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(71) Applicant: **Hu, Bobby Taichung (TW)**

(72) Inventor: **Hu, Bobby Taichung (TW)**

(74) Representative: **Viering, Jentschura & Partner Patent- und Rechtsanwälte Grillparzerstrasse 14 81675 München (DE)**

(54) **Detachable stem assembly for a flat bottom glass**

(57) A stem assembly (10) includes a connecting member (20) having a top side (201) and a bottom side (202) spaced from the top side (201) along a longitudinal axis (X). The top side (201) of the connecting member (20) has an engagement face (21) perpendicular to the longitudinal axis (X). The engagement face (21) is plane and is coupled to a flat bottom (91) of a flat bottom glass (90). An end (301) of a stem (30) is detachably mounted to the bottom side (202) of the connecting member (20). A foot (40) is mounted to the other end (302) of the stem (30). A diameter (D42) of a bottom face (42) of the foot (40) perpendicular to the longitudinal axis (X) is larger than a diameter (D33) of a supporting section (33) between the ends (301, 302) of the stem (30).

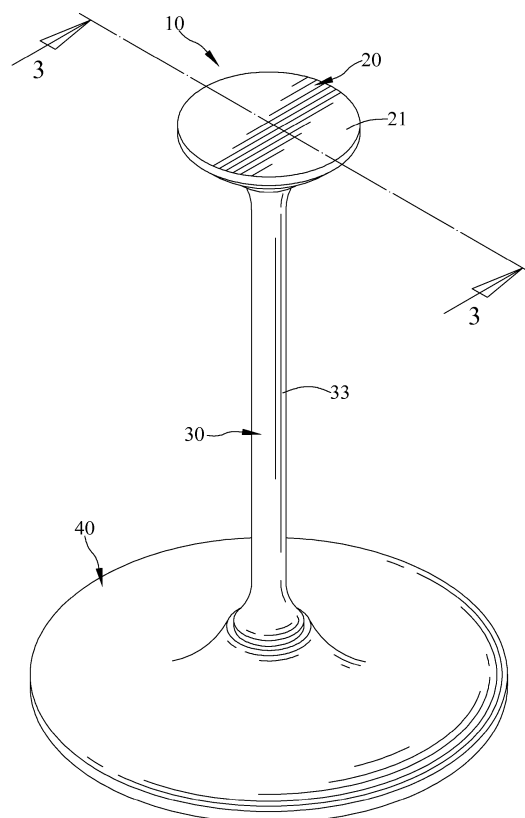


FIG.1

Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a detachable stem assembly and, more particularly, to a stem assembly detachably mounted to a flat bottom of a flat bottom glass.

[0002] Drinking wines is a branch of knowledge as well as enjoyment to some people. There is a wide variety of wines, such as red wine, white wines, brandy, whiskey, sake, champagne, etc. Different wine glasses have been developed for tasking various wines.

[0003] Taking brandy as an example, the correct way of holding a brandy glass is holding the head of the wine glass by a palm and using the temperature of the palm to decant the wine so as to improve the flavor of brandy.

[0004] With regard to red wines, different wine glasses are used for different wines from different areas and generally include Burgundy wine glasses and Bordeaux wine glasses. Since the best temperature for tasting red wines is in a range between 12°C and 18°C, the way of holding the wine glass is particularly important. A wine taster should hold the stem with fingers and avoid contact with the head of the wine glass. For good red wines, the rim of the wine glass has a diameter smaller than that of the head of the wine glass to accumulate the flavor. That is the reason why high stem wine glasses are particularly suitable for tasting red wines. Currently available high stem wine glasses are integrally formed by glass. Some wine tasters carry their own high stem wine glasses according to their habits of wine tasting and decanting.

[0005] The high stem wine glasses carried along with the wine tasters are liable to break at the stems during transport due to the slim structure. For example, the stems of the high stem wine glasses placed in trunks or the like are liable to break due to shock of the transportation tools or due to shock or falling of the trunks on a luggage conveyor. Carriage of high stem wine glasses is, thus, inconvenient. Furthermore, high stem wine glasses integrally formed of glass are expensive. Purchasing new high stem wine glasses is a burden to users.

[0006] Thus, a need exists for a novel stem assembly for glasses to mitigate and/or obviate the above disadvantages.

BRIEF SUMMARY OF THE INVENTION

[0007] The present invention solves this need and other problems in the field of preventing damage of expensive high stem wine glasses by providing a stem assembly including a connecting member having a top side and a bottom side spaced from the top side along a longitudinal axis. The top side of the connecting member has an engagement face perpendicular to the longitudinal axis. The engagement face is plane and adapted to be coupled to a flat bottom of a flat bottom glass. A stem includes first and second ends. The first end of the stem is de-

tachably mounted to the bottom side of the connecting member. The stem further includes a supporting section between the first and second ends. The supporting section has a diameter perpendicular to the longitudinal axis.

A foot is mounted to the second end of the stem. The foot includes an upper end and a lower end opposite to the upper end. The lower end of the foot has a bottom face. The bottom face of the foot is adapted to rest on a top of a table. The bottom face of the foot has a diameter perpendicular to the longitudinal axis. The diameter of the bottom face of the foot is larger than the diameter of the supporting section of the stem.

[0008] In preferred forms, the diameter of the bottom face of the foot is at least 9 times of the diameter of the supporting section of the stem.

[0009] In an example, the engagement face is coupled to the flat bottom of the flat bottom glass by glue, preventing the connecting member from disengaging from the flat bottom glass. The connecting member can include an annular glue groove adjacent to an outer peripheral edge of the engagement face to receive excessive glue.

[0010] In an example, the connecting member includes a connection groove extending from the bottom side towards the top side along the longitudinal axis. The first end of the stem includes a connecting section detachably engaged in the connection groove of the connecting member.

[0011] In an example, the connection groove is a blind hole spaced from the engagement face of the top side of the connecting member, with the engagement face intersecting with the longitudinal axis of the connecting member.

[0012] In another example, a groove is defined in the engagement face of the top side of the connecting member, with the groove including the longitudinal axis, with the engagement face surrounding the longitudinal axis. A plug is received in the groove and has an upper face flush with the engagement face.

[0013] In an example, the connection groove of the connecting member includes an inner thread, and the connecting section of the stem includes an outer thread threadedly engaged with the inner thread, allowing detachment of the stem from the connecting member.

[0014] In preferred forms, the foot includes an engagement hole extending from the upper end through the lower end. The second end of the stem includes an engagement section, with the supporting section located between the connecting section and the engagement section. The engagement section of the stem is engaged in the engagement hole of the foot.

[0015] In an example, the engagement hole of the foot is coupled to the engagement section of the stem by glue, preventing the foot from disengaging from the stem.

[0016] In another example, the engagement hole of the foot includes an inner thread, and the engagement section of the stem includes an outer thread threadedly engaged with the inner thread, allowing detachment of

the stem from the foot.

[0017] In preferred forms, the connecting member has a thickness along the longitudinal axis between the top and bottom sides. The engagement face of the connecting member has a diameter perpendicular to the longitudinal axis. The diameter of the engagement face is smaller than a diameter of the flat bottom of the flat bottom glass. The diameter of the engagement face is larger than the thickness of the connecting member. The foot has a height between the upper and lower ends. The diameter of the foot is larger than the height of the foot and larger than the diameter of the engagement face of the connecting member. The engagement section of the stem has a diameter perpendicular to the longitudinal axis. The diameter of the supporting section of the stem is smaller than the diameter of the engagement section of the stem. The supporting section of the stem has a length along the longitudinal axis. The diameter of the bottom face of the foot is smaller than the length of the supporting section of the stem.

[0018] In preferred forms, the bottom side of the connecting member includes a first support face, with the first support face being annular and surrounding the connection groove. The first support face has a diameter perpendicular to the longitudinal axis. The diameter of the first support face is smaller than the diameter of the engagement face of the connecting member. A first shoulder is formed between the connecting section and the supporting section of the stem. The first shoulder has a diameter perpendicular to the longitudinal axis. The diameter of the first shoulder is larger than the diameter of the supporting section of the stem and not larger than the diameter of the first support face of the connecting member. The first shoulder abuts the first support face. The upper end of the foot includes a second support face surrounding an opening of the engagement hole in the upper end of the foot. The second support face has a diameter perpendicular to the longitudinal axis. A second shoulder is formed between the engagement section and the supporting section of the stem. The second shoulder has a diameter perpendicular to the longitudinal axis. The diameter of the second shoulder is larger than the diameter of the supporting section of the stem. The diameter of the second support face of the foot is larger than the diameter of the second shoulder of the stem. The second support face of the foot abuts the second shoulder of the stem.

[0019] In preferred forms, the connecting member further includes an outer periphery extending between the top and bottom sides. The outer periphery of the connecting member includes an insulating portion having reducing diameters towards the bottom side. The insulating portion is adapted to prevent fingers of a hand of a user from contacting with the flat bottom of the flat bottom glass, avoiding a temperature of a wine received in the flat bottom glass from being affected by a temperature of the hand of the user.

[0020] In preferred forms, the foot has an outer periph-

ery extending between the upper and lower ends. The outer periphery of the foot flares from the upper end towards the lower end of the foot and forms a hanging portion.

[0021] In preferred forms, each of the connecting member, the stem, and the foot is a monolithic member made of metal.

[0022] The present invention will become clearer in light of the following detailed description of illustrative embodiments of this invention described in connection with the drawings.

DESCRIPTION OF THE DRAWINGS

[0023] The illustrative embodiments may best be described by reference to the accompanying drawings where:

FIG. 1 shows a perspective view of a stem assembly for a flat bottom glass of a first embodiment according to the present invention.

FIG. 2 shows an exploded, perspective view of the stem assembly of FIG. 1.

FIG. 3 shows a cross sectional view taken along section line 3-3 of FIG. 1.

FIG. 4 shows an exploded, cross sectional view of the stem assembly of FIG. 3.

FIG. 5 shows a perspective view of the stem assembly of FIG. 1 and a flat bottom glass to the stem assembly is attached.

FIG. 6 shows a cross sectional view taken along section line 6-6 of FIG. 5.

FIG. 7 shows a cross sectional view of a stem assembly of FIG. 1 attached to another type of flat bottom glass.

FIG. 8 shows a perspective view of a stem assembly of a second embodiment according to the present invention.

FIG. 9 shows a cross sectional view taken along section line 9-9 of FIG. 8.

FIG. 10 shows a cross sectional view of a stem assembly of a third embodiment according to the present invention.

[0024] All figures are drawn for ease of explanation of the present invention only; the extensions of the figures with respect to number, position, relationship, and dimensions of the parts to form the preferred embodiments will be explained or will be within the skill of the art after the following teachings of the present invention have been read and understood. Further, the exact dimensions and dimensional proportions to conform to specific force, weight, strength, and similar requirements will likewise be within the skill of the art after the following teachings of the present invention have been read and understood.

[0025] Where used in the various figures of the drawings, the same numerals designate the same or similar parts. Furthermore, when the terms "first", "second", "in-

ner", "outer", "side", "end", "portion", "section", "longitudinal", "annular", "length", "height", "thickness", and similar terms are used herein, it should be understood that these terms have reference only to the structure shown in the drawings as it would appear to a person viewing the drawings and are utilized only to facilitate describing the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0026] FIGS. 1-4 show a stem assembly 10 for a flat bottom glass of a first embodiment according to the present invention. The stem assembly 10 is mounted to a flat bottom glass 90 (FIG. 5) made of glass 90 and having a flat bottom 91 adapted to rest on a top of a table. A high stem glass is obtained after attaching the stem assembly 10 to the flat bottom glass 90.

[0027] The stem assembly 10 includes a connecting member 20 including a top side 201 and a bottom side 202 spaced from the top side 201 along a longitudinal axis X, with the connecting member 20 having a thickness T20 along the longitudinal axis X between the top and bottom sides 201 and 202. The connecting member 20 is a monolithic member made of metal. In this embodiment, the connecting member 20 is made of aluminum alloy.

[0028] The top side 201 of the connecting member 20 includes an engagement face 21 perpendicular to the longitudinal axis X. The engagement face 21 is plane and adapted to be coupled to the flat bottom 91 of the flat bottom glass 90. In this embodiment, the engagement face 21 intersects with the longitudinal axis X of the connecting member 20. Furthermore, the engagement face 21 is coupled to the flat bottom 91 of the flat bottom glass 90 by glue, preventing the connecting member 20 from disengaging from the flat bottom glass 90. The engagement face 21 of the connecting member 20 has a diameter D21 perpendicular to the longitudinal axis X. The diameter D21 of the engagement face 21 is smaller than a diameter D91 of the flat bottom 91 of the flat bottom glass 90 and larger than the thickness T20 of the connecting member 20. Thus, the area of the engagement face 21 coupled to the flat bottom glass 90 can be increased as possible while reducing the thickness T20 of the connecting member 20 as possible, such that the connecting member 20 is in the form of a flat, wide disc.

[0029] The connecting member 20 includes a connection groove 22 extending from the bottom side 202 towards the top side 201 along the longitudinal axis X. In this embodiment, the connection groove 22 is a blind hole spaced from the engagement face 21 of the top side 201 of the connecting member 20. Furthermore, the connection groove 22 includes an inner thread. The bottom side 202 of the connecting member 20 includes a first support face 23. The first support face 23 is annular and surrounds the connection groove 22 and has a diameter D23 perpendicular to the longitudinal axis X. The diameter D23 of the first support face 23 is smaller than the

diameter D21 of the engagement face 21 of the connecting member 20.

[0030] The connecting member 20 further includes an outer periphery extending between the top and bottom sides 201 and 202. The outer periphery of the connecting member 20 includes an insulating portion 24 having reducing diameters towards the bottom side 202. The insulating portion 24 is adapted to prevent fingers of a hand of a user from contacting with the flat bottom 91 of the flat bottom glass 90, avoiding a temperature of a wine received in the flat bottom glass 90 from being affected by a temperature of the hand of the user. In the form shown, the insulating portion 24 has two arcs in cross section, as shown in FIG. 3.

[0031] The stem assembly 10 further includes a stem 30 having first and second ends 301 and 302. The first end 301 of the stem 30 is detachably mounted to the bottom side 202 of the connecting member 20. The stem 30 is a monolithic member made of metal. In this embodiment, the stem 30 is made of aluminum alloy. The first end 301 of the stem 30 includes a connecting section 31 detachably received in the connection groove 22 of the connecting member 20. The connecting section 31 of the stem 30 includes an outer thread threadedly engaged with the inner thread of the connection groove 22, allowing detachment of the stem 30 from the connecting member 20.

[0032] The second end 302 of the stem 30 includes an engagement section 32. In this embodiment, the second end 302 of the stem 30 is cylindrical and has a diameter D32 perpendicular to the longitudinal axis X.

[0033] The stem 30 further includes a supporting section 33 between the first and second ends 301 and 302. The supporting section 33 supports the flat bottom glass 90 and the beverage in the flat bottom glass 90. A user can grip the supporting section 33 and move the flat bottom glass 90. The supporting section 33 has a diameter D33 perpendicular to the longitudinal axis X. The diameter D33 of the supporting section 33 of the stem 30 is smaller than the diameter D32 of the engagement section 32 of the stem 30. Thus, the stem 30 is an elongated cylinder. In this embodiment, the supporting section 33 of the stem 30 is located between the connection section 31 and the engagement section 32.

[0034] A first shoulder 34 is formed between the connecting section 31 and the supporting section 33 of the stem 30. The first shoulder 34 has a diameter D34 perpendicular to the longitudinal axis X. The diameter D34 of the first shoulder 34 is larger than the diameter D33 of the supporting section 33 of the stem 30 and is not larger than the diameter D23 of the first support face 23 of the connecting member 20. Thus, the first shoulder 34 abuts the first support face 23, providing further support between the stem 30 and the connecting member 20.

[0035] A second shoulder 35 is formed between the engagement section 32 and the supporting section 33 of the stem 30. The second shoulder 35 has a diameter D35 perpendicular to the longitudinal axis X. The diam-

eter D35 of the second shoulder 35 is larger than the diameter D33 of the supporting section 33 of the stem 30.

[0036] The stem assembly 10 further includes a foot 40 mounted to the second end 302 of the stem 30. The foot 40 includes an upper end 401 and a lower end 402 opposite to the upper end 401. The foot 40 has a height H40 between the upper and lower ends 401 and 402. The foot 40 is a monolithic member made of metal. In this embodiment, the foot 40 is made of aluminum alloy.

[0037] The foot 40 includes an engagement hole 41 extending from the upper end 401 through the lower end 402. The engagement section 32 of the stem 30 is engaged in the engagement hole 41 of the foot 40. In this embodiment, the engagement hole 41 of the foot 40 is coupled to the engagement section 32 of the stem 30 by glue, preventing the foot 40 from disengaging from the stem 30.

[0038] Since the diameter D32 of the engagement section 32 of the stem 30 is larger than the diameter D33 of the supporting section 33, the engagement section 32 engaged in the engagement hole 41 of the foot 40 provides good structural strength, providing enhanced support between the foot 40 and the stem 30. Thus, the supporting section 33 of the stem 30 can be as slim as possible without the risk of breakage at the engagement section 32 of the stem 30. This increases the service life of the stem assembly 10 according to the present invention.

[0039] The lower end 402 of the foot 40 has a bottom face 42, with the bottom face 42 of the foot 40 adapted to rest on a top of a table. The bottom face 42 of the foot 40 has a diameter D42 perpendicular to the longitudinal axis X. The diameter D42 of the bottom face 42 of the foot 40 is larger than the diameter D21 of the engagement face 21 of the connecting member 20 and larger than the diameter D33 of the supporting section 33 of the stem 30. The diameter D42 of the bottom face 42 of the foot 40 is at least 9 times of the diameter D33 of the supporting section 33 of the stem 30. Namely, given that the diameter D33 of the supporting section 33 of the stem 30 is 10 mm, the diameter D42 of the bottom face 42 of the foot 40 is equal to or larger than 90 mm. This provides excellent supporting strength and an excellent weighting effect while the stem 30 and the foot 40 presenting a graceful, delicate, noble quality.

[0040] In this embodiment, the stem 30 is cylindrical, and the supporting section 33 of the stem 30 has a length L33 along the longitudinal axis X. The diameter D42 of the bottom face 42 of the foot 40 is smaller than the length L33 of the supporting section 33 of the stem 30. Thus, a high stem glass is obtained after attaching the leg assembly 10 according to the present invention to the flat bottom glass 90. The diameter D42 of the foot 40 is larger than the height H40 of the foot 40. Thus, foot 40 is in the form of a flat, wide disc.

[0041] The upper end 401 of the foot 40 includes a second support face 43 surrounding an opening of the engagement hole 41 in the upper end 401 of the foot 40. The second support face 43 has a diameter D43 perpen-

dicular to the longitudinal axis X. The diameter D43 of the second support face 43 of the foot 40 is larger than the diameter D35 of the second shoulder 35 of the stem 30. Thus, the second support face 43 of the foot 40 abuts the second shoulder 35 of the stem 30, providing enhanced support between the stem 30 and the foot 40.

[0042] The foot 40 has an outer periphery extending between the upper and lower ends 401 and 402. The outer periphery of the foot 40 flares from the upper end 401 towards the lower end 402 of the foot 40 and forms a hanging portion 44. After washing, the flat bottom glass 90 can be hung between two parallel bars by the hanging portion 44 for the purposes of drying the flat bottom glass 90. The hanging portion 44 is arcuate in cross section.

[0043] The foot 40 and the stem 30 can be separately manufactured and then assembled with each other, saving the costs for processing. Specifically, the stem 30 can be made from a blank in the form of an elongated rod without producing much waste. Likewise, the foot 40 can be made from a blank with an appropriate volume without producing much waste. A high stem foot is obtained after engagement of the foot 40 and the stem 30.

[0044] Electroplating or anode processing can be carried out on the outer peripheries of the connecting member 20, the leg 30, and the foot 40 of the stem assembly 10 according to the present invention. Thus, the colors of the outer peripheries of the connecting member 20, the stem 30, and the foot 40 can be different from one another.

[0045] With reference to FIGS. 5 and 6, since the connection groove 22 is in the form of a blind hole not extending through the top side 201, the engagement face 21 is still intact. The user drinking the beverage in the flat bottom glass 90 can see the intact engagement face 21, providing a visual effect of nobleness and completeness. Thus, the stem assembly 10 according to the present invention can be used in grand events.

[0046] Furthermore, since the diameter D42 of the bottom face 42 of the foot 40 is at least 9 times of the diameter D33 of the supporting section 33 of the stem 30, such an arrangement provides excellent supporting strength and an excellent weighting effect while the stem 30 and the foot 40 presenting a graceful, delicate, noble quality.

[0047] Furthermore, the stem 30 can be detached from the connecting member 20 when the user is intended to carry the flat bottom glass 90, avoiding the disadvantage of breakage of conventional high stem glasses at the stems. After reaching the destination, the user can attach the stem 30 to the connecting member 20, forming a high stem glass after attaching the stem assembly 10 to the flat bottom glass 90. Thus, the user can have his or her own wine tasting tool, which is a considerate design.

[0048] With reference to FIG. 7, the stem assembly 10 according to the present invention can be attached to a flat bottom glass 90 having a different shape. Thus, the stem assembly 10 according to the present invention can be attached to a flat bottom glass 90 of a desired shape according to his or her own habit or preference. A high

stem glass is obtained after attaching the stem assembly 10 to the flat bottom glass 90. Thus, the user can have his or her own wine tasting tool, which is a considerate design.

[0049] FIGS. 8 and 9 show a stem assembly 10 of a second embodiment according to the present invention. The second embodiment is substantially the same as the first embodiment, except that the connecting member 20 includes an annular glue groove 25 adjacent to an outer peripheral edge of the engagement face 21. The annular groove 25 can receive excessive glue between the engagement face 21 of the connecting member 20 and the flat bottom 91 of the flat bottom glass 90, avoiding the glue from overflowing to the outer periphery of the connecting member 20, providing a delicate design with a noble appearance.

[0050] The engagement hole 41 of the foot 40 includes an inner thread. The engagement section 32 of the stem 30 includes an outer thread threadedly engaged with the inner thread, allowing detachment of the stem 30 from the foot 40.

[0051] When the user is intended to carry the flat bottom glass 90, the foot 40 can be detached from the stem 30 in addition to detaching the stem 30 from the connecting member 20, avoiding the disadvantage of breakage of conventional high stem glasses at the stems. After reaching the destination, the user can attach the stem 30 to the connecting member 20 and attach the foot 40 to the stem 30, forming a high stem glass after attaching the stem assembly 10 to the flat bottom glass 90. Thus, the user can have his or her own wine tasting tool, which is a considerate design. After assembly, excellent supporting strength and an excellent weighting effect are provided while the stem 30 and the foot 40 present a graceful, delicate, noble quality.

[0052] FIG. 10 shows a stem assembly 10 of a third embodiment according to the present invention. The third embodiment is substantially the same as the first embodiment, except that a groove 26 is defined in the engagement face 21 of the top side 201 of the connecting member 20, with the groove 26 including the longitudinal axis X, and with the engagement face 21 surrounding the longitudinal axis X. A plug 50 is received in the groove 26 and has an upper face 51 flush with the engagement face 21. After the engagement face 21 of the connecting member 20 is engaged with the flat bottom 91 of the flat bottom glass 90, the upper face 51 of the plug 50 abuts the flat bottom 91 of the flat bottom glass 90. Thus, the engagement face 21 and the upper face 51 together present a complete plane to the user drinking the beverage in the flat bottom glass 90, providing a visual effect of nobleness and completeness. Thus, the stem assembly 10 according to the present invention can be used in grand events.

[0053] The plug 50 can have a color different from that of the connecting member 20. Thus, the user can select his or her favorite color or use the color for distinctiveness purposes. In this embodiment, the groove 26 is in com-

munication with the connection groove 22, forming a through-hole.

[0054] Thus since the invention disclosed herein may be embodied in other specific forms without departing from the spirit or general characteristics thereof, some of which forms have been indicated, the embodiments described herein are to be considered in all respects illustrative and not restrictive. The scope of the invention is to be indicated by the appended claims, rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are intended to be embraced therein.

Claims

1. A stem assembly for a flat bottom glass comprising:

a connecting member (20) including a top side (201) and a bottom side (202) spaced from the top side (201) along a longitudinal axis (X), with the top side (201) of the connecting member (20) having an engagement face (21) perpendicular to the longitudinal axis (X), with the engagement face (21) being plane and adapted to be coupled to a flat bottom (91) of a flat bottom glass (90); a stem (30) including first and second ends (301, 302), with the first end (301) of the stem (30) detachably mounted to the bottom side (202) of the connecting member (20), with the stem (30) further including a supporting section (33) between the first and second ends (301, 302), with the supporting section (33) having a diameter (D33) perpendicular to the longitudinal axis (X); and

a foot (40) mounted to the second end (302) of the stem (30), with the foot (40) including an upper end (401) and a lower end (402) opposite to the upper end (401), with the lower end (402) of the foot (40) having a bottom face (42), with the bottom face (42) of the foot (40) adapted to rest on a top of a table, with the bottom face (42) of the foot (40) having a diameter (D42) perpendicular to the longitudinal axis (X), with the diameter (D42) of the bottom face (42) of the foot (40) larger than the diameter (D33) of the supporting section (33) of the stem (30).

2. The stem assembly for a flat bottom glass as claimed in claim 1, wherein the diameter (D42) of the bottom face (42) of the foot (40) is at least 9 times of the diameter (D33) of the supporting section (33) of the stem (30).

3. The stem assembly for a flat bottom glass as claimed in claim 2, with the engagement face (21) coupled to the flat bottom (91) of the flat bottom glass (90) by glue, preventing the connecting member (20)

from disengaging from the flat bottom glass (90).

4. The stem assembly for a flat bottom glass as claimed in claim 3, with the connecting member (20) further including an annular glue groove (25) adjacent to an outer peripheral edge of the engagement face (21).
5. The stem assembly for a flat bottom glass as claimed in claim 1, with the connecting member (20) including a connection groove (22) extending from the bottom side (202) towards the top side (201) along the longitudinal axis (X), with the first end (301) of the stem (30) including a connecting section (31) detachably engaged in the connection groove (22) of the connecting member (20).
6. The stem assembly for a flat bottom glass as claimed in claim 5, with the connection groove (22) being a blind hole spaced from the engagement face (21) of the top side (201) of the connecting member (20), with the engagement face (21) intersecting with the longitudinal axis (X) of the connecting member (20).
7. The stem assembly for a flat bottom glass as claimed in claim 5, with a groove (26) defined in the engagement face (21) of the top side (201) of the connecting member (20), with the groove (26) including the longitudinal axis (X), with the engagement face (21) surrounding the longitudinal axis (X), with a plug (50) received in the groove (26), with the plug (50) having an upper face (51) flush with the engagement face (21).
8. The stem assembly for a flat bottom glass as claimed in claim 5, with the connection groove (22) of the connecting member (20) including an inner thread, with the connecting section (31) of the stem (30) including an outer thread, with the outer thread threadedly engaged with the inner thread, allowing detachment of the stem (30) from the connecting member (20).
9. The stem assembly for a flat bottom glass as claimed in claim 5, with the foot (40) including an engagement hole (41) extending from the upper end (401) through the lower end (402), with the second end (302) of the stem (30) including an engagement section (32), with the supporting section (33) located between the connecting section (31) and the engagement section (32), with the engagement section (32) of the stem (30) engaged in the engagement hole (41) of the foot (40).
10. The stem assembly for a flat bottom glass as claimed in claim 9, with the engagement hole (41) of the foot (40) coupled to the engagement section (32) of the stem (30) by glue, preventing the foot (40) from disengaging from the stem (30).

11. The stem assembly for a flat bottom glass as claimed in claim 5, with the foot (40) including an engagement hole (41) extending from the upper end (401) through the lower end (402), with the second end (302) of the stem (30) including an engagement section (32), with the supporting section (33) located between the connecting section (31) and the engagement section (32), with the engagement section (32) of the stem (30) detachably engaged in the engagement hole (41) of the foot (40).
12. The stem assembly for a flat bottom glass as claimed in claim 11, with the engagement hole (41) of the foot (40) including an inner thread, with the engagement section (32) of the stem (30) including an outer thread, with the outer thread threadedly engaged with the inner thread, allowing detachment of the stem (30) from the foot (40).
13. The stem assembly for a flat bottom glass as claimed in claim 9, with the connecting member (20) having a thickness (T20) along the longitudinal axis (X) between the top and bottom sides (201, 202), with the engagement face (21) of the connecting member (20) having a diameter (D21) perpendicular to the longitudinal axis (X), with the diameter (D21) of the engagement face (21) smaller than a diameter (D91) of the flat bottom (91) of the flat bottom glass (90), with the diameter (D21) of the engagement face (21) larger than the thickness (T20) of the connecting member (20), with the foot (40) having a height (H40) between the upper and lower ends (401, 402), with the diameter (D42) of the foot (40) larger than the height (H40) of the foot (40) and larger than the diameter (D21) of the engagement face (21) of the connecting member (20), with the engagement section (32) of the stem (30) having a diameter (D32) perpendicular to the longitudinal axis (X), with the diameter (D33) of the supporting section (33) of the stem (30) smaller than the diameter (D32) of the engagement section (32) of the stem (30), with the supporting section (33) of the stem (30) having a length (L33) along the longitudinal axis (X), with the diameter (D42) of the bottom face (42) of the foot (40) smaller than the length (L33) of the supporting section (33) of the stem (30).
14. The stem assembly for a flat bottom glass as claimed in claim 13, with the bottom side (202) of the connecting member (20) including a first support face (23), with the first support face (23) being annular and surrounding the connection groove (22), with the first support face (23) having a diameter (D23) perpendicular to the longitudinal axis (X), with the diameter (D23) of the first support face (23) smaller than the diameter (D21) of the engagement face (21) of the connecting member (20), with a first shoulder (34) formed between the connecting section (31) and

the supporting section (33) of the stem (30), with the first shoulder (34) having a diameter (D34) perpendicular to the longitudinal axis (X), with the diameter (D34) of the first shoulder (34) larger than the diameter (D33) of the supporting section (33) of the stem (30) and not larger than the diameter (D23) of the first support face (23) of the connecting member (20), with the first shoulder (34) abutting the first support face (23), with the upper end (401) of the foot (40) including a second support face (43) surrounding an opening of the engagement hole (41) in the upper end (401) of the foot (40), with the second support face (43) having a diameter (D43) perpendicular to the longitudinal axis (X), with a second shoulder (35) formed between the engagement section (32) and the supporting section (33) of the stem (30), with the second shoulder (35) having a diameter (D35) perpendicular to the longitudinal axis (X), with the diameter (D35) of the second shoulder (35) larger than the diameter (D33) of the supporting section (33) of the stem (30), with the diameter (D43) of the second support face (43) of the foot (40) larger than the diameter (D35) of the second shoulder (35) of the stem (30), with the second support face (43) of the foot (40) abutting the second shoulder (35) of the stem (30).

15. The stem assembly for a flat bottom glass as claimed in claim 14, with the connecting member (20) further including an outer periphery extending between the top and bottom sides (201, 202), with the outer periphery of the connecting member (20) including an insulating portion (24) having reducing diameters towards the bottom side (202), with the insulating portion (24) adapted to prevent fingers of a hand of a user from contacting with the flat bottom (91) of the flat bottom glass (90), avoiding a temperature of a wine received in the flat bottom glass (90) from being affected by a temperature of the hand of the user.

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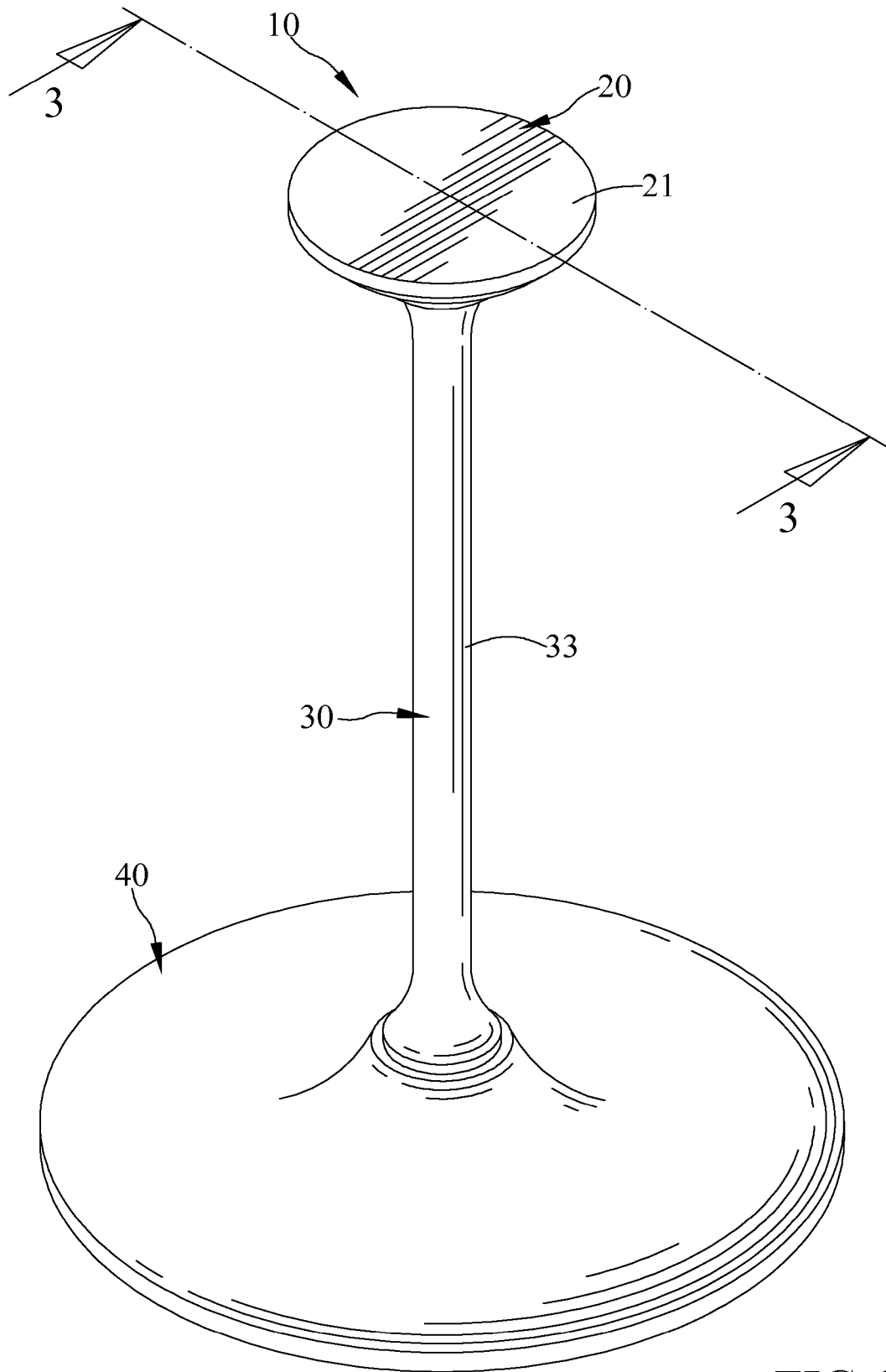


FIG.1

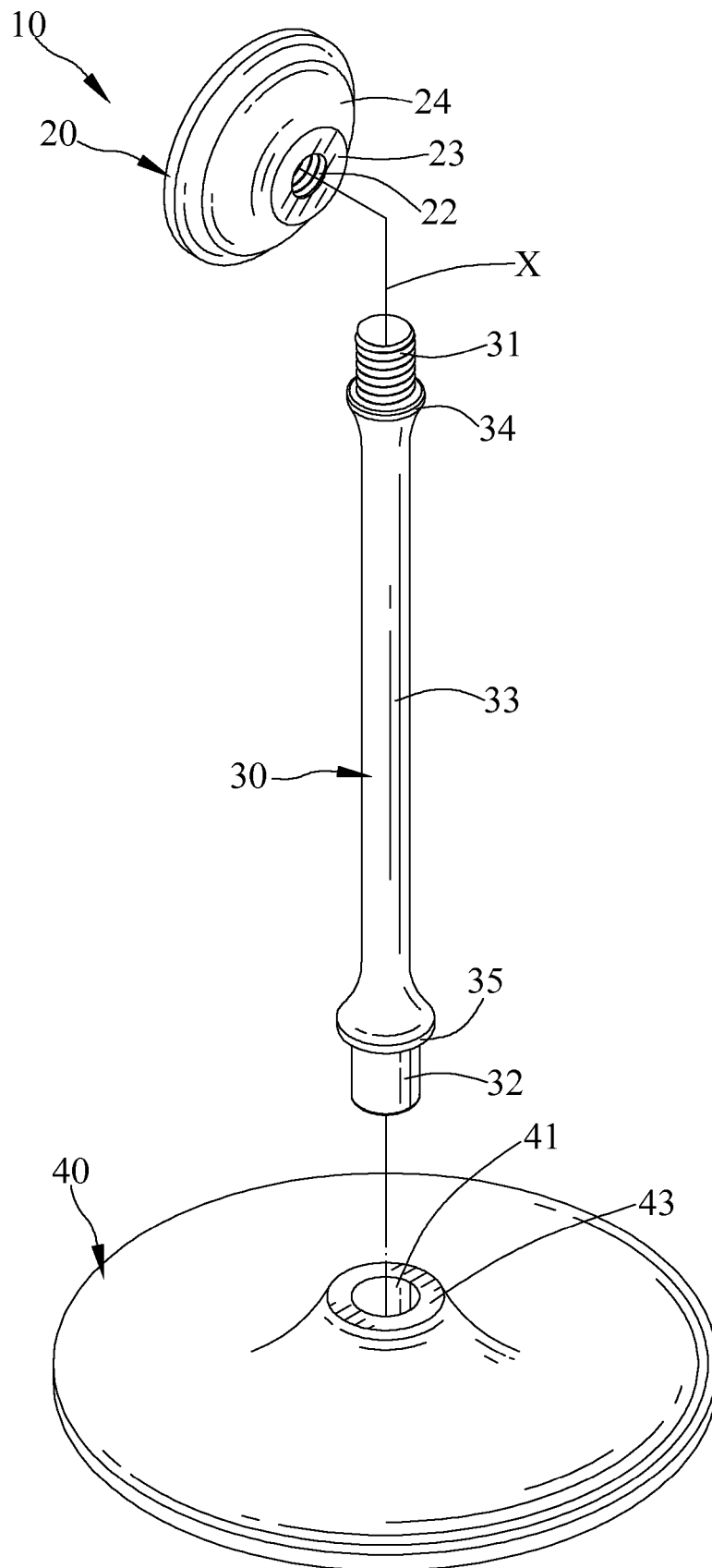
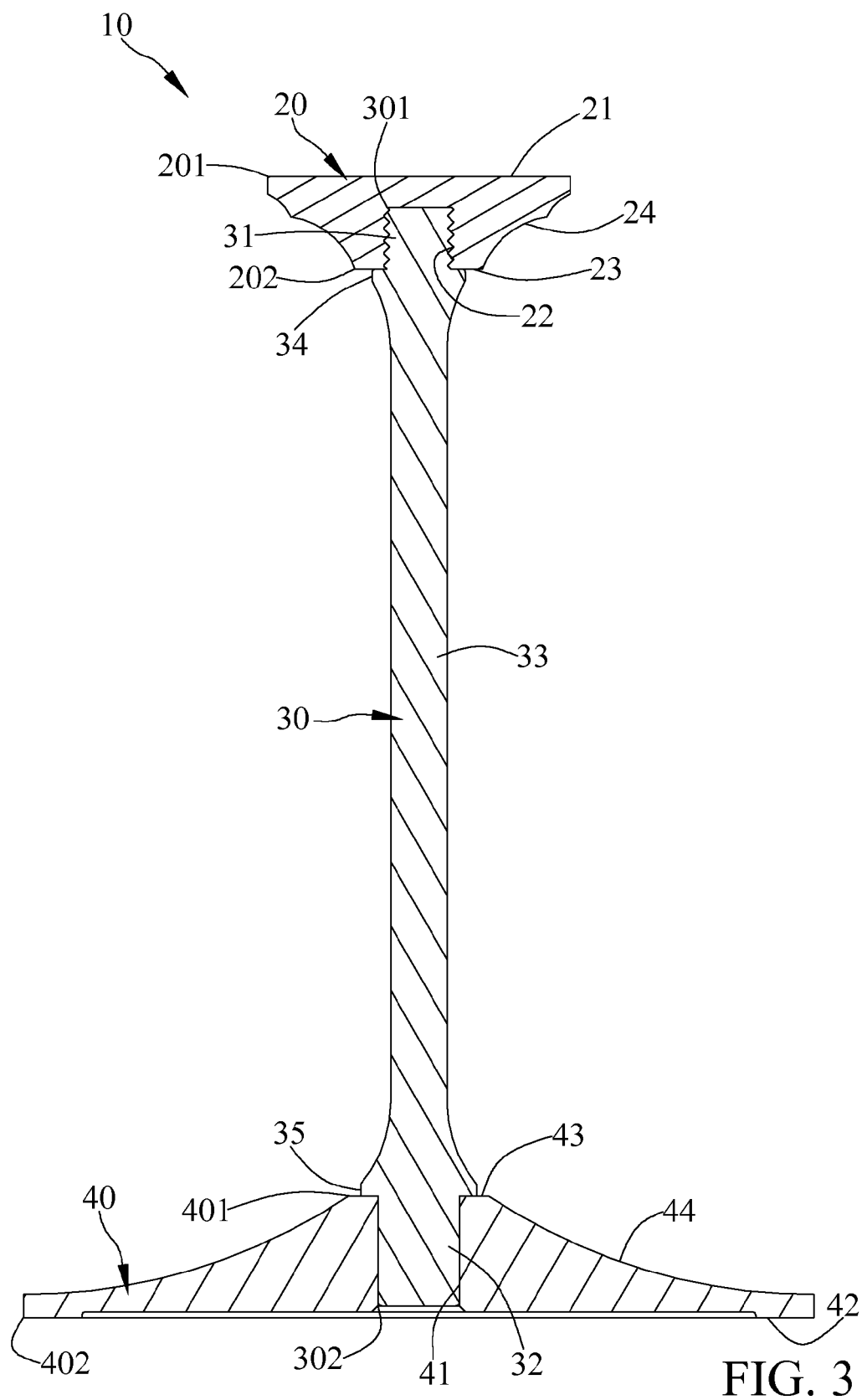
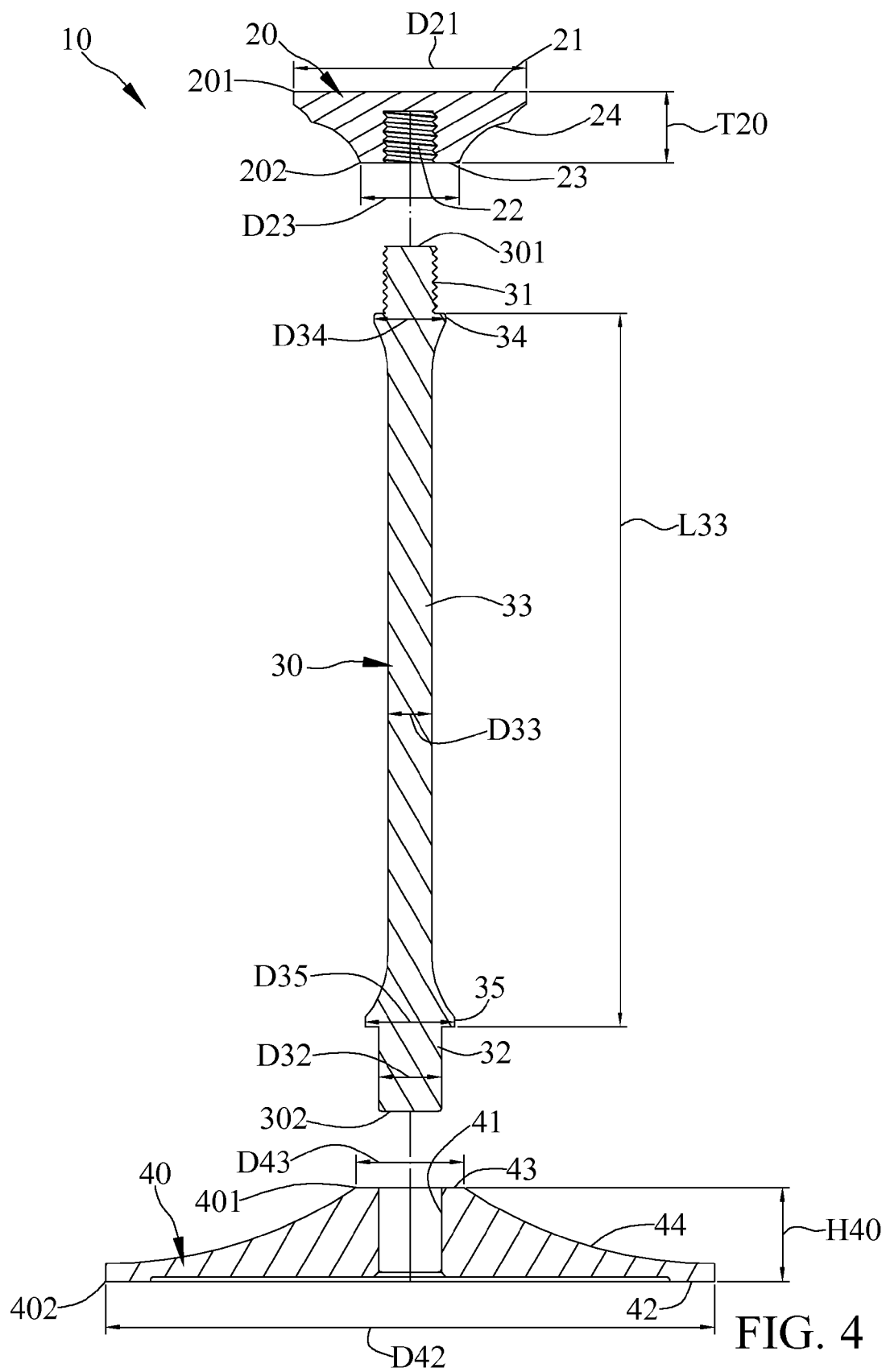


FIG. 2





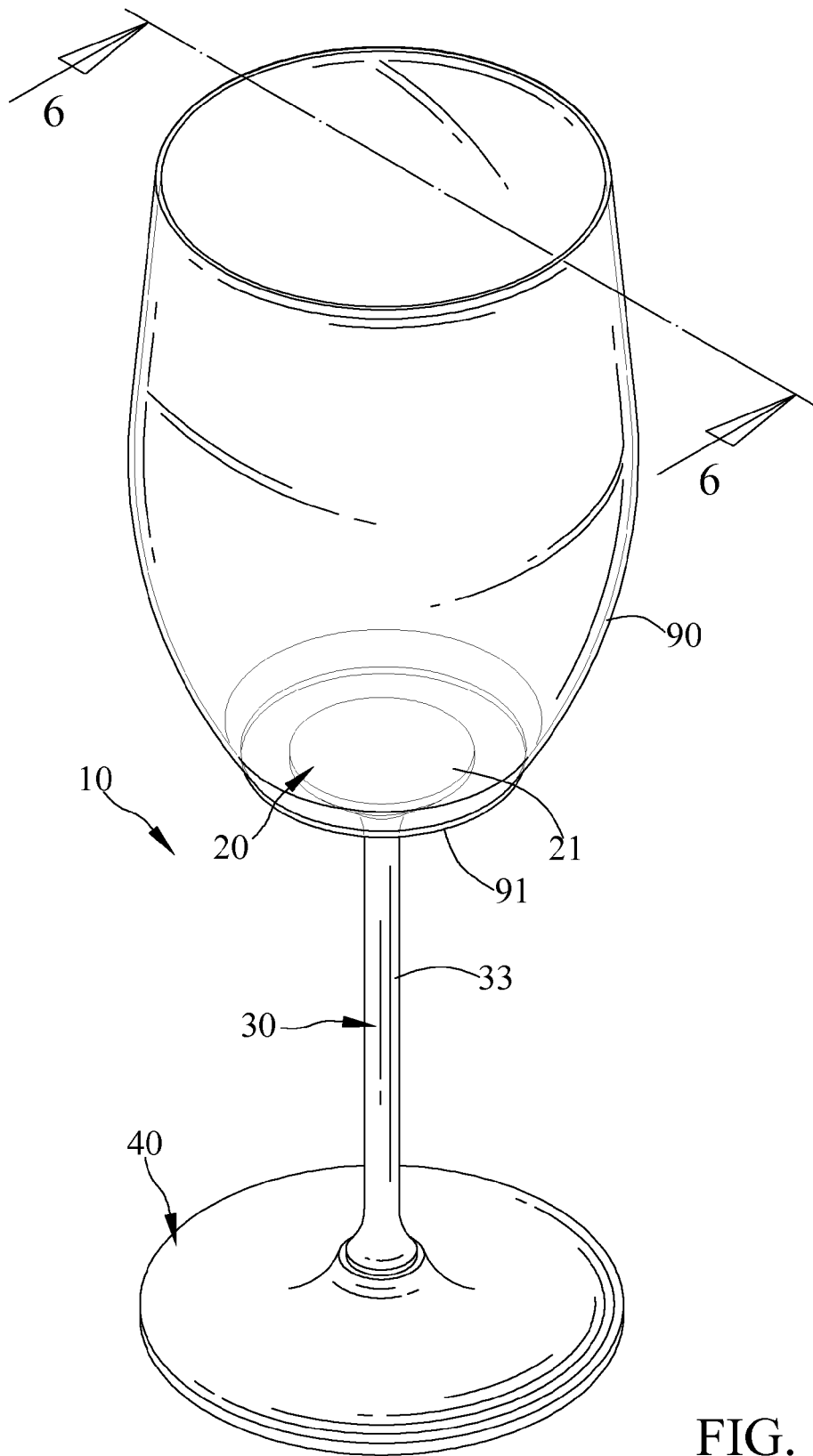


FIG. 5

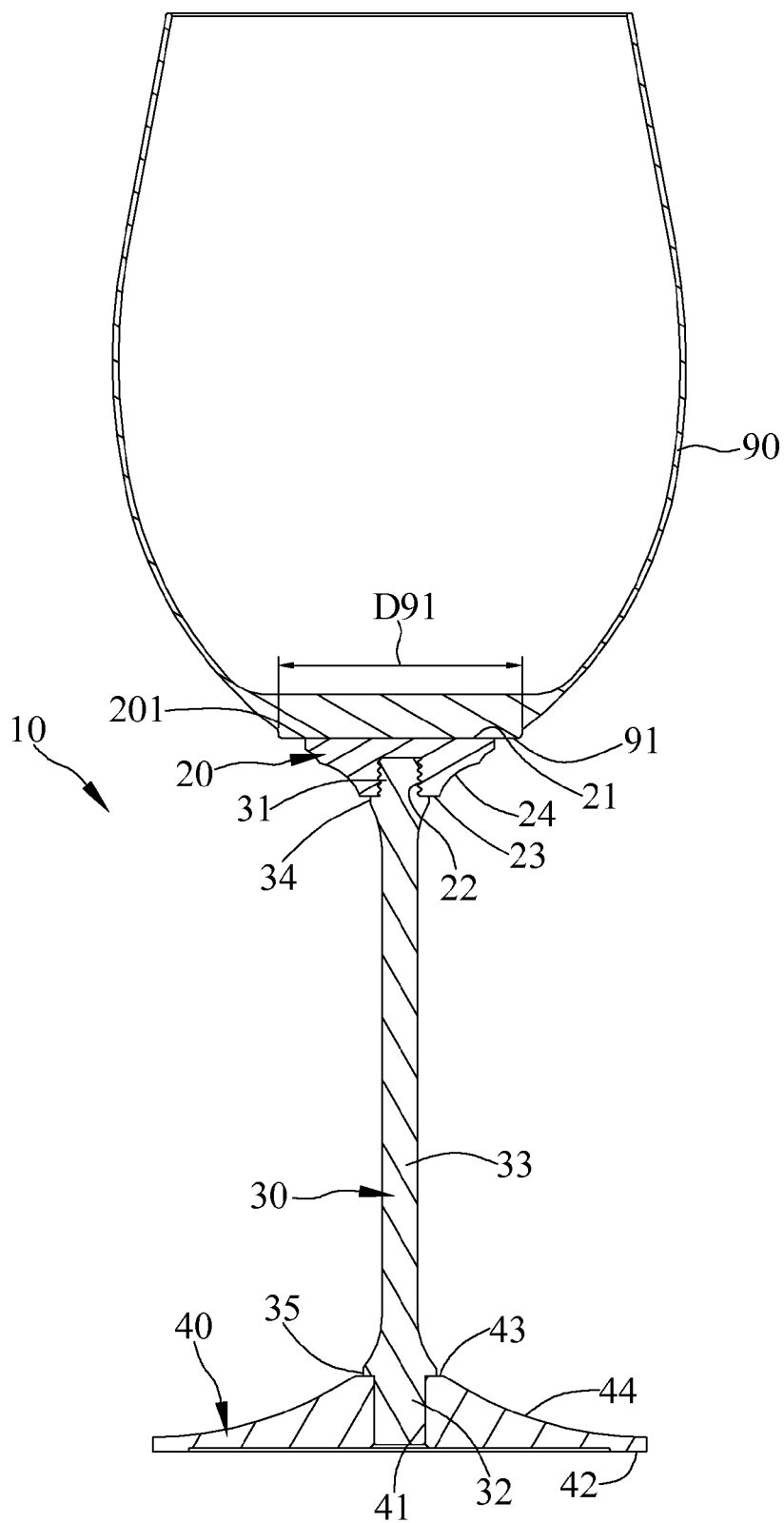


FIG. 6

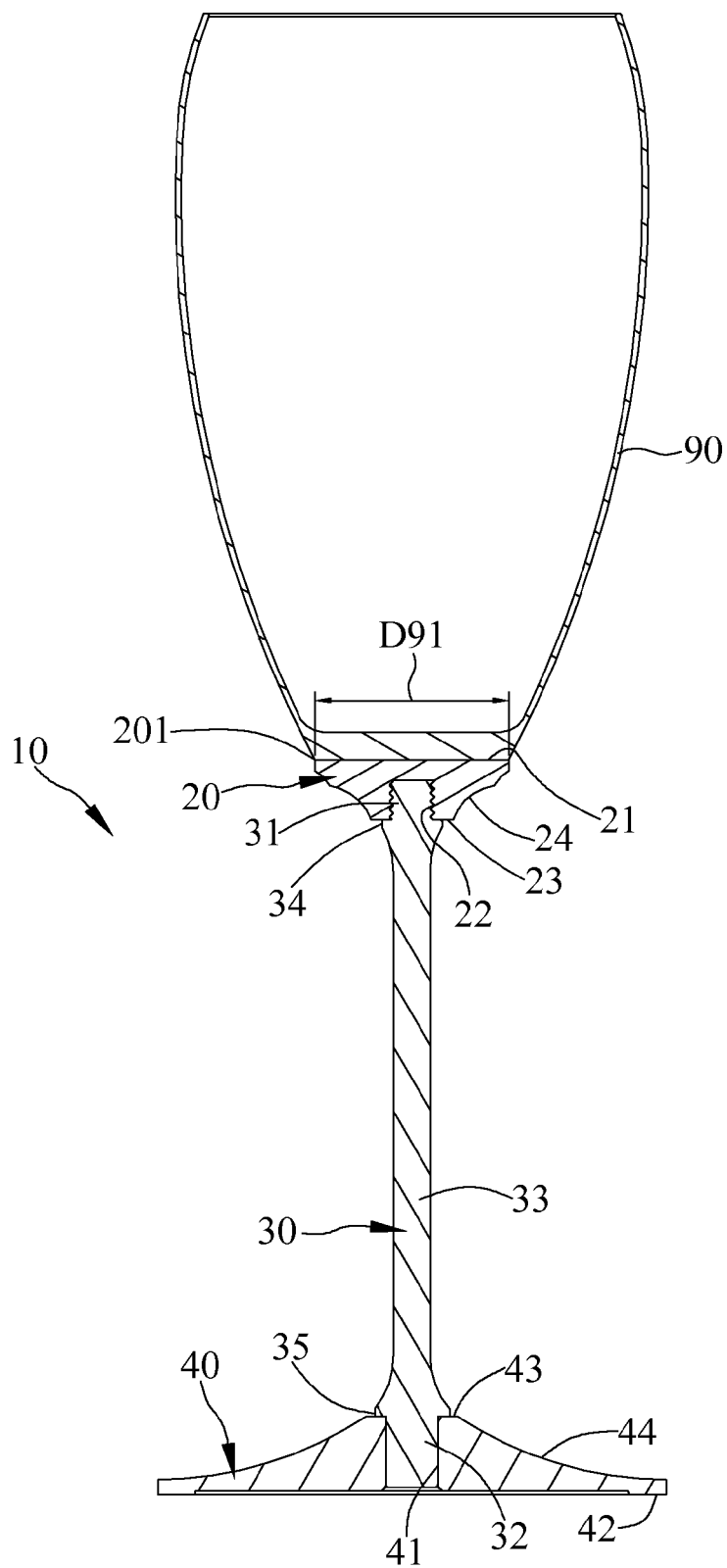


FIG. 7

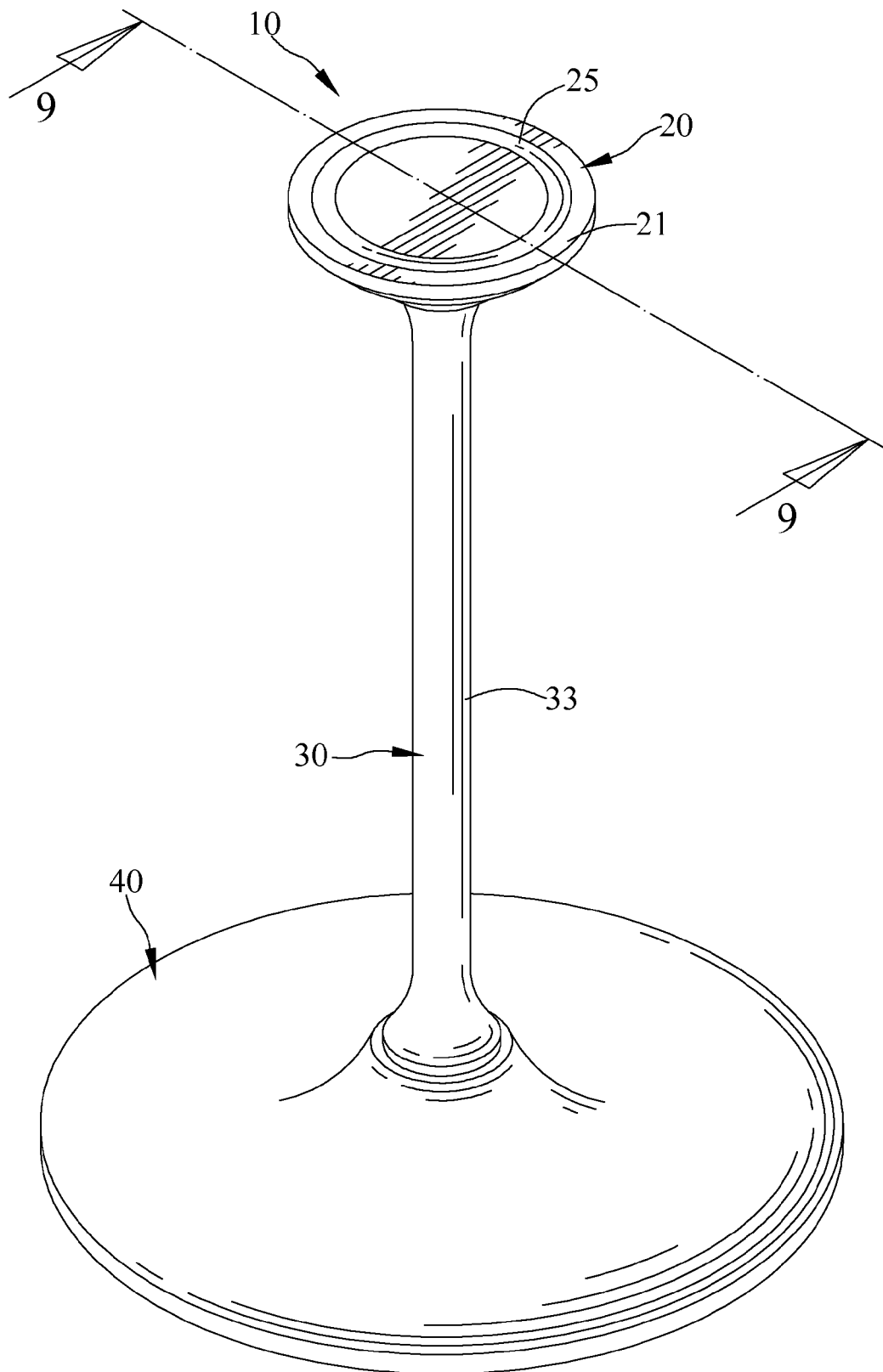


FIG. 8

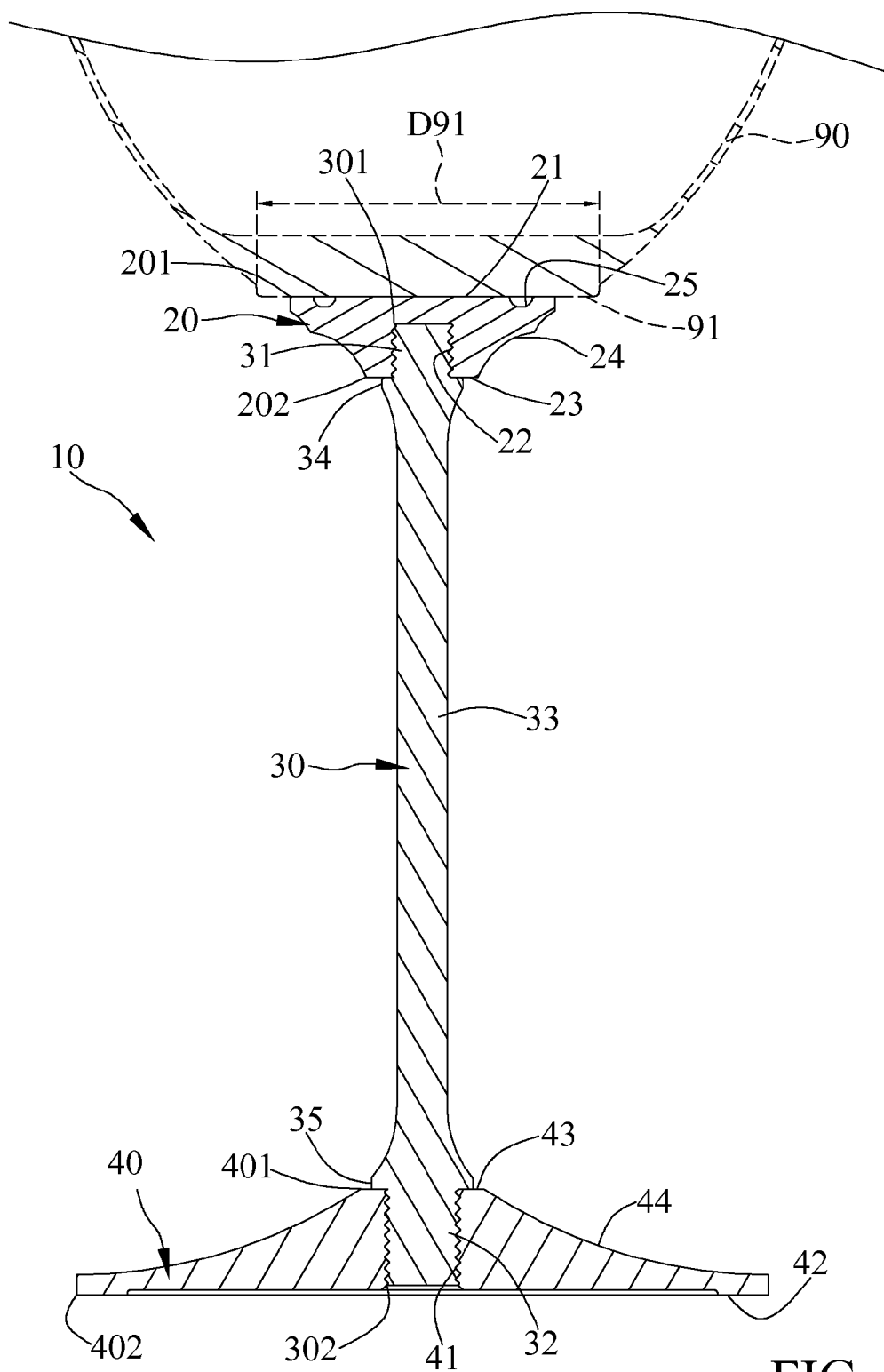


FIG. 9

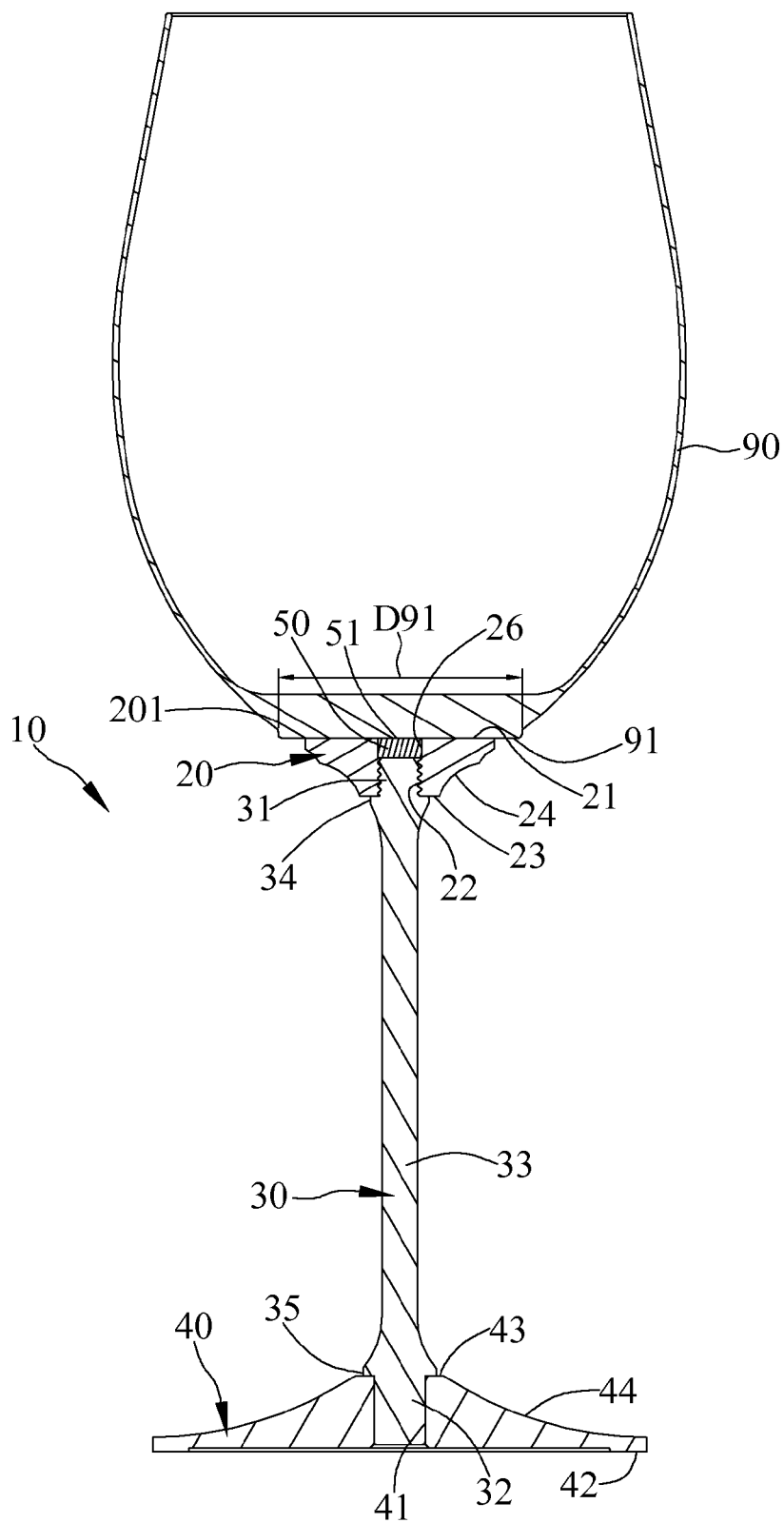


FIG. 10



EUROPEAN SEARCH REPORT

Application Number
EP 13 16 8842

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Place of search The Hague		Date of completion of the search 31 October 2013	Examiner Longo dit Operti, T
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31-10-2013

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