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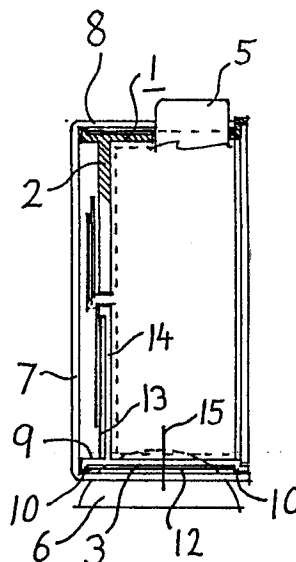
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Amended claims in accordance with Rule 86 (2) EPC.

54 **Clocks.**

57 Clock means comprise a clock (1,4,6,7) with an outer portion (3) other than the clock face (2), which clock means comprise means (8) to retain sheet material (12) conforming to said portion (3) to be visible externally of the clock. Preferably, the clock means, comprising a clock face substrate (14), comprise means (7) to retain sheet material (13) conforming to said substrate to be visible externally of the clock. The sheet material is replaceable. The retaining means may comprise projecting means (15), locating means (15), recess means (9) and/or a separate retaining member (7,8) in the form of a lens member (7) having a depending skirt portion (8) that can serve as a template for cutting sheet material (13). Base (6), hands (4) and alarm button (5) may be detachable. The clock means may comprise a set of interchangeable bases, hands and/or alarm buttons. The clock may be triangular.

FIG. 2



Description

CLOCKS

This invention relates to clocks.

Known clocks come in a multitude of different case designs with complementary dials and hands, and in a variety of colours, sizes and shapes.

However, a clock purchased for use in one particular environment may not be acceptable for use in a different environment, and with known clocks of fixed character this necessitates the purchase of a new clock. For example, a clock purchased for use in a room decorated in blue may not be acceptable for use in a room decorated pink, and thus a change in decoration colour will require the purchase of a new clock.

According to this invention there is provided a clock means as claimed in Claim 1. Embodiments thereof may have any one or more of the features recited in any of the further claims appended hereto.

With the clock of this invention the face and outer peripheral surfaces of the case can be covered with pieces of decorative sheet material, for example paper, or any desired pattern, for example wallpaper or pieces cut from a newspaper or magazine, whereby the clock can be adapted for use in any desired environment or can be personalised.

A clock according to this invention will now be described by way of example with reference to the diagrammatic drawing, in which:-

Figure 1 is a front elevational view of the clock;

Figure 2 is a sectioned side elevational view of the clock;

Figure 3 is a plan view of the clock;

Figure 4 is a part section of an alternative detail; and

Figure 5 is a perspective view of three stages of assembly.

The clock comprises a hollow case 1 moulded from plastics material and providing a face surface 2 and an outer peripheral surface 3. The case 1 shown is circular in front view, but it will be appreciated that it can otherwise be of any required shape.

The case 1 contains a clock mechanism (not shown) of known type, having a spindle arrangement which projects through the face surface 2 and carries hands 4 in the usual manner. The hands 4 are detachable whereby they can be replaced by other hands of a different shape or colour if required.

The clock shown is an alarm clock having an alarm cancel button 5 projecting through the outer peripheral surface 3.

The case 1 is formed with a projecting spigot (not shown) projecting from the outer peripheral surface 3, which spigot is received in a hole in a moulded plastics material base 6 whereby the case 1 is mounted on the base 6 which can then support the clock as required.

The face surface 2 of the case 1 is covered by a lens member 7 formed of transparent plastics material and having a depending skirt portion 8 which covers the outer peripheral surface 3 of the case 1.

The back face of the case 1 is closed by a backplate (not shown) which can be secured to the case 1 in any desired manner, for example by means of a hinge or by means of press fitting.

The front face 2 of the case 1 is surrounded by a lip portion 9 which serves to space the lens member 7 from the face surface 2, while the outer peripheral surface 3 of the case 1 bounded by a pair of opposed rim members 10 which serve to space the skirt portion 8 of the lens member 7 from the outer peripheral surface 3 of the case 1.

The face surface 2 is formed with a radially extending outwardly projecting bar 11 which can carry one of the numbers for the clock face, in the clock shown this being the number twelve.

The clock so far described essentially comprises, apart from the mechanism and hands, the case 1, base 6 and lens member 7, all of which can be simply and cheaply manufactured from plastics material. In particular the case 1 can be manufactured in one colour, for subsequent 'personalisation' as will now be described.

The case 1 above described is adapted to have decorative sheet material mounted thereon to cover the face surface 2 and the outer peripheral surface 3. Thus, the face surface 2 can be covered by a suitably sized piece of sheet material, for example paper, provided with a cut-out slot whereby the material can be located under the hands 4 with the projecting bar 11 on the face surface 2 received in the cut-out slot.

The lip portion 9 can be under-cut to receive the edge of the sheet material thereby to retain it in position. A further piece of sheet material in the form of a strip can be located about the outer peripheral surface 3 of the case 1 between the rim portions 10. The strip of sheet material can be provided with a hole near one or both ends to receive the spigot (not shown) on which the base 6 is mounted, and is provided with a cut-out to receive the alarm cancel button 5.

The pieces of sheet material which can be supplied with the clock or can be manufactured by the user of the clock from any convenient source such as wallpaper, newspaper, magazines or the like, are positioned on the surfaces 2 and 3 prior to mounting of the lens member 7 over the case 1.

The clock can thus be decorated or personalised as required whenever necessary or desired, the decorative sheet material used being protected by the lens member 7 with its skirt portion 8.

The lens member 7 is readily removable to allow the decorative material to be changed.

The term "lens member" (e.g.7) or "lens member as hereinbefore defined" used in the description and claims refers to any transparent cover for the clock face.

It will be seen that the embodiment described with reference to Figs. 1 to 3 is clock means comprising a clock (1,4,6,7 and mechanism) having a case 1, with an outer portion 3 other than the clock face 2, which clock means comprise retaining means in the form

of skirt portion 8 to retain sheet material 12 conforming to said portion 3 to be visible externally of the clock through the transparent plastics material of skirt portion 8. The clock means, comprising a clock face substrate 14, comprise retaining means in the form of lens member 7 to retain sheet material 13 conforming to said substrate 14 to be visible externally of the clock through the transparent lens member 7. Thus, the clock means comprise a single member, in the form of lens member 7 with skirt portion 8, adapted to serve by reason of its shape and size as retaining means (although possibly not the only retaining means) for the sheet material 12 conforming to said outer portion 3 peripheral to the clock face and the clock face sheet material 13. The retaining means 7,8, by being removable, are adapted to retain the sheet material 12,13 replaceably.

The retaining means further comprise projecting means able to serve as locating means for the sheet material. For example, bar 11 so serves for material 13, alarm control button 5 so serves for material 12 as also does spigot 15 which may be a projection from base 6 or from case 1 or detachable from both. The retaining means may further comprise recess means able to serve as locating means for the sheet material, as exemplified by lip portion 9 for sheet material 13 or rim members 10 for sheet material 12. As shown, retaining means 7,8 comprise a separate retaining member that fits to the case 1, fits around the face 2, is circular, comprises a lens member 7 as hereinbefore defined, and serve as a template for cutting the sheet material 13 for the clock face substrate 14 (for which purpose skirt 8 is placed open end down on the sheet material and e.g. a pencil run round the edge of skirt 8 to mark the sheet material which can then be cut out and stuffed into position within lip portion 9 with slight folding of the rim of material 13) and even has a sharp edge, as shown in Figs.2 and 3 that can serve as a cutting edge for the sheet material 13 for the clock face substrate 14, by pressing skirt portion 8 hard on to a sheet of the material and then tearing the surplus material from around the open edge of skirt portion 8. It will be appreciated that the lens member 7 has the depending skirt portion 8 that serves to cover said outer portion 3 at the sheet material 12 conforming thereto.

In an alternative embodiment shown in Fig.4, the separate retaining member is a ring 16 whose corner adjacent substrate 14 is precisely the right size to serve as the aforesaid template and may be sharpened in a direction towards substrate 14 to serve as an actual cutting edge simply by being rotated while pressing hard against a sheet of the material on a soft substrate. Ring 16, if opaque, serves also to hide the edge of material 13 to give a good appearance even if this edge has been roughly torn. The outer edge of ring 16 can be folded back towards substrate 14 to serve as retaining means for, and hide, the front edge of sheet 12. Ring 16 can bear the clock face numerals (3,6,9,12 or more). This may obviate the need for means 7,8, although the latter would still have the advantage of preventing dust and dirt from causing deterioration of the sheet

material 12,13 and/or hands 4 and/or their spindle arrangement.

Alternatively, the retaining means may comprise a surface adapted to retain the sheet material 12 and/or 13 by electrostatic attraction. For this purpose, outer portion 3 and/or substrate 14 of case 1 are made of any suitable plastics material or provided internally and/or externally with a suitable coating, many of which materials and coatings are known that allow strong electrostatic attraction.

Again, the retaining means may comprise a surface adapted to retain the sheet material by magnetic attraction, for which purpose outer portion 3 and/or substrate 14 or part thereof and the sheet material 12 and/or 13 or part thereof may be made of magnetic material and one or both co-operating portions may be magnetised.

The sheet material 12 and/or 13 may be paper, thin plastics sheet or other limp material. Again, it may be of springy, shape-retaining material, e.g. metal or thicker plastics sheet, so that its springiness can be used to clip it to case 1 and/or substrate 14, in which case the retaining means are in the sheet material.

Thus, the retaining means may be wholly in the sheet material, partly in the sheet material and partly in the remainder of the clock means, or wholly in the latter.

As shown, the retaining means are adapted to retain said sheet material 12 and/or 13 externally of said outer portion 3 of the case 1 and/or said clock face substrate 14. Alternatively, said retaining means may, as just described, be adapted to retain said sheet material 12 and/or 13 internally of said outer portion 3 of the case 1 and/or said clock face substrate 14, as shown in dotted lines in Fig.2.

As seen particularly in Figs.1 and 2, the clock means comprise a separate base member 6 to support the clock (considered as the other members apart from the base) which could be fixed to the clock but preferably is detachable therefrom.

The clock means comprise locating means for the sheet material 12 and/or 13, such as bar 11, alarm button 5, spigot 15, lip portion 9 and rim members 10. It will be apparent that it is particularly useful to have the locating means comprise a projection in the form of spigot 15 able to serve for mounting the case 1 and base 6 together.

As described, the clock comprises detachable hands 4 and this feature is particularly useful as it facilitates placing of sheet material 13 in position and, indeed, allows the latter to be uninterrupted if bar 11 is omitted. In that case, the periphery of material 13 is held in position by any of the means hereinbefore described and usefully also by a central ring 17 seen clearly in Fig.5, which illustrates in three stages how the Fig.4 embodiment may be assembled after changing sheet material 12,13. It will be seen in Fig.5 that the clock means comprise a detachable alarm control button 5.

The sheet material 12 and/or 13 will usually be decorative but may be more functional, e.g. having inbuilt liquid crystal means to show by colour change, and/or numerals appearing and disappearing, temperature changes, in a manner that is well known per se.

The clock means described is very suitable for adaption as a promotional gift. For this purpose, button 5 and/or base 6 may be suitably shaped to bear trade mark or other promotional material and/or may be shaped as a device-type trade mark. Suitable pictorial and/or textual material may be presented on sheet material 12 and/or 13 but this is likely to be replaced by the recipient.

Finally, the clock means may comprise a set of interchangeable bases, hands and/or alarm buttons of different shapes, colours and so on, whilst the material 12 and/or 13 may be pre-cut and, for example, pre-printed with outlines for children to colour in themselves.

It will be appreciated that the outer portion is of cylindrical form which term, or the term "of cylindrical form as hereinbefore defined, is taken to mean any shape substantially having constant cross-section throughout the depth (as opposed to being of conical shape). The shape of case 1 described is circularly cylindrical, but could just as easily be polygonally (e.g. triangularly) cylindrical. The cylindrical shape has the advantage that it is easy to fit material 12 therearound.

Many variations of the clock means hereinbefore described will be apparent to people skilled in the art and all such variations are to be considered as falling within the appended claims.

Claims

1. Clock means comprising a clock having a case with an outer portion other than the clock face, which clock means comprise means to retain sheet material, conforming to said portion to be visible externally of the clock.

2. Clock means as claimed in claim 1, comprising a clock face substrate, which clock means comprise means to retain sheet material conforming to said substrate to be visible externally of the clock.

3. Clock means as claimed in claim 2, comprising a single member adapted to serve as retaining means for the sheet material conforming to said portion and the clock face sheet material.

4. Clock means as claimed in any preceding claim, in which the retaining means are adapted to retain the sheet material replaceably.

5. Clock means as claimed in any preceding claim, in which the retaining means comprise projecting means able to serve as locating means for the sheet material.

6. Clock means as claimed in any preceding claim, in which the retaining means comprise recess means able to serve as locating means for the sheet material.

7. Clock means as claimed in any preceding claim, in which the retaining means comprise a separate member that fits to the case.

8. Clock means as claimed in claim 7, which the separate retaining member fits around the face.

9. Clock means as claimed in claim 7 or 8, in which the separate retaining member is circular.

10. Clock means as claimed in claim 7, 8 or 9, in which the separate retaining member comprises a lens member as hereinbefore defined.

11. Clock means as claimed in claim 10, in which the lens member has a depending skirt portion to cover said outer portion.

12. Clock means as claimed in any one of claims 7 to 11, in which the separate retaining member can serve as a template for cutting the sheet material for the clock face substrate.

13. Clock means as claimed in any one of claims 7 to 12, in which the separate retaining member has a sharp edge that can serve as a cutting edge for the sheet material for the clock face substrate.

14. Clock means as claimed in any preceding claim, in which the retaining means comprise a surface adapted to retain the sheet material by electrostatic attraction.

15. Clock means as claimed in any preceding claim, in which the retaining means comprise a surface adapted to retain the sheet material by magnetic attraction.

16. Clock means as claimed in any preceding claim, comprising the sheet material.

17. Clock means as claimed in any preceding claim, in which said retaining means are adapted to retain said sheet material externally of said outer portion of the case and/or said clock face substrate.

18. Clock means as claimed in any preceding claim, in which said retaining means are adapted to retain said sheet material internally of said outer portion of the case and/or said clock face substrate.

19. Clock means as claimed in any preceding claim, comprising a separate base to support the clock.

20. Clock means as claimed in claim 19, in which the base is detachable from the clock.

21. Clock means as claimed in any preceding claim, comprising locating means for the sheet material.

22. Clock means as claimed in claim 21 when appendant to claim 19 or 20, in which the locating means comprise a projection able to serve for mounting the case and base together.

23. Clock means as claimed in any preceding claim, in which the clock comprises detachable hands.

24. Clock means as claimed in any preceding claim, in which the clock comprises a detachable alarm control button.

25. Clock means as claimed in any preceding claim, comprising a set of interchangeable bases, hands and/or alarm buttons.

26. Clock means as claimed in any preceding claim, in which said outer portion is of cylindrical form as hereinbefore defined.

Amended claims in accordance with Rule 86(2) EPC.

1. Clock means comprising a clock that has a clock face substrate portion and around this an

outwardly facing outer portion, each of which portions is adapted to be covered by decorative or other visual sheet material, and a single member adapted to serve as retaining means and cover for the sheet material for both portions, characterised by locating means adapted to engage the sheet material inwardly of its outer peripheral edge or edges.

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2. Clock means as claimed in claim 1, in which the locating means comprise projecting means.

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3. Clock means as claimed in claim 1 or 2, in which the locating means comprise a projection able to serve for mounting the case and base together.

4. Clock means as claimed in any preceding claim, in which the locating means comprise an alarm control button.

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5. Clock means as claimed in any preceding claim, in which the locating means comprise a bar on the clock face substrate.

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6. Clock means as claimed in any one of claims 1 to 4, in which the locating means comprise a ring adapted to locate the face sheet material by engaging the same inwardly of the peripheral edge thereof.

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7. Clock means as claimed in claim 6, in which the said ring is opaque so as to be able to hide the edge of the face material, e.g. if roughly torn.

8. Clock means as claimed in claim 7, in which the ring is adapted to hide the front edge of the outer portion sheet material.

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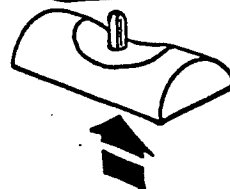
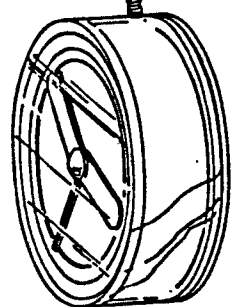
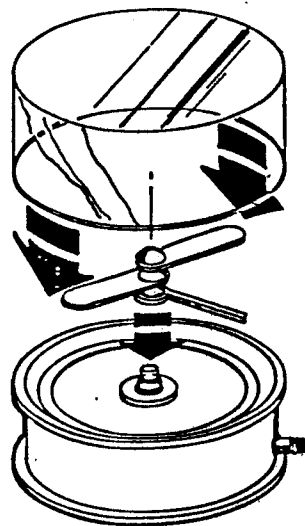
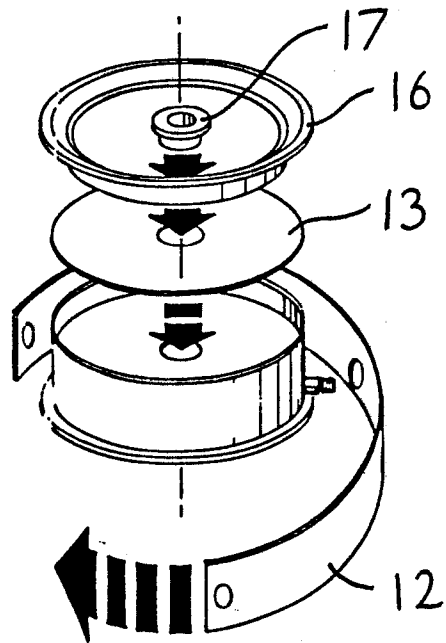
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FIG. 5





European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 88 30 1086

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	FR-A-1 520 031 (LA VEDETTE S.A.) * Whole document *	1-11,16 -18,21, 22	G 04 B 45/00 G 04 B 47/04 G 04 B 19/04
X	DE-U-1 781 391 (SILBERMANN) * Figures *	1-10,16 ,18-21	G 04 B 23/03 G 04 B 37/14
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A	DE-U-7 238 315 (SCHMECKENBECHER UHRENFABRIK) * Page 3, line 5 - page 4, line 22 *	1-3,15, 16	
A	FR-A- 636 985 (GEBRÜDER JUNGHANS AG) * Page 1, lines 1-7 *	23	
X	DE-A-2 237 990 (SPERRY RAND CORP.) * Page 3, line 13 - page 4, line 8; figures *	1-5,10, 16	G 04 B
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Y	CH-A- 84 936 (COMPAGNIE INDUSTRIELLE DE MECANIQUE HORLOGERE) * Page 1, column 2, line 17 *	24	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20-04-1988	Examiner PINEAU A.C.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	