No. 880,154. PATENTED FEB. 25, 1908.

A. J. MUELLER.

TIE FOR BUILDING BLOCKS.

APPLICATION FILED DEC. 5, 1907.

Fig. 1.

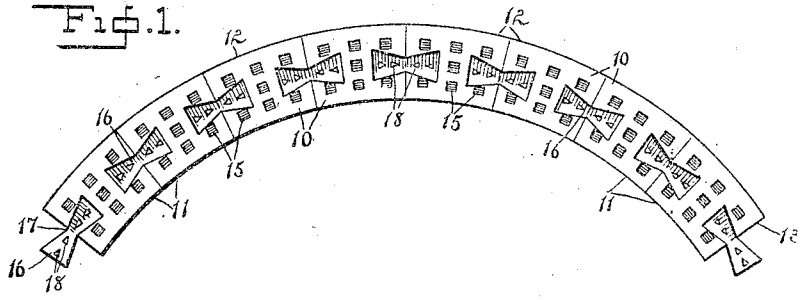


Fig. 2.

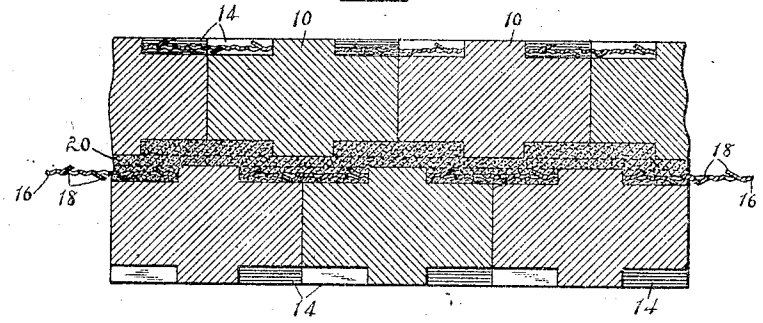


Fig. 3.

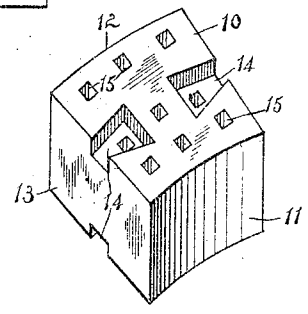


Fig. 4.

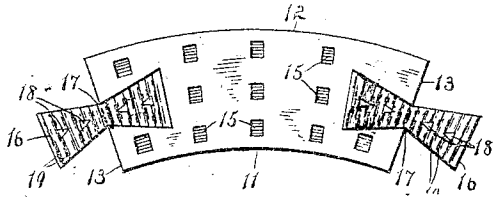
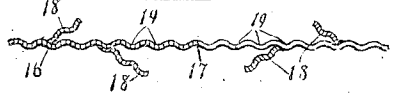


Fig. 5.



WITNESSES:

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AUGUST J. MUELLER, OF CHICAGO, ILLINOIS.

TIE FOR BUILDING-BLOCKS.

No. 880,154. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed December 5, 1907. Serial No. 405,148.

To all whom it may concern:

Be it known that I, AUGUST J. MUELLER, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ties for Building-Blocks, of which the following is a specification.

My invention relates to the construction of walls in which artificial stone blocks are employed and refers especially to the means made use of for binding the individual blocks together in the courses.

The chief objects of the improvements which form the subject matter of this application are, to provide a bond or tie member which will coöperate with the bonding cement or mortar to prevent separation of the abutting blocks; to furnish a tie of special formation that will engage the building blocks in a positive manner, and to supply the tie members with teeth or barbs adapted to afford a secure hold in the mortar in which the said members are laid.

Further objects of this invention are to provide a tie especially adapted to be used in circular work such as the curved walls of wells, cisterns, and stacks; to furnish a tie of such design that it can be cheaply manufactured; and to supply a device of such a form that it can be stamped from sheet metal, provision being made for imparting the required rigidity by corrugating the material, the sinuosities thus imparted to the article serving the additional purpose of affording an increased opportunity for the adhesion of the binding material.

I accomplish the above desirable results by the employment of the device illustrated in the accompanying drawing in which the application of the tie is clearly set forth in connection with circular wall construction, and the details of the tie member pointed out in the various figures which are as follows:

Figure 1 is a plan view of an arc of a curved wall in which my improved tie member is employed; Fig. 2 is a vertical section through a portion of the wall; Fig. 3 is a perspective view of a single block showing a form well adapted to be used in conjunction with the tie; Fig. 4 is a top plan view of a single block of a slightly modified form with two tie pieces in engagement therewith, and Fig. 5 is an edge view of the tie member.

Referring to the details of the drawing, the numeral 10 indicates building or construction blocks, having their inner and outer faces 11, 12, respectively, curved to correspond with a common center, their end faces 13 being radial to the said faces 11 and 12, blocks of such form being in common use. The upper and lower faces are parallel and are furnished with recesses or mortises, dovetail in shape, which are so arranged as to register with the adjacent blocks in the courses. These faces are also supplied with numerous depressions 15, into which the plastic mortar finds its way and thus afford a stronger hold therefor. To link the adjacent blocks together, I provide tie plates 16, the sides of which have reëntrant angles 17, the plates thus being adapted to dove-tail the blocks together in the manner shown in Figs. 1 and 4. These plates are provided with a series of points or barbs, preferably triangular in outline, which are struck up from the metal and bent in opposite directions to form additional holding means for the mortar, when the ties are embedded therein. The tie plates are furnished with transverse corrugations 19 which stiffen said plates and afford an uneven surface which serves as an additional bonding means for the mortar 20.

In Fig. 2 the courses of blocks are shown slightly separated by a layer of mortar which penetrates the recesses 14, the bonding member 16 being placed in the recesses of the upper faces only. As shown in Fig. 2, these tie pieces or bonding members are completely embedded in the bonding mortar and by reason of their dovetailed shape, the barbs 18 and the corrugations 19, furnish a locking device of great strength and efficiency combined with a minimum amount of material.

Having thus described my invention, what I claim is:—

1. In combination with a wall, a bonding member consisting of a plate having its margins flaring outwardly from the middle, barbs projecting from the surfaces of the plate, and transverse corrugations in said plate.

2. A bonding member for wall construction, consisting of a corrugated plate having dovetail shaped ends, and integral barbs projecting from the opposite surfaces of said plate.

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

AUGUST J. MUELLER.

Witnesses:

NELLIE G. LYNCH,

A. F. CLARK.