UNITED STATES PATENT OFFICE.

JULIUS WIESNER, OF HLINSKO, AUSTRIA-HUNGARY.

WATERPROOF BLANKETING, FELT, AND THE LIKE.

1.058.827.

Specification of Letters Patent.

Patented Apr. 15, 1913.

No Drawing.

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To all whom it may concern:

Be it known that I, Julius Wiesner, bookkeeper, a subject of the Austro-Hungarian Emperor, and residing at Hlinsko, Bohemia, Austria-Hungary, have invented Improvements in and Relating to Waterproof Blanketings, Felts, and the Like, of which the following is a specification.

As is known felts, blanketings and the 10 like which retain heat by means of their nap cannot be rendered waterproof without losing their character. Accordingly when blanketings are used as coverings which are exposed to the influences of the weather they 15 are covered with a waterproof material. This arrangement presents the defect that the two fabrics which are only loosely connected the lower material being exposed for instance when used as a horse cloth, to the 20 heat of the body of the animal and the upper material to the influences of the weather become deformed independently of each other owing to the unequal actions experienced so that folds or creases are formed 25 along which the cover breaks. The present invention eliminates this defect by the provision of a double fabric consisting of an upper and a lower fabric the latter being formed in such a manner that a blanketing 30 can be formed therefrom while the upper fabric is smooth and not liable to felt so that it does not loose its character during the finishing of the lower fabric and is adapted to be rendered waterproof. Double 35 fabrics comprising two complete superposed fabrics certain of the threads of each being intimately engaged with threads of the other are well known. Such a double fabric accordingly consists of two fabrics produced 40 from different yarns the lower fabric being formed from animal yarns and the upper fabric from vegetable yarns. Such a double fabric presents the advantage as compared with the usual blanketing fabrics 45 that it may be rendered water-proof with-out losing the character of blanketing

while it presents the advantage as compared with a fabric of vegetable yarn of being heat-retaining and remaining pliable. 50 The double fabric in accordance with the present invention therefore presents the peculiarity that it can first of all be subjected to the finishing treatment for forming

the blanketing and then to the finishing treatment, for the fabric of vegetable yarn, 55 the latter treatment adapting it to be rendered waterproof. Owing to this peculiarity it differs essentially from a fabric of animal yarns or vegetable yarns.

In manufacturing a covering of this kind 60 in the first place a double fabric is produced in which animal or feltable yarns such as wool such as are generally used for the manufacture of felt or blanketings are employed for the lower fabric while vegetable 65 yarns (such as flax or the like) which are not liable to felt are employed for the upper fabric; these yarns should furnish a fabric which is contractible so that in the improving process to which the double fab- 70 ric must be subjected for the purpose of forming a felt or blanketing therefrom the upper fabric may not become felted but remains smooth and is able to shrink in correspondence with the shrinkage of the lower 75 fabric produced by the felting. As soon as the double fabric has been manufactured it is first of all subjected to the wet finishing treatment for forming the blanketing and then to the dry treatment for the upper fab- 80 ric of vegetable yarns after which the latter is waterproofed while avoiding influencing the lower fabric for example by brushing or otherwise applying a waterproofing substance to one side.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. An article of the character described 90 comprising a felted body and a waterproof cover, the latter being formed by a fabric of vegetable yarn which is intimately connected with the body before the latter is felted and so woven that it will contract 95 with the body during the felting operation while maintaining its normal smooth condition.

2. An article of the character described comprising two superposed interwoven fab- 100 rics one adapted to be felted and the other adapted to contract uniformly therewith during the felting operation and to be rendered waterproof without affecting the felted fabric.

3. An article of the character described

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comprising a body fabric of felted animal yarn and a waterproof fabric of vegetable yarn, the latter being intimately connected with the body fabric before the latter is felted and the cover fabric being so woven that it is adapted to contract uniformly with the body during the felting operation.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JULIUS WIESNER.

Witnesses:

Hugo Reik, August Fugger.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."