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(54) **MOBILE INFORMATION COLUMN**

(57) The present invention relates to a mobile information column (100, 100'), in particular an advertising column. The mobile information column (100, 100') comprises a first disc (10), a support structure (40) for suspending the first disc (10) and a sheet (30) which is flexible, shaped as a rectangle and bendable along a first edge (30a) of the rectangle into a cylindrical shell of the same diameter as the first disc (10) and which is rollable along a second edge (30b) perpendicular to the first edge (30a) of the rectangle into a roll with a diameter smaller than the diameter of the first disc (10), the first disc (10) is provided with one or more first fastening elements (11), the first edge (30a) of the sheet (30) is provided with one or more second fastening elements (31), the first and second fastening elements (11, 31) are connectable and separable, a second and third edges (30b, 30c) perpendicular to the first edge of the sheet (30) are provided with one or more third and fourth fastening elements (33, 34) which are connectable and separable, and a surface of the sheet (30) providing the outer surface of the cylindrical shell is formed as an information carrying surface (37).

The invention further relates to an exchange sheet for such an information column (100, 100') having the same design as the sheet (30).

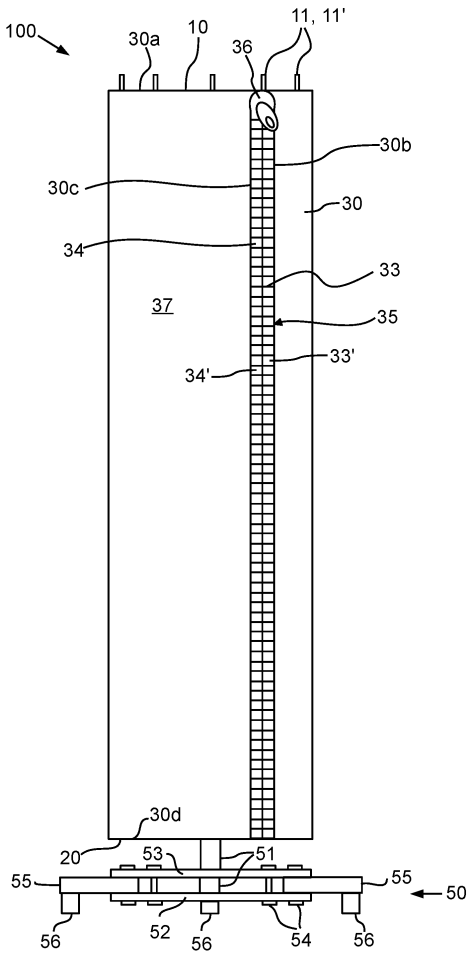

Fig. 1

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Description

[0001] The present invention relates to a mobile information column (100, 100'), in particular an advertising column, that can be assembled and disassembled.

[0002] Mobile information platforms are often needed, for example, at events and seasonal exhibitions. The basic requirements for mobile information platforms are good portability, ease of assembly and a proper size of the surface used to display the information. One of the most common mobile information platforms that meets these requirements today is the so-called Roll-up device. The Roll-up includes a rollable information sheet and a stand that holds and suspends one of its edges in its open state. The Roll-up is easy to assemble and transport well, but its big disadvantage is that it can be used primarily when placed next to a wall, as it takes up a lot of space compared to its useful surface, in addition, it is only suitable for viewing from its front face, it is not capable of displaying information from its two sides, and only to a limited extent from its rear face.

[0003] Advertising columns do not have such limitations and have a relatively larger information surface compared to their space requirement. However, most of the known advertising columns cannot be disassembled, and they are installed landmarks such as the conventional street advertising columns. Although there are also mobile, inflatable advertising columns, the information content placed on them cannot be exchanged or their replacement is expensive and cumbersome, and a special device (pump) is needed to set up these columns.

[0004] It is an object of the invention to provide a device which is free from the disadvantages of the prior art. In particular, it is an object of the present invention to provide an information display device which is mobile, easy to disassemble and assemble, easy to transport in the disassembled state, and when assembled, it has an information surface that can be viewed from multiple directions.

[0005] It is a further object of the present invention to provide a solution that allows the information carrying surface to be exchanged while retaining other elements of the information display device.

[0006] The object of the invention is achieved by a mobile information column according to claim 1 and an exchange sheet according to claim 13 for use with the mobile information column.

[0007] Preferred embodiments of the invention are defined in the dependent claims.

[0008] Further details of the invention will be described with reference to the accompanying drawings. In the drawing

Figure 1 is a schematic side view of a mobile information column according to the invention, a
Figure 2 is a schematic plan view of the column of Figure 1, a
Figure 3 is a schematic exploded side view of the column of Figure 1 wherein the cylindrical shell provided by the sheet is unfolded;
Figure 4a is a schematic bottom view of the upper disc of the column of Figure 1;
Figure 4b is a schematic side view of the upper disc of the column of Figure 1;
Figure 5a is a schematic plan view of the lower disc of the column of Figure 1;
Figure 5b is a schematic side view of the lower disc of the column of Figure 1;
Fig. 6 is a schematic bottom view of the base of the column of Figure 1 with the legs extended;
Figure 7 is a schematic side view (or perspective view) of the rolled state of the sheet of column depicted on Figure 1;
Figure 8 is a schematic side view of a further embodiment of a mobile information column according to the invention;
Figure 9 is a schematic plan view of the upper disc of the column of Figure 8.

[0009] Figures 1 to 7 show a preferred embodiment of mobile information column 10 according to the invention that can be assembled and disassembled. For better illustration, the individual elements are not drawn to scale.

[0010] The column 100 comprises at least one first (upper) disc 10 and a support structure 40 for suspending (in this case supporting) the upper disc 10. In the present embodiment, the column 100 also includes a second (lower) disc 20 which is connected by the support structure 40 to the upper disc 10 in such a way that the upper disc 10 is at the top while the second disc 20 is below, and the support structure 40 connects the upper and lower discs 10, 20 at the desired distance from each other and statically holds the upper disc 20. The column 100 further includes a flexible rectangular sheet 30 which, when the column 100 is assembled, is bent along a first edge 30a of the sheet 30 into a cylindrical shell having a diameter equal to the diameter of the upper disc 10 and attached to the upper disc 10 as shown in Figures 1 and 2a.

[0011] To secure the sheet 30, the upper disc 10 is provided with one or more first fastening elements 11, in this case pins 11' (fixing rods) arranged around the top of the upper disc 10, and the first edge 30a of the sheet 30 is provided with one or more second fastening elements 31, in the present case with tabs 31' formed integrally with the sheet 30 of the same material (see Fig. 3), which can be connected to and separated from each other, so that the first and second fastening elements 11, 31 form connectable and separable fastening pairs. Other types of fastening elements 11 and 31 are also conceivable, which also form connectable and separable fastening pairs, the sheet 30 can be fastened with, for example, velcro, magnetic tape, self-adhesive tape, metal or plastic snap, buckle, etc.

[0012] A second edge 30b and a third edge 30c perpendicular to the first edge of the sheet are also provided

with one or more third and fourth fastening elements 33 and 34, respectively, which can also be connected to and separated from each other, which together also form one or more fastening pairs. In the present embodiment, the third fastening element 33 and the fourth fastening element 34 are each a locking chain 33', 34' which together form a zipper 35 the locking chains 33', 34' of which can be attached to the edges 30b and 30c of the sheet 30, for example by sewing, stapling, double-sided adhesive tape, vulcanization, patenting or other known means. One of the locking chains 33', 34' is provided with a slider 36 for joining the locking chains 33 ', 34' in a conventional manner. The zipper 35 can be of any known type, such as metal-toothed, plastic-toothed, spiral-wound, toothless zipper, and the like. Instead of a zipper, the edges 30b, 30c of the sheet 30 may be secured together by other fasteners 33, 34, such as velcro, self-adhesive tape, magnetic tape, metal or plastic patent, interlocking tabs made of its own material, and so on.

[0013] In the present embodiment, five pins 11' are arranged near the edge of the disc 10 at the top of the upper disc 10. The sheet 30 can be hung on these by means of the tabs 31'. By zipping the edges 30b and 30c of the sheet 30, the sheet 30 can be formed into a cylinder.

[0014] The disc 10 preferably has a cylindrical rim 10a on which the sheet 30 rests, so that it is easier to assume the desired cylindrical shape, i.e. the rim 10a also has a forming function. In the present embodiment, the cylindrical rim 10a is formed by the side of an upper forming plate 12 of the upper disc 10 (see Fig. 3).

[0015] The sheet 30 is flexible at least to such an extent that it can be bent along the first edge 30a into a cylindrical shell resting on the cylindrical rim 10a of the upper disc 10.

[0016] The flexibility of the sheet 30 and the fastening elements 33, 34 also preferably allow the sheet 30 to be bent along the edges 30b and 30c to such an extent that it can be rolled into a roll having a diameter smaller than the diameter of the upper disc 10. For example, a 150 cm x 200 cm sheet 30 is preferably bent into a roll less than 30 cm in diameter having a length equal to the length of the shorter edge 30a of the sheet 30, i.e. 150 cm in this example, so that it can be easily transported in the rolled state.

[0017] In the present preferred embodiment, the column 100 also includes a lower disc 20, which preferably has a similar forming plate 22, and the cylindrical edge 20a of which also facilitates the formation and retention of the cylindrical shape.

[0018] A surface 37 of the sheet 30, which provides the outer surface of the cylindrical shell, is formed as an information carrying surface. By information we mean any visual content, such as captions, graphics, photographs, patterns, colors, and so on. The purpose and use of the information displayed is irrelevant to the invention; it can be used for example, for advertising purposes, for educational purposes, for information purposes, for purely decorative purposes, and so on.

[0019] The sheet 30 is preferably made of a flexible printable film so that the information carrying surface is the printed surface of the printable film. It can be for example, CLP or Backlit or Citylight, preferably translucent, light-clarifying, or may be clear or opal plexiglass. The material may be, for example, polyester (for example: www.neschen.de/en/product/solvoprint-citylight-superior-2). The desired visual content may be printed using Latex technology. Instead of latex, it can also be printed with Solvent, Eco Solvent, UV, Inkjet technologies. The contents can be applied to the sheet 30 in other ways, such as by painting, laminating, decals, and so on.

[0020] The size of the sheet 30 is adapted to the circumference of the discs 10 and 20 and their spacing. A well-used size is, for example, a 150x200 cm rectangle, where the longer side determines the height of the cylindrical shell and the shorter side determines its circumference.

[0021] The sheet 30 is flexible enough to be rolled along a second edge 30b perpendicular to the first edge 30a of the rectangle into a roll with a diameter smaller than the diameter of the upper disc 10, as shown in FIG. 6. Preferably, the sheet 30 can be rolled along the second edge 30b into a roll of less than half the diameter of the upper disc 10, so that it can be transported in a substantially smaller size than needed space in the installed state shown in FIG 1.

[0022] The structure of a preferred embodiment of the upper disc 10 can be better seen in Figures 3 and 4. Preferably, the disc 10 is provided with an integrated light source 13, an integrated electric motor 14 and a socket 15 for electrical connection within the cylindrical rim 10a of the forming plate 12. The light source 13 may be, for example, an LED lamp, an LED strip, a tungsten lamp, a halogen lamp, a discharge lamp (e.g., a fluorescent lamp, xenon), and the like.

[0023] In this embodiment, the upper disc 10 is provided with an internally threaded sleeve socket 16 for securing the support structure 40. The wires and connections of the electrical devices are preferably arranged inside a housing 17 of the disc 10, and the light sources 13, the motor 14 and the socket 15 can be recessed into the housing 17. Inside or outside the housing 17, a remotely controllable control unit 19 can also be arranged, which can serve to remotely control the light sources 13 in the usual way, either individually or in combination; for example, the light sources 13 can be switched on and off, their brightness, color, flash rate can be adjusted, the lighting control program can be set, and so on. The control unit 19 can also be used to switch the motor 14 on and off, to adjust the direction of rotation, the speed of rotation, to set a rotation control program, and so on. If additional electrical devices (such as an audio player) belonging to the upper disc 10 are used, they can also be controlled via the control unit 19. However, it is also possible that the built-in electrical devices have their own integrated controller, which can be controlled remotely. The control unit 19 can be, for example, a microcontroller.

[0024] The motor 14 preferably rotates the forming plate 12 at a low speed, for example at a speed of 30 to 80 sec/revolution, which is sufficient to attract the attention of passers-by, but slow enough for the content to be known/perceivable.

[0025] In terms of the material of the upper disc 10, it is preferably aluminum or other light metal for easier transport.

[0026] The forming plate 12 is preferably connected to a driven shaft 14a of the motor 14, so that the forming plate 12 and with it the sheet 30 bent into a cylindrical shell fixed thereon can be rotated together with the shaft 14a by means of the motor 14. The information carrier surface 36 of the sheet 30 will thus be fully visible due to the rotation, without having to go around the column 100.

[0027] By means of the LED light sources 13, the preferably at least partially transparent sheet 30 mounted cylindrically on the upper disc 10 can be illuminated from the inside, which makes the information displayed on the outer surface 37 of the sheet 30 particularly visible.

[0028] The structure of the lower disc 20 may be similar: the disc 20 is provided within the cylindrical rim 20a of the forming plate 22 with one or more integrated light sources 23 and a socket 25 for transmitting mains current, the wires and connections of the electrical devices are preferably arranged inside a housing 27, and the light sources 23 and the socket 25 can be recessed into the housing 27. The light source 23 may be, for example, an LED lamp, an LED strip, a tungsten lamp, a halogen lamp, a discharge lamp (e.g., a fluorescent lamp, xenon), and the like. An embodiment is also possible in which only one of the discs 10 or 20 contains light sources 13 or 23.

[0029] The electrical connection of the electrical housing 27 is preferably via a mains cable 28 and a mains plug 28a. If the electrical devices are not operated from mains voltage (for example from 15 VDC), a suitable transformer can be inserted before the mains connector 28a, or even integrated with the plug 28a, as will be apparent to those skilled in the art. Another possibility is that the cable 28 does not connect the electrical housing 27 to the mains, but to a battery, so that the column 100 can also be operated in a network-free environment, such as outdoors or in other cable-free spaces.

[0030] Inside or outside the housing 27, a remotely controllable control unit 29 may be provided, which may serve to remotely control the light sources 23, either individually or in combination; for example, the light sources 23 can be switched on and off, their brightness, color, flash rate can be adjusted. If the lower disc 20 has additional electrical devices (such as an audio player), these can also be controlled via the control unit 29. However, it is also possible that the built-in electrical devices have their own integrated controller, which can be controlled remotely. Provided a suitable electrical connection, the control unit 29 can also be used to control the electrical devices of the upper disc 10 or, conversely, the control unit 19 arranged in the housing 17 of the upper disc 10 can be used to control the electrical devices of the lower disc 20. In another preferred embodiment, the electrical devices of the upper disc 10 and the lower disc 20 may be controlled by a common control unit 29' located outside the discs 10 and 20 between the lower disc 20 and the mains plug 28a. The external control unit 29' can be provided with switches, knobs, etc., by means of which the electrical devices of the column 100 (LEDs light sources 13, 23, motor 14, etc.) can be controlled without a remote control device.

[0031] To secure the support structure 40, the lower disc 20 is also preferably provided with an internally threaded sleeve socket 26.

[0032] The forming plate 22 may be non-rotating, in which case the sheet 30 bent into a cylindrical shell slides on the cylindrical rim 20a of the forming plate 22 as it rotates. Alternatively, the forming plate 22 is freely rotatably attached to the housing 17 of the lower disc 20, so that the housing 17 functions as a stator and the forming plate 22 as a rotor. For example, via a support tube 51 the disc 20 is also mounted on a base 50 forming part of the support structure 40 so that the housing 27 is non-rotatably secured to the support tube 51, while in the center of the forming plate 22 there is a hole (not shown) with an inner diameter corresponding to the support tube 51, and the forming plate 22 is freely rotatable about the support tube 51. This has the advantage that the movement of the sheet 30 bent into a rotating cylindrical shell rotated together with the rotated upper forming plate 12 is not impeded by the cylindrical edge 20a of the lower forming plate 22, even if the bottom of the sheet 30 rests tightly on it, since the sheet 30 can rotate with it the lower cylindrical rim 20a during its rotation. The rotation of the lower forming plate 22 can be further facilitated, for example, by bearing, or by providing sufficiently low friction surfaces between the forming plate 22 and the parts of the support structure 40 in contact therewith, or by other known means.

[0033] An embodiment is also possible in which the lower edge 30d of the sheet 30 is also fixed to the lower disc 20 by means of similar fastening elements as to the upper disc 10, so the freely rotating forming plate 22 is driven not only by the frictional force between the sheet 30 bent into a cylindrical shell and the cylindrical rim 20a, but also by the fixing to ensure co-rotation. Such attachment can be achieved, for example, by means of pins 11' applied to the upper disc 10 and tabs 31' formed at the lower edge 30d of the sheet 30; there may be other ways to releasably secure the sheet 30 and the forming plate 22 of the disc 20 to each other, such as with velcro, magnetic tape, self-adhesive tape, metal or plastic snaps, buckles, and the like.

[0034] In the case of releasably securing the sheet 30 and the forming plate 22 of the disc 20, an embodiment is also conceivable in which the motor 14 is arranged in the lower disc 20 and drives its forming plate 22 and the forming plate 12 of the upper disc 10 is freely rotatable relative to the housing 17 of the upper disc 10, so that the sheet 30 rotated by the lower forming plate 22 rotates

the upper forming plate 12 with it. An embodiment is also conceivable in which both forming plates 12, 22 are driven by separate motors 14 which are synchronized with one another.

[0035] In the case of a rotatable lower forming plate 22, the cable 28 is preferably led away from the housing 27 via the support tube 51.

[0036] In terms of the material of the lower disc 20, it is also preferably made of aluminum or other light metal for easier transport.

[0037] The support structure 40 comprises a support rod 41 which can be separated into at least two halves and which forms the axis of the support structure 40. An upper threaded end 41a of the rod 41 can be screwed into the sleeve socket 16, and the lower threaded end 41b in the present case can be screwed into a similar sleeve socket 26 of the lower disc 20. If there is no lower disc 20, the rod 41 can be fixed to the base 50 in a similar manner. Parts 42, 43 are preferably fixed non-rotatably in the sleeves 16 and 26, respectively, which can be achieved in a number of ways in addition to a correspondingly tight thread, for example with a clamp shank or pins passing through the ends 41a, 41b and the sleeve sockets 16, 26, etc.

[0038] In the present case, the rod 41 can be disassembled into parts 42 and 43, which can be connected to each other by having a threaded sleeve 44 at the end 42a of one part 42 into which the threaded end 43a of the other part 43 can be screwed. Other designs are also conceivable which allow the length of the rod 41 to be reduced during transport, for example the rod 41 can be designed telescopically in a known manner so that the parts 42, 43 and, if appropriate, further parts can be slid together. If both ends 43a, 41b of one part 43 are designed to be fixed in the sleeve sockets 16 and 26, respectively, omitting the other part 42, a lower height column 100 can be assembled on which a shorter information carrier sheet 30 can be placed in the form of a cylindrical shell.

[0039] Another possibility is that the upper disc 10 and the lower disc 20 are not connected by a rod 41 forming a single shaft, but by a rod 41 forming several axes, for example three rods 41 arranged at equal distances from each other. In this way, adequate stability and load-bearing capacity can also be achieved by using rods 41 made of a lighter material, such as plastic.

[0040] The rod 41 is preferably hollow, so that less weight needs to be moved during transport, and one or more electrical cables 45 can be routed inside, the electrical connector 46a at the upper end 45a of which can be connected to the socket 15 of the upper disc 10 of the housing 17, thus, the power supply of the electrical devices of the upper disc 10 can be provided through the cable 45.

[0041] The other end 45b of the cable 45 is provided with a similar electrical connector 46b in this embodiment, which can be connected to the electrical socket 25 of the lower disc 20, and the power supply is provided through the disc 20. The power supply can be provided in other ways, for example by providing the lower end 45b of the cable 45 with a mains plug which can be connected directly to a standard mains socket.

[0042] The rod 41 preferably has a cable outlet 47a, 47b in the vicinity of the upper and lower ends 41a, 41b, through which the ends 45a, 45b of the cable 45 are led out, thus, the electrical connectors 46a and 46b can be easily connected to the electrical sockets 15 and 25 of the upper disc 10 and the lower disc 20, respectively, during assembly. The electrical connectors 46a, 46b can also be formed inside the ends 41a, 41b of the threaded rod 41, in which case the sockets 15 and 25 are also arranged inside the sleeve sockets 16 and 26, respectively, and by screwing in the corresponding ends 41a, 41b of the rod 41, the electrical connection is also established automatically. Another possibility is that the cable 45 runs outside the rod 41, for example in the form of an electric cable.

[0043] Instead of or beside to the light sources 13, 23, an additional light source (such as an LED strip) can be placed along the rod 41 (not shown).

[0044] In the present embodiment, the base 50 comprises lower and upper support plates 52, 53, fasteners 54 (e.g., bolts 54a and nuts 54b) holding them together, and legs 55 clamped between the support plates 52, 53 in a foldable way, in this case three legs 55, each of which rests on the ground through plastic or rubber soles 56 in the assembled state of the column 100. The soles 56 can be secured to the legs 55 in a conventional manner, such as by screw, gluing, snap-in, and the like. The legs 55 can also be secured to the support plates 52, 53, for example by means of screws 54a and nuts 54b. The support plates 52, 53 can also be arranged on the support tube 51 by using central holes of the appropriate diameter (not shown). The base 50 is shown in Fig. 6 with the legs 55 folded out, without the mains cable. The legs 55 can be rotated about the outer fasteners 54 as an axis in the direction of the arrows shown in Fig. 6, in this way the legs 55 can be folded in and the direction of rotation of the fold is illustrated by the arrows.

[0045] Other embodiments to the base 50 are also conceivable in which, for example, the legs 55 can be telescopically pulled out of the lower disc 20 if the forming plate 22 cannot be rotated, or if the forming plate 22 can be rotated, they may be attached separately to the disc 20 via one or more support plates 52, 53 or the legs are fixed to the one or more support plates 52, 53 in a non-foldable manner, or the disc 20 is provided with a single leg 55 and an associated wide sole 56, and so on.

[0046] The material of the frame structure (discs 10, 20 and support structure 40) is preferably aluminium for good structural stability and easy transport, but the use of other materials is also conceivable, such as iron, steel, plastic, and the like or a combination thereof.

[0047] Figures 8 and 9 show another column 100' according to the invention, in which elements identical to the previous embodiment are denoted by the same ref-

erence numerals. The column 100' differs from the previous embodiment mainly in that the column 100' does not stand on a base arranged below the cylindrical shell, but it can be hung from above through the upper disc 10, for example on a hook fixed to a ceiling or other place, or on a classic hanging parasol stand, etc. The column 100' may also be motor-rotated, have an integrated light source 13, 23, a remotely controllable control unit 19, 29, or an external control unit 29' with switch buttons arranged outside the sheet 30 bent into a cylindrical shell. In this case, the lower disc 20 can also be connected via a rod 41 to the upper disc 10, which holds the lower disc 20 from above in a suspended state. In this case, too, the upper forming plate 12 is preferably driven by the motor 14, and the lower forming plate 22 is freely rotatably connected to the rest of the lower disk 20, so that the lower edge 30d of the sheet 30 attached to the upper forming plate 12 drives the lower forming plate 22 either purely by frictional force between them or by other fixing means (which may be, for example, pin 11' and tab 31' pair, velcro, patent, magnetic stripe, etc.).

[0048] The center of the upper forming plate 12 is open so that the suspension can be provided on the housing 17, which is not rotated. In this embodiment, the upper forming plate 12 has a circular cut-out 111 in the middle of approximately 25 cm in diameter, in plan view (see Fig. 9), the top of the underlying housing 17 is visible and accessible through the forming plate 12, on which suspension points 112 (such as rings or other attachment points) marked with an X for suspension are arranged, to which one or more suspension elements 113 for suspending the column 100 ' (such as one or more chains, belts, ropes, steel wires, etc.) can be attached or permanently attached. The support structure 40 for holding the upper disc 10 thus comprises the suspension points 112 and the suspension elements 113.

[0049] The diameter of the housing 17 is preferably larger than the cut-out 111, so that there is an overlapping area 114 between the forming plate 12 and the housing 17 bounded by a dashed line marking the edge of the housing 17, along which the drive between the motor 14 arranged in the housing 17 and the forming plate 12 can be formed in any known manner, for example by a gear, a ribbed belt, etc. In this embodiment, the column 100' receives power from above through a cable entry opening 115 formed in the top of the housing 17. The power supply to the lower disc 20 can be conducted in the form of a cable 45 running inside the rod 41 or as externally in the form of an electric cable, so that the lower disc 20 can also comprise light sources 23 or other electrical devices. The bottom view and side view of the upper disc 10 in this embodiment are the same as in Figures 4a and 4b, and the top view and side view of the lower disc 20 are the same as in Figures 5a and 5b.

[0050] Another version of the embodiment suspended from above is also conceivable, for example, in which the shaping lower disc 20 hangs on the lower edge 30d of the sheet 30 fixed to the upper disc 10, which, in the absence of a shaft, hangs in the air and, due to its weight, at the same time stretches the cylindrical shell formed by the sheet 30 and rotates with it when the cylindrical shell is rotated.

[0051] If a lower illumination is required, it can also be provided independently of the lower disc 20, for example it can also be implemented with a light source suspended from the upper discs 10 along its center line, which receives power from the disc 10.

[0052] In a preferred embodiment of the invention, the columns 100 and 100', have not only one information-carrying sheet 30, but also several interchangeable sheets 30, i.e. exchange sheets, that may be identical in construction to the sheets 30 previously shown. The invention also relates to the exchange sheet 30 itself.

[0053] Various modifications will be apparent to a person skilled in the art without departing from the scope of protection determined by the attached claims.

Claims

1. Mobile information column (100, 100'), in particular an advertising column, that can be assembled and disassembled, **characterized in that** it comprises a first disc (10), a support structure (40) for suspending the first disc (10) and a sheet (30) which is flexible, shaped as a rectangle and bendable along a first edge (30a) of the rectangle into a cylindrical shell of the same diameter as the first disc (10) and which is rollable along a second edge (30b) perpendicular to the first edge (30a) of the rectangle into a roll with a diameter smaller than the diameter of the first disc (10), the first disc (10) is provided with one or more first fastening elements (11), the first edge (30a) of the sheet (30) is provided with one or more second fastening elements (31), the first and second fastening elements (11, 31) are connectable and separable, the second edge (30b) and a third edge (30c) perpendicular to the first edge (30a) of the sheet (30) are provided with one or more third and fourth fastening elements (33, 34), respectively, which are connectable and separable, and a surface of the sheet (30) corresponding to an outer surface of the cylindrical shell is formed as an information carrying surface (37).

2. The information column of claim 1, **characterized in that** the sheet (30) is made of a printable film and the information carrying surface (37) is a printed surface of the printable film.

3. The information column according to claim 1 or 2, **characterized in that** it comprises a second disc (20) and the support structure (40) comprises a shaft, preferably a rod (41), which can be connected to and detached from the first and second discs (10, 20) and fixes the first disc (10) to the second disc (20)

at a distance corresponding to the height of the cylindrical shell.

4. The information column according to claim 3, **characterized in that** the second disc (20) is provided with a base (50), which preferably comprises foldable legs (55).

5. The information column according to claim 3 or 4, **characterized in that** the shaft consists of a plurality of parts (42, 43) which can be assembled and disassembled or is telescopic.

6. The information column according to any one of claims 3 to 5, **characterized in that** the shaft is hollow and one or more electrical cables (45) are arranged therein, which provide(s) electrical connection between the first and second discs (10, 20).

7. The information column according to any one of claims 1 to 6, **characterized in that** the first disc (10) is provided with a motor (14) for rotating the first disc (10).

8. The information column according to any one of claims 1 to 7, **characterized in that** the sheet (30) is at least partially light-transmitting, and in the assembled state, a light source (13, 23) is arranged inside the cylindrical shell.

9. The information column according to any one of claims 1 to 8, **characterized in that** the first fastening elements are pins and the second fastening elements are tabs formed integrally with the sheet from a material of the sheet.

10. The information column according to any one of claims 1 to 9, **characterized in that** the third and fourth fastening means form a zipper.

11. The information column according to any one of claims 1 or 6 or 7 or 9 or 10, **characterized in that** the support structure is a stand on which the first disc can be suspended.

12. The information column according to any one of claims 1 or 6 or 7 or 9 or 10, **characterized in that** the support structure is a suspension device, such as a chain, allowing the first disc to be suspended.

13. Information exchange sheet for an information column according to any one of claims 1 to 12, **characterized in that** it is flexible, shaped as a rectangle and bendable along a first edge (30a) of the rectangle into a cylindrical shell of the same diameter as the first disc (10) and it is rollable along a second edge (30b) perpendicular to the first edge (30a) of the rectangle into a roll with a diameter smaller than the diameter of the first disc (10), its first edge (30a) is provided with one or more fifth fastening elements connectable to and separable from the first fastening elements (11) of the information column (100), the second edge (30b) and a third edge (30c) perpendicular to the first edge (30a) of the sheet (30) are provided with one or more sixth and seventh fastening elements (33, 34), respectively, forming connectable and separable third fastening pairs, and a surface of the exchange sheet providing an outer surface of the cylindrical shell is formed as an information carrying surface (37).

14. The replacement sheet according to claim 13, **characterized in that** it is made of a printable film, and the information carrying surface (37) is a printed surface of the printable film.

15. The replacement sheet according to any one of claims 13 or 14, **characterized in that** the sixth and seventh fastening elements (33, 34) form a zipper (35).

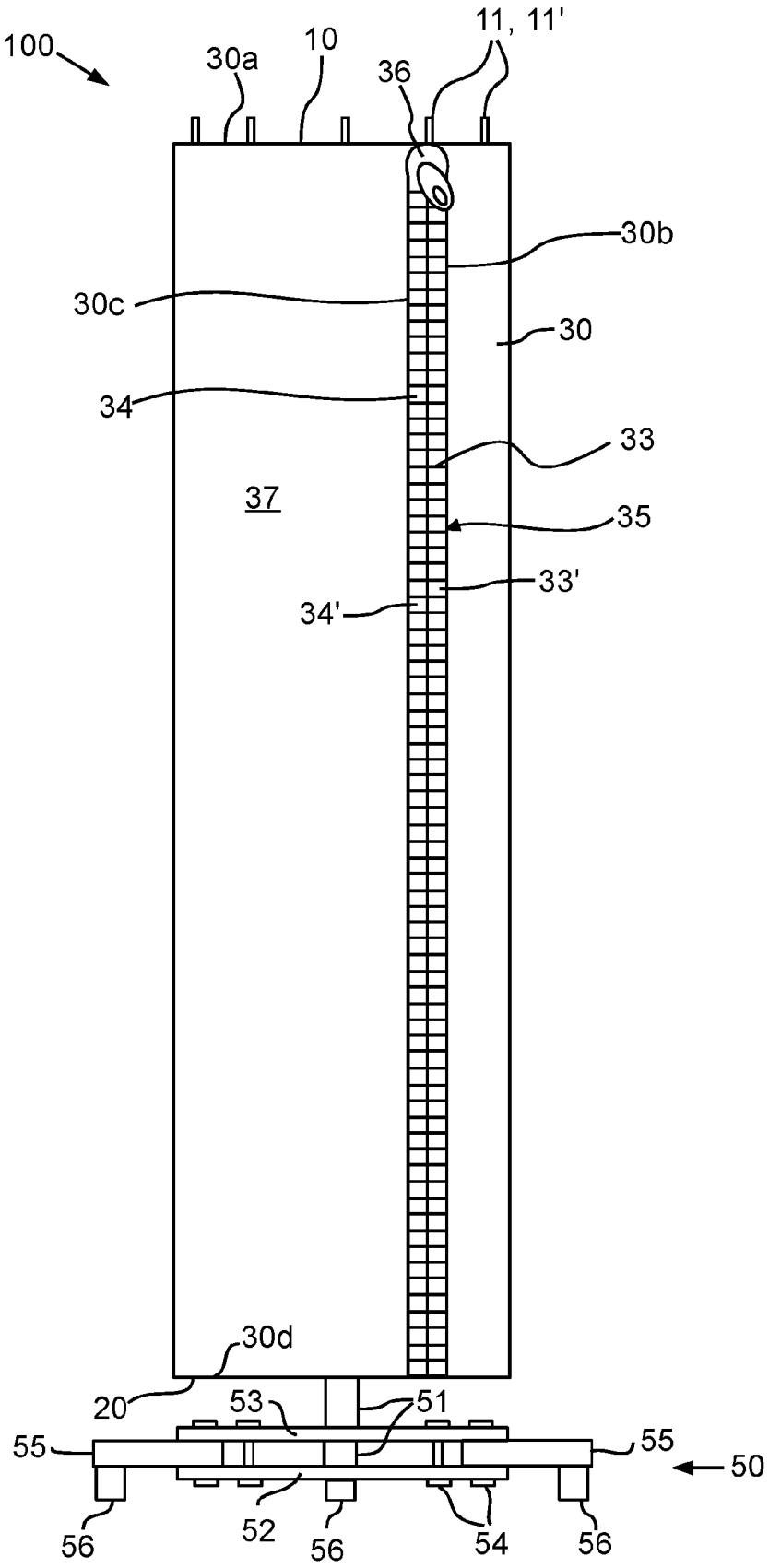
100
30a
10
36
11, 11'
30b
30c
30
34
33
37
35
33'
34'
30d
20
53
51
55
55
50
56
52
56
54
56

Fig. 1

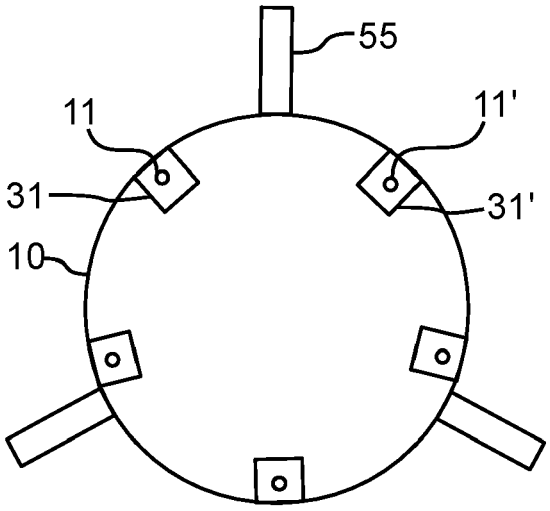

Fig. 2

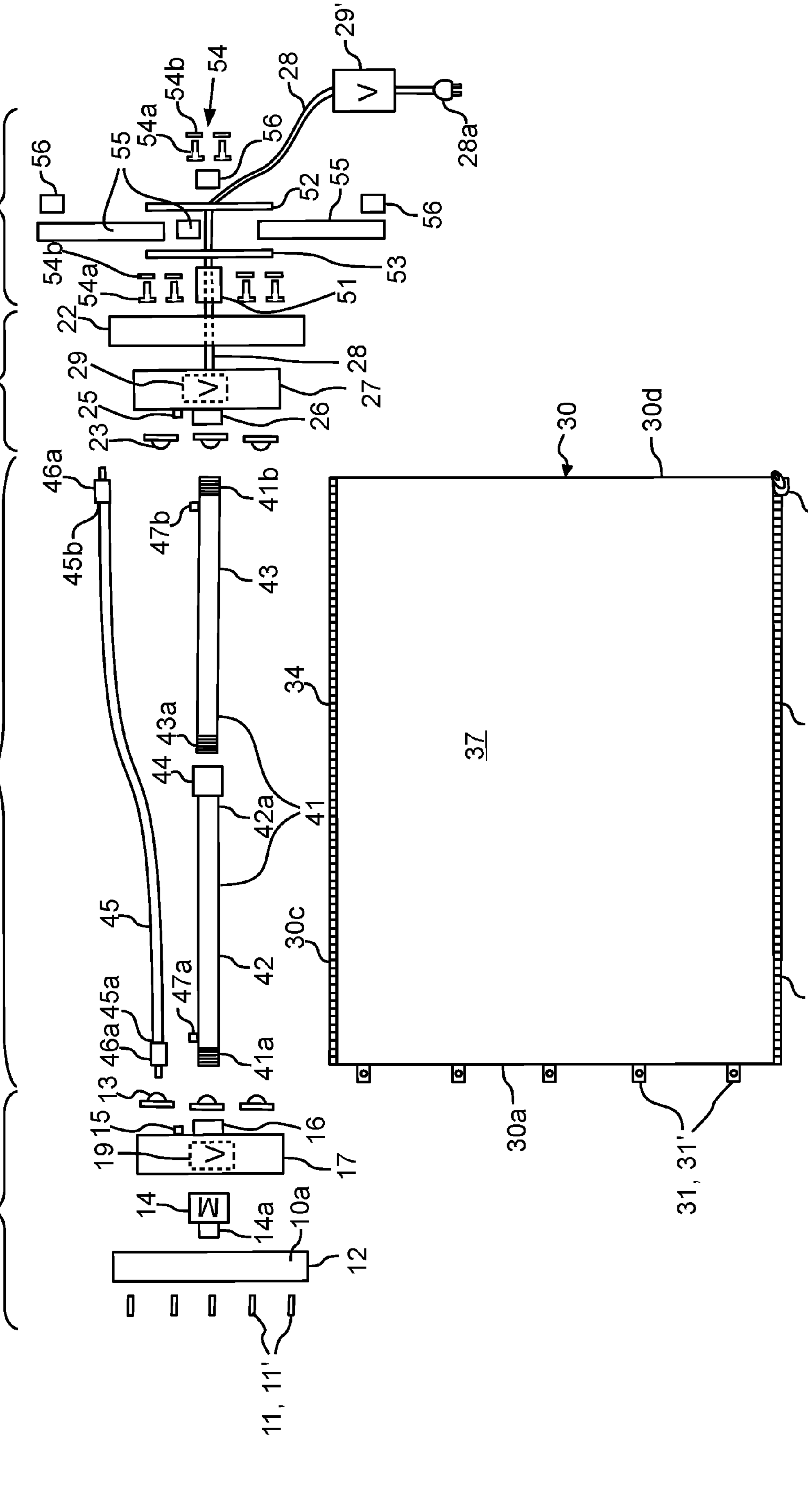
10
20
40
50
11, 11'
12
10a
14
14a
M
19
V
15
13
16
17
46a
45a
45
45b
46a
47a
42
41a
42a
44
41
43a
43
47b
41b
23
25
26
29
27
28
22
51
54a
54b
53
55
56
52
54
28a
29'
30
30a
30b
30c
30d
31, 31'
33
34
36
37

Fig. 3

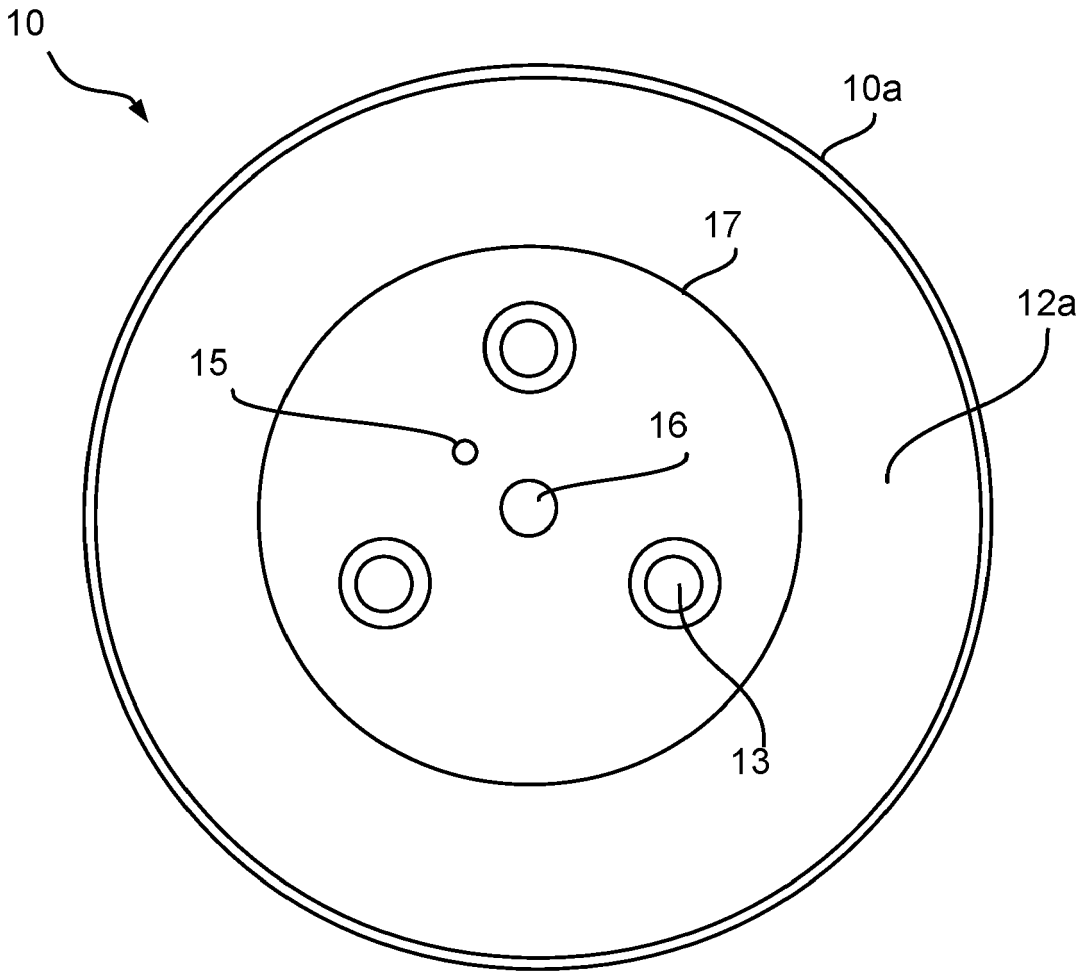

Fig. 4a

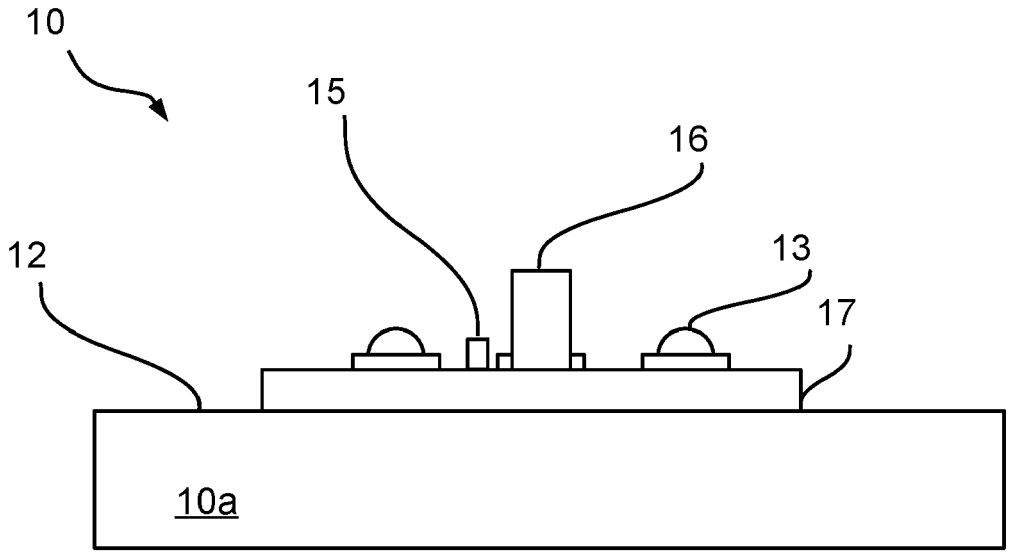

Fig. 4b

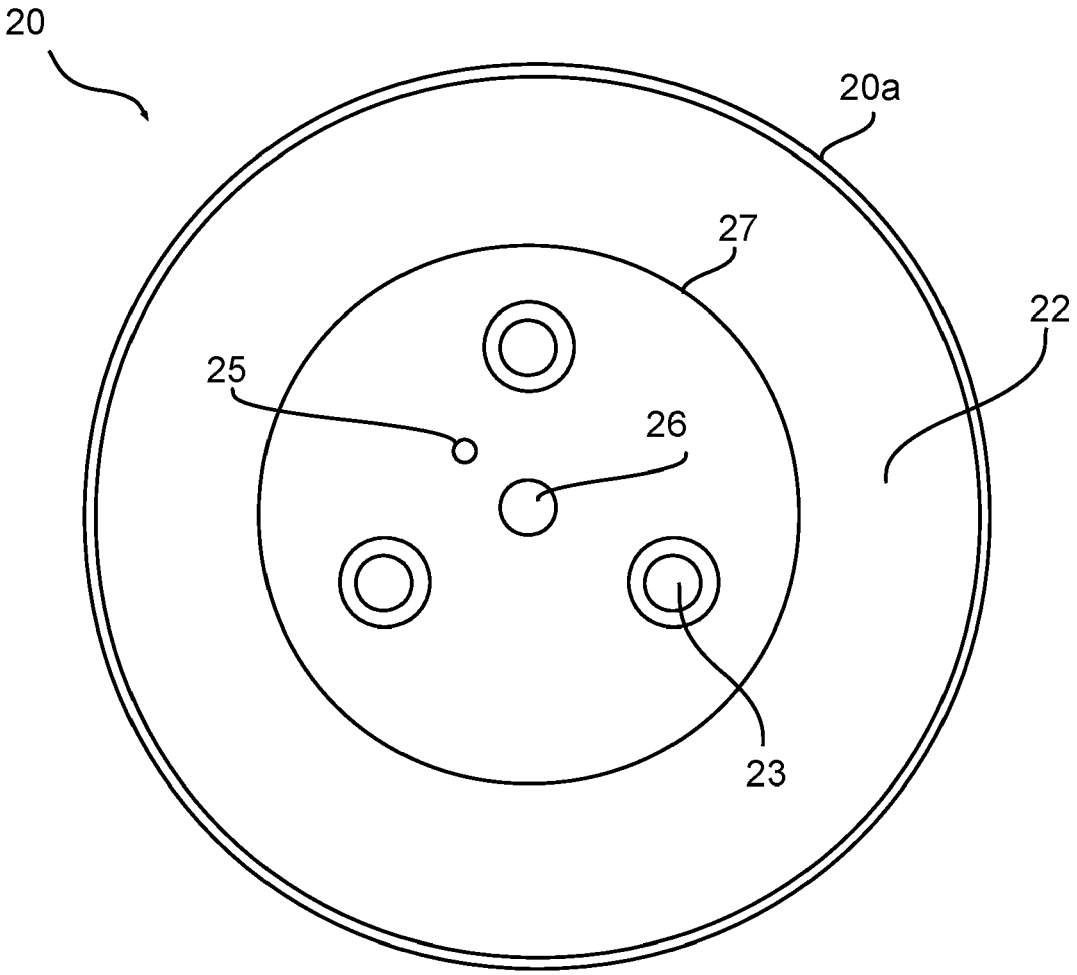

Fig. 5a

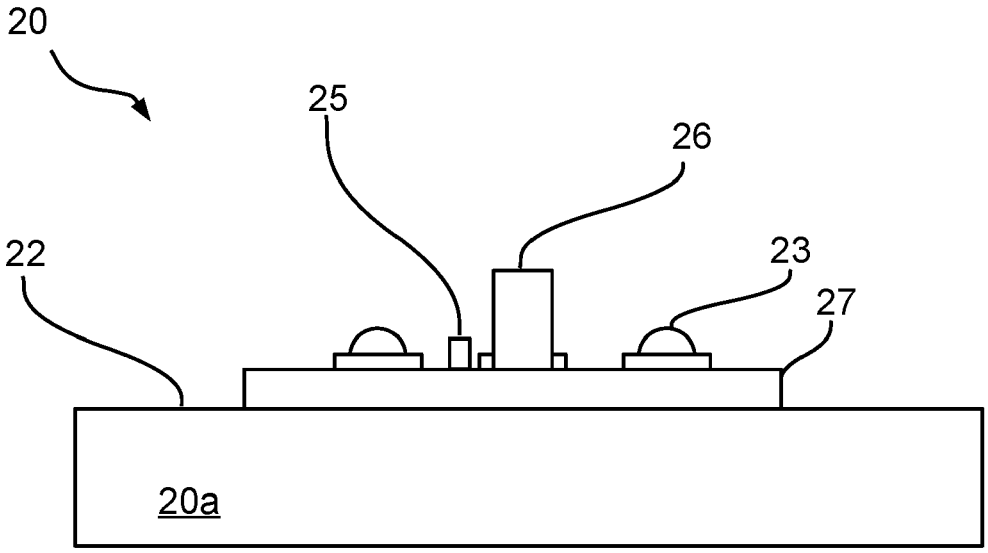

Fig. 5b

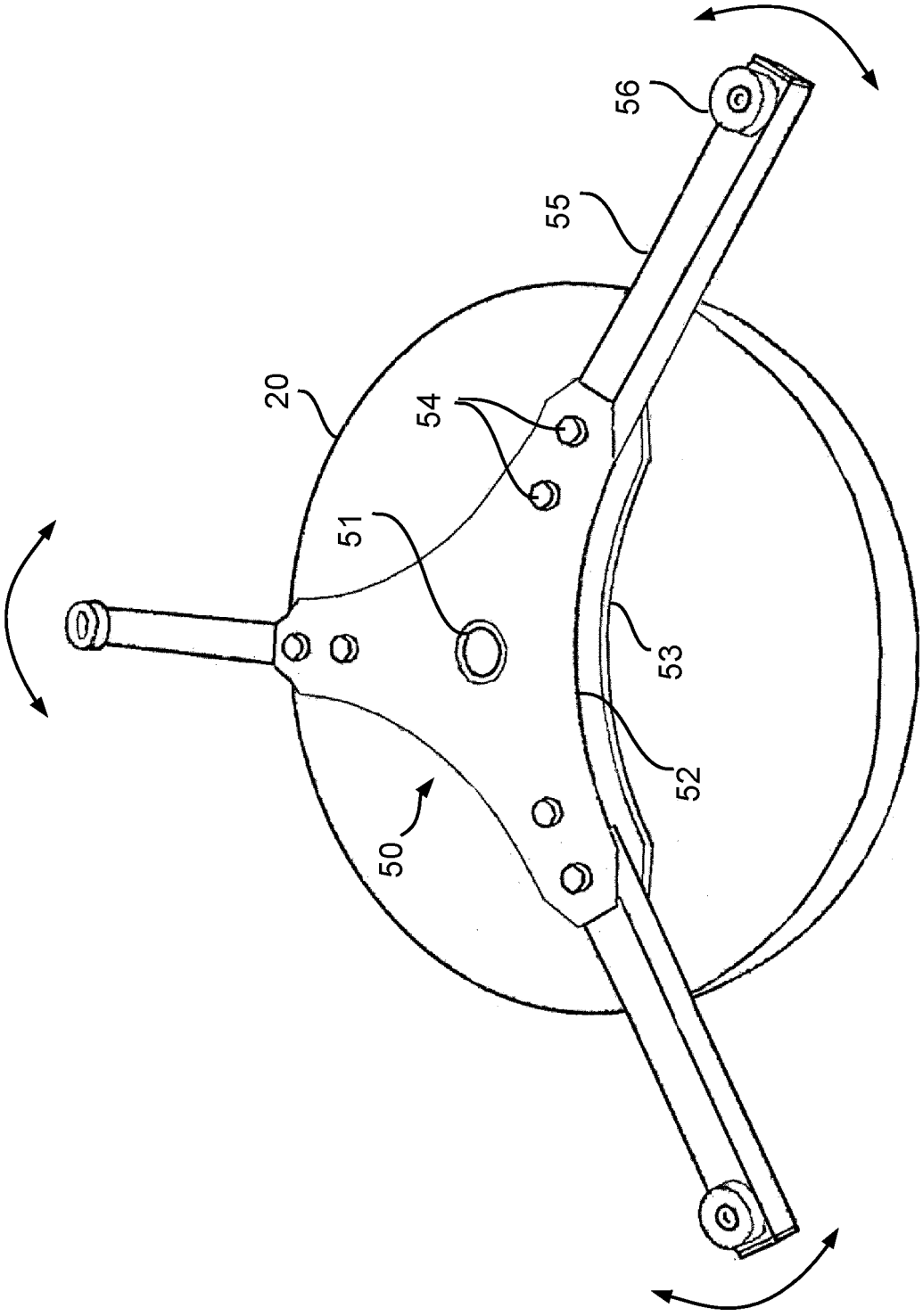

Fig. 6

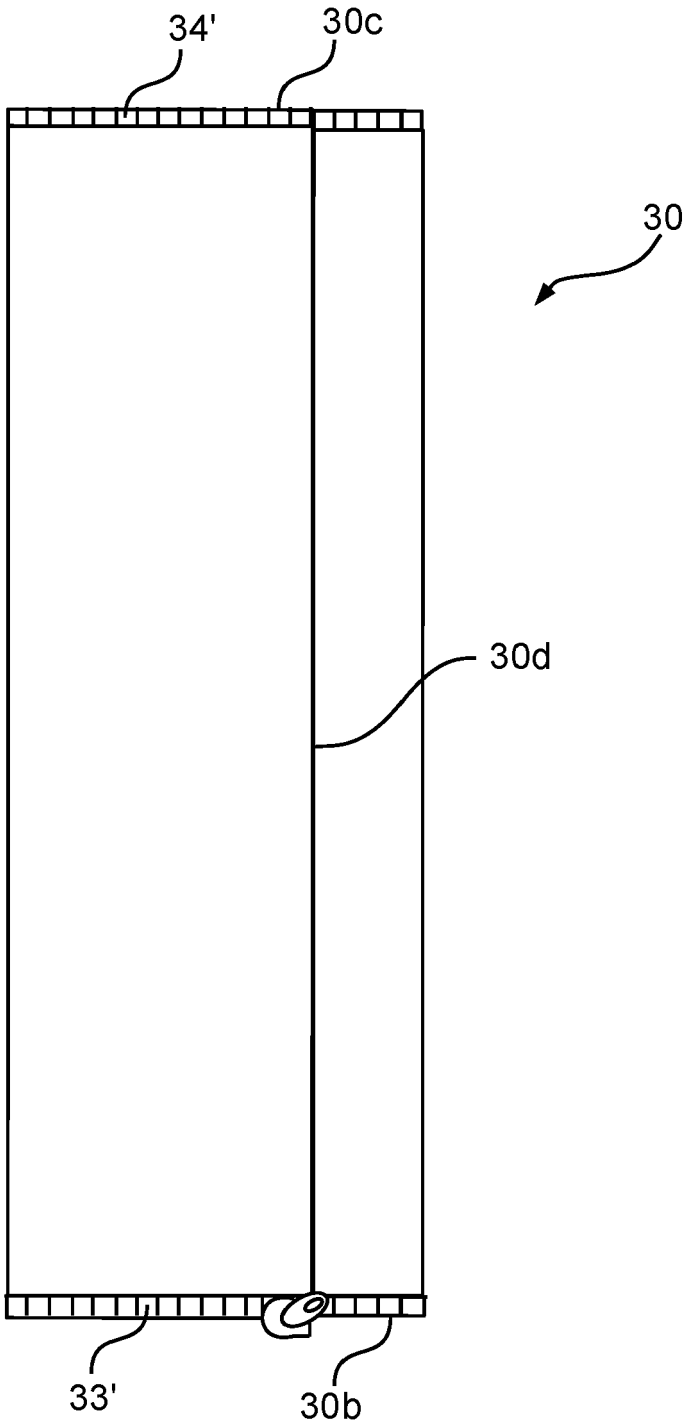

Fig. 7

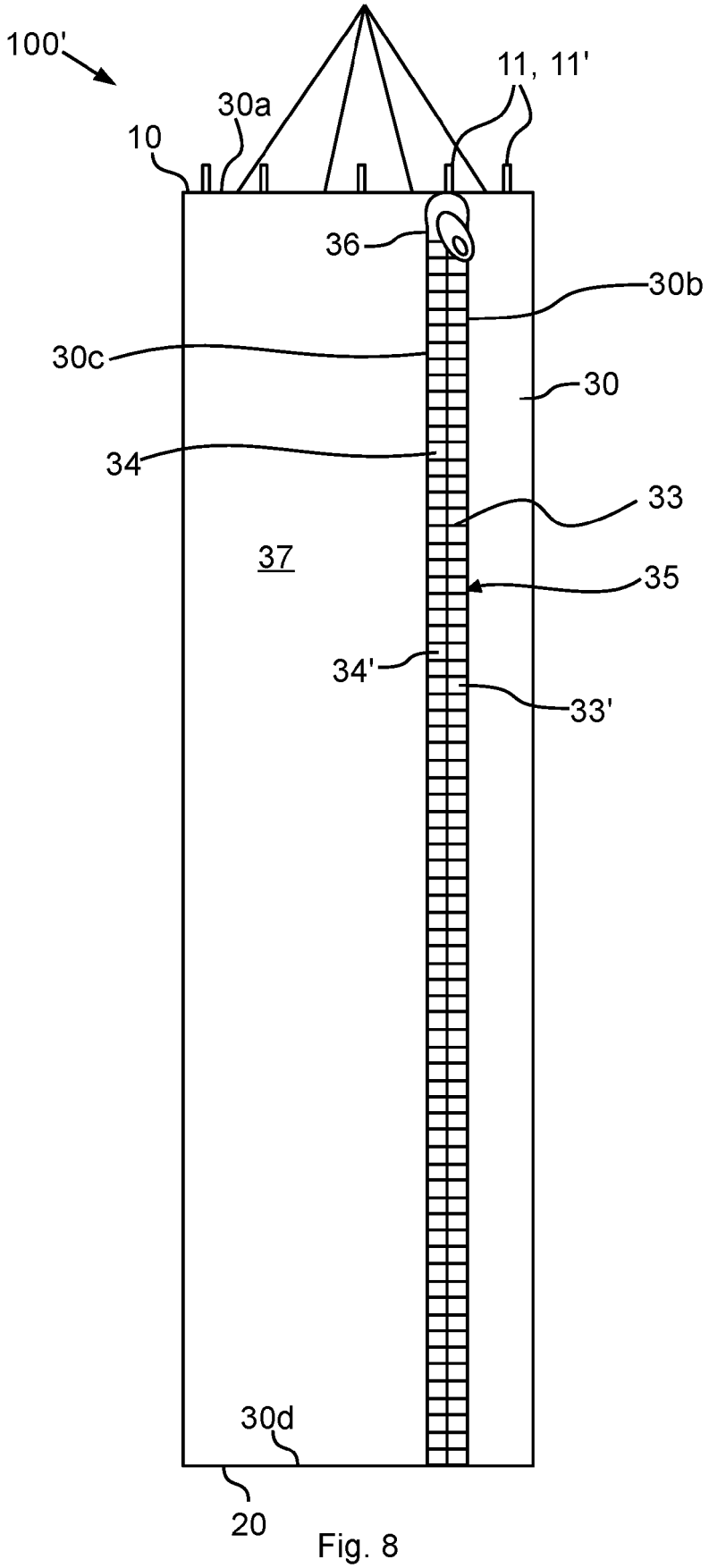

Fig. 8

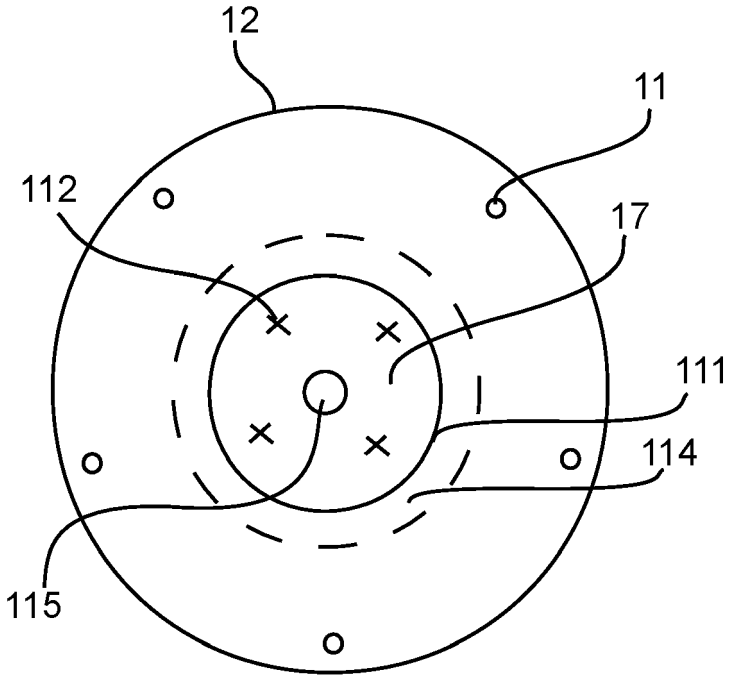

Fig. 9

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European Patent Office
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EUROPEAN SEARCH REPORT

Application Number
EP 20 18 8661

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	KR 200 355 255 Y1 (I) 5 July 2004 (2004-07-05) * abstract; figures 1-4 * -----	1-15	INV. G09F7/22 G09F15/00 G09F13/04
X	SE 532 509 C2 (GURB TINO [SE]) 9 February 2010 (2010-02-09) * paragraph [0002] - paragraph [0012] * * figures 1,2 * -----	1-5,7, 10-15	
X	US 2009/178316 A1 (PARENTI CHRIS [US] ET AL) 16 July 2009 (2009-07-16) * paragraph [0015] - paragraph [0018] * * figures 1-4 * -----	1,2,8, 13,14	
A	WO 92/20057 A1 (ALPHA SIGNS LTD [GB]) 12 November 1992 (1992-11-12) * page 6, line 11 - page 9, line 5 * * figures 1-11 * -----	1-9	

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G09F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	14 January 2021	Pantoja Conde, Ana

CATEGORY OF CITED DOCUMENTS

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14-01-2021

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