May 11, 1971 R. MUELLER 3,578,525

METHOD OF MARKING TEXTILE ARTICLES

Filed June 5, 1968

FIG. 1

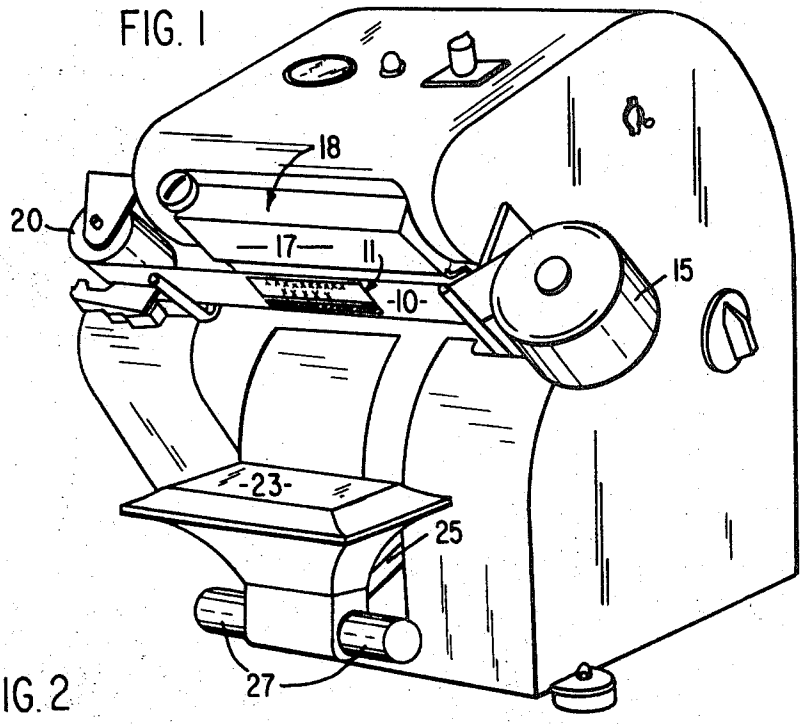

FIG. 2

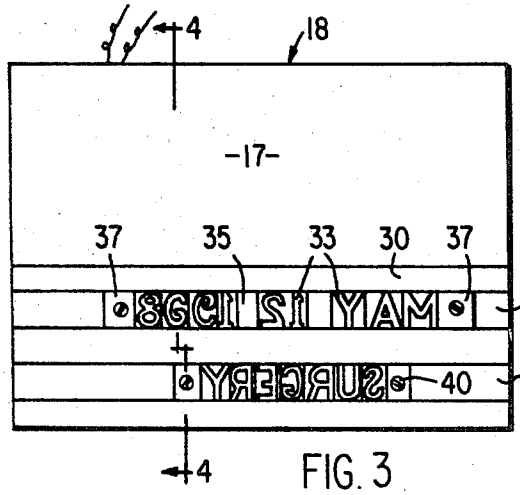

FIG. 3

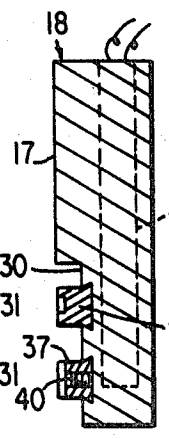

FIG. 4

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METHOD OF MARKING TEXTILE ARTICLES

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ABSTRACT OF THE DISCLOSURE

A dry transfer is applied to the textile article by a heating iron and simultaneously, additional indicia is printed on the article by selected type fixedly located relative to the iron. The transfers are provided at areas spaced along a carrier strip and print ink is provided on the same strip, or on another strip. By using interchangeable type, any form of additional indicia may be printed on the article simultaneously with the application of the transfer thereto.

BACKGROUND OF THE INVENTION

Articles of textile material such, for example, as bed linen used in establishments as hospitals, hotels and the like, are marked to indicate the name and location of the establishment and it is desirable to include in the marking additional indicia, such as the date the article was put into use and the section, or department, of the establishment to which the particular article has been assigned. The many advantages of marking such articles, by the use of transfers, have been recognized for years. In addition to the words, the transfer can include various designs. Also, the transfers can be had in any color, or a transfer may include a plurality of different colors. These advantages have been enhanced with the development of so-called dry transfers, which are applied only by heat and pressure, not requiring any activating solutions.

Transfers, however, are relatively expensive, and the only marking obtained is that which is incorporated in the transfer. As stated above, it is not only important, but necessary, to include in the marking indicia further information pertaining to a specific article, such as the date the article was acquired and the department in which it has been assigned for use. For example the transfer would include the name and location of a hospital. The additional indicia would indicate that the article was for use in surgery, or in Ward B, etc.

In order to provide the additional indicia in marking the articles only by use of transfers, it is necessary for the establishment to acquire a very large inventory of transfer rolls, and the operator would have to continuously change the transfer rolls in order to apply the additional indicia to different articles.

BRIEF SUMMARY OF THE INVENTION

In the practise of my invention, an area of a carrier strip, having transfer material applied thereto, is placed in overlying relation to a heating iron. A carrier strip provided with print ink is positioned in overlying registration with print type. The textile article is pressed against the transfer material and the print ink. Preferably, a single carrier strip is used which is provided with the transfers and print ink, although it will be apparent from the detailed description of the invention that the transfers may be carried on one roll of the strip, or tape, and the print ink carried on a separate strip, or tape, either at spaced areas, or continuous.

In the preferred form, I provide the carrier, or backing strip, at intervals spaced therealong with transfer material in the form of a design and/or words constituting what might be termed a house mark, to indicate the ownership of the article.

This carrier strip is also coated in areas complemental to, or pre-oriented with, the areas containing the transfers, with printing ink which preferably is of the same material as that in the transfer. The carrier strip is advanced from a supply roll to position a transfer area in overlying relation to the heating iron. The complemental area coated with the printing ink is positioned in front of the print type, which is in fixed relationship to the heating iron. The textile article is pressed against the face side of the carrier strip by a platen, whereby the transfer and printing is effected simultaneously. Upon each operation of the platen, the carrier strip is advanced automatically to position the next transfer and ink print area in registration with the heating iron and the type.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is an isometric view of a machine suitable for the practise of my invention.

FIG. 2 is a face view of the carrier strip illustrating the arrangement of the transfer and the print ink areas.

FIG. 3 is an enlarged face view of the transfer applying iron and print type.

FIG. 4 is a view taken on line 4—4, FIG. 3.

DETAILED DESCRIPTION

Referring to FIG. 2, **10** designates a single carrier strip to which transfers, indicated generally at **11**, are applied at spaced intervals along the strip. In the drawings, the transfer consists of a rectangular outline design **12** within which are letters indicating the name of a hospital. The strip **10** also has print ink, indicated at **13**, applied to an area complemental to, or pre-oriented in relation to, transfer **11**.

As in conventional practise, the strip **11** is of considerable yardage in length, containing a great number of transfers and print ink areas. The strip is sold in roll form.

Referring to FIG. 1, a roll **15** of the transfer strip is positioned on a support carried by the frame of the applying and printing machine. The strip **10** is fed transversely from roll **15** across the flat surface **17** of a heating iron **18** fixed in the machine. The strip **10** is wound up on a spool **20**. The textile article is positioned on a platen **23** which is mounted on the free end of an arm **25** pivotally mounted in the machine frame. The arm **25** is provided with handles **27**, by means of which the operator can conveniently swing the platen **23**, with the article positioned thereon, upwardly toward the heating iron **17**. The face side of the carrier strip **10**, having the transfer and print ink applied thereto, is faced outwardly for contact by the article.

When the platen **23** has been moved upwardly to position the article in proximity to the strip **10**, power is applied to the arm **25** to move the article against the carrier strip, and move the rear surface thereof against the surface **17** of the heater iron under pressure. The pressure is maintained for a selected period of time by adjustment of a timer. Upon return movement of the arm **25**, the roll **20** is automatically rotated to advance the next transfer in overlying registration with the heating iron for application of the transfer to the next article.

The machine referred to is satisfactory for use in carrying out my method of marking. However, it will be apparent that machines embodying a different specific arrangement could be used. The basic philosophy in the machine, as above described, is conventional in machines for the application of transfers. This machine departs from the conventional in that the heating iron **18** is, in addition to the flat surface **17**, provided with means by which print type can be interchangeably attached to the heating iron. The iron is formed with a surface **30** located inwardly of the surface **17**. The surface **30** is formed with transversely extending dove-tailed slots **31** to receive print

type 33, spacer slugs 35, and retaining slugs 37. The print type and slugs are formed at their base, or inner ends, with a dove-tailed configuration complemental to the slots 31, whereby the print type and slugs are freely slidable in the slots. When a row of type is set, a retaining slug 37 is positioned at each end of the row. The retaining slugs are provided with set screws 40 which, when tightened, lock the retaining slugs in the slots 31 to maintain the type in the set row in proper location.

The transfers 11 and the print areas 13 are so dimensioned and arranged that upon each advancement of the strip 10, a transfer is positioned in overlying registration with the surface 17 of the heater iron, and a print ink area 13 is positioned in registration with the print type 33. It will be apparent that the print ink, in conjunction with the type 33, imprints indicia on the textile article simultaneously with the application of the transfer thereto.

As previously stated, the print ink 13 may be applied continuously on the strip 10, or on a separate strip indicated by the dotted line 45, FIG. 2, in which event the strip 10 and the print ink strip can be advanced simultaneously by the roll 20.

What I claim is:

1. The method of marking articles consisting in positioning an area of a carrier strip bearing transfer material in overlying registration with a heating iron, positioning a print ink carrier in overlying registration with print type, and pressing the textile article against said transfer material and print ink simultaneously.

2. A method of marking textile articles consisting in providing a carrier strip with transfer material at areas spaced along said strip on the face side thereof, applying printing ink to the face side of said strip in areas associated with said transfer material areas and pre-oriented in respect thereto, moving said strip to position a transfer area in overlying registration with a heating iron arranged to engage the rear side of said strip, and an associated ink print area in registration with print type, positioning a textile article in overlying relation to the face side of said strip and compressing said strip between said textile article and said iron and print type.

3. The method of marking textile articles consisting in providing a first carrier strip with transfer material at areas spaced along said strip on the face side thereof, applying print ink to the face side of a second strip, moving said first strip to position a transfer area thereof in overlying registration with a heating iron arranged to engage the rear side of said strip, positioning said second carrier strip in overlying relation to print type, positioning a textile article in overlying relation to the face sides of said strips and compressing said strips between said article and said iron and print type.

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101—34; 156—240, 277, 385; 161—413