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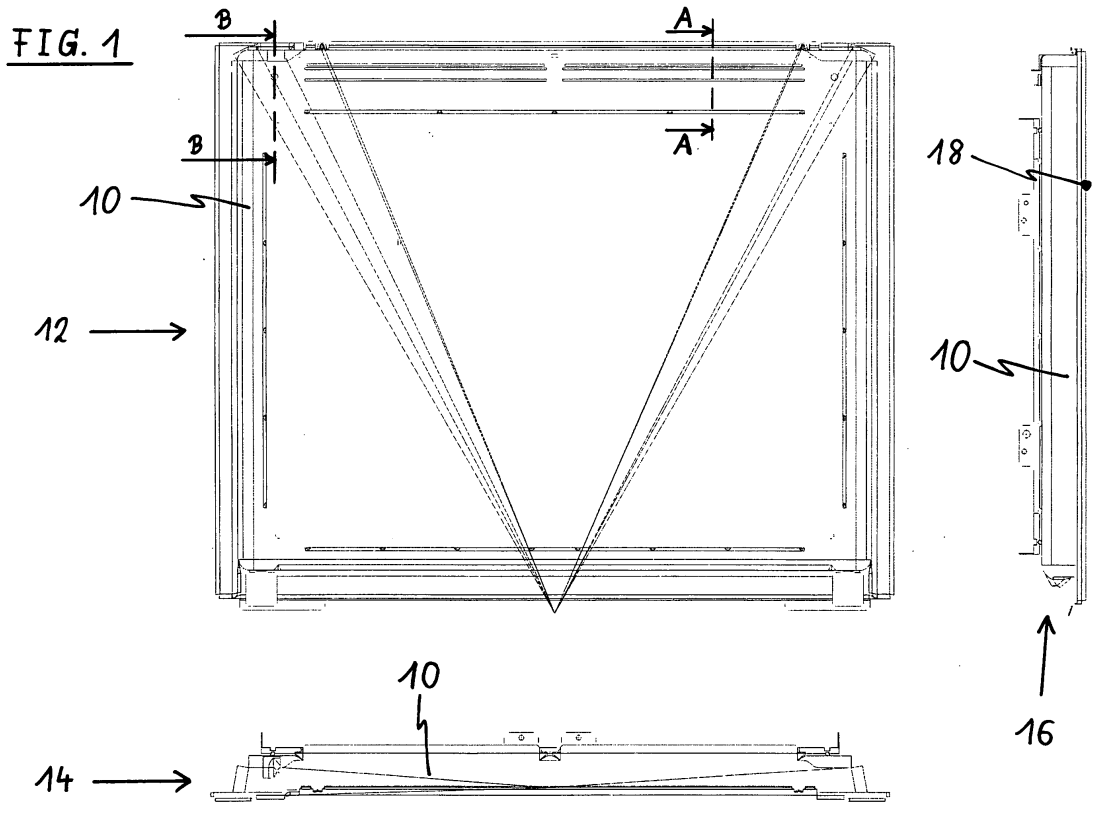
(54) A front frame for an oven cavity of a cooking oven

(57) The present invention relates to a front frame (10) for an oven cavity of a cooking oven. The front frame (10) is provided for enclosing a front opening of the oven cavity. At least a front side (18) of the front frame (10) includes a metal layer. The metal layer is coated by at least one protective and/or decorative coating made of an organic or ceramic material. Further, the present invention relates to a cooking oven with an oven cavity, wherein said cooking oven includes the above front frame (10).



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Description

[0001] The present invention relates to a front frame for an oven cavity of a cooking oven according to the preamble of claim 1. Further, the present invention relates to a cooking oven with said front frame.

[0002] A front frame for an oven cavity of a cooking oven is typically made of simple coated metal sheet or stainless steel. In order to obtain an attractive design, the front frame may be made of different materials and/or may be covered by different coatings. The choice of the materials and coatings allows different optical effects.

[0003] It is an object of the present invention to provide an improved front frame for an oven cavity of a cooking oven, wherein said front frame has protective as well as decorative properties.

[0004] The object of the present invention is achieved by the front frame according to claim 1.

[0005] According to the present invention the metal layer is coated by at least one protective and/or decorative coating made of an organic or ceramic material.

[0006] The core of the present invention is the use of the organic or ceramic material in order to protect the metal layer of the front frame on the one hand and to allow an attractive design of said front frame on the other hand. The coating made of the organic or ceramic material may have different colours and surface structures, so that a plurality of various designs can be realized.

[0007] According to a preferred embodiment of the present invention at least a part of the metal layer is made of stainless steel. The stainless steel allows an attractive design and a protective surface.

[0008] Alternatively or additionally, a part of the metal layer is made of metal sheet. The metal sheet allows a low cost version of the inventive front frame.

[0009] Further, at least a part of the metal layer may be enamelled. The enamel coat has a protective as well as a decorative function.

[0010] Preferably, the metal layer includes at least one metal of the group of chromium, nickel, titanium, gold, silver, aluminium, copper, zinc, zirconium, platinum and/or one or more oxides thereof. These metals and oxides, respectively, contribute to the protective and decorative purposes.

[0011] For example, at least a part of the protective and/or decorative coating is transparent. In this case the metal layer has substantially the decorative function and the coating has essentially the protective function.

[0012] According to a further embodiment of the present invention the metal layer is partially uncoated. This allows the creation of a special design, wherein the metal layer defines one part of the front frame and the coating defines another part of the front frame.

[0013] Further, the protective and/or decorative coating includes at least one non reflecting layer. Said non reflecting layer prevents any reflections at the surface of the front frame.

[0014] For example, the non reflecting layer has a special refractivity. Such kinds of non reflecting layers are typically used at eyeglass lenses.

[0015] The protective and/or decorative coating may include at least one scratch-proof and/or impact resistant layer.

[0016] In a similar way the protective and/or decorative coating may include at least one corrosion inhibiting coating.

[0017] Further, the protective and/or decorative coating may include at least one dirt-repellent layer and/or at least one layer being effective against fingerprints.

[0018] Preferably, the protective and/or decorative coating includes at least one high-temperature resistant layer.

[0019] Additionally, the protective and/or decorative coating may include at least one antimicrobial layer.

[0020] Moreover, at least a part of the metal layer is coated by a lacquer coat for optical and/or protective purposes.

[0021] Further, the present invention relates to a cooking oven with at least one oven cavity, wherein the cooking oven comprises a front frame as described above.

[0022] Novel and inventive features of the present invention are set forth in the appended claims.

[0023] The present invention will be described in further detail with reference to the accompanied drawings, in which

FIG 1 illustrates three side views of a front frame according to a preferred embodiment of the present invention,

FIG 2 illustrates a sectional side view of the front frame ac- cording to the preferred embodiment of the present inven- tion, and

FIG 3 illustrates a further sectional side view of the front frame according to the preferred embodiment of the pre- sent invention.

[0024] FIG 1 illustrates three side views of a front frame 10 according to a preferred embodiment of the present invention. The three side views include a front view 12, a top view 14 and a left side view 16.

[0025] The front frame 10 has a rectangular form. The front frame 10 is provided for enclosing a front opening of an oven cavity. A front side 18 of the front frame 10 includes a metal layer. The metal layer is coated by a protective and/or decorative coating. The protective and/or decorative coating is made of an organic or ceramic material.

[0026] The organic or ceramic material of the protective and/or decorative coating allows a protection of the metal layer of the front frame. Further, the organic or ceramic material of the protective and/or decorative coating allows an attractive design of said front frame. The coating made of the organic or ceramic material may have different colours and surface structures. Thus, a

plurality of various designs can be realized.

[0027] At least a part of the metal layer of the front frame 10 is made of stainless steel. The stainless steel allows an attractive design and a protective surface. Further, at least a part of the metal layer may be made of metal sheet. The metal sheet is a low cost metal layer.

[0028] At least a part of the metal layer of the front frame 10 may be enamelled. The enamel coat has a protective purpose as well as a decorative function.

[0029] In this example, the metal layer of the front frame 10 includes at least one metal of the group of chromium, nickel, titanium, gold, silver, aluminium, copper, zinc, zirconium, and/or platinum. Further, the metal layer includes one or more oxides of the aforementioned metals. These metals and oxides, respectively, contribute to the protective and decorative purposes.

[0030] At least a part of the protective and/or decorative coating of the front frame 10 may be transparent. In this case the metal layer has substantially the decorative function and the coating has essentially the protective function.

[0031] Further, the metal layer of the front frame 10 may be partially uncoated. This allows the creation of a special design, wherein the metal layer defines some parts of the front frame 10 and the coating defines other parts of the front frame 10.

[0032] The protective and/or decorative coating of the front frame 10 may include at least one non reflecting layer. Said non reflecting layer prevents any reflections at the surface of the front frame 10. This may be achieved by a special refractivity of the non reflecting layer. Such kinds of non reflecting layers are typically used at eyeglass lenses.

[0033] The protective and/or decorative coating of the front frame 10 may include at least one scratch-proof layer. In a similar way, the protective and/or decorative coating may include an impact resistant layer.

[0034] The protective and/or decorative coating of the front frame 10 may also include an corrosion inhibiting coating.

[0035] Further, the protective and/or decorative coating of the front frame 10 may include a dirt-repellent layer. Additionally or alternatively, the protective and/or decorative coating of the front frame 10 may include a layer being effective against fingerprints.

[0036] The protective and/or decorative coating of the front frame 10 may include a high-temperature resistant layer.

[0037] For example, the protective and/or decorative coating of the front frame 10 may include at least one antimicrobial layer.

[0038] The metal layer of the front frame 10 may be at least partially coated by a lacquer coat for optical purposes. In a similar way, the metal layer of the front frame 10 may be at least partially coated by a lacquer coat for protective purposes.

[0039] FIG 2 illustrates a sectional side view of the front frame 10 according to the preferred embodiment of the present invention. The sectional side view of FIG 2 shows the front frame 10 along the line A-A in FIG 1. FIG 2 clarifies some geometric details of the front frame 10.

[0040] FIG 3 illustrates a further sectional side view of the front frame 10 according to the preferred embodiment of the present invention. The sectional side view of FIG 3 shows the front frame 10 along the line B-BG in FIG 1. FIG 3 clarifies further geometric details of the front frame 10.

[0041] An oven door may be arranged within or in front of the front frame 10. The oven door may comprise a door frame enclosing a transparent door panel. Alternatively, the oven door may consist of the transparent door panel, wherein said transparent door panel is directly attached at door hinges. The door panels can be removed without a complete dismounting of the oven door.

[0042] Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawings, it is to be understood that the present invention is not limited to that precise embodiment, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention. All such changes and modifications are intended to be included within the scope of the invention as defined by the appended claims.

List of reference numerals

[0043]

10	front frame
12	front view
14	top view
16	left side view
18	front side

Claims

1. A front frame (10) for an oven cavity of a cooking oven,
wherein the front frame (10) is provided for enclosing a front opening of the oven cavity and at least a front side (18) of the front frame (10) includes a metal layer, **characterized in, that**
the metal layer is coated by at least one protective and/or decorative coating made of an organic or ceramic material.

2. The front frame according to claim 1,
characterized in, that
at least a part of the metal layer is made of stainless steel.

3. The front frame according to claim 1 or 2,
characterized in, that
at least a part of the metal layer is made of metal sheet.

4. The front frame according to any one of the preceding claims,
characterized in, that
at least a part of the metal layer is enamelled.

5. The front frame according to any one of the preceding claims,
characterized in, that
the metal layer includes at least one metal of the group of chromium, nickel, titanium, gold, silver, aluminium, copper, zinc, zirconium, platinum and/or one or more oxides thereof.

6. The front frame according to any one of the preceding claims,
characterized in, that
at least a part of the protective and/or decorative coating is transparent.

7. The front frame according to any one of the preceding claims,
characterized in, that
the metal layer is partially uncoated.

8. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one non reflecting layer.

9. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one scratch-proof and/or impact resistant layer.

10. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one corrosion inhibiting coating.

11. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one dirt-repellent layer and/or at least one layer being effective against fingerprints.

12. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one high-temperature resistant layer.

13. The front frame according to any one of the preceding claims,
characterized in, that
the protective and/or decorative coating includes at least one antimicrobial layer.

14. The front frame according to any one of the preceding claims,
characterized in, that
at least a part of the metal layer is coated by a lacquer coat for optical and/or protective purposes.

15. A cooking oven with at least one oven cavity,
characterized in, that
the cooking oven comprises a front frame (10) according to any one of the claims 1 to 14.

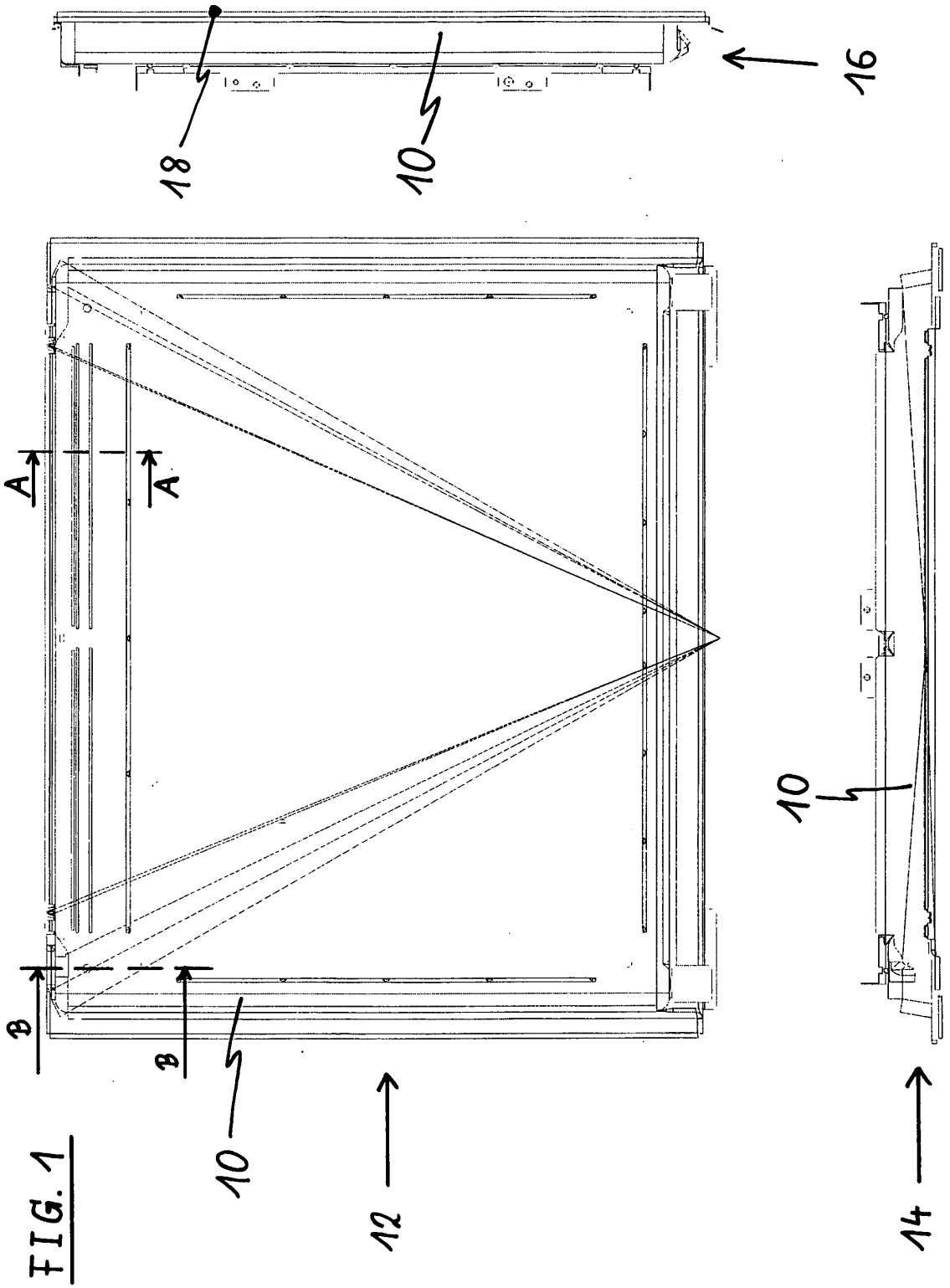


FIG. 1

FIG. 2

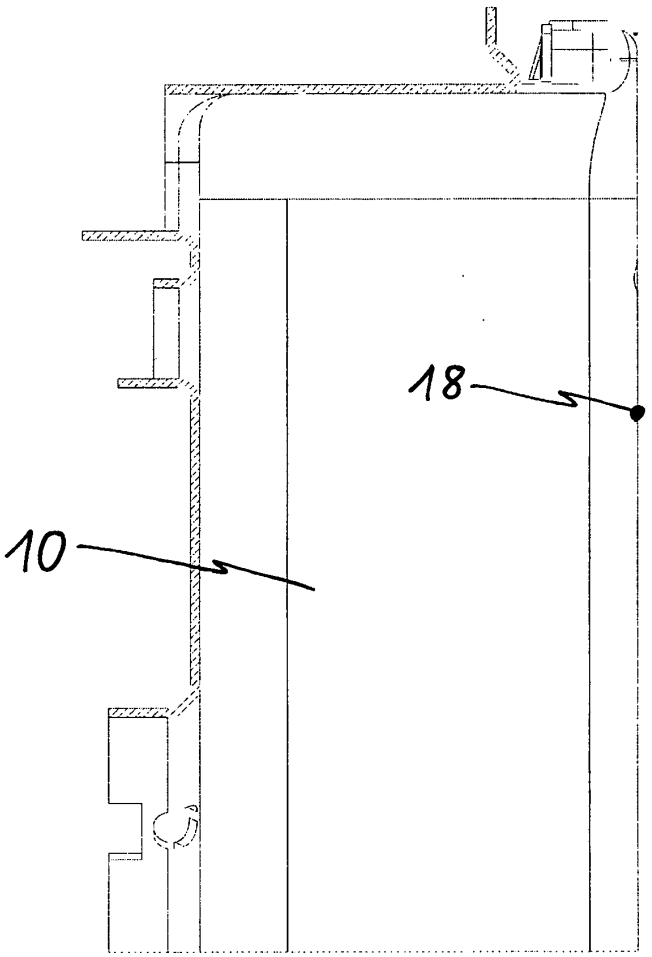
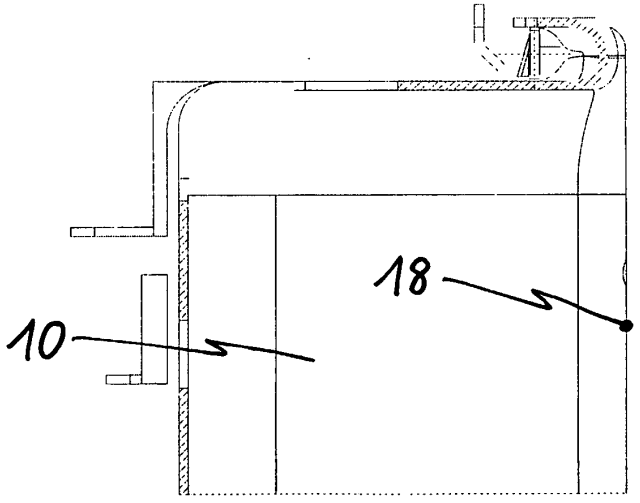


FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 10 00 7076

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	31 January 2011	Makúch, Milan

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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EUROPEAN SEARCH REPORT

Application Number
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