections, said platform supporting said food, wherein said first and second hollow containers slightly engage said shoulders of said coupling member to form a sealed container enabling coating of said food upon shaking said sealed container.

29. An apparatus for applying batter to food comprising, in combination:

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a first hollow container open at one end and closed at the other end, said first container having a planar annular ledge on an exterior thereof, said ledge being disposed on said first container adjacent to said open end;

a second hollow container open at one end and closed at the other end, said second container having a planar annular ledge on an exterior thereof, said ledge being disposed on said second container receiving a batter coating to be applied to said food; and

a hollow coupling member open at both ends, said coupling member including a centered planar annular ledge with tapered shoulders extending from an upper portion and a lower portion of said centered ledge and a perforated platform therein which divides the coupling member into two sections, said platform supporting said food, wherein said first and second hollow containers are slidably forced longitudinally onto said shoulder of said coupling member without rotating said first or second hollow container to form a sealed container enabling coating of said food upon shaking said sealed container.

\* \* \* \* \*