No. 841,749. PATENTED JAN. 22, 1907

J. R. & A. WELLS.

METHOD OF MAKING FIREPROOF MATERIAL.

APPLICATION FILED SEPT. 19, 1906.

Fig. 1.

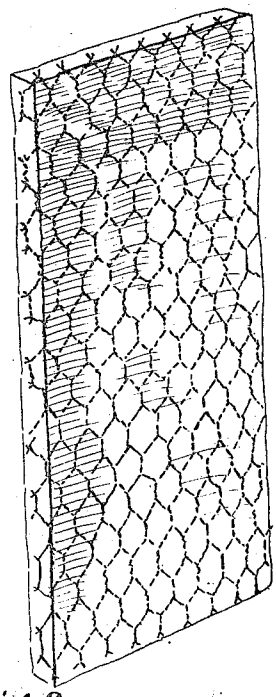


Fig. 2.

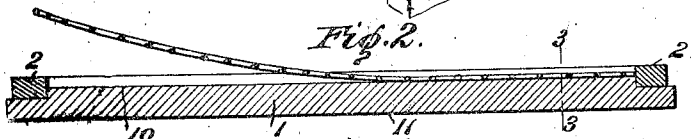


Fig. 3.

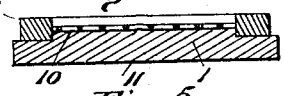


Fig. 4.



Fig. 5.

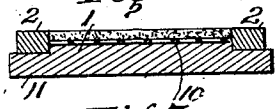


Fig. 6.



Fig. 7.

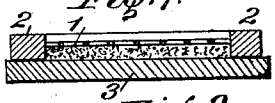


Fig. 8.

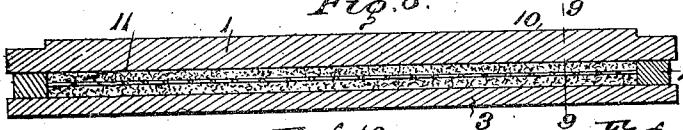


Fig. 9.

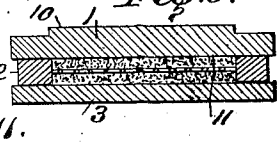


Fig. 10.



Fig. 11.



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METHOD OF MAKING FIREPROOF MATERIAL.

No. 841,749. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed September 19, 1906. Serial No. 335,237.

To all whom it may concern:

Be it known that we, JAMES R. WELLS and ALBERT WELLS, residing at Kenton, in the county of Hardin and State of Ohio, have invented a new and Improved Method of Making Fireproof Material, of which the following is a specification.

Our invention seeks to provide a new and improved method for economically and effectively manufacturing an improved fireproof material of rigid character suitable for use as a lining for banks, vaults, inside fireproof walls, flue-lining or stove-lining, and the like, and it comprehends a method hereinafter fully described, specifically pointed out in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a plate or section of fireproof material made in accordance with our invention. Fig. 2 is a detail view which illustrates the initial step of our improved method. Fig. 3 is a transverse section taken on the line 3 3 on Fig. 2. Fig. 4 is a detail view that illustrates the second step of our method or process of making fireproof material. Fig. 5 is a transverse section on the line 5 5 on Fig. 4. Fig. 6 is a longitudinal section of the mold members, being in position for effecting the third step of our method or process. Fig. 7 is a transverse section thereof. Fig. 8 is a longitudinal section, and Fig. 9 a transverse section, of the mold and illustrating the members in position for effecting the final step of our process. Figs. 10 and 11 are views that illustrate the different shapes of molds that may be used in the manufacture of our form of fireproof material.

Briefly stated, the article produced by our method and means is a solidified fireproof material—for example, asbestos and clay having a central metallic reinforce, preferably of meshed wire.

In the practical application of our method the first step we employ is to support the metallic reinforce (the meshed-wire frame) flatwise upon or up against the solid flat base and then spread upon or against the wire frame a coating of suitable thickness of the fire-proof compound, preferably asbestos and clay, in a semiplastic condition, and then hold the same until it is set, and after the same is set to an even layer or thickness throughout, but before it is throughly dried, the said set composition, with the wire body uppermost, is held upon or against a solid base and another coating of the fireproof composition of suitable thickness is applied against the wire face of the previously-applied compound, and the whole is then held under compression until the same has become solidified and a hardened mass.

Various means might be employed for mechanically effecting the several steps of our process described; but on the score of economy and ease of manipulation we prefer to employ a special means illustrated in the accompanying drawings, the construction of which and the manner of operation thereof being best explained as follows: By referring to Fig. 2 it will be noticed that we use a removable top board or mold-piece 1, which has its sides and ends on one face of less thickness than the remainder, whereby the raised face 10 is provided in a plane above the side and end portions of the top face a distance approximately equal to one-half of the thickness of the material or product to be made, whereas the other or back face 11 is uniformly flat throughout. The depressed side and end portions of the board 1 form seats to receive a rectangular frame 2, which may be a rigid frame or may be a post of removable side and end battens. These battens or frame members are of a thickness equal that of the thickness of the product to be made, as will be clearly understood by reference to Figs. 2 and 3, from which it will be noticed that the wire frame is first laid open on a flat base or mold member 1 between the end and side portions on the frame 2. The fireproof-material compound in a plastic condition is now filled, as the wire member and also the base member 1 completely fills the space within the frame 2. After the said filling is set, but before it is solidified, a bottom mold-piece 3 is placed over the frame 2, and the said frame 2 and mold-piece 3 are turned over, then held on a suitable support, and the mold-piece 1 is removed. The space now left within the frame 2 and above the wire face of the partially-set composition is now filled with the fireproof compound until the space within the frame is filled, after which the mold-piece or member 1 is reversed and held upon the frame 2, with its back or flat side against the lining portion of the compound filled within the frame 2. The mold can now be placed, if desired, under pressure by suitable means, and thus held until the composition, with the wire located in the middle thereof, has become thoroughly

solidified, when the material is removed from the completed product.

It will be understood that in practice the mold may be made of different shapes, so as to produce a fire-back or other lining of various shapes—as, for example, illustrated in Figs. 8 and 9.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The method of making fireproof material, which consists in sustaining the wire screen in a flatwise condition and then temporarily covering one side of the said wire screen and then permanently covering the other side of the said screen with fireproof plastic compound, then removing said temporary covering and covering the exposed side of the wire screen with a coating of plastic fireproof material.

2. The method of making fireproof material, which consists in sustaining a metallic body to lie in a plane with and against a base, pressing the coating of plastic fireproof substance, such as asbestos and clay against the metallic body, then sustaining the plastic and metallic body against and in a plane with the base with the metal portion facing outward and then applying a coating of plastic fireproof material, such as asbestos and clay against the said metallic-facing body, as set forth.

3. The herein-described method of preparing fireproof material, which consists in taking a screen-wire section and supporting it flatwise to lie in a plane with and on a suitable base, then applying on top of the said wire a coating of plastic fireproof material of even thickness, and when said coating is set, supporting the said coating upon a suitable base with the wire facing outermost and then applying another and second coating of fireproof material on top of the other and wire-covered coating, as set forth.

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Witnesses:
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