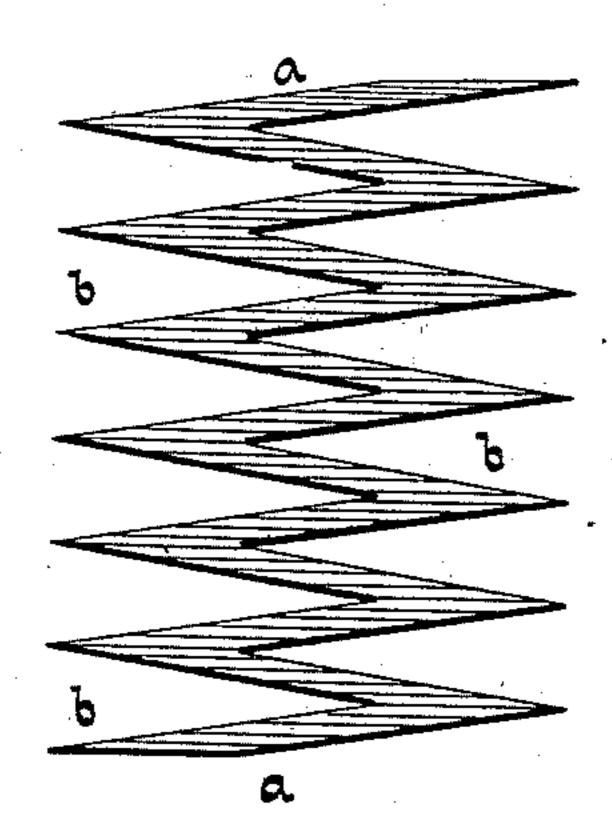
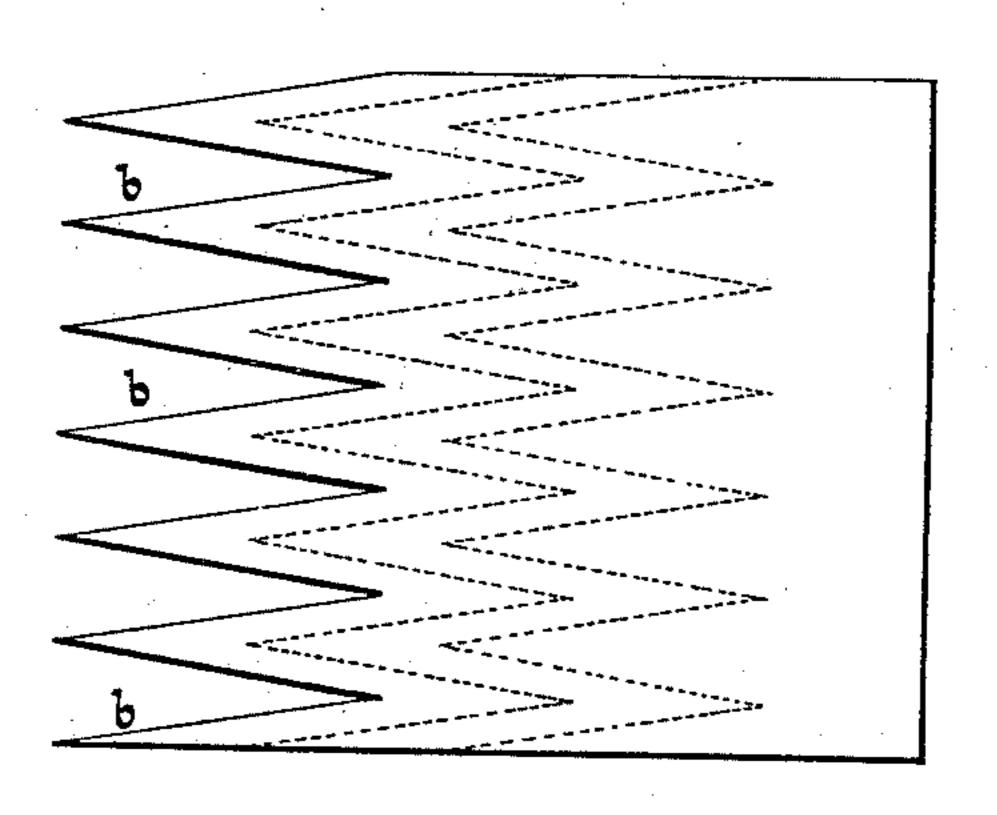
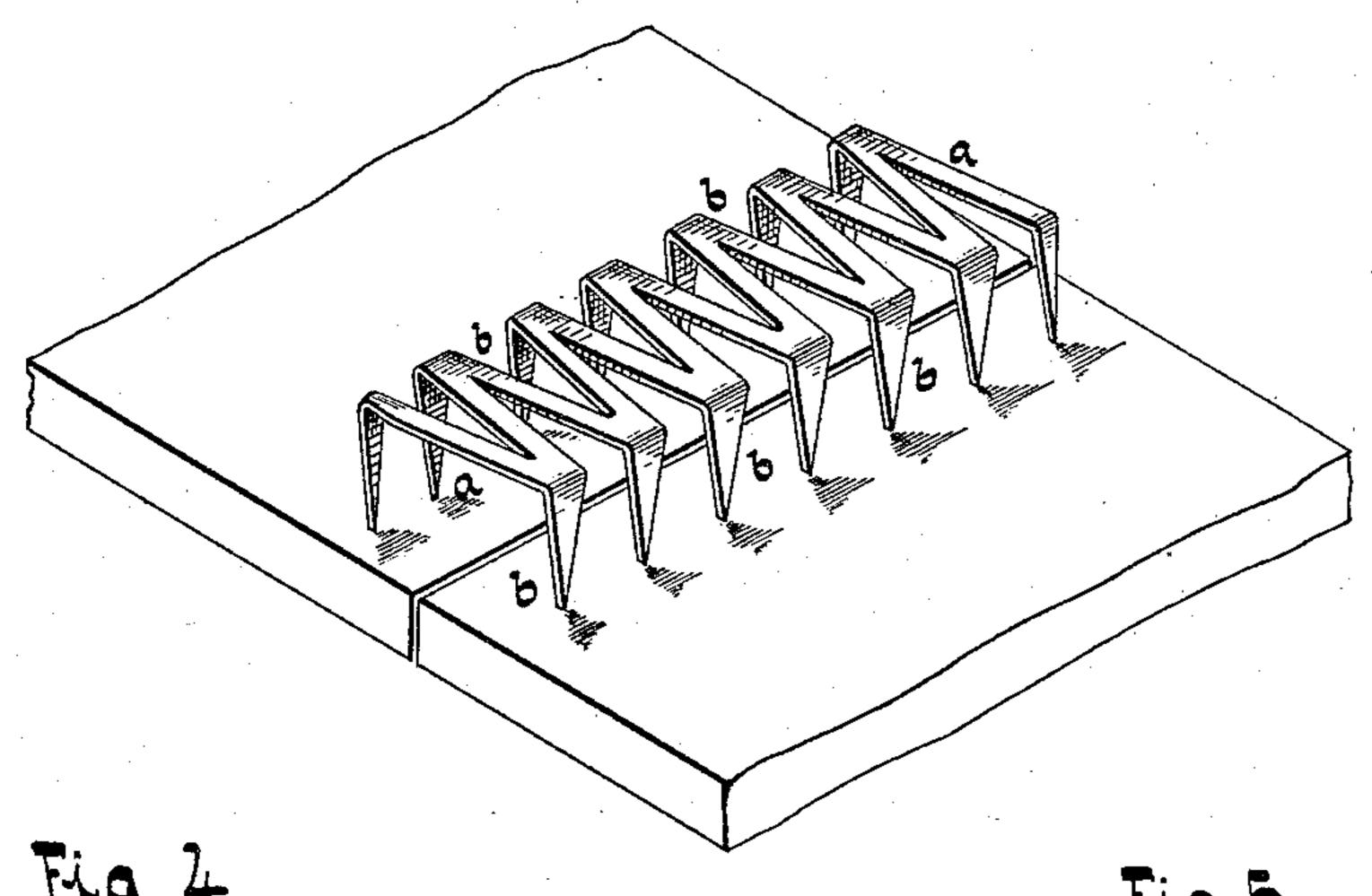
W. H. BRISTOL. BELT FASTENER.

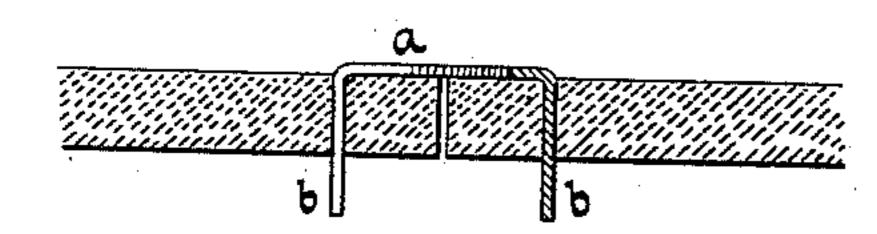
No. 408,161.

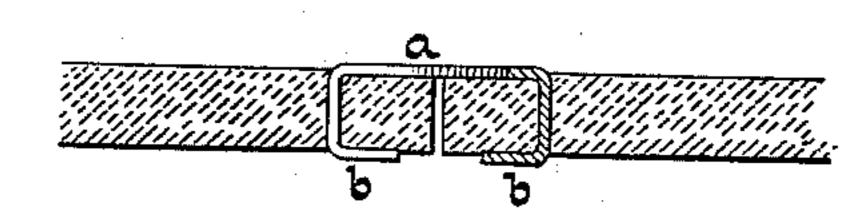
Patented July 30, 1889.











WITNESSES:

INVENTOR

## United States Patent Office.

WILLIAM H. BRISTOL, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO HIMSELF, AND BENJAMIN H. BRISTOL AND FRANKLIN B. BRISTOL, OF NAUGATUCK, CONNECTICUT.

## BELT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 408,161, dated July 30, 1889.

Application filed March 28, 1889. Serial No. 305,079. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BRISTOL, a citizen of the United States, and a resident of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Belt-Fasteners, of which the following is a specification.

My invention relates to improvements in metallic belt-fasteners, and especially to that to class of fasteners having continuous bodies

with projecting spurs or teeth.

Primarily the object of my invention is the production of a metallic fastener of the above-described character which shall possess sufficent elasticity to accommodate itself to the twist of the belt. In addition to this I desire to produce a fastener which can be manufactured with increased economy both in material and in time.

With the above objects in view my invention consists, essentially, in a metallic belt-fastener having projecting spurs alternating on opposite sides of the body thereof, the recesses between the spurs being extended to form a continuous zigzag or sinuous body, whereby the said body is rendered elastic transversely, so that within certain limits it is adapted to belts of different widths, and the fastener will accommodate itself to changes of form in the belt.

In the accompanying drawings, Figure 1 represents a face view of a blank as cut preparatory to striking up the spurs. Fig. 2 represents a section of the sheet from which the blanks are cut, the broken lines representing the successive blanks. Fig. 3 is a perspective view of a complete blank. Fig. 4 is a sectional elevation showing the spurs driven through a belt. Fig. 5 is a similar view showing the spurs clinched.

Similar letters indicate corresponding parts

throughout the several views.

In the drawings, referring at present to Figs. 3, 4, and 5, the letter a designates the body of the fastener, and b b are the spurs alternating on opposite sides of the body. The recesses between the spurs are extended into the body of the fastener to form a continuous zigzag or sinuous body with spurs projecting from the outer angles or bends

thereof, the spurs being bent at approximately right angles to said body and properly pointed, so that they can be readily driven through the belt. The spurs are clinched in the usual manner.

In practice I prefer to make the fastener of sheet-steel; but it can be made from any other material possessing the requisite degree of tenacity. It will be readily understood that this zigzag or recessed form of the 60 body of the fastener renders it elastic as a whole, and therefore the fastener can bend or twist to accommodate itself to the twist of the belt or to the curvature of the latter caused

by coning the pulleys.

In the manufacture of my improved fastener I punch or otherwise form a blank of sheet metal, Fig. 1, having spurs alternating on opposite sides and angular recesses between the spurs, the inner ends of the recesses 70 of one side projecting beyond the inner ends of the recesses of the opposite side. This form of blank can be successively punched from a strip or sheet of metal without waste, since the recesses formed in one side of one 75 blank leave metal for the spurs of the next succeeding blank. It is not necessary, however, that the inner ends of the angular recesses overlap each other; but of course by causing the same to overlap greater economy 80 in material is accomplished and a more elastic body is obtained.

What I claim as new, and desire to secure

by Letters Patent, is—

As an improved article of manufacture, an 85 elastic belt-fastener formed of metal into a continuous zigzag or sinuous body having spurs alternating on opposite sides of a longitudinal center line, said spurs being bent so as to extend at right angles or in parallel 90 planes all in the same direction, as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 23d day of March,

1889.

## WILLIAM H. BRISTOL.

Witnesses:

A. FABER DU FAUR, HENRY S. PRENTISS.