

D. M. Weston,

Belt Fastener,

N^o 76,861.

Patented Apr. 14, 1868.

Fig. 5.

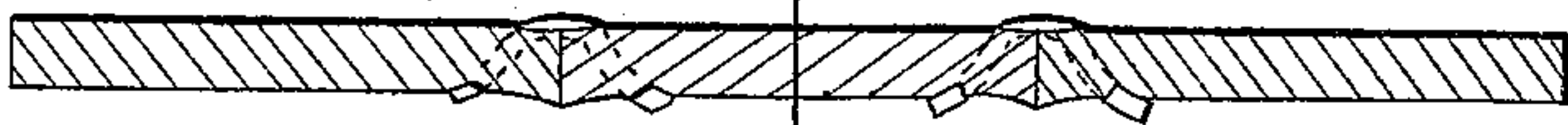


Fig. 2.

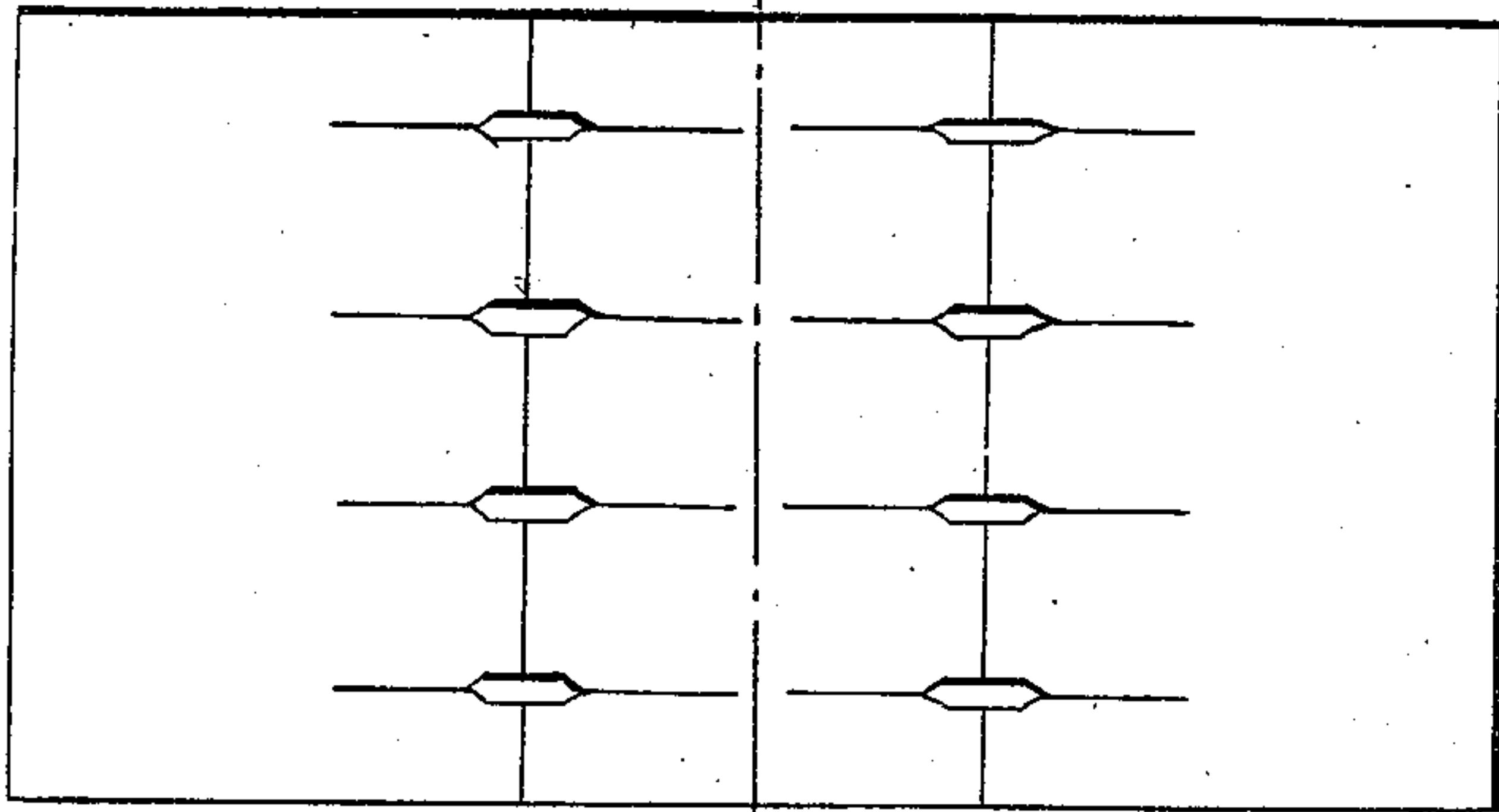


Fig. 6.



Fig. 7.



Fig. 8.

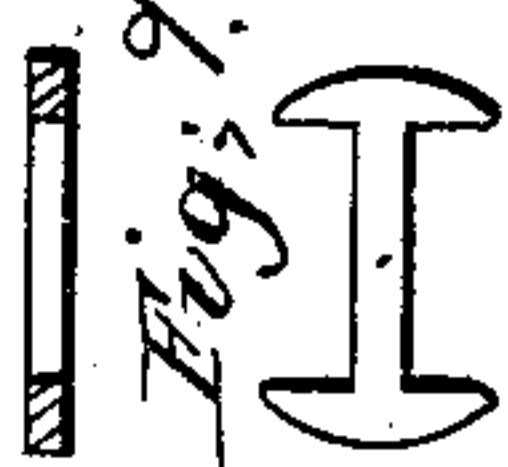


Fig. 9.



Fig. 1.

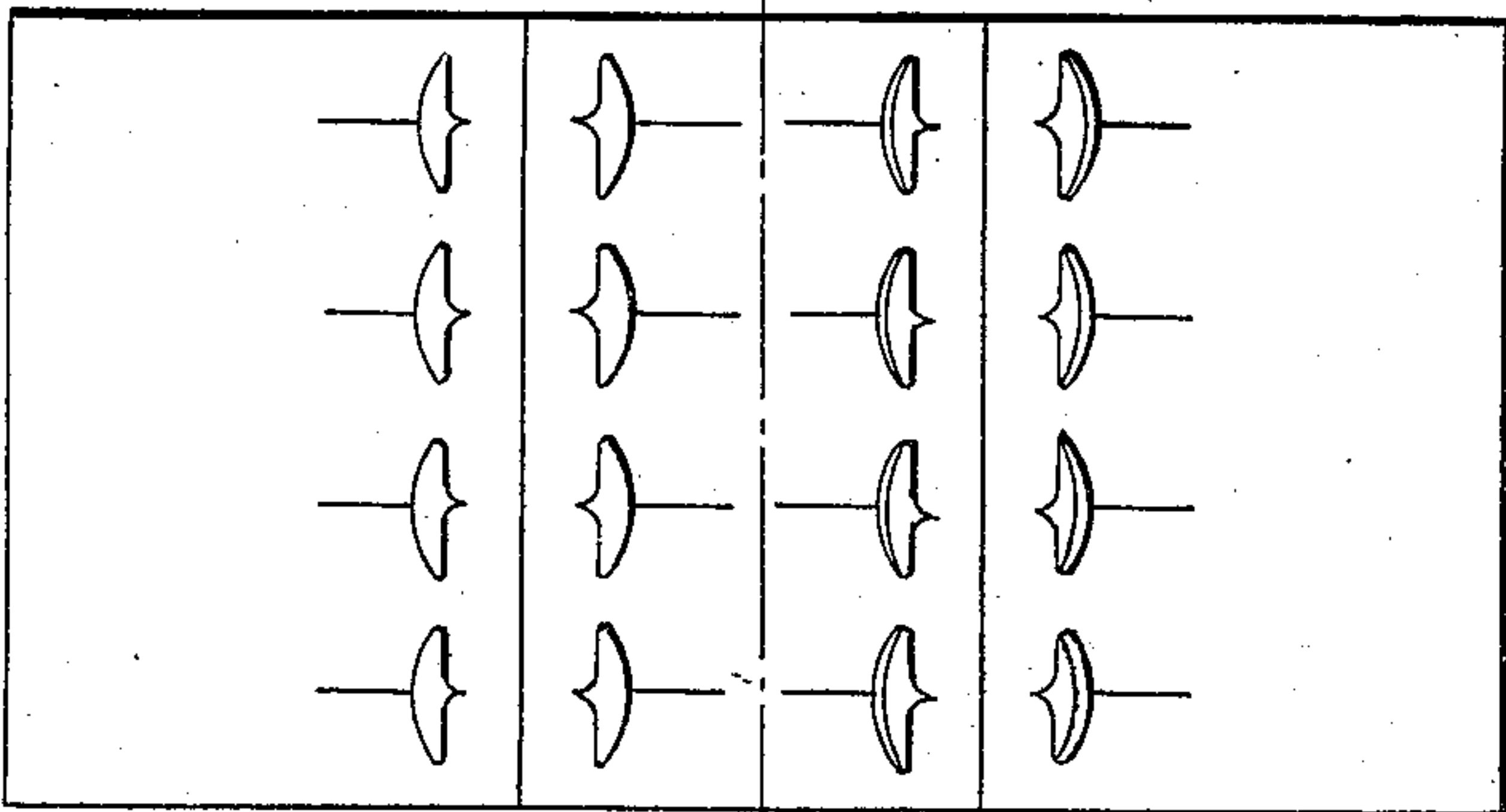


Fig. 3.

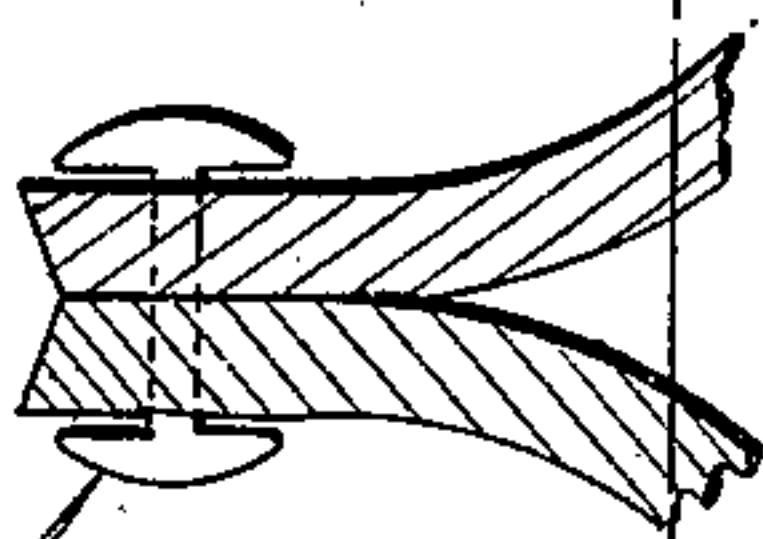
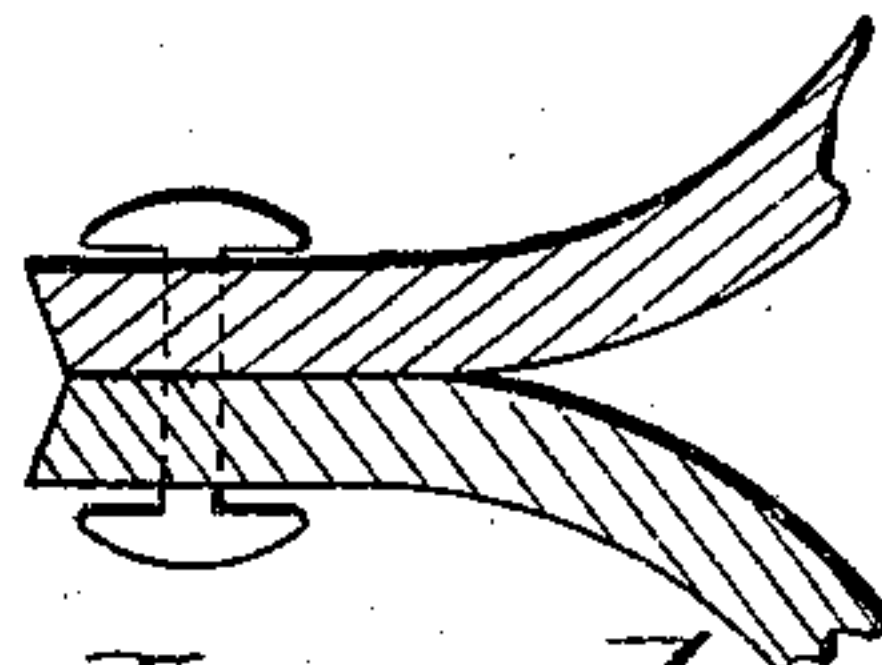


Fig. 4.



Witnesses;
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DAVID M. WESTON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 76,861, dated April 14, 1868.

IMPROVEMENT IN BELT-STUDS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DAVID M. WESTON, of Boston, in the State of Massachusetts, have invented a new and useful Improvement in Belt-Studs, being an improvement on the invention for which Letters Patent were granted to George W. Blake, assignor to himself and L. W. Blake, dated March 26, 1861, and numbered 31,859; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, which will enable others skilled in the art to make and use the same, reference being had to the annexed drawings, making part of this specification, in which—

Figures 1 and 2 are views of the outer and inner surfaces of sections of belting, those above the red line A B being united by my improved stud, and those below said line being connected by the patent stud above mentioned, on which my improvement is made.

Figures 3 and 4 are longitudinal sectional views of sections of belting, showing the studs as first inserted through the belting, before being put in position to complete the fastening, showing, respectively, the improvement claimed by me above the red line A B, and the former invention below.

Figure 5 exhibits similar longitudinal views, showing, above and below said line A B, the respective studs in position to complete the fastening.

Figures 6 and 7 are views of my improved stud detached from the belting.

Figures 8 and 9 are detached views of the former invention.

a a are the segmental heads of the improved stud, swaged or pressed, so as to present a convex outer surface. *b* is the bar or neck which connects these heads.

In all these figures my improved studs are shown above the red line A B, and the former invention below.

In the manufacture and use of the patented studs on which I claim to have made an improvement, experience has shown that a difficulty to be overcome exists in the fact that if the studs are made of soft, tough brass, to insure the requisite flexibility, the heads will curl up, so as not only to loose their hold upon the leather belting, but expose the points to contact with the hand or instrument used in shipping the belt, injuring the hand or breaking the fastening, and, if the studs are made of hard metal, they are liable to break in the bar.

The object of my improvement is to overcome these objections; and, to accomplish this, I first make the studs in the same manner and form as described in the specification of the invention on which I claim an improvement, and to which I refer for a full and particular description thereof.

After having thus formed the studs according to the original plan, I then place the heads *a* in a suitable die or swage, and compress them, at the same time making one edge of each head, *a*, rounding or convex, as represented at *e* of fig. 7. This process of swaging the head accomplishes the two results at which I aim, to wit, it compacts and stiffens the heads, so that they will not bend or curl up at their ends, and thereby prevents them from losing their hold on the belt when inserted therein, and a strain is brought upon them; second, it gives to the outside surfaces of the heads, when inserted in the belt, a rounded and smooth surface, as represented at *e* of fig. 5, instead of the angular projections, which the old style had, as represented at *o* of fig. 5. By giving to the heads this form, they readily pass by the belt-shipper, or the hand, without catching thereon, as it is obvious, at a glance, the old style would. At the same time, while accomplishing these two very desirable objects, I leave the bar or body *b* soft, as before, so that, when inserted, it will bend without breaking, as is necessary to accomplish the object for which it is intended.

By this improvement, I am enabled to produce a stud for fastening belts together that accomplishes the desired object in a most perfect and satisfactory manner.

Having thus described my improvements, what I claim, is—

1. Rendering the heads rigid, by swaging or compressing them, substantially as described.
2. I claim forming the heads with a rounded or convex surface, *e*, as herein set forth.
3. I claim a belt-stud, having a soft or yielding bar, *b*, and rigid heads, *e*, constructed substantially as shown and described.

D. M. WESTON.

Witnesses:

AUGUSTUS RUSS,
MARK H. DURGIN.