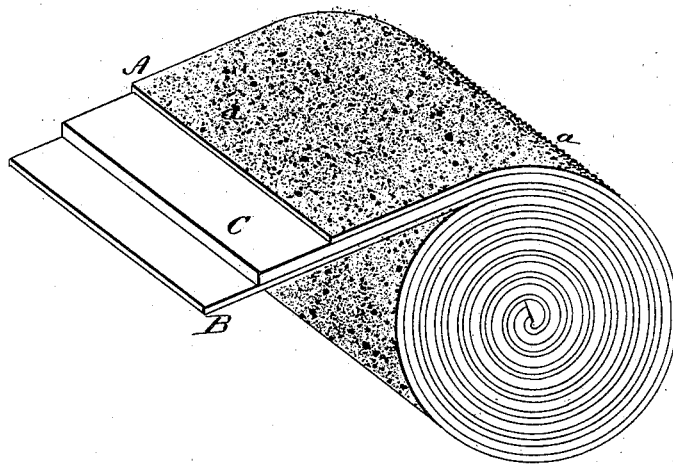


(No Model.)

H. M. MINER.
ROOFING MATERIAL.

No. 304,744.

Patented Sept. 9, 1884.



Witnesses.

A. A. Connolly
Josh B. Connolly

Henry M. Miner
Inventor

by Connolly Bros
attys

UNITED STATES PATENT OFFICE.

HENRY M. MINER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
CHARLES BARCLAY, OF SAME PLACE.

ROOFING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 304,744, dated September 9, 1884.

Application filed October 16, 1883. (No specimens.)

To all whom it may concern:

Be it known that I, HENRY M. MINER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Roofing Material; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawing, which forms part of this specification, in which is represented in perspective a roll of my improved roofing material.

My invention has for its object to provide a roofing material composed of burlap or equivalent fabric located between two sheets of roofing paper or felt, one of which sheets of paper or felt is coated with a composition or product of coal-tar, and sanded or graveled, the sand or gravel being embedded by compression in the composition or adhesive surface.

In making this improved roofing material I take a sheet of burlap or equivalent fabric and place it between two sheets of roofing paper or felt, one sheet of paper being thus above and the other sheet below the burlap. To the upper sheet of paper I apply by any suitable means a coating of hot "composition" or other equivalent adhesive material, and to this coating I attach sand or gravel (either or both) by distributing the latter over the composition while yet hot on the paper. After the composition has slightly set or cooled, I cause the sand or gravel, which has been applied as set forth, to be embedded therein by the means of compression exerted in any suitable manner—as, for example, by a compression-roller, under which the fabric is caused to pass. The application of pressure has the effect not only of forcing the sand or gravel into the composition, but also of squeezing the composition, to some extent, through the burlap and into the sheet of paper below, so that all become incorporated or associated into a homogeneous piece. The composition referred to is a product of coal-tar, and is known to the trade as "composition, grade No. 4." It will not crack or break when the fabric to which it is applied is rolled or handled.

Referring to the accompanying drawing, A and B represent two sheets of roofing paper or felt, and C a sheet of burlap or equivalent

fabric intercalated by any suitable means between the same. The top sheet of paper or felt is coated on both sides with composition, and surfaced with sand or gravel, (shown at a.) The sheets are united by the adhesive material, and the sand or gravel caused to adhere to the upper surface of the top sheet by said material being embedded therein by means of compression exerted by a heavy roller, or in any other suitable manner.

In lieu of composition of the special character suggested, any other adhesive material of an equivalent kind suitable for the purpose may be substituted. In applying the composition, I first heat until it becomes molten, the sand or gravel being applied before said composition cools sufficiently to set. In practice I pass the top sheet of paper or felt through a kettle in which the composition is kept heated to the boiling-point, and unite the burlap and other sheet of paper thereto immediately as said first sheet emerges from the kettle. I then at once apply the sand or gravel, and after the same has slightly cooled, but before it has set, exert the compression by means of a heavy roller. The material thus produced is ready for immediate application to roofs, and will be found admirably adapted for that purpose. The burlap gives tenacity to the manufactured article, and thus permits it to be handled without danger of tearing, while the paper on both sides of the burlap serves to protect the latter against the injurious effects of acids, sulphur, or other corrosive or destructive elements likely to be found in the atmosphere around mills, factories, foundries, &c.

What I claim as my invention is as follows:

The roofing material herein described, the same consisting of burlap or equivalent material and felt or paper, the burlap being intercalated between the sheets of paper, one of the latter being coated with composition or equivalent adhesive material surfaced with sand or gravel, all compressed together, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of October, 1883.

HENRY M. MINER.

Witnesses:

RICHARD B. BAYLY,
H. E. Garsed.