

No. 636,388.

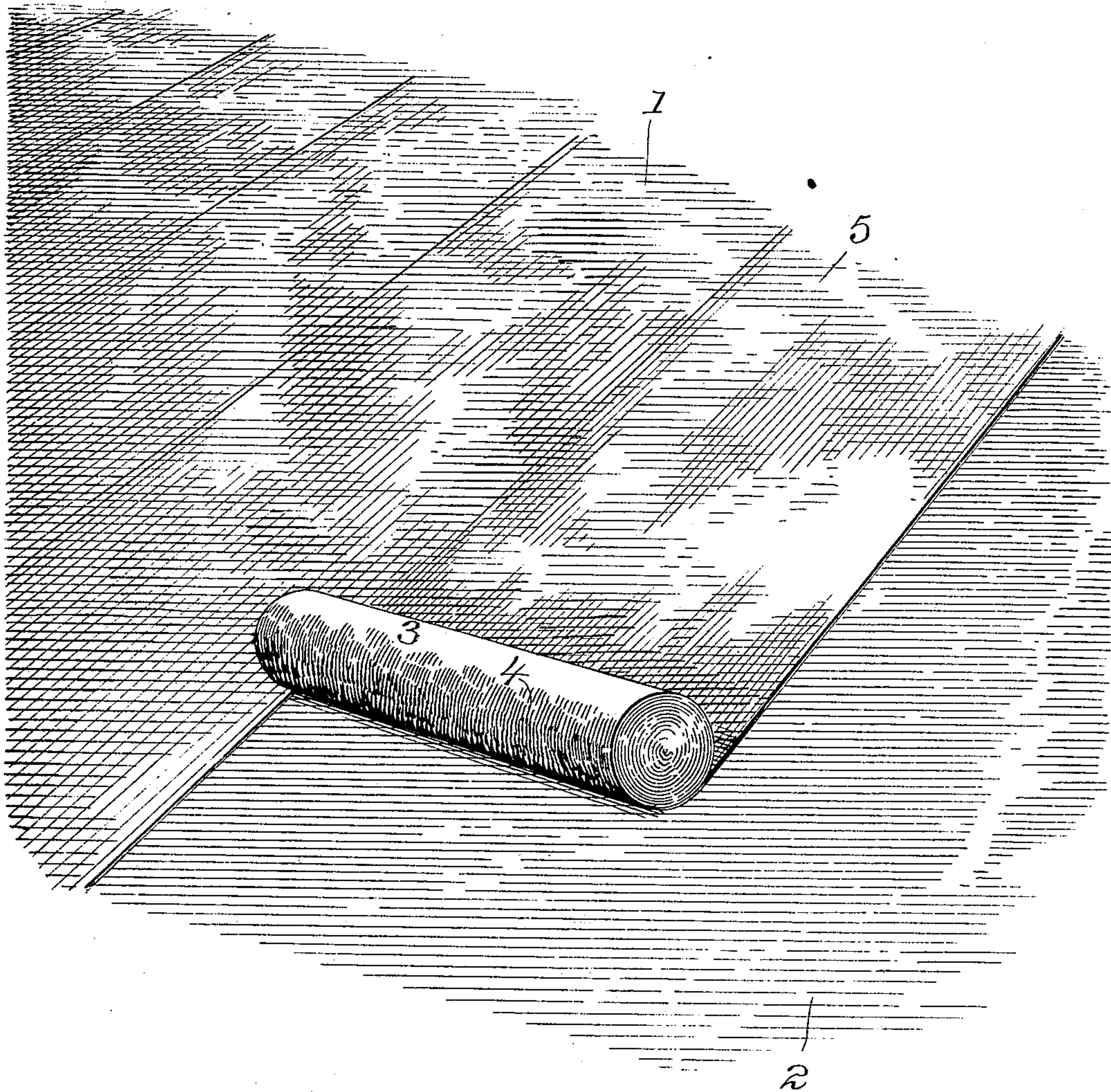
Patented Nov. 7, 1899.

F. S. MILLER.

METHOD OF APPLYING COATING TO METALLIC SURFACES.

(Application filed Sept. 10, 1898.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERIC S. MILLER, OF NEW YORK, N. Y.

METHOD OF APPLYING COATINGS TO METALLIC SURFACES.

SPECIFICATION forming part of Letters Patent No. 636,388, dated November 7, 1899.

Application filed September 10, 1898. Serial No. 690,615. (No specimens.)

To all whom it may concern:

Be it known that I, FREDERIC S. MILLER, a citizen of the United States of America, and a resident of New York, (Brooklyn,) county of Kings, State of New York, have invented certain new and useful Improvements in Methods of Applying Coatings to Metallic Surfaces, of which the following is a specification.

10 My invention relates to an improved method of applying protecting coatings to metallic surfaces. It has its most important application in the protection of tin roofs, underground metal-work, and the iron-work of bridges and
15 other structures, especially where such iron-work is exposed to acid fumes and corrosive vapors, such as those discharged from locomotives, chimneys, and exhaust-pipes of all descriptions.
20 The preferred form of coating employed by me consists of a fabric of mineral fiber, such as asbestos paper, embedded in and saturated by any adhesive paint, preferably what is known as "asphaltum" paint, composed of
25 asphaltum dissolved in any suitable oil as a vehicle. The difficulty of applying such coating to metallic surfaces resides in the necessity of obtaining at one and the same time the thorough saturation of the fabric by the
30 paint and a close and even application of the paint to the surface sufficient to produce perfect adhesion at every point. My invention overcomes this difficulty by means of a method of application which may be illustrated by
35 the accompanying drawing, which represents a perspective view of a section of tin roof with my improved covering in process of application thereto.

1 represents the roof. 2 is a coating of paint
40 which has been applied thereto and preferably allowed to dry. 3 represents a roll of asbestos paper being superimposed on said painted roof, and 4 represents a portion of the under surface of said paper which is being painted preparatory to unrolling the roll
45 a little further and pressing said newly-painted portion down upon the painted surface of the roof beneath. 5 represents a third coating of any suitable paint, which may be of
50 an ornamental tint, which is applied to the exterior of the sheet of paper. This latter is

not necessary, however, except for ornamental purposes.

The effect of carrying out the method above described or its equivalent is to soften the
55 film of paint on the roof when the same has been allowed to dry, so that it adheres to the paint coated and saturated paper. The constituent fiber of the paper becomes practically embedded in and intermingled with the
60 film or coating of paint, and thereby fastened to the metallic surface beneath. When the roof is not painted all over at once and allowed to dry before the asbestos fabric is applied, the roof may be painted in sections in
65 advance of the unrolled fabric, and then the exterior of the roll freshly painted is unrolled on an equivalent area or section of the freshly-painted roof. Thus the two results
70 of complete covering of the roof by the film of paint and complete saturation of a corresponding area of fabric by the paint and the intermixture of the two films to produce complete adhesion are all secured as before. The
75 result is practically a coating of fibrous paint, which is flexible and tenacious to a high degree and will not crack off when bent nor blister nor scale under the action of heat and moisture. The outer coating of paint makes
80 the saturating and embedding more complete and also may be used to give an ornamental finish.

The advantage of my invention, as before indicated, consists of the fact that the first
85 coating of paint on the metallic surface insures complete adhesion of the material to the surface at every point, while the coating of paint applied to the fabric insures complete saturation of the fabric by the paint, and the forcing of the freshly-painted fabric
90 down upon the painted surface produces an intimate mixture of the two films of paint and firmly binds the saturated fabric to the metallic surface beneath.

Having therefore described my invention,
95 what I claim as new, and desire to protect by Letters Patent, is—

1. The method of protecting metallic surfaces, which consists in the following steps: first, covering said surface with an adhesive
100 paint; second, allowing the same to dry; third, applying a coating of said paint to a sheet of

asbestos paper; fourth, pressing the asbestos paper, so prepared, upon the first-mentioned painted surface, substantially as described.

2. The method of protecting metallic surfaces, which consists in the following steps: first, covering said surface with an adhesive paint; second, allowing the same to dry; third, applying a coating of said paint to a sheet of asbestos paper; fourth, pressing the asbestos paper, so prepared, upon the first-mentioned painted surface; fifth, applying a third coating of paint to the exterior of said sheet of asbestos paper, substantially as described.

3. The method of protecting metallic surfaces which consists in the following steps:

first, covering said surface with an adhesive paint; second, applying a coating of said paint to the exterior of a roll of asbestos paper; third, unrolling said roll far enough to press the paper so painted down upon the first-mentioned painted surface; fourth, coating the newly-exposed surface of the roll with said paint and repeating the above-described steps, substantially as described.

Signed by me this 6th day of September, 1898.

FREDERIC S. MILLER.

Witnesses:

WM. C. WHITE,
EDMUND B. HOOTON.