

(No Model.)

J. W. BALDWIN.

VOLTAIC ARMOR.

No. 389,187.

Patented Sept. 11, 1888.

Fig. 1.

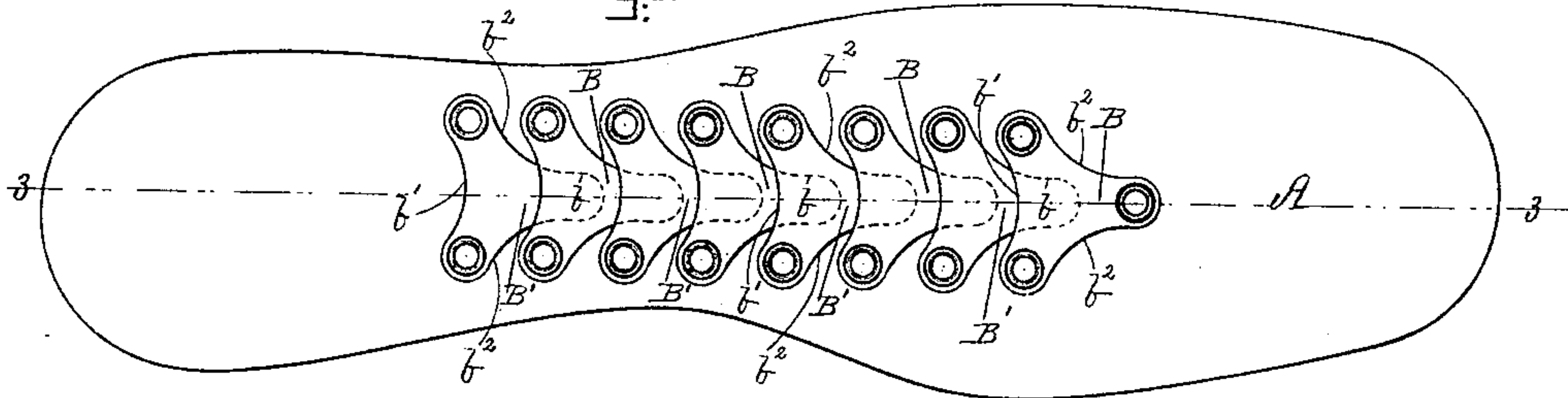


Fig. 2.

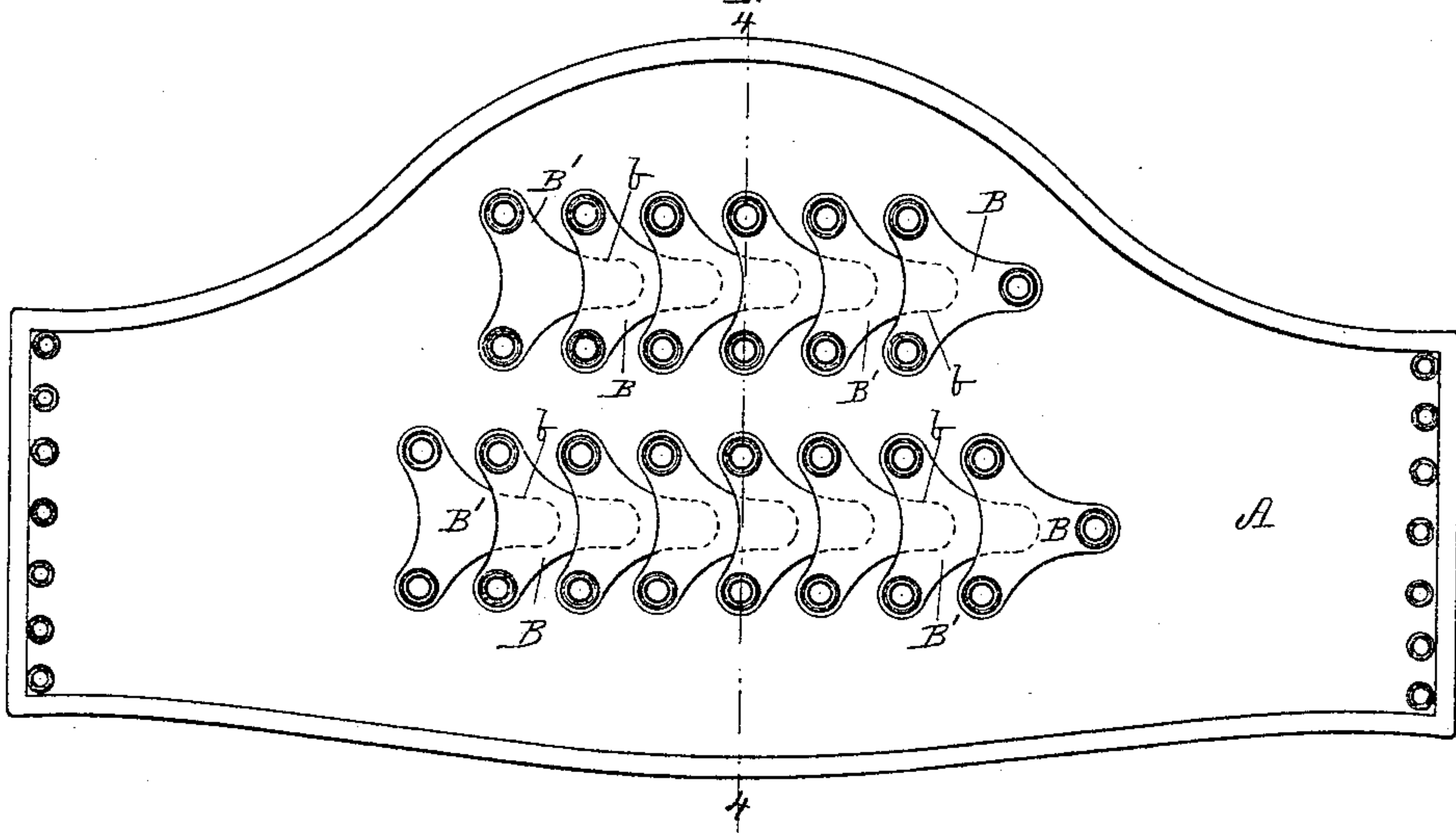


Fig. 3.

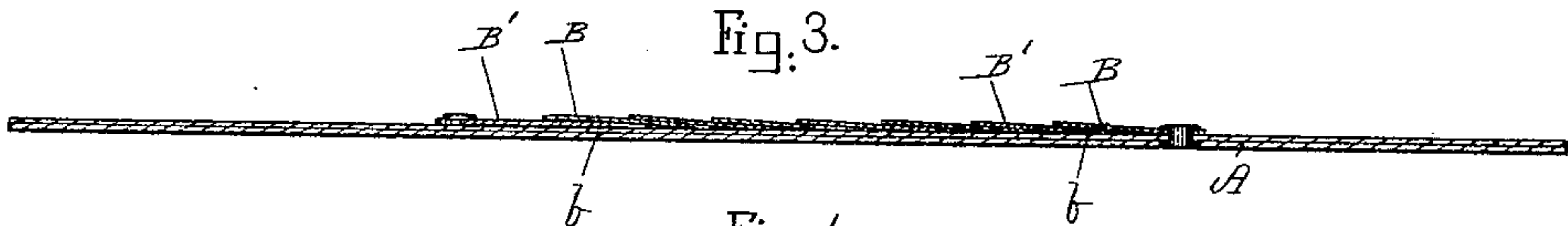
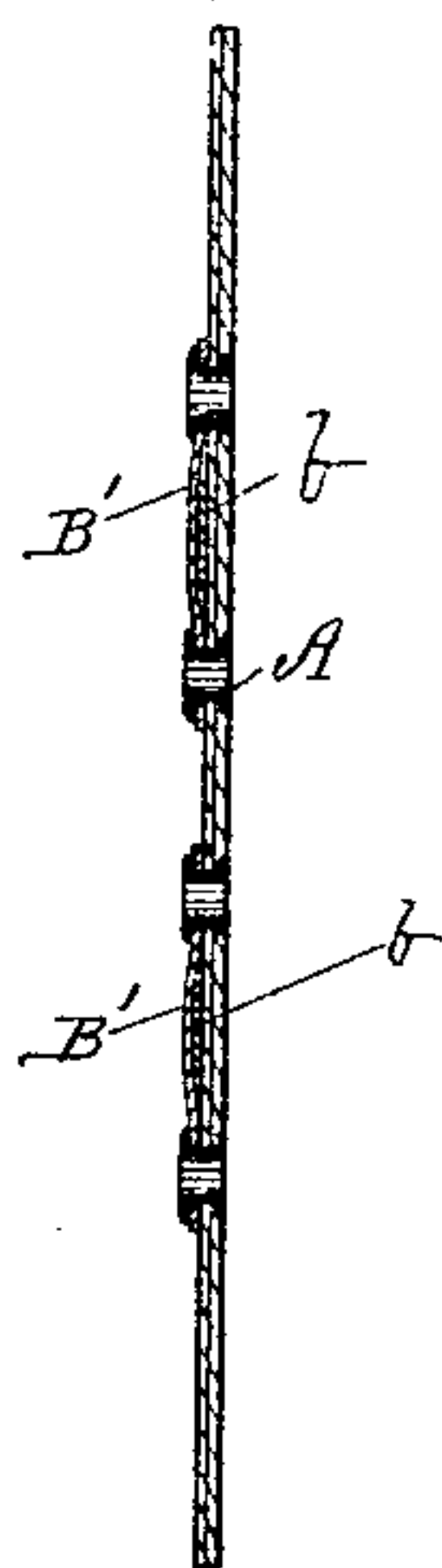


Fig. 4.



Witnesses.

Edward S. Beach,
John R. Snow,

Inventor

John W. Baldwin,
by his attorney,
J. E. Maynard

UNITED STATES PATENT OFFICE.

JOHN W. BALDWIN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO GEORGE
A. FULLERTON, OF SAME PLACE.

VOLTAIC ARMOR.

SPECIFICATION forming part of Letters Patent No. 389,187, dated September 11, 1888.

Application filed May 28, 1888. Serial No. 275,378. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BALDWIN, of Boston, (Charlestown,) in the county of Suffolk and State of Massachusetts, have invented a
5 new and useful Improvement in Voltaic Armor, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 shows my invention embodied in
10 an inner sole. Fig. 2 shows it embodied in a portion of a belt. Fig. 3 is a section on line 3 3 of Fig. 1, and Fig. 4 is a section on line 4 4 of Fig. 2.

The object of my invention is to produce
15 "voltaic armor," so called, which is more durable and also better adapted to conform to the motions of the wearer than that heretofore made; and my invention consists, mainly, in the combination of any suitable backing
20 with element-plates arranged together so that a tongue of one element is lapped by a companion element, as more fully explained below.

In the drawings, in which I show my invention embodied in an inner sole and also in a
25 belt, A is a backing of any suitable material; B, an element, say, of copper, and B' an element, say, of zinc, and these elements are secured to the backing, with one element (B, for example) lapping a tongue, *b*, on its com-
30 panion element, (B', for example.)

It will be readily seen that articles embodying my invention will ordinarily bend at the places of least resistance—that is, at the tongue portions of the element—rather than at its main
35 part or body, and consequently that articles embodying my invention are more flexible than articles in which the elements are without the flexible tongues or projections by which I galvanically connect one element
40 with its mate. The increased flexibility of elements having tongue-pieces or the like

greatly diminishes the liability of the element cracking and breaking off, and the rubbing together of each tongue *b* and the companion element lapping the tongue keeps portions of the surfaces of the elements clean and
45 bright, and thus the elements are in good condition for the action of the acidulous perspiration of the body upon them, as will be readily understood by all skilled in the art without
50 further description. The elements are preferably formed, as shown, with re-entrant edges *b'* *b'* *b'*, and it is of great importance that that edge, *b'*, which is opposite the tongue *b* should be re-entrant, in order that it may not spring
55 away from the backing and annoy the wearer when the element is bent. This is a feature of my invention.

I am aware of Garratt's patent, No. 85,300, dated December 29, 1868, and disclaim all
60 that is shown in it, one substantial difference between Garratt's construction and mine being that he solders his lapped elements together in pairs, so that his lapped elements do not rub against each other when the backing
65 is bent, while the members of each pair of my elements are separate one from the other and do rub together when the backing is bent.

What I claim is—

1. The herein-described improvement in
70 voltaic armor, consisting in the combination of backing A with the separate elements B B', one element lapping a tongue on its companion element, all arranged and operating substantially as described.
75

2. In voltaic armor, an element having a re-entrant edge, *b'*, substantially as and for the purpose set forth.

JOHN W. BALDWIN.

Witnesses:

EDWARD S. BEACH,
JOHN R. SNOW.