

United States Patent Office.

IMPROVED FIRE-PROOF FELT FOR ROOFING AND OTHER PURPOSES.

MOSES A. JOHNSON, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 60,381, dated December 11, 1866.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, M. A. JOHNSON, of Lowell, in the county of Middlesex, and State of Massachusetts, have invented a new and useful article of manufacture in Fire-Proof or Salamander Felt, for covering boilers, roofs, floors, or any other purpose, where such material can be used; and I do hereby declare the following to be a full, clear, and exact description of the same.

Letters Patent of the United States have heretofore—viz: on the 25th March, 1863—been granted to me for an improvement in covering for steam boilers, which was composed of a felt covered or saturated with silicate of soda or soluble glass, to prevent it from charring or acting as a conductor of heat.

My present invention relates to a fire-proof felt that is applicable to other useful purposes, as, for instance, roofing, and consists in covering a felted fabric, (by preference of hair,) on one or both of its sides, with paper, and with silicate of soda or soluble glass, of any suitable thickness, and painted or otherwise made water-proof.

To enable others skilled in the art to make and use my invention, I will proceed to describe how the same may be carried out in practice.

The felt having been prepared in any of the usual well-known ways, and of suitable thickness, the silicate of soda may be laid on to one or both of its sides, and before it is dry or set, paper is laid on, and made a part of the fabric or article of manufacture, the silicate serving as a cement or union between the felt and paper. Or the coating of silicate may be laid on the paper, and the paper laid on to the felt, or both fabrics may be coated or saturated with the silicate before they are laid together. There are several advantages in a fabric of this kind, viz: of felt and paper cemented together by silicate of soda; first, the felt can be made lighter and thinner; second, the paper is a very great protection to the silicate coating, in packing, baling, or transportation, inasmuch as it prevents the silicate from cracking and falling off by handling; it also prevents the felt from becoming so very dry as to make the silicate coating crack so readily, the paper covering retaining the moisture in the fabric; and third, the silicate of soda serves the double purpose of preventing the felt from charring when in contact with heated surfaces, and of a cement for firmly uniting the felt and paper together, and rendering the paper a very great resistant of heat. Though I prefer, as a matter of economy, to make the silicate act as the cement for uniting the felt and paper, yet the cementing or joining of the two fabrics together may be done by a separate cement, after one or both of them have been coated or saturated with the silicate, and thus an apparent evasion of the invention made. It is obvious that such a manufactured article would come within the scope of my invention.

I have thus far described only the felt, paper, and the silicate as composing the article of manufacture. I propose, however, to use the article for roofing, or where it would be exposed to the weather, and for that reason be rendered water-proof; and when thus used or exposed I propose to paint one or both of the paper surfaces with any of the usual well-known paints or water-proof compositions, and thus make it a desirable article for roofing and other similar purposes. But I do not limit the use of the article to any special purpose, and mean to claim it whether the paper be water-proofed by paint or not.

Having thus fully described my invention, what I claim as a new article of manufacture, and desire to secure by Letters Patent, is—

A felted fabric of hair or other material, covered on one or both of its sides with paper, and with silicate of soda or soluble glass, and whether painted or otherwise rendered water-proof or not, as herein described.

MOSES A. JOHNSON.

Witnesses:

EUGENE S. MUZZEY,
JEROME J. BARKER.