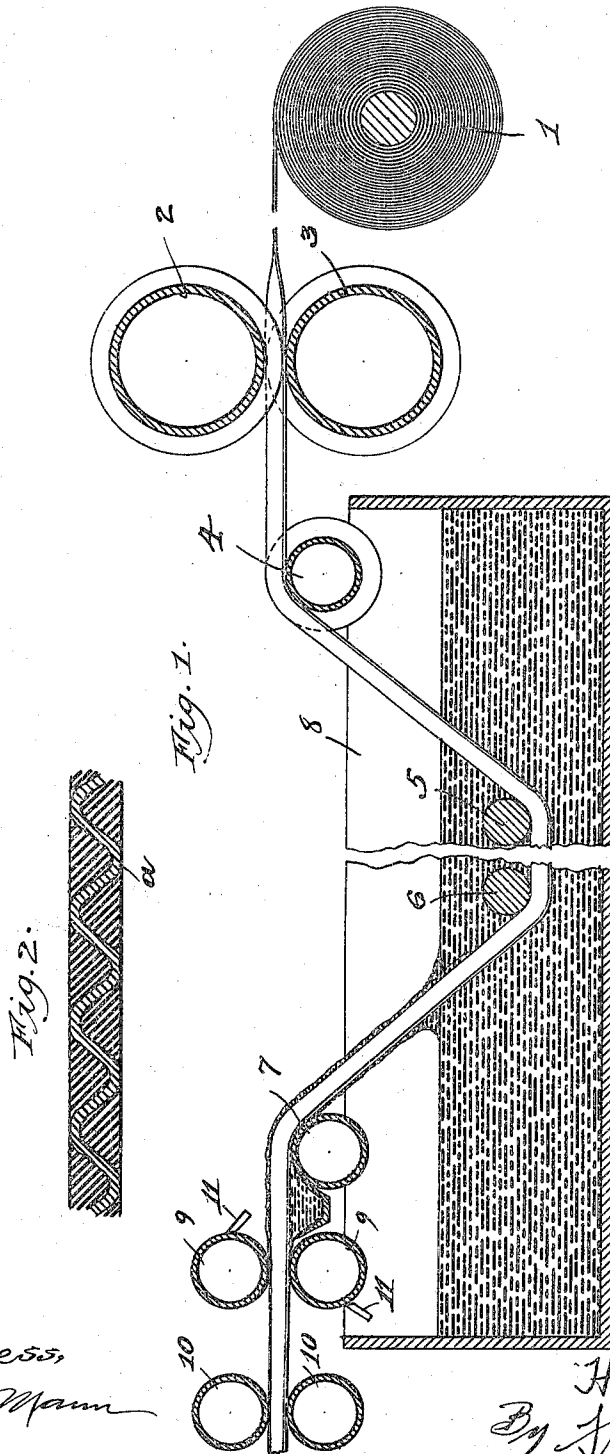


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 ROOFING AND PROCESS OF MAKING SAME.
 APPLICATION FILED JULY 3, 1918.

1,315,362.

Patented Sept. 9, 1919.



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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARRY A. CUMFER, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Roofing and Processes of Making Same, of which the following is a specification.

This invention relates to improvements in roofing and process of making same and has among its salient objects, to provide a construction in which a roofing felt is corrugated lengthwise of the roofing sheet or strip so as to avoid substantial shortening of the normal width of the roofing sheet; to provide a construction of the character referred to in which the corrugated roofing felt or fabric is impregnated and coated either on one or both sides with an asphaltic or bituminous composition; to provide a novel process of forming said roofing and in general to provide an improved construction of the character referred to.

Heretofore, various forms of sheets or blanks such as the sheets or blanks for forming walls of paper boxes have been corrugated transversely of the length of the fiber. This method of corrugation has not been practical in roofing for the reason that to so corrugate the roofing felt materially shortens the paper to such an extent as to prevent its being practical from a manufacturing standpoint. In other words, with a given quantity of roofing felt the manufacturer, if he corrugated it transversely would so shorten the paper as to materially reduce the quantity of his finished output. Nevertheless it has been recognized for many years that a corrugated roofing felt would materially add to the strength and stability of the finished article.

I have discovered that if the roofing felt be corrugated the length of the sheet or longitudinally or parallel with the fibers of the felt that effective corrugations will be produced without at the same time substantially lessening the width of the sheet. I have further discovered that if the corrugated blank be then impregnated or coated with an asphaltic and bituminous composition so as to fill the corrugations, that a very durable construction can be obtained and at the same time have sufficient flexibility to answer the purpose. In the manufacture of this felt, it is run from the sup-

ply reel through a pair of opposed corrugated rollers, the corrugations of which extend longitudinally of the length of the felt. After these corrugations are formed, the roofing is then run through a suitable saturating and coating tank and through squeeze rollers and then through cooling rollers. The roofing felt, can, of course, be coated with a granular facing if desired. In order that the invention may be more clearly understood, the accompanying drawings are made a part of the specification in which,

Figure 1 is a fragmentary vertical sectional view showing the manner of first corrugating and then saturating the sheet.

Fig. 2 is a fragmentary transverse sectional view on an enlarged scale of the finished product.

Referring to the drawings, 1 designates a roll of unsaturated felt which is run between a pair of corrugated rolls 2 and 3 which rolls are so formed on their peripheries as to form corrugations longitudinally of the fibers of the felt. The corrugated dry felt then passes over the rolls, 4, 5, 6 and 7 through a tank 8 containing the saturating liquid or hot asphalt. Presser rolls 9 and 10 are also provided, the former being equipped with cleaner members 11. In Fig. 2 is shown the finished sheet provided with corrugations *a*.

In its broader aspects, the invention is not limited to the particular use shown as for example flooring felt might be treated in the same manner.

I claim as my invention:

1. A roofing product consisting of a felt or fabric like foundation provided with a series of corrugations extending substantially across the width of the foundation and extending longitudinally of the fibers of the felt and a bituminous composition impregnating the corrugated felt and forming a coating on one or both sides thereof.
2. A process of making roofing consisting in feeding a sheet of roofing felt to a pair of opposed corrugated rolls arranging the rolls so that the corrugations are formed longitudinally of the fiber of the felt and extending substantially across the width thereof and then saturating the corrugated felt with a bituminous composition.

HARRY A. CUMFER.