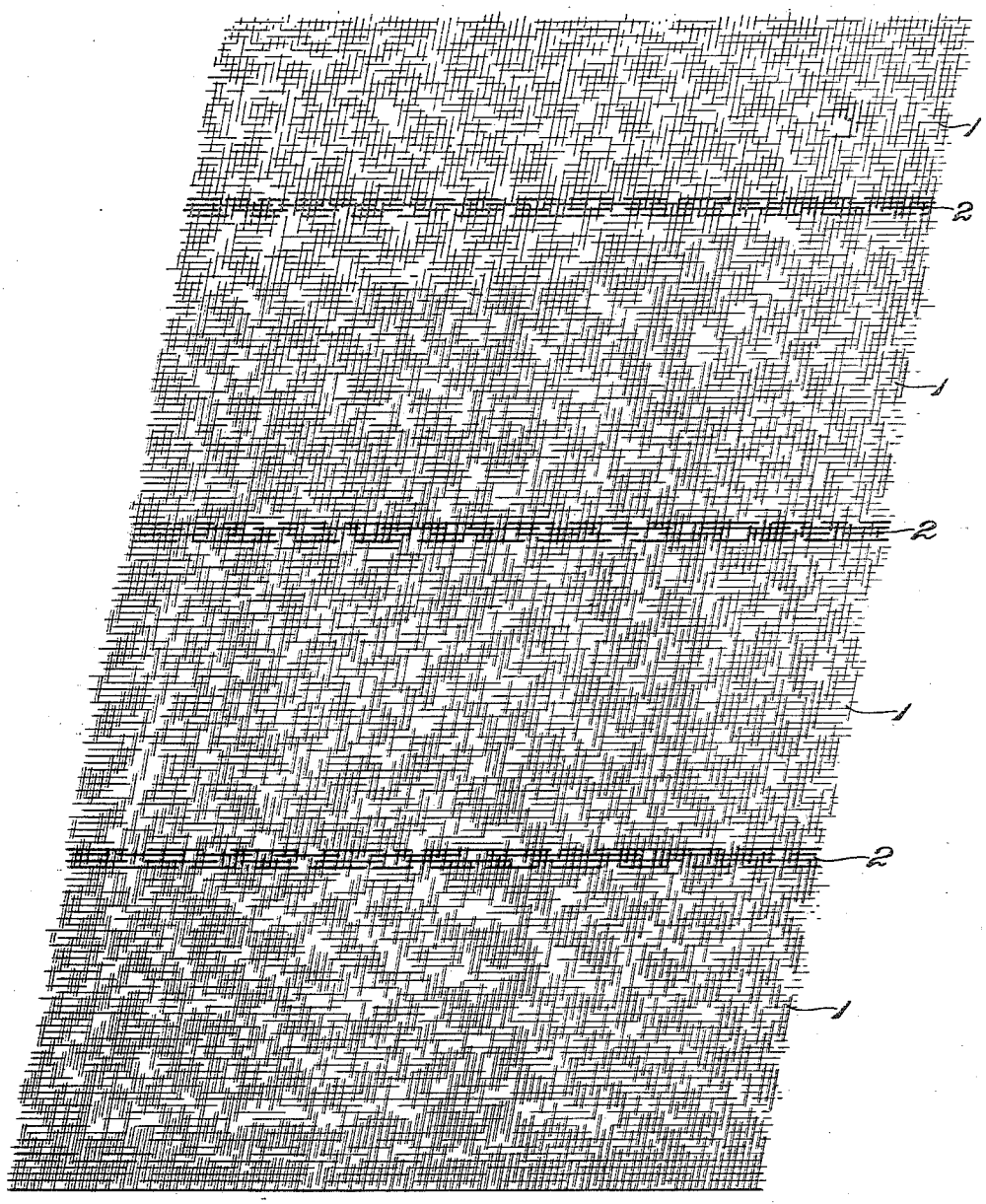
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FABRIC FOR LININGS AND OTHER USES.

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1,390,292. Patented Sept. 13, 1921.



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UNITED STATES PATENT OFFICE.

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FABRIC FOR LININGS AND OTHER USES.

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To all whom it may concern:

Be it known that I, HAROLD I. HUEY, a citizen of the United States, residing at Saylesville, in the county of Providence, State of Rhode Island, have invented a certain new and useful Improvement in Fabrics for Linings and other Uses, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in web material having a permanent stiffness and crispness in portions thereof, not destroyed by wetting, produced by special treatment subsequent to the fabrication thereof, and having other portions in a soft and pliable state adapted to facilitate folding as well as to serve as hinges. The said stiff and crisp portions, for instance, may predominate, and the pliable portions may be narrow intermediate bands or lines, or the proportions may vary in practice.

The invention is useful in the case of web material used in the manufacture of linings, and in other connections in which the fabric is required to be folded upon itself. It is applicable in the case of woven, knitted, felted, or paper webs.

The drawing is a somewhat conventional representation of a piece of woven fabric embodying the invention. It is intended to illustrate merely one of various possible adaptations of the invention. The portions of the said fabric which are marked 1, 1, etc., are those to which artificial stiffness has been imparted by the special treatment aforesaid subsequent to the removal of the fabric from the loom in which the weaving thereof was effected. The portions 2, 2, etc., thereof are those which are soft and pliable. These latter portions, in this instance, are in the form of straight and parallel narrow bands alternating with the stiffened portions, which are in the form of wide bands.

The special treatment by which permanent stiffening of the portions 1, 1, is effected in practice may vary. Preferably such treatment will be of a chemical nature and involve some metamorphosis of the fibrous structure. For instance, it may involve subjecting such portions to the action of sulfuric acid, or muriatic acid, nitric acid, or phosphoric acid, or a mixture of such acids, or cuprous oxid, or zinc chlorid, or some other parchmentizing agent. The acid or other agent may be applied to such portions by printing it thereon, leaving the portions 2, 2, untouched, or the portions 2, 2, may be printed with a resist, such as converted starch, prior to subjecting the fabric to a bath containing the said parchmentizing acid or other agent. Whichever method is followed, the portions 2, 2, will remain unmetamorphosed, and normal. In proceeding according to the second of the said methods, for example, a web of bleached cotton cloth will be taken, resist applied to the portions thereof which are to remain soft and pliable, the cloth then passed through a bath of the sulfuric acid or other parchmentizing agent, the acid washed out, the cloth dried, and the cloth then finished to meet requirements, as by tentering.

When the finished cloth is cut up into pieces of the required shapes and sizes, respectively, usually comprising adjacent stiffened portions and an intermediate pliable portion, the folding of a piece within the pliable portion thereof will be facilitated.

The portions 2, 2, retain the full substance and strength of the cloth. They are not as liable to crack or otherwise suffer as a result of bending as the stiffened portions would be, or as a result of wear.

To render the flexible portions of the fabric more readily discernible, they may be colored so as to contrast with the stiffened portions. Narrow bands or lines such as those shown in the drawings constitute also cutting lines, *i. e.*, guides which may be followed in cutting the cloth up for use.

The proportions, form, and lay-out of the stiffened portions 1, 1, and flexible portions 2, 2, may vary in practice to suit the intended uses of the fabric.

Usually in practice I employ fabric of uniform original texture, as for instance wide piece goods of any approved weave, although in some cases the fabric may be specially woven of reduced thickness in those places which are not to be artificially stiffened, or otherwise constructed so as to facilitate the folding.

The class of linings for which a fabric embodying the invention is especially useful is that comprising those which are used in cuffs and collars. It is useful also for the

manufacture of linings for other articles of apparel, and in various cases may be used for the production of a cuff-exterior or other desired article composed of one or more stiffened surface-layers and a flexible turn or fold portion.

In some cases I mercerize the web after having been subjected to the treatment aforesaid, whereby a more permanent stiffening is secured, less affected by the washing to which cuffs, etc., are subjected in use.

What is claimed as the invention is,—

1. Web material having a permanent stiffness in portions thereof produced by treatment of the web subsequent to the formation of the latter, and having other portions thereof in a soft and pliable state adapted to facilitate folding.

2. Web material having portions thereof stiffened by parchmentizing or equivalent metamorphosis, and bands or lines having greater flexibility of normal fibrous structure.

3. Web material having portions thereof stiffened by parchmentizing or equivalent metamorphosis, and bands or lines of normal fibrous structure which have been made distinguishable to serve as guides in cutting.

4. A fabric of uniform original texture, which has been made permanently stiff except at predetermined folding or cutting lines.

In testimony whereof I affix my signature in presence of two witnesses.

HAROLD I. HUEY.

Witnesses:

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