

(No Model.)

H. W. LIBBEY.
WATER PROOF BLANKET.

No. 463,280.

Patented Nov. 17, 1891.

Fig. 1.

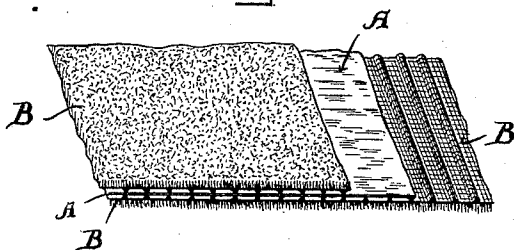
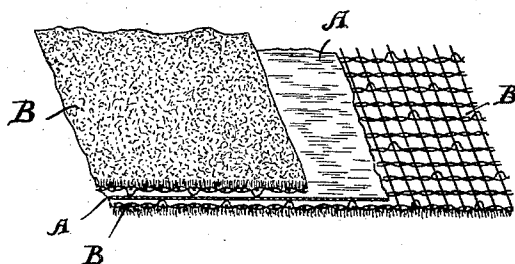


Fig. 2.



Witnesses.

J. George Seltzer
R. J. White

Inventor.

Horea W. Libbey
by *L. Blanta.*
Attorney.

UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

WATER-PROOF BLANKET.

SPECIFICATION forming part of Letters Patent No. 463,280, dated November 17, 1891.

Application filed February 28, 1887. Serial No. 229,248. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Water-Proof Blankets, of which the following is a specification.

The object of my invention is to produce a water-proof blanket napped on both sides, so as in appearance to resemble an ordinary blanket.

The invention consists in constructing a blanket with an interposed layer of water-proof material between two woven woolen sheets provided with ribs, loops, or flat surface on one side for attachment to the water-proof material and napped on the other side.

Referring to the accompanying drawings, Figure 1 represents a portion of a blanket embodying my invention with ribs on the inner side of the woven woolen sheets for attachment to the water-proof material. Fig. 2 is a section of a blanket with the woven woolen sheets attached to the water-proof material by means of loops.

A represents the water-proof material or gossamer; B B, the woven woolen material attached to each side of the gossamer. The woven woolen material is napped on one side only. The other side, that is to be attached to the gossamer by any suitable means, may be provided with ribs, as shown in Fig. 1, in which case only the edges of the ribs will be attached to the gossamer, thereby rendering it very flexible and easy to fold; or instead of ribs loops, as shown in Fig. 2, may be formed on the inner side of the woven woolen material, by which it can be attached to the gossamer.

The ribs may be arranged transversely of the blanket, if desired, and at equal distances apart and made to register with each other upon opposite sides of the water-proof material, as shown in Fig. 1. The loops when used may be arranged in rows transversely and also diagonally and be made to alternate with each other upon opposite sides of the water-proof material, as shown in Fig. 2. In

either construction the woolen material is not connected with the water-proof material at all points, which, aside from rendering the blanket more flexible, forms interstices between the two, which will be filled with air and render the blanket so much warmer. As the air is a poor conductor of heat, it will assist materially in retaining the heat of the body.

Blankets made according to my invention are suitable for bed-coverings, coverings for horses, and are particularly applicable for soldiers' blankets, as when laid upon damp ground the soldier will be kept dry, and thereby avoid the many dangerous diseases caused by the damp and vapors arising from the earth.

I shrink the woven woolen material before attaching it to the gossamer, so that when the blanket is wetted or washed the gossamer will not cockle.

If desired, instead of the gossamer, a thin sheet or layer of gum-elastic material may be employed.

What I claim as my invention is—

1. A blanket comprising a water-proof interior and a woolen covering secured to each side thereof, each of said woolen coverings having its outer side napped and its interior provided with loops, by means of which it is secured to the interior and interstices are formed between it and the interior, substantially as described.

2. A blanket comprising a water-proof interior and a textile material secured to each side thereof, each piece of textile material being provided with loops upon its inner side, by means of which it is secured to the water-proof interior, the loops upon one side being arranged to alternate with the loops upon the other side, substantially as described.

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

HOSEA W. LIBBEY.

Witnesses:

L. W. HOWES,
E. PLANTA.