

Nov. 20, 1923.

1,474,699

C. WISBROCK

REINFORCED BOARD

Filed April 21, 1920

2 Sheets-Sheet 1

Fig. 1.

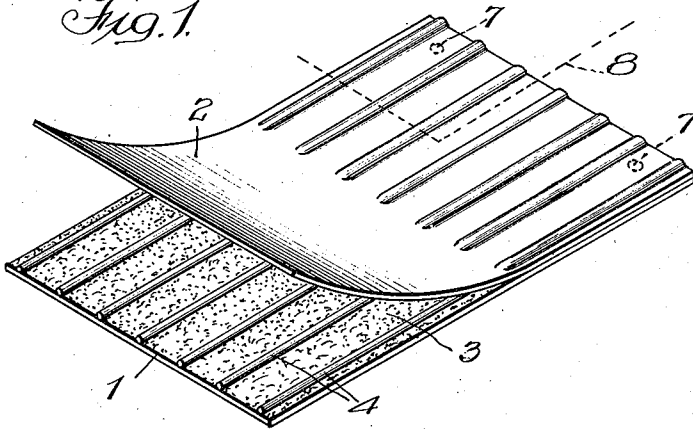


Fig. 2.

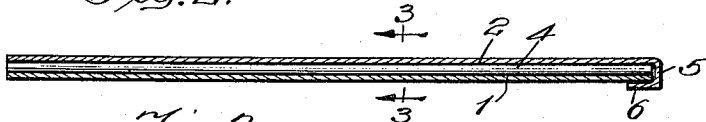


Fig. 3.

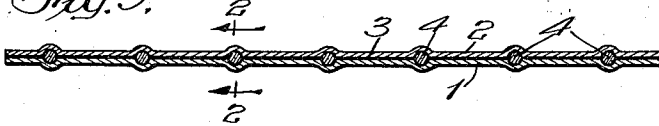


Fig. 4.

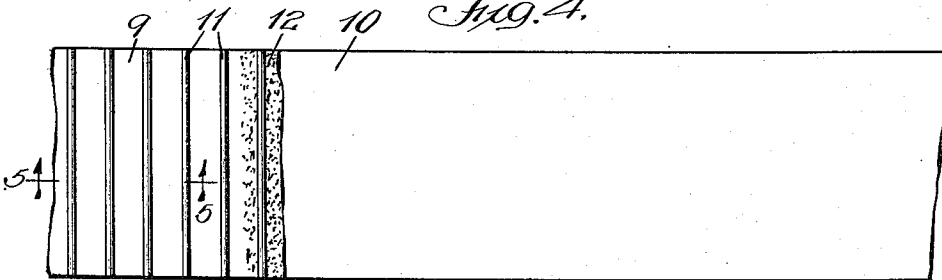
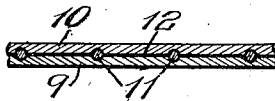


Fig. 5.



Witnesses:
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 Harry R. LeWhite.

Inventor:
 Chris Wisbrock
 By *Shee & Shee*
 ATTYS.

Nov. 20, 1923.

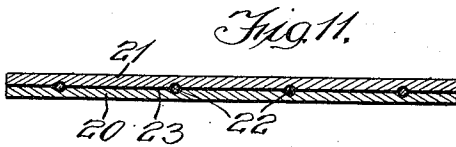
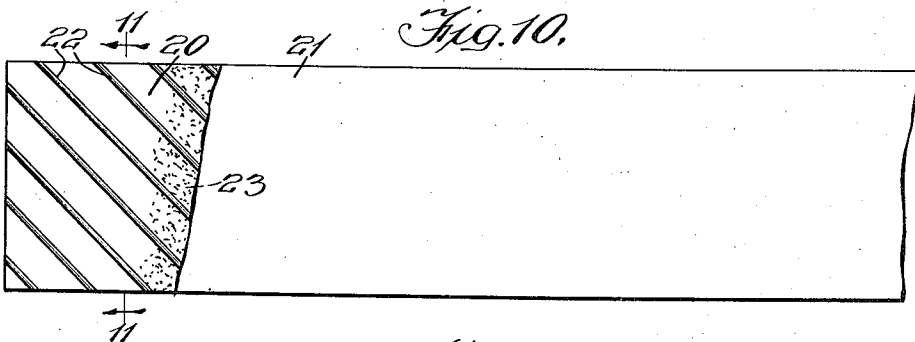
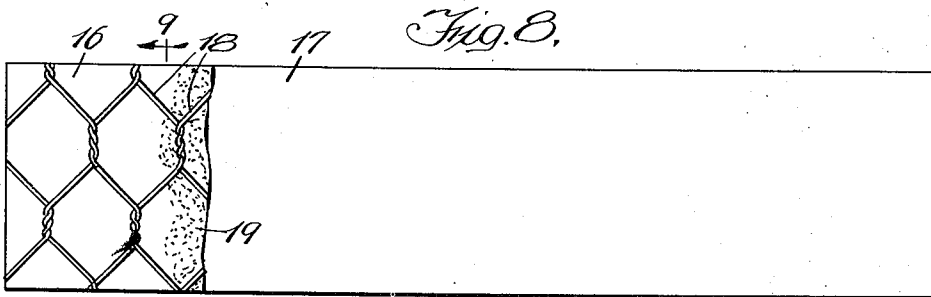
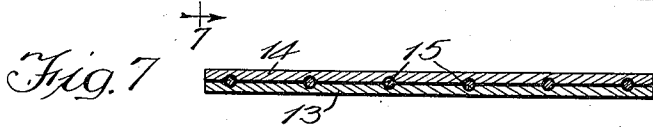
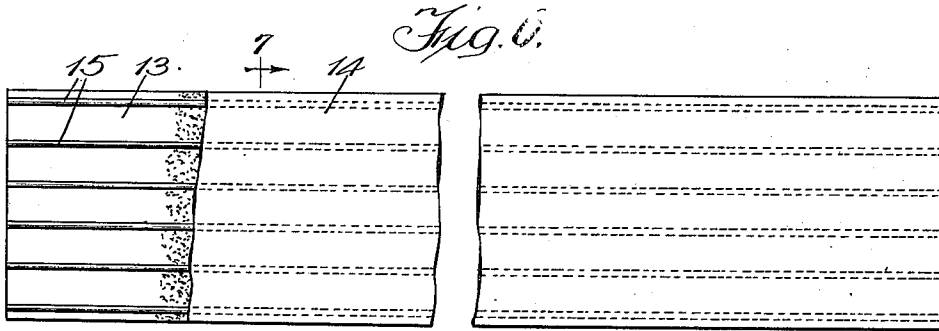
1,474,699

C. WISBROCK

REINFORCED BOARD

Filed April 21, 1920

2 Sheets-Sheet 2



Witnesses:

W. P. Kilroy

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UNITED STATES PATENT OFFICE.

CHRIS WISBROCK, OF WEST CHICAGO, ILLINOIS.

REENFORCED BOARD.

Application filed April 21, 1920. Serial No. 375,565.

To all whom it may concern:

Be it known that I, CHRIS WISBROCK, a citizen of the United States, residing at West Chicago, in the county of Du Page and State of Illinois, have invented certain new and useful Improvements in a Reenforced Board, of which the following is the description.

My invention belongs to that general class of devices known as reenforced boards and relates particularly to built up composition boards which are suitably reenforced and substantially stiffened. The invention has among its objects the production of a board or covering material which is simple, convenient, inexpensive, durable, reliable, efficient and satisfactory for use wherever found applicable. It has particularly as an object the production of a board or covering material of the kind described which is not only extremely durable and of long life, but which is substantially water or moisture proof, is of light weight, and may be easily shipped or handled. It has particularly as an object the production of covering material which, when applied in building construction purposes, will be retained in place and not be easily pulled up or pulled loose. Many other objects and advantages of the construction herein shown and described will be obvious to those skilled in the art from the disclosure herein given.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference characters indicate like or corresponding parts,

Figure 1 is a perspective view of a portion of one form of my board, a portion of one cover sheet slightly raised to more clearly show the construction;

Figure 2 is a sectional view of the same taken substantially on line 2—2 of Figure 3;

Figure 3 is a sectional view of the same taken substantially on line 3—3 of Figure 2;

Figure 4 is a view in elevation with a portion at one end broken away illustrating a slightly different construction;

Figure 5 is a sectional view taken substantially on line 5—5 of Figure 4, the cover sheet 10 in place;

Figure 6 is a plan view similar to Figure

4 illustrating another slightly different construction;

Figure 7 is a sectional view taken substantially on line 7—7 of Figure 6;

Figure 8 is a view similar to Figure 4 illustrating another form;

Figure 9 is a sectional view taken substantially on line 9—9 of Figure 8, the cover sheet 17 in place;

Figure 10 is a view similar to Figure 4 illustrating still another form of the device; and

Figure 11 is another view taken substantially on line 11—11 of Figure 10, the cover sheet 21 in place.

Referring to the drawings, it may be mentioned that my improved product or covering material is particularly adapted for use as a roofing, siding, partition or the like, or that the same may be used to construct hay or straw stack covers, wagon, car or other vehicle tops or roofs and the like. The product consists in the preferred embodiment of the invention, of a plurality of sheets or plies of suitable material such as tar paper or other fibrous sheets which are preferably impregnated with tar, asphalt or other water proofing medium. The plies are suitably secured together by means of a suitable binder, for example, I prefer to use tar or asphalt, or the two combined. The sheets or cover material may be of the desired size, for example from a few inches square or rectangular, or substantially in the shape of shingles, to strips of the desired size. The various sheets or boards may be made of the desired design, being cut to shape either before or after making, as may be desired.

As shown in Figures 1, 2 and 3, there is illustrated a shingle consisting of a desired number of cover sheets, 1 and 2 being shown which, as before mentioned, are preferably of tar impregnated or otherwise filled or treated board or paper or the like. The desired number of plies are secured together by a binder 3, for example a mixture of tar and asphalt or the equivalent. Before the sheets 1 and 2 are secured together, however, there are arranged between them the desired number of wires or rods 4, or the like, preferably of steel or equivalent material, which are imbedded in the binder and secured in place between the sheets. If desired, when the sheets or boards are to be employed as

shingles or siding or for other uses, one cover sheet, as for example sheet 2, may be folded over as at 5—6, so as to enclose what is to be the outside or exposed edge of the board. This is sealed and maintained in place by the binder, which may be applied between the two, or by equivalent binding means. The shingles are secured in place, for example by driving nails as indicated at 7—7, which are back or under the next adjacent shingles 8, as indicated by the dotted lines in Figure 1. If desired, staples bridging the wires may be employed. It will be noted that when the shingles are firmly nailed down or otherwise secured in place at the upper or covered edge, there is no fastening means exposed to the weather. Owing to the reinforcing rods or wires 4, the shingle is of suitable stiffness and although of light weight, the same cannot be easily lifted by the wind or other forces. If the same is, however, slightly raised temporarily, the resiliency of the wires will tend to move the same back and maintain it in its intended position.

The construction shown in Figure 4 is substantially similar except that the same is made of greater width or size. Referring to this figure, 9 and 10 represent the cover sheets, 11 the reinforcing members and 12 the binder. In Figure 6 the board is similar to that shown in Figure 4, consisting of sheets 13 and 14, but in this case the wires 15 are extended lengthwise. If desired, the board may be built up so as to be substantially a combination of that shown in Figures 4 and 6 with wires 11 extending one way and wires 15 extending the other way. This is in effect illustrated in Figure 8, in which 16 and 17 represent the cover sheets between which is arranged a binder 19 (see Fig. 9), 18 being the reinforcing wires. In this case the wires are shown in the shape of a fabric 18. Figures 10 and 11 illustrate cover sheets 20 and 21 between which are arranged the wires 22 and the binders 23. In this case, however, the wires 22 are shown extending diagonally.

As before mentioned, the boards may be cut or formed in the desired size and shape and there may be as many plies as may be found desirable, the additional plies being secured one to the other by the binder or its equivalent. The binder may be of the desired thickness, and the board may be constructed so that the outlines of the reen-

forcement do not show, for example as shown in Figures 5, 7, 9 and 11. The boards are substantially paper boards, which although thin and of light weight, have great strength and durability. They may be used wherever found applicable, inside or outside, either for roofing purposes, for siding, for partitions, or for other building or manufacturing purposes, or they may be used for various kinds of covers, for example for temporary covers for hay stacks or the like.

Having thus described my invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention; hence I do not wish to be understood as limiting myself to the exact form, arrangement, construction and combination of parts herein shown and described or uses mentioned.

What I claim as new and desire to secure by Letters Patent is:

1. A board consisting of a plurality of plies of non-metallic water proof fibrous material, metallic reinforcing means arranged between said plies and contacting therewith along predetermined lines on the entire area of said plies, there being predetermined unreinforced areas between said predetermined lines and enclosed thereby, one of the plies having an end turned over transversely of the ends of said reinforcing means, and overlapping the said ends and an edge of the board and enclosing the same, and a binder for securing the parts of the board together.

2. A board consisting of a plurality of plies of non-metallic water proof fibrous material, metallic means arranged between said plies for stiffening the board along predetermined lines over the entire area of said board, there being unstiffened areas enclosed by said lines, means at an edge of the board for enclosing the same and the ends of said stiffening means, said last named means extending laterally of said lines of stiffening, and a binder for securing the parts of the board together.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

CHRIS WISBROCK.

Witnesses:

ROY W. HILL,
BERTHA HARTMANN.