LAMINATED BODY HAVING HOLOGRAM

TECHNICAL FIELD

The present invention relates to a laminated body having a hologram.

BACKGROUND ART

Conventionally, there has been an information recording body in which a hologram layer is laminated on the surface (for example, Patent Document 1).

However, for the conventional information recording body, the edge portion of the hologram layer can be seen, and thus a sense of unity (an appearance seen as one object) between the hologram and the information recording body has been lacking.

[Patent Document 1] Japanese Unexamined Patent Application, Publication No. 2001-293982

SUMMARY~~DISCLOSURE~~ OF THE INVENTION

Problems to be Solved by the Invention

Embodiments seek~~The object of the present invention is~~ to provide a laminated body that improves the sense of unity between the laminated body and the hologram layer, and improves the visual effect of the hologram.

Means for Solving the Problems

Embodiments seek to~~The present invention~~ solve~~s~~ the problem by way of the following such means. It should be noted that, in order to facilitate understanding, reference symbols corresponding to

the embodiment of the present invention are assigned and explained; however, it is not to be limited thereto. In addition, configurations explained by assigning reference symbols may be improved as appropriate, and at least a part may be substituted with other components.

According to a first aspect of the present invention, ~~is~~ a laminated body having a hologram is described, the laminated body comprising~~including:~~ a ~~card~~ substrate (10, 210, 310, 410); a transparent hologram layer (20, 220, 320, 420) laminated on a part of a region of the ~~card~~ substrate; and a surface layer (30, 230, 330, 430) that is laminated upper than the ~~card~~ substrate and the transparent hologram layer, is formed from a transparent material, and has a print layer (40, 240, 340, 440) printed in a similar~~the same~~ color as the ~~card~~ substrate, wherein the print layer~~in which~~, when viewing a~~the~~ top surface of the laminated body from a normal ~~line~~ direction, ~~the print layer~~ is the same ~~or substantially the same~~ color shading as a top surface of the ~~card~~ substrate at an edge portion (22) of the transparent hologram layer, and includes a gradation portion ~~(43) forming a window portion (44) in a picture (21) portion of the transparent hologram layer,~~ in which the color shading becomes lighter as approaching further inside~~inwards~~ from a portion (43a) more inside~~inwards~~ than the edge portion of the transparent hologram layer, and a picture (21) portion of the transparent hologram layer is visually recognizable in the portion more inside than the gradation portion.

Preferably, ~~A second aspect of the present invention is~~ a laminated body having a hologram as described in the first aspect, in which the top surface of the ~~card~~ substrate (10, 210, 310, 410) and the print layer (40, 240, 340, 440) are dark colors.

Preferably, ~~A third aspect of the present invention is~~ a laminated body having a hologram as described in the above~~first or second aspect~~, in which the ~~card~~ substrate (10, 210, 310, 410) includes: at least two substrate layers (211, 311, 411, 213, 313, 413), and an adhesion layer (212, 312, 412) that bonds between layers of the at least two substrate layers.

Preferably, ~~A fourth aspect of the present invention is~~ a laminated body having a hologram as described in ~~any one of~~ the above~~first to third aspects that~~ includes: an emboss (270, 370, 470) in a region of the transparent hologram layer (220, 320, 420), when viewing the surface of the laminated body (201, 301, 401) in a normal line direction.

Preferably, ~~A fifth aspect of the present invention is~~ a laminated body having a hologram as described in ~~any one of~~ the above~~first to fourth aspects that~~ includes: a printing adhesive layer (414) that is provided by way of printing on the top surface of the ~~card~~ substrate (410), and bonds between the ~~card~~ substrate and the surface layer, and between the ~~card~~ substrate and the hologram layer (420).

Preferably, ~~A sixth aspect of the present invention is~~ a laminated body having a hologram as described in ~~any one of~~ the above~~first to fifth aspects~~, in which the print layer (340) is provided on a lower surface of the surface layer (330).

Preferably, ~~A seventh aspect of the present invention is~~ a laminated body having a hologram as described in ~~any one of~~ the above~~first to fifth aspects~~, in which the print layer (40, 240, 440) is provided on a top surface of the surface layer (30, 230, 430).

Preferably, ~~An eighth aspect of the present invention is~~ a laminated body having a hologram as described in ~~any one of~~ the above~~first to seventh aspects~~ in which the top surface of the laminated body (401) is matt finished.

Preferably, ~~A ninth aspect of the present invention is~~ a laminated body having a hologram, in which the hologram is a Lippmann type hologram.

Preferably, ~~A tenth aspect of the present invention is~~ a laminated body having a hologram, in which the laminated body (1, 201, 301, 401) is a card.

Effects of the Invention

According to the embodiments~~present invention~~, a laminated body is provided that improves the sense of unity between the laminated body and the hologram layer, and improves the visual effect of the hologram.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. 1A-1C are plan view and cross-sectional views of a card 1 of a first embodiment;

FIGS. 2A-2B are a plan view and cross-sectional views of a card 201 of a second embodiment;

FIGS. 3A-3B are cross-sectional views schematically showing a cross section in the vicinity of an embossed part of the second embodiment and a comparative example;

FIGS. 4A-4B are cross-sectional views of a state in which the card 201 of the second embodiment or card 101 of the comparative example are bent to an top side Z2 so as to make a

CLAIMS

1. A laminated body having a hologram, comprising:

a card substrate;

a transparent hologram layer laminated on a part of a region of the card substrate; and

a surface layer that is laminated upper than the card substrate and the transparent hologram layer, is formed from a transparent material, and has a print layer printed in the same color as the card substrate, wherein

the print layer, when viewing the top surface of the laminated body from a normal line direction,

is the same or substantially the same color shading as a top surface of the card substrate at an edge portion of the transparent hologram layer, and

includes a gradation portion forming a window portion in a picture portion of the transparent hologram layer, in which the color shading becomes lighter as approaching further inwards from a portion more inwards than the edge portion of the transparent hologram layer.

2. The laminated body having a hologram according to claim 1, wherein

the top surface of the card substrate and the print layer are dark colors.

3. The laminated body having a hologram according to claim 1

or 2, wherein

the card substrate includes:

at least two substrate layers, and

an adhesion layer that bonds between layers of the at least two substrate layers.

4. The laminated body having a hologram according to any one of claims 1 to 3, comprising:

an emboss in a region of the transparent hologram layer, when viewing the top surface of the laminated body in a normal line direction.

5. The laminated body having a hologram according to any one of claims 1 to 4, comprising:

a printing adhesive layer that is provided by way of printing on the top surface of the card substrate, and bonds between the card substrate and the surface layer, and between the card substrate and the hologram layer.

6. The laminated body having a hologram according to any one of claims 1 to 5,

wherein the print layer is provided on a lower surface of the surface layer.

7. The laminated body having a hologram according to any one of claims 1 to 5,

wherein the print layer is provided on a top surface of

the surface layer.

8. The laminated body having a hologram according to any one of claims 1 to 7,

wherein the top surface of the laminated body is matt finished.

9. The laminated body having a hologram according to any one of claims 1 to 8,

wherein the hologram is a Lippmann type hologram.

10. The laminated body having a hologram according to any one of claims 1 to 9,

wherein the laminated body is a card.

CLAIMS

1. A laminated body having a hologram, comprising:

a substrate;

a transparent hologram layer laminated on a part of a region of the substrate; and

a surface layer that is laminated upper than the substrate and the transparent hologram layer, is formed from a transparent material, and has a print layer printed in a similar color as the substrate, wherein

the print layer, when viewing a top surface of the laminated body from a normal direction,

is the same color shading as a top surface of the substrate at an edge portion of the transparent hologram layer, and

includes a gradation portion in which the color shading becomes lighter as approaching further inside from a portion more inside than the edge portion of the transparent hologram layer, and

a picture portion of the transparent hologram layer is visually recognizable in the portion more inside than the gradation portion.

2. The laminated body having a hologram according to claim 1, wherein

the top surface of the substrate and the print layer are dark colors.

3. The laminated body having a hologram according to claim 1 or 2, wherein

the substrate includes:

at least two substrate layers, and

an adhesion layer that bonds between layers of the at least two substrate layers.

4. The laminated body having a hologram according to claim 1 or 2, comprising:

an emboss in a region of the transparent hologram layer, when viewing the top surface of the laminated body from the normal direction.

5. The laminated body having a hologram according to claim 1 or 2, comprising:

a printing adhesive layer that is provided by way of printing on the top surface of the substrate, and bonds between the substrate and the surface layer, and between the substrate and the hologram layer.

6. The laminated body having a hologram according to claim 1 or 2,

wherein the print layer is provided on a lower surface of the surface layer.

7. The laminated body having a hologram according to claim 1

or 2,

wherein the print layer is provided on a top surface of the surface layer.

8. The laminated body having a hologram according to claim 1 or 2,

wherein the top surface of the laminated body is matt finished.

9. The laminated body having a hologram according to claim 1 or 2,

wherein the hologram is a Lippmann type hologram.

10. The laminated body having a hologram according to claim 1 or 2,

wherein the laminated body is a card.