Oct. 25, 1932. R. C. McILROY 1,885,015

BLANKET

Filed Dec. 29. 1931

Fig. 1

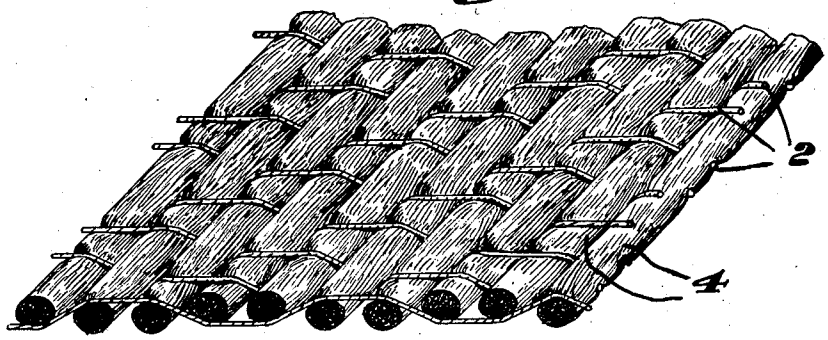
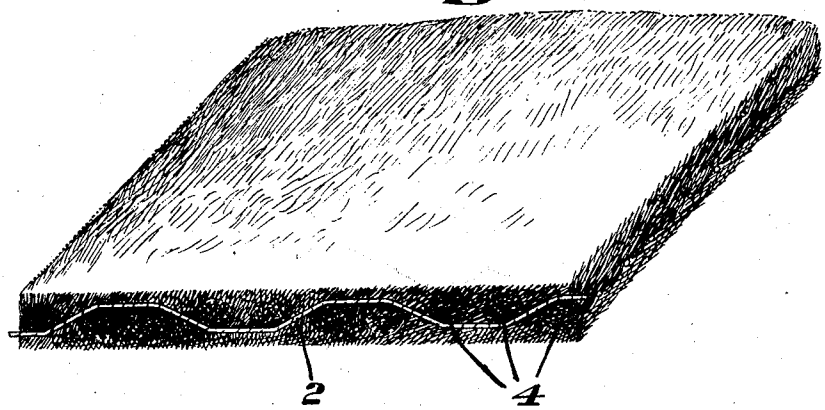


Fig. 2



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Patented Oct. 25, 1932 1,885,015

UNITED STATES PATENT OFFICE

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BLANKET

Application filed December 29, 1931. Serial No. 583,655.

This invention relates to a novel blanket composed wholly of animal fibres, which blanket is in many respects superior to and yet substantially less in cost than all-wool blankets of equivalent weight.

Blankets made of all-wool stand in a class apart from blankets composed partly of cotton, both in their qualities and in the attitude of the purchasing public toward them. The prejudice of the buying public however does not apply to silk and wool which have sometimes been carded together and woven into an all-animal-fibre fabric, for example, as in dress goods. Nor are such fabrics of silk and wool in fact inferior to fabrics composed wholly of wool, the essential characteristics of silk and wool, in that both are animal fibres, being similar as regards absorption of moisture, for example.

The present invention is directed to a new form of blanket which is an all-animal-fibre blanket and which will, therefore, sell, in competition with all-wool blankets and, moreover, has better characteristics than all-wool blankets of equivalent weight, and yet which may be produced at much less cost. This invention makes possible, for the first time, the manufacture of a light or medium weight, though strong and durable, all-animal-fibre blanket at a low price.

As an example of low cost all-wool medium weight blankets that have been on the market for years,—a 2 lb., 70″×80″ single blanket is typical. In order to weave satisfactorily, such a blanket is ordinarily made up 45–60% warp and 40–55% filling. This enables the warp to be made large enough to weave properly when made of low grade wool stock. However, a construction of this type does not provide a very satisfactory texture or lofty nap, and therefore does not have the warmth which it would have if it contained a larger percentage of filling. Also, there is so little filling in it that after napping the blanket is tender in the filling. Commercial samples I have tested break from zero to four lbs. per inch on the Grab-test method.

Heretofore it has not been thought possible to use less warp because it would unduly weaken the blanket and would be very difficult and expensive to weave, but I have discovered that by providing, instead of the ordinary heavy wool warp, a relatively small amount of spun silk warp and an all-wool filling, preferably 10–25% waste fibre spun silk warp and 75–90% wool filling, I can make a blanket which is thicker, warmer, stronger, and yet more flexible and durable, and a blanket having a loftier and denser nap than an all-wool blanket of equivalent weight, and this at an appreciably lower cost than that of an all-wool blanket of equal weight.

In the drawing:

Fig. 1 is an enlarged perspective view of a portion of the blanket made in accordance with this invention but before the napping operation has been performed; and

Fig. 2 is an enlarged perspective view of a portion of the finished blanket after the napping operation has been performed.

Referring to the drawing, the spun silk warp threads 2, of relatively small cross section as compared with wool, the silk constituting not to exceed 25% by weight of the blanket, are shown carrying thereon and interwoven therewith large, soft and loose-twisted wool filling threads 4 which constitute the balance of the blanket. The small size of the warp threads permits the use of more filling threads of larger diameter per inch, and this relatively large size and amount of filling provides the thickness to give the warmth and a lofty close nap. By the use of the silk warp I obtain the requisite strength both because the silk warp, relatively small in size and in quantity, is more or less buried in the loose twisted filling, and remains substantially unteazled (and hence uninjured) despite the napping of the weft. The small size of the warp and its flexible character permit the weft threads to lie substantially straight and parallel with one another instead of being sharply bent about the warp threads. This permits a better napping. Thus the spun silk warp threads, while of light weight, provide a more flexible warp and a more flexible structure of superior strength and permit the major portion of the blanket weight to be made of the wool,

and though the latter is of lower unit strength than the silk, the large amount of wool gives superior weftwise strength as well as a large amount of warmth retaining nap.

Actual tests have demonstrated that a blanket made in accordance with this invention has the above described advantages. Specifically as to strength, my blanket is approximately half again as strong warpwise and two or three times as strong weftwise than the typical all-wool blankets of equal weight above referred to. The thickness and character of the nap are at once apparent upon holding my blanket up to the light and from the "feel" of the blanket. Its insulating qualities are readily shown by physical heat transmission tests and demonstrate its superiority over the all wool blankets as above mentioned.

Having described my invention, what I wish to claim and secure by Letters Patent is:

1. As a new article of manufacture, an all-animal-fibre blanket composed principally of napped, wool filling woven upon a spun silk warp, the said warp not exceeding 25% of the weight of said blanket.

2. As a new article of manufacture, an all-animal-fibre blanket composed of at least 75% of soft napped wool filling woven upon a spun waste silk warp.

3. As a new article of manufacture, an all-animal-fibre blanket composed of substantially 75–90% by weight of soft napped wool filling woven upon a spun silk warp, the said warp constituting 10–25% of the weight of the blanket.

4. As a new article of manufacture, an all-animal-fiber blanket composed of wool for filling woven upon a spun silk warp, said warp not exceeding 40% of the weight of said blanket and said filling being raised in a substantial and lofty nap on both sides of the blanket.

5. As a new article of manufacture, an all-animal-fiber blanket composed principally of a relatively large soft wool napped filling woven upon a relatively fine spun silk warp, said warp not exceeding 40% of the weight of said blanket.

6. As a new article of manufacture an all-animal-fiber blanket composed principally of a napped wool filling and a spun silk warp, said warp not exceeding 40% of the weight of said blanket and being buried in said filling.

7. As a new article of manufacture, an all-animal-fiber blanket composed of a napped wool filling woven upon a silk warp, said warp composing not more than 40% by weight of the blanket.

RONALD C. McILROY.