No. 876,010. PATENTED JAN. 7, 1908.

F. C. OVERBURY.

METHOD OF AND MEANS FOR MAKING ROOFING MATERIAL.

APPLICATION FILED MAR. 25, 1907.

Fig. 1.

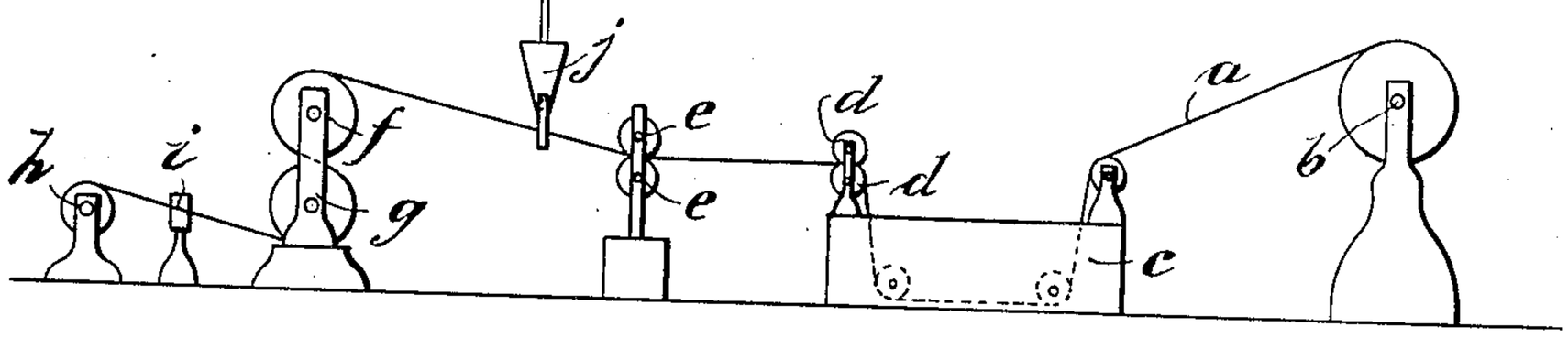


Fig. 2.

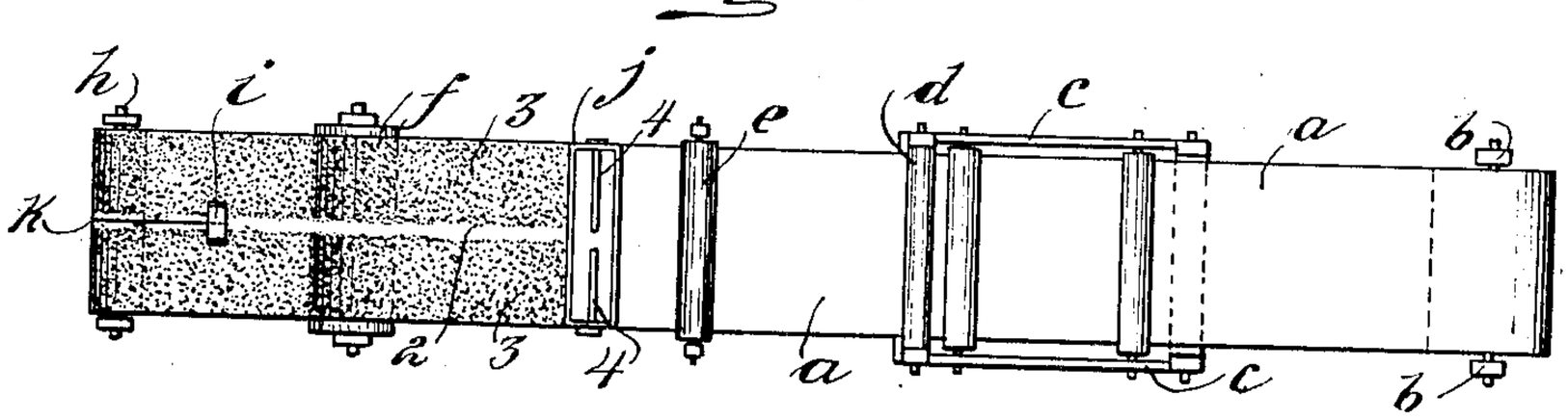
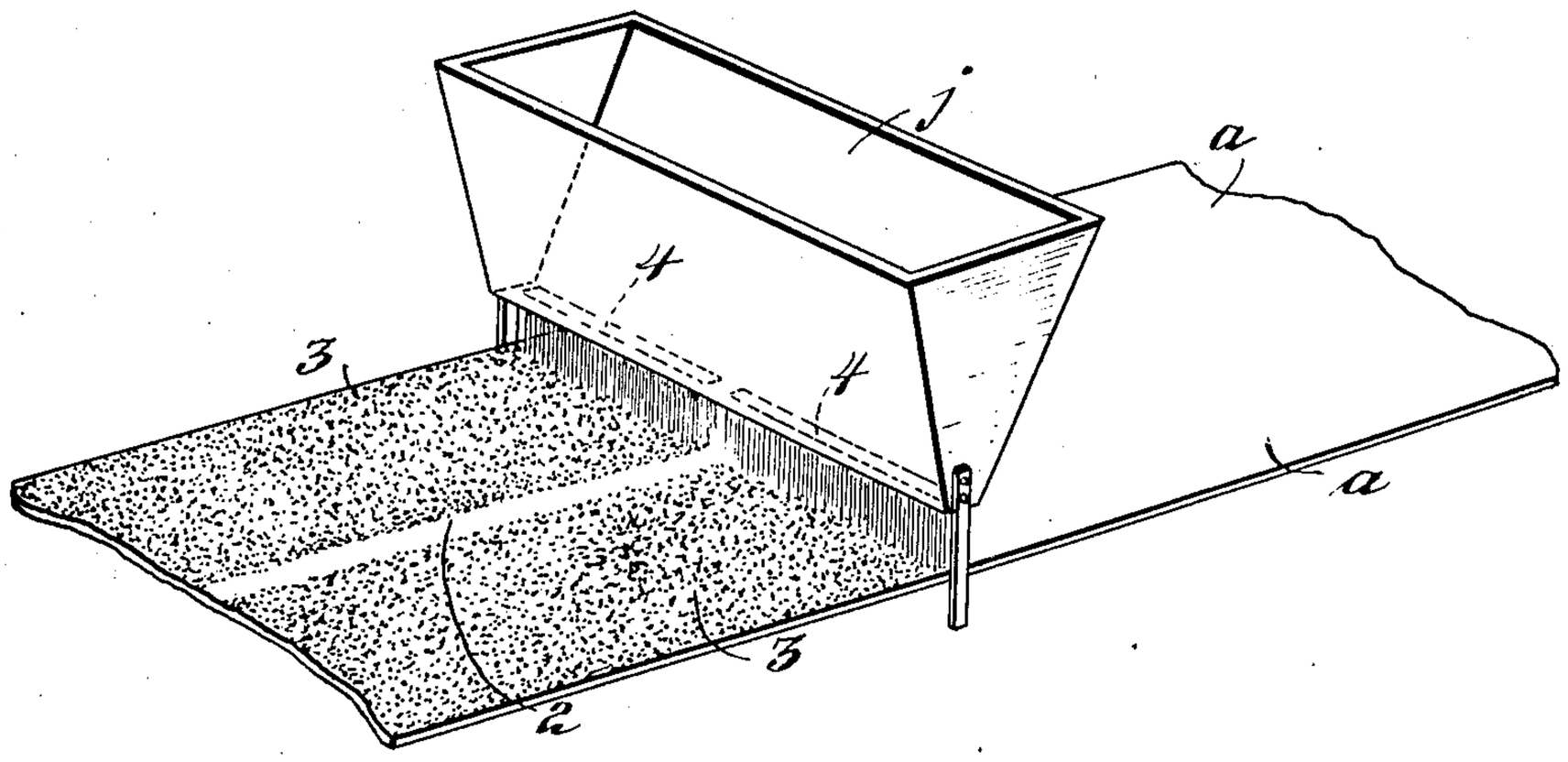


Fig. 3.



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UNITED STATES PATENT OFFICE.

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METHOD OF AND MEANS FOR MAKING ROOFING MATERIAL.

No. 876,010. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed March 25, 1907. Serial No. 364,480.

To all whom it may concern:

Be it known that I, FREDERICK C. OVERBURY, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of and Means for Making Roofing Material, of which the following is a specification.

This invention relates to the manufacture of roofing material composed of a flexible strip adapted to be fastened to a roof or other surface, the strip being coated on one side with a powdered or granular mineral, which is caused to adhere to the material which is coated first with a hot adhesive material before the application of the granular coating material. It is customary in making roofing strips of this character, to longitudinally subdivide a web of the flexible material into a plurality of strips, the web being cut or penetrated by a slitting device, which acts on the portion of the web to which the coating has been applied. The ordinary means employed comprise a tank containing a liquid composition, through which the web is passed, the liquid permeating the material of the web, and giving it a suitable waterproof quality, a hopper or reservoir for the granular coating material arranged to sprinkle the same upon the web after it leaves the tank, and a severing or slitting device arranged to make a longitudinal line of division in the coated portion of the web, suitable rolls being employed for storing and permitting the unwinding of the untreated web, for winding up the strips formed by severing the web, and for guiding the material in its course from one end of the machine to the other. Heretofore the coating of granular material has been applied to the web across its entire surface, including the part upon which the slitting device acts. Much difficulty has been experienced owing to the rapid wear of the slitting or cutting edge or edges by contact with the granular material, this being of a gritty nature so that it rapidly dulls a cutting edge.

My invention has for its object to obviate this difficulty, and to this end it consists in an improved method of and means for making improved strips, the said method and means involving the longitudinal interruption of the coating to form a narrow longitudinal uncoated portion between the edges of the web, the said portion being the part of the web on which the slitting device acts, so that the slitting or cutting edge is not dulled or impaired by contact with the granular coating material.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side elevation showing, in a somewhat conventional form, an apparatus suitable for use in carrying out my invention. Fig. 2 represents a top plan view of the same. Fig. 3 represents a perspective view of a portion of the apparatus and a portion of a web undergoing treatment.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a web of flexible material suitable for covering roofs and other surfaces of buildings, the web being accumulated in the form of a roll on an unwinding mandrel or drum *b*, and conducted therefrom by suitable guide rolls through a tank *c* containing a liquid preparation of any suitable nature, the preparation being adapted to impart a waterproof quality to the material of the web, and to cause the adhesion of the granular coating material thereto. The web after leaving the tank *c*, passes between suitable pressure rolls *d d* and *e e*, then over cooling drums *f g* to a winding arbor or reel *h*, a slitting device, represented conventionally at *i*, being employed to slit or sever the web longitudinally prior to its accumulation upon the winding reel.

j represents a hopper or reservoir located above a portion of the web, and extending crosswise of the same, the reservoir being preferably located between the pressure rolls *e* and the cooling rolls *f g*. The reservoir is adapted to distribute upon the upper surface of the web, a granular coating material, the latter adhering to the previously treated surface.

In carrying out my invention I provide means for interrupting the crosswise continuity of the coating to give the web a bare or uncoated portion 2 extending lengthwise of the web, the coating being thus divided into two longitudinal portions 3 3. The uncoated portion 2 registers with the slitting device *i* so that the cutting edge encounters only the uncoated portion 2, and is not subjected to contact with the granular coating material; hence a longitudinal slit or cut *k* is formed by the slitting device at the longitudinal center of the uncoated portion 2, as in-

dicated in Fig. 2, the web being thus divided into a plurality of roofing strips, which are wound together on the winding reel *h*, and are separable from each other. The means here shown for depositing the coating material in the manner described to form the uncoated portion 2, comprise two slots 4 4 in the bottom of the hopper, said slots being in alinement with each other, and separated by an intermediate closed portion of the said bottom, so that the coating material falls in two thin streams or sheets, and is deposited upon the material to form the two strips 3 3, as indicated in Fig. 3.

It will be seen from the foregoing that provision is made for cutting or slitting the strip without injury to the slitting device by contact with the granular coating material; hence the durability of the slitting device is greatly prolonged by my invention. Suitable guides should be provided to prevent edgewise displacement of the strip, and to preserve the desired relation between the uncoated portion 2 and the slitting device.

My invention is not limited to the described means for interrupting the transverse continuity of the coating, it being obvious that various other means may be employed for this purpose, such, for example, as a roller supported by the hopper *j*, and bearing upon the web at such point as to divide the stream of coating material falling from the hopper, into two parts, leaving the part 2 uncoated. A narrow strip of paper or other flexible material of the width of the uncoated portion 2, may be mounted upon a reel at one side of the hopper, and deposited upon the web in such manner as to cover the portion 2 at the point where the web passes under the hopper, thus preventing the coating material from touching the portion 2. A suitable scraper may be employed to remove the coating from the portion 2, thus interrupting the transverse continuity of the coating by a denuding operation.

The apparatus here illustrated is shown simply for purposes of illustration, and it is to be understood that my invention is not limited to the organization of means here shown for treating the web in the manner described.

It is obvious that a plurality of uncoated portions 2 may be formed on the web, in case it is desired to subdivide the web into more than two strips.

I claim:

1. A roofing strip machine, comprising means for successively applying an adhesive and a longitudinally interrupted granular coating to a web of roofing material, a narrow longitudinal portion of the web being left uncoated, and web slitting means arranged to act on the said uncoated portion.

2. A roofing strip machine comprising means for successively applying an adhesive and a plurality of independent longitudinal granular coatings to a web of roofing material, said coatings being separated by a narrow uncoated portion of the web, and means for slitting the web along the said uncoated portion.

3. That improvement in the method of making coated roofing strips, which consists in successively applying an adhesive and a longitudinally interrupted granular coating to a web of flexible roofing material, to form a narrow longitudinal uncoated portion, and slitting the web along said uncoated portion.

4. That improvement in the method of making coated roofing strips which consists in successively applying an adhesive and a plurality of longitudinal granular coatings to a web of roofing material, said coatings being separated by a narrow longitudinal uncoated portion of the web, and then slitting the web along said uncoated portion.

In testimony whereof I have affixed my signature, in presence of two witnesses.

FREDERICK C. OVERBURY.

Witnesses:

CHAS. E. TOLHURST,

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