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[54] **TRANSFER PROCESS**  
**16 Claims, 10 Drawing Figs.**

[52] U.S. Cl..... **156/235,**  
 156/230, 156/241, 161/406, 161/410

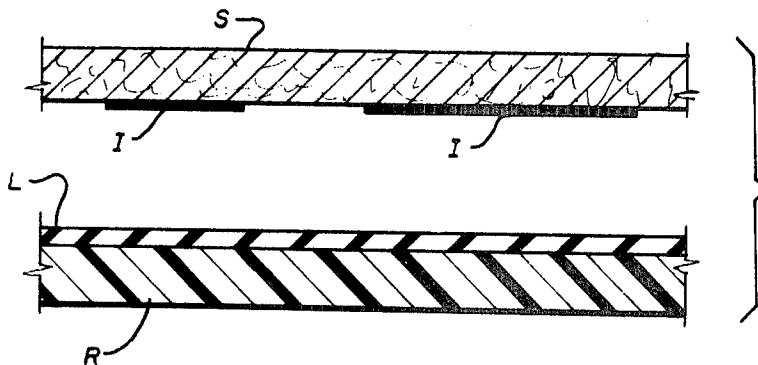
[51] Int. Cl..... **B44c 1/16**

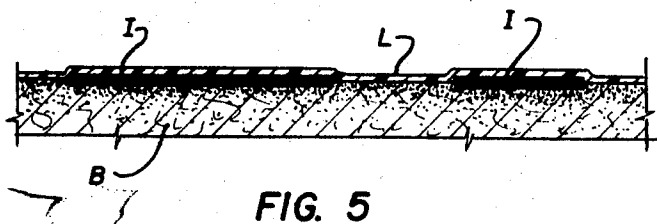
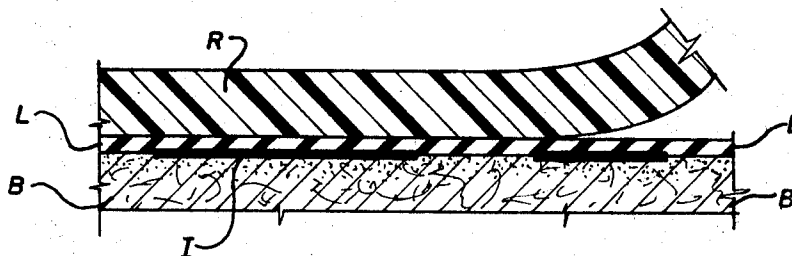
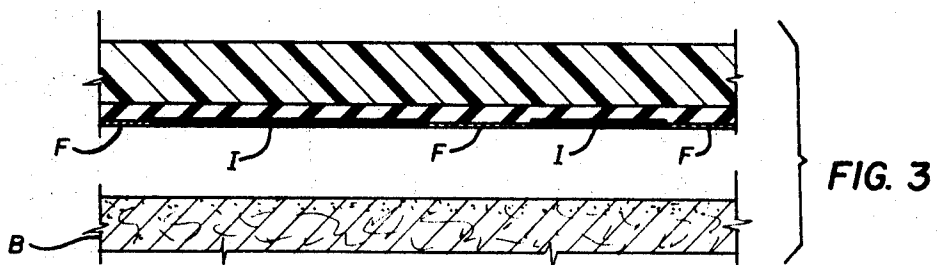
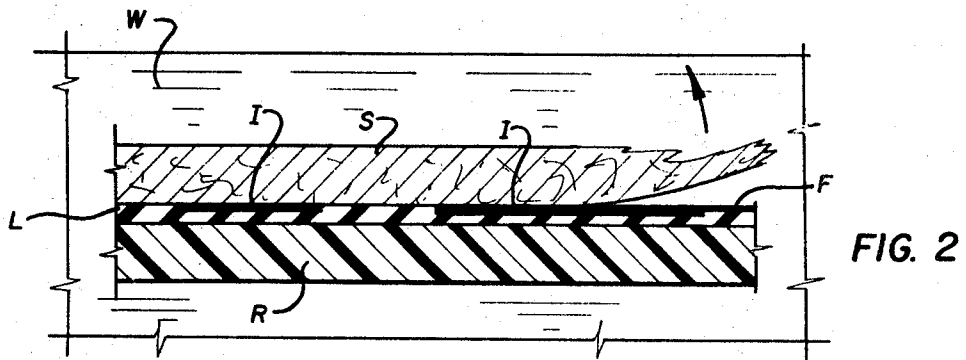
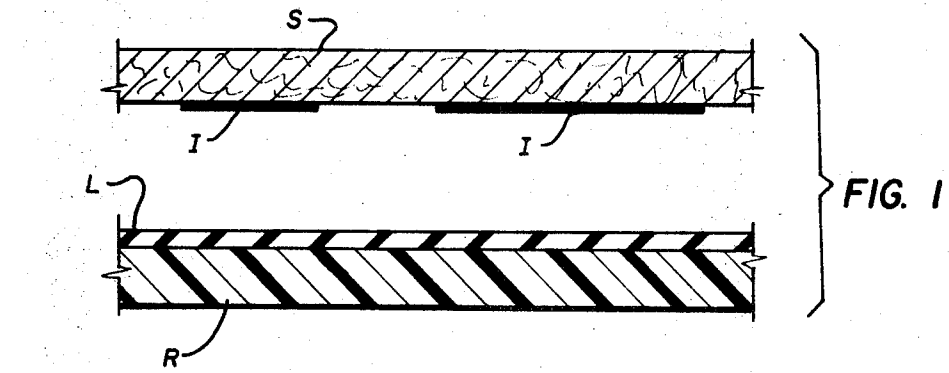
[50] Field of Search..... 117/3.1,  
 3.5; 156/230, 235, 241, 329; 161/406, 413

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**ABSTRACT:** The disclosure concerns a method of transferring printed indicia from a paper sheet to a backing surface member by first pressing a film of tacky, contact adhesive, held on a release sheet, against the paper sheet. The sandwich consisting of the paper, the indicia, the adhesive and the release sheet is then soaked in water to remove the paper, leaving the indicia on the surface of the film, but eliminating to a substantial extent, the tacky character of the surface. Next, the backing surface is prepared to receive the indicia-carrying film, by either wetting the same with a solvent such as lacquer thinner which will render the adhesive film tacky or applying a layer of tacky, contact adhesive to this backing surface. It was determined that heat and pressure may also be operative to effect the transfer to the backing surface.





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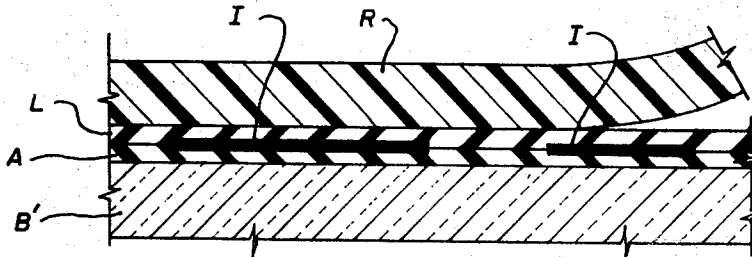
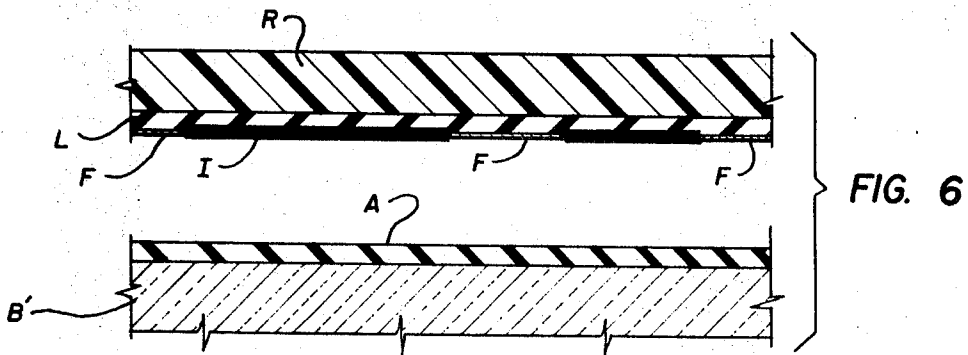


FIG. 7

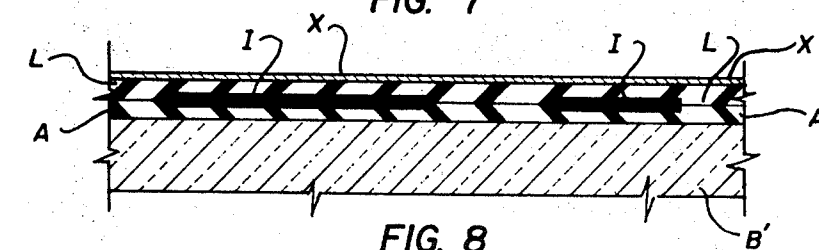


FIG. 8

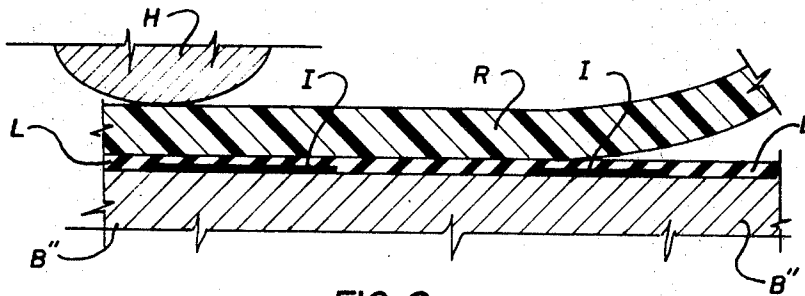


FIG. 9

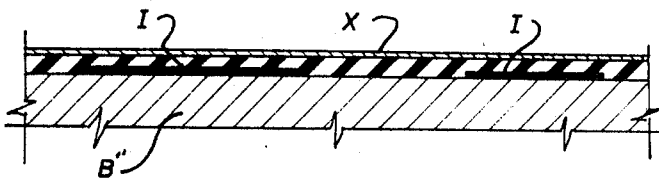


FIG. 10

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## TRANSFER PROCESS

The present invention relates to methods for the transfer of printed images and indicia from an original surface to another surface, or backing, and more particularly to processes where printed images and indicia are transferred from an original paper sheet to a backing surface by a transparent carrier layer which holds the printed images and indicia when the image and indicia are removed from the original sheet.

Such methods for the transfer of printed images and indicia, as known to the prior art, are exemplified by the patents to Barnola, U.S. Pat. No. 2,489,987 and to Edwards, U.S. Pat. No. 3,340,003 wherein a carrier layer is applied to the original paper surface to pick up ink images and indicia. The paper is then softened or disintegrated, so that the carrier layer may be picked up and transferred to the new backing. Such a carrier layer must not only be transparent, but it must be sufficiently rigid so as to retain its form while it is being handled in transferring it to the final backing surface. Thus, it is necessary to use a rigid film as a carrier layer and to reinforce the carrier layer to maintain adequate rigidity. Even so, the layer must be kept thin to be adequately transparent and it must be handled with extreme care. As a further limitation, the rigid transfer cannot be made to materials which will be distorted and stretched, such as for example, clothing.

The present invention was conceived and developed with the above considerations in view, and with the recognition of the need to provide for a better manner in handling the carrier layer after it picks up the ink images and indicia and after the paper backing is removed. Also, it is desirable to use thin, supple carrier layers which will transfer to a variety of different surfaces including surfaces which are apt to be stretched or distorted. Accordingly, the invention comprises, in essence, a transfer process wherein the carrier layer to be used is a very thin layer of a contact type of adhesive which is mounted upon a release sheet. While mounted upon the release sheet, this improved carrier layer is pressed against and adhered to the printed indicia of an original paper sheet. Thereafter, the original paper sheet is removed leaving the ink indicia on the carrier layer which, in turn, is still mounted upon the release sheet. The transfer is completed by affixing the carrier layer to a final backing surface and the final step is to remove the release sheet.

An object of the invention is to provide a novel and improved process for the transfer of a printed image from an original paper sheet to a selected backing surface, involving the use of a transparent carrier layer, wherein the carrier layer is mounted upon a release sheet and remains thereon until the transfer is completed.

Other objects of the invention are to provide in a process for transferring printed images and indicia from an original sheet of paper to a selected backing surface by using a carrier layer which is mounted upon a release sheet, an arrangement of simplified and improved steps which: permits the use of a pressure-sensitive contact type of adhesive as a carrier layer; permits the use of a very thin, lightweight carrier layer to produce as clear a print as possible; permits the use of a resilient, supple carrier layer capable of being effectively transferred to a backing surface which is apt to be stretched and distorted; permits the use of a very thin carrier layer which may readily and effectively be absorbed into a porous type of backing surface as the printed indicia is also transferred to and also absorbed into the porous backing surface; and, permits the printed indicia to be securely mounted upon a slick, glazed and impervious surface.

Another object of the invention is to provide a novel and improved process for the transfer of printed indicia from an original sheet of paper to a cloth backing which may be used as a rigid sheet, such as for a picture, or used as a pliable, stretchable sheet, such as for an article of clothing.

Another object of the invention is to provide a novel and improved process for the transfer of printed indicia from an original sheet of paper to a permeable backing sheet, of cloth or paper, in such a manner as to effectively absorb both the

carrier layer and the indicia into the fibers of the backing sheet to produce an effect suggestive of having the indicia actually printed onto the backing sheet.

Another object of the invention is to provide a novel and improved process for the transfer of printed indicia from an original sheet of paper to a highly polished, glazed surface which would not ordinarily receive the ink forming the indicia.

Another object of the invention is to provide a novel and improved transfer process for transferring the printed image from an original paper sheet to a backing sheet which permits common types of pressure sensitive or contact adhesives to be used as a carrier layer.

Other objects of the invention are to provide a novel and improved transfer process which can be easily used by unskilled, untrained personnel, assures consistent good results, is low in cost, and effects a complete transfer by a minimum of simple, easily applied steps.

With the foregoing and other objects in view, all of which more fully hereinafter appear, my invention comprises certain arrangements, sequences and operations as hereinafter described in detail, defined in the appended claims and with the steps thereof being diagrammatically exemplified in the accompanying drawings in which:

FIG. 1 is a diagrammatic sectional view on an exaggerated scale illustrative of a portion of a sheet of paper having indicia printed thereon and of a portion of a release sheet having a carrier layer mounted thereon, the sheets shown as being a short distance apart, and preliminary to being pressed together to affix the carrier layer to the paper sheet.

FIG. 2 is a diagrammatic sectional view similar to FIG. 1, but illustrating the two sheets joined together and submerged in a water solution suitable to disintegrate and loosen the paper carrier layer, with a corner of the paper illustrated as being partly disintegrated and removed from the carrier layer with the ink indicia remaining with the carrier layer.

FIG. 3 is a diagrammatic sectional view similar to FIG. 2, but after the paper has been removed, and showing further, the release sheet and carrier layer in an inverted position with respect to the position shown at FIG. 2 and with the carrier layer thereon being positioned a short distance from a porous type of backing sheet adapted to receive the carrier layer.

FIG. 4 is a diagrammatic sectional view similar to FIG. 3, but after the two sheets have been pressed together to affix the carrier layer to the backing sheet and with a corner of the release sheet illustrated as being pulled away from the backing sheet with the carrier layer remaining on the backing sheet.

FIG. 5 is a diagrammatic sectional view similar to FIG. 4, but after the release sheet is removed.

FIG. 6 is a diagrammatic sectional view, similar to FIG. 3, but showing the release sheet and carrier layer positioned a short distance from a smooth, impervious backing surface such as glass, which has been prepared to receive the indicia-holding carrier layer from the release sheet.

FIG. 7 is a diagrammatic sectional view similar to FIG. 6, but after the release sheet and carrier layer thereon has been pressed upon the backing surface, and with a corner of the release sheet illustrated as being pulled away from the backing surface with the carrier layer remaining on the backing surface.

FIG. 8 is a diagrammatic sectional view similar to FIG. 7 after the release sheet is removed and a fixative layer is applied.

FIG. 9 is a diagrammatic sectional view similar to FIG. 4, but with the release sheet and carrier layer thereon having been pressed upon a backing surface and with the carrier layer being affixed to the backing surface by the application of a heating means.

FIG. 10 is a diagrammatic sectional view similar to FIG. 9, but after the release sheet is removed and a fixative layer is applied.

Referring more particularly to the drawing, the transfer process involves removing ink indicia I from a paper sheet S by use of a tacky, preferably an elastomeric adhesive carrier

layer L which is mounted upon a release sheet R. The paper sheet and release sheet are shown in a separated position at FIG. 1 with the side of the sheet S whereon the indicia I is printed facing the carrier layer L on the release sheet. The first step of the process is to place these sheets together so that the paper sheet S and indicia thereon will be affixed to the adhesive carrier layer L.

The resulting sandwich, consisting of the paper sheet S, the indicia I, the carrier layer L and the release sheet R is submerged in a water solution W as illustrated at FIG. 2. This solution may be plain water or it may include a selected detergent or similar agent to facilitate the softening and disintegration of the paper. However, it is to be noted that the adhesive layer L and the release sheet R must be of a material which will not be affected by the water solution W. This second step of the process is then completed by softening and/or disintegrating the paper sheet S so that it may be removed from the adhesive layer as indicated at FIG. 2. When the paper is thus removed or disintegrated from the adhesive layer, the ink indicia I will remain affixed to the adhesive since the ink, a water insoluble material, is not affected by the solution. Also, a very thin, transparent layer of sizing and fiber fragments F will remain on the entire surface of the carrier layer to render the surface nontacky.

The release sheet R supports the carrier layer L and the carrier layer holds the ink indicia I after the paper sheet S is removed. This release sheet, carrier layer unit is removed from the water solution and after drying it is ready for the transfer to a final backing surface B. However, it is to be noted that the ink indicia and the thin layer F of sizing and fiber fragments heretofore mentioned renders the carrier layer nontacky. This is an advantageous feature, because the release sheet, carrier layer unit may then be handled, stacked and stored for a substantial period of time before it is used.

However, before the transfer to a backing surface is possible, special steps will be necessary to condition the backing surface to receive the carrier layer. Such steps will depend upon the type of backing surface used. The surface B may be a porous surface wherein the transfer is effected by a solvent action, as will be described with reference to FIGS. 3, 4 and 5; or it may be a nonporous, smooth or glazed surface such as glass, wherein the transfer is effected by preparation of the surface as will be described with reference to FIGS. 6, 7 and 8; or it may be a surface of any type compatible with the carrier layer wherein the transfer is effected by heat as will be described with reference to FIGS. 9 and 10.

This carrier layer is preferably a resilient contact adhesive of an elastomeric material as will be hereinafter further described. Although the thin layer of sizing and fiber fragments F prevent its surface from being tacky, it is nevertheless easily transferred to a porous backing surface B with the aid of a volatile solvent as will now be described with reference to FIGS. 3, 4 and 5. The porous backing surface B may be paper, canvas, cloth or even unglazed ceramic materials or wood because the thickness of the backing surface will not affect the transfer. However, the backing surface must be flat or held flatly to receive the flat carrier layer, release sheet unit with a complete contact of the respective surfaces.

This backing surface B is prepared by wetting it with a small amount of an organic, volatile solvent compatible with the carrier layer. Then, the carrier layer, release sheet unit is pressed against the porous surface as in the manner illustrated at FIG. 4 so that the solvent absorbed into the backing surface softens and dissolves the carrier layer so that the thin surface of sizing and fiber fragments F is no longer effective in rendering the adhesive layer nontacky and for all practical purposes, these fragments F are dispersed into the backing surface or into the carrier layer in such a manner as to lose their identity when the carrier layer bonds to the surface.

The solvent may be applied to a backing surface as a spray, or by brushing or in any other suitable manner and where the backing surface is of cloth or of porous paper sheet, it may even be applied to the side of the surface opposite the transfer

to soak through the cloth or sheet. It was found that the manner of application and the amount of solvent which should be used involved a matter of skill and could be quickly determined for any given material by a few trial transfers. The amount of solvent used to wet the backing surface will also control the extent to which the carrier layer will be absorbed into the backing surface. For example, where a material such as cloth is being used for the backing sheet, it was found that the carrier layer and especially the ink indicia could be practically completely absorbed into the fibers of the cloth so that the indicia appeared to be actually printed and fixed into the cloth. Thereafter, cloth could be stretched and distorted and even washed without destroying or blurring the printed indicia. Accordingly, this is an effective process for transferring unique and distinctive prints into articles of clothing.

Also, the process can be advantageously used for the transfer of indicia to a rigid backing surface of any porous material such as paper, a stretched canvas or even unglazed tiles and as such, it will form a picture or a permanent print with the solvent absorbing the carrier layer and especially the ink indicia into the porous materials to such an extent that the inherent tackiness and instability of the carrier layer L is eliminated and the transfer may be used as a finished picture or print or as a base which will be subsequently finished or coated in any desirable manner.

Whenever it is desired to transfer the ink indicia to nonporous backing surface B' which cannot absorb a suitable solvent, the surface is first prepared to receive the carrier layer without absorption, preferably by coating it with an adhesive A as illustrated at FIG. 6. This adhesive is any suitable pressure sensitive material which will tightly adhere to the nonporous backing surface B' and also bond to the carrier layer L. Preferably, it will be the same as that used for the carrier layer

L. This adhesive A is affixed to the surface of the nonporous backing B' in any suitable manner. As a preparatory step, the surface must be clean, and it may be necessary to etch or scour the surface before the adhesive is applied thereto. The adhesive may be a layer carried upon a release sheet the same as the layer L mounted upon release sheet R shown at FIG. 1 and when an adhesive of this type is used, the layer release sheet combination is merely pressed upon the backing surface B'. When ready for application, the release sheet is removed. Also, the adhesive A may be sprayed or brushed upon the surface B'.

The actual transfer is effected after the adhesive layer is mounted upon the backing surface B' by merely pressing the carrier layer, release sheet unit upon the adhesive coated surface B' as illustrated at FIG. 7, so that the adhesive A and the carrier layer L tightly adhere together with the indicia I held between them. Thereafter, the release sheet R may be removed by lifting it away from the carrier layer L to complete the transfer. As a final step, the exposed surface of the adhesive layer L, which originally contacted the release sheet R, will be in its original tacky condition and will not be suitable as a finished surface. Either this adhesive layer L must be permitted to dry or set if it can do so, otherwise it must be covered with a layer X of a suitable fixative as in the manner indicated at FIG. 8.

It is to be recognized that while the adhesive coating A is especially suitable for use with an impervious, smooth backing surface B', an adhesive coating can also be applied to a porous backing surface B such as paper or cloth, and the carrier layer L then affixed to the backing surface in precisely the same manner as above described for a nonporous backing surface B'. When using a porous backing surface B, each mode of application, that is using a solvent or using an adhesive coating A, has its advantages. The use of a solvent to soak the layer L and indicia I into the backing surface was found to be more permanent and especially desirable where cloth is being used. Also, a fixative such as the layer X did not appear to be necessary. The use of an adhesive A is usually quicker and safer in that it does not require a flammable solvent.

FIGS. 9 and 10 represent another mode of transfer wherein the indicia carrier layer, release sheet unit may be affixed directly to a backing surface B'' which may be either a porous or nonporous material, but which is characterized by the property of normally easily adhering to the carrier layer. To effect a transfer directly, the carrier layer must be prepared to render its indicia carrying surface tacky and to eliminate the effect of the surface of sizing and fiber fragments F which is held upon the carrier layer whenever an original paper sheet S is removed. It was found that this carrier layer could be so conditioned by spraying a very small amount of solvent upon its surface although considerable care must be exercised in doing this to prevent the ink indicia from running and spoiling the transfer. The other mode of operation resides in heating the carrier layer, release sheet unit when it is placed in position upon the backing surface B''. In either instance, the carrier layer is placed against the backing surface B'' and pressure is exerted thereon as by a roller H until the carrier layer has adhered to the backing surface B''. When spraying with a solvent, the carrier layer L is prepared prior to application. When heated, the carrier layer is preferably applied to a hot backing surface B'' or may be heated after it is pressed against the surface B'' as by using a hot roller H.

After obtaining contact, the release sheet R is removed the same as heretofore described so that the completed transfer is obtained as indicated at FIG. 10. It is noted also, that as in the situation with the product indicated at FIG. 8, it is desirable to apply a layer of fixative X to protect the tacky surface of the carrier layer L.

The following examples are indicative of the several modes for practicing the invention with suitable, easily available materials.

#### EXAMPLE 1.

A colored magazine print was affixed to a tacky carrier layer mounted upon a release sheet. This carrier layer, release sheet combination was a commercial product known as transfer adhesive sheeting, available from Fasson Products, a division of Avery Corporation of Ohio, and designated as RSS-1-280. The carrier layer was a rubber-type contact adhesive film and the release sheet was a silicone treated craft paper. The resulting sandwich was soaked in water and when the paper softened, it was removed leaving the ink indicia upon the carrier layer and the carrier layer upon the release sheet. Next, a backing sheet of bristol board cardboard was prepared by wetting its surface with a solvent, a lacquer thinner of a common type. Such a lacquer thinner is sold by Sherman Williams Paint Company of Cleveland, Ohio. The carrier layer was then pressed against the wetted surface of the backing sheet and after it was affixed to this surface, the release sheet was removed. The resulting transfer was a clean cut, clear picture and the surface was not tacky, for it appeared that the solvent partially absorbed the carrier layer into the backing sheet and changed its basic tacky character.

#### EXAMPLE 2.

The same as example 1, excepting that the backing sheet was cloth. The cloth was wetted from the side opposite the side whereon the transfer was applied with the lacquer thinner easily soaking through the cloth to soften the carrier layer and the indicia printed thereon. The release sheet was removed to complete the transfer. The carrier layer and ink indicia had soaked into the cloth providing a nontacky image which would not wash out of the cloth.

#### EXAMPLE 3.

The same as example 1, excepting that the backing surface was porous, unglazed ceramic tile.

#### EXAMPLE 4.

The same as example 1, excepting that the backing surface was wood.

#### EXAMPLE 5.

A colored magazine print was affixed to a tacky carrier layer mounted upon a release sheet and the resulting sandwich was soaked in water to soften and permit the release of the paper, the same as described in example 1. Next, a glass backing surface was prepared by placing an adhesive layer against the glass surface. The adhesive layer was obtained from a commercial transfer adhesive sheeting and was the same material used for the aforesaid carrier layer, release sheet combination. However, when the adhesive film on the transfer adhesive sheeting was securely affixed to the glass surface, that release sheet was removed. The carrier layer upon its release sheet was then pressed against the adhesive layer upon the glass backing surface and after it was affixed to this layer, the release sheet was removed. The resulting transfer was clean cut and clear, but the exposed surface of the carrier layer was tacky. It was then set and rendered nontacky by a fixative, a commercial spray on product sold under the trade name "Miston" by Brumbacker, Inc. of New York City, N. Y. Miston is representative of a number of fixatives on the market and is a clear lacquer formed by a blend of polymers and solvents including methylene chloride, isobutyl acetate, isopropyl acetate, toluol and certain halogenated hydrocarbons.

#### EXAMPLE 6.

The same as example 5, excepting the backing surface was cloth. As in contrast with example 2, the ink indicia and carrier layer did not soak into the fibers of the cloth, but remained at the surface and the fixative "Miston" was required to finish the surface.

#### EXAMPLE 7.

The same as example 5, excepting that the backing surface was bristol board. In contrast with example 1, the fixative "Miston" was required to finish the surface.

#### EXAMPLE 8.

A colored magazine print was affixed to a tacky carrier layer mounted upon a release sheet and the resulting sandwich was soaked in water to soften and permit the release of the paper, the same as described in example 1. The carrier layer on the release sheet was then placed against a bristol board sheet and pressed thereon with an iron heated to a temperature approximating 150° F., sufficient to soften and render the carrier layer tacky. After the carrier layer was affixed to the bristol board, the release sheet was removed.

The physical characteristics of the carrier layer L necessarily includes the properties of: tackiness to paper and many other surfaces; water insolubility; an affinity to various types of inks and especially oil-based printers inks; transparency in thin films; and the ability to be mounted upon a release sheet with sufficient cohesiveness to remain thereon during the operations of removing the ink indicia from paper, but to be released once it was attached to a backing sheet. It was found that a number of both rubber base and resin base adhesives were suitable for this purpose. These rubber and resin base materials are essentially film-forming polymers and it is necessary to blend with them a tackifier resin such as rosin or polyterpine resin and also, a plasticizer such as an ester.

The rubber base adhesives are extensively used and some of the types in use are manufactured from natural rubber, butadiene styrene rubber, butadiene acrylonitrile rubber, chlorinated rubber, polychloroprene (Neoprene) and rubber hydrochloride. Resin base adhesives are also available and some of the types in use include acrylic, polyvinyl acetate, polyvinyl ether and vinyl acetate copolymer combinations.

From the information set forth above, a technician skilled in the art of compounding pressure sensitive adhesives can compound any number of adhesives which will properly function in the present invention.

The release sheets whereon the carrier layer is mounted may be sheets of silicon or Teflon which are characterized by a slick surface whereon the tacky contact cements can adhere only superficially. A craft paper with a silicone covering was found to be suitable and one type known as 70-pound Mando, provided by Fasson Products, was used in tests for holding pressure-sensitive adhesives as set forth in the following examples. The silicone covering protected the paper from softening in water when the soaking step was under way.

#### EXAMPLE 9.

A carrier layer was prepared upon a release sheet, the 70-pound Mando mentioned above. The contact cement was a natural rubber cement which was cut back to a liquid by a volatile solvent. It is commonly sold as "Carters Cement." This liquid cement was brushed on a release sheet and allowed to dry to form a tacky film of rubber. Thereafter, a magazine print was affixed to the carrier film, release sheet unit and transferred as described in example 1.

#### EXAMPLE 10.

A carrier layer was prepared the same as example 9, but a contact adhesive sold by the Minnesota Mining and Manufacturing Company as "Spray Mount Adhesive" was sprayed upon the release sheet.

#### EXAMPLE 11.

A carrier layer was prepared the same as example 9, but a butadiene styrene contact adhesive manufactured by Goodyear Rubber Company of Akron, Ohio, as "Pliolite" was brushed upon the release sheet.

#### EXAMPLE 12.

A carrier layer was prepared the same as example 9, but a vinyl-acetate contact adhesive manufactured by DuPont as "Elvacet" was brushed upon the release sheet.

Many other modifications and alternate arrangements are possible in practice of the invention as herein described and exemplified and as set forth in the following appended claims.

I claim:

1. A process for the transfer of indicia from a paper sheet whereon said indicia is printed to the surface of a backing member including the steps of:

- a. applying a film of tacky contact adhesive, as a carrier layer, to a release sheet to provide a carrier layer, release sheet unit;
- b. placing said carrier layer, release sheet unit against said paper sheet with the carrier layer being against the indicia whereby the surface of the paper sheet and the indicia adhere to the carrier layer to produce a sandwich of layers;
- c. soaking said sandwich in a water solution until the paper has softened and thereupon removing the paper, whereby the carrier layer retains the indicia, but the surface of this indicia-retaining carrier layer is rendered substantially nontacky;
- d. rendering the surfaces of said backing member and said indicia-retaining carrier layer adherable to each other;
- e. placing the surface of said indicia-retaining carrier layer against the surface of said backing member whereby to

adhere the layer thereto; and  
f. removing the release sheet.

2. In the process defined in claim 1, wherein said carrier layer is a rubber base contact cement and wherein the release sheet is a silicone-coated sheet.

3. In the process defined in claim 1, wherein the carrier layer, release sheet unit is a transfer adhesive sheeting.

4. In the process defined in claim 1, wherein said backing member is formed of an absorbent material and the aforesaid surfaces are rendered adherable by moistening said backing member with a solvent adapted to soften and tackify said indicia retaining carrier layer when the latter is placed against the surface of said backing member.

5. In the process defined in claim 2, wherein said backing member is formed of an absorbent material and the aforesaid surfaces are rendered adherable by moistening said backing member with an organic, volatile solvent.

6. In the process defined in claim 4, wherein said backing member is formed of a fibrous material.

7. In the process defined in claim 6, wherein said backing member is formed of cloth.

8. In the process defined in claim 1, wherein the aforesaid surfaces are rendered adherable by applying thereto a layer of tacky contact adhesive of a type which is compatible with the contact adhesive of said carrier layer.

9. In the process defined in claim 8, including the further step of applying a fixative to the surface of the carrier layer after said release sheet has been removed, said fixative being characterized by the property of rendering the exposed carrier layer surface nontacky.

10. In the process defined in claim 9, wherein said fixative is a clear lacquer.

11. In the process defined in claim 1, wherein said backing surface is rendered adherable to said indicia-retaining carrier layer by the application of heat to increase the temperature of the backing surface and carrier layer to a point where the carrier layer is rendered tacky.

12. In the process defined in claim 1, wherein said contact adhesive is composed of a film-forming polymer or combination of polymers which possess tack.

13. In the process defined in claim 1, wherein said contact adhesive comprises a pressure sensitive adhesive composed of a film forming polymer and a tackifier resin.

14. In the process defined in claim 1, wherein the carrier layer is a rubber base contact cement.

15. In the process defined in claim 1, wherein the aforesaid surfaces are rendered adherable by heating the same.

16. A method of producing a transfer sheet comprising a release sheet, a normally tacky contact adhesive film carried upon the release sheet and printed indicia carried upon the film at the surface thereof including the steps of:

- a. applying the adhesive film to the release sheet;
- b. placing the release sheet against a paper sheet having said indicia printed thereon to adhere to the surface of the paper sheet to produce a sandwich of layers;
- c. soaking the sandwich of layers in a water solution until the paper has softened; and
- d. removing the paper, whereby the adhesive retains the indicia but is rendered substantially nontacky at the exposed surface.