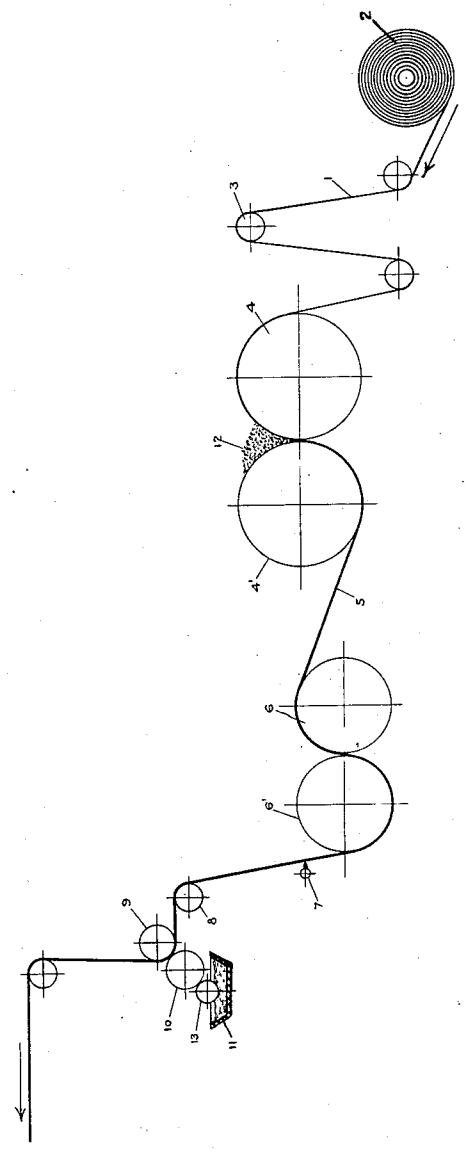
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METHOD OF MANUFACTURING LINOLEUM

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METHOD OF MANUFACTURING LINOLEUM

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The present invention relates to the manufacture of linoleum, and more particularly, to the manufacture of a linoleum floor covering in which a backing web of coarse woven fabric such as burlap, is employed.

According to the methods heretofore practised, it has been customary to treat the raw burlap or similar coarse woven fabric which is to be used as a base web for linoleum floor covering, by saturating the same with a starch solution and ironing over and between steam-heated rolls. This process has the disadvantages of involving expensive apparatus and also of producing a product which has little resistance to tearing. Furthermore, the relatively hard smooth surface of the starched burlap renders difficult the problem of securing good cohesion between the base and the linoleum composition applied thereto. It has also been proposed to calendar linoleum composition directly on the raw burlap and thereafter to apply a coat of paint to the uncoated side. This method produces a most unsatisfactory product, the burlap back being rough, matted, and hairy, and causing damage to the wearing face of the goods when the same are rolled and unrolled in normal handling.

The chief objects of my invention are to overcome the disadvantages and difficulties above set forth, and to provide an economical and efficient method and apparatus for producing a satisfactory linoleum floor covering having a burlap or other coarse woven fabric backing.

Broadly, my invention consists in first applying to the raw burlap or other untreated coarse woven fabric backing web, a layer of linoleum composition, and subsequently directing an open flame against the fabric side of the coated web whereby the loose fibers and hairs are singed or burned off and removed, and finally, if desired, subjecting the fabric backing to a sizing operation to impregnate the fabric and to give the same a more finished appearance.

In the drawing, which illustrates a preferred arrangement of apparatus for carrying out my invention, numeral 1 indicates a fabric web of raw burlap or other similar coarse woven fabric which may be supplied from the roll 2 over a suitable tensioning device 3 to the calender rolls 4, 4'. The linoleum composition 12 is fed to the bite of the rolls 4, 4' and calendered onto one side of the fabric web. It is to be particularly noted that the loose fibers on the side of the web adjacent the composition are present and serve to securely anchor and bond the layer of linoleum composition.

The coated web 5 next passes over guide rolls 6, 6', and adjacent a gas burner 7 adapted to direct an open ribbon flame against the fabric backing. I have discovered that this flame may be of considerable intensity without damaging the fabric backing to the slightest extent and without creating any fire hazard whatsoever, provided the web 5 is completely coated on the opposite side with a layer of linoleum composition. It being possible, therefore, by this peculiar sequence of steps to employ a flame of considerable intensity, I am able to effect a thorough and efficient removal of substantially all the loose fibers and hairs from the back of the fabric web as rapidly as the face thereof becomes coated with linoleum composition in the calender.

The coated and singed web may be further treated, if desired, by applying to the fabric side thereof a sizing composition, as for example, a mixture of dextrine or starch, pigment, and water, which serves to impregnate the fabric and to give the same a more finished appearance. To accomplish this, the web is passed over guide rolls 8, 9 and in contact with the roll 10 which serves to apply the sizing composition contained in the trough 11 and fed by the roll 13. The completed web is then subjected to the usual seasoning treatment to harden the linoleum composition, after which the linoleum face may be printed or decorated with paint, if desired.

By the above described method, I am able to produce a linoleum floor covering wherein the presence of loose fibers upon the coated side of the fabric web serves to bond and anchor the linoleum composition thereto, and wherein the opposite or uncoated side of the fabric backing is free from such fibers and

of smooth, even texture. Furthermore, the process is highly efficient and economical.

While I have described a preferred embodiment of my invention, various modifications for obtaining substantially the same operation will readily occur to those skilled in the art, and I do not wish to limit the scope thereof except as defined in the appended claim.

I claim:

The method of manufacturing a surface covering of linoleum in a continuous operation which comprises the successive steps of applying to one side of a burlap base web a layer of linoleum composition, subsequently substantially completely singeing the loose fibres from the opposite uncoated side of the burlap, and finally applying a sizing composition to the singed face.

In testimony whereof, I affix my signature.

FRANK M. ALLEN.