

(No Model.)

H. W. MOWRY.  
COMPO-BOARD.

No. 516,572.

Patented Mar. 13, 1894.

Fig. 2.

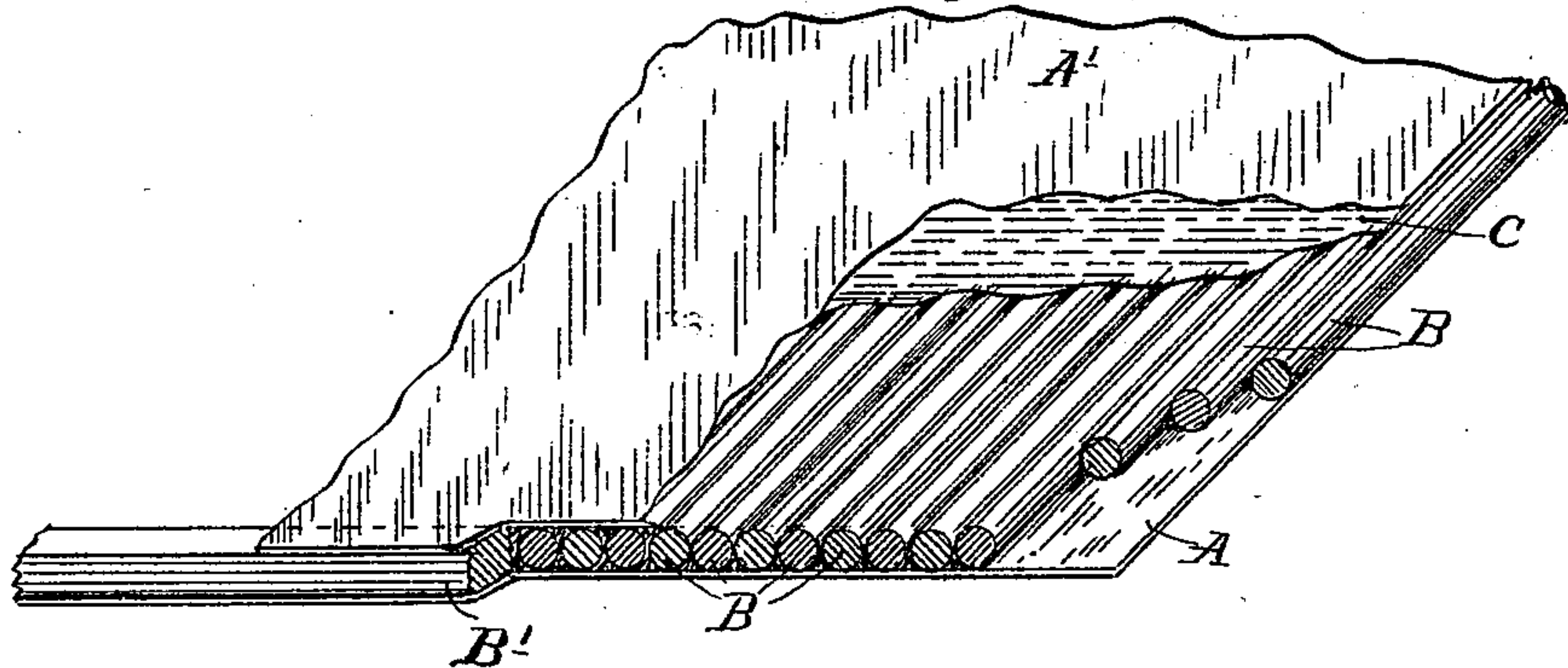


Fig. 3.

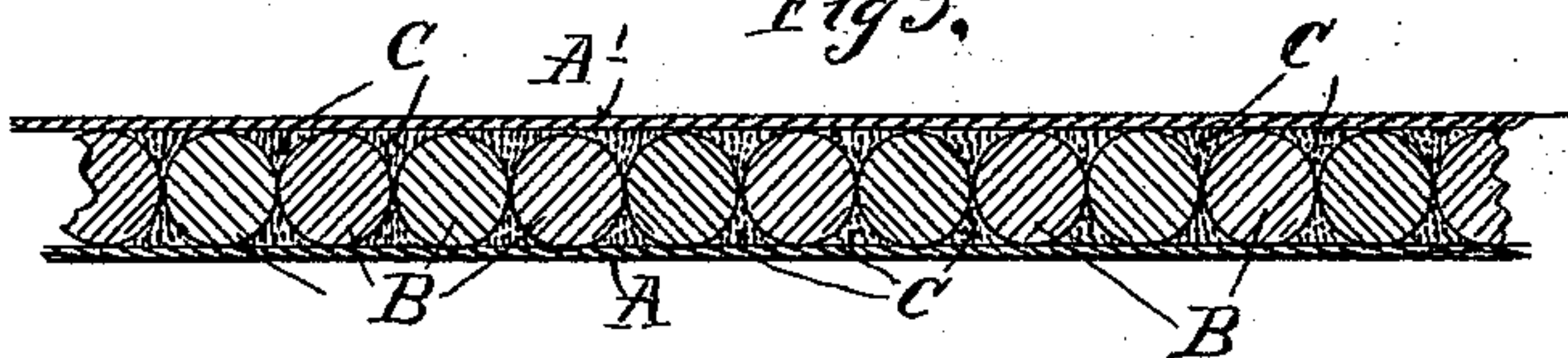


Fig. 1.

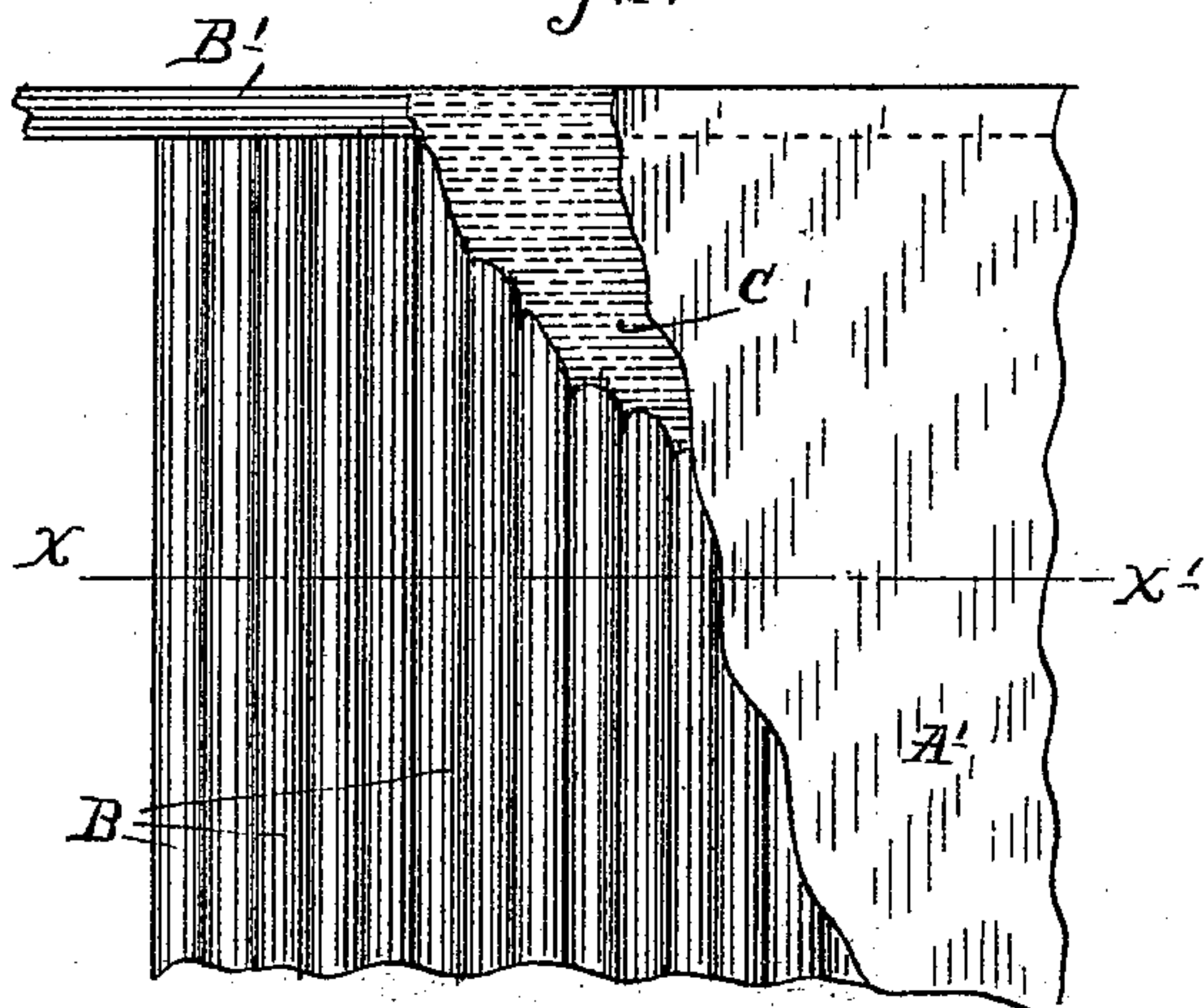
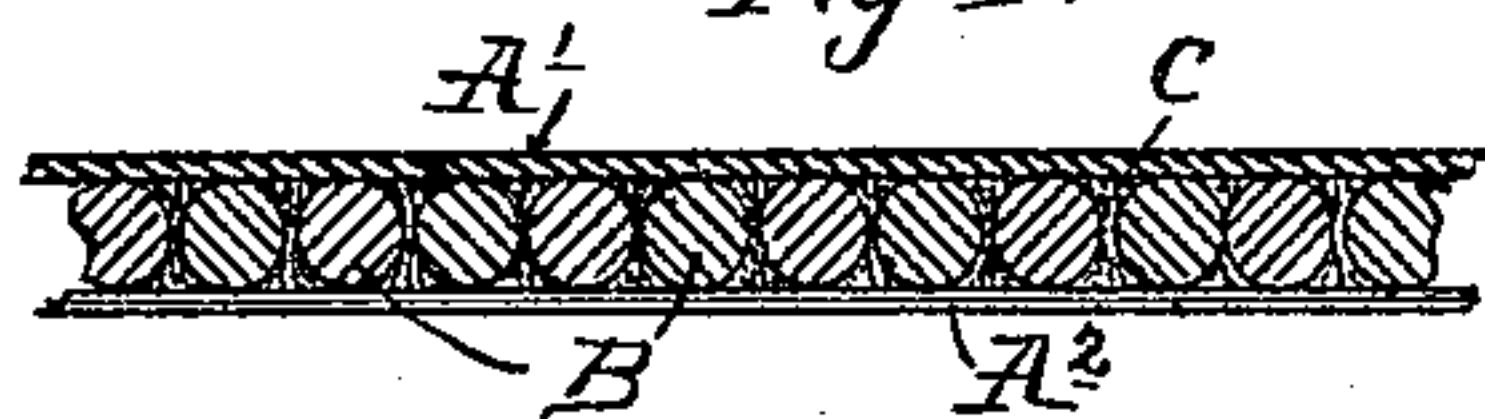


Fig. 4.



Witnesses.  
A. G. Opahl.  
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Harley W. Mowry  
By his Attorney  
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# UNITED STATES PATENT OFFICE.

HARLEY W. MOWRY, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO WILLIAM H. COOPER, OF SAME PLACE.

## COMPO BOARD.

SPECIFICATION forming part of Letters Patent No. 516,572, dated March 13, 1894.

Application filed March 7, 1893. Serial No. 464,990. (No specimens.)

*To all whom it may concern:*

Be it known that I, HARLEY W. MOWRY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Compo Boards; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of building material, which has recently become known to the trade, as compo-board; and has for its object to provide an improved article of this class.

To this end, the invention consists of the special construction hereinafter fully described and particularly defined in the claims.

My invention is illustrated in the accompanying drawings, wherein, like letters referring to like parts—

Figure 1 is a plan view of a piece of my improved compo-board, with some parts broken away and others removed, for better illustrating the construction. Fig. 2 is a perspective view of a piece of board, with some parts broken away, and others removed. Fig. 3 is a vertical longitudinal section, on the line X X' of Fig. 1; and Fig. 4 is a view similar to Fig. 3, on a smaller scale, showing the compo-board with one of its facings composed of asbestos paper.

Referring to Figs. 1, 2 and 3, A A' represent paper-board facings, composed of comparatively stiff straw or wood pulp-board embracing a wooden body composed of parallel closely laid cross rods B and marginal longitudinal binding strips B'; and C is a setting of cement, which binds together all the parts of the said wooden body and the said paper facings to the wooden body, uniting the whole into an integral solid board. The marginal binding strips B' are of flat form and abut against the ends of the wooden rods B.

In manufacturing the compo-board, the ordinary wood or stock lumber is resawed to one-quarter or three-eighth inch strips or boards, which are then run through a molding machine or sticker to form the rods B. The marginal strips B', are also prepared of the proper di-

mensions in any suitable way. Ordinary straw board building papers may be used for the paper facings. The paper-board is preferably cut to a width of thirty-two inches; and the length of the wooden rods B, and the width of the marginal binding strips B', are such as to make up the wooden body of the same width as the facings. The lower facing A, is then laid out on a flat surface, such as a table, and a liberal quantity of the cement C is spread over the same in a hot semi-liquid condition. The rods B and the marginal binding strips B', are then laid in the cement, on the top of the lower facing A. An additional amount of hot semi-liquid cement is then spread over the wooden body made up of the rods B and strips B', care being taken to fill up all the joints, crevices and openings, and to bring the top of the body of the cement to a comparatively uniform level. The top facing A' is then applied, while the cement is yet in a plastic condition. The whole composite material is then placed between the bed and platen of a powerful press and subjected to heavy pressure. The pressure is applied for a sufficient length of time, to permit the cement to set and dry out to a considerable extent. When thus made, all the parts will be united by the cement into an integral solid board. The cement employed is preferably composed of glue and whiting of about the consistency of paste paint. This cement will readily set and dry; and when set and dried is of a hard and stony character.

The composition or composite structure, composed of the elements above noted and formed as above described, constitutes a compo-board, which is rigid, strong and durable and which may be handled like ordinary lumber. The fact that the wooden cross strips are composed of rods instead of slats which are flat or rectangular in cross section, gives space for a larger body of cement, affording greater strength in the binding material and greater rigidity to the compo-board. The addition of the marginal strips B' abutting the ends of the cross-rods B, serves to bind the rods together, under the binding action of the cement, and acts as a longitudinal brace, giving a large amount of additional strength to the compo-board; and these marginal strips



B' are of a special value for the application of the nails, to secure the compo-board in position, and for forming close and finished joints. Without such a strip as B', for nailing purposes, it would be necessary, as has been found in practice with rectangular cross strips, to nail every rod B, requiring a much larger amount of expense in time, labor and quantity of nails required, and avoids splitting of the rods.

Instead of making both paper-board facings A A' of straw-board, I substitute, where fire-proofing is required, one or more facings of asbestos paper, as shown at A<sup>2</sup> in Fig. 4; or if so desired, both facings may be made of such asbestos paper.

A compo-board, such as I have above described, is capable of a wide range of use, but is especially serviceable as a substitute for lath and plaster in buildings, and is well adapted, both for inside and outside walls of the same.

When the compo-boards are placed in position, properly jointed with the use of a little cement or glue applied to the edges of the same, a perfectly tight wall will be formed well adapted for the application of either paint or paper.

Such a compo-board is well adapted for portable houses, enabling the same to be quickly taken down and put together. It is also serviceable for roofing with the use of battens over the joints. It makes a good surface for the application of a slate paint, for use as a black-board. It is sufficiently strong and rigid to be used as doors, trunks, sample cases, &c. In short, this compo-board may be used generally in the arts where a lumber-

board of like thickness could be employed and in many uses, for which said strips of lumber would be unfitted. The fact that it is impervious to air and by the application of a water-proof paint may be made impervious to water, renders the same an excellent medium for use in buildings.

The article can be made at a comparatively low cost, so as to render its use commercially practicable.

Waste lumber from wood working establishments, such as from sash and blind factories, may be utilized as material for the wooden rods B.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. A compo-board, comprising a wooden body, consisting of parallel closely laid cross-strips and longitudinal marginal binding strips abutting the ends of said cross strips, in the same horizontal plane therewith paper-board facings embracing the said wooden body, and a setting of cement binding all of the said parts together into an integral and solid board, substantially as described.

2. A compo-board, comprising a wooden body, consisting of parallel cross rods and flat marginal strips abutting the ends of the rods, paper-board facings embracing said wooden body, and a setting of cement binding together all of the said parts, into an integral and solid board, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HARLEY W. MOWRY.

Witnesses:

JAS. F. WILLIAMSON,  
EMMA F. ELMORE.