

S. H. ATKINS.

Water-Proof Furze Fabrics.

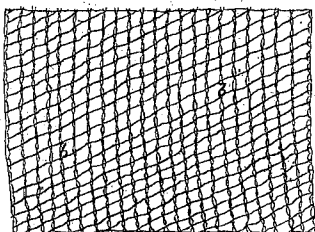
No. 136,636

Patented March 11, 1873.

Fig. 1.



Fig. 2.



Witnesses.

S. W. Piper.

L. N. Möller.

Sullivan H. Atkins.

by his attorney.

R. M. Eady

UNITED STATES PATENT OFFICE.

SULLIVAN H. ATKINS, OF MELROSE, MASSACHUSETTS.

IMPROVEMENT IN WATER-PROOF FURZE FABRICS.

Specification forming part of Letters Patent No. 136,636, dated March 11, 1873.

To all whom it may concern:

Be it known that I, SULLIVAN H. ATKINS, of Melrose, of the county of Middlesex and State of Massachusetts, have invented a new and useful or Improved Manufacture of Water-Proof Furze Fabric, designed for use for linings of overshoes, boots, horse-blankets, carriage-robos, or various other purposes; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a transverse section of it; Fig. 2 a view of the meshed backing.

In making the said fabric I take a sheet or piece, *a*, of long-wool felt, felted upon a meshed backing, *b*, and cover the side so backed and the backing with a coating, *c*, of India rubber or water-proof composition, or with cloth covered on one or both sides with India rubber, such being to render the article water-proof, or to aid in affixing it to an article of India rubber. The coating when applied is to be in a tacky state so as to closely adhere to the felt. Either before or after the application of the coating the opposite side of the sheet of felt is to be subjected to the action of a teaseling-machine, so as to raise such surface in the state of a heavy furze or fibrous nap, *d*, such as while contributing to give warmth will allow of a free circulation of air between the fibers of such nap. The meshed backing is to be a fabric or cloth woven with meshes or net with such, the wool being felted directly upon it so as to adhere to it. This meshed backing serves to hold the wool-fibers under the action of the teaseling-machine. It operates to enable the machine to raise them to a long nap without tearing apart the whole body of the felt.

The felt fabric backed and teaseled as set forth is a new manufacture.

The backing serves also to hold intact the rubber or water-proof composition and prevent it from peeling from the felt.

In some cases it may be possible to use the India-rubber backing without the meshed backing; but the latter makes a far better fabric and insures the retention of the fibers under the action of the teaseling-machine.

The new manufacture or fabric so made may be employed to great advantage for a lining for a water-proof shoe or boot; or it will answer for a horse-blanket, especially when the horse wearing it may be exposed to rain or snow. It may also be used for carriage-robos, or various other purposes.

I am aware of the mode of making India-rubber shoes described in the United States patent dated May 22, 1866, and granted George H. Fowler, which consisted of making the shoe of three layers, to wit: one of napped or fancy woolenet, one of plain or smooth cottonet, and one of India rubber, all connected together by India-rubber cement; and, therefore, I make no claim to such a composition.

I claim as my invention as follows, viz:

1. As a new article of manufacture, felt formed with a meshed fabric backing and teaseled, as described, or so made and covered on the back with India rubber or a water-proof coating, all being essentially as set forth.

2. Felt teaseled on one side and backed on the other by rubber or a water-proof backing, as explained.

SULLIVAN H. ATKINS.

Witnesses:

R. H. EDDY,
J. R. SNOW.