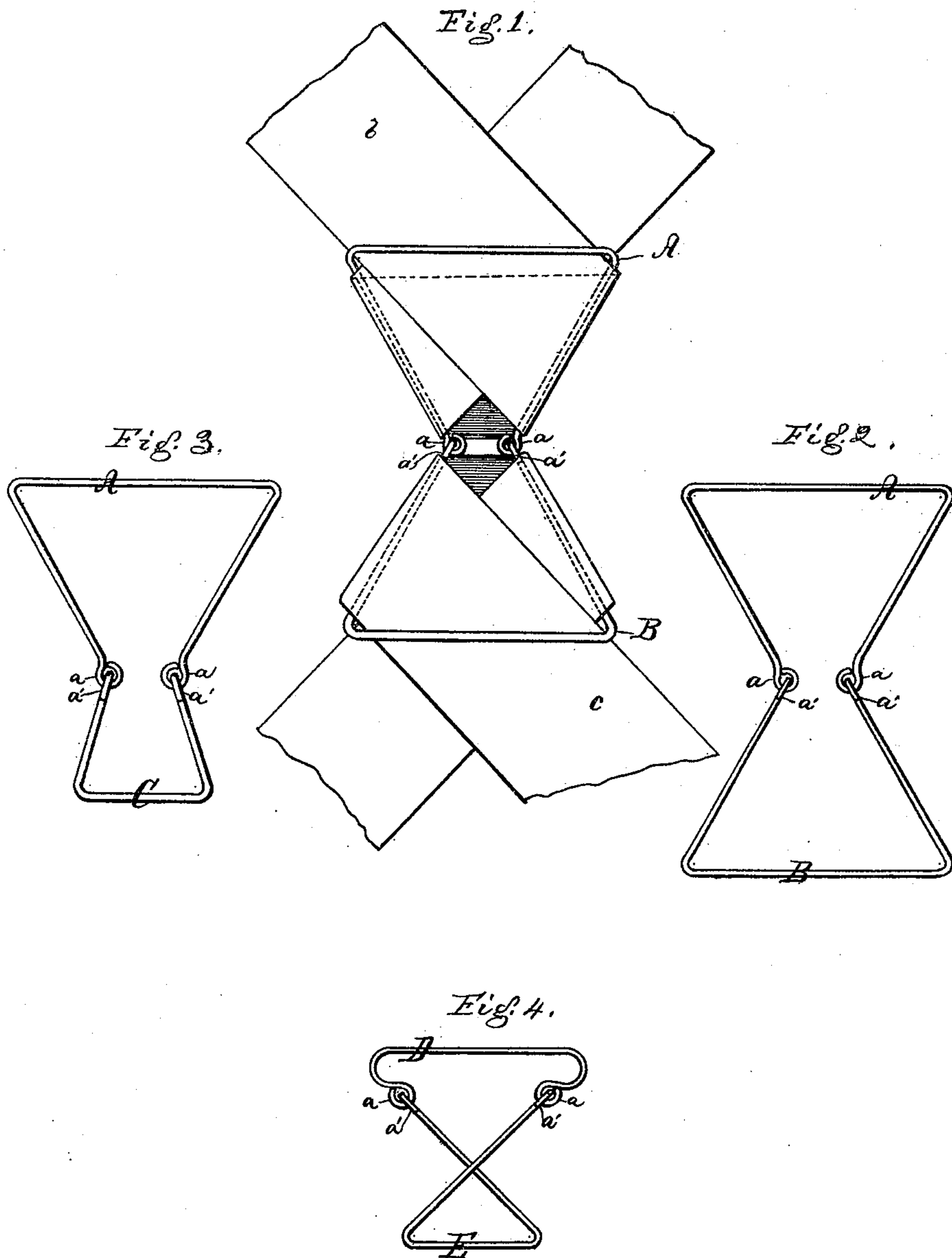


G. H. PALMER.

DEVICE FOR JOINING WEBBING OR STRAPS.

No. 179,724.

Patented July 11, 1876.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE H. PALMER, OF WALPOLE, ASSIGNOR OF ONE-HALF HIS RIGHT
TO GEORGE H. DUNBAR, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN DEVICES FOR JOINING WEBBING OR STRAPS.

Specification forming part of Letters Patent No. 179,724, dated July 11, 1876; application filed
March 31, 1876.

To all whom it may concern:

Be it known that I, GEORGE H. PALMER, of Walpole, Norfolk county, Massachusetts, have invented a device for joining together straps or pieces of webbing of the same or different widths by a flexible joint or hinge, without rivets, eyelets, or sewing, of which the following is a specification:

The object of the invention is to rapidly and securely unite several straps or pieces of webbing of the same or different widths, so that the proper direction shall be given to each strap or piece of web, so that the right or finished side of the strap may be presented to the view, and so that at the point of junction a flexible joint or hinge is formed by the combination of one triangle, A, with another triangle, B, or one triangle with a loop, each triangle being formed of wire or strip of metal provided at the ends with eyes *a a*, so bent as to hook or lock into eyes *a' a'* formed in another triangle or loop, as shown in the several views of the accompanying drawing.

The device is illustrated by the view, Figure 2, which represents two triangles, A and B, joined together by the eyes *a a* and *a' a'*. Fig. 1 is the same, showing the strap or web *b* in position upon the triangle A, and the strap or web *c* in position upon the triangle B. Fig. 3 is a view, showing a larger triangle, A, joined to a smaller triangle, C, by the eyes *a a* and *a' a'*. Fig. 4 is a view, showing a triangle, E, having its sides extended so as to cross each other, and is joined to a loop, D, by the eyes *a a* formed in the loop, and the eyes *a' a'* formed in the triangle E.

Having a piece of wire or strip of metal of the proper size and length, I form the eyes *a a* at the ends of the same. The wire or strip is then so bent as to form a triangle, as A, Figs. 1, 2, 3, the eyes *a a* being, by such bending, brought so as nearly to touch each other, as shown.

If the two straps or pieces of web to be joined are of the same width I then form eyes *a' a'* in another like piece of wire or metal, and bend it into the form of another triangle, B, so that the eyes *a' a'* shall be at right angles to the eyes *a a* of the triangle A. The eyes of

one triangle are then inserted into, and closed upon, the eyes of the other triangle.

If the straps are of an unequal width, then a smaller triangle, C, Fig. 3, is made in like manner, and joined to a larger triangle, A, as shown.

If a single strap is to be joined to a double strap, the sides of the triangle E, Fig. 4, may be extended so as to cross each other, and be joined to the loop D by the eyes, as shown.

It will be evident that triangles so formed may be joined in like manner to other forms of wire or metal, suitably fitted to receive the eyes or hooks which are formed in such triangle.

The method of attaching the web is the same as that commonly in use for changing the direction of straps and pieces of web by means of a single plain triangle. It is done by placing the web upon the back of the triangle with the wrong side toward the operator, and, bringing each part forward over the sides, pass the ends of the web down behind the base of the triangle, and, when in the desired position, draw the web smoothly and evenly over the triangle. Having done the same with the other strap upon the other triangle, a strap, *b*, will be neatly joined to a strap, *c*, without being cut, and without stitching or rivets.

The invention is intended, chiefly, to unite the several pieces of web which form a pair of suspenders, but may be used, also, upon harnesses, or otherwheres where such union and direction of straps are required.

By changing the proportions of the length of the base to the length of the sides of the triangle the angle at which the parts of the web will stand to each other may be slightly varied.

I claim as my invention—

A triangle formed of wire, or strip of metal provided with eyes, as described, to fit into, and lock upon, the eyes formed in another triangle or loop, substantially as shown, and for the purposes specified.

GEO. H. PALMER.

In presence of—

OWEN A. GALVIN,
PATRICK J. MCCARTHY.