

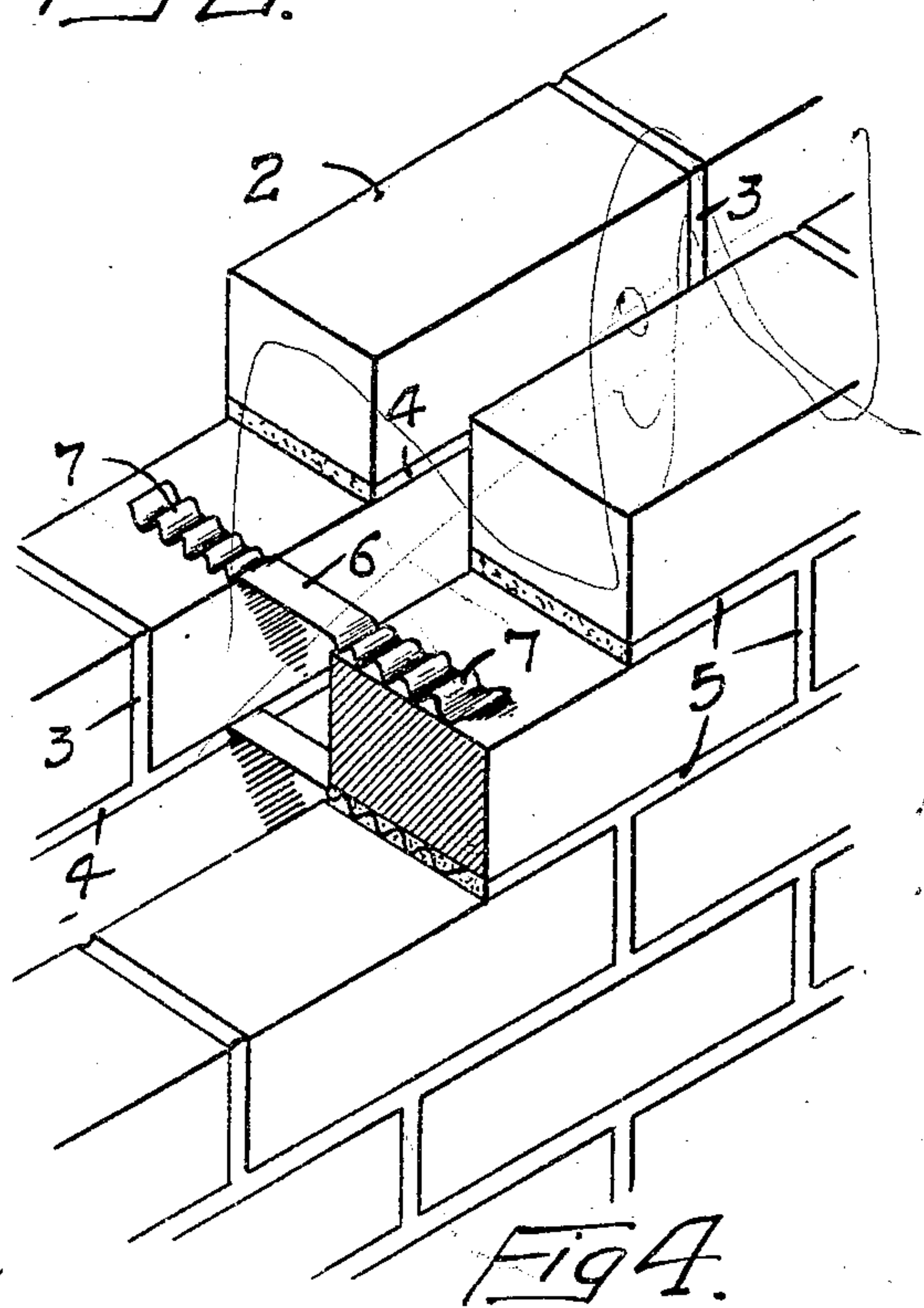
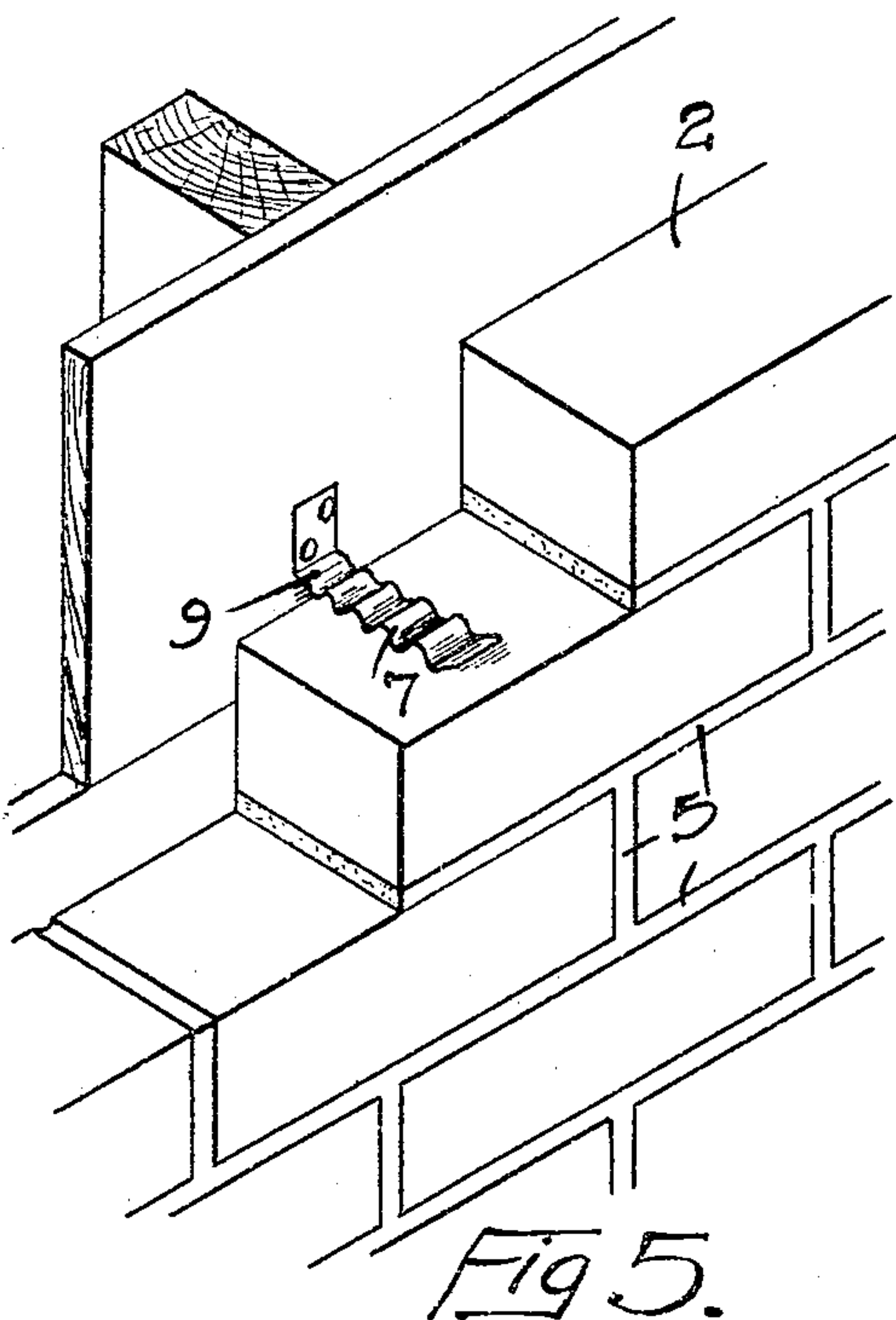
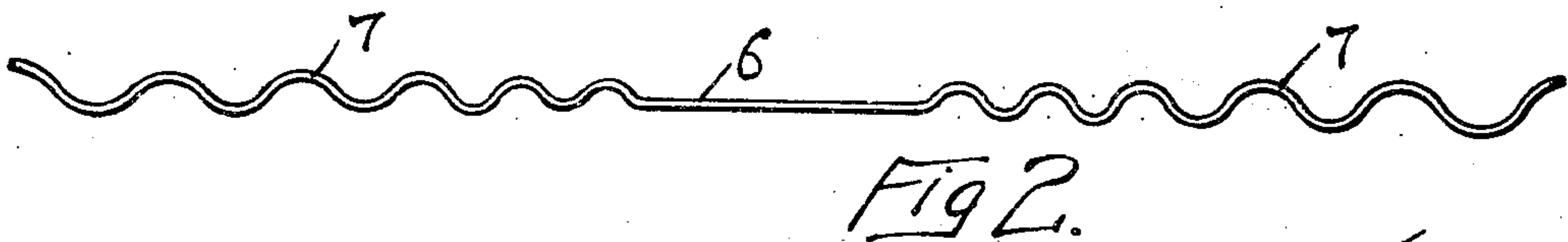
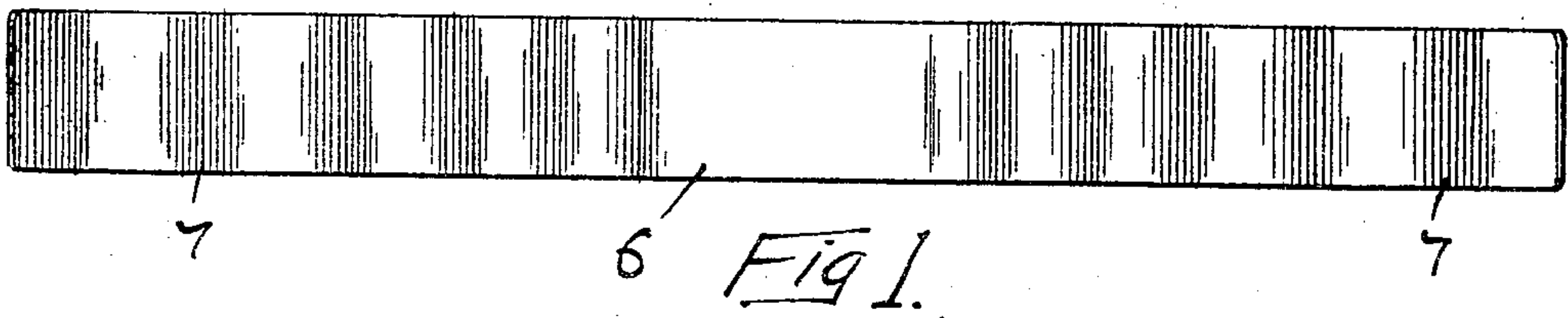
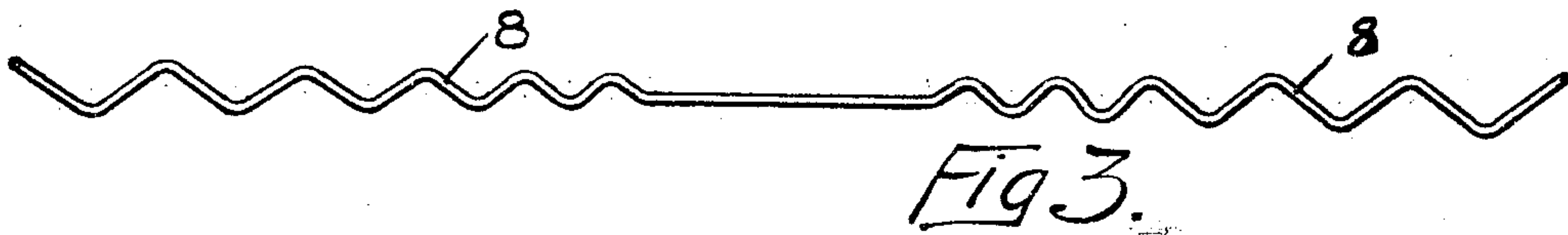
L. H. SELDEN.

WALL TIE.

APPLICATION FILED MAR. 21, 1910.

960,043.

Patented May 31, 1910.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

LEWIS H. SELDEN, OF MINNEAPOLIS, MINNESOTA.

## WALL-TIE.

960,043.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed March 21, 1910. Serial No. 550,626.

*To all whom it may concern:*

Be it known that I, LEWIS H. SELDEN, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Wall-Ties, of which the following is a specification.

In the construction of a solid brick wall or veneered building it is customary to employ means for tying the outer or pressed brick wall to an inner or common brick wall or the veneer brick to the wooden sheathing. This has usually been done by means of strips of metal corrugated transversely and adapted to fit into the joints between the courses of brick. The mortar becoming embedded in the corrugations and set therein so that the walls are securely tied together.

The object of my present invention is to provide a tie plate or strap, in which the transverse corrugations or crimps which may be formed therein will vary in depth from the middle toward the end of the plate, so that the corrugation or crimped portion of the plate embedded in the mortar will have the effect of a wedge and the greater the lengthwise strain on the plate the stronger will be the wedge action to resist the separation of the walls.

My invention consists generally in a tie plate having a series of crimps or corrugations increasing in depth toward the end of the plate.

In the accompanying drawing, Figures 1 and 2 are detail views showing my invention applied to a tie plate. Fig. 3 is a similar view illustrating the plate provided with crimps instead of corrugations. Fig. 4 is a sectional view illustrating the application of my invention to a wall. Fig. 5 is a detail view showing the application of the invention to a tie plate used for veneer brick, one end being nailed to the sheathing.

In the drawing 2 represents a wall of common brick having joints 3 and 4, an outer or face wall of pressed brick having joints 5.

6 is a tie plate or wall tie as it is commonly called, made usually of galvanized metal having a smooth middle portion and provided at each end with a series of transverse corrugations 7. These corrugations gradually increase in depth toward the ends of the plate, thereby forming larger depres-

sions or recesses in the plate permitting a greater amount of mortar to enter therein and causing the distance between the bottom of the corrugations and the apex between two of them, to increase toward the ends of the plate in the same manner as the thickness of a wedge would increase if one should be formed in the end of the plate. The effect of this construction is to tie the two walls together so closely that nothing but the destruction of the wall would permit their separation.

In Fig. 3 a modified construction is shown which consists in providing a series of crimps 8 corresponding substantially in their functions to the corrugations and serving the same purpose in the wall.

In Fig. 5 a plate 9 is shown having corrugations corresponding to those described, but provided with an end turned at right angles to the middle portion substantially, and adapted to be secured by nails or by any suitable means to a wooden sheathing. These plates are made of suitable length and width and gage of metal to render them suitable for the purpose designed.

In various ways the manner of accomplishing this wedge effect may be carried out by other means than the corrugations or crimps and I do not wish to be confined to the precise construction of the wall tie shown and described herein.

I claim as my invention:—

1. A wall tie having a series of depressions therein, those at the ends of the tie being of greater depth than those near the middle thereof, whereby a wedging effect will be obtained to resist longitudinal strain on the tie in both directions, for the purpose specified.

2. As a new article of manufacture, a wall tie consisting of a comparatively narrow strip of metal having at each end a series of transverse corrugations or crimps, some of said corrugations being deeper than others, whereby a lock is formed to resist longitudinal pull on the tie.

3. The combination, with an inner building wall, of an outer or finished wall spaced from said inner wall and a tie plate having its ends embedded in the mortar of the joints of said walls respectively and bridging said

space, the ends of said plate having trans-  
verse corrugations therein gradually de-  
creasing in depth from the ends of the plate  
toward the middle portion thereof, whereby  
5 when the tie is embedded in the joints a  
wedging effect will be obtained to resist lon-  
gitudinal pull or strain on the tie.

In witness whereof, I have hereunto set  
my hand this 19th day of March, 1910.

LEWIS H. SELDEN.

Witnesses:

L. C. CRONEN,  
J. A. BYRNES.