

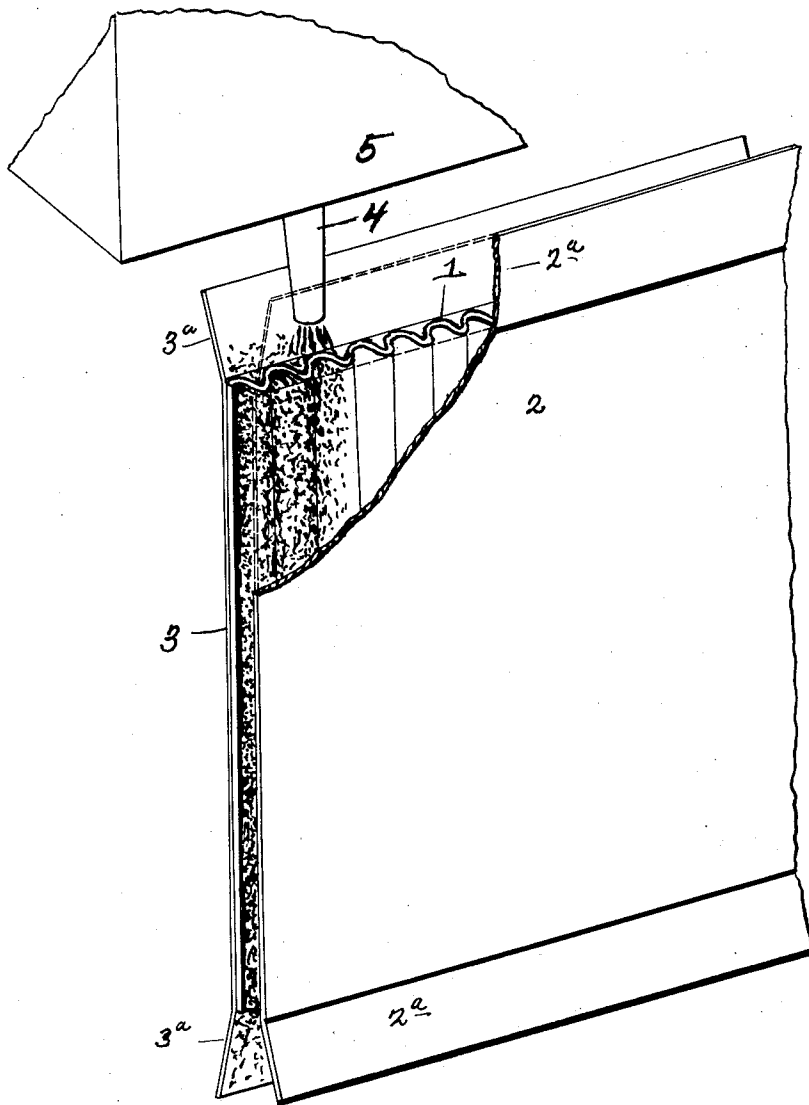
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WATERPROOFING CORRUGATED BOARD

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WATERPROOFING CORRUGATED BOARD.

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The invention relates to waterproofing corrugated board.

In the manufacture of corrugated board, it is now common practice to make sheets, consisting of a corrugated sheet and facing strips secured to the crowns of the corrugations on the sheets and it is also common practice to size the exposed faces of the facing sheets, because these are accessible after the corrugated board has been made. The use of boxes made of corrugated straw board has, up to the present time, been limited to uses where boxes and their contents are not subjected to moisture, because straw board has a great affinity for moisture and becomes inefficient when wet or damp. For example, corrugated board boxes containing goods have not been kept in cold storage warehouses, because the moisture would cause the corrugated board to disintegrate under pressure or stresses and thus destroy the efficiency of the box as a container. A desideratum in this art has been to provide a corrugated board container which was made of faced corrugated straw board in usual manner and which would not be rendered incapable of performing its function when subjected to moisture.

The primary object of the present invention is to produce an improved corrugated board which has been treated, after the board has been manufactured, with a waterproofing compound, so that it will not absorb moisture.

Another object of the invention is to provide an improved corrugated board product, in which the outer or exposed faces of the facing sheets of the board are finished in usual manner, while the surfaces of the corrugated sheet and the inner faces of the facing sheets are treated with an efficient waterproofing material. A further object of the invention is to provide an improved method of waterproofing corrugated board so that the products made from the board may be used in damp places.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: The figure is a perspective of a sheet of corrugated board embodying the invention and showing the manner of making it.

In the exemplification of the invention

illustrated in the drawing, sheets of corrugated board, consist of a corrugated sheet of straw-board 1, a facing sheet 2, secured in usual manner to the crowns of the corrugations at one side of the sheet, and a facing-sheet 3 similarly secured to the other side of the corrugated sheet 1. In practice, the outer faces of the facing sheets are usually treated with suitable sizing of rosin and alum to give them the desired finish and to make these surfaces so they will not readily absorb moisture. In making the corrugated board, the facing sheets 2 and 3 are extended beyond the edges of the corrugated sheet 1, as at 2^a and 3^a and these extensions are utilized to direct a waterproofing material into the spaces between the corrugated sheet and the facing sheets.

Suitably thinned asphalt is discharged through a nozzle 4 from a tank 5 downwardly into the spaces between the corrugated sheet and the facing sheets. The extensions 2^a and 3^a serve to guide the waterproofing material into the spaces in the corrugated board. In manufacture, sheets of the corrugated board are fed longitudinally under the nozzle to bring all portions of the sheets successively into position to receive a coating of the liquid on its inner surfaces. If desired, the fluid in tank 5 may be subjected to pressure to force the material into spaces in the board and the lower end of the sheet may be subjected to suction to expedite the application and distribution of the waterproofing material.

As a result of discharging the waterproofing material into the spaces in the board, all the exposed surfaces of the corrugated sheet 1 and the inner faces on the facing sheets will be sufficiently coated to make the board so that it will not absorb moisture. The excess material will pass through these spaces and be discharged from the lower ends thereof while the sheets are in transit under the nozzle 4. After the waterproofed coating has dried, the extensions 2^a and 3^a will be cut off. This product may then be used the same as ordinary corrugated board. The treated sheets may then be formed into box-blanks and the boxes made therefrom will be adapted to be used in damp places without losing their efficiency as containers. The exposed surfaces of the card-board are the faces which have not been treated with asphalt and have been sized so that the as-

phalt waterproofing material will not be visible and the asphalt cannot come in contact with the goods in the boxes.

5 The invention exemplifies a method of making corrugated board which is adapted for use in damp places. It also exemplifies a method which is adapted to treat previously manufactured board with a coating on its inner surfaces. It also exemplifies an improved corrugated board which adapts 10 the products made therefrom to be used in damp places.

The invention is not to be understood as restricted to the precise practice set forth 15 and may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is: 20

1. That improvement in the manufacture of corrugated board which consists in coating a corrugated sheet and the inner face of a facing sheet with a waterproof compound, after the sheets have been secured 25 together.

2. That improvement in the manufacture of corrugated board which consists in coating a corrugated sheet and the inner faces of facing sheets with a waterproof compound after the facing sheets have been applied to the corrugated sheet. 30

3. That improvement in waterproofing corrugated board which consists in forming extensions on the facing sheets and dis- 35 charging a waterproof compound between them to coat the corrugated sheet and the inner faces of the facing sheets.

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