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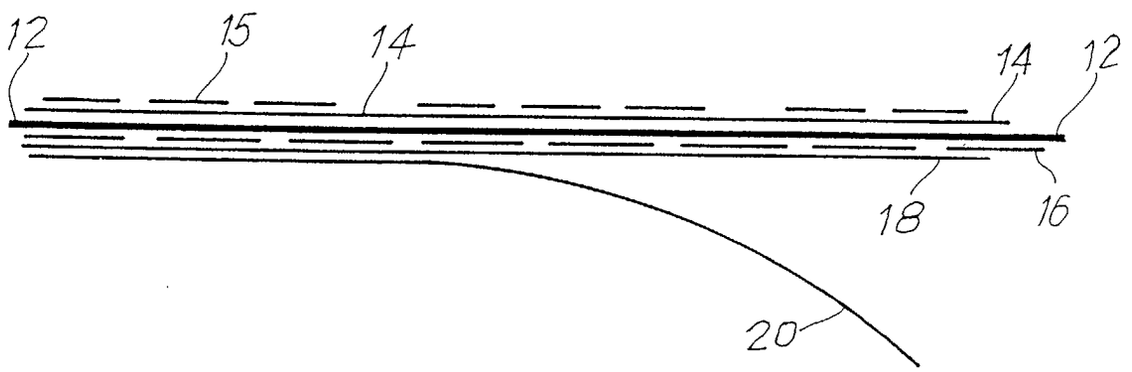
(54) Process for making a semi-finished product for selfadhesive labels with system for excluding fraudulent reproductions, and labels made thereby

(57) In order to render the fraudulent reproduction of labels difficult and in order to enable a check on the lawful origin of a labelled product, the substrate of the semi-finished product, in addition to being lacquered on the front, is printed and then personalized on the rear with invisible Wood's ink or its derivatives and is protected with adhesive, which is then attached to a siliconized substrate.

Fig.1



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Description

[0001] The present invention relates to a process for preparing a semi-finished product for obtaining self-adhesive labels, and also relates to said semi-finished product and to the labels obtained by printing and dinking said semi-finished product.

[0002] The purpose of the invention is to improve the said process and the semi-finished product obtained thereby in such a way as to reduce further the risk of fraudulent reproductions, as well as to facilitate the possibilities of checking the label, even when the latter is applied and even after an accidental detachment of the label from the surface on which it has been applied.

[0003] The above and other purposes and advantages will emerge clearly from the ensuing text.

[0004] The process in question - for providing a semi-finished product with which self-adhesive labels may be formed, the said process including solutions for rendering fraudulent reproduction of the labels difficult and for enabling checks on the lawful origin of a labelled product - is characterized in that the substrate of the semi-finished product used for producing the labels is previously lacquered with a lacquer mixed with Wood's ink and detectable only using a Wood's lamp, and can be printed beforehand by the producer of the labels. The semi-finished product is personalized by the producer thereof with invisible-ink printing, using Wood's ink or its derivatives, on the rear surface which to be applied with an adhesive or self-adhesive, and is then completed with self-adhesive and attached to a means for protecting the self-adhesive, such as siliconized paper or equivalent. The lacquering may be continuous, or else may be printed with a detectable marking, pattern or design.

[0005] It is possible to adopt a paper substrate or a plastic substrate, including a transparent one.

[0006] The means for protecting the self-adhesive, such as siliconized paper, is chosen in such a way as to enable, through it, reading of the markings, patterns or designs printed using Wood's ink or its derivatives.

[0007] Forming the subject of the present invention is also a semi-finished product consisting of the combination obtained with the process in question, as well as the labels obtained with said semi-finished product.

[0008] A better understanding of the present invention will be provided by the ensuing description and by the attached drawings, which illustrate a practical, non-limiting exemplification of the invention itself and in which:

> Figs. 1 and 2 are schematic cross-sectional views illustrating two possible embodiments by way of demonstration.

[0009] In Fig. 1, the reference number 12 designates a paper substrate of the type usable for labels to be affixed using an adhesive or with a self-adhesive. Provided on the face where the visible printing of the label is to be carried out is a layer 14 of a lacquer mixed with Wood's invisible ink. The lacquering 14 may be uniform or partial, and may even be personalized, and in any case must be such as to be detectable using a Wood's lamp. In the case where the lacquering is partial, it may be printed to be readable, or in any case detectable, in delimited areas, which may be provided in positions where they can be detected even in the presence of printing on the label.

[0010] On the opposite face of the paper substrate 12, the indication 16 of the manufacturer or of the user of the semi-finished product is printed using Wood's invisible ink. The said printing 16 may advantageously be repetitive, i.e., continuous, in order to enable convenient reading even on a label dinked from the semi-finished product. On top of said printing 16 made using Wood's ink, a layer of self-adhesive 18 is spread, which is then covered with siliconized paper 20 or with an equivalent system.

[0011] The semi-finished product 14, 12, 16, 18, 20 can be employed by the user for printing 15 personalized labels. The semi-finished product thus completed with printing 15 is dinked for forming the labels, which may be applied on the item or product to be labelled after prior removal of the siliconized paper or the like.

[0012] Fig. 2 illustrates a solution similar to the previous one and for which the same reference numbers have been used, except for the substrate, which is designated by 112. The substrate 112 is a film, namely, a plastic film, which replaces the paper substrate 12 of the previous example and which may also be transparent or partially transparent. As regards the rest, the structure and the way of functioning are the same.

[0013] In the case of a transparent plastic film, recognition of the label can take place directly with the label applied.

[0014] A label obtained with the process indicated and with the semi-finished product personalized by the visible printing 15 makes it possible to achieve the advantages and purposes referred to previously.

[0015] The front lacquering 12 or 112 is detectable even after the label has been applied.

[0016] A label with the arrangement illustrated in Fig. 2 enables reading of the rear printing 16 even through the substrate 112 made of an at least partially transparent film, when the label has been applied. In the case of the arrangement illustrated in Fig. 1, reading from the rear of the rear printing 16 in Wood's ink - when it is not readable through the paper substrate 12 - can be done using a Wood's lamp after first detaching the label, even partially or irregularly, from the labelled product or item. In fact, the layer of printing 16 with Wood's ink is visible to a Wood's lamp both when the said printing is read from the rear of the detached label and when it is read on the residue of the label that remains adherent to the surface on which the label has been affixed with the self-adhesive 18.

[0017] The combination illustrated enables a check and detection of a fraudulent production of labels and

renders the fraudulent production of semi-finished products according to the invention very difficult.

[0018] It is understood that the drawings only illustrate a simplification provided purely by way of practical demonstration of the invention, which may vary in its embodiments and arrangements without thereby departing from the scope of the underlying idea.

Claims

1. A process for making a semi-finished product with which self-adhesive labels can be formed, the said process including solutions for rendering fraudulent reproduction of the labels difficult and for enabling checks on the lawful origin of a labelled product, **characterized in that** the substrate (12) of the semi-finished product used for producing the labels:

   - is frontally lacquered (14) with a lacquer mixed with Wood's ink and can be printed (15) by the producer of the labels;
   - is printed by the producer of the semi-finished product with Wood-type ink (16) on the rear surface which is to be applied with adhesive or self-adhesive; and
   - is then completed with a self-adhesive (18) and coated with a protective means (20) for protecting the self-adhesive, such as siliconized paper or equivalent.

2. The process according to Claim 1, **characterized in that** the lacquering (14) is continuous.

3. The process according to Claim 1, **characterized in that** the lacquering (14) is partialized and detectable also in specific areas, in the presence of printing (15) of the labels.

4. The process according to Claim 1, **characterized in that** the substrate is a paper substrate.

5. The process according to Claim 1, **characterized in that** the substrate is a plastic film.

6. The process according to at least one of the foregoing claims, **characterized in that** the means for protecting the self-adhesive, such as siliconized paper, is chosen so as to enable reading through it of the printing made with Wood's ink or its derivatives, using a Wood's lamp.

7. A semi-finished product for the production of self-adhesive labels which can render fraudulent reproduction difficult and which is designed to enable checks on the lawful origin of a labelled product, **characterized in that** it comprises in combination, on a substrate: on one side, possible lacquering, either continuous or partial, with a lacquer mixed with Wood's ink, which can receive the visible personalized printing of the labels; and, on the opposite side, printing with Wood's ink, which is invisible and readable using a Wood's lamp; a self-adhesive layer; and a means for protecting the self-adhesive.

8. The semi-finished product according to Claim 7, **characterized in that** the substrate is a paper substrate.

9. The semi-finished product according to Claim 7, **characterized in that** the substrate is a plastic film.

10. A self-adhesive label which can render fraudulent reproduction difficult and which is designed to enable checks on the lawful origin of a labelled product, **characterized in that** it comprises on a substrate: on one side, lacquering with a lacquer mixed with Wood's ink and the visible printing of the label; and, on the opposite side, printing with Wood's ink which is invisible and readable using a Wood's lamp, and a self-adhesive layer which can be protected prior to its application with a protective means.

11. A self-adhesive label according to Claim 10, **characterized in that** the substrate is a paper substrate.

12. A self-adhesive label according to Claim 10, **characterized in that** the substrate is a plastic film, possibly even at least partially transparent.

Fig.1

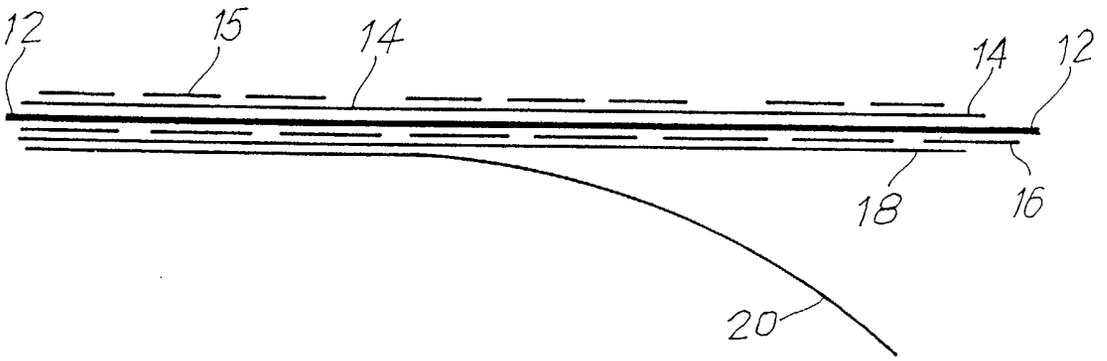

Fig.2