Dec. 14, 1937. C. N. PERRIN 2,102,089

METHOD OF APPLYING SICCATIVE COATINGS TO BUNDLED SHINGLES

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Fig. 1.

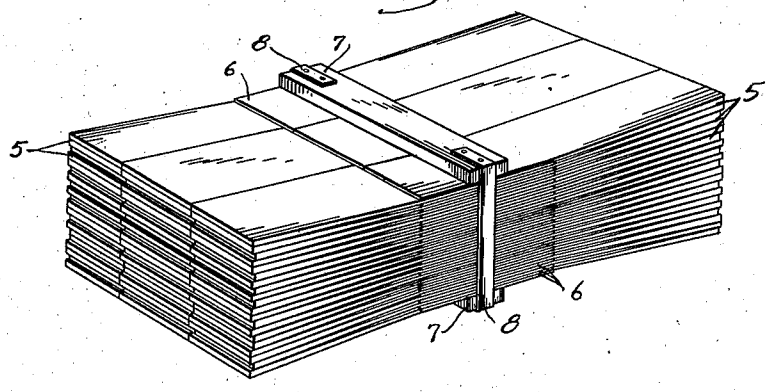


Fig. 2.

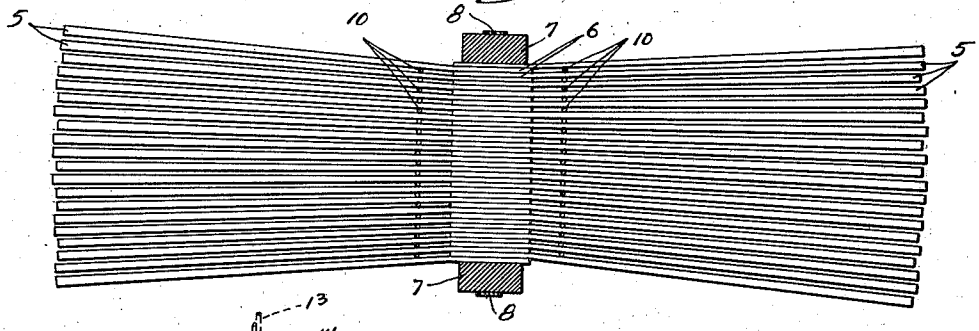
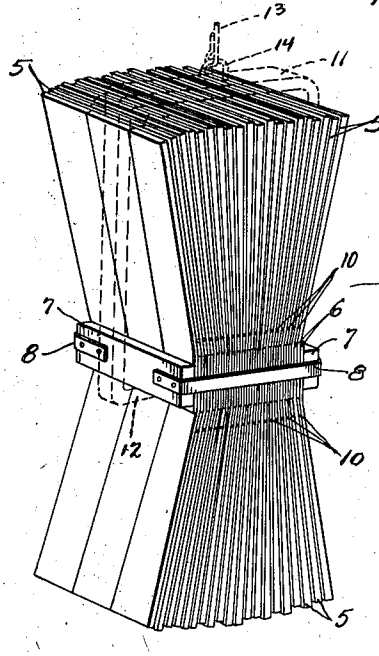


Fig. 3.



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METHOD OF APPLYING SICCATIVE COATINGS TO BUNDLED SHINGLES

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7 Claims. (Cl. 91—68)

My invention relates in general to a method of applying siccative coatings to bundled shingles, such as fillers, stains, paints, varnishes, and the like, and more particularly to the treatment of the shingle before, during, and after coating thereof.

It is well known to those skilled in the art that at present shingles which are to be coated for either decorative purposes or for preservation are dipped and dried singly, which is an expensive operation, or they are dipped in bundles or part bundles by hand or suitable machinery in stains of the desired color and allowed to drain in any desired manner, after which they are permitted to dry. Obviously, under the latter method, the shingles are closely stacked and when dried in this condition, the surfaces thereof are marked with blotches. It is sometimes the custom to brush the shingles in order to remove these blotches and other marks which come as a result of the shingles being in contact with each other.

Furthermore, heretofore, only stains could be used to coat shingles in bundle form, since coatings such as paint, varnish, and the like would cause the contacting shingles to adhere during the drying period, thus leaving uneven blotchy surfaces on the shingles.

The principal object of my invention has been to provide a method of treating shingles whereby paints, varnishes, and like coatings may be applied to the shingles in bundle or partial bundle form by a dipping method without leaving marks on the surfaces of the shingles which are later exposed when in use.

Another object has been to provide a method of treating shingles whereby the shingles need not be removed from the original bundles, it being only necessary to elongate the bundle so that more of the surfaces thereof near the tips will be exposed.

Another object has been to so hold the shingles in the bundle that all of the surfaces later to be exposed when in use will be exposed to the stain or other coating material. Such surfaces will also be exposed to air for drying.

Also by means of my method, the shingles may receive a prime coat when they are to be afterwards coated with stain, paint, varnish, or the like; and, since considerably more of the surfaces of the shingles are exposed to my treatment than are later exposed when the shingles are put into use, portions of the surfaces near the tips which have received the prime coat may, if desired, be left uncoated by the following coat of stain, paint, or varnish, thereby giving evidence that the shingles have received a prime coat.

Furthermore, by means of my method of treating, all of the shingles of a bundle may have all the surfaces thereof, except portions near the tips, exposed to the air for the purpose of drying.

In the accompanying drawing, forming part of this application, I have shown a bundle of shingles as it comes from the mill and also bundles ready for treatment. In the drawing:

Fig. 1 shows a bundle of shingles as it comes from the mill.

Fig. 2 shows the same bundle with the shingles drawn outwardly so as to decrease the area of contact near the tips between adjacent shingles, and the butts spread so as to carry out my invention.

Fig. 3 shows a bundle standing on end, in which position it is ready for dipping, and in which position it will be drained after having been dipped.

It is well known that in general practice, a bundle of shingles, such as shown in Fig. 1, comes from the mill with the butts 5 arranged toward the outside ends of the bundle and with the tips 6 overlapping a considerable distance. The shingles in the bundle are held together in this position by means of binder sticks 7, arranged on each side of the bundle, which binder sticks are held together by means of metal bands 8. As is well known, the metal bands are bent over on the tops of the binder sticks 7 and are secured thereto by being nailed.

In carrying out my method, I take a bundle as it comes from the mill and preferably loosen the layers of shingles by turning over one or both of the band sticks or loosening the ends of the metal bands 8 which are secured to one of the band sticks. This relieves the pressure initially placed on the shingles when being packed. With the pressure thus relieved, the bundle is elongated by grasping the two groups of oppositely arranged layers of shingles by the butts and drawing them outwardly away from each other. This operation may be accomplished by hand or the butt ends 5 of the shingles may be clamped in a suitable machine and drawn outwardly thereby.

As the shingles are packed in the usual bundle, the tips 6 thereof are in overlapped relation to such a degree that for some purposes the surfaces near the tips which are later exposed when the shingles are placed in use are in close contact in the bundle with the surfaces of adjacent tips. For this reason, in carrying out my method, I elongate the bundle so that the areas of the

shingles covered by overlapping tips is, as shown in Fig. 2, beyond the area which, under certain conditions, will be exposed when the shingle is put into use. Furthermore, by drawing the shingles outwardly as just described, the tips become more flexible and the butts 5 of adjacent shingles may be spread sufficiently so as to permit the operator to place a separator 10 in between adjacent layers of shingles. After the bundle has been elongated, the layers of shingles are again compressed to hold them in the new bundle, shown in Fig. 2, either by again rotating the binder sticks or by again fastening the ends of the straps 8 to the stick from which they were originally removed, or by any other suitable temporary or permanent clamping means. The separators 10 are placed at such distances from the butt ends of the shingles that all of the surfaces of the shingles which will later be exposed when placed in use are kept separated from like surfaces of the adjacent shingles. When all of the layers of shingles have been spread and the separators 10 placed therebetween, the new bundle will appear as it does in Fig. 2. It will be seen that when the shingles are thus spaced, a circulation of air is permitted between the surfaces of adjacent shingles.

The bundle when prepared, as just above described and as clearly shown in Fig. 2, is preferably turned on end, as shown in Fig. 3, and dipped in a receptacle containing the desired coating material. After dipping, the bundle may be placed upon a suitable rack where it is allowed to drain and dry. If desired, any suitable type of clamp, yoke, or hanger 11, shown in dotted lines in Fig. 3, may be used to suspend the bundle vertically as shown, the lower inturned ends 12 of the hook yoke or bracket engaging the under surfaces of the bundle sticks 7, whereby the bundle will be supported as shown. A cord 13 may be fastened to a staple 14 carried by the yoke 11, also shown in dotted lines in Fig. 3, whereby the bundle may be suspended. In this position, the lower end of the bundle may be suitably dipped in a tank or other receptacle containing the desired stain, paint, varnish, or the like. Because of the fact that the bundle is held in a vertical position, the exposed surfaces of the shingles in the lower part of the bundle may be dipped the desired depth and then withdrawn from the stain or paint container. The bundle is kept preferably in the same position and the surplus coating material allowed to drain therefrom. As hereinbefore stated, the adjacent surfaces of the shingles are held in such separated positions that after the surplus coating material has been drained from the shingles, air will be permitted to circulate over the surfaces thereof and thus permit the thorough drying or the free oxidation of the coating material being used. After dipping and sufficiently drying one end of the bundle, the same is preferably reversed and the untreated end is then dipped into the stain or paint container and treated in like manner as the end just described.

When the shingles are to receive a prime coating, they are obviously first dipped and dried or only partially dried, after which they are again dipped in suitable coating material. After the second dipping they are supported and dried, as above described.

While I have described, and while it is preferable to dip one end of the bundle at a time, allowing each end to drain and dry, it is within the scope of my invention to dip the entire bundle, particularly when giving it the prime coat. When so treated, the bundle may be held on edge in a horizontal position, or one end may be dipped first and then immediately followed by the dipping of the other end, the bundle being held preferably on edge in a horizontal position when allowing to drain and dry. When the bundle is given the second or finishing siccative coating and both ends are to be treated at the same time, one end may be dipped first, and the surplus coating allowed momentarily to drain. The bundle may then be turned over and the other end immediately dipped. When so treated, it is preferable to support the bundle on edge in a horizontal position when it is being subjected to further draining and drying.

Under my method of treating shingles, the shingles may have the initial treatment of prime coat or stain and be placed in stock to be ready to receive the desired final coating and, in such event, the bundle may be left as it comes from the mill without elongation, the entire bundle being dipped and allowed to dry while the shingles are in contact with each other. When such a previously dipped bundle is to be coated with a second siccative coating, the bundle is elongated as hereinbefore described, and separators 10 are placed in position, after which the bundle is dipped, as above described. While I have described the loosening of the binding sticks by turning one or both of them or by detaching the ends of the straps 8 therefrom, this need not be done when the bundle is being elongated by means of machinery. When so elongated, the sticks may be left intact if there remains sufficient frictional engagement between the shingles to keep them intact in the bundle while going through the other steps of my method. Otherwise, the sticks will have to be tightened upon the elongated bundle or, as hereinbefore stated, a suitable clamp used.

After the shingles have been treated as above described, the separators 10 are removed from between the layers of shingles and the bundle is brought back to its initial length by forcing the shingles in each half of the bundle toward each other. Obviously, this may be accomplished by hand if the binder stick is again loosened. If the binder stick has not been initially disturbed, then it is preferable to use some suitable pressure device, since the frictional engagement of the shingles would be too great to move them by hand.

If the binder sticks have been loosened in the elongation of the bundle, clearly they will again be tightened upon the bundle of coated shingles after the bundle is shortened. If the binder sticks were not disturbed during elongation, it may or may not be necessary to tighten them.

Obviously, if other binding means are used, such as wire or metal strips, such means will be treated as set forth above in connection with the binder sticks 7 and metal bands 8 now in general use.

It is obvious that when shingles are to be treated according to my method, the original bundle may be packed so that the tips of the shingles have the desired amount of overlap, and in this event it would not be necessary to elongate the bundle. Where shingles are initially packed to accommodate the bundle to the carrying out of my process, the bundle may be shortened or not after treatment, as desired.

While I have shown the separators 10 as being

round in cross-section I may, if desired, make them triangular, rectangular, or of any other desired cross-sectional contour.

Having thus described my invention, what I claim is:

1. A method of preparing bundled shingles for treatment, comprising the elongation of the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed far enough to allow separators to be forced between such adjacent layers of shingles, toward the center of the bundle, and beyond those areas of the shingles which are later exposed when they are laid in courses for use.

2. A method of preparing bundled shingles for treatment, comprising relieving the pressure initially placed upon the bundle of shingles as originally packed, then elongating the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed far enough to allow separators to be forced between such adjacent layers of shingles, toward the center of the bundle, and beyond those areas of the shingles which are later exposed when they are laid in courses for use.

3. A method of treating bundled shingles, comprising the elongation of the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed far enough to allow separators to be forced between such adjacent layers of shingles, placing separators between the shingles and toward the center of the bundle, and beyond those areas of the shingles which are later exposed when the shingles are laid in courses for use, dipping the bundle of shingles into a coating material, allowing the same to drain and dry, and then removing the separators from the bundle.

4. A method of treating bundled shingles, comprising the release of the pressure initially placed upon the bundle of shingles as originally packed, then elongating the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed far enough to allow separators to be forced between such adjacent layers of shingles, placing separators between the shingles and toward the center of the bundle, and beyond those areas of the shingles which are later exposed when the shingles are laid in courses for use, dipping the bundle of shingles into a coating material, allowing the same to drain and dry, and then removing the separators from the bundle.

5. A method of treating bundled shingles, comprising the elongation of the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed far enough to allow separators to be forced between such adjacent layers of shingles, placing separators between the shingles and toward the center of the bundle, and beyond those areas of the shingles which are later exposed when the shingles are laid in courses for use, dipping the bundle of shingles into a coating material, allowing the same to drain and dry, then removing the separators from the bundle, and then shortening the bundle by forcing the butts of the shingles toward each other sufficiently far to leave the bundle in condition for shipment.

6. A method of preparing bundled shingles for treatment, comprising the elongation of the bundle by pulling the butts of the shingles at each end of the bundle away from each other while preserving the arrangement of the layers of shingles of the original bundle, preparatory to dipping, by keeping portions of the tip ends of oppositely disposed adjacent layers in contact with each other, and continuing such elongation until the thinner tip parts of the adjacent layers of shingles on each end of the bundle can be flexed enough to allow separators to be forced between the layers of shingles, toward the center of the bundle, and beyond those areas of the shingles which are later exposed when they are laid in courses for use.

7. A method of preparing bundled shingles for treatment, comprising the elongation of the bundle by pulling the butts of the shingles at each end of the bundle away from each other a sufficient distance to permit portions of the thinner tip parts of the shingles of adjacent layers on each end of the bundle to be flexed in those portions of their lengths which lie between the separators and the points of contact with the tip ends of the adjacent, oppositely lying layers of shingles, such flexing being sufficient to allow the separators to be forced between such adjacent layers of shingles, toward the center of the bundle, and beyond those areas of the shingles which are later exposed when they are laid in courses for use.

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