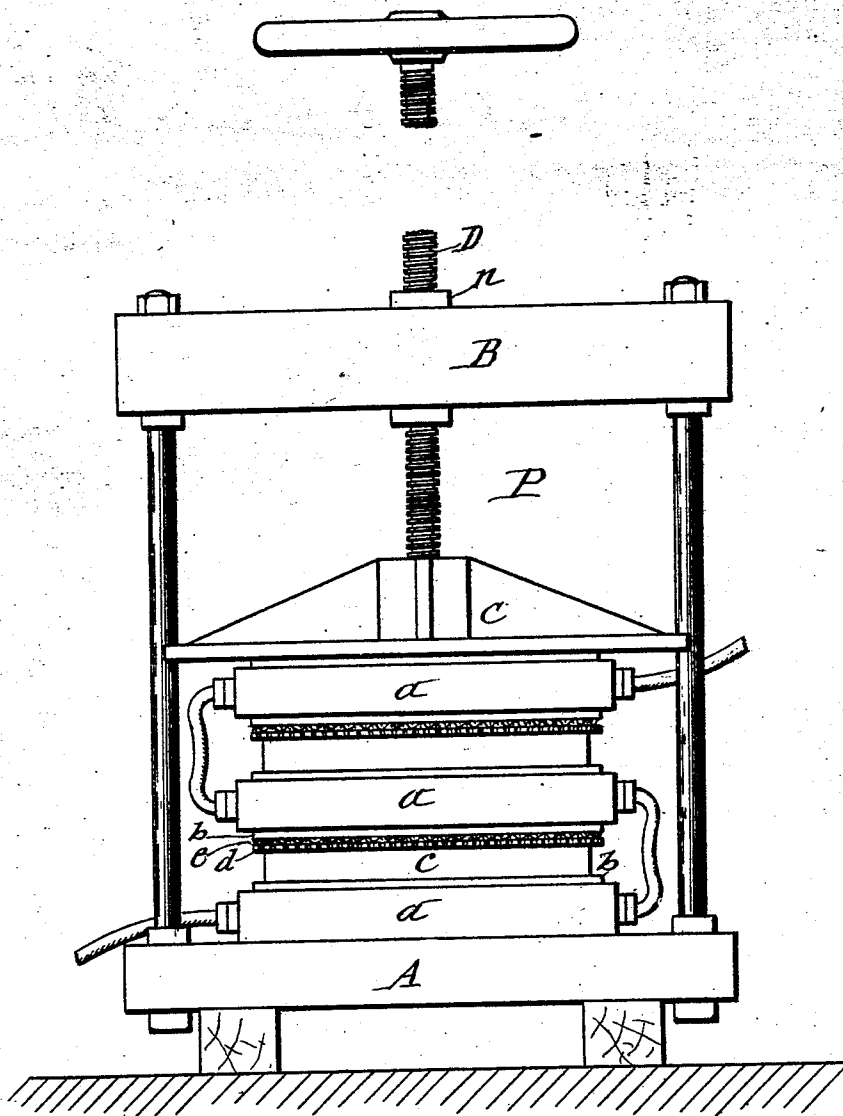


84

J. A. WHEELER.
METHOD OF FORMING FIREPROOF SLABS OR BOARDS.
APPLICATION FILED MAR. 2, 1908.

984,870.

Patented Feb. 21, 1911.



Witnesses:
J. J. Laess
J. N. Seism

Inventor:
James A. Wheeler
By his Attorney *C. Laess*

106
84

XR

984,870

UNITED STATES PATENT OFFICE.

JAMES A. WHEELER, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO
WILLIAM T. ELKINTON, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF FORMING FIREPROOF SLABS OR BOARDS.

984,870.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed March 2, 1908. Serial No. 418,632.

REISSUED *Re 13-49*

To all whom it may concern:

Be it known that I, JAMES A. WHEELER, citizen of the United States, and resident of the city of New York, in the county of New York, in the State of New York, have invented new and useful Improvements in Methods of Forming Fireproof Slabs or Boards, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of building materials which are formed of artificially united substances solidified to resist the strain exerted on it by the structure to which it is applied.

The object of this invention is to provide a building material which shall possess the aforesaid capacity in the highest degree and at the same time the capability of resisting fire or intense heat.

To that end the invention consists essentially of a solidified compound comprising burnt clay as its basis combined with asbestos incorporated therewith, and a binding material commingled with said materials and permanently uniting the same, as hereinafter more fully explained and set forth in the claim.

In carrying out my invention, I use broken burned bricks, or the equivalent thereof consisting of lumps of ordinary clay burned in a suitable kiln to the hardness of burned bricks.

I crush these burned lumps or broken bricks into small particles or into a pulverous condition by means of a suitable machine or apparatus. I then mix with said material a suitable amount of asbestos so as to effectually incorporate it therewith. I then add to said mixture a sufficient quantity of water and a suitable binding material, especially silicate of soda, and thoroughly stir the mass to convert it into plastic substance of proper consistency to allow it to be molded or formed into any desired shape according to the use for which it is intended. This molded article I prefer to harden and dry by placing it on a heated plate arranged in a suitable press by the operation of which the material of the article is compressed.

In case the molded article is of the form of a slab or board suitable to serve as flooring, ceiling, or wainscoting and similar parts of a building, I place in the press a

tier of the molded articles as shown in the accompanying drawing, in which—

—P— denotes the press which may be of any suitable shape and construction.

—a—a represent a plurality of plates which are hollow and are heated by steam admitted into the interiors of said plates. In placing the molded articles in the press, the first plate —a— is disposed on the bed or base —A— of the press, then a smooth metal sheet —b— is placed upon the said plate —a—, and upon the sheet —b— is placed the molded article —c—, then a perforated metal sheet —d— is placed upon the molded article —c—, the perforations of said sheet being formed with upwardly projecting edges or burs to allow steam to escape from the molded article. Upon the sheet —d— is laid a sheet of wire-netting —e— to allow the aforesaid escaping steam to pass out laterally from the top of the sheet —d—. Upon this wire-netting is placed a smooth metal sheet —b— and upon this is placed the second heated plate —a—. In this manner the molded articles with intervening plates and sheets are successively disposed in a tier in the press and then by operating said press so as to cause the follower —C— to press onto the top of the tier, the entire tier of molded articles is subjected to the required pressure and heat to effectually harden and dry said articles.

In a press of the type here illustrated, the pressure is obtained by the operation of the screw —D— working in a nut *n* attached to the head B of the press.

What I claim as my invention is:

The method of forming fire-proof slabs or boards which consists in burning common clay to the requisite hardness and then crushing the same to a pulverous condition, then mixing with said material a suitable amount of asbestos, then adding to the mixture silicate of soda and water to produce a plastic substance, then molding the plastic substance into the desired shape, and finally placing the molded articles in a tier in a suitable press with intervening heated plates sheets of wire-netting, and subjecting the tier to the requisite pressure and heat to effectually harden and dry the said articles.

JAMES A. WHEELER, [L. S.]

Witnesses:

WILLIAM B. BULL,
GRACE BRENNAN.