

No. 647,705.

Patented Apr. 17, 1900.

P. RIESECK.  
WALL TIE.

(Application filed Apr. 22, 1898.)

(No Model.)

Fig. 1.

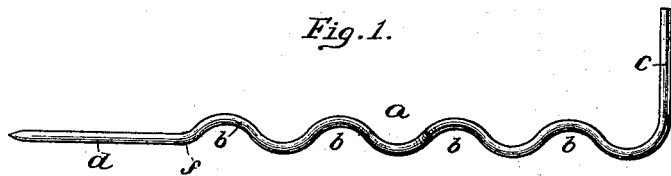


Fig. 2.

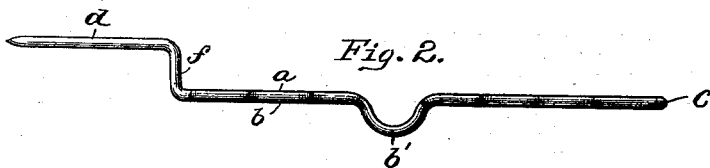
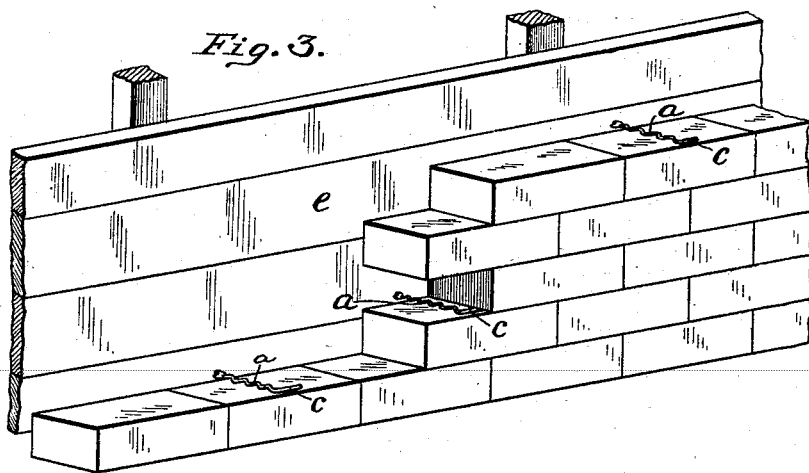


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

PETER RIESECK, OF ALLEGHENY, PENNSYLVANIA.

## WALL-TIE.

SPECIFICATION forming part of Letters Patent No. 647,705, dated April 17, 1900.

Application filed April 22, 1898. Serial No. 678,473. (No model.)

*To all whom it may concern:*

Be it known that I, PETER RIESECK, a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Wall-Ties; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to wall-ties.

The main object of my invention is to provide a simple, easily-constructed, and inexpensive form of wall-tie which has as part of it means for securing the tie to a wooden frame or structure without the employment of a separate staple or other fastener.

To this end my invention comprises, generally stated, wall-ties formed of short lengths of wire or other suitable metal corrugated or zigzag in form and each having a nail portion formed integral therewith, at one end thereof, in combination with two adjacent walls, into one of which the nail portion is driven.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a plan view of one form of my improved wall-tie. Fig. 2 is a side view. Fig. 3 is a perspective view of portions of two walls tied together by wall-ties constructed in accordance with my invention.

Like letters indicate like parts in each of the figures.

The letter *a* designates a short section of wire or other suitable metal having the corrugations *b* formed thereon. These corrugations preferably extend continuously from one end of said section of wire to the other, with the exception of the extreme ends. The outer end may be bent at about right angles to the main portion, as at *c*, while the inner end has the nail portion *d* formed thereon. The nail portion *d* is pointed to facilitate its penetrating the wood of the frame *e* or inner wall. The nail portion is offset at a right angle to the plane of the portion *a*, thus forming a head *f* for driving the nail portion into the wall *e*. At about the mid-point of the tie the metal is bent to form a loop *b'* at right angles to the corrugations *b*. This loop is for the purpose of preventing moisture from finding its way along the tie to the inner wall, as will more fully hereinafter appear. The

metal section *a* may have irregularities other than corrugations or may be straight between the nail portion and outer end, which is turned at an angle.

When my improved wall-tie is in use in connection with a brick and frame structure, as shown in Fig. 3, it is secured in place in the following manner: The corrugated portion of the wall-tie is laid in position flatwise upon the brick, and then the nail portion *d*, which projects above the brick the distance of the offset *f*, is driven into the wood of the frame *e*. This can be readily accomplished owing to the shoulder *f*, as an ample head is presented for the blows of a hammer. When the nail portion has been driven into the wood, the wall-tie is thus held securely in place, and the mortar is then added and another brick laid thereon in the ordinary manner. There is usually an air-space between the outer and inner walls, as illustrated, and if any moisture travels from without along the tie when it reaches the loop *b'* it will descend and will drop therefrom down into said air-space, thereby keeping the inner wall dry. By having the wall-tie corrugated continuously a greater hold is obtained on the mortar and a stronger bond is obtained. The nail portion *d* by being formed integral with the body of the wall-tie is always in position for use, and the adjustment of the tie in position and the securing of it to the frame can be accomplished more speedily than where a separate fastening device is employed, which is liable to drop in handling and cause delay and annoyance.

The above forms of wall-ties can be rapidly formed, the same machine which cuts the wire into suitable lengths being also adapted to corrugate and finish the ties, so that the cost of manufacture is very small.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a wall or partition, and an adjacent wall composed of rectangular blocks and mortar or cement, of wire ties having body portions bent into zigzag form and having inner nail-shaped ends integrally connected to the body portions by an offset constituting a driving-head.

2. The combination with a wall or partition and an adjacent wall composed of rectangu-

lar blocks and mortar or cement, of wire ties  
each of which has a body portion bent into  
zigzag form located between adjacent blocks  
and an end nail portion driven into the wall  
5 or partition and joined to the body portion by  
an offset at a right angle to the plane of the  
latter.

In testimony whereof I, the said PETER  
RIESECK, have hereunto set my hand.

PETER RIESECK.

Witnesses:

ROBT. D. TOTTEN,  
WALTER FAMARISS.