

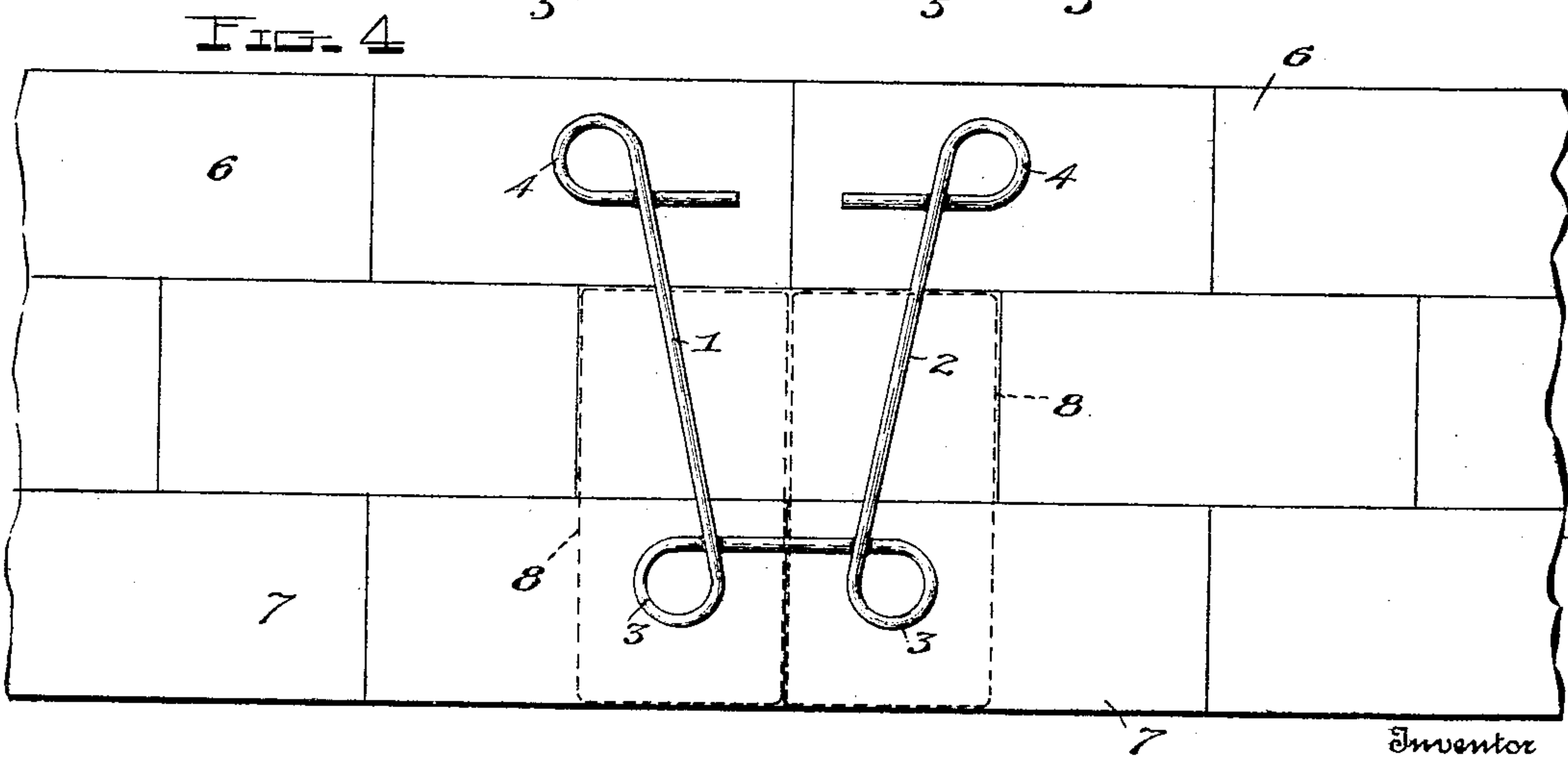
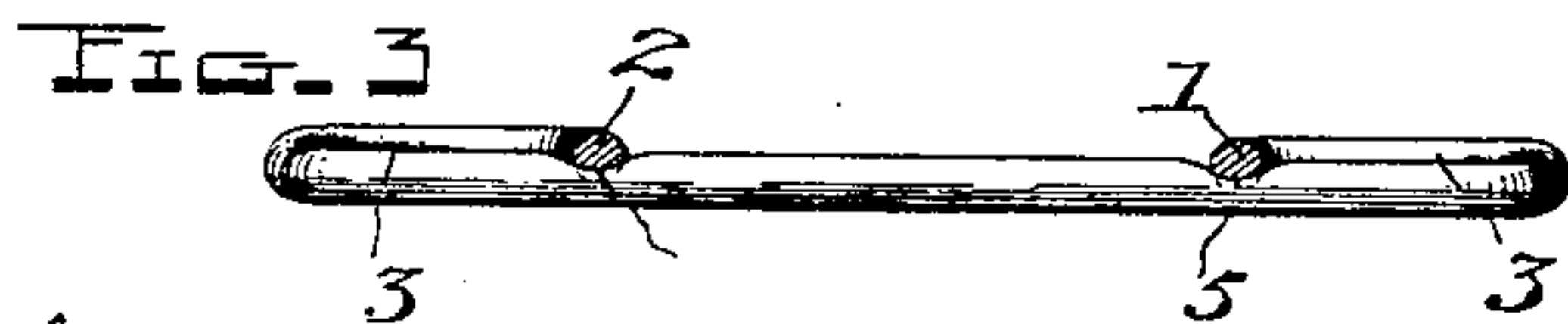
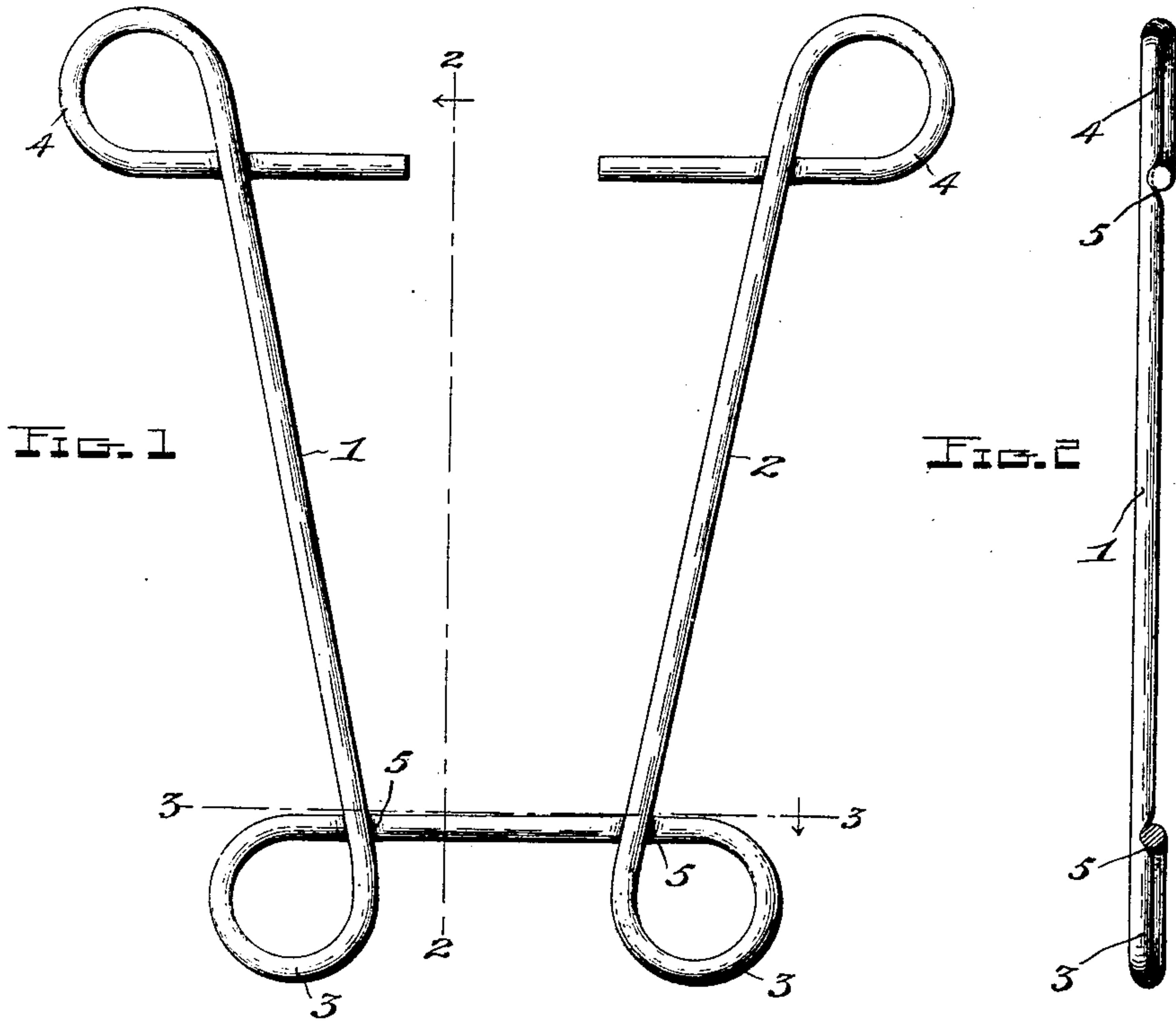
No. 702,944.

Patented June 24, 1902.

P. HANSHILL.  
WALL TIE OR BOND.

(Application filed Apr. 17, 1902.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

PAUL HANSHILL, OF LEWISTON, MAINE.

## WALL TIE OR BOND.

SPECIFICATION forming part of Letters Patent No. 702,944, dated June 24, 1902.

Application filed April 17, 1902. Serial No. 103,412. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL HANSHILL, a citizen of the United States, residing at Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Wall Ties or Bonds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ties or binders for walls, especially those made of brick; and its object is to provide a simple and inexpensive wire tie which possesses superior anchorage qualities and which when used to connect a face-wall with an inner wall will effectually prevent said face-wall from becoming displaced under the action of frost or from other causes which tend to cause the face-wall to part from the adjacent brickwork.

The invention consists of a tie embodying novel features of construction, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a plan view of the tie. Figs. 2 and 3 are sections of the same on lines 2-2 and 3-3 of Fig. 1. Fig. 4 is a plan view illustrating one mode of use of the invention.

The tie is preferably made of a single piece of wire and comprises two main stems or branches 1 and 2, which are provided with outturned loops 3 and 4 at their opposite ends. The ends or extremities of these loops are bent inwardly, and the ends of the loops 3 are integrally connected, while the ends of the loops 4 are free from connection and preferably spread apart. Where the parts of the tie cross each other, they are notched, indented, or halved, as indicated at 5, so as to lie approximately in the same plane.

As shown, the stems or branches 1 and 2 have an outward flare or divergence from the loops 3, thus spreading the loops 4 apart and making the tie wider at one end, so that it will have a greater holding action on the part of the brickwork to be strengthened or supported.

Fig. 2 shows one mode of use of my im-

proved tie, wherein it is applied to hold the face-wall 6 of a brick structure in proper relation to the inner wall 7. The tie is laid flat with the loops 3 resting upon the inner wall and the loops 4 resting upon the outer wall and with the branches 1 and 2 arranged on opposite sides of the joints between the adjacent bricks. The tie is embedded in the mortar, which is then laid on the brick, and when the next tiers or layers of brick are laid will bond the bricks securely together. The headers 8 (indicated in broken lines) when laid will hold the branches and loops 3 of the tie on opposite sides of the joint, while the superposed layer of face-brick will bear upon the loops 4, and thus as the parts will be firmly anchored in the mortar the face-wall will be securely held and reinforced. By having the stems 1 and 2 diverge and the loops 4 spread apart it will be seen that a better holding action on the face-wall is insured. The tie is preferably used every six layers up and three feet apart along each layer to be supported, which will be sufficient under all ordinary conditions.

In some cases the tie may be placed edgewise between the joints of the brickwork, in which position it will also serve effectually as a bond.

A tie made in accordance with my invention is simple, cheap, and effective, and by reason of its peculiar construction will when laid in the brickwork anchor the bricks in such manner that they cannot part under the action of frost or any ordinary strain.

Galvanized wire is preferably used as the material to form the tie, as this material is comparatively inexpensive and not liable to rust.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wall-tie formed of a single piece of wire and comprising two longitudinal main stems provided with loops at their opposite ends, the loops at one end of the tie being integrally connected, substantially as described.

2. A wall-tie formed of a single piece of wire and comprising two longitudinal main



stems having loops at their opposite ends, the loops at one end of the tie being integrally connected and the stems diverging therefrom, thus holding the loops at the opposite end of the tie spaced apart, substantially as and for the purpose described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

PAUL HANSHILL.

Witnesses:

JOHN F. HUGHES,  
FRANK WELLER.