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Abusaoud et al.

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(54) **SERVING TRAY APPARATUS**

(76) Inventors: **Mustafa Abusaoud**, St. Thomas, VI (US); **Ali Abusaoud**, St. Thomas, VI (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 43 days.

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(22) Filed: **Aug. 27, 2012**

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A47G 23/06 (2006.01)
B65D 1/34 (2006.01)
A47B 23/00 (2006.01)

(52) **U.S. Cl.**
CPC ***B65D 1/34*** (2013.01); ***A47B 23/002*** (2013.01)
USPC **224/218**; 224/222

(58) **Field of Classification Search**
CPC A47B 23/002; A47G 23/0625; A47G 19/065; A47G 23/06; B65D 1/34
USPC 224/218, 222, 148.1, 148.4, 148.7; 220/556, 914; 294/142; 206/549
See application file for complete search history.

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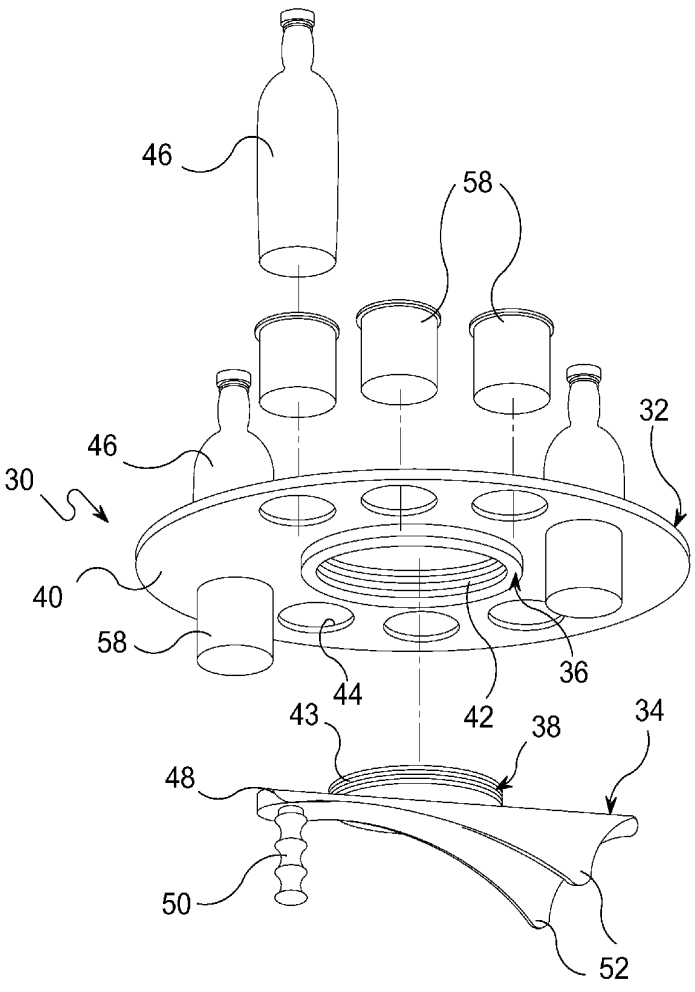
Primary Examiner — Adam Waggenspack
(74) *Attorney, Agent, or Firm* — Michael I. Kroll

(57) **ABSTRACT**

A serving tray apparatus comprising a container support portion and a hand/forearm engaging portion incorporating a mechanism for releasably attaching the container support portion to the hand/forearm engaging portion.

1 Claim, 20 Drawing Sheets



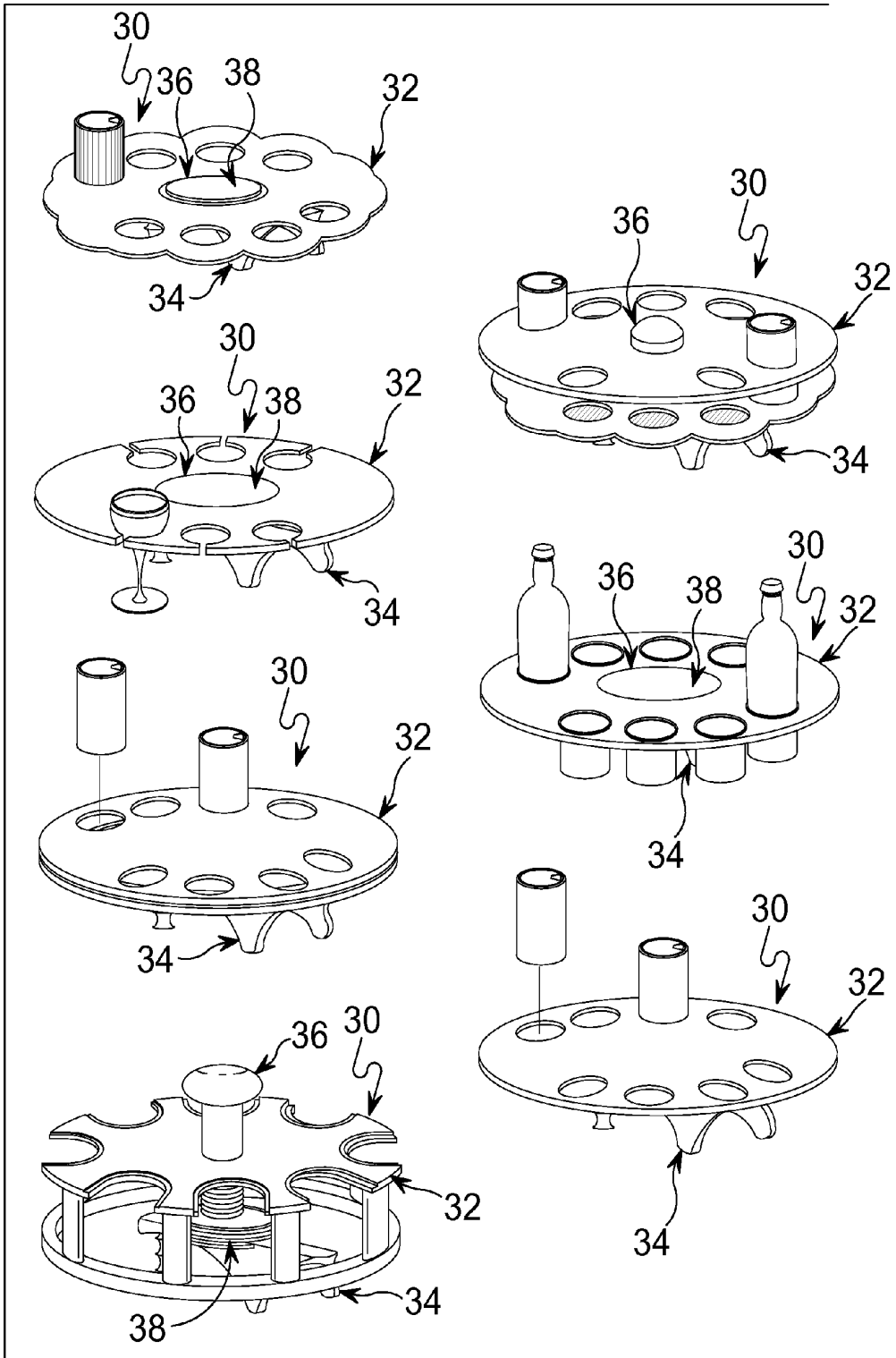

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FIG. 1

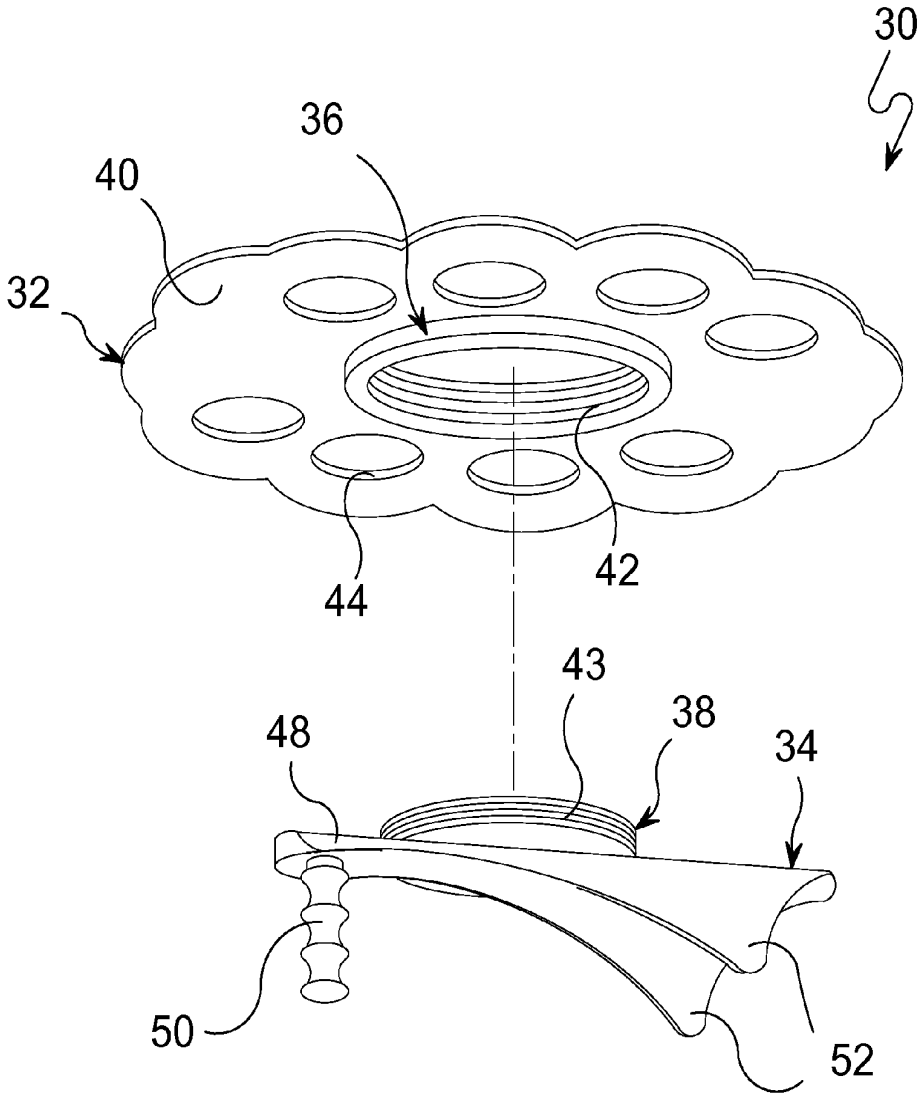

FIG. 2

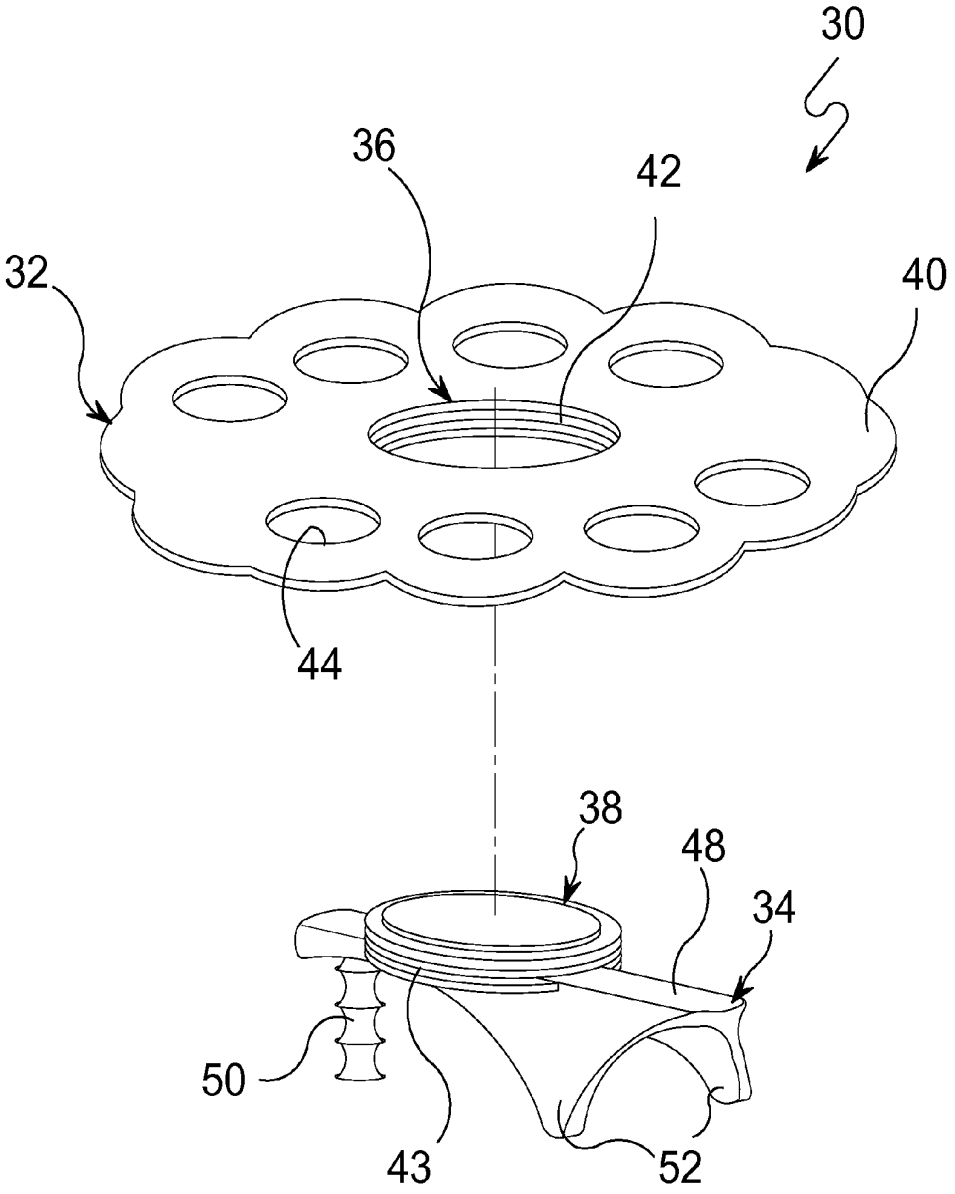

FIG. 3

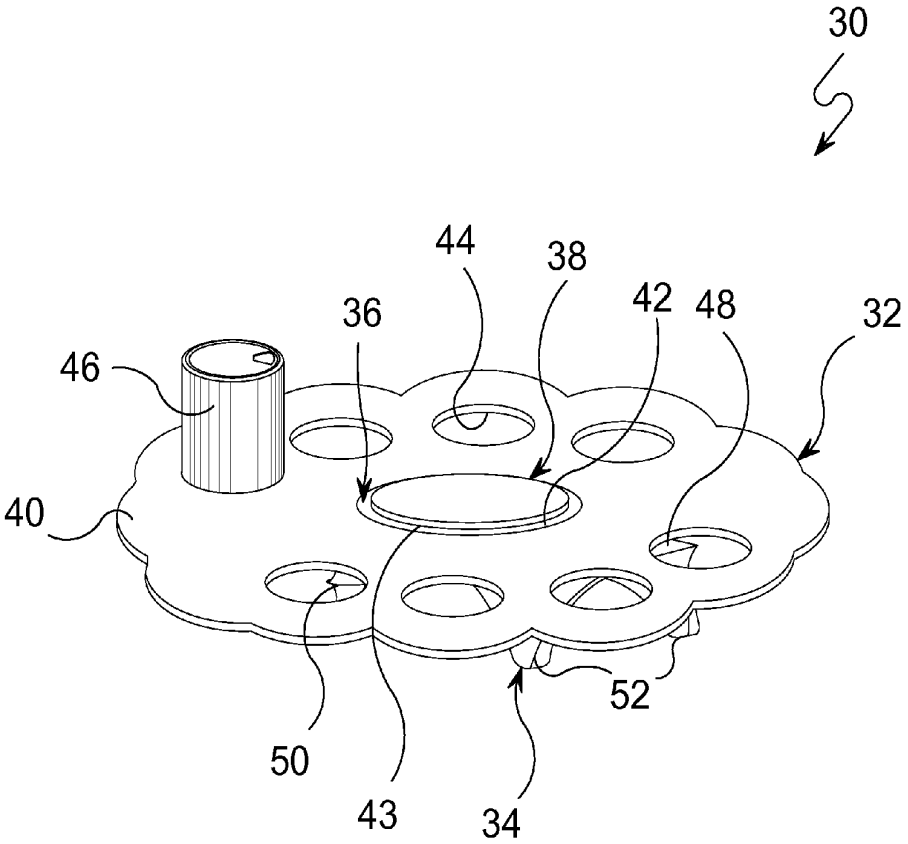

FIG. 4

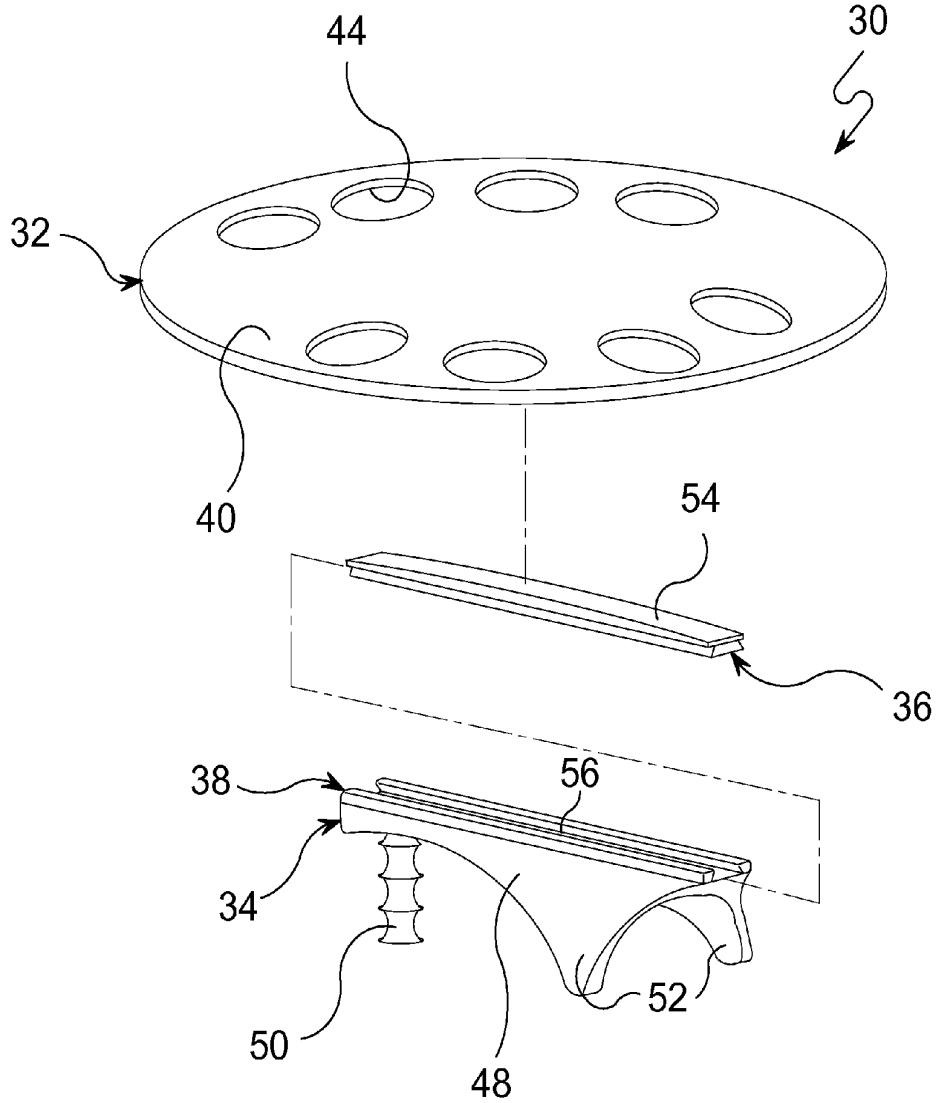

FIG. 5

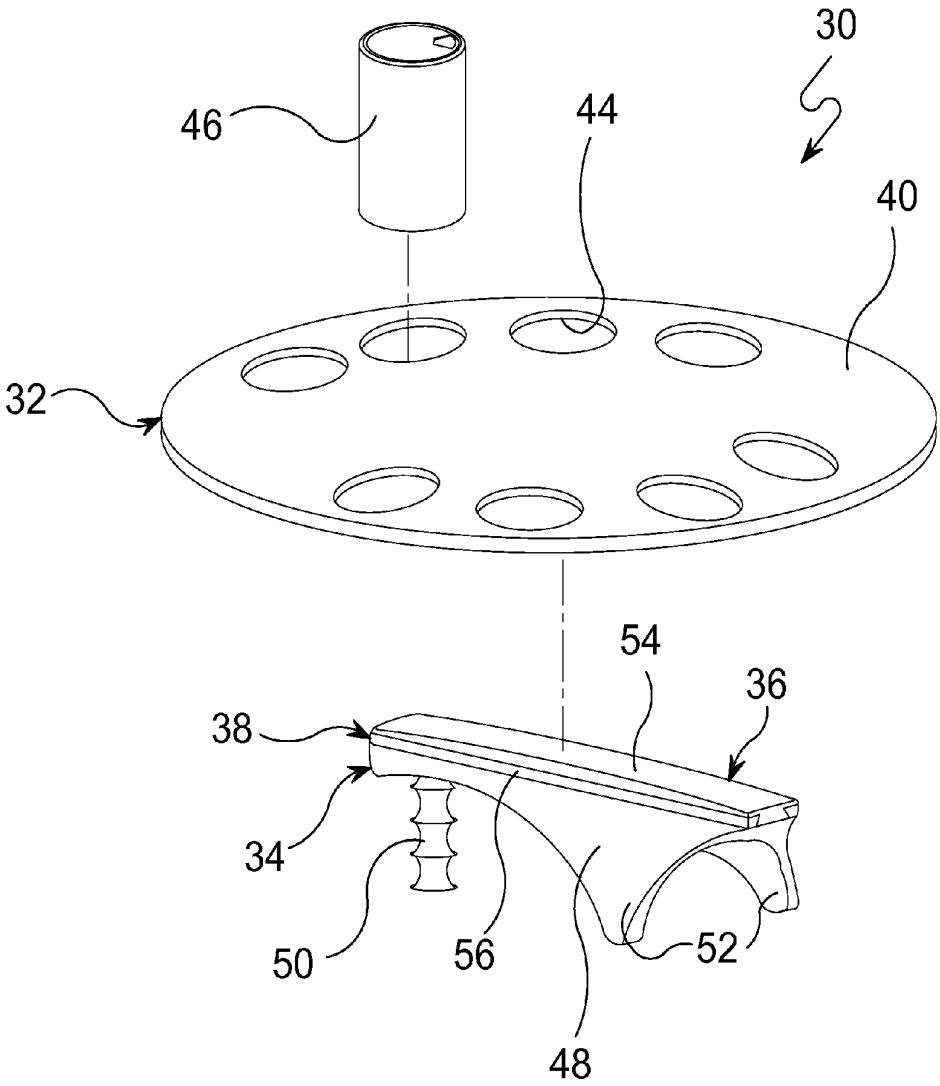

FIG. 6

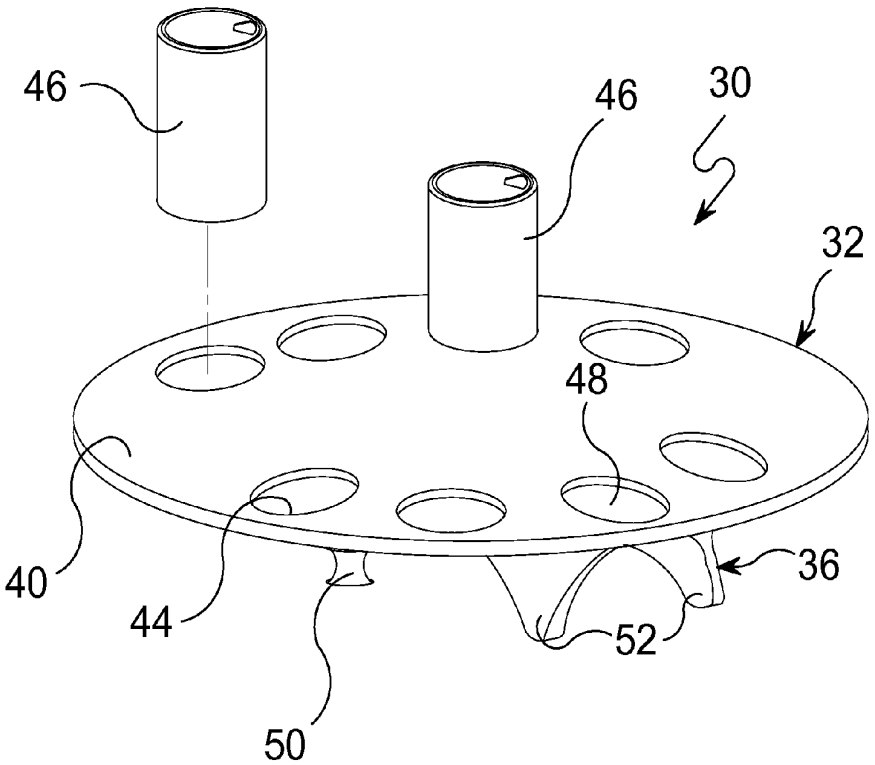

FIG. 7

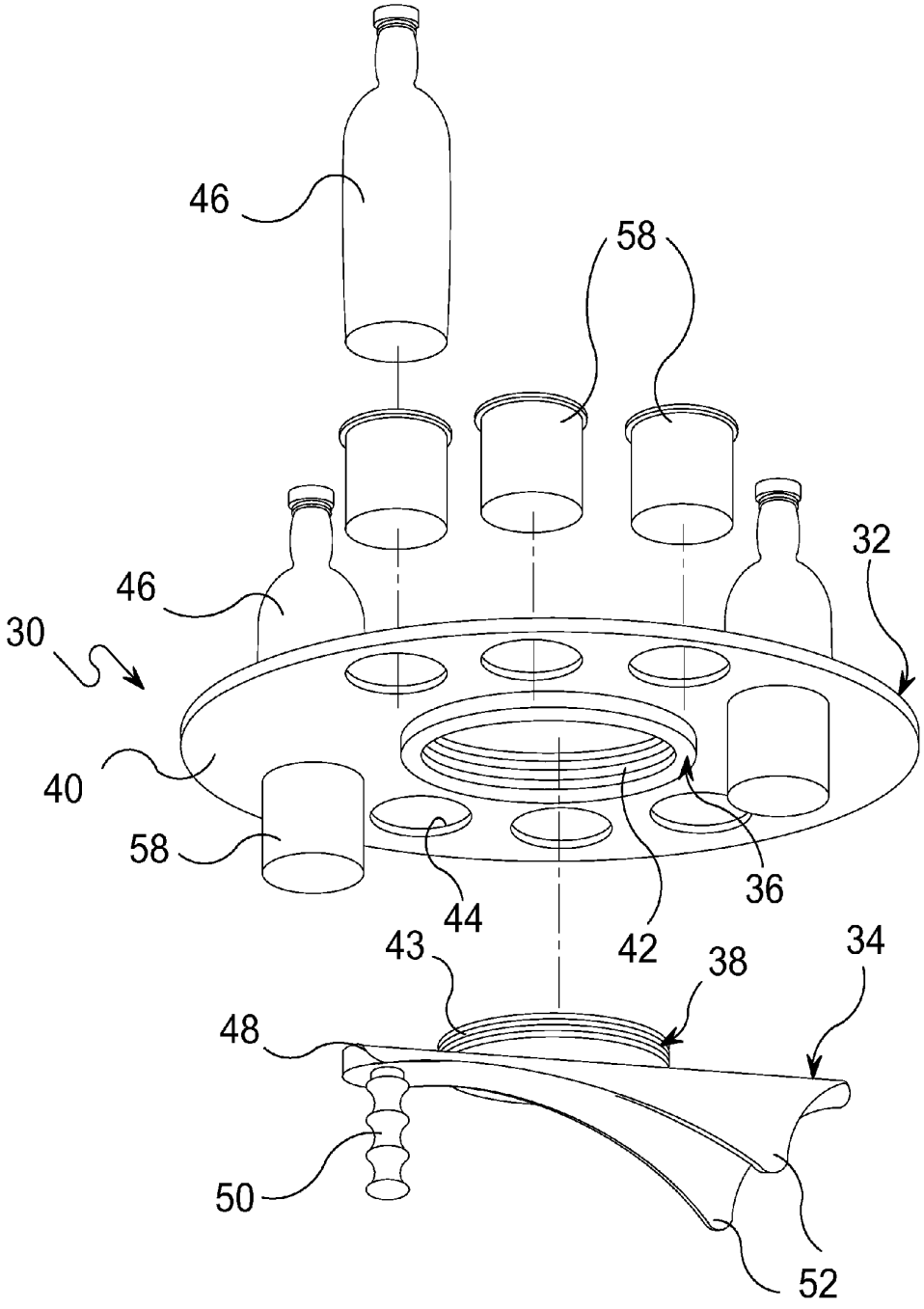

FIG. 8

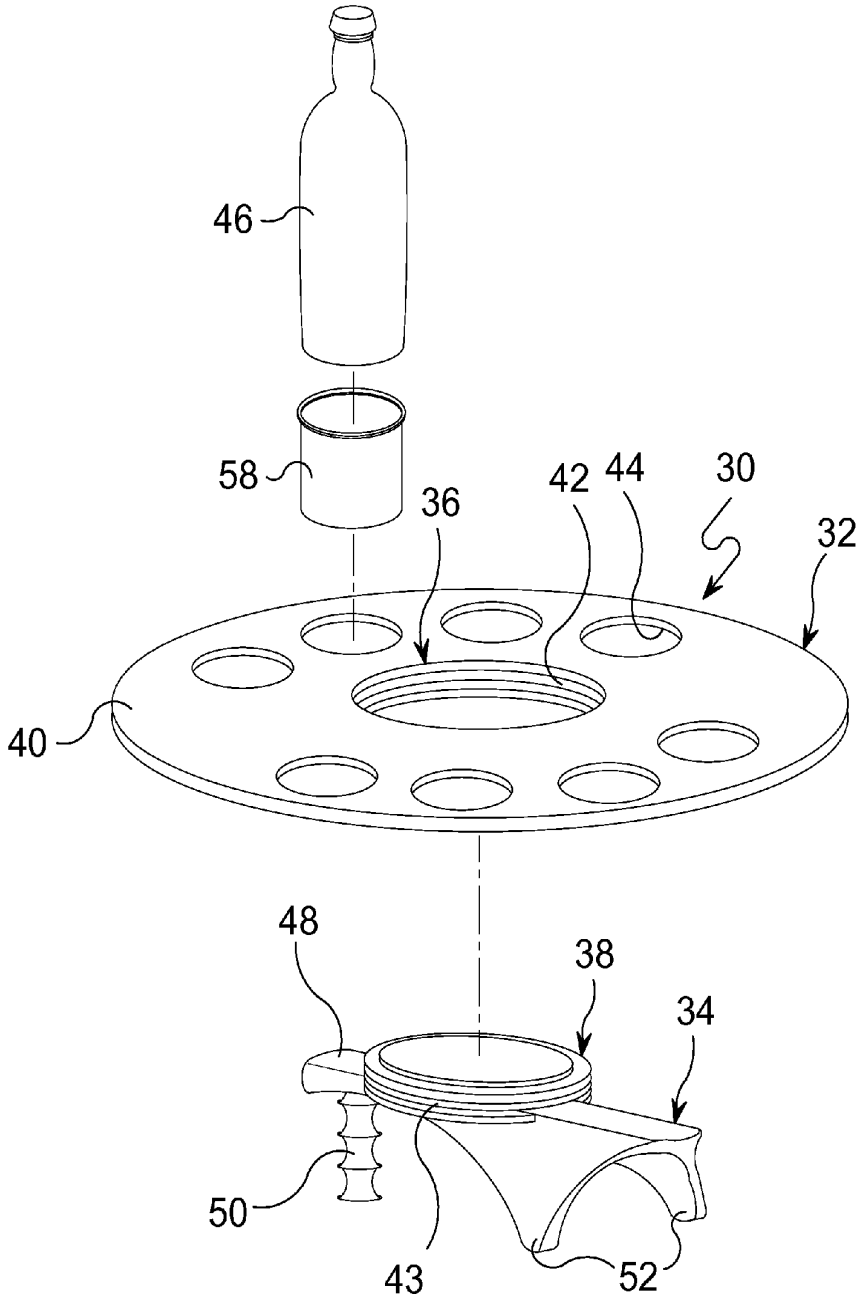

FIG. 9

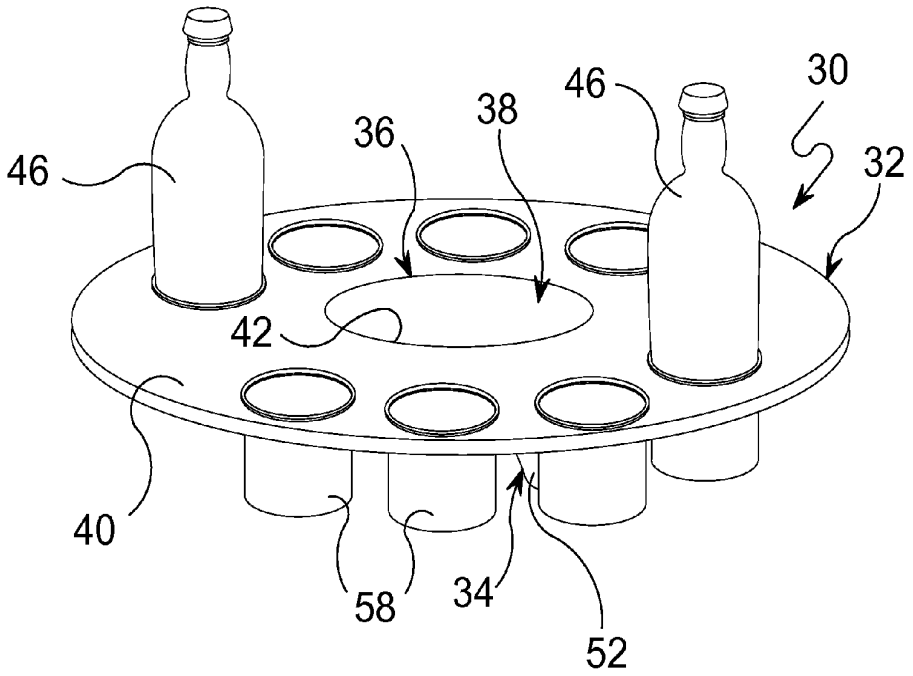

FIG. 10

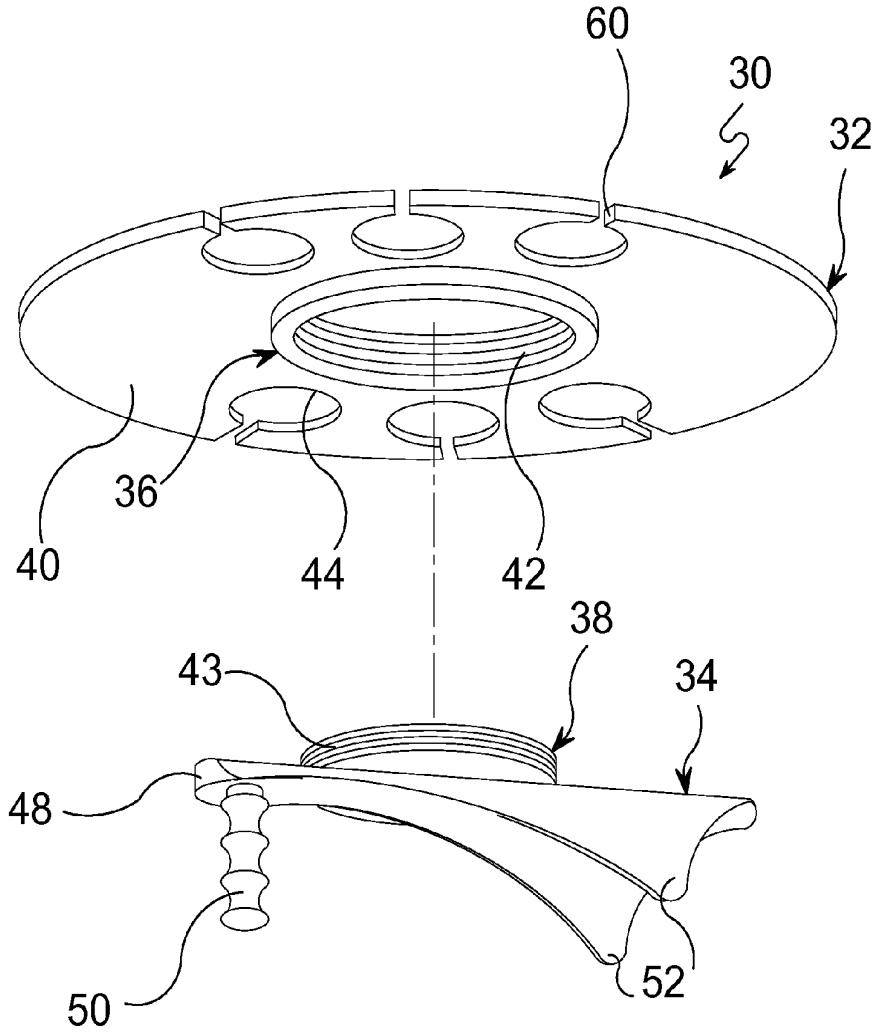

FIG. 11

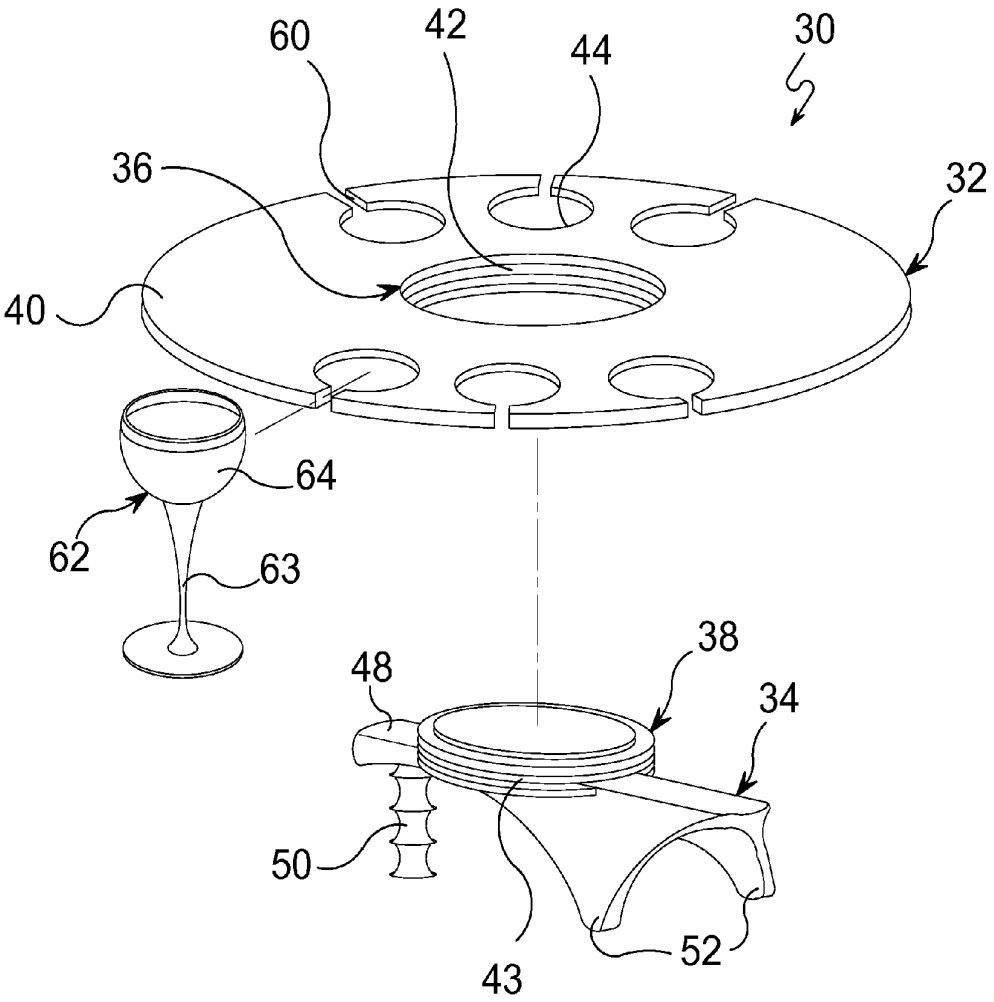

FIG. 12

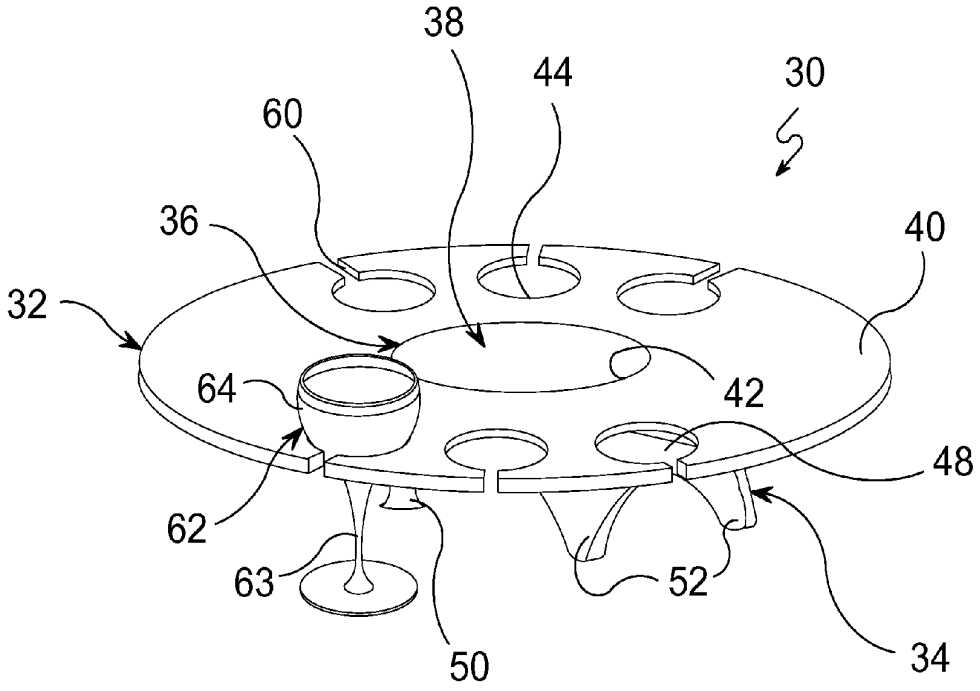

FIG. 13

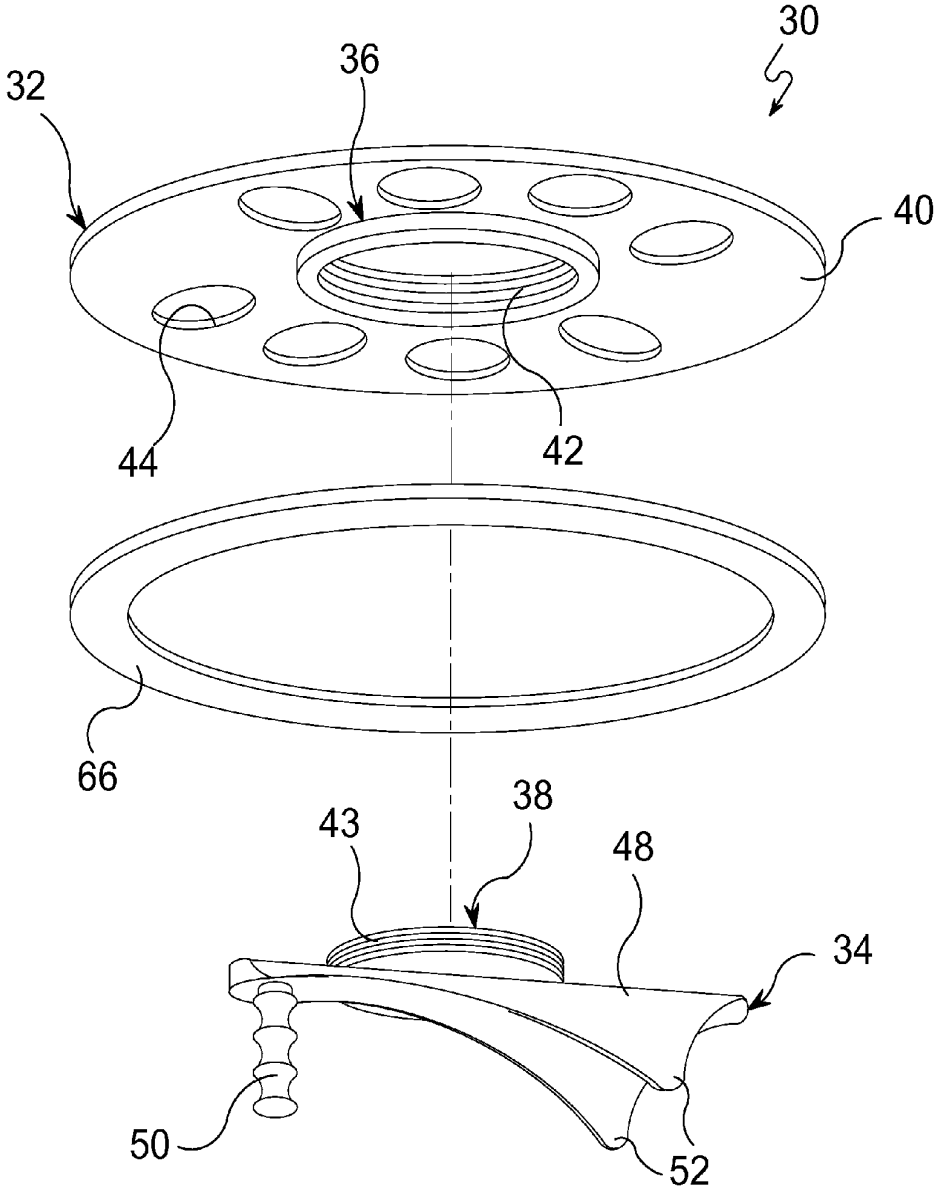

FIG. 14

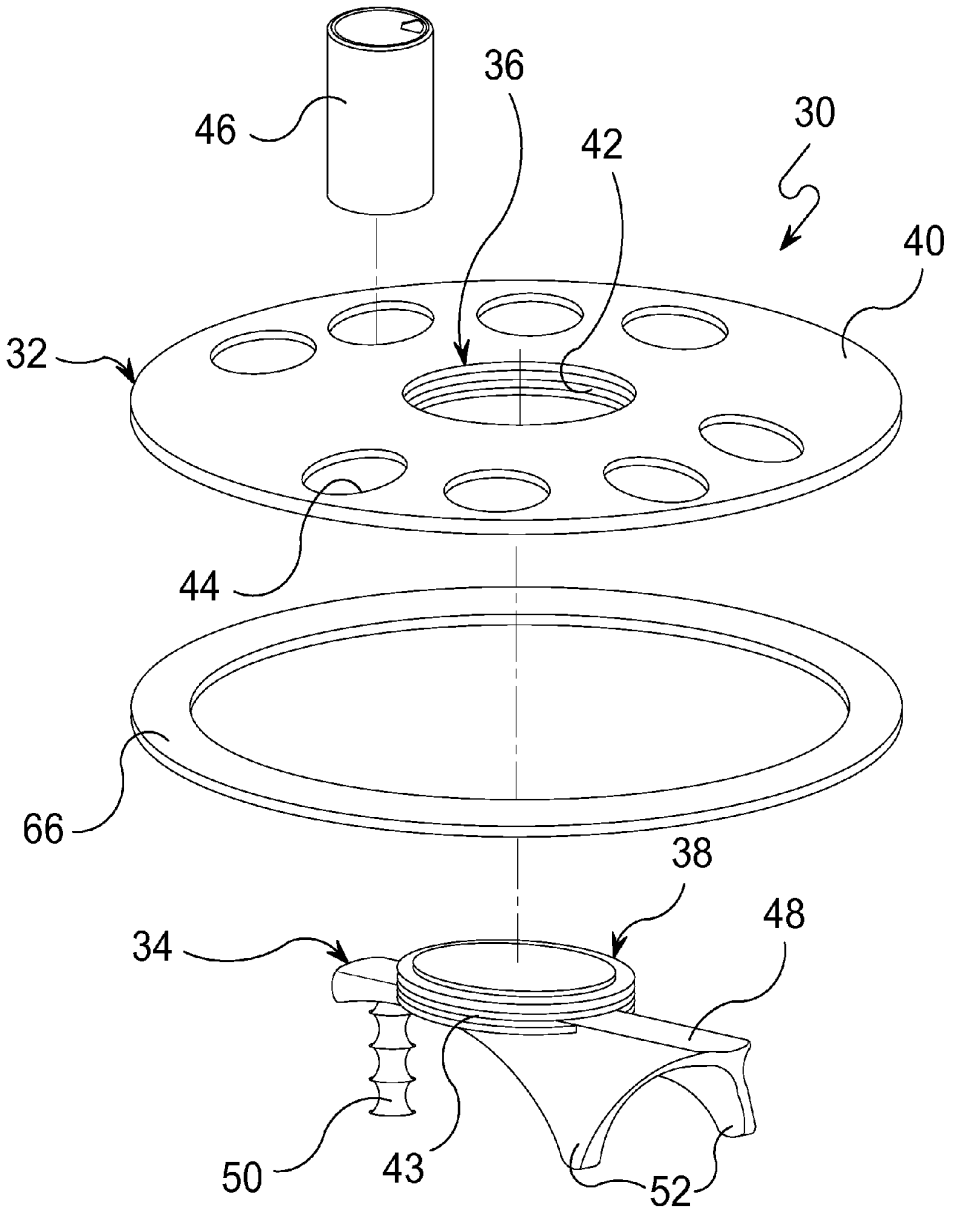

FIG. 15

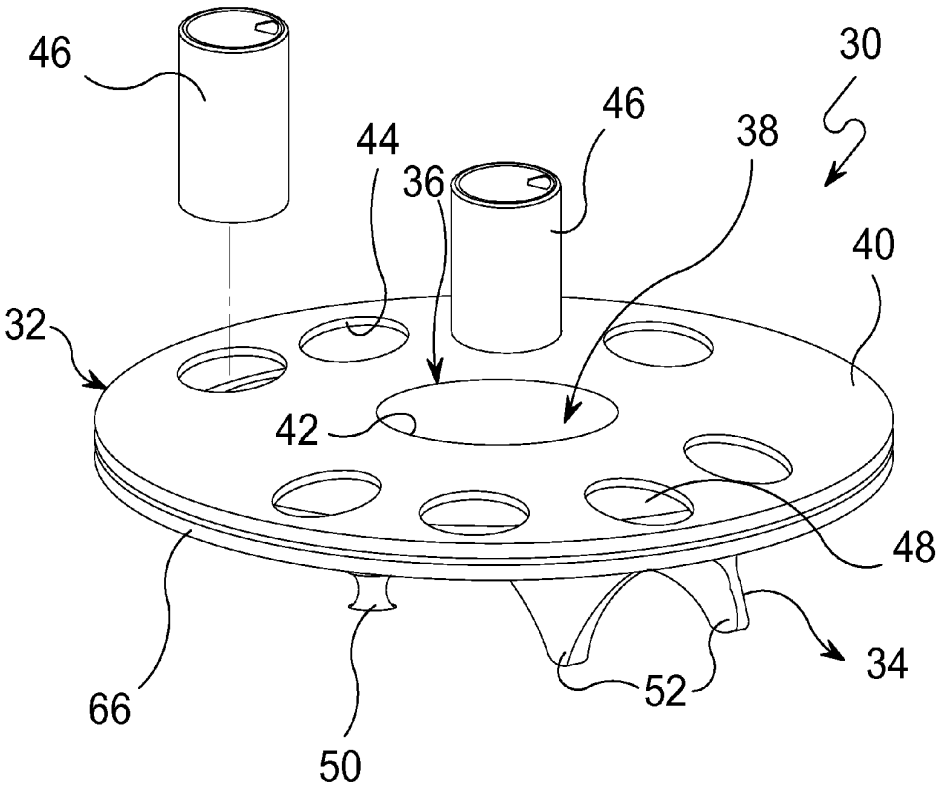

FIG. 16

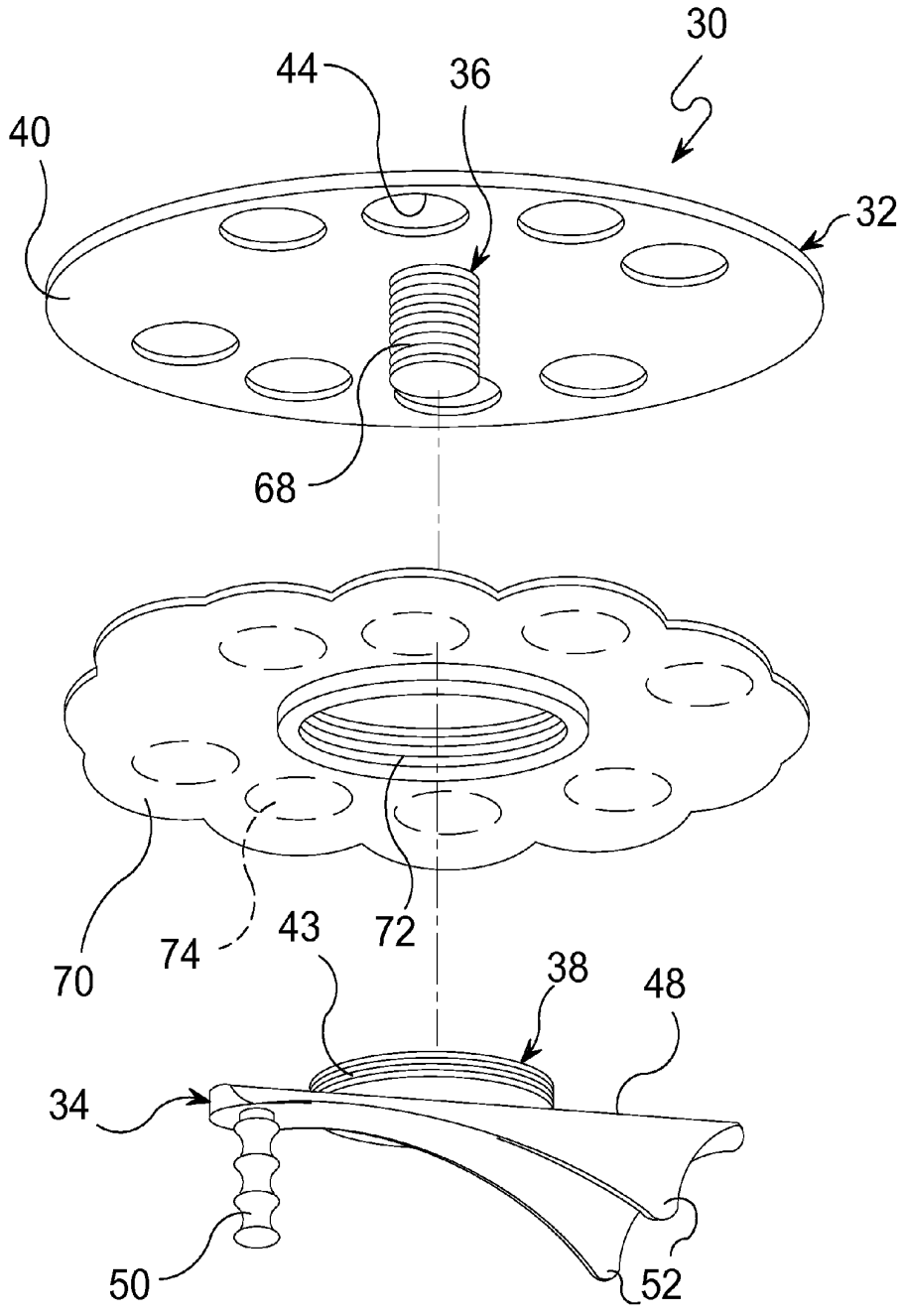

FIG. 17

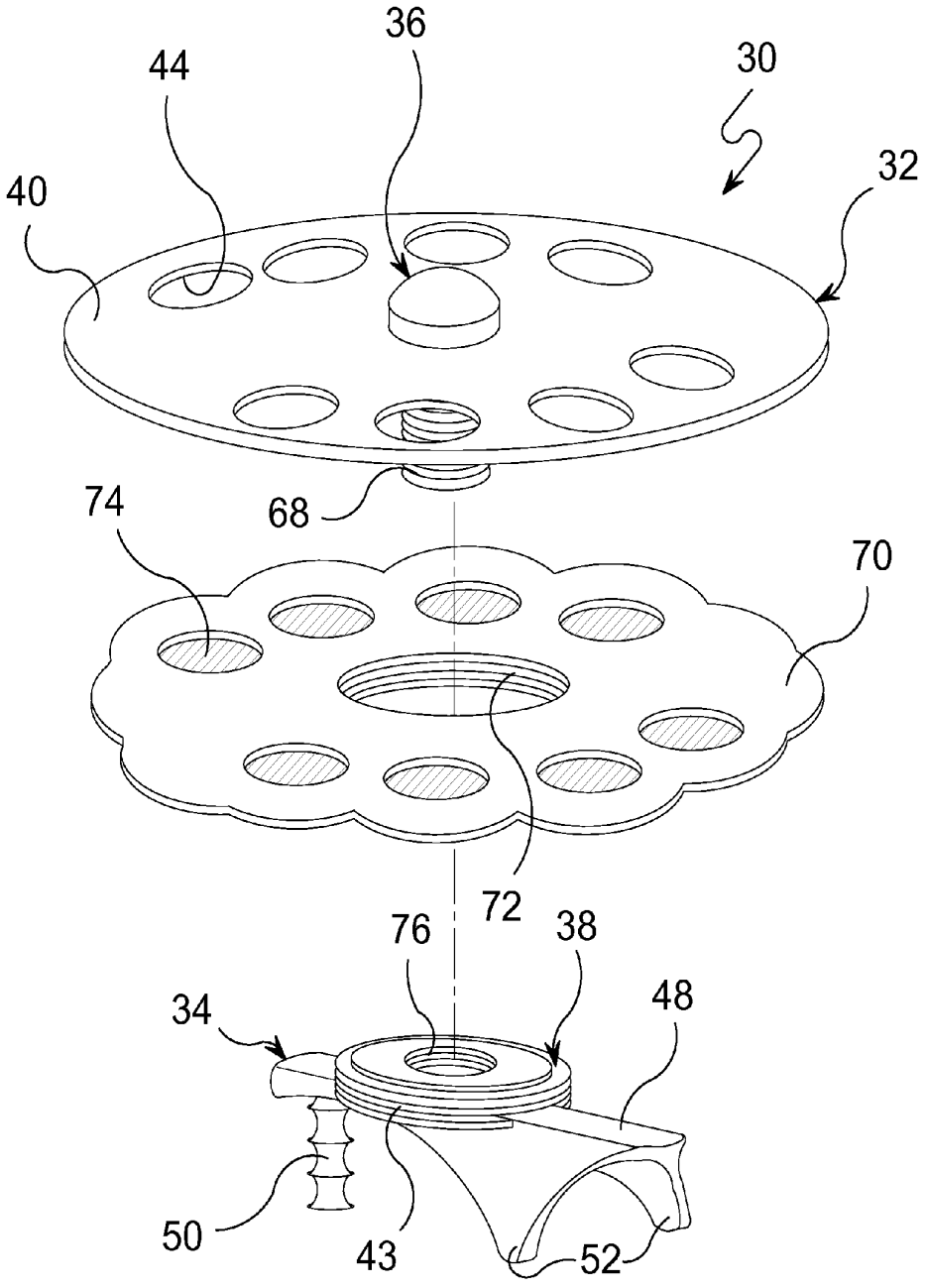

FIG. 18

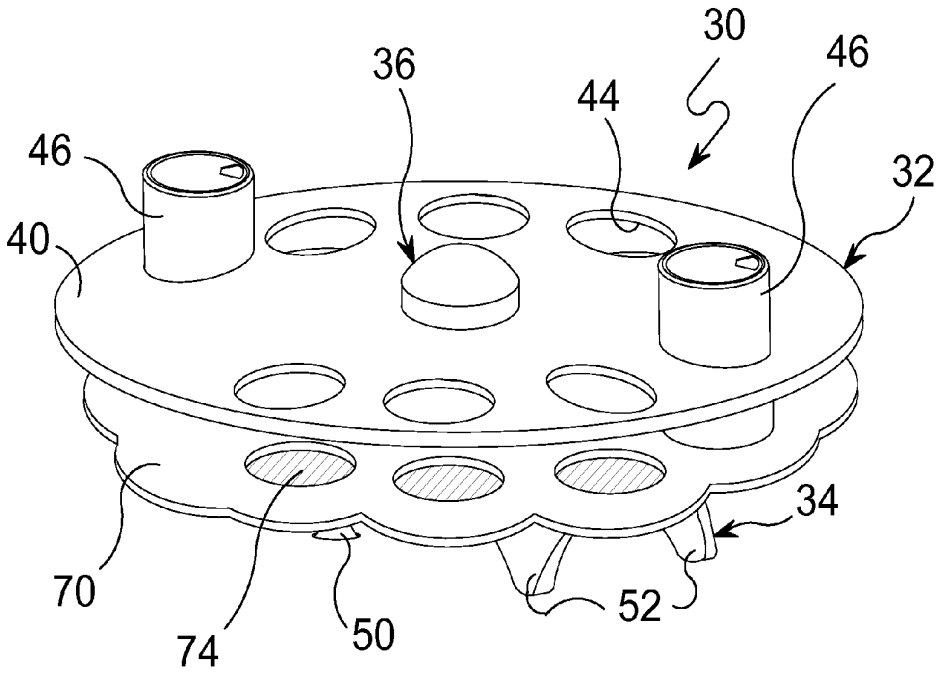

FIG. 19

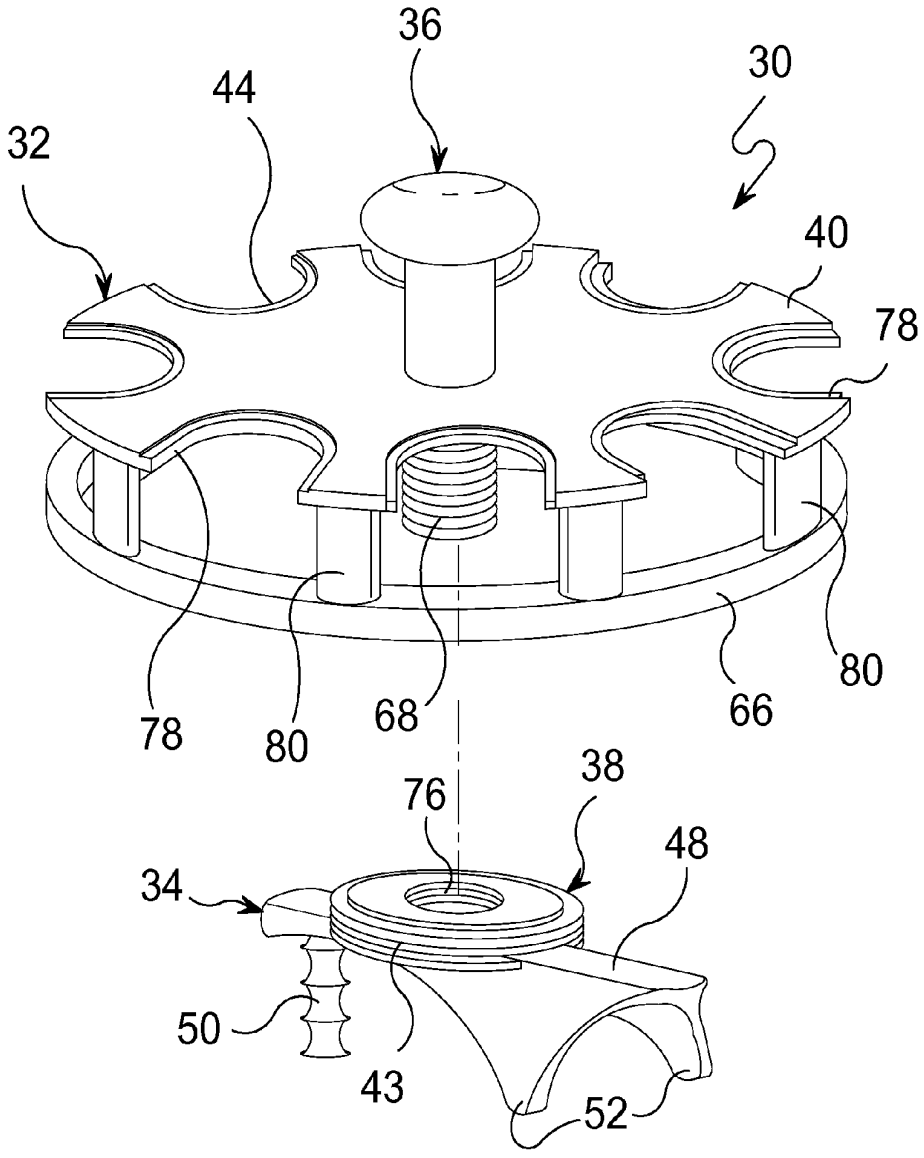

FIG. 20

SERVING TRAY APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to trays and, more specifically, to a serving tray apparatus having a rigid plate-like beverage container-support portion and a hand/forearm engaging portion.

The beverage container-support portion provides at least one rigid plate-like tray having a plurality of apertures or cavities for receiving and supporting a beverage container in a respective aperture/cavity thereby preventing lateral movement of said container once placed within a respective aperture/cavity.

The beverage container-support portion further incorporates at least one of a pair of mating fasteners for attaching the container supporting portion to the hand/forearm-engaging portion.

The hand/forearm-engaging portion having a longitudinal body provides the mating fastener to said beverage container-support portion fastener whereby the container-support portion is fastened to the hand/forearm-engaging portion that further comprises a downwardly depending hand grip and a channeled forearm brace.

The hand/forearm-engaging portion adds stability to handling the tray by virtue of the hand grip and channeled forearm brace. In other words, as the tray's center of balance changes while the tray is being carried from one location to another and when the tray's containers are removed, it becomes more difficult to balance a serving tray with one hand.

Further more, the terminus ends of the vertically depending hand grip and forearm brace, which is basically a pair of spaced apart downwardly depending wings, are substantially coplanar thereby providing a three point stand for the serving tray apparatus when placed on a horizontal surface, such as a table.

2. Description of the Prior Art

There are other serving trays designed for serving beverages. While these trays may be suitable for the purposes for which they were designed, they would not be as suitable for the purposes of the present invention, as hereinafter described.

It is thus desirable to provide a serving tray incorporating a container-support portion and a hand/forearm engaging portion.

It is further desirable to provide a serving tray having spaced apart container-support portion with the top tray having a plurality of spaced apertures and the bottom tray supporting the base of a beverage container.

SUMMARY OF THE PRESENT INVENTION

A primary object of the present invention is to provide a serving tray apparatus having a container-support portion and a hand/forearm-engaging portion.

Another object of the present invention is to provide a serving tray apparatus wherein the forearm-engaging portion comprises a downwardly depending hand grip and forearm brace having a pair of spaced apart wings.

Yet another object of the present invention is to provide a serving tray apparatus wherein said forearm-engaging portion further provides one of a pair of mating fasteners while the other mating fastener forms an integral part of the container-support portion enabling the container-support portion to be fastened to the hand/forearm-engaging portion.

Still yet another object of the present invention is to provide a serving tray apparatus wherein said hand/forearm-engaging portion comprises a longitudinal body having at least one of a mating fastener forming an integral part therewith and a downwardly depending hand grip and channeled forearm brace terminating in a pair of spaced apart wings.

An additional object of the present invention is to provide a serving tray apparatus where the container-support portion fastener and the hand/forearm-engaging portion fastener are threadedly engaged.

A further object of the present invention is to provide a serving tray apparatus where the container-support portion fastener and the hand/forearm-engaging portion fastener are a dove tail rail and dove tail channel.

A yet further object of the present invention is to provide a serving tray apparatus where the hand/forearm engaging portion accommodates a pair of spaced apart container-support trays through another pair of mating fasteners comprising a threaded cavity within the hand/forearm-engaging fastener and a threaded post downwardly extending from one of the container-support trays so that the bottom container-support tray is fastened to the hand/forearm-engaging fastener with the treaded post threadedly attached to said threaded cavity with the length of the threaded post keeping the two trays in a spaced relationship.

A still yet further object of the present invention is to provide a serving tray apparatus wherein said container-supporting portion comprises at least one rigid plate-like container supporting portion having a plurality of spaced apart apertures for supporting containers therein.

Another object of the present invention is to provide a serving tray apparatus wherein said container-support portion comprises at least one rigid plate-like container-supporting portion having a plurality of spaced cavities for supporting containers therein.

Yet another object of the present invention is to provide a serving tray apparatus further comprising a container-supporting portion having an upper tray with apertures and a subjacent tray with cavities that are co-aligned with the upper tray's apertures thereby supporting the base of a beverage container within a respective subjacent tray cavity while the beverage container's upper wall is contained within a respective aperture.

Still yet another object of the present invention is to provide a serving tray apparatus further comprising a container-support portion having an upper tray with apertures and a subjacent ring fixedly attached to said upper tray wherein said ring extends fully or partial across the upper tray apertures thereby supporting the base of a beverage container upon said fixedly attached ring.

An additional object of the present invention is to provide a serving tray apparatus further comprising a container-support portion having an upper tray with apertures and a subjacent ring with a plurality of spacers fixedly positioned between said upper tray and said ring wherein said ring extends fully or partial across the upper tray apertures thereby supporting the base of a beverage container upon said fixedly attached ring.

A further object of the present invention is to provide a serving tray apparatus wherein said container-supporting portion having said plurality of spaced apertures for supporting container therein, further provides flanged receptacles for receiving and supporting a beverage container therein with said receptacle flange supported along the periphery of said apertures.

A yet further object of the present invention is to provide a serving tray apparatus wherein said container-support portion

comprises at least one rigid plate-like tray having a plurality of apertures wherein said plurality of apertures optionally provides each aperture with a recess extending from the aperture through the edge of the tray thereby enabling goblets/stemware glasses to be inserted by their stems into a respective recess with the glass bowl portion supported by the rim of the aperture.

A still yet object of the present invention is to provide a threaded cap for said threaded post whereby said threaded cap forms a handle for carrying the serving tray apparatus.

Additional objects of the present invention will appear as the description proceeds.

The present invention overcomes the shortcomings of the prior art by providing a serving tray apparatus having a rigid plate-like container-supporting portion and a hand/forearm-engaging portion.

The container-support portion provides at least one rigid plate-like tray having a plurality of apertures or cavities for receiving and supporting a container in a respective aperture/cavity

Further provided is at least one of a pair of mating fasteners taken from the group of threaded and dovetail for releasably attaching the container supporting portion to the hand/forearm engaging portion.

The hand/forearm engaging portion provides at least one of a mating fastener for releasably attaching the container-support portion to the hand/forearm engaging portion that further comprises a downwardly depending hand grip and forearm brace, where the forearm bracket has a channel with opposing channel sides with depending wings.

Further more, the terminus ends of the vertically depending hand grip and forearm brace are substantially coplanar thereby providing a three point stand for the serving tray apparatus when placed on a horizontal surface, such as a table.

The foregoing and other objects and advantages will appear from the description to follow. In the description reference is made to the accompanying drawing, which forms a part hereof, and in which is shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments will be described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that structural changes may be made without departing from the scope of the invention. In the accompanying drawing, like reference characters designate the same or similar parts throughout the several views.

The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is best defined by the appended claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

In order that the invention may be more fully understood, it will now be described, by way of example, with reference to the accompanying drawing in which:

FIG. **1** is a plurality of illustrative top perspective views of the serving tray apparatus of the present invention incorporating various elements.

FIG. **2** is an exploded bottom perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion.

FIG. **3** is an exploded top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container-support portion to the hand/forearm engaging portion.

FIG. **4** is an assembled top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion.

FIG. **5** is an exploded top perspective view of the serving tray apparatus of the present invention using a dovetail fastener for attaching the container support portion to the hand/forearm engaging portion.

FIG. **6** is a partial exploded top perspective view of the serving tray apparatus of the present invention using a dovetail fastener for attaching the container support portion to the hand/forearm engaging portion.

FIG. **7** is an assembled top perspective view of the serving tray apparatus of the present invention using a dovetail fastener for attaching the container support portion to the hand/forearm engaging portion.

FIG. **8** is an exploded bottom perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further incorporating flanged beverage receptacles positioned within the serving tray apertures for placing beverage containers therein.

FIG. **9** is an exploded top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further incorporating flanged beverage receptacles positioned within the serving tray apertures for placing beverage containers therein.

FIG. **10** is an assembled top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further incorporating flanged beverage receptacles positioned within the serving tray apertures for placing beverage containers therein.

FIG. **11** is an exploded bottom perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further providing each aperture with a slot extending from the aperture to the edge of the serving tray whereby stemmed beverage containers can be inserted into a respective aperture through the respective slots.

FIG. **12** is an exploded top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further providing each aperture with a slot extending from the aperture to the edge of the serving tray whereby stemmed beverage containers can be inserted into a respective aperture through the respective slots.

FIG. **13** is an assembled top perspective view of the serving tray apparatus of the present invention using a threaded fastener for attaching the container support portion to the hand/forearm engaging portion further providing each aperture with a slot extending from the aperture to the edge of the serving tray whereby stemmed beverage containers can be inserted into a respective aperture through the respective slots.

FIG. **14** is a bottom exploded perspective view of the serving tray apparatus of the present invention whereby the container support portion is comprised of an upper ridged plate having a centrally disposed threaded through bore with a plurality of arrayed apertures and a subjacently positioned

lower ring that extends fully or partially across the plurality of arrayed apertures thereby supporting the base of a beverage container on the lower ring.

FIG. **15** is a top exploded perspective view of the serving tray apparatus of the present invention whereby the container support portion is comprised of an upper ridged plate having a centrally disposed threaded through bore with a plurality of arrayed apertures and a subjacently positioned lower ring that extends fully or partially across the plurality of arrayed apertures thereby supporting the base of a beverage container on the lower ring.

FIG. **16** is an assembled perspective view of the serving tray apparatus of the present invention in use whereby the container support portion is comprised of an upper ridged plate having a centrally disposed threaded through bore with a plurality of arrayed apertures and a subjacently positioned lower ring that extends fully or partially across the plurality of arrayed apertures thereby supporting the base of a beverage container on the lower ring.

FIG. **17** is a bottom exploded perspective view of the serving tray apparatus of the present invention whereby the container support portion is comprised of an upper ridged plate having a threaded post with a plurality of arrayed apertures therearound and a fixedly attached subjacent lower ridged plate thereunder.

FIG. **18** is a top exploded perspective view of the serving tray apparatus of the present invention whereby the container support portion is comprised of an upper ridged plate having a threaded post with a plurality of arrayed apertures therearound and a fixedly attached subjacent lower ridged plate thereunder.

FIG. **19** is a top assembled perspective view of the serving tray apparatus of the present invention in use whereby the container support portion is comprised of an upper ridged plate having a threaded post with a plurality of arrayed apertures therearound and a fixedly attached subjacent lower ridged plate thereunder supporting a respective beverage container in a respective aperture in the lower ridged plate.

FIG. **20** is a top exploded perspective view of the serving tray apparatus of the present invention comprising a container support portion having an upper ridged plate with U-shaped apertures and a subjacent lower ring with a plurality of spacers fixedly positioned between the upper ridged plate and the lower ring.

DESCRIPTION OF THE REFERENCED NUMERALS

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, the Figures illustrate the cigarette lighter, bottle opener and compass multi-tool of the present invention. With regard to the reference numerals used, the following numbering is used throughout the various drawing figures.

30 serving tray apparatus
32 container support portion of apparatus **30**
34 hand/forearm engaging portion of apparatus **30**
36 first fastener of apparatus **30**
38 second fastener of apparatus **30**
40 ridged plate of container support portion **32**
42 threaded bore for first fastener **36**
43 externally threaded upstanding boss for second fastener **38**
44 aperture in ridged plate **40**
46 beverage container
48 longitudinal body of hand/forearm engaging portion **34**
50 hand grip of hand/forearm engaging portion **34**
52 wing on longitudinal body **48**
54 dovetail track mounting strip for first fastener **36**
56 dovetail rail for second fastener **38**
58 flanged receptacle of apparatus **30**
60 slot in ridged plate **40**
62 goblet/wine glass for beverage container **46**
63 stem of goblet/wine glass **62**
64 cup portion of goblet/wine glass **62**
66 ring of apparatus **30**
68 threaded post for first fastener **36**
70 second rigid plate of apparatus **30**
72 threaded through bore in second rigid plate **70**
74 recessed cavity in second rigid plate **70**
76 internally threaded aperture for second fastener **38**
78 U-shaped cutout in aperture **44**
80 spacer of apparatus **30**

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The following discussion describes in detail the present invention with several variations thereof. This discussion should not be construed, however, as limiting the invention to those particular variations, since practitioners skilled in the art will recognize numerous other variations as well. For definition of the complete scope of the present invention, the reader is directed to appended claims.

Referring to FIG. **1**, shown are illustrative variations of the serving tray apparatus **30** of the present invention. Shown are several variations of the serving tray apparatus **30** comprising a container support portion **32** and a hand/forearm engaging portion **34** releasably attached together through mating fasteners **36**, **38** forming an integral part of the container support portion **32** and the hand/forearm engaging portion **34**.

Referring to FIGS. **2** through **4** shown is the serving tray apparatus **30** of the present invention. Illustrated in FIGS. **2** and **3** are exploded views of the container support portion **32** comprising a rigid plate **40** having a centrally disposed threaded bore **42** being the first fastener **36** with radially arrayed apertures **44** for receiving and supporting a beverage container **46** in a respective aperture **44**, as shown in FIG. **4**. Also shown is the hand/forearm engaging portion **34** having a longitudinal body **48** with a hand grip **50** on one end with the longitudinal body **48** extending therefrom into a pair of spaced apart downwardly depending wings **52** for engaging a user's forearm. The mating second fastener **38** being an externally threaded upstanding boss **43** is fixed to the top of the longitudinal body **48** for providing means for attaching to the first fastener **36** of the container support portion **32**. FIG. **4** depicts an assembly view of the present invention. The terminus ends of the vertically depending hand grip **50** and the longitudinal body **48** are substantially coplanar thereby providing a three point stand for the serving tray apparatus **30** when placed on a horizontal surface, such as a table.

Referring to FIGS. **5** through **7**, shown are exploded views and an assembled view of another additional variation of the present invention. Illustrated in FIGS. **5** and **6** are exploded views of the serving tray apparatus **30** consisting of a container support portion **32** being a ridged plate **40** having a plurality of radially arrayed apertures **44** for receiving and supporting a beverage container **46** in a respective aperture **44**, as shown in FIG. **7**. Also shown is the hand/forearm engaging portion **34** having a longitudinal body **48** with a hand grip **50** on one end with a pair of spaced apart downwardly depending wings **52** for engaging a user's forearm. FIG. **7** depicts an assembly view of the present invention. As illustrated, the mating first and second fasteners **36**, **38** are for

attaching the container support portion **32** to the hand/forearm engaging portion **34** which are a dovetail track mounting strip **54** fixed to the underside of the ridged plate **40** of the container support portion **32** and a dovetail rail **56** fixed onto the longitudinal body **48** of the hand/forearm engaging portion **34**.

Referring to FIGS. **8** through **10**, shown are exploded views and an assembled view of another additional variation of the present invention. The present invention is a serving tray apparatus **30** having a ridged plate **40** for moving a plurality of beverage containers **46** from one location to another by providing a hand/forearm engaging portion **34** incorporating a second fastener **38** with the first mating fastener **36** forming an integral part of the ridged plate **40**, whereby the ridged plate **40** can be releasably attached to the hand/forearm engaging portion **34**. The present invention further provides a corresponding plurality of flanged receptacles **58** with each flanged receptacle **58** positioned into each aperture **44**, thereby providing for placement of a beverage container **46** into the flanged receptacle **58**, as shown in FIG. **10**.

Referring to FIGS. **11** through **13**, are exploded views and an assembled view of yet another additional variation of the present invention. Illustrated in FIGS. **11** and **12** are exploded views of the container support portion **32** comprising a rigid plate **40** having a centrally disposed threaded bore **42** with radially arrayed apertures **44** for receiving and supporting a beverage container **46** in a respective aperture **44** further comprising a slot **60** extending from the edge of the ridged plate **40** to an aperture **44**, as shown in FIG. **11**. FIG. **12** depicts a beverage container **44**, such as a goblet or wine glass **62**, which has a stem **63** that can be passed through the slot **60** with the cup portion **64** and then supported by the aperture **44**. Also shown is the hand/forearm engaging portion **34** having a longitudinal body **48** with a hand grip **50** on one end with a pair of spaced apart downwardly depending wings **52** on an opposite end for engaging a user's forearm. The mating second fastener **38** is fixed to the top of the longitudinal body **48** providing means for attaching to the container support portion **32**. FIG. **13** depicts an assembly view of the present invention. The terminus ends of the vertically depending hand grip **50** and longitudinal body **48** are substantially coplanar thereby providing a three point stand for the serving tray apparatus **30** when placed on a horizontal surface, such as a table.

Referring to FIGS. **14** through **16**, shown is the container support portion **32** comprising a ridged plate **40** having a threaded through bore **42** with a plurality of arrayed apertures **44** therearound and a fixedly attached subjacent ring **66**. Illustrated in FIGS. **14** and **15** are exploded views of the serving tray apparatus **30** consisting of the rigid plate **40** having a plurality of radially arrayed apertures **44**, for receiving a beverage container **46** in a respective aperture **44** and a subjacently fixed ring **66** that fully or partially extends across the plurality of arrayed apertures **44**, thereby forming support for the base of a beverage container **46** has shown in FIG. **16**.

Referring to FIGS. **17** through **19** are exploded views of the serving tray apparatus **30** while FIG. **19** depicts an assembled view in use. The container support portion **32** comprises a ridged plate **40** having a plurality of radially positioned apertures **44** with a centrally disposed downwardly depending threaded post **68** and a subjacent second ridged plate **70** having a threaded through bore **72** with a plurality of radially positioned recessed cavities **74** that when assembled are co-aligned with the apertures **44**. The second ridged plate **70** is threadedly attached to the exterior thread of the second fastener **38** and the threaded post **68** is threadedly attached to a threaded through bore **76** of the second fastener **38**, whereby the length of the threaded post **68** keeps the ridged plate **40** and second ridged plate **70** spaced apart.

Referring to FIG. **20**, depicts an additional variation of the present invention having a serving tray apparatus **30** further comprising a container support portion **32** having an ridged plate **40** with apertures **44** each having a U-shaped cutout **78** and a subjacent ring **66** with a plurality of spacers **80** fixedly positioned between the ridged plate **40** and the ring **66**, wherein the ring **66** extends fully or partial across the apertures **44** of the ridged plate **40**, thereby supporting the base of a beverage container **46** upon the fixedly attached ring **66**.

What is claimed is:

1. A serving tray apparatus which comprises:

a) a container support portion comprising a rigid plate having a plurality of radially arrayed apertures for receiving and supporting beverage containers within and extending completely through the apertures and below said rigid plate;

b) a forearm engaging portion comprising a longitudinal body having a vertically depending hand grip at a first end and a pair of spaced apart downwardly depending wings at a second end for engaging a user's forearm, whereby the hand grip and the wings are substantially coplanar to provide a three point stand when placed on a horizontal surface;

c) said longitudinal body comprising downwardly extending sides sloping from distal ends of said wings to a base of said hand grip where said hand grip meets said longitudinal body;

d) means for releasably attaching the container support portion to the forearm engaging portion comprising a first fastener for the container support portion and a second fastener for the forearm engaging portion, whereby the first fastener mates with the second fastener;

e) the first fastener comprising the rigid plate having a centrally disposed threaded bore and the second fastener comprising an externally threaded upstanding boss on the forearm engaging portion which engages with the internally threaded bore of the first fastener; and

f) a plurality of flanged receptacles, with each flanged receptacle positioned into and extending completely through each aperture in the rigid plate, and each receptacle having a side wall and a bottom closing wall thereby providing for placement of the beverage containers into the flanged receptacles.

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