

No. 871,981.

PATENTED NOV. 26, 1907.

I. BLUM.
BUCKLE.

APPLICATION FILED APR. 30, 1907.

Fig. 1.

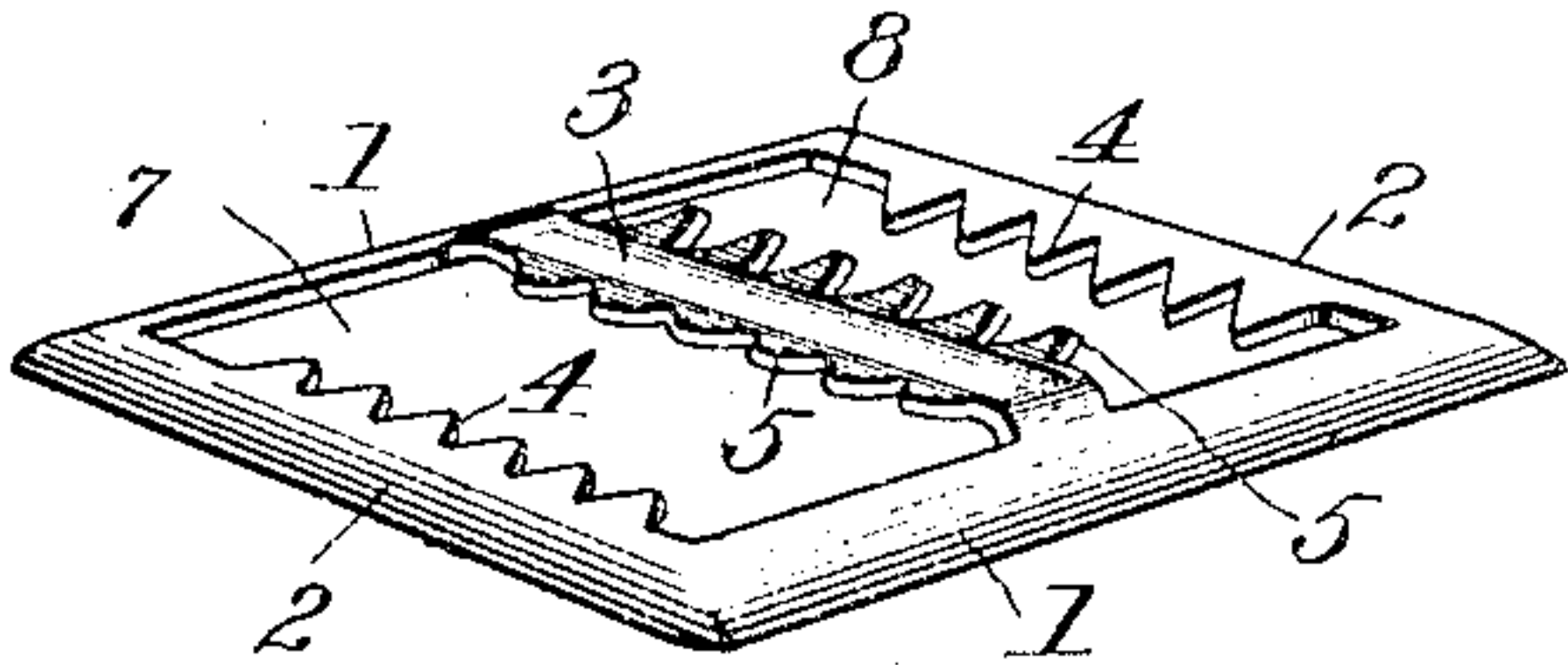


Fig. 5.

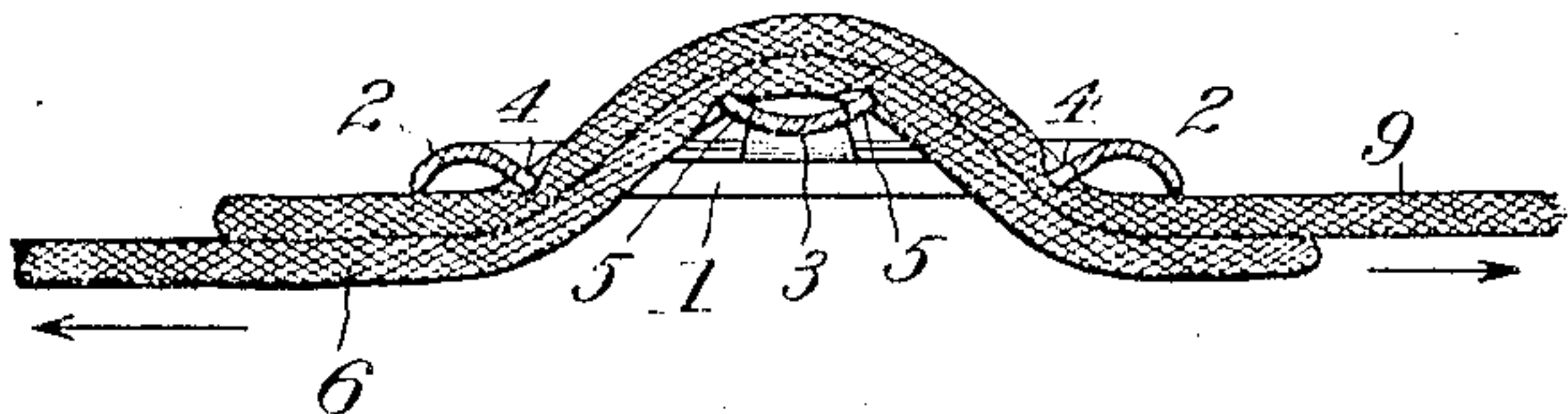


Fig. 2.

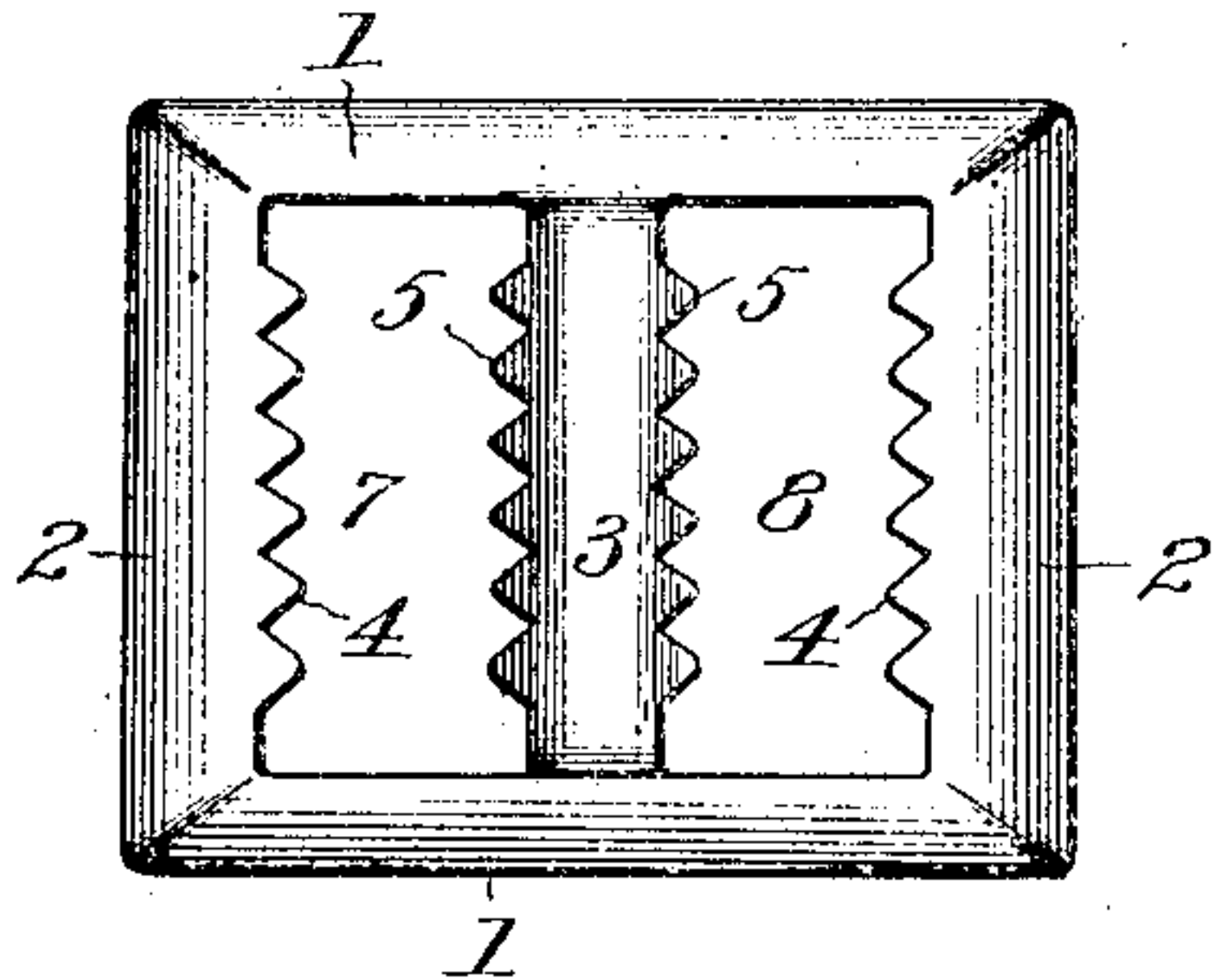


Fig. 6.

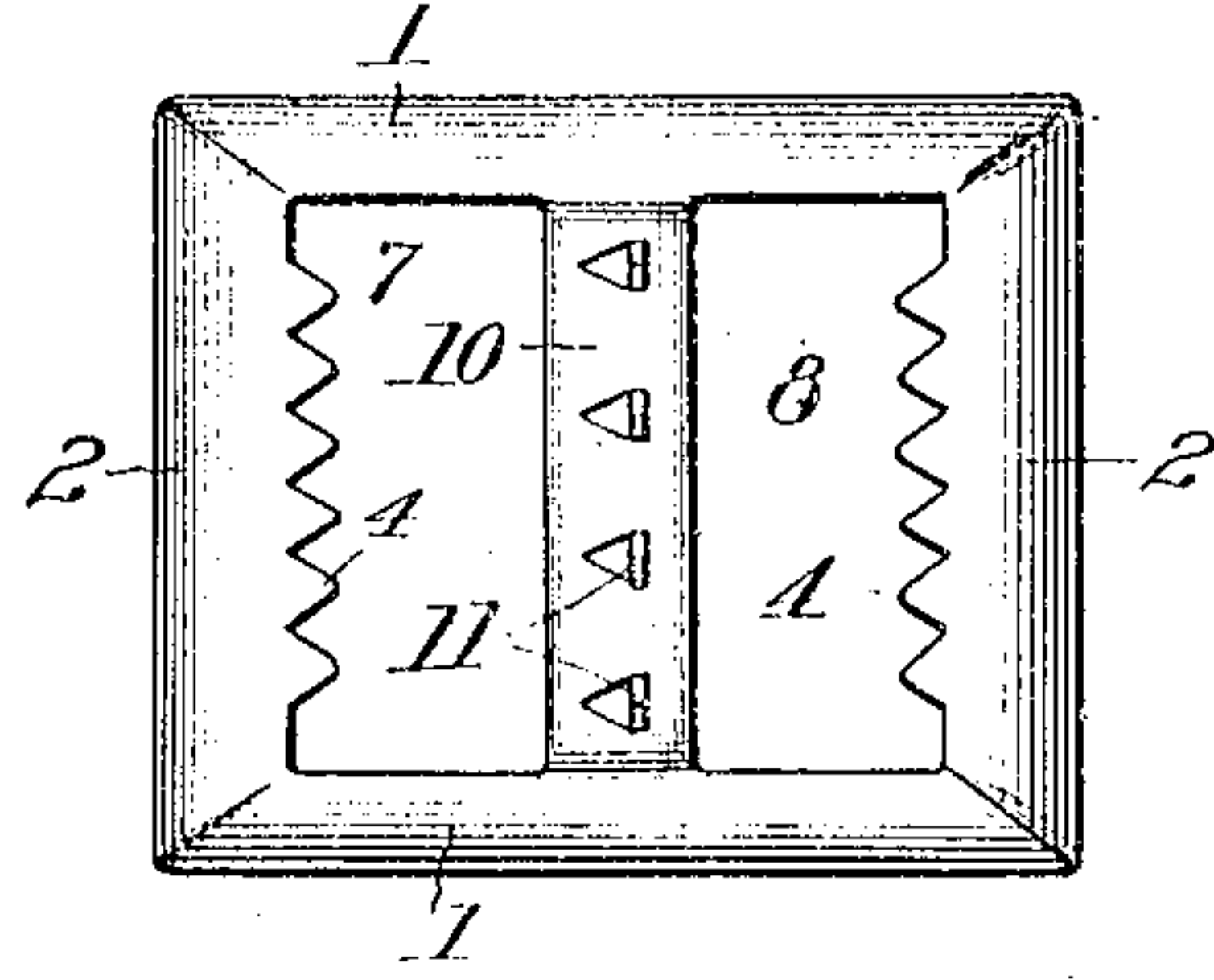


Fig. 3.

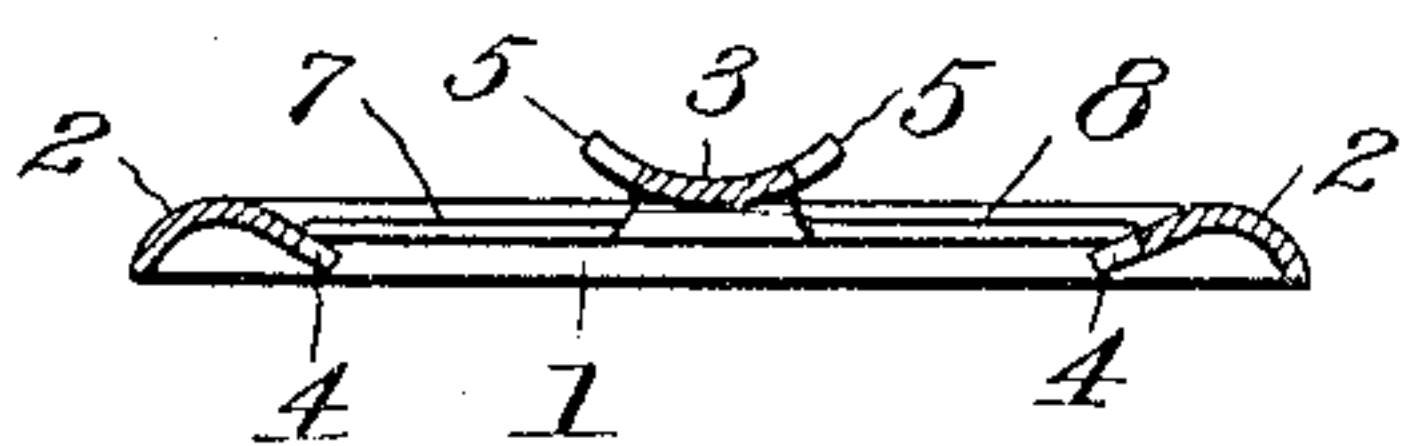


Fig. 4.

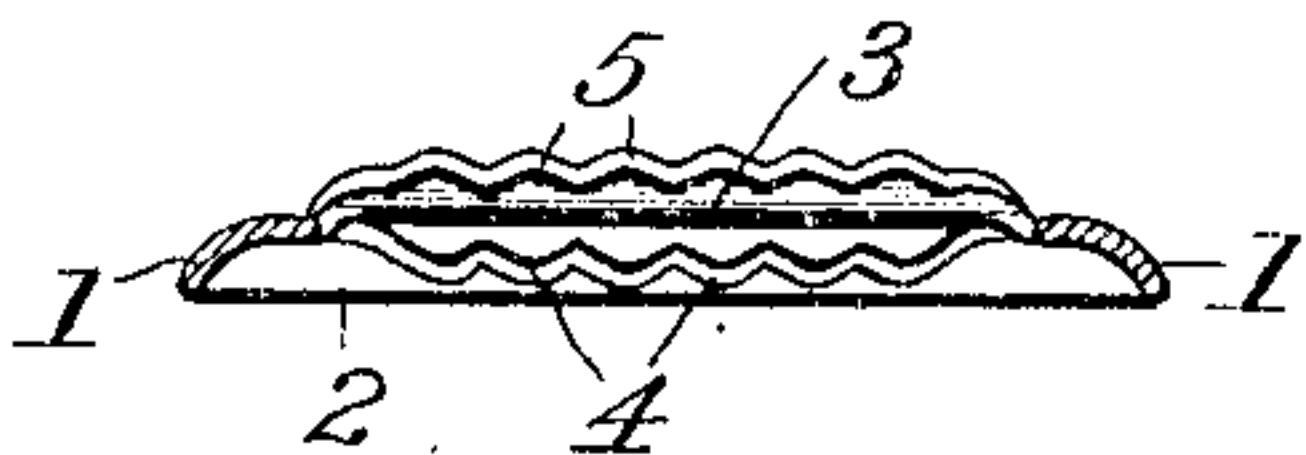
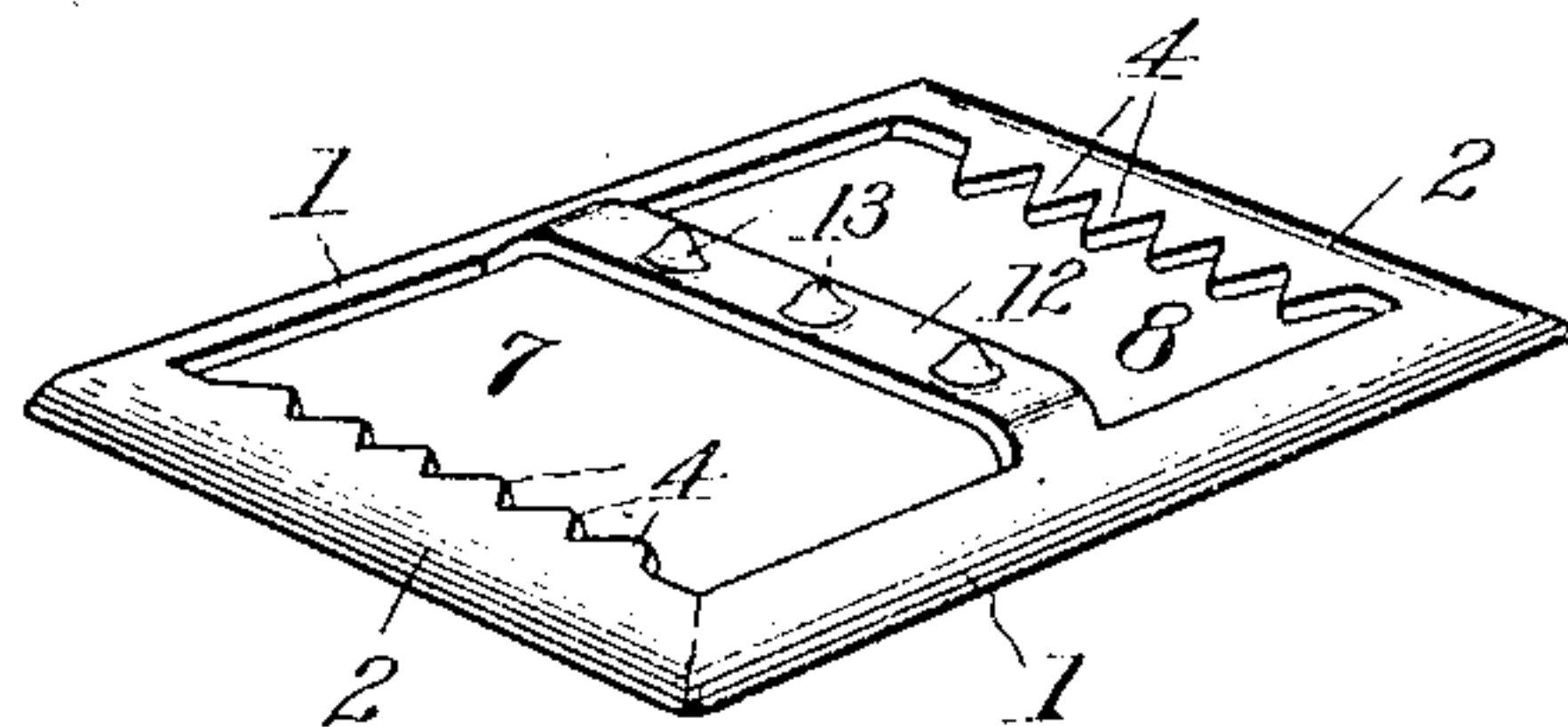


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

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BUCKLE.

871,981.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed April 30, 1907. Serial No. 371,159.

To all whom it may concern:

Be it known that I, ISAAC BLUM, a citizen of the United States, residing at Baltimore city and State of Maryland, have invented a certain new and useful Improvement in Buckles, of which the following is a full, clear, and exact description.

This invention relates to that class of so-called "buckles" which are used particularly in adjustably securing straps upon garments, and especially the back straps on vests and trousers and the side or hip straps on trousers. These buckles are also known as "slides" and "cast-offs", and these various designations are herein used synonymously. These buckles have no movable tongues, but instead have prongs of considerable length and with quite sharp points, and are made of steel and other metal plates or sheets. In polishing or finishing the buckles, the points, owing to their length and sharpness, are apt to be broken off wholly or in part, and hence the buckles are useless, thus resulting in waste of material and a correspondingly increased cost of production. Inasmuch as such buckles are sold at a low price, this waste is a serious cut in profits of manufacture. I have found that an efficient buckle of this sort may be produced economically, and practically without waste, by using short and dull prongs or teeth so disposed that the straps will have put in them a considerable bite and be held in adjusted position within the buckle by friction on the prongs rather than by being penetrated by the prongs.

Another disadvantage incident to the prior constructions is that the prongs were so disposed that the straps could be applied only in one direction of passage through the buckle. This was an inconvenience to the wearer when attempting to adjust the straps with the garment on. By the present invention, the straps may be passed through the buckle from right to left or from left to right, indiscriminately, and be securely held. The buckle, therefore, may be used reversely, and the straps be applied from either end, one over or under the other and then pulled in a direction away from the buckle to cause them to bind in the buckle. The user is able to see the mode of use of the buckle without previous instruction.

The invention consists of a buckle, slide

or cast-off, constructed and arranged to operate substantially as herein set forth and claimed.

In the accompanying drawings, illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view, Fig. 2 is a top plan view, Fig. 3 is a longitudinal section, and Fig. 4 is a transverse section, taken between an end-bar and the cross-bar, of one form of buckle, slide, or cast-off constructed in accordance with this invention. Fig. 5 is a longitudinal section of the buckle shown in Figs. 1 to 4 and having the ends of straps secured therein. Fig. 6 is a top plan view of a modification. Fig. 7 is a perspective view of another modification.

The side-bars 1, the end-bars 2 and the cross-bar 3 are made integral, and of suitable metal, preferably sheet steel, struck up to shape. The side-bars and end-bars are concavo-convex as shown in the sections, Figs. 3, 4 and 5, and the cross-bar is reversely curved as shown in Figs. 1, 3 and 5. The end-bars are provided with relatively short and dull, as opposed to sharp, prongs 4 which, as shown in Figs. 3 and 5, project rearwardly and their free ends lie in the space between the front and back of the side-bars and end-bars, so that there are no sharp projections at the back of the buckle.

The cross-bar 3 is provided on opposite edges with similar short and relatively dull prongs 5, which have an upward projection in accordance with the concavo-convex construction of said cross-bar.

It will be understood that by making the various bars concavo-convex there is secured not only strength, but a smooth finish.

The cross-bar stands out from the face of the side-bars and end-bars.

In using the buckle, one strap 6 is passed from below or from the back through the space 7 between one end-bar and the cross-bar, and then over the cross-bar and down through the space 8 beneath the other end-bar, and its end is drawn out from the back of the end-bar and beyond said end-bar, as shown in Fig. 5. The other strap 9 is passed through the buckle from the opposite end-bar and over the first strap and rearward through the space 7 back of the other end-bar. As thus applied, the strap 6 is what may be called the "under strap" and it is

engaged by the prongs 5 of the cross-bar, while the strap 9, which may be called the "outer strap", is engaged by the prongs on the end-bars, and both of the straps are bent
 5 over the cross-bar in such way as to put a bight into the straps, and then when pull in the direction of the arrows, Fig. 5, is placed upon these straps, the prongs frictionally engage the straps and hold them securely, principally by virtue of the bight put into the
 10 straps by crossing them over the elevated cross-bar.

By longitudinal movement of the straps in the reverse direction to that indicated by the
 15 arrows, the straps may be released and re-adjusted.

Inasmuch as the buckle is identical at both ends and on both edges of the cross-bar, it follows that the buckle may be used re-
 20 versely; that is to say, the straps may be connected therewith from either end, and hence, the wearer is not put to the trouble to find out which way the straps are to be inserted into the buckle in order to insure the
 25 engagement of the prongs therewith.

The prongs on the cross-bar may be variously formed. As shown in Fig. 6, the side-bars 1, end-bars 2 and their prongs 4 may be as previously described, but the cross-bar
 30 may be of the previously described concavo-convex construction, but instead of edge prongs, it may have the perpendicularly disposed prongs 11 turned up from its substance. Also, as shown in Fig. 7, the side-
 35 bars 1, end-bars 2 and the prongs 4 may be as previously described, while the cross-bar 12 may be flat, (although it may be concavo-convex) and instead of edge prongs, it may have the substance of its central portion
 40 pressed up in the form of small cones 13.

Any number of prongs of any of the described conformations may be used on the cross-bars.

In every case there is an opposition be-
 45 tween the prongs on the end-bars and the prongs on the cross-bar which results in gripping the straps when strain is applied, and since the cross-bar is elevated as described, and thereby a bight is put into the straps as
 50 they pass over it, there is no necessity for the prongs penetrating the straps as occurs in prior buckles where relatively long and sharp pointed prongs are used.

While the present construction affords equal holding advantages with the penetrating prongs, it has the further advantage of permitting the ready adjustment of the straps, and also their ready disconnection from the buckle, and the use of the buckle
 60 reversely. And further, the overlying strap serves to increase the gripping effect by its wedge-like action due to bending it over the cross-bar and beneath the end-bars.

What I claim is:—

1. A buckle, having side-bars, integral
 65 end-bars provided with rearwardly projecting relatively short and dull prongs, and a cross-bar elevated above and integral with the side-bars and provided with upwardly
 70 projecting prongs.

2. A buckle, having side-bars, integral
 end-bars provided with rearwardly projecting relatively short and dull prongs, and a cross-bar elevated above and integral with the side-bars and of concavo-convex cross-
 75 section and provided with upwardly projecting prongs.

3. A buckle, having side-bars, integral
 end-bars provided on their inner edges with rearwardly projecting relatively short and
 80 dull prongs, and a cross-bar elevated above and integral with the side-bars and of concavo-convex cross-section and provided with upwardly projecting prongs on its opposite
 85 edges.

4. A reversible buckle, having side-bars, identical end-bars having rearwardly projecting prongs on their inner edges, and a concavo-convex cross-bar connected with the side-bars and elevated above said side-
 90 bars and having upwardly projecting prongs on its opposite edges, all of the aforesaid prongs being relatively short and dull, whereby the strap ends may be passed through the buckle from either end and over the cross-
 95 bar and out at the opposite end and a bight thereby formed in the strap ends over the cross-bar to insure the firm grip of the buckle on said strap ends when subjected to strain.

In testimony whereof I have hereunto set
 100 my hand this 29th day of April A. D. 1907.

ISAAC BLUM.

Witnesses:

MOSES HECHT,
 J. G. ROSENHEINN.