(No Model.)

J. C. ANDERSON.

METHOD OF PREVENTING SALTPETER EXUDATIONS FROM FORMING ON THE FACES OF WALLS OF BUILDINGS.

No. 332,580. Patented Dec. 15, 1885.

Fig. 1.

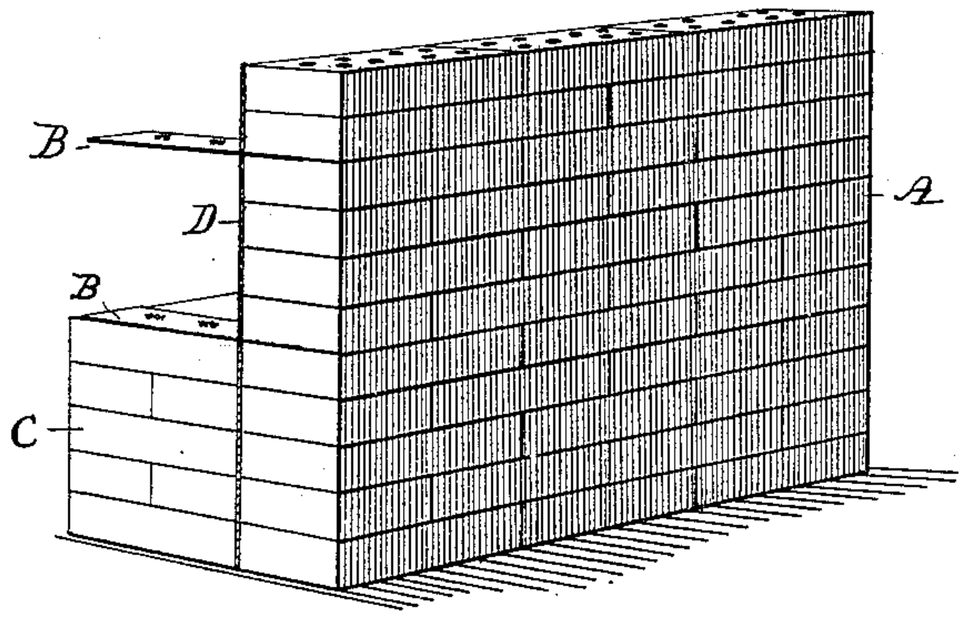


Fig. 2.

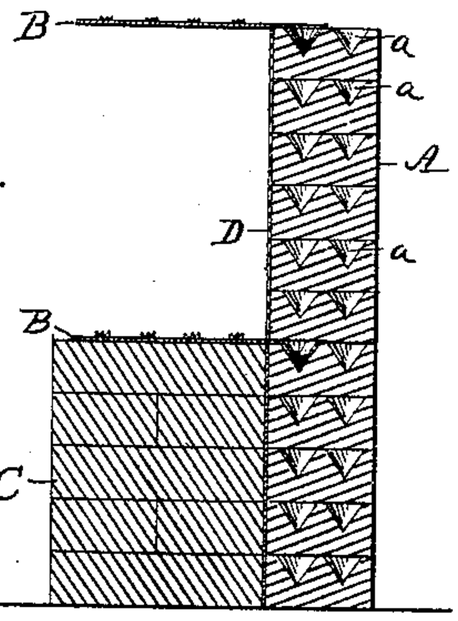
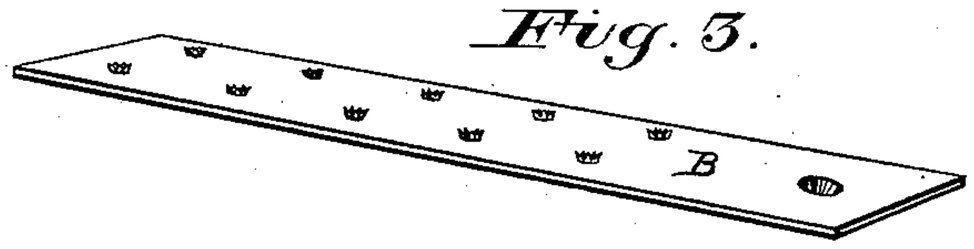


Fig. 3.



WITNESSES

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METHOD OF PREVENTING SALTPETER EXUDATIONS FROM FORMING ON THE FACES OF WALLS OF BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 332,580, dated December 15, 1885.

Application filed October 2, 1885. Serial No. 178,808. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. ANDERSON, a citizen of the United States, residing at Highland Park, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Methods of Preventing Saltpeter Exudations from Forming on the Face-Wall of Buildings, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to the construction of the brick walls of buildings, so as to prevent the saltpeter exudations from appearing on the face or face-wall of the same, this invention being designed as an improvement on Letters Patent of the United States No. 271,591, granted to me February 6, 1883.

The primary causes and the ingredients of an alkaline nature contained in common clay, together with their chemical changes incident to certain conditions of the atmosphere and the appearance of the alkaline deposits on the face-wall of buildings, are fully set forth in my patent above referred to, and need not be repeated in this connection; and, instead of using an intervening sheet of felt or tarred paper for isolating the front from the rear wall, I use a coating or layer of a compound composed of paraffine, crude petroleum, and benzine.

Referring to the drawings, Figure 1 is a view in perspective of a portion of a wall constructed in accordance with my present invention. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a view in perspective of an anchor bar or plate for tying or binding the front to the rear wall.

A indicates the front layers of brick forming the wall of the building, composed of brick made from the best quality of clay, being free from sulphate of soda or other ingredients which would form the white or unsightly deposits on the outer face of the brick. I lay the brick in this front wall in continuous courses as "stretchers" without the use of "headers," as is the common practice in the construction of walls, these brick being provided with depressions or cavities *a* for holding the mortar, and also for receiving a burr or projection on the binders or anchors B.

C indicates the rear portion of the wall, and is built of common brick in the ordinary way, with headers and stretchers, said wall being anchored to the front wall, A, by means of the binders or anchors B, as described in my patent above referred to.

D indicates the coating or layer of a composition consisting of paraffine, crude petroleum, and benzine, which is applied to the rear wall in a uniform manner by means of a brush or in any other suitable manner.

Paraffine-wax, from its great insolubility and indifference to water and to the alkalies and acids in solution with water at the ordinary atmospheric temperatures, when spread upon the surface or absorbed into the pores of a brick, renders it perfectly impervious to water and atmospheric action. Being a solid, however, it cannot be used in its natural state to advantage, and it is difficult to find a solvent which will retain it in a liquid state when cold, so as to admit of its being applied uniformly to the surface of the wall. I overcome this difficulty, however, by preparing it or combining it with crude petroleum and benzine in the following manner and in substantially the following proportions: One part of paraffine-wax with four parts of crude petroleum is placed in a suitable vessel and heated to above the melting-point of the paraffine. In this condition the paraffine will combine with the crude petroleum and assume a pasty or semi-liquid condition. I do not wish to be understood as limiting myself to the use of crude petroleum as a solvent for the paraffine, for the reason that linseed-oil will, under certain conditions of heat, combine with the paraffine, while benzole, gasoline, kerosene, and other like substances may be used instead of the benzine to liquefy and render the compound easy of absorption by the brick. When the paraffine and crude petroleum have been thoroughly combined, the vessel is then removed from the fire, and before it is fully cooled one part of benzine is added to twenty (20) parts of the compound. The benzine renders the compound quite liquid, so that it can be readily applied to the surface with a brush, and is absorbed into the pores of the brick with great facility. A coating of this compound is applied to the inner side of the front wall while it is being built, care being taken to apply it over the mortar joints and the en-

tire surface of the wall. The coating of the compound may be applied, however, to the rear wall or to both walls, but is by preference applied to the rear side of the front wall, the front wall being usually advanced four or five courses above the rear wall or the space designed to be left between each row of the binders or anchors. By this method ample opportunity is offered to apply the compound to the rear face of the front wall, which is entirely covered, not only the surface of the brick, but also the mortar-joints, thus making a barrier which perfectly insulates the front from the rear wall.

Instead of applying the compound in a liquid state with a brush, I may apply it in a semi-liquid or pasty state and grout it into the joint or space between the two contiguous walls.

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

1. The method herein described of preventing saltpeter exudations and deposits on the face-wall of brick buildings, the same consisting in interposing a coating or layer of an acid and water proof compound applied in a plastic or semi-plastic condition between the front and rear walls, substantially in the manner set forth.

2. A brick wall for buildings, consisting of a front wall of fine face-brick, with a rear wall of coarser brick contiguous thereto, but separated from the front wall by a continuous coating or layer of a composition of paraffine, crude petroleum, and benzine, the front and rear walls being held together by suitable binders or anchors, as set forth.

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

J. C. ANDERSON.

Witnesses:
ADÉLE EVERETT,
W. P. MORGAN.