

(No Model.)

J. PRESCOTT.
WALL TIE.

No. 524,531.

Patented Aug. 14, 1894.

Fig. 1

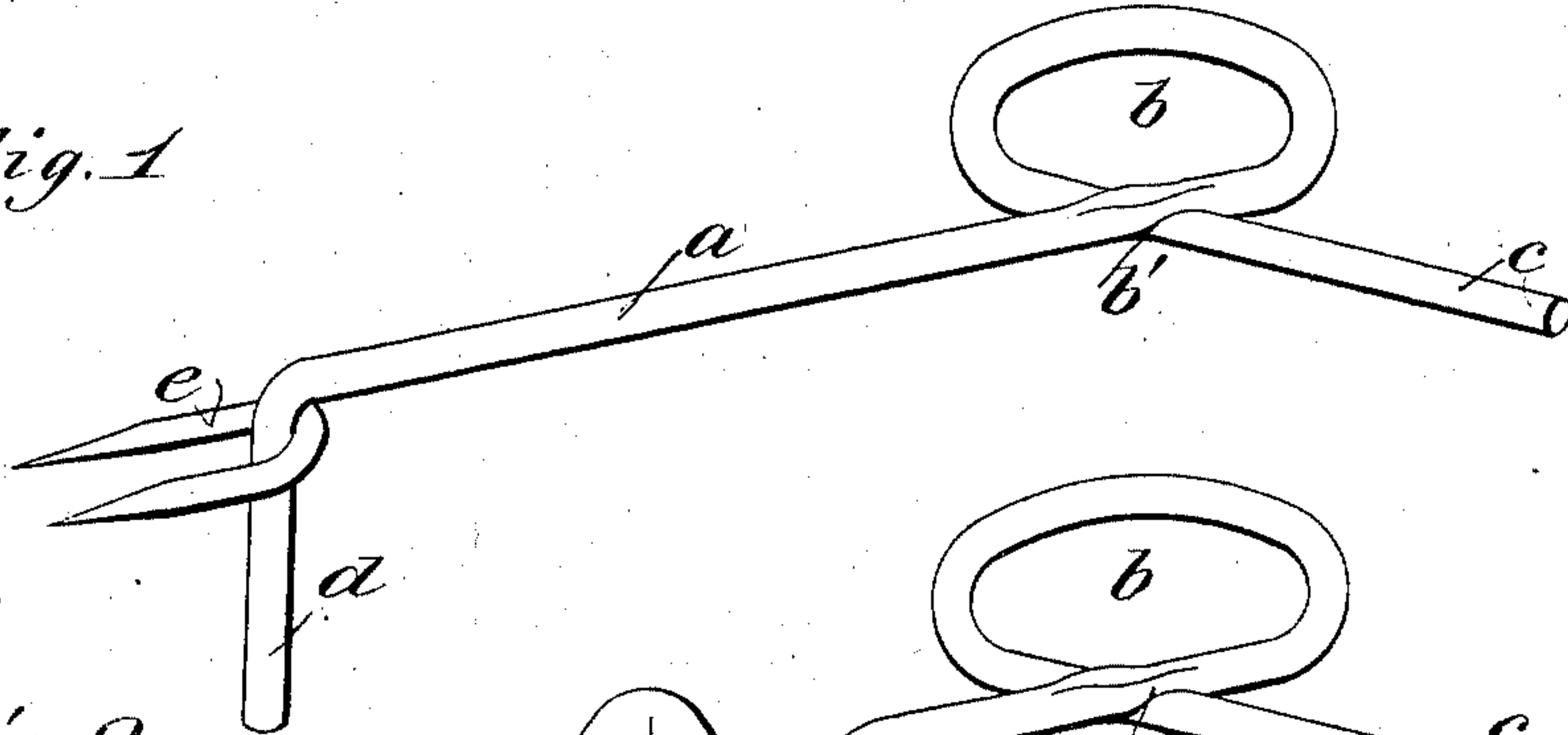


Fig. 2

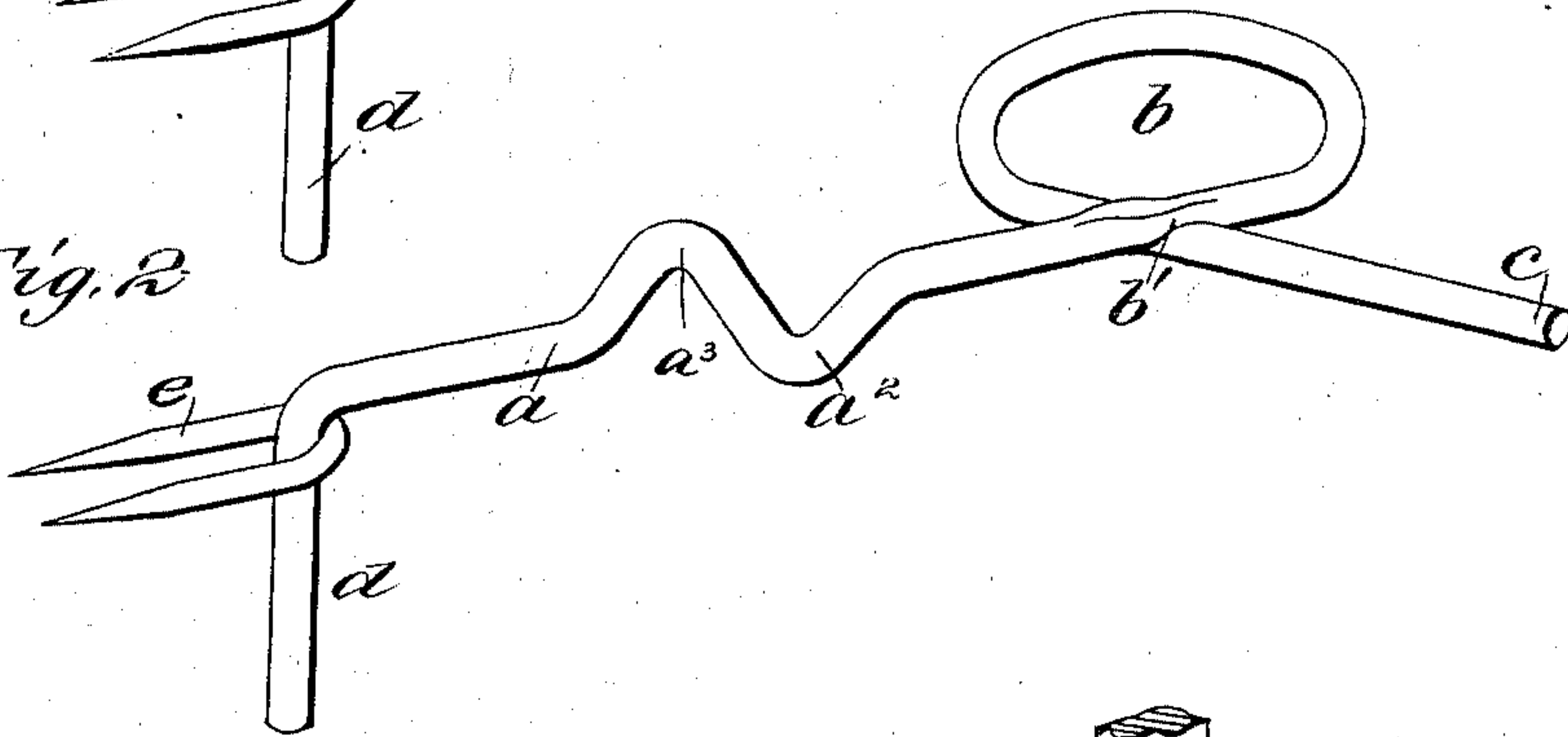


Fig. 3

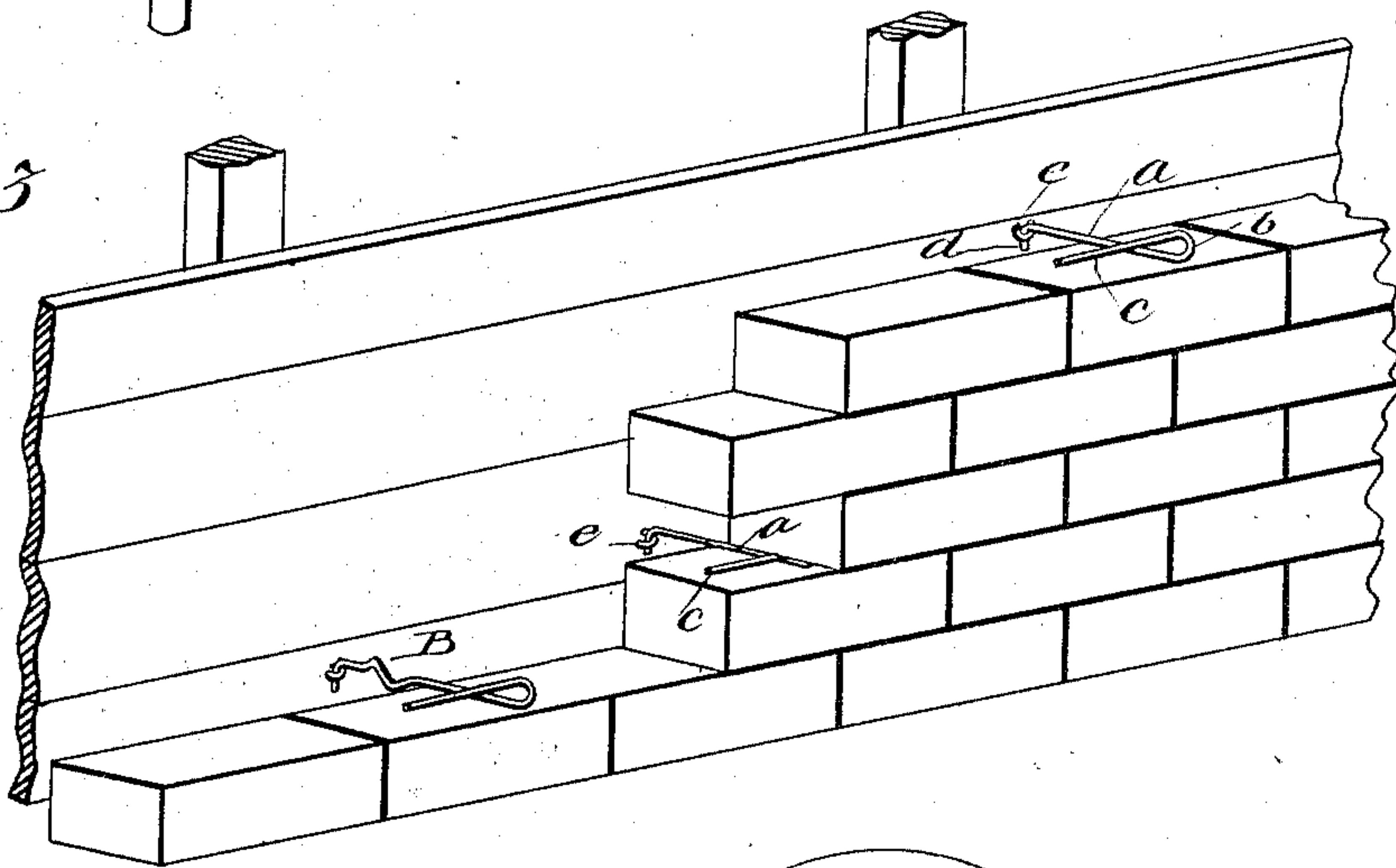


Fig. 4

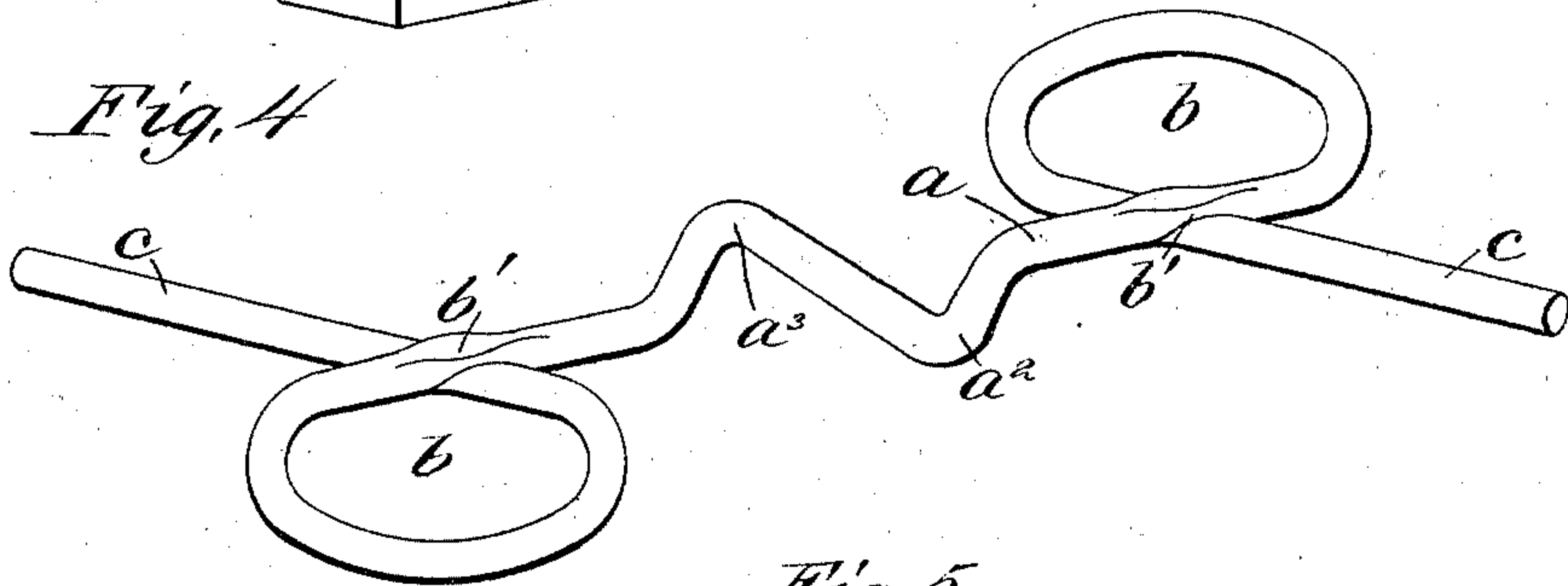


Fig. 5



Witnesses;

J. F. Ferman
D. C. Yeatman.

by

Jesse Prescott
D. C. Fitzgerald

Atty.

UNITED STATES PATENT OFFICE.

JESSE PRESCOTT, OF WEBSTER, MASSACHUSETTS, ASSIGNOR TO J. B. PRESCOTT & SON, OF SAME PLACE.

WALL-TIE.

SPECIFICATION forming part of Letters Patent No. 524,531, dated August 14, 1894.

Application filed June 4, 1894. Serial No. 513,464. (No model.)

To all whom it may concern:

Be it known that I, JESSE PRESCOTT, a citizen of the United States, residing at Webster, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Wall-Ties; and I do hereby 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.

My invention relates to improvements in wall ties.

The invention will first be described in connection with the accompanying drawings, and then particularly pointed out in the claims.

In the drawings—Figure 1 is a perspective view of one form of wall tie embodying my invention. Fig. 2 is a perspective view of a modification of the same. Fig. 3 is a perspective view illustrating the manner in which the forms shown in Figs. 1 and 2 are employed. Fig. 4 shows a third modification of a wall tie embodying my invention. Fig. 5 is a detail view.

Referring to Fig. 1, it will be seen that this form of my improved wall-tie consists of a shank or central portion a one end of which is bent to form an eye or loop, b , the extreme end c projecting at right angles to the length of the shank a . The intersection b' is hammered down so as to halve the wires together as shown in Fig. 5. The opposite end d is also bent approximately at right angles to the length of the shank but in a plane at right angles to the plane in which the end c lies. In connection with this form of wall-tie, a staple e or other suitable anchor device is employed.

In using this device which is intended especially for tying a brick wall to a wooden building or framework as shown at A, in Fig. 3, the loop b is placed between the bricks and is held therein by the mortar, the end d projecting inward and hooking into the staple e which is driven into the wooden structure. In this manner the brick and woodwork are firmly bonded together.

While but a slight amount of moisture can be conveyed across the air space between two walls by a tie of this kind, as compared with that carried across by brick headers as usu-

ally employed in building, yet it is frequently the case that in damp locations a certain amount of moisture will cling to the wire by capillary attraction and will run along it, and so cross the air space, more especially if the bond wire be somewhat inclined downward toward the inner wall. To set the bond wire with a slight slope upward toward the inner wall requires more care and attention than are usually employed by the ordinary workman, and therefore under certain circumstances, a bond wire having a straight shank portion carries enough moisture across the air-space, to affect the interior wall. For the purpose of overcoming this disadvantage, I construct the tie-wire as shown in Fig. 2, where it will be seen that the shank a instead of being straight at its central portion is bent first downward, as at a^2 until below the axis of the shank, and then upward, as at a^3 above the axis of the shank, and then downward to the axis of the shank. By this construction, the moisture, which may collect around the outer end of the wire, will run down the downward sloping portion a^2 until it arrives at the upward bend, but being unable to move upward along said upward bend a^3 , will drop off or hang at this point in beads until a further accumulation of moisture makes the entire weight sufficient to overcome the capillary attraction, whereupon the water will fall. The upward bent portion a^2 renders it impossible for the thin film of moisture, which might cling to the wire, to be forced upward and across the air space by the hydraulic pressure of the moisture behind it, for the latter can at most, force the forward portion but a short way up the upward bent portion and not any higher than the axis of the shank. Hence, the moisture cannot possibly cross a bond wire constructed as described.

At B, in Fig. 3, I have shown the manner in which this form of bond wire is applied to a brick and wooden structure, further description being unnecessary.

While I have thus far described forms particularly intended for use in tying a brick wall to a wooden wall or frame, yet it is obvious that the bending of the central shank a , as shown in Fig. 2, may be applied to a wall-tie or bond-wire adapted for use in tying

two brick walls together, and when adapted to a tie of the character of the Morse patent, No. 392,744, by the peculiar construction of the bend, the tie will accomplish the purpose for which it was intended if laid with either end in the outer wall or either side up.

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

10 1. As an article of manufacture, a wall-tie of wire having a central shank portion, one end being bent to form a loop the extremity projecting in the plane of the loop and at right angles to the length of the shank, the other
15 end being bent in a plane at right angles to the plane of the loop and at right angles to the length of the shank, substantially as described.

20 2. In a wall-tie, the combination, with a wire having a central shank portion and one end bent to form a loop, the extremity being at right angles to the length of the shank, the opposite end being bent downward at right angles to the plane of the loop and at an angle to the length of the shank, of a staple or
25 other anchor device into which the downward-bent end is inserted, substantially as described.

3. As an article of manufacture, a wall-tie having a central shank portion which bends downward toward the inner end of the tie and then upward and downward, substantially as described. 30

4. As an article of manufacture, a wall-tie having a central shank portion which bends downward toward the inner end of the wall-tie and then upward above the level of the axis of the shank, and then downward to the axis of the shank, substantially as described. 35

5. As an article of manufacture, a wall-tie having a central shank portion bent downward toward the inner end and thence upward and downward, the outer portion being bent to form a loop and the outer end projecting laterally at right angles to the shank-axis, the inner end of the wall-tie being bent at an angle to the plane of the eye and to the axis of the shank, substantially as and for the purpose described. 40 45

In testimony whereof I affix my signature in presence of two witnesses. 50

JESSE PRESCOTT.

Witnesses:

E. L. STILLMAN,
OSCAR STRUMMING.