

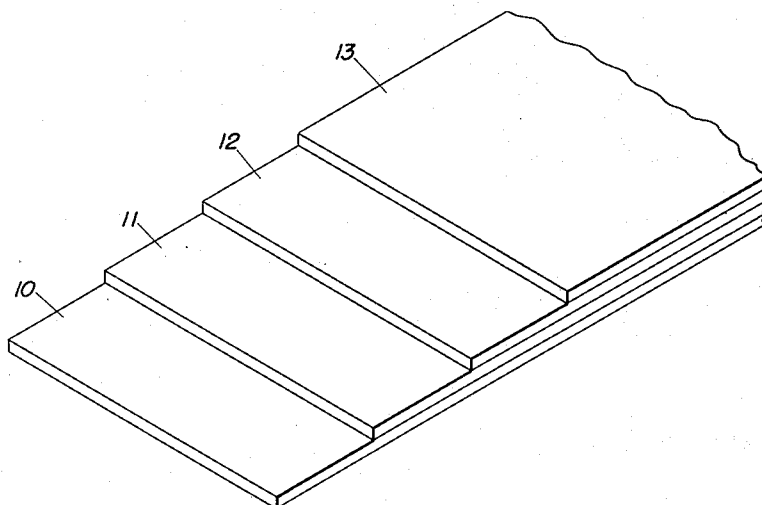
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DECORATING STRIP WITH HEAT ACTIVATED ADHESIVE

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AGENTS.

UNITED STATES PATENT OFFICE

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DECORATING STRIP WITH HEAT
ACTIVATED ADHESIVE

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mesne assignments, to The United States Play-
ing Card Company, Cincinnati, Ohio, a corpo-
ration of Ohio, and National Publishing Com-
pany, Philadelphia, Pa., a corporation of Penn-
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1 Claim. (Cl. 154—46.8)

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This invention pertains to a carrier-backed
decorating material, and more particularly to a
carrier-backed decorating material having in-
corporated therewith a heat activated adhesive.

It was originally the practice to decorate flat
surfaces or the edges of book sheets, playing
cards or the like with a thin metallic leaf, such
as gold, silver or the like, by first cleaning and
otherwise preparing the surface, applying an ad-
hesive thereto, and then applying the unsup-
ported leaf to the adhesively treated surface. If
desired, pressure or heat and pressure were used.
This is a tedious, time-consuming and costly job
and requires specially trained and skilled work-
men. Such practice is still followed in the dec-
orating of the edges of book sheets and cards in
particular, and to a great extent in decorating
and/or embossing other items. Unsuccessful at-
tempts have been made to facilitate the applica-
tion of such decorative metal foil to the edges of
book sheets, playing cards, or the like, by pro-
viding a carrier-backing strip to which the foil
is held by a release material, the carrier-backed
foil being applied to a continuously adhesively
treated surface, and fixed thereto by pressure
or heat and pressure, and the carrier-backing
then stripped or peeled from the foil, leaving
that surface of the foil adjacent the carrier-
backing exposed.

From the foregoing it should be apparent that
the decoration of flat surfaces, the edges of
playing cards, or book sheets with a metallic foil
has been an expensive and time-consuming pro-
cedure. It is therefore one object of this inven-
tion to provide a material for decorating the
edges of book sheets, playing cards, or the like,
and other surfaces, in a relatively simple and
substantially inexpensive manner such as to
eliminate the expensive and time-consuming op-
erations heretofore necessary.

It is another object of this invention to pro-
vide a carrier-backed decorative foil having a
heat activated adhesive incorporated therewith
adaptable to the decoration of the edges of book
sheets, playing cards or the like.

It is a further object of this invention to pro-
vide a material for decorating the edges of book
sheets, playing cards, or the like, which is sim-
ple to use, inexpensive, and which will permit
the decoration of at least one entire side edge
of a group of book sheets, playing cards, or the
like, assembled en masse, all in one operation.

Various other objects and advantageous fea-
tures of the invention may be had from the fol-
lowing description, when read in conjunction with

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the following drawing, which is a fragmentary
perspective view showing a carrier-backed dec-
orative strip, the individual parts being exag-
gerated in size for purposes of clarity.

In accordance with this invention, a carrier-
backing 10 of suitable material such as plastic,
cellulose acetate, cellophane, or the like has
applied thereto a film or coating of release ma-
terial 11. This film of release material may be
applied in a variety of ways, vacuum evapora-
tion being a very satisfactory method. The only
requirements for the backing strip are that it be
flexible, have a smooth surface and be substan-
tially non-elastic. Alkali halide salts such as
potassium bromide (KBr), potassium iodide
(KI), and waxes are good release materials.
Having had a film or coating of release material
11 applied to said carrier, a film or coating of
decorative material 12, such as gold, silver,
aluminum, brass, or other material is then ap-
plied to the release material. This may also be
applied by vacuum evaporation. Thereafter a
heat activated adhesive 13 is applied to the
decorative material.

The primary requisites for an adhesive are
that it be stronger than the release material,
so that when the carrier is stripped from the
decorative film, the decorative film will remain
attached to the adhesive, and that the adhesive
be not rubbery or elastic. The second require-
ment is essential in the case of book page edges
or card edges. In this latter case, the adhesive
must be of such a nature that, while fixably se-
curing the decorative film to each individual
sheet edge, it will still fracture or separate along
lines of strain. For example, when the leaves
of a book or individual cards are separated the
decorative film should also separate so that the
edges of the book sheets or cards will be decorated
in such a manner as to present a continuously
decorated surface when the book sheets or card
edges are realigned in side-by-side relation.

Polyamide adhesives formed from ethylene
diamine and dimerized, trimerized linoleic and
linolenic acids have proven very successful as
heat activated adhesives. This type of poly-
amide, used singly, or mixed with other resins,
may be applied to the decorative film by brush-
ing, dipping, spraying, or any other satisfactory
means.

In using this novel carrier-backed decorative
film, the carrier-backed decorative strip, having
the adhesive incorporated therewith, is merely
placed with the adhesive side down on a prepared
surface, such as a flat leather surface, or the

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smooth surface formed by the edges of playing cards or book leaves assembled in side-by-side relation. Thereafter, heat, or heat and pressure, is applied to the carrier side of the carrier-backed decorative material and the carrier is then removed, leaving the decorative foil firmly adhered to the prepared surface. In the case of playing cards or book leaves, the leaves or cards may then be riffled and separated, and when realigned will present a continuously decorated surface.

Playing cards usually have a shellac or shellac and wax surface. The heat used in activating the polyamide adhesive in the case of playing cards therefore must be carefully controlled. Only enough heat should be used to activate the adhesive, and not enough detrimentally to affect the surface of the playing cards.

Carrier-backed decorative strips having polyamide type adhesives are ideally suited for the edge gliding of books, since water soluble or organic solvent type adhesives may deleteriously affect book sheets.

It should be apparent from the above description that there has been devised a novel and extremely useful carrier-backed decorative strip having incorporated therewith a heat activated adhesive. The use of such a decorative strip results in revolutionary savings in time and labor in the edge gilding of playing cards, books, and the embossing of surfaces such as leather or the like.

While this invention has been described in its preferred embodiment, it is to be understood that

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the words that have been used are words of description rather than of limitation, and that changes within the purview of the appended claim may be made without departing from the true scope and spirit of the invention.

What is claimed is:

A carrier-backed decorative material characterized by its ability, upon application to a surface formed from the edges of a plurality of relatively thin sheets and release of the backing portion, to maintain a decorative film on each individual sheet edge yet fracture uniformly upon separation of such sheet edges, and comprising a carrier backing, a release material directly bonded to said carrier backing, a film of metallic decorative material directly bonded to said release material, and a polyamide adhesive, formed from ethylene diamine and dimerized, trimerized, linoleic and linolenic acids, directly bonded to said film of decorative material.

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