

G. H. FIELD.
Construction of Walls.

No. 166,760.

Patented Aug. 17, 1875.

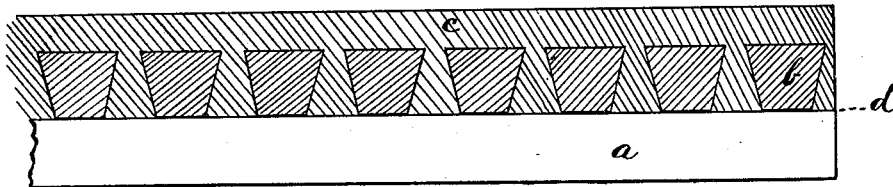


Fig. 1.

Witnesses:
Frank H. Jordan.
Edwin V. Haskell

Inventor:
Granville H. Field
By his Attorney
William Henry Clifford

UNITED STATES PATENT OFFICE.

GRANVILLE H. FIELD, OF AUBURN, MAINE.

IMPROVEMENT IN CONSTRUCTION OF WALLS.

Specification forming part of Letters Patent No. **166,760**, dated August 17, 1875; application filed June 25, 1873.

To all whom it may concern:

Be it known that I, GRANVILLE H. FIELD, of Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in the Walls of Buildings; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in the walls of buildings, by which I am enabled to employ an artificial-stone compound. By this term I mean cement, mastic, or any like plastic material or composition used for facing the outside of houses, or their inside walls, ceilings, &c. The outer face can be formed or marked to imitate stone or any other desired description of outer walls.

The invention consists more particularly in constructing a wall for buildings by means of cross-pieces and uprights made of wood, and suitably prepared by being immersed in or coated with tar or some like substance, and in the application and adjustment of the same each to the other, so that suitable spaces of desirable shape shall be left between them, and the surface or face so made covered with any desired compound, as above, all as will now be more specifically and in detail set out.

In the accompanying drawing, *a* represents an upright or joist of a building. These uprights are made of wood. Across these are stretched the horizontal laths or pieces *b*. *c* indicates the compound when applied to the outside. It will be observed that the pieces *b* are made flaring, or of that form called dove-tail; but any suitable form may be used. The compound *c* is of course applied when in a green or plastic state. Being pressed and fitting into the spaces between the stretchers *b*, it is, when dried, held securely to its place on the wood-work of the building.

The chief danger to be avoided in this kind of wall is the cracking of the compound *c* by reason of the contraction and expansion of the pieces *b* as they are affected by the heat or dryness or moisture of the atmosphere. This I prevent by coating or soaking the parts *b*, and, if required, *a*, in tar or any resinous, bituminous, or tarry compound, which will prevent the wood from being affected by heat or cold, and prevent the absorption of moisture. When thus prepared the frame-work, composed of the parts *a* and *b*, is first set up, and then the coating *c* is filled in, beginning from the outer edges of the uprights *a*. Of course, if desired, it can penetrate between them; but, in practice, it will be found sufficient to commence with the compound at the line *d*. The compound can have such thickness over the stretchers, on the outside, as experience shall determine. The boarding, if desired, can be laid between the stretchers *b* from one upright to another, to fill up the bottom or inner end of the spaces between the stretchers, and for the compound to rest against.

A wall thus constructed will successfully resist the influences of weather; is strong, warm, and capable of being with ease worked into ornamental designs on the outside. It is cheap, and can be built with rapidity.

If desired, these walls can be built in portable sections.

What I claim as my invention, and desire to secure by Letters Patent, is—

The wall for buildings consisting of cross *b* and uprights *a*, prepared by immersion in tar or similar water-repellent substance, to prevent shrinking and swelling, as described, and having the spaces between and the surface covered with cement or like substance, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of June, 1873.

GRANVILLE H. FIELD.

Witnesses:

THOMAS A. HUSTON,
DAVID RODRICK.