

(No Model.)

J. W. BEAUMONT.

WALL FOR BUILDINGS OR OTHER STRUCTURES.

No. 466,147.

Patented Dec. 29, 1891.

Fig 1.

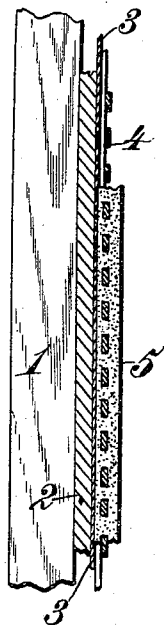


Fig 2.

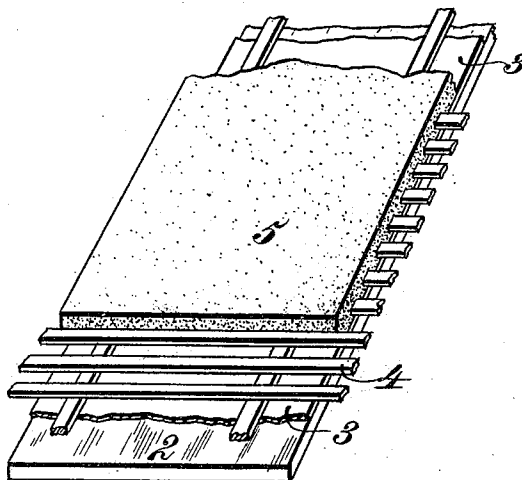
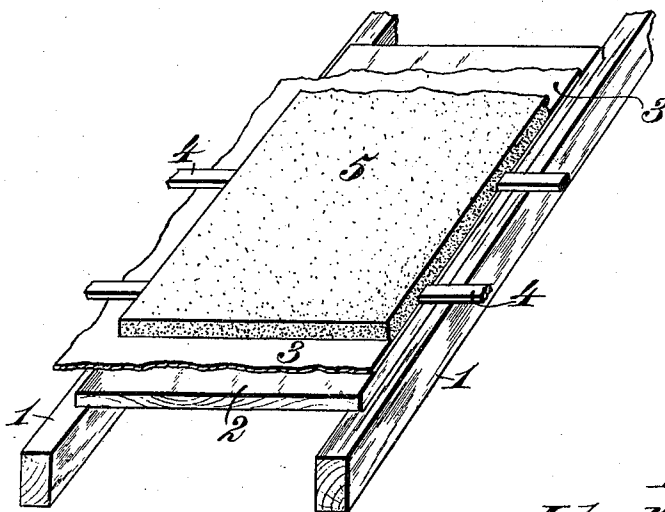


Fig 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN W. BEAUMONT, OF ST. LOUIS, MISSOURI.

WALL FOR BUILDINGS OR OTHER STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 466,147, dated December 29, 1891.

Application filed June 15, 1891. Serial No. 396,341. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BEAUMONT, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented new and useful Improvements in Building-Walls and other Structures, of which the following is a specification.

This invention has for its object to provide a novel concrete structure particularly designed for the walls of buildings and well adapted for roofing purposes, whereby shrinkage of the board or plank foundation will not crack the exterior plastic layer of concrete, cement, or plaster.

The invention also has for its object to provide a novel concrete structure to produce a hollow wall, wherein charring of the board or plank foundation is avoided if the concrete or plaster external surface be subjected to excessive heat, while enabling water to be thrown upon the wall without bursting the latter, as will occur in the case of ordinary brick walls.

To accomplish this object my invention consists in a wall or like structure composed of a foundation sheathing of boards, planks, or other wooden material suitable for the conditions required, a paper or other fibrous sheathing laid in superficial contact with the foundation-sheathing, an open-work superstructure placed upon the paper-sheathing, and a concrete or plaster facing engaging and continuously covering the open-work superstructure, all in such manner that if the foundation-sheathing be of green wood and shrinks the concrete or plaster facing will not be cracked or otherwise injuriously affected.

The invention is illustrated by the accompanying drawings, in which Figure 1 is a vertical sectional view showing sufficient of the concrete structure to illustrate my invention. Fig. 2 is a detail perspective view of a portion of the same, and Fig. 3 is a detail perspective view showing a modification.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numerals 1 indicate properly-dressed studding, upon which is placed a sheathing foundation 2, composed of wooden boards or planks or any other wooden material suit-

able for the conditions required. The sheathing foundation is continuously covered with sheets of paper sheathing 3, laid in superficial contact with the sheathing foundation, and upon the outside of the paper sheathing is arranged an open-work superstructure 4, which, as exhibited in Fig. 2, is composed of longitudinal and transverse wall-strips, laths, or slats suitably arranged to provide spaces for the passage of the concrete or plaster layer 5, which constitutes the external surface of the structure. The concrete or plaster is applied in a plastic condition to form a continuous unbroken covering, and obviously by this method of application the concrete or plaster passes into the spaces between the laths or slats and becomes practically interlocked therewith, for the purpose of producing a concrete wall or roof, as the case may be. By the means described it is possible to construct the wooden foundation 2 of green boards or planks, and if the latter should shrink or otherwise move from their original condition the concrete or plaster facing will not be cracked or otherwise injuriously affected. This result is obtained by the presence of the paper or other fibrous sheathing 3, which, being applied in continuous sheets, effectually holds the concrete or plaster face from direct contact with the wooden foundation, and consequently shrinkage of the latter will not crack or otherwise injure the concrete or plaster face. The construction also fulfills the conditions required to avoid charring the wooden foundation 2 in case the concrete or plaster face is subjected to considerable heat, and, furthermore, in case of fire it is possible to throw streams of water upon the wall or other structure without danger of bursting the same, as will occur in ordinary brick walls.

The invention is particularly useful in the construction of hollow walls, in that it enables a dead-air chamber to be provided, which is an efficient non-conductor of heat and cold. The structure is simple, practicable, and economical, and will enable ordinary dwellings and other structures to be erected with great economy. The concrete external face is preferably of the nature of granite—*i. e.*, that material which is known as "granitoid," which is practically indestructible.

The studding may be of iron, steel, or wood, while the paper sheathing may be composed of some other fibrous material or other substance which will retain the concrete or plaster facing from contact with the wooden foundation and prevent cracking or other injury to the facing by reason of any shrinkage that may occur in the wooden foundation. The open-work structure is shown as composed of laths or slats; but I do not confine myself to this particular construction, as any other open-work material can be employed for the purpose of retaining the concrete or plaster face in interlocked connection with the paper sheathing. In Fig. 1 the open-work superstructure comprises longitudinal and transverse laths or slats; but in Fig. 2 the longitudinal laths or slats are omitted and the transverse slats alone employed. The invention provides an economical, substantial, and durable construction of walls for houses in general, and it is also well adapted for roofing purposes. By providing the continuous paper or other fibrous sheathing 3, laid in superficial contact with the wooden foundation 2, it is possible to employ metal for the open-work superstructure, because the continuous paper or other fibrous sheathing retains the concrete or plaster facing from direct contact with the wooden foundation and prevents shrinkage of the latter from injuriously affecting the concrete or plaster facing.

Having thus described my invention, what I claim is—

1. A building-wall or similar structure consisting of a wooden foundation, a continuous imperforate sheathing laid upon the wooden foundation, an open-work superstructure arranged upon the imperforate sheathing, and an exposed continuous plastic facing entirely covering, concealing, and engaging the open-work superstructure and held from direct contact with the wooden foundation through the medium of the imperforate sheathing, substantially as described.

2. A building-wall or similar structure consisting of studding, a wooden foundation attached to the studding, a continuous paper sheathing in superficial contact with the wooden foundation, an open-work superstructure laid upon the paper sheathing, and an exposed continuous plastic facing entirely covering, concealing, and engaging the open-work superstructure and held from contact with the wooden foundation through the medium of the continuous paper sheathing, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

JOHN W. BEAUMONT. [L. S.]

Witnesses:

GEORGE B. VOGEL,
P. TAYLOR BRYAN.