

(No Model.)

C. F. BRIGHAM.

ASBESTUS COMPOUND AND ARTICLES MADE THEREFROM.

No. 298,281.

Patented May 6, 1884.

Fig:1.

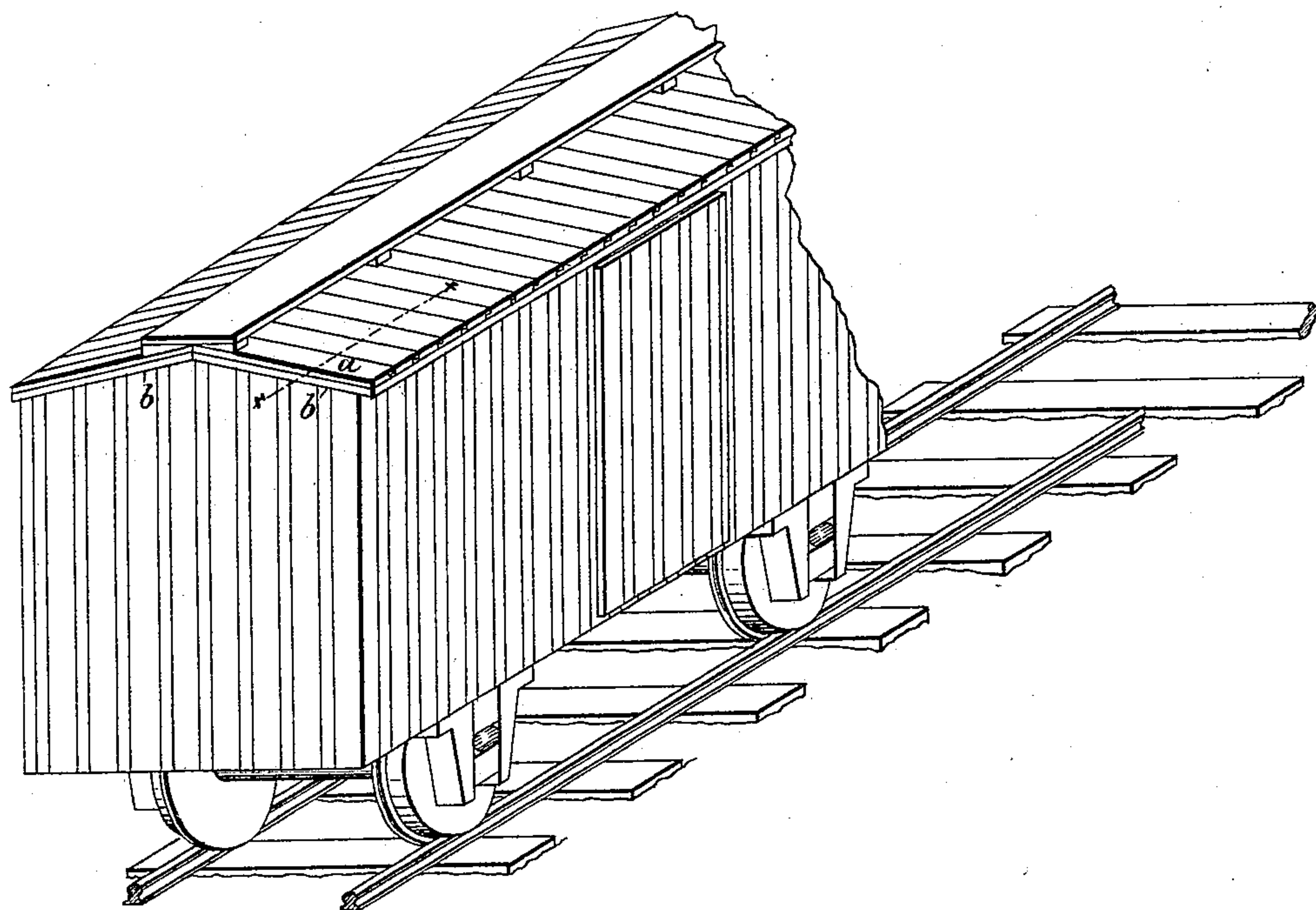


Fig:2.

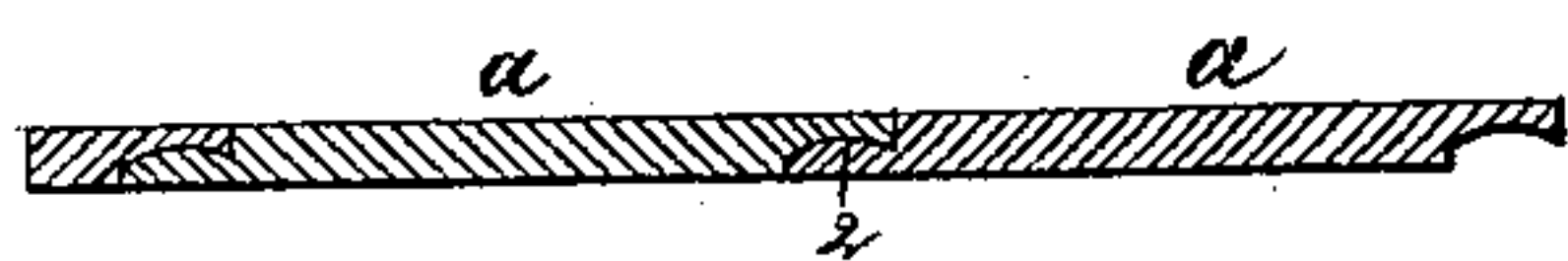
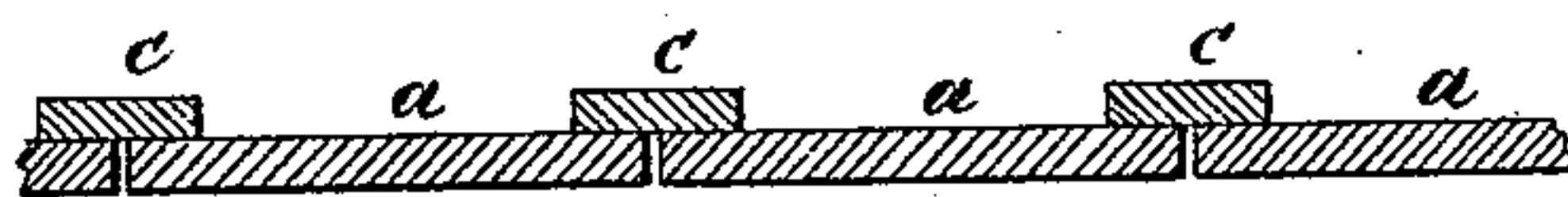


Fig:3.



Witnesses
Arthur Lippert
John F. C. Printkott

Inventor.
Charles F. Brigham
by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

CHARLES F. BRIGHAM, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF
THREE-FOURTHS TO D. AUSTIN BROWN, TRUSTEE.

ASBESTUS COMPOUND AND ARTICLES MADE THEREFROM.

SPECIFICATION forming part of Letters Patent No. 298,281, dated May 6, 1884.

Application filed September 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FRANCIS BRIGHAM, of Worcester, county of Worcester, State of Massachusetts, have invented an Improvement in Asbestos Compounds and Articles Produced Therefrom, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of an improved asbestos compound which is adapted to be molded or formed into desired shape, as now commonly practiced with paper or other pulp, the said compound being made, as will be described, fire and water proof, and quite hard, to take the place of wood or iron in the arts.

In the manufacture of my improved compound, I take asbestos, preferably in fibrous form, and either with or without other fiber, of a vegetable or mineral nature, as an extender for cheapness, and with the same I incorporate oxide of magnesium, and thereafter apply chloride of magnesium or any well-known equivalent therefor, to temper and bring the same into plastic state, the compound so produced being molded or formed into the desired shape, as paper or other pulp is molded or shaped.

I have herein shown the improved compound adapted for use as boards or sheathing for roofing for cars and building purposes, or for purposes to which wood is adapted, and it is obvious that many different articles which it is desired should be fire and water proof may be produced from it by the employment of molds of suitable shape.

Figure 1 of the accompanying drawings shows a portion of a railway-car covered with boards made in accordance with my invention; Fig. 2, a section taken across two boards of the roof, showing their overlapping edges abutted; and Fig. 3, a modification.

The boards *a a*, composed of my improved compound, and used in the roof of the car, are rabbeted at each edge, as at 2, so as to overlap, and the said edges, when overlapped,

are coated, or have applied to them a suitable cement to form a water-tight joint, and the said overlapping edges are screwed or nailed to the roof-boards *b*. A car or other roof composed of boards *a a* will be fire and water proof and very durable. If desired, the edges of the boards *a a* might be abutted, and the joint, properly cemented, be covered either with a batten, *c*, Fig. 3, composed of my improved compound or of metal.

In the manufacture of my improved compound for the best results as a fire-proof material, I prefer to mix about equal parts, by weight, of asbestos and oxide of magnesium, and then add a sufficient quantity of chloride of magnesium or other well-known equivalent material to render the same sufficiently plastic to be molded or shaped by pressure into the desired form. To cheapen this product, and at the same time make it lighter in weight, I may add to the asbestos, as an extender, about an equal portion, in bulk, of paper pulp; and, to render this latter better adapted in the compound to resist fire and water, I add to it, before incorporating it with the asbestos, any usual materials which are employed to render paper fire-proof—as, for instance, potash, alum, &c. The paper-pulp, treated to render it fire-proof, will preferably be mixed dry with the asbestos and oxide of magnesium, and all be thereafter tempered or rendered plastic.

I do not desire to limit my invention to the exact proportion of asbestos and magnesium or of paper-pulp, as the same may be changed and produce articles of undoubted value as to durability and fire and water resisting qualities.

By the term "rabbeted" I intend to include any well-known form of overlapping joint.

I claim—

1. A compound such as herein described, composed, essentially, of asbestos and oxide of magnesium, incorporated and tempered or made plastic to be molded, substantially as described.

2. A compound such as herein described,

composed, essentially, of asbestos, oxide of magnesium, and paper-pulp, mixed and suitably tempered to render the same plastic, substantially as described.

- 5 3. A board or other molded article composed of asbestos, having incorporated with it oxide of magnesium, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES F. BRIGHAM.

Witnesses:

G. W. GREGORY,
B. J. NOYES.