Dec. 20, 1932. A. D. EISENBERG 1,891,323

METHOD OF PRINTING ON CELLOPHANE OR THE LIKE

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Fig. 1

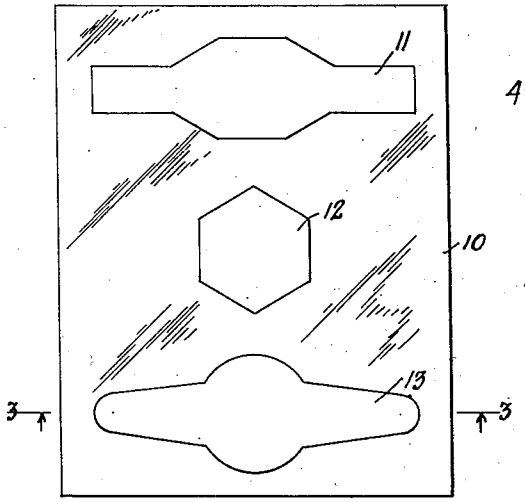


Fig. 2

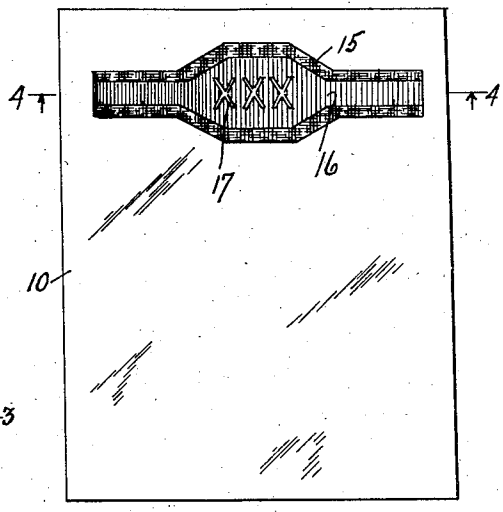
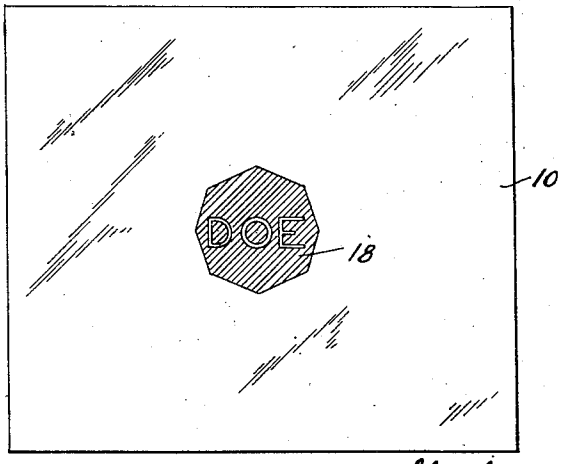


Fig. 5



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Fig. 3

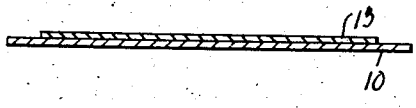


Fig. 4

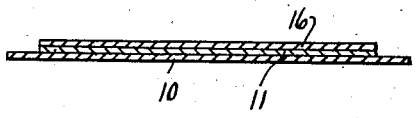
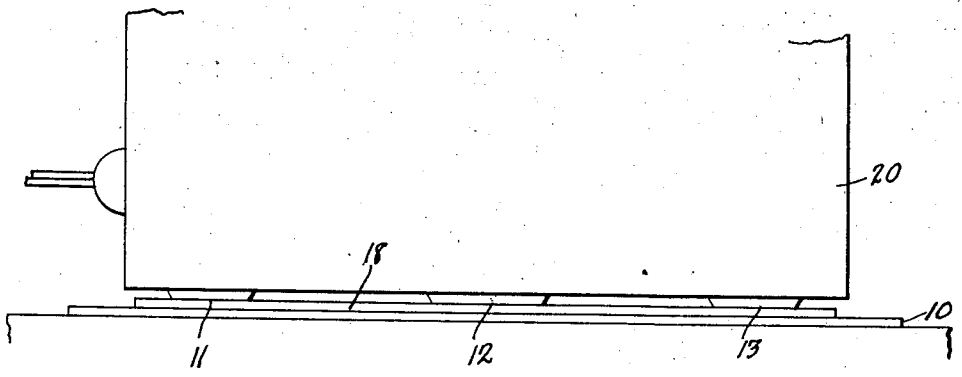


Fig. 6



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UNITED STATES PATENT OFFICE

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METHOD OF PRINTING ON CELLOPHANE OR THE LIKE

Application filed April 3, 1931. Serial No. 527,398.

This invention relates to a method of printing on thin highly glazed transparent paper, such as cellophane, and more particularly on the moisture-proof variety of such paper.

One of the objects of the invention is to produce a pigmented area or areas upon the surface of such paper so that printing may be applied thereto.

Another object of the invention is to produce a label or the like having a cellophane base.

A further object of the invention is to produce a moisture-proof cellophane wrapper or the like for various articles of merchandise having a pigmented area with printing thereon.

Other objects and novel features of my invention will become more apparent as the specification proceeds.

The disclosure made the basis of exemplifying the present inventive concept suggests a practical embodiment thereof, but the invention is not to be restricted to the exact details of this disclosure, and the latter, therefore, is to be understood from an illustrative rather than a restrictive standpoint.

In the drawing forming a part of this specification, wherein similar reference characters are used to indicate corresponding parts throughout the several views,

Figure 1 is a face view of a section of cellophane paper with pigmented areas applied thereto;

Figure 2 is a similar view showing a printed label on one of the said pigmented areas;

Figure 3 is a sectional view on line 3—3 Figure 1;

Figure 4 is a similar view on line 4—4 Figure 2;

Figure 5 is a face view of a cellophane wrapper or wall thereof having a label impressed thereon by my improved process; and

Fig. 6 is a diagrammatic view showing the heated dies applied to the pigment paper when superposed upon the cellophane.

Referring now to the drawing in detail, 10 indicates a sheet of highly glazed moisture proof paper, such as cellophane, having pigmented areas 11, 12 and 13. These areas are in the shape of label designs and are produced by placing a sheet of pigment paper over the surface of the cellophane sheet, and then pressing heated dies 20 over the pigment paper, the heat softening the pigment on the paper and transferring same on to the surface of the cellophane.

It is to be understood that in transferring the pigment to the cellophane sheet, either individual or gang dies may be used, the said gang dies having either a multiplicity of areas of the same design or areas varying in design.

The pigment paper 18 used is composed of a paper base and a pigment plus an adhesive which softens at certain temperatures, so that when a heated die 20 is pressed on the pigment paper which is laid over the cellophane, the impression will be transferred to the cellophane, producing a surface on which printing ink will adhere.

The amount of heat required to transfer the pigment from the paper to the cellophane depends upon the characteristics of the pigment, some pigments requiring but 40 or 50 degrees Fahrenheit, while others may require as high as 200 degrees, or more.

The film of pigment thus deposited on the cellophane is very thin and the cohesion between the said elements is so perfect that no difference in the thickness between the filmed and unfilmed cellophane is perceptible to the naked eye. I desire it understood that I do not limit myself to the use of any particular pigment or adhesive, as numerous such pigments and adhesives may be used. The said pigments may include (for instance) aluminum hydrate, precipitated barium sulphate, lead carbonate. In fact any pigment used in the making of paint may be employed, and the adhesive may include (for instance) glucose, Acacia, or Irish moss. These pigments, when transferred to the cellophane, act as a base upon which to print and to absorb the printing ink.

One type of pigment paper used comprises a fine thin paper which is covered with a mixture of the desired pigment in powder form, water, adhesive, and a small quantity of glycerine, gelatine and a minute quantity of oil, preferably castor oil.

Some of the advantages derived by using

my improved method of printing on cellophane are, a highly efficient absorbent base on the cellophane upon which the printing will clearly stand out, and no loss of time is sustained, as the pigmented areas are substantially dry immediately upon being provided upon the cellophane.

After the pigment has been transferred to the cellophane, the pigmented areas may be printed on. In the drawing I have illustrated the pigment as being white. However, the said pigment may be of any desired color.

In Figures 2 and 4 of the drawing, I have shown the area 11 as printed upon and having a border 15 yellow or gold in color, and a red central portion 16 bearing a trade-mark indication 17 printed in any desired color. The areas 12 and 13 are similarly printed on.

In Figure 5 I have shown the cellophane sheet 10 in the form of a wrapping for cigars or the like, having the trademark or brand 18 of the cigar printed thereon, thus doing away with the label usually applied to the cigar. Instead of a wrapping for a cigar, the sheet 10 may form one wall of a bag for candy or other merchandise.

Wherever in the specification and claims I employ the term "printing", I desire it understood that lithographing is to be included.

From the foregoing, it will be seen that I have provided a label having a highly glazed and transparent water-proof base, such as cellophane, and a pigmented area adapted to be printed thereon, and the method for producing same.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The process of printing on cellophane, which consists in first applying a pigment paper thereto, then applying heated dies to certain areas of the pigment paper, removing the pigment paper, and then printing upon the pigmented areas.

2. The process of printing on cellophane, which consists in first applying a pigment paper thereto, then applying heated dies simultaneously to a plurality of areas of the pigment paper, removing the pigment paper, and then printing simultaneously upon all of the said pigmented areas.

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