

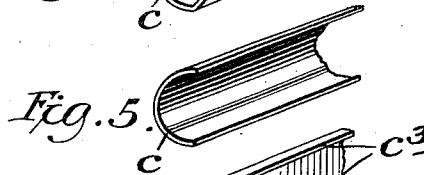
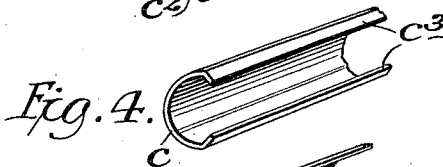
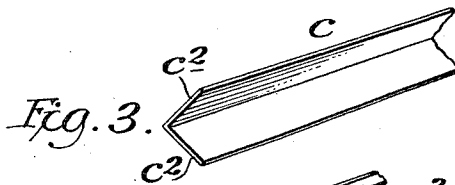
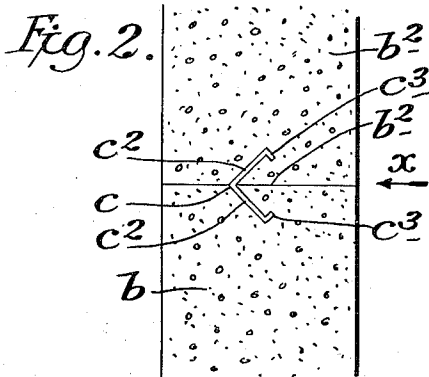
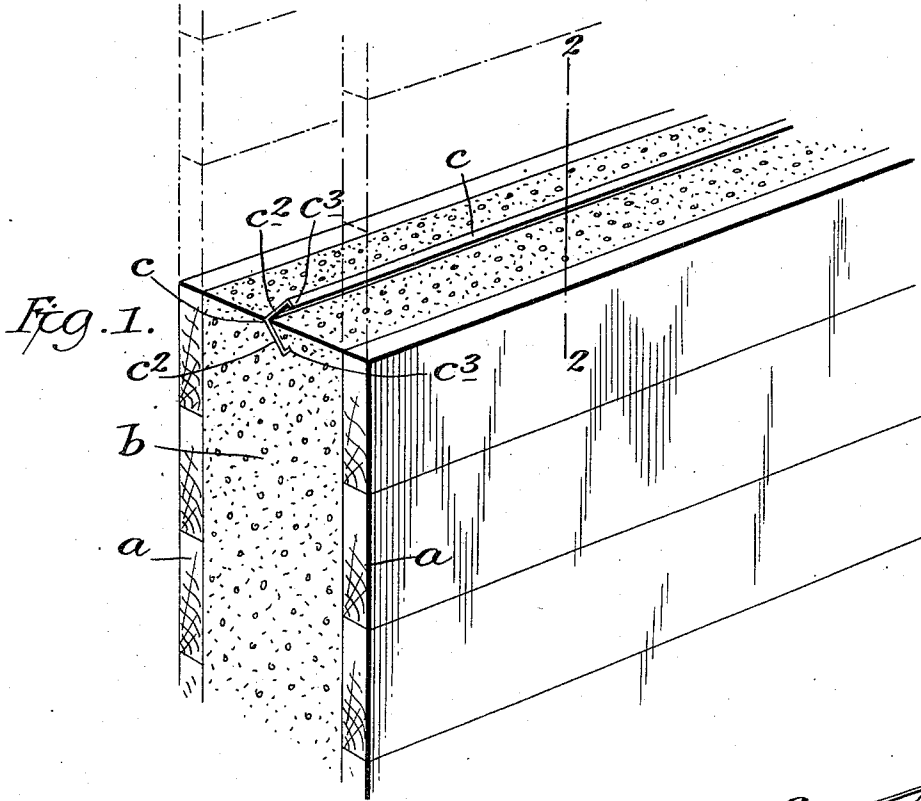
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CONCRETE WALL CONSTRUCTION.

APPLICATION FILED MAR. 11, 1911. RENEWED DEC. 15, 1911.

1,019,326.

Patented Mar. 5, 1912.



WITNESSES

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CONCRETE WALL CONSTRUCTION.

1,019,326.

Specification of Letters Patent.

Patented Mar. 5, 1912.

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To all whom it may concern:

Be it known that I, SYLVESTER HIGGINS, a citizen of the United States, and residing at Jersey City Heights, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Concrete Wall Constructions, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to concrete wall constructions for buildings and particularly to cellar or basement walls, and the object thereof is to provide walls of this class with means for preventing water from passing inwardly therethrough at the point or points where one section of wall is cast or molded upon another section, and which will also serve as a lock to hold the separate sections of wall together.

In forming or constructing concrete walls it is customary to cast or mold them in separate sections one upon another, by boarding up the wall space so as to form a mold and then pouring in the concrete up to a predetermined point and allowing it to set, thus forming one section of the wall, after which the side boards forming the mold are raised and another section of wall is cast or molded upon the first, and experience has demonstrated that the connections or joints between the separate sections of a wall formed in this manner will not be sufficiently tight to prevent water from passing inwardly through said joints or connections, and especially is this true in a case of cellar, basement, or similar walls where there is more or less pressure of water on the outer side of said walls, and my invention is particularly designed to prevent this operation of the water and, at the same time, to prevent the separate sections of wall from sliding one upon another.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my invention are designated by suitable reference characters in each of the views, and in which;—

Figure 1, is a perspective view of a section of a concrete wall and showing the method of forming the same and showing my improvement applied thereto, only the bottom section of wall being shown;—Fig. 2, a vertical section on the line 2—2 but

showing two sections of a wall, placed one upon the other and also showing the method of applying my improvement and the operation thereof, and;—Figs. 3, 4, 5 and 6 are perspective views showing different forms of my improvement.

In the drawing forming part of this specification I have shown at *a*, the side boards forming a mold used in casting or molding concrete walls, and I have shown at *b*, the first or bottom section of the wall cast in said mold, and in the practice of my invention I provide an oblong guard and lock device *c*, of any desired length and composed of sheet metal bent centrally and longitudinally so that the separate parts or side members *c*² thereof are curved or bent outwardly, as clearly shown, and this guard device *c* is partially countersunk in the top surface of the section *b* of the wall, in the operation of casting or molding the same, as clearly shown in Figs. 1 and 2, and after said section *b* has had time to set or become hard the mold boards *a* are raised and another section *b*² of the wall is cast or molded on the section *b* and in this operation the top portion of the guard *c* is countersunk or inclosed in the second or top section of the wall, as clearly shown in Fig. 2. This construction of the wall forms a joint or connection at *b*², between the separate sections of the wall, and experience has demonstrated that this joint or section is not sufficiently tight to prevent water from passing inwardly therethrough in the direction of the arrow *X* in Fig. 2, especially in the case of cellar walls, basement walls and other sub-constructions, but with my improved guard the water cannot pass through this joint or connection, no matter what the pressure thereof may be, and while my improvement is particularly designed for use in connection with the construction of cellar or basement walls, it will be understood that it may be employed in the construction of concrete walls, no matter what the height thereof may be, the said guard also operating, as will be understood, to prevent the movement of one section of the wall upon the other and thus locking said sections of wall together.

In Figs. 3 to 6 inclusive, I have shown different forms of the guard and in most cases, as shown in Figs. 1, 2, 4 and 6, the side portions of the guard are provided with inwardly directed longitudinal flanges *c*³,

which facilitate the operation of the device in locking the separate sections of the wall together.

In Figs. 1, 2 and 3, the guard is shown as V shaped in cross section, while in Figs. 4 and 5 it is shown as semicircular or segmental in cross section, and in Fig. 6, the guard consists of a plate, the edges of which are provided with the flanges c^3 , both of which project outwardly or in the same direction.

While my invention is particularly designed to prevent the passage of water through or between the connections of the separate sections of a concrete wall and especially of a cellar or basement wall, it will be understood as hereinbefore stated, that its use is not limited to cellar or basement walls and said improvement may be employed in the construction of concrete walls designed for any purpose.

The guard c may be made of any desired length and the ends thereof, in practice, are overlapped, and in forming corners the said guard may be bent to conform to the shape of the corners, or separate sections or parts of the guard may be connected at the corners so as to operate in the manner described to prevent water passing through or between the connections of the separate horizontal sections of the wall.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with a concrete wall construction consisting of a plurality of

sections or parts, one of which is cast or molded upon another, of a continuous water guard set into the top of one section or part longitudinally thereof and extending into the bottom of the section or part which is cast or molded thereon.

2. The combination with a concrete wall construction consisting of a plurality of sections or parts, one of which is cast or molded upon another, of a continuous water guard set into the top of one section or part longitudinally thereof and extending into the bottom of the section or part which is cast or molded thereon, said water guard being angular or curved in form in cross section.

3. The combination with a concrete wall construction consisting of a plurality of sections or parts, one of which is cast or molded upon another, of a continuous water guard set into the top of one section or part longitudinally thereof and extending into the bottom of the section or part which is cast or molded thereon, said water guard being angular or curved in form in cross section and the convex or outer sides thereof being directed inwardly.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 10th day of March, 1911.

SYLVESTER HIGGINS.

Witnesses:

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