

No. 620,349.

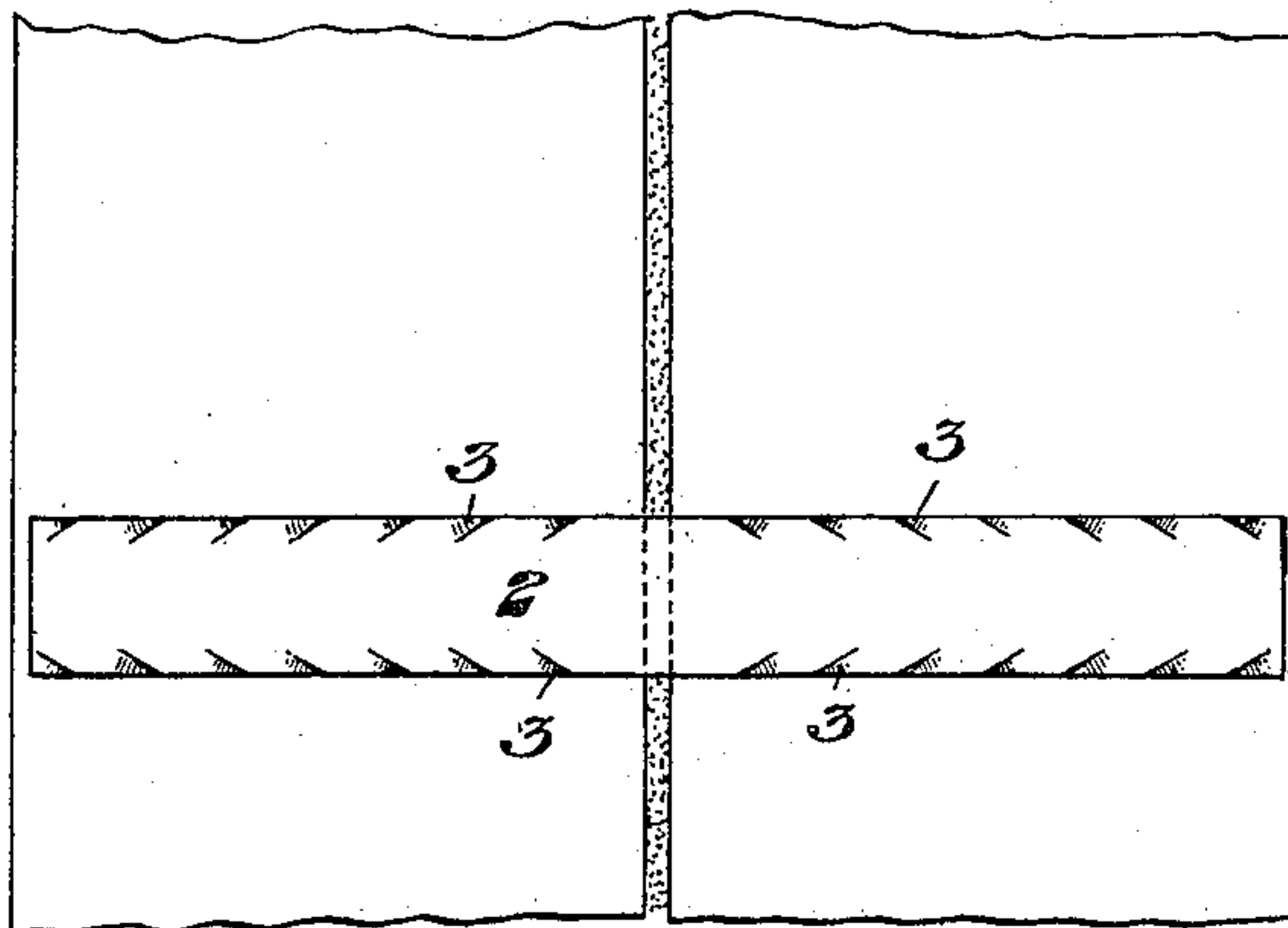
Patented Feb. 28, 1899.

J. G. McDOWELL.  
TIE FOR BRICKWORK.

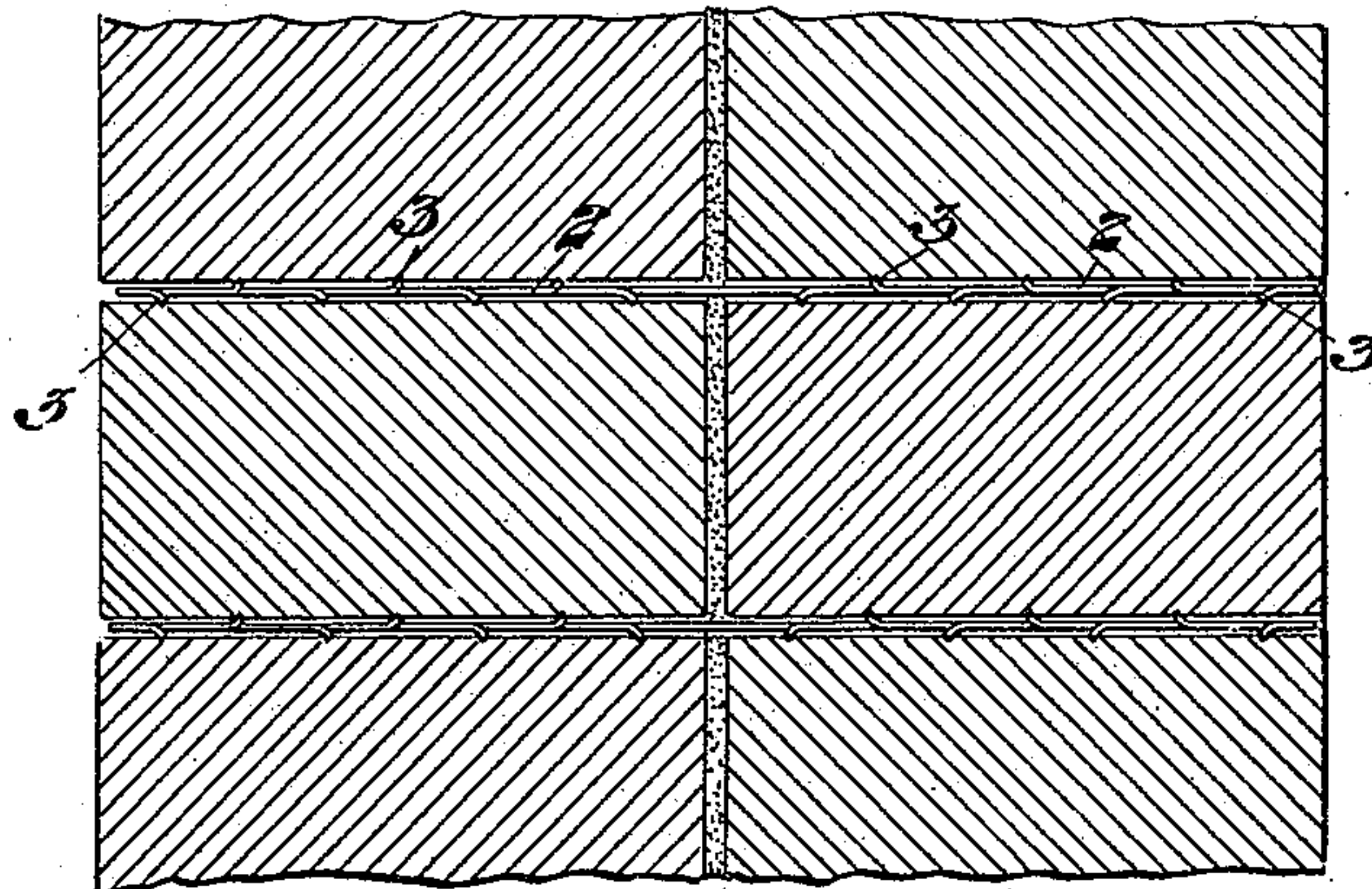
(Application filed Dec. 27, 1897.)

(No Model.)

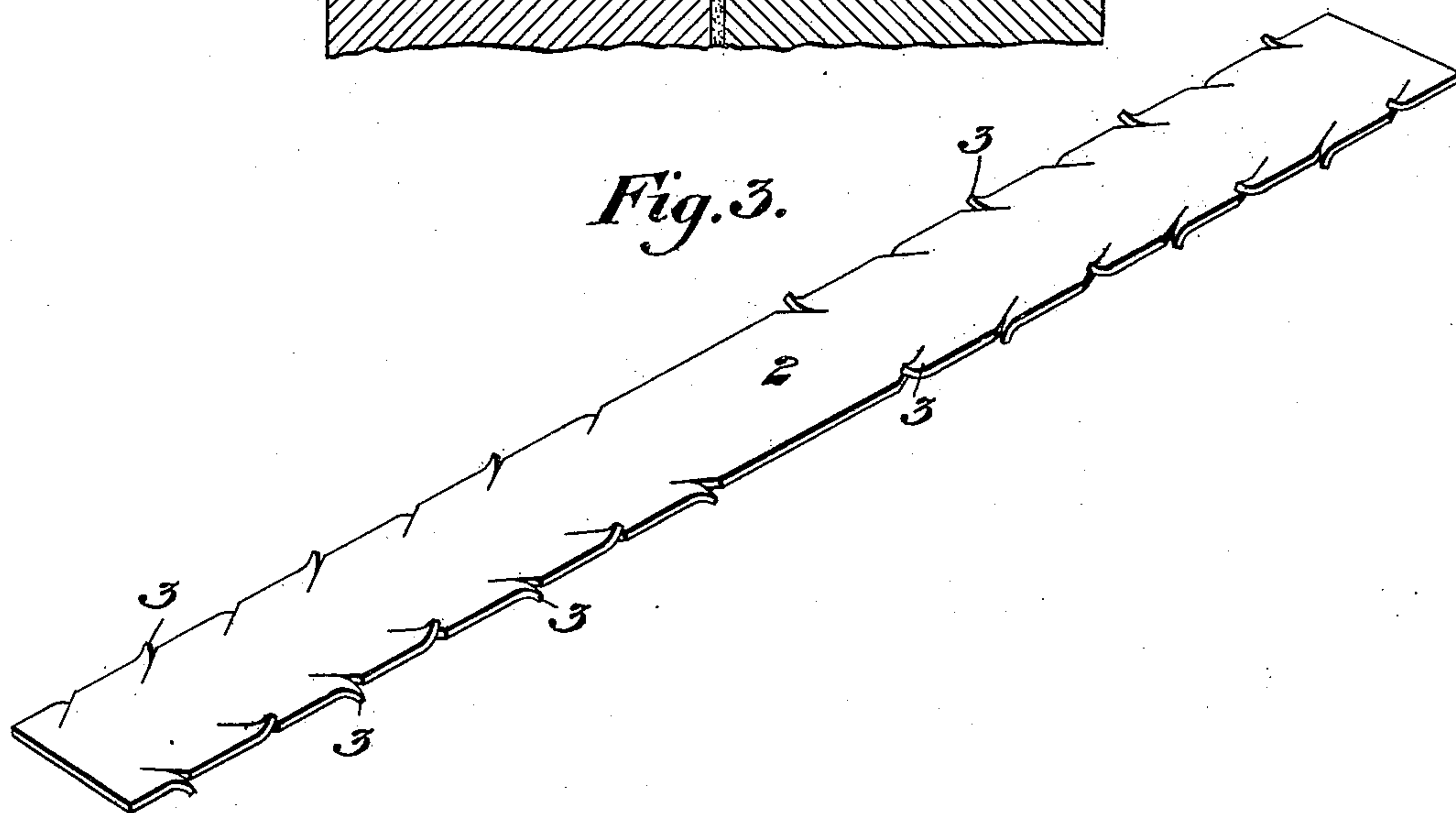
*Fig. 1*



*Fig. 2.*



*Fig. 3.*



WITNESSES

*L. A. Comer*  
*J. B. Blumming*

INVENTOR

*John G. McDowell*  
*by Baker & Baker*  
*his attys.*



# UNITED STATES PATENT OFFICE.

JOHN G. McDOWELL, OF PITTSBURG, PENNSYLVANIA.

## TIE FOR BRICKWORK.

SPECIFICATION forming part of Letters Patent No. 620,349, dated February 28, 1899.

Application filed December 27, 1897. Serial No. 663,491. (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 Ties for Brickwork, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of one of my ties in position upon two bricks. Fig. 2 is a partial vertical section of a double wall provided with my improved tie, and Fig. 3 is a perspective view of the tie itself.

My invention relates to the ties or binders employed in connection with structures composed of bricks, tiles, or slabs, and is designed to provide a simple, cheap, and effective tie which shall contact with the bricks or tiles themselves and bond them securely in place.

In the drawings, 2 represents the tie, which consists of a rectangular strip of sheet metal, which is provided with upwardly and downwardly extending teeth or projections 3. I have shown the tie as of sufficient length to tie two rows of bricks together as well as to tie the brick of one row to the brick above and below it. In building this double wall I place upon the upper faces of two bricks lying in the same horizontal plane one of my improved ties, as shown in Fig. 1, and mortar then being supplied to their faces the next bricks are laid upon the mortar and pressed down firmly, so as to cause the teeth or projections upon the tie to engage the upper face of the lower brick and the lower face of the upper brick, the construction being proceeded with in this manner, the teeth upon each half of the strip projecting inwardly toward its center, so that the teeth upon one portion project in the opposite direction from those upon the other portion of the tie. In a similar way the teeth might all project toward the ends, each half having its teeth projecting outwardly, and in either case the brick will be tied against sliding movement endwise in either direction. It is evident that the tie may be used with a single wall, the tie extending either lengthwise or transversely of each brick and engaging their faces as before.

The advantages of my invention result from

the secure tying or binding of one brick to the bricks above and below it in the same row, this being accomplished by a tie which engages the bricks themselves, thus securing 55 a much better result than where binders incased and surrounded by the mortar are employed and which do not engage the faces of the adjacent bricks.

The teeth or projections which extend upwardly and downwardly may be formed in many other ways—as, for instance, by cutting V-shaped slits in the body of the tie and bending the cut portions upwardly and downwardly or by punching holes therein with upwardly and downwardly projecting burs. The ties may be made longer than the bricks or tiles, if desired, so that a single strip having the projections may extend across the faces of several bricks or tiles, and in this case the ends of the tie may be bent up so as to be secured to end walls or uprights. Many other variations may be made in the shape of the tie and its projections without departing from my invention, since 75

What I claim is—

1. A tie for bricks having upward and downward projections, said projections being inclined toward the center of the tie, so that the projections upon one side are inclined in 80 the opposite direction from those of the other side; substantially as described.

2. A wall composed of at least two courses of bricks or tiles having between their faces ties provided with upward and downward projections, said projections being inclined toward the center of the tie and engaging the faces of the bricks or tiles so as to tie the courses together; substantially as described. 85

3. A tie for bricks having upward and downward projections cut from its side edges, said projections being all inclined toward the center of the tie so that the projections upon one side are inclined in the opposite direction from those of the other side substantially as 95 described.

In testimony whereof I have hereunto set my hand.

JOHN G. McDOWELL.

Witnesses:

C. E. MACKOWN,  
M. S. MURPHY.