

**EQUIPMENT FOR DISPLAYING INFORMATION CARRIERS
ESPECIALLY FOR ADVERTISING PURPOSES**

The invention relates to equipment for the purpose of displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet suitable for accommodating the information carrying device to be displayed.

The efficiency of advertising goods offered for sale plays an essential role in making the goods marketable, increasing the amount of goods sold and as a result of it increasing the achievable profit. For this reason specialists dealing with advertising are working on developing advertising technology all over the world, and as a result of their work all types of different solutions aimed at the efficiency of advertising are created.

Different methods of advertising goods – products – are known, for example, words, pictures, films and their combinations, which get to the consumers through the media (newspapers, television, films, prospects, posters, etc.). One of the most efficient methods is displaying the products themselves, for example, on shelves, stands, glass cupboards, etc. Often efforts are made to increase the efficiency of displaying and advertising by using mirrors and lighting (light intensity, shadowing, using light sources of different colours, for example, pulsating or/and moved light beams, etc.). For example, patent specification No. EP 0334 196 describes a cabinet advertising device, the front-wall of which is formed by a mirror, which is transparent on one side, and its back-wall is non-transparent mirror. If it is possible to look inside the cabinet from

two sides, then the back-wall is also a mirror transparent on one side, similarly to the front-wall. The mirror-like surfaces are turned towards the inside of the cabinet. Several lights are built in along the side-walls, and due to the mirror-like surfaces situated opposite each other they look like a chain of lights moving away from the front-wall of the cabinet. By tilting the back mirror they create the illusion of curving the chain of lights, which is aimed at drawing attention.

According to patent specification No. DE 3 535 393 with a pyramid shaped body made of glass – a prism – placed above the displayed products they try to increase the efficiency of advertising by showing different pictures of the product, depending on the position of the viewer's eyes.

In the case of the solution according to patent specification No. EP 0 551 059 a closed cabinet is used, the walls of which are made of non-transparent material apart from its door, which is a mirror transparent on one side, with its mirror-like surface turned outwards. The internal space of the cabinet is divided into compartments by dividing walls made of non-transparent material, and a light is placed in each compartment. The lights are controlled by a program and switched off and on, as a result of which always the inside of a different compartment – that is the goods placed in there – can be seen. It is not possible to look in the other compartments from outside when the light allocated to them is not on, because the inside of these compartments are hidden from the viewer by a mirror, in other words the door.

The subject of patent specification No. US 5 180 222 also relates to a cabinet with a mirror-like surface facing outwards, having a front-wall formed by a mirror, which is transparent on one side, and in horizontal section the cabinet is shaped like an equilateral triangle. Two walls of

this cabinet are formed by a mirror facing inwards. Due to the mirror-like surfaces the product placed in the cabinet is visible from all sides, and these mirror-like surfaces – depending on the position of the eyes – multiply the image of the object like a kaleidoscope.

The task to be solved with the invention is to provide equipment for displaying products, with the help of which the efficiency of advertising can be significantly increased as compared to the presently known solutions used for such purposes, and the intensity of the advertisement can be increased.

The invention is based on the recognition that if the product to be shown is displayed creating the illusion that is floating in space, completely omitting the use of any support or/and suspension, it would draw the attention of the viewers extremely intensively, and because they try to find an explanation for the floating of the product, there is more time than usual for storing the product in their mind, which obviously increases the efficiency of advertising rather significantly as compared to ordinary attention-drawing methods. We also realised that the illusion of floating can be created, if inside a cabinet the linear supporting-contact place of the transparent plate or mirror actually bearing the product is displayed as a member of a group of lines, and this displaying or bearing plate of the product is illuminated in a way that all reflections are eliminated in the cabinet. The invention is also based on the recognition that the efficiency of advertising can be increased further by making the product disappear and appear again periodically or by showing a different product in the place of a disappearing product in the same cabinet, which can be achieved by rotating the product or products in an opening in the mirror in a dark phase, which can be solved by a motor-driven mechanism of controlled operation.

On the basis of the above recognition the set task was solved with equipment for the purpose of displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet suitable for accommodating the information carrying device to be displayed, especially an object or/and a device containing the activity, constructed in a way that it is possible to look inside its internal space, which cabinet contains light sources, and the equipment is characterised by that

- the cabinet's side-walls, bottom-wall and upper-wall contain a strip running around situated at a distance from the back-wall, and the edges of a transparent plate are in contact with this strip;
- the information carrier, especially object to be displayed is situated on the front of the transparent plate with respect to the viewing direction of the inside of the cabinet;
- the side-walls, the bottom-wall and the upper-wall contain at least one strip running around of the same construction as the strip touching the transparent plate, situated at a distance from the transparent plate, in front of it, favourably parallel to the contact strip; and
- looking at it from the viewing direction there are light sources behind the transparent plate.

Other equipment according to the invention with a cabinet suitable for accommodating the information carrying device to be displayed, especially an object or/and a device containing the activity, constructed in a way that it is possible to look inside its internal space, which is characterised by that the cabinet's side-walls, back-wall, bottom-wall and upper-wall are made of non-transparent material and their internal surface has the same, practically dull black colour.

The invention also relates to equipment with a cabinet suitable for accommodating the information carrying device to be displayed, especially an object or/and a device containing the activity, constructed in a way that it is possible to look inside its internal space, which contains light-sources, and which is characterised by that

- the cabinet has a front-wall, which has a mirror surface inside and is transparent from the outside, a back-wall made of non-transparent material and an upper-wall and bottom-wall closing them, and between the front space— looking at it from the viewer's direction - bordered by these walls and the back space behind it there is a rotatable displaying unit containing a screen,
- two sides of this displaying unit facing each other are provided with a mirror diagonally to the direction from which the inside of the cabinet is viewed, favourably at right angles to it; and
- in the bottom-wall or/and upper-wall there is at least one, practically two light sources (each), especially lighting units, the external surface of which is practically flush with the surface of these walls; and
- on the internal surface of the upper-wall and bottom-wall there is at least one strip each of the same construction as the contact line of the displaying unit and the internal surface of the cabinet; or the bottom-wall and the upper-wall has the same dark, practically dull black colour.

Finally the invention also relates to equipment for the purpose of displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet suitable for accommodating the information carrying device to be displayed, especially an object or/and a device containing the activity, constructed in a way that it is possible to look inside its internal space, which cabinet contains light sources, and the equipment is characterised by that

- the cabinet has two compartments with a mirror-like internal surface, bordered by front-walls transparent from outside, which compartments are practically closed at the bottom and on the top with a common non-transparent bottom-wall and upper-wall;
- the compartments are separated by double-mirrors with mirror-like surfaces looking outwards from each other, in which there is a – practically – central opening, and in this opening there is a displaying unit in a fixed position containing at least one screen;
- in the bottom-wall or/and upper-wall there is at least one, practically two light sources (each), especially lighting units; and
- on the internal surface of the upper-wall and bottom-wall there is at least one strip each of the same construction as the contact line of the double-mirror and the internal surface of the cabinet; or the internal surface of bottom-wall and the upper-wall and the columns supporting the front-wall have the same dark, practically dull black colour.

Below the invention is described on the basis of the attached drawings, which show different types of product displaying equipment. In the drawings

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| figure 1 | is a construction of the equipment in diagrammatic top view; |
| figure 2 | is a section taken along line <u>A</u> – <u>A</u> shown in figure 1; |
| figures 2a and 2b | show the practical ways of fixing the object to the supporting plate; |
| figures 3 and 4 | show a perspective view of a construction making it difficult to see the contact place of the transparent plate and the cabinet; |
| figures 5 and 6 | show the effect of illumination used according to the invention; |

- figures 7a-7f show the diagrammatic front view of the possibilities of moving the product within a plane;
- figure 7g shows the diagrammatic vertical section of the possibility of moving the object up and down, right and left with a motor;
- figure 7h shows the front view of one of the possibilities of rotating the “floated” object;
- figure 7i shows the front view of the method of rotating the object with a motor;
- figure 7j shows a possible solution of moving the object backwards and forwards, in perspective view;
- figure 8 is the diagrammatic perspective view of the product displaying equipment according to the invention;
- figure 9 is the horizontal section of the equipment shown in figure 8, taken through the screen;
- figure 10 shows another favourable type of the equipment according to the invention in diagrammatic horizontal section similar to figure 9;
- figure 11 shows a further construction of the equipment according to the invention in diagrammatic horizontal section;
- figure 12 shows a diagrammatic horizontal view of equipment according to the invention, similar to the equipment shown in figure 11;
- figure 13a shows the displaying unit of the equipment according to figure 9 in perspective view, with the image on the screen, before it is rotated by 180°;

- figure 13b shows the displaying unit of the equipment according to figure 9 in its position after being rotated, with a different image on the back side of its screen;
- figure 14 shows a part of the equipment shown in figure 10 while the displaying unit carrying the screen is being rotated;
- figures 15a-15c shows three dominant operating positions of the equipment shown in figure 9, in diagrammatic front view;
- figure 16 shows equipment similar to the equipment shown in figure 1, but in this case the object is illuminated from the front too.

The equipment according to figures 1 and 2 has a cabinet (cupboard or box) marked with reference number I as a whole, which in the case of the present construction is rectangular-shaped, its side-walls 1 and 2, bottom-wall 5 – bottom – and upper-wall 6 – top – are made of non-transparent plate material, while its front-material 3 is made of transparent material such as glass or plastic of similar characteristics. (We must point out that the front-wall 3 is not absolutely necessary.) At the same time the back-wall, which – as it is described below – functions as a light-source, is made of transparent or semitransparent material.

A transparent plate 7 is built in the cabinet I at right angles to the side-walls 1,2, at a distance e from the back-wall, which plate 7 is also made of glass or good quality plastic of similar characteristic and fills the complete cross-section of the cabinet I at right angles to the side-walls 1, 2. Along its four edges the transparent plate 7 fits in a clamping groove 12 running around, which continuously runs along the side-walls 1, 2, the bottom-wall 5 and the upper wall 6.

As the line along which the transparent plate 7 fits in the groove 12 can be visually perceived by the viewer looking inside the cabinet I through the front-wall 3 from the direction shown by arrow a, on the internal surface of the walls of the cabinet I a network is created consisting of grooves 11a parallel to groove 12 on the one part and grooves 11b perpendicular to it on the other part, running around, appearing on each wall, of the same width and depth as groove 12, and at least one groove 11a is parallel to groove 12 and the others are perpendicular to it, as a result of which the viewer cannot perceive any more that in one of these grooves – namely in groove 12 – a transparent plate is fitted, as because of its transparency the viewer sees groove 12 just the same as grooves 11a and 11b, which are parallel to it. (We must point out that obviously the grooves 11b perpendicular to the transparent plate 7 do not appear on the front-wall 3 only on the bottom-wall 5, on the upper-wall 6 and on the side-walls 1, 2.) Figures 3 and 4 illustrate how the fitting of the transparent plate 7 in the cabinet I is made quasi invisible: if the side-walls can the top is displayed without grooves 11a, 11b, as it is shown in figure 3, but beside the clamping groove 12 the bottom-plate 5 also contains grooves 11a, the line of the groove 12 on the side-walls and on the upper-wall appears conspicuously, but it “disappears” on the bottom-wall 5, on its own it practically becomes imperceptible. According to figure 4 it is obvious that the viewer looking inside the cabinet I can only see a system of compartments, and simply cannot perceive the transparent plate 7. Generally it is practical to use grooves 11a and 11b in front of and behind the transparent plate, but if the transparent plate 7 is situated deep inside the cabinet I at the back, it is not absolutely necessary to have grooves 11a and 11b behind it, because the ones in front of it will also “hide” appropriately the contact place. The grooves 11a, 11b do not necessarily have to run at the same distances from each

other, and it is not absolutely necessary to have a network either, although it guarantees the safest linking.

In figures 1 and 2 it can be seen that on the transparent plate 7 an object 8, such as a product or article for sale to be displayed or/and advertised is fixed as an information carrier, and looking at it from the viewing direction shown by arrow a behind the back-wall 4, outside the cabinet I there is a lighting unit 10, such as a lamp, which illuminates the transparent or semitransparent back-wall 4 from behind, so its internal side, the illuminating surface 50 serves as a light-source. The illuminating surface 50 may have, for example, coloured patterns, images, figures, drawings or any type of information, so it can also function as a secondary information carrier. Instead of or beside the lighting unit 10, e.g.: lamp, the back-wall 4 can also be illuminated by a projector, slide-projector or a screen forming the back-wall 4 or built in it or placed behind it, etc., and the images, patterns, etc. can be displayed on it at the same time.

The object 8 can be attached to the transparent plate 7, for example, with the help of a mechanical clamp, practically a screw, but it can also be fixed by gluing as it was done according to figures 2a, 2b, where the places of gluing are marked with reference number 8a. In figures 2a and 2b we also wanted show that the object 8 can be fixed in a way that one of its side-surfaces completely leans against the transparent plate 7 (figure 2a), or it can be fixed in a way that it deviates from the transparent plate 7, for example, it is at an α angle to the plane of the transparent plate 7, the value of which can practically optional. Depending on the fixed position of the object 8, suiting the characteristics of the different products the efficiency of advertising can be increased.

As it can be seen in figures 5 and 6, by placing the light-source created with the help of the lighting unit 10, that is the internal illuminating surface 50 of the back-wall 4 behind the object 8 the illusion that the product is floating can be made perfect in a way that by illuminating the transparent plate 7 and the object 8 from behind the reflection of the object 8 is eliminated, which object 8 without being illuminated from the back – as it is shown in figure 5 – would appear on the transparent plate 7, where the shadow is marked with reference number 8'. In the interest of better comprehensibility in figures 5 and 6 only the cabinet's I bottom-wall 5 containing grooves 11a, 11b and 12, its transparent plate 7 and – with a dotted line – the back-wall 4 containing the internal illuminating surface 50 – light-source – are shown. Figure 6 shows that the intensive light of the back-wall 4 illuminated from the back by the intensive light of the switched on lighting unit 10 perfectly eliminates the reflection of the object for the viewer, the reflection disappears as a result of the illumination from the back. Obviously in this case too the lighting unit 10 is situated outside the cabinet I, behind the back-wall 4.

The efficiency of product displaying/advertising shown in figures 1-6 can be increased by moving the object 8 in its own plane up and down and sideways, either by moving the “floating” object 8 in the cabinet I forwards and backwards, or by rotating it. It is also possible to combine these moving and rotating operations with each other optionally.

In figures 7a-7f the possibility of moving the object 8 is shown parallel to the plane of the transparent plate 7, which according to this example can be achieved by moving the latter one in its own plane, as the object 8 is fixed to the transparent plate 7. In the interest of being able to move the transparent plate 7 in its own plane, the groove 12 clamping it needs to be created in the side-walls 1, 2, in the bottom-wall 5 and in the upper-wall 6 deep enough to have room for pushing/pulling the transparent 7 in its

own plane up and down and sideways. The depth of the groove 12 is marked in figure 7a with reference letter m with respect to the edges of the transparent plate 7, when it is in central position. In the case that the transparent plate 7 is pushed down as far as possible, groove depth m' marked on top of figure 7b is left free. Technically the appropriate depth of the groove 12 can be ensured by using a frame marked with reference number 37 as a whole, of a minimum width of m' – practically slightly wider than this –, in which the clamping groove 12 and grooves 11a, 11b can extend to the external surface of the frame 37, but favourably they should not penetrate it.

Figures 7b-7f show the possibilities of moving the object as far as possible as compared to its central position shown in figure 7a, which possibilities are defined by depth m'.

In the case of the solution according to figure 7g a motor 41 is built in the product 8, and the fixing position of the z axle of this motor is marked with reference number 40 on the transparent plate 7. The hollow object 8 can be moved with a suitable device within the range ensured by its own internal space. The thick line shows the central position of the object, while the thin line and the dotted line show the positions of the object 8 moved as far as possible upwards and downwards, but obviously it can also be moved sideways, to the right and to the left.

Figure 7j shows the possibility of moving the object 8 “floating” in the cabinet I perpendicular to the plane of the transparent plate 7, in other words forwards and backwards. In this case too actually the transparent plate 7 is moved, but in its changed position the line along which it touches the walls bordering the cabinet I should remain invisible just like in its basic position before it is moved. It is achieved by having dull black walls (in figure 7j only the bottom wall 5, that is the bottom of the

cabinet I is shown), so when the transparent plate 7 is moved forwards and backwards as shown by double arrow c (on tracks that are not shown here and cannot be seen with the viewer's 13 eyes), its edges fitted to the walls leaving a minimal gap to allow movement cannot be seen while they are moving or in the resting position of the transparent plate either. Obviously in this case too an essential condition is to have an illuminating surface 50, that is a real light-source, lit by the intensive light of the lighting unit 10 placed behind the object 8 and appearing on the internal side of the back-wall 4 marked with a dotted line. Obviously in this case too instead of the lighting unit 10 shown in figure 7j as a light fitting a projector, slide-projector, screen, etc. can also be used.

In order to move the object 8 forwards and backwards an alternative solution can also be created, according to which the network of lines shown in figure 4, consisting of the clamping groove 12 and grooves 11a, 11b, is made of painted stripes of the same width as the width of the transparent plate 7. In the basic position of the plate the edges of the transparent plate 7 must touch one of these stripes running around exactly, and its movement – practically on a track – must be controlled in a way that when it stops the edges touch another one of these stripes – favourably painted black – exactly. This solution is less advantageous than the one shown in figure 7j, because in that case the object can be moved at an optional distance, while in the case of the network of stripes the possibility of changing position is restricted to the net-size, or more exactly to the distance of the planes parallel to the place of the transparent plate 7 from each other.

Figure 7h illustrates the possibility of rotating the object 8 together with the transparent plate 7b. Similarly to the solution shown in figures 7a-7f the cabinet I has a relatively thick frame 38, in which a clamping groove 12 is cut. The transparent plate 7b fitting into it in a rotatable way is

circular, and the position of the object fixed to it changes depending on how far the transparent plate 7b moved. In figure 7b the object 8 is shown in its position rotated by 90°, not shaded, from its shaded basic position. The rotation can be performed with a motor (not shown here), which drives the edge of the circular transparent plate 7b in the clamping groove 12 with a rubber-coated wheel.

Apart from rotating the transparent plate 7 attached to the object 8 in a fix position, the rotation of the object 8 can also be solved by building the transparent plate 7 in the cabinet I in a fix position, and attaching the object 8 to it in a rotatable way. In this case too the rotating device can be a motor powered by a current source, such as a dry cell or solar cell, built in the object 8, like in the case of the solution shown in figure 7g. Such a solution can be seen in figure 7i, where the transparent plate 7 is clamped in the frame 38 in a fix position – it extends to the internal edge of the frame – and it is rectangular-shaped. The motor is hidden in the product 8 and is connected to the transparent plate 7 by an axle. Rotation can take place there and back as shown by the arrows in figure 7i.

As it has been mentioned above, the possibilities of moving and rotating the object 8 as described above can also be combined with each other optionally.

In the case of the equipment as in figures 8 and 9 the product to be currently displayed, for example, advertised, is displayed on a screen 23, and viewer has the illusion that this screen “floats” inside the cabinet marked with reference number II as a whole.

The cabinet II of the equipment 18 as a whole is divided into a front and back compartment. The displaying unit 18 has a frame 19, to one side of which facing in the direction shown in figures 8 and 9 by arrow a a

mirror 21b with a central rectangular opening 26 is attached, and to the other side of which a complete mirror 21a (only shown in figure 9) is attached. The reflecting surface of both mirrors 21a, 21b is looking outwards (not towards the inside of the frame). The screen 23 – which obviously also functions as a light-source - is built in the opening 26 of the mirror 21b, and its back is situated inside the frame 19 bordered by the mirrors 21a, 21b, so neither this back part, nor the cables connecting the screen 23 with the power unit (not shown here) can be seen, they are hidden from the viewers' eyes.

At the front, that is from the direction shown by arrow a, the frontal part of the cabinet II is practically bordered by a semicircular-base front-wall 15, which is formed by a plastic plate (plexiglas) through which the inside of the cabinet II can be seen, but its internal side has a mirror-like surface, so a person inside the cabinet II would not be able to see through it. The cabinet II has an upper-wall 16 (top) and a bottom-wall (bottom). With the edges of its front side containing the mirror 21b the displaying unit 18 touches the columns 14a, 14b of the cabinet II and the upper-wall 16 and the bottom-wall 17 along the contact line 28 running around – formed either by a groove or e.g.: by a painted stripe in a given case –, and the upper-wall 16 and the bottom-wall 17 is connected to the columns 14a, 14b, and the two external vertical edges of the arched front-wall 15 mentioned above are also clamped in these columns 14a, 14b. The rare part of the cabinet II behind the displaying unit 18 is also bordered by an arched, practically semicircular-base back-wall 14 made of non-transparent material. The upper-wall 16 and the bottom-wall 17 mentioned above, also made of non-transparent material are circular under such geometrical conditions, and they also cover the rare part of the cabinet II. The closed rare part of the cabinet II does not have a displaying function, it is only for the purpose of providing place for rotating the displaying unit 18, as it can be rotated as shown by curved

double arrow b with the help of an axle 25 only shown in figure 9, driven by a motor (not shown here). The two lateral vertical edges of the arched back-wall 14 – similarly to the front-wall 15 – are attached to the columns 14a, 14b, which can be connected to form a frame.

In or on the surface of both the upper-wall 16 and the bottom-wall 17, similarly as shown in figure 4, grooves 27a or e.g.: painted stripes parallel to the contact line 28 mentioned above – its horizontal sections – and grooves 27b or painted stripes perpendicular to them are created. The lower and upper grooves 27a, 27b belonging to each other obviously fall in common vertical planes.

We must point out here that the contact line 28 can be formed by a groove or painted stripe, but it is created without them too as the displaying unit 18 touches the internal surfaces of the cabinet II. The safest way of hiding this contact line 28 is creating in its vicinity (too) one or more strips suiting the grooves 27a, running around parallel to them, but in the interest of better comprehensibility they are not shown in figure 8 or 9.

Two lighting units 29, circular in the case of the present example, with a common vertical axis are built in the bottom-wall 17 and upper-wall 16 each in a way that their upper surface is in the internal plane of these walls. The viewer looking inside the cabinet II from the direction shown by arrow a perceives it as a cylindrical space with a complete circular-base because of the presence of the mirror 21b, in which eight lighting units 29 can be seen, four at the bottom and four at the top.

As a result of the above construction, in this case the viewers see the screen 23, that is the image of the object displayed on it, as if it was “floating”, just like they see object 8 in the case of the equipment with a

transparent plate as shown in figures 1-7h. If we intend to change the image – that is we want to display a different object – the lighting units 29 and the screen are turned off for a few seconds, and when the lighting units 29 are turned on again, a new image – for example, a new product to be advertised – is displayed on the screen. In this case again the viewers have a perfect illusion of “floating”, as they cannot perceive the mirror 21b, because they do not know that they are looking through a front-wall 15, which prevents them from seeing a reflection of themselves or their environment in the mirror 21b surrounding the screen 23. On the one part by intensively illuminating the internal space the lighting units 29 contribute to the visibility of the screen 23, and on the other part – due to the high light intensity – they eliminate or at least reduce to the minimum the reflection of any object or person outside the cabinet II. The network of grooves 27a, 27b has the same function as in the case of the solution shown in figure 4: practically they make it impossible to see the contour of the edge of the mirror 21b, along which contour the mirror 21b touches the internal surfaces of the cabinet II, and in the direct vicinity of which practically there is one or more grooves parallel to the grooves 27a, or painted strips, if the strip is formed by a painted line, which may run along the internal surface of the columns 14a, 14b facing the inside of the cabinet II as shown in figure 9 in section (and they may also run along the bottom and upper wall).

As the lighting units 29 are built both in the upper-wall 16 (not shown in figure 9) and in the bottom-wall 17 in a way that their external surface is flush with the surface of these walls, the displaying unit 18, the bottom and upper surface of which run directly along the surface of the bottom and the top or are sunk into it, can turn around freely when it is rotated (arrow b); rotation takes place in both directions.

The equipment shown in figures 8 and 9 can be operated so that the lighting units 29 are turned off at certain intervals, and making use of the dark period lasting for a few seconds, for example, the motor is turned on and with the help of the axle 25 shown in figure 9 the displaying unit 18 is rotated by 180° so that its whole mirror 21a is facing the viewer. Before this the screen 23 containing an objected intended to be advertised, for example, was “floating” in front of the viewers. After finishing the rotation of the displaying unit 18 the light is turned on again, and now the viewers can see an empty cabinet until after the next phase of turning off the light the screen 23 appears again displaying a different image this time. The illusion of “floating” is ensured by the factors described above.

The equipment shown in figure 10 only diagrammatically has a displaying unit 18a, which can be rotated with the help of an axle 25a, contains a screen 23 and is equipped with a frame 19a, but it does not extend to the complete vertical cross-section of the front cabinet-part bordered by the front-wall 15, it only fits in the central opening 35 created in the mirror-sheet 34 built in between the columns 14a, 14b in a fix position, in a way that the displaying unit 18a can be rotated in the opening 35 as shown by the curved double arrow b'. In this case again the frame 19a has a closed internal space, where there is enough room for the back of the screen 23 and the cables. In a dark period the rotation of the displaying unit 18a by 180° results in that in the following “light” period the viewers can see a permanent image on the rare side of the displaying unit 18a, and after the next rotation a new image – a new object to be advertised – can be displayed on the screen 23.

The equipment shown in figure 11 – the cabinet of which consisting of two compartments 45, 46 is marked with reference number III – practically has the same structural construction as the equipment shown

in figures 8 and 9, if the compartments 45, 46 contain light units built in the bottom-wall and the upper-wall in the same way, and have strips, for example, grooves practically parallel to the projection of the plane of the double mirror 34 and grooves perpendicular to them, as a result of which the contact line of the double mirror 34 along which it touches the columns 32a, 32b and the bottom and upper-wall is “hidden” in a way described in detail above. The inside of the cabinet III can be seen from two sides at the same time, as the arched front-walls 15a, 15b, the ends of which are attached to the columns 32a, 32b, are made of transparent plate material such as plexiglas with a reflective surface. The two internal spaces, that is compartments 45, 46 fill completely independent functions, if the mirror sheet 34 used here, also attached to the columns 32a, 32b in a fix position – favourably clamped in its grooves 47 – is a double mirror obviously with mirror surfaces facing outwards, in which there is a central opening 35. In this case too the screen 23 is fixed in a displaying unit 18b containing a frame 19b, inside which displaying unit 18b the rare side of the screen and its cables are in a covered position. Between the elements of the double mirror 34 there is a small gap (not shown here), which is suitable for accommodating and hiding the cables. In this case the displaying unit 18b cannot be rotated, so the screen 23 and the image on the rare side of the displaying unit 18b can only be “floated”.

The equipment shown in figure 12 differs from the equipment in figure 11 in that there is a wider gap 36 between the mirror sheets forming the double mirror 34, having their mirror surfaces facing outwards, because in this case the displaying unit 18c equipped with a frame 19c contains two screens 23a, 23b, which are obviously turned outwards, so two different images can be seen on the two sides at the same time, which images can be changed. In the displaying unit 18c and in the gap 36 between the mirror sheets there is enough room from the cables of both

screens 23a, 23b. In this case too the screens 23a, 23b can only “float”, they cannot be rotated, but it is possible to slide the double mirror 34 in its own plane up and down and sideways or to rotate it, obviously together with the screen or screens as it has been described above in connection with cabinet II.

The two types of equipment shown in figures 11 and 12 can be regarded as construction examples of the equipment shown in figures 1-4, where the devices to be displayed are the screens 23 that “float” (or in the case of the solution shown in figure 11, where there is only one screen 23, the “information”, e.g.: picture or object on the rare side of the frame “floats”), and the inside of the cabinet III can be viewed from two sides, and two different types of information – two different images – can be seen.

In figures 13a, 13b the equipment shown in figure 8 and 9 is shown merely for the purpose of demonstration, with an image displayed on the screen 23, showing the rare side of the displaying unit 18 – with an object 8 attached to it –, and the same reference numbers are used here accordingly. It can be seen in figures 13a, 13b that the obviously thick displaying unit 18 is rotated as a whole, together with the screen 23 and the object 8, in one unit. At the same time figure 14 shows a part of the equipment shown in figure 10 while the displaying unit 18a is being rotated; here the mirror 34 is in a fix position, and the displaying unit 18a is rotated inside this mirror 34, around axis $\underline{z}_1$.

Figures 15a-15c show three important operating positions of the equipment shown in figures 8 and 9, using the reference number used in the latter figures to mark the same structural parts. In figure 15a the viewers can see the screen 23, which is situated in the opening of the front mirror 21b, also see figure 9. In figure 15b there is complete

darkness inside the cabinet II after the lighting units are turned off, and the displaying unit 18 is rotated by 180°. In the phase shown in figure 15c the lighting units are turned on, and the viewers can see a circular object 8c attached to the rare mirror 21a of the displaying unit 18 “floating” in the cabinet II. We must point out that in the cabinet II shown in figures 15a-15c the contact line – in this case a groove – of the displaying unit 18 (also see figures 8 and 9) is shown thicker than in reality for better comprehensibility, as the contact line 28 must be exactly as wide as the grooves 27a, 27b, because it is due to this same width that the contact line of the displaying unit 18 becomes practically unnoticeable. This solution makes it possible to display a different image for the viewers each time the mirror 21b containing the screen 23 is turned towards the viewers, for example, instead of a ball they can see a bottle in the next phase, etc.; and when the rare mirror 21a is facing the viewers, they see the same block symmetrically inserted in the opening in the mirror 21a; obviously this fact may draw the viewers’ attention to the product to be advertised, shown here as a block.

In figure 16 a construction of the equipment shown in figures 1-4 is shown in top view as in figure 1, in the case of which the object 8 is illuminated not only from behind by the illuminating surface 50 forwarding the light coming from the lighting unit 10 situated behind the transparent plate 7, but also from the front, by the lighting unit marked with reference number 42 as a whole, which has a tubular light unit 42a – practically with an optional cross-section – and a head-part 42b, which is aimed at the object 8 from the front. On the hollow light unit 42a there are strips, favourably grooves 11c running around, which are of the same construction of the clamping groove 12 and grooves 11a, 11b. If the transparent plate 7 is positioned in the cabinet I leaning against a dark strip, for example, painted on the side-walls 1 and 2, on the bottom-wall 5 and on the upper-wall 6 all around, instead of the grooves 11a, 11b

such strips are used. The light unit 42a starts from the back-wall 4, and it consists of two members that can be attached to each other, for example, by screwing them together; the contact gap should fall exactly in the plane of the transparent plate 7, in which there is a hole 44 for leading the light unit 42a through it. Because of the grooves 11c this contact gap becomes unnoticeable, because it looks like one of them. The light unit 42 seems to be floating inside the cabinet I just like the object 8, and besides indirectly illuminating the object 8 it also intensifies the illusion that the object 8 is floating.

The favourable effects in connection with the invention are the following:

by showing the displayed object “floating”, that is creating the illusion that it is floating, and then by hiding it and bringing it back, the object comes into the centre of attention so much that similar efficiency can hardly be reached with the known advertising methods. The sight offered for the viewers is an intellectual puzzle at the same time, which the viewers try to solve as if they were participants of a quiz show. If they succeed in solving the puzzle, together with the feeling of success the product is stored in the viewers’ mind for a longer period than in the case of traditional advertising technologies, and if they cannot find an explanation for the phenomenon, they will remember it as a riddle, which encourages them to draw others in the solving process, as a result of which a large number of people hear about the advertised product or – in a wider sense – information.

Taking into consideration the advertising efficiency that can be achieved by it, the equipment according to the invention can be manufactured with a rather favourable financial investment. It can be used both indoors and outdoors, independently from its size, increasing by this its advertising efficiency. It creates a new style on the advertising market, where the

product has characteristics, as a result of which positive rather than negative associations are recorded in the viewers' minds. This style has modern and novel expectations, and in all forms it complies with the conditions determined in the advertising acts and answers the challenges of the advertising requirements of the future.

Obviously the invention is not restricted to the constructions described above in detail, but it can be realised in several ways within the sphere of protection defined by the claims.

CLAIMS

1. Equipment for displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet I suitable for accommodating the information carrying device to be displayed, constructed in a way that it is possible to look inside its internal space, which cabinet contains light sources, and the equipment is **characterised** by that

- the cabinet's I side-walls 1,2, bottom-wall 5 and upper-wall 6, made of non-transparent material, contain a strip running around situated at a distance $\underline{e}$ from the back-wall 4, and the edges of a transparent plate 7 are in contact with this strip;
- the information carrier, especially object 8 to be displayed is situated on the front of the transparent plate 7 with respect to the viewing direction $\underline{a}$ of the inside of the cabinet I;
- the side-walls 1,2, the bottom-wall 5 and the upper-wall 6 contain at least one strip running around of the same construction as the strip touching the transparent plate 7, situated at a distance from the transparent plate 7, in front of it, favourably parallel to the contact strip; and
- looking at it from the viewing direction $\underline{a}$ there are light sources behind the transparent plate 7.

2. Equipment as in claim 1, **characterised by** that the side-walls 1,2, the bottom wall 5 and the upper wall 6 contain strips favourably parallel to the contact strip of the transparent plate 7, and further strips favourably perpendicular to them, which are the same as the contact line of the transparent plate 7, and together they form a network of strips.

3. Equipment as in claim 1 or 2, **characterised by** that the contact strip is created in the form of a clamping groove 12 running around, cut into the side-walls 1, 2, the bottom-wall 5 and the upper-wall 6, and the edges of the transparent plate 7 fit into this groove 12; and the other strips are created in the form of grooves 11a, 11b of the same width and depth.
4. Equipment as in claim 1 or 2, **characterised by** that the contact strip of the transparent plate 7 and the other strips are of the same width and – favourably dull black – colour, and they are practically applied on the wall surfaces with paint.
5. Equipment as in any of claims 1-4, **characterised by** that the light-source is formed by an illuminating surface 50 created on the internal side of the back-wall 4 of the cabinet II.
6. Equipment as in claim 5, **characterised by** that the illuminating surface 50 is a secondary light-source placed outside the cabinet II, behind or/and in the back-wall 4 looking at it from the viewing direction a, for example, a light unit 10, projector, slide projector, screen or a similar device, or a combination of two or more of these.
7. Equipment as in any of claims 5-6, **characterised by** that it has an illuminating surface 50 constructed as a secondary information carrier.
8. Equipment for displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet I suitable for accommodating the information carrying device to be displayed, constructed in a way that it is possible to look inside its internal space, **characterised by** that the cabinet's side-walls 1,2, back-wall 4, bottom-wall 5 and upper-wall 6 re made of non-

transparent material and their internal surface has the same, favourably dull black colour.

9 Equipment as in any of claims 1-7, **characterised by** that looking at it from the viewing direction a it also has a lighting unit 42 in front of the transparent plate 7, with a head-part 42b practically aimed at the information carrier, for example, the object 8, which lighting unit 42 has a tubular light unit 42a favourably starting from the back-wall 4 of the cabinet I and guided into the front part of the cabinet I on the transparent plate 7, and on the light unit 42a there are strips, such as grooves 11c running around, constructed to suit the contact strip of the transparent plate 7; the light unit 42a consists of parts that can be attached to each other, for example, with screws, and it is taken through the hole 44 made in the transparent plate 7 in a way that the contact gap appearing at the place of fixing is situated in the plane of the transparent plate 7.

10. Equipment as in any of claims 1-9, **characterised by** that the transparent plate 7 is constructed so that it can be moved in the clamping groove 12 sideways and up and down.

11. Equipment as in any of claims 1-10, **characterised by** that the information carrying device, favourably and object 8 is constructed in a way that with the help of a motor 41 built into it it can be moved sideways and up and down on the transparent plate 7, touching it.

12. Equipment as in any of claims 1-11, **characterised by** that it has a transparent plate that can be moved – practically on tracks – forwards and backwards.

13. Equipment as in any of claims 1-12, **characterised by** that it has a rotatable – practically circular – transparent plate 7 in its clamping groove 12.

14. Equipment as in any of claims 1-13, **characterised by** that the information carrying device, practically an object 8, has a built-in motor making it possible to rotate it on the transparent plate 7, while it is fitted to it.

15. Equipment for displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet II suitable for accommodating the information carrying device to be displayed, constructed in a way that it is possible to look inside its internal space, containing light sources, and the equipment is **characterised by** that

- the cabinet I has a front-wall 15, which has a mirror surface inside and is transparent from the outside, a back-wall 14 made of non-transparent material and an upper-wall 16 and bottom-wall 17 closing them, and between the front space – looking at it from the viewer's direction a – bordered by these walls and the back space behind it there is a rotatable displaying unit 18 containing a screen 23;
- two sides of this displaying unit 18 facing each other are provided with a mirror 21a, 21b diagonally to the direction a from which the inside of the cabinet II is viewed, favourably at right angles to it; and
- in the bottom-wall 17 or/and upper-wall 16 there is at least one, practically two lighting units 29, the external surface of which is practically flush with the surface of these walls; and
- on the internal surface of the upper-wall 16 and bottom-wall 17 there is at least one strip each of the same construction as the contact 28 of the displaying unit 18 and the internal surface of the cabinet II; or the

bottom-wall 17 and the upper-wall 16 have the same dark, practically dull black colour.

16. Equipment as in claim 15, **characterised by** that the strips are parallel to the contact line 28, and together with further strips diagonal, practically perpendicular to them they create a network of strips/lines also including the contact line 28.

17. Equipment as in claim 15 or 16, **characterised by** that the contact line 28 is created as a groove, and the strips are formed by grooves 27a, 27b of the same width and depth.

18. Equipment as in claim 15 or 16, **characterised by** that practically the contact line 28 has a dull black colour and is applied, for example, with paint, and the strips are of the same width and colour as the contact line 28.

19 Equipment as in any of claims 15-18, **characterised by** that the displaying unit 18 has a frame 19, and one – complete – mirror 21 is attached to it on the one side with its mirror-like surface facing outwards, and the other mirror 21b favourably provided with a central opening 26, also facing outwards with its mirror-like surface is attached to it on the other side, and the screen 23 is fixed in this opening 26; when the equipment is in operating conditions, the edges of the displaying unit 18 lean against the supporting structure of the back-wall 14 and/or the front-wall 15, such as columns 14a, 14b, and against the bottom-wall and the upper-wall 6.

20. Equipment as in any of claims 15-19, **characterised by** that both the front-wall 15 and the back-wall 14 are made of a plate of a curved surface, favourably with a semicircular base.

21. Equipment as in any of claims 15-20, **characterised by** that its rotatable displaying unit 18a is built in the opening 31 of the mirror-sheet 30 separating the front and back compartment of the cabinet II, and the mirror-like surface of the mirror-sheet 30 is turned towards the front-wall 15.

22. Equipment for the purpose of displaying information carriers, especially objects, mainly goods and products and/or devices introducing human, mainly service-providing activities, favourably for advertising purposes, which equipment has a cabinet III suitable for accommodating the information carrying device to be displayed, constructed in a way that it is possible to look inside its internal space, containing light sources, and the equipment is **characterised by** that

- the cabinet III has two compartments 45, 46 with a mirror-like internal surface, bordered by front-walls 15a, 15b transparent from outside, which compartments are practically closed at the bottom and on the top with a common non-transparent bottom-wall and upper-wall;
- the compartments 45, 46 are separated by a double-mirror 34 with mirror-like surfaces looking outwards from each other, in which there is a – practically – central opening 35, and in this opening 35 there is a displaying unit 18b in a fixed position containing at least one screen 23;
- in the bottom-wall or/and upper-wall there is at least one, practically two light sources (each), especially lighting units; and
- on the internal surface of the upper-wall and bottom-wall there is at least one strip each of the same construction as the contact line of the double-mirror 34 and the internal surface of the cabinet III; or the internal surface of bottom-wall and the upper-wall and the columns 32a, 32b supporting the front-walls 15a, 15b have the same dark, practically dull black colour.

23. Equipment as in claim 20, **characterised by** that the strips are parallel to the contact line along which the double mirror 34 touches the columns 32a, 32b and the bottom-wall and the upper-wall, and together with further strips diagonal, favourably perpendicular to them they form a network of strips/lines also including the contact line.

24. Equipment as in claim 22 or 23, **characterised by** that the contact line is created as a groove 47 suitable for accommodating the edges 34 of the double mirror, and the strips are formed by grooves of the same width and depth.

25. Equipment as in claim 22 or 23, **characterised by** that the contact line has a dull black colour and is applied, for example, with paint, and the strips are of the same width and colour as the contact line.

26. Equipment as in any of claims 22-25, **characterised by** that the front-walls 15a, 15b are convex, favourably semicylindrical.

27. Equipment as in any of claims 22-26, **characterised by** that it has a displaying unit 18c containing two screens 23a, 23b facing outwards.

28. Equipment as in any of claims 22-27, **characterised by** that the double mirror 34 can be moved up and down and sideways in its own plane or/and it can be rotated in its own plane.