No. 836,960.

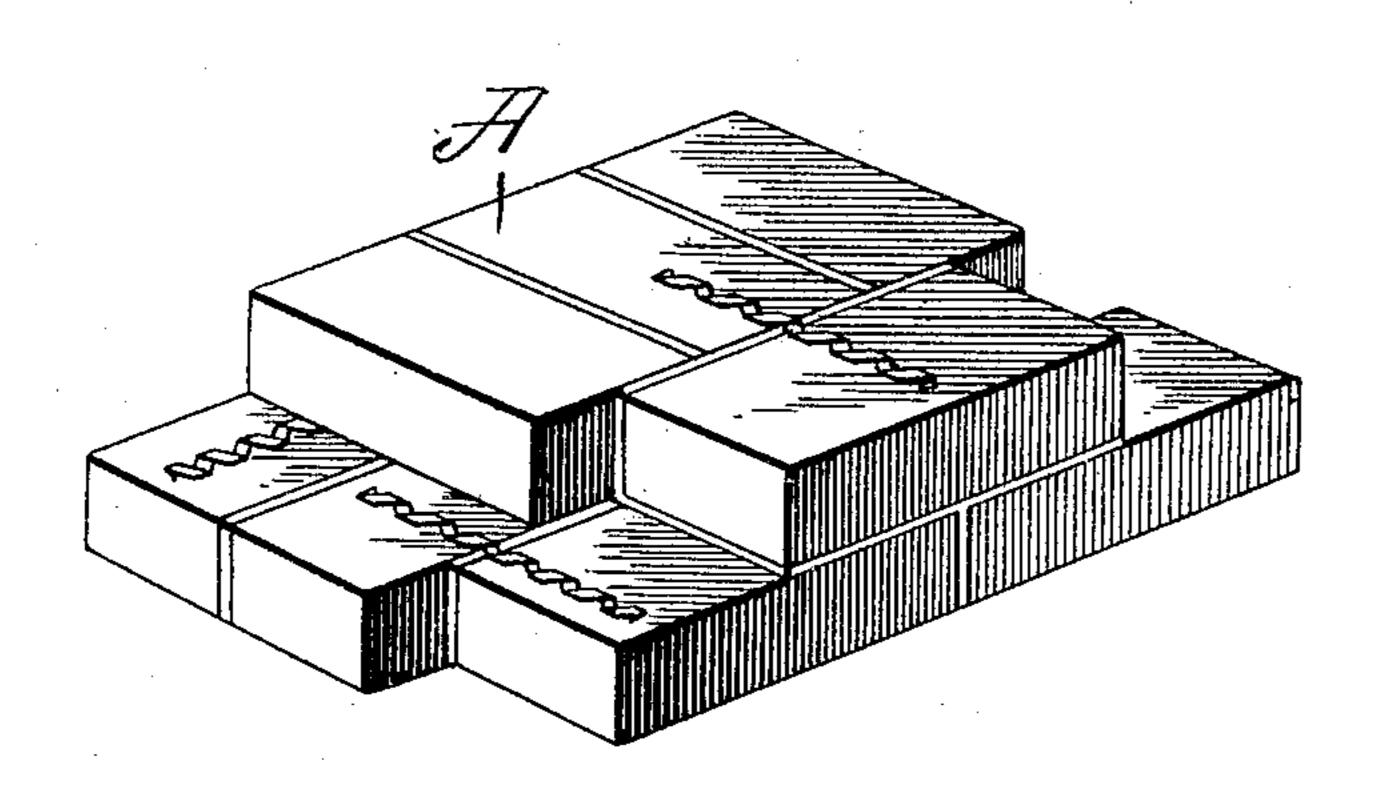
PATENTED NOV. 27, 1906.

F. A. CAMMANN.

WALL TIE.

APPLICATION FILED MAR. 7, 1906.

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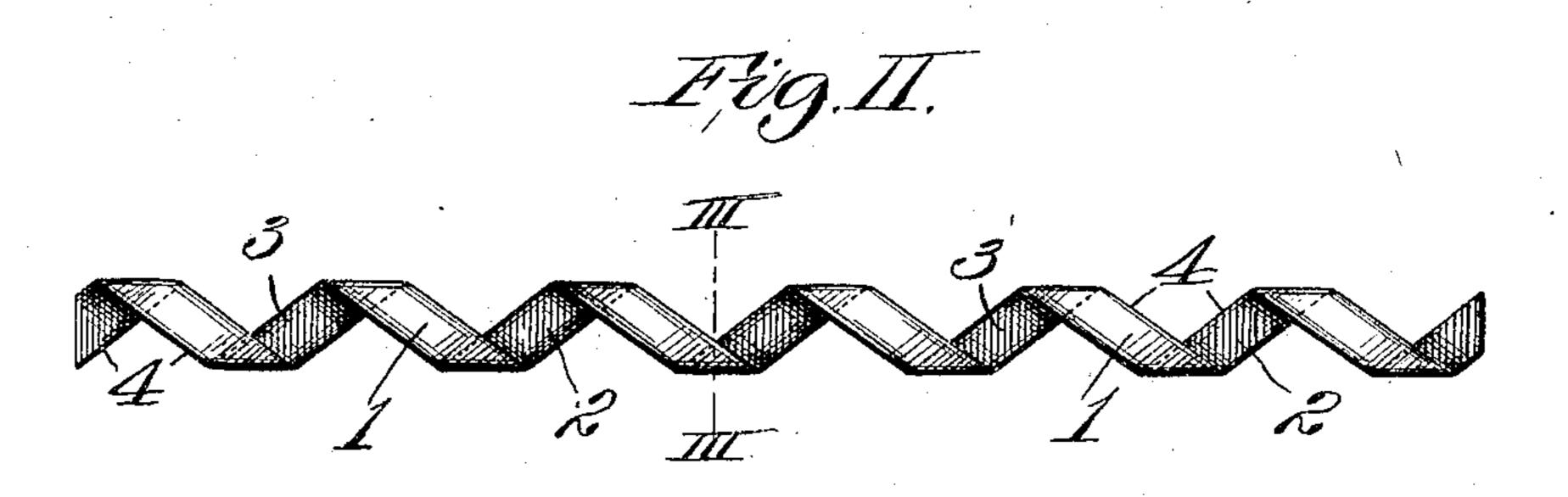


Fig.II.

Attest: Mysfort. Blanche Hogaw.

Inventor:
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## UNITED STATES PATENT OFFICE.

FREDERICK A. CAMMANN, OF ST. LOUIS, MISSOURI.

## WALL-TIE.

No. 836,960.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed March 7, 1906. Serial No. 304,670.

To all whom it may concern:

Be it known that I, FREDERICK A. CAM-MANN, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Wall-Ties, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a tie for binding the bricks or building-blocks of walls together, the tie being adapted to be disposed between the mortar between the layers of

bricks or blocks.

of a wall with ties made in accordance with my invention shown lying in position thereupon. Fig. II is a top or plan view of my tie. Fig. III is a cross-section taken on line

20 III III, Fig. II.

A designates bricks or building-blocks laid in the usual manner to form a wall with mortar interposed between the bricks or blocks. My tie consists of a flat strip, preferably of metal, which is so folded as to render the finished tie of zigzag contour, thereby furnishing a large amount of bearing-surfaces for the mortar in which the tie is laid and producing a tie which is not liable to become separated from the mortar due to the numerous reversely-disposed sections in the tie.

The tie in its completed condition consists of one series of folded sections 1, extending in one general direction at angles to an imagi-35 nary line extending longitudinally through the tie, and a second series of fold-sections 2, extending in a general direction the reverse of that in which the sections 1 extend and at angles to said imaginary longitudinal line 40 and cross the first-named sections. The fold-sections 1 and 2 are preferably folded alternately first at one side and then at the other side of the strip. The edges 4 of the angular fold-sections 1 and 2 serve to main-45 tain the tie in position to prevent the same from sliding through the mortar and to restrain any tendency on the part of the bricks or blocks to pull away or apart from each |

other. The fold - sections are preferably dished, as seen at 3, Fig. II, to provide ledges 50 against which the mortar bears when the tie is in position between the bricks or blocks of

a wall.

It is apparent that by producing the tiestrip of the described zigzag form I provide 55 in the aggregate of the folds a very large amount of side and edge surfaces against which the mortar in which the ties are laid bears to prevent longitudinal movement of the tie in the event of the bricks or building- 60 blocks having a tendency to become separated. It will also be seen that while I provide a great degree of bearing-surfaces in the tie I retain a flat condition in the tie which is essential in a bond for walls in order that 65 the bricks or building-blocks may be laid in closely-assembled positions.

I claim—

1. A wall-tie of zigzag contour consisting of a single strip and having fold-sections 70 crossing each other, substantially as set forth.

2. A wall-tie consisting of a single flat strip folded into zigzag form, substantially as set

forth.

3. A wall-tie consisting of a strip folded 75 alternately at one of its sides and then at the other side into zigzag form, substantially as set forth.

4. A wall-tie of zigzag contour consisting of a single strip having fold-sections crossing 80 each other; said fold-sections being dished,

substantially as set forth.

5. A wall-tie consisting of a single flat strip of zigzag contour having fold-sections crossing each other, said fold-sections being 85 dished substantially as set forth

dished, substantially as set forth.

6. A wall-tie consisting of a single flat strip of zigzag contour having fold-sections crossing each other alternately at one of its sides and then at the other side; said fold-sections 90 being dished, substantially as set forth.

## FREDERICK A. CAMMANN.

In presence of— Nellie V. Alexander, Blanche Hogan.