

May 3, 1938.

D. J. BLOCK

2,116,008

PATCHING MATERIAL

Filed May 14, 1934

Fig. 1.

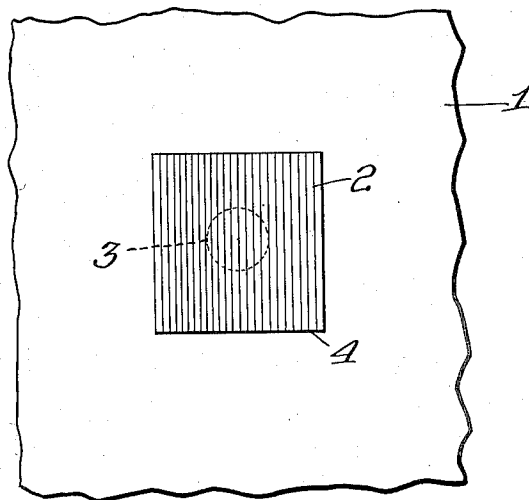


Fig. 2.

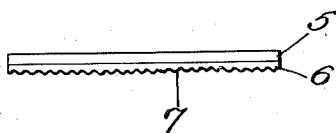
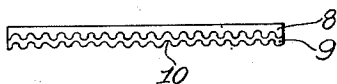


Fig. 3.



Inventor:
David Julian Block,
By Durenforth, Lee, Chritton & Niles,
Attys.

UNITED STATES PATENT OFFICE

2,116,008

PATCHING MATERIAL

David Julian Block, Winnetka, Ill., assignor to
Abraham Appel, Chicago, Ill.

Application May 14, 1934, Serial No. 725,593

3 Claims. (Cl. 2-243)

This invention relates to a textile material, impregnated with or having its surface coated with an adhesive material adapted to softening on the application of heat and flowing into the inter-
stices of a textile material lying underneath, in such manner, as on cooling, to form a flexible and substantially water-proof binding between the two materials. The specific purpose of the invention is to provide a means for mending stockings and other textile fabrics, without the necessity of darning, weaving or sewing.

The invention is illustrated in the drawing in which Figure 1 represents a patch 2 applied over a hole 3 in the fabric 1, such as that of a stocking. In this instance the fabric of the patch is grooved with grooves 4 in order to prevent spreading of the thermoplastic material into the fabric of the stocking. In Figure 2 is shown an end view of a preformed tape of patching material which consists of a layer of fabric 5 and a layer of thermoplastic material 6 provided with grooves 7. In Figure 3 is shown an end view of a preformed tape of patching material, which comprises a layer of ribbed fabric 8, having a layer of thermoplastic material 9, having grooves 10.

It is customary in household procedure to mend holes in knit materials by the laborious process of darning, knitting or sewing. This process requires much time and the resultant work is usually of inferior quality in that the patch may be readily detected by the unaided eye and, because of the bulk and irregularity of the work, the mended garment may become uncomfortable, as well as unsightly. It has heretofore been impossible to attach patches to knit fabrics without first repairing the frayed ends, as knit materials are constructed of a series of interlocked loops of yarn or thread which would loosen or ravel. An object of this invention is to provide a patch of textile material which may be attached to knit goods or other materials by the application of heat or pressure, or both, and which, in attaching itself to the material to be mended, will simultaneously bind together the frayed ends of both the patch and the material to be mended, in such manner as to prevent the edges of either from further unraveling or fraying.

When a patch of the kind described is impressed on a material to be mended, it has been observed that the thermoplastic material, under the influence of heat and/or pressure, may exude from the patch to form a narrow marginal outline about the patch on the surface of the underlying material. This outline is more or less unsightly. Your applicant has found that by cor-

rugating, grooving or striating the surface of the thermoplastic material, any surplus adhesive material tends to fill the striations rather than to exude from beneath the patch, and a further object of this invention is to so striate the surface of the patch as to prevent the exudation of a more or less unsightly marginal outline about the patch.

Other uses to which the material may be put is to attach buttons, hooks, eyes, buttonholes, etc., to fabrics, by attaching the buttons, or other devices, to a tape or strip, one surface of which is coated with an adhesive, as above described. A section of the tape, with a button or other accessory attached, may be cut from the strip and fastened to the garment, or fabric, by the application of heat and/or pressure, in a manner similar to that above described. Initials, monograms, names or other identification marks may also be attached to linens, towels, shirts, or other fabrics in a similar manner. Obviously, linings, trimmings and other garment accessories may be attached in a like manner, and envelopes, treated with a thermoplastic coating material, may be sealed by the application of heat.

As an example of one way in which my novel patching material may be produced, a sheet of fabric is dipped into or moistened with a solvent, the purpose of which is to partially dissolve or render tacky or adhesive the pyroplastic material used. The surplus fluid is removed from the wetted material, whereupon the fabric is superposed on a pyroplastic sheet, adapted to becoming flexible and adhesive on the application of pressure and/or heat. The two materials are now subjected to heat and/or pressure by passing them through or between steel rolls under pressure, or by other means adapted to form a substantial union between the thermoplastic sheet and the fabric. These rolls may be provided with a striated design when necessary, but a satisfactory product may be produced by using plain rolls and striated fabrics, the striated fabric under pressure being sufficient, in some instances, to impart striations to the thermoplastic material.

My new article of manufacture now has an upper surface of textile material and a lower surface of thermoplastic substance adapted, under the action of heat and/or pressure, to attach itself or adhere to the material to be mended, and to simultaneously bind together the fibres of both the patching material and the material to be mended in such manner as to prevent fraying or unraveling.

Another method of applying the thermoplastic

coating to a fabric is to dissolve or suspend the thermoplastic material in a solvent or vehicle and to coat the textile or fabric by spraying, brushing or other known means.

5 I claim as my invention:

1. A patch, adapted to patch textile materials, comprising a grooved textile sheet having on one surface thereof a thin layer of grooved thermoplastic adhesive.

2. A patch for patching textile materials comprising a layer of textile fabric having integrally bonded thereto a layer of thermoplastic material, the thermoplastic material being grooved to prevent diffusion of the material from the patch 5 upon heating.

3. A patch as set forth in claim 2, in which the fabric is grooved.

DAVID JULIAN BLOCK.