

No. 656,364.

Patented Aug. 21, 1900.

J. G. McDOWELL.
WALL TIE.

(Application filed Aug. 12, 1899.)

(No Model.)

Fig. 3.

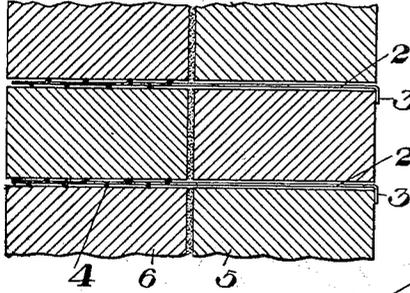


Fig. 1.

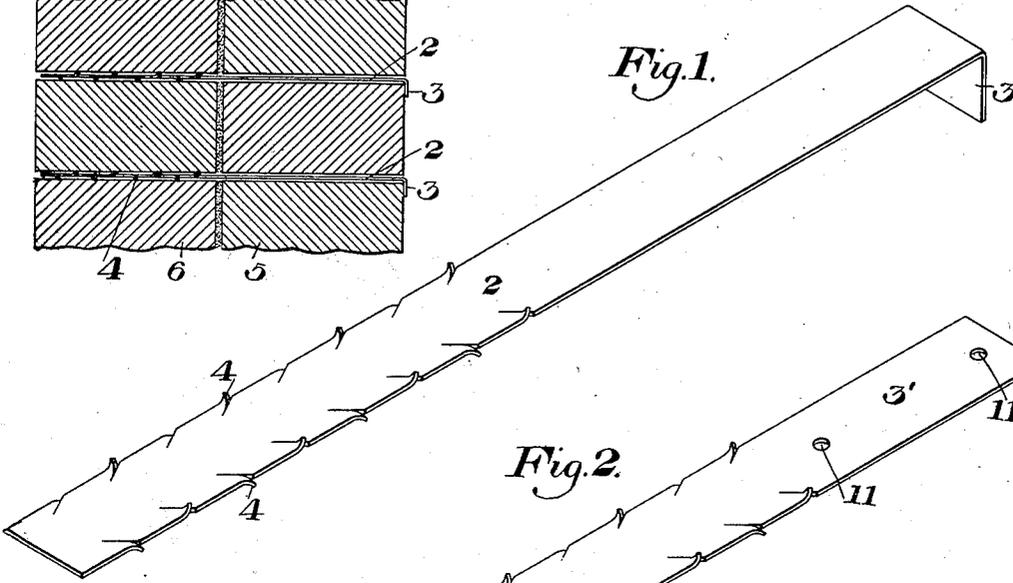


Fig. 2.

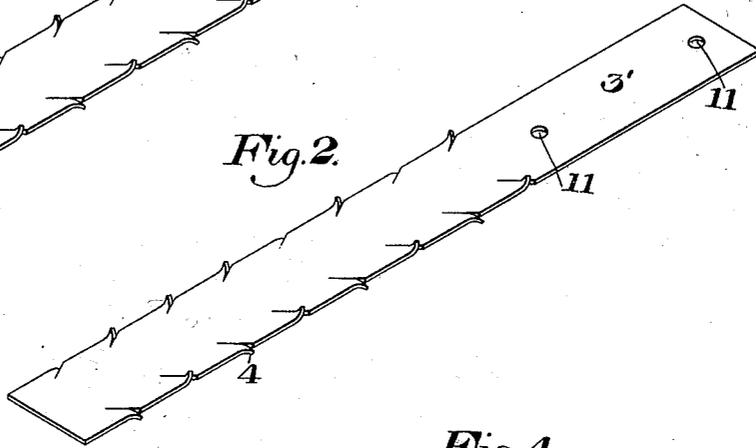


Fig. 4.

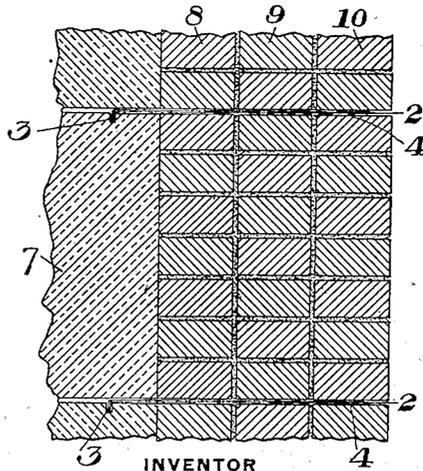
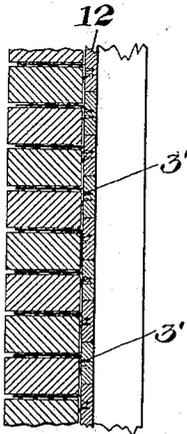


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN G. McDOWELL, OF PITTSBURG, PENNSYLVANIA.

WALL-TIE.

SPECIFICATION forming part of Letters Patent No. 656,364, dated August 21, 1900.

Application filed August 12, 1899. Serial No. 727,006. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. McDOWELL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Wall-Ties, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing one form of my improved tie. Fig. 2 is a similar view showing another form of the same. Figs. 3 and 4 are broken cross-sectional views showing different uses of the tie of Fig. 1, and Fig. 5 is a similar view showing the manner of using the tie of Fig. 2.

My invention relates to the ties used in walls for tying the bricks of different courses together or for tying stone and brick work or brick veneering on wood construction, and is designed to provide a simple and cheap device of this character which will engage the bricks themselves, and thus give efficient action.

In the drawings, referring to the form of Fig. 1, 2 represents a rectangular strip of metal, preferably steel, having at one end a lug or flange 3, extending at an angle, and preferably a right angle, to the plane of the strip. The strip is provided in its outer portion with teeth or prongs 4, which are preferably cut from the edges of the strip and are inclined toward that end of the strip which is provided with the angular lug. In using these ties in a brick wall having two or more courses the lugs are arranged to engage the rear faces of the bricks of one course, the ties extending across the bricks 5 and 6 of both courses. In using the ties they are laid in position, as shown, the mortar applied, and the next bricks laid on, the bricks of the outer course being pressed down, so as to cause the teeth of the tie to engage the bricks. When the ties are used in this manner, any tendency of the outer course to pull away from the inner course will be prevented by the teeth, which, being inclined inwardly, will tend to be bent toward a right-angled position with the strip, and hence will grip the bricks with increasing power. The ties are held in place by the lugs engaging the rear faces of the inner courses of bricks.

In Fig. 4 I show the tie as used for tying stone ashler 7 to a brick wall consisting of three courses of bricks 8, 9, and 10. In this form the lugs 3 are inserted in suitable recesses formed therefor in the top or bottom faces of the stone blocks, while the teeth engage the bricks of one or more of the courses, preferably the course 10 and the course 9, as shown. The action of the tie is the same as in the form of Fig. 3, the teeth resisting any movement of the brick and the lugs holding the facing-blocks securely in place.

In Fig. 2 I show another form of my tie, which is especially adapted for "veneered" buildings, in which a single course of bricks is employed to cover the boards forming the sheathing. In this form the tie is made shorter and is provided with a lug or end portion 3', which may be plain and is provided with holes 11, the teeth of the tie inclining toward this end. In using this form of tie the plain portion is nailed to the sheathing 12, as shown in Fig. 5, and the brick being laid in place the body of the tie is bent down over the top of the brick, and the mortar being applied another tie is nailed above and the next brick laid on and pressed down to engage the teeth. The tie is then bent down on this brick and so on, the ties being used wherever desired. The inwardly-projecting teeth act as in the other cases and prevent the bricks pulling away from the sheathing.

The advantages of my invention result from the use of the teeth or prongs which engage the bricks themselves and prevent their drawing apart even when the mortar is green.

The teeth or prongs may be formed by cutting V-shaped slits in the body of the tie and bending outwardly the parts thus cut or by striking up burs from the strip, and many other changes may be made in the form of the tie without departing from my invention, since I consider myself the first to provide a tie having upward and downward projections and a lug or perforated portion for nailing at one end of the tie to hold it in place, especially where the teeth are inclined toward such end.

I claim—

1. A brick-tie consisting of a metal strip, having upwardly and downwardly projecting

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teeth, struck from the same portion thereof and provided at one end with a securing-lug; substantially as described.

2. A brick-tie having at one end a securing-lug or similar device, and provided with upwardly and downwardly projecting teeth which are inclined toward said end: substantially as described.

3. A brick-tie having a securing-lug or similar device at one end and provided with up-

wardly and downwardly projecting teeth cut from its edges and inclined toward the said end; substantially as described.

In testimony whereof I have hereunto set my hand.

JOHN G. McDOWELL.

Witnesses:

H. M. CORWIN,
G. B. BLEMMING.