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(54) ADJUSTABLE SUPPORT FOR GLASSES AND CANS

(57) Adjustable support for glasses and cans that can support the weight of a plurality of containers of potable liquids, exploiting engagement with any vertical axis present in the vicinity; said adjustable support being further suitable for being quickly disassembled from any vertical axis (18), resulting in easy disassembly and facilitating transport and handling from one location to another.

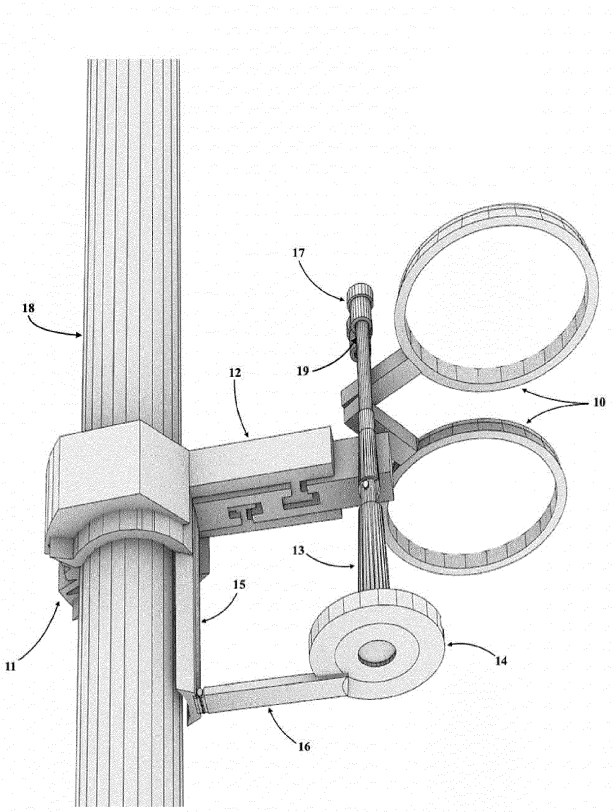

Fig.1

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Description

Field of technology

[0001] The invention refers to an innovative, light and adjustable support that can support a plurality of containers of liquids of various sizes and types, through the use of a plurality of devices that can be adjusted in length and width.

[0002] The innovative support can be easily coupled to any vertical axis.

Prior art

[0003] Glasses and cans are the containers most used for distributing and consuming drinks and liquid foods of various kinds.

[0004] The consumption of drinks in large groups of people is often organised in settings and establishments outside the home, causing a multitude of inconveniences, including that of keeping the same glasses from the beginning of the evening to the end.

[0005] In fact, in numerous events, just a few minutes after the first consumption, the glass's owner often finds him or herself to be separated from said glass, leaving it in a hidden position in order to be able to find it again later. In the meantime, however, in most cases, service staff have already begun clearing and the guests continue to scatter fresh glasses around the establishment. This effect causes certain loss of one's own glass which, if it is not found in the same position it was left in, is abandoned.

[0006] Abandoning the glass or any other drink container causes excessive waste of resources, both in the case of disposable glasses and in the case of ones made of glass.

[0007] In fact, if disposable liquid containers are being used, after the old container is lost, a new one is commonly chosen, thereby increasing the event's overall consumption and waste.

[0008] If glass or ceramic containers and glasses are used, after the old glass is lost, the guest tends to look for a new one, using a total of more than 3-4 glasses in an evening.

[0009] This intensive consumption certainly impacts the energy consumption dedicated to washing each glass that is used.

[0010] Since, in the current state of the art, there is yet to be a system to facilitate keeping the same glass at a well-attended party (at the disco or in other highly frequented outside environments), the aforementioned problems are still impossible to solve. An additional aspect to consider relates to outdoor excursions commonly held in parks, on beaches, and in forests. In these circumstances, in addition to the number of attendees, the presence of external atmospheric agents like the wind must be taken into account.

[0011] In fact, the wind can often overturn the fellow attendees' glasses, resulting in said glasses becoming unusable and losing recognisability.

[0012] To solve this problem, in the current state of the art a glass collection system must be implemented that can keep the glasses intact while maintaining them further recognisable one from the other, in order to prevent switches that in their turn lead to wasting resources and energy.

[0013] The invention described in patent WO2015069326, published on 15 May 2015, discusses a cooperation between a rigid disc functioning as support, and a second disc, with a hole to accommodate and hold circular objects.

[0014] The cooperation of these two discs, although they may be coupled with a generic beach umbrella, has considerable disadvantages; in particular, the described system cannot be folded up because it is rigid. It can be adapted neither to all supports nor to all glass diameters.

[0015] The purpose of the patent, then, is to reveal an innovative support, adjustable, light, and easy to install, that can engage with any vertical axis, supporting the weight of several glasses or liquid containers of differing sizes.

Description of the invention

[0016] According to this invention, an adjustable support for glasses and cans is made that effectively solves the problems stated above.

[0017] The adjustable support described in this patent application is advantageously versatile, keeping the glasses and drink containers separate and orderly, in any environment where there is a generic vertical axis. This vertical axis can be any branch or rod of a beach umbrella providing minimum and sufficient balance for said adjustable support.

[0018] The adjustable support that is the object of the inventions is further suited to supporting glasses and containers of different sizes, thus becoming indispensable in multiple situations.

[0019] In order to provide sufficient grip to support the entire adjustable support, a coupling clip, having a "C" shape, is suitable for engaging with any vertical axis; said coupling clip also comprises a rigid horizontal extension, suitable for facilitating installation of the entire adjustable support for glasses and cans, externally to any vertical axis.

[0020] Said "C" shaped coupling clip advantageously facilitates the installation and disinstallation of the adjustable support without having to pull out the vertical axis which, as in the case of beach umbrellas, has no free end.

[0021] Installed below said coupling clip is a vertical dorsal reinforcement that extends at least 5 centimetres along the vertical axis, suitable to confer rigidity to the whole support limiting its vertical oscillations; said dorsal reinforcement being further suitable to increase the adherence of the whole support to the vertical axis.

[0022] Said vertical dorsal reinforcement, in one of its

forms of development, comprises an elastic band or a Velcro strip in order to more easily and efficiently anchor the support's position on any vertical axis.

[0023] A coating is installed internally to said coupling clip, for the purpose of increasing the clip's adherence on said vertical axis, limiting any downward sliding by the whole adjustable support installed on said coupling clip.

[0024] A central pivot having a tapered conical shape in which the thin upper tip is turned upward, is suitable to engage within said rigid horizontal extension, included in said coupling clip; said central pivot also being suitable to accommodate a plurality of rings, each suitable to contain a different liquid container.

[0025] Said central pivot, in one of its forms of development, comprises a telescopic structure suitable to vary its length, consequently modifying the quantity of rings to be stacked, adapting to the needs of the users.

[0026] By way of example but not limitation, said central pivot comprises below at least two openable winglets, suitable for providing sufficient support for glasses and cans in the absence of a stable support surface.

[0027] The rings are suitable for being stacked on the upper tip of said central pivot, by means of a hole provided in the contour of said rings; each ring consequently being suitable for rotating around said central pivot, ensuring the support of several glasses and cans at the same time.

[0028] Two semi-circles constrained to each other by means of a threaded joint, by way of example but not limitation, are suitable for adjusting the diameter of each ring, allowing glasses and containers of different sizes to be inserted.

[0029] In one of its forms of development, within each ring there is included an electrical resistance suitable for releasing an amount of heat sufficient to heat the liquids inside the supported containers.

[0030] For the purpose of supporting a single container of higher mass, by way of example but not limitation, said rings are further suitable for working together, in a complementary manner, for holding the same container, following a suitable alignment by means of said central pivot (13).

[0031] Each ring also comprises a LED light, suitable to facilitate the recognition of the glasses assigned to specific persons, according to the choice of a colour previously established. Each guest, then, after having deposited his or her glass inside the chosen ring, may select a LED colour that he or she can easily remember.

[0032] A closing cap is suitable for being engaged on said upper tip of the central pivot, once all the necessary rings have been stacked, for the purpose of closing the central pivot, preventing it from sliding downwards.

[0033] By way of example but not limitation, the constraint that anchors the position of said cap is a thread, preventing the opening thereof with a consequent downward sliding of said central pivot.

[0034] A disc is installed below said central pivot, suitable for constituting the base necessary to provide support for said central pivot on any surface, in the event that the constraint provided by the coupling clip is not sufficient.

[0035] An opening rod, one end of which is linked to the lower edge of said vertical dorsal reinforcement by means of a generic hinge, is suitable to be disposed parallel to said rigid horizontal extension, in order to engage its free end with said disc, increasing the rigidity of the whole adjustable support subject of the invention.

[0036] In one of its forms of development, said adjustable support comprises a plurality of bearings, installed on said central pivot, between each ring, suitable for reducing friction between the plurality of rings stacked on said central pivot.

[0037] The benefits offered by this invention are clear in light of the description set out thus far, and will be even more clear thanks to the annexed figure and to the detailed description.

Description of the figures

[0038] The invention will be described hereunder in at least one preferred form of development by way of explanation and not limitation, with the aid of the annexed figure, in which:

FIGURE 1 shows a perspective view from below of the adjustable support described in this patent application.

[0039] As the figure shows, the entire support is anchored to a generic vertical axis 18, by means of a coupling clip 11 having a "C" shape, in order to easily enclose axes 18 with different diameters, thereby further their installation even if said vertical axes 18 do not have a free end.

[0040] Engaged with this coupling clip 11 is a rigid horizontal extension 12, suitable for increasing the distance between said vertical axis 18 and the supported glasses and containers.

[0041] Each glass is contained inside a ring 10, which is in turn suitable for engaging with a central pivot 13.

[0042] A plurality of rings 10 are suitable for being stacked one on top of the other, after being inserted onto the upper tip 19 of said central pivot 13.

[0043] The central pivot 13 is suitable for engaging with the rigid horizontal extension 12.

[0044] A closing cap 17 is beneficially suitable for reducing the possibility of the rings coming out 10, as said cap 17 is constrained with the central pivot 13 on the upper tip 19.

[0045] Below said coupling clip 11, a dorsal reinforcement is installed 15, suitable for improving the adherence of the entire adjustable support on the vertical axis 18, thereby further increasing its stability.

[0046] Said dorsal reinforcement 15 is connected with an opening rod 16, which has a free end that is suitable for constraining a disc 14.

[0047] Said disc 14, installed below said central pivot 13, is suitable for conferring greater stability to the entire support, further functioning as a support base if the central pivot 13 is resting upon a flat, horizontal surface.

Detailed description of the invention

[0048] This invention will now be illustrated merely by way of example and not of limitation or restriction, making reference to the figure which illustrates some developments relating to this inventive concept.

[0049] FIG. 1 illustrates the adjustable support for collecting and keeping separate glasses and liquid containers that are typically confused and switched during parties and picnics.

[0050] Thanks to this support, which comprises a plurality of rings 10 suitable for accommodating glasses and containers of different sizes, each holder of a given glass can deposit his or her glass knowing that he or she will find it again in the same place, without confusing it with others.

[0051] Each ring 10 is inserted onto a central pivot 13, remaining free to rotate around said pivot 13.

[0052] The central pivot 13 is constrained to a rigid horizontal extension 12, which is linked to a coupling clip 11.

[0053] Said coupling clip 11, thanks to its unique "C" shape, is suitable for engaging with any vertical axis 18, regardless of the measurement of its diameter.

[0054] A dorsal reinforcement 15 is suitable for extending at least 5 centimetres downwards, in parallel with said vertical axis 18, providing greater adherence to the coupling clip 11. Said dorsal reinforcement 15 comprises a hinge suitable to regulate the opening of an opening rod 16.

[0055] The opening rod 16, being parallel to the rigid horizontal extension 12, aims to engage with a disc 14 that constitutes the base of the whole central pivot 13. This structure is well constrained to and cohesive with the generic vertical axis 18, as it can be advantageously disassembled and transferred to different locations and settings.

[0056] A closing cap 17, installed on the upper tip of said central pivot 13, is employed to prevent said pivot 13 from sliding downwards, maintaining the stacked rings 10 in a fixed position.

[0057] It is lastly clear the invention described thus far may receive modifications, additions, or changes obvious for a technical specialist, without, for this reason, going outside the sphere of protection provided by the annexed claims.

Claims

1. Adjustable support for glasses and cans **characterised in that** it can support the weight of a plurality of containers of potable liquids, exploiting engagement with any vertical axis (18) present in the vicinity; said adjustable support being further suitable for being quickly disassembled from any vertical axis (18), resulting in easy disassembly and facilitating transport and handling from one location to another; said adjustable support comprising:

   - at least a coupling clip (11), having a "C" shape, suitable for engaging with any vertical axis (18), thereby providing sufficient grip to support the entire adjustable support; said coupling clip (11) comprising a rigid horizontal extension (12), suitable for facilitating installation of the entire adjustable support for glasses and cans, externally to said vertical axis (18);
   - at least a coating, installed internally to said coupling clip (11), suitable to increase the adherence of said clip (11) on said vertical axis (18), limiting any possible downward sliding by the whole adjustable support installed on said coupling clip (11);
   - at least a vertical dorsal reinforcement (15), installed below said coupling clip (11), extending for at least 2 cm along said vertical axis (18), suitable to confer rigidity to the whole support limiting its vertical oscillations; said dorsal reinforcement (15) being further suitable to increase the adherence of the whole support to the vertical axis (18);
   - at least a central pivot (13), having a tapered conical shape in which the thin upper tip is turned upward, suitable to engage within said rigid horizontal extension (12) included in said coupling clip (11); said central pivot (13) being suitable to accommodate a plurality of rings (10), each suitable to contain a different liquid container;
   - a plurality of rings (10) suitable for being stacked on the upper tip (19) of said central pivot (13), by means of a hole provided in the contour of said rings (10); each ring (10) consequently being suitable for rotating around said central pivot (13), ensuring the support of several glasses and cans at the same time;
   - at least a LED light, included at the top of each ring (10), suitable to facilitate the recognition of the glasses assigned to specific persons, following the choice of a colour previously established;
   - at least a closing cap (17) suitable for being engaged on said upper tip (19) of the central pivot (13), once all the necessary rings (10) have been stacked, for the purpose of closing the central pivot (13), preventing it from sliding downwards;
   - at least a disc (14), installed below said central pivot (13), suitable for constituting the base necessary to provide support for said central pivot (13) on any surface, in the event that the constraint provided by the coupling clip (11) is not sufficient;
   - at least an opening rod (16), one end of which is linked to the lower edge of said vertical dorsal reinforcement (15) by means of a generic hinge, suitable to be disposed parallel to said rigid hor-

izontal extension (12), in order to engage its free end with said disc (14), increasing the rigidity of the whole adjustable support subject of the invention.

2. Adjustable support for glasses and cans, according the preceding claim 1, **characterised in that** said rings (10), suitable for holding glasses and cans, are composed of two semi-circles constrained to each other by means of a threaded joint, for the purpose of adjusting their diameter, each ring (10) being adapted to the specific size of each liquid container supported.

3. Adjustable support for glasses and cans, according to any one of the preceding claims, **characterised in that** within each ring (10) there is included an electrical resistance suitable for releasing an amount of heat sufficient to heat the liquids inside the supported containers.

4. Adjustable support for glasses and cans, according to any one of the preceding claims, **characterised in that** said rings (10), each suitable for holding a container of liquids, are further suitable for working together, in a complementary manner, for the purpose of supporting a single container of higher mass, said rings (10) being therefore suitable for holding the same container, following a suitable alignment by means of said central pivot (13).

5. Adjustable support for glasses and cans, according to any one of the preceding claims, **characterised in that** it comprises a plurality of bearings, installed on said central pivot (13), between each ring (10), suitable for reducing friction between the plurality of rings (10) stacked on said central pivot (13).

6. Adjustable support for glasses and cans according to any one of the preceding claims, **characterised in that** said central pivot (13), suitable to host the plurality of rings (10), comprises a telescopic structure suitable to vary the length of said central pivot (13), consequently modifying the quantity of rings (10) to be stacked, adapting to the needs of the users.

7. Adjustable support for glasses and cans, according to any one of the preceding claims, **characterised in that** said central pivot (13), suitable for accommodating the plurality of rings (10), comprises below at least two openable winglets, suitable for providing sufficient support for glasses and cans in the absence of a stable support surface.

8. Adjustable support for glasses and cans according to any one of the preceding claims, **characterised in that** said vertical dorsal reinforcement (15) further comprises an elastic band suitable to bind both of its two ends to said vertical dorsal reinforcement (15) after enclosing said vertical axis (18) therein, thereby improving the adherence of the adjustable support subject of the invention.

9. Adjustable support for glasses and cans according to any one of the preceding claims, **characterised in that** said vertical dorsal reinforcement (15) further comprises a Velcro strip suitable to bind both of its two ends to said vertical dorsal reinforcement (15) after enclosing said vertical axis (18) within it, improving the adherence of the adjustable support object of the invention. Adjustable support for glasses and cans, according to any one of the preceding claims, **characterised in that** said closing cap (17), suitable to be engaged on said upper tip (19) of said central pivot (13), is suitable to be constrained by means of a thread, preventing the opening thereof with a consequent downward sliding of said central pivot (13).

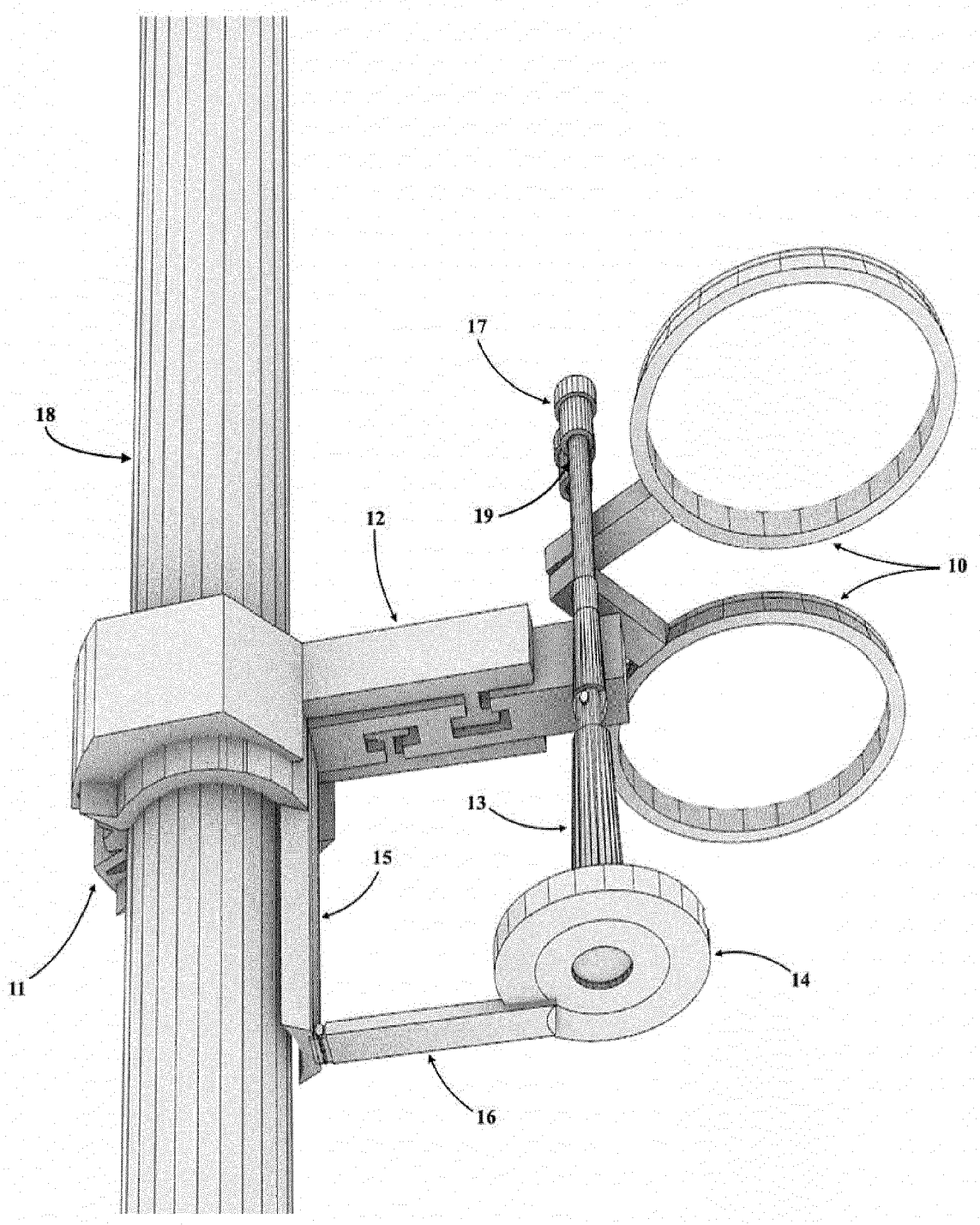

Fig.1

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EUROPEAN SEARCH REPORT

Application Number
EP 23 17 4636

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	CN 106 963 215 A (GONGCHENG YAO AUTONOMOUS COUNTY GONGCHENG HIGH SCHOOL) 21 July 2017 (2017-07-21) * the whole document *	1-10	INV. A47G23/02
A	IT 2017 0007 7276 A1 (MILANESE GIOVANNI; SPEDICATO COSIMO) 11 January 2019 (2019-01-11) * page 7, line 137 - page 11; figures *	1-10	
A	DE 20 2012 009190 U1 (LUTZENBERGER HELMUT [DE]) 29 November 2012 (2012-11-29) * paragraphs [0001] - [0008]; figures *	1-10	
A	US 5 775 654 A (PRICE BETTY J [US]) 7 July 1998 (1998-07-07) * abstract; figures *	1,6	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	13 September 2023	Van Bastelaere, Tiny

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 23 17 4636

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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13-09-2023

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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