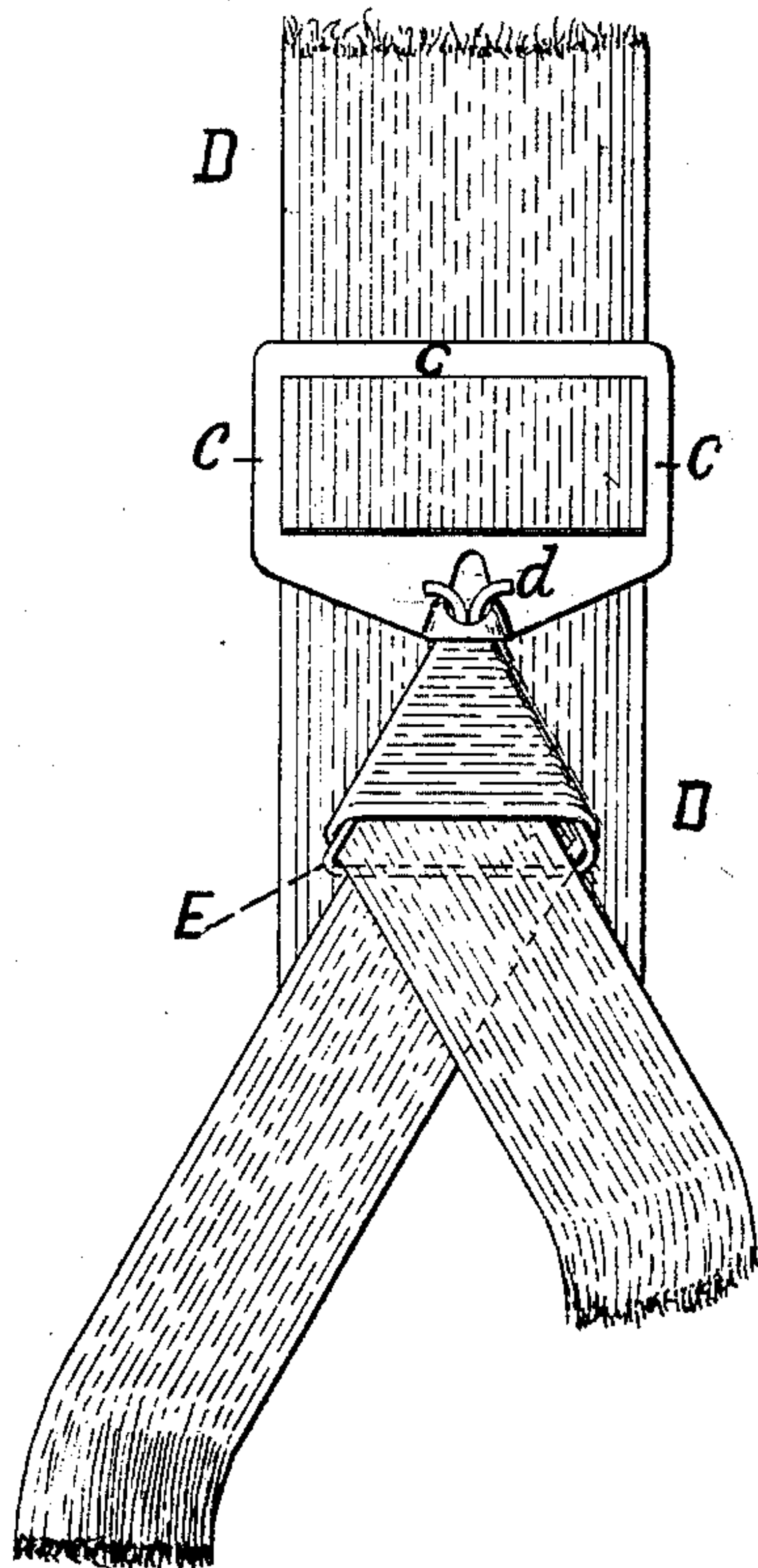


G. H. PALMER.  
Buckle.

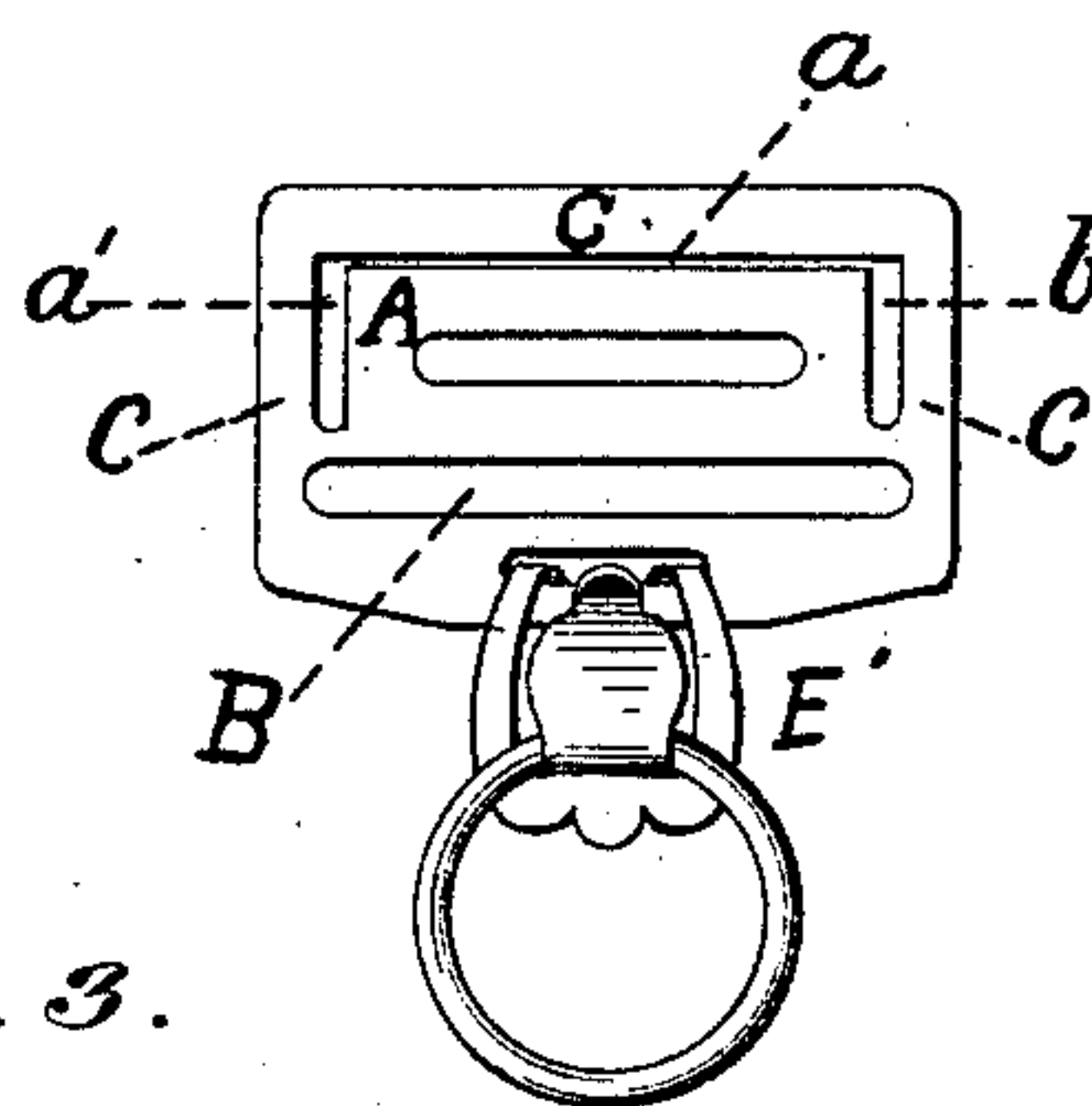
No. 223,240.

Patented Jan. 6, 1880.

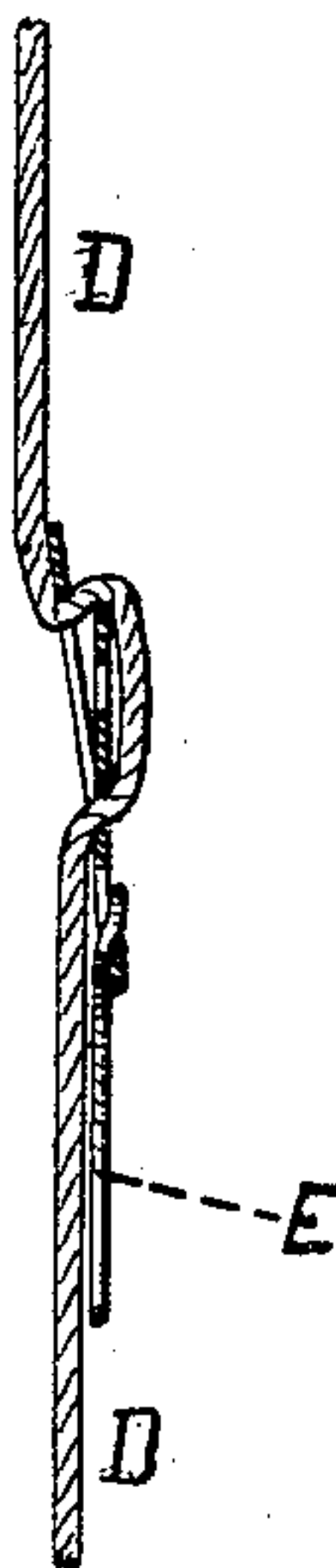
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:  
Walter Ricketson  
John M. Allen

Inventor:  
George H. Palmer

# UNITED STATES PATENT OFFICE.

GEORGE H. PALMER, OF FAIRHAVEN, ASSIGNOR OF ONE-HALF OF HIS RIGHT  
TO JOHN M. ALLEN, OF NEW BEDFORD, MASSACHUSETTS.

## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 223,240, dated January 6, 1880.

Application filed September 27, 1879.

*To all whom it may concern :*

Be it known that I, GEORGE H. PALMER, of Fairhaven, in the county of Bristol and State of Massachusetts, have invented a Buckle, of which the following is a specification.

As buckles punched from a single piece of metal, as now commonly made, are armed at some points with teeth or prongs, or what is known as the "tongue" of the buckle is made with teeth or prongs upon its edge, whereby the buckle does not move freely backward and forward on the webbing or strap, injury is done to the webbing or strap, and the teeth or prongs themselves are easily broken or bent so as to become useless; and as the same are not and cannot be made without, after punching, being subjected to some secondary operation in order to curve, lengthen, or depress certain parts, thereby greatly increasing the cost of manufacture, the object of my invention is to rapidly form a perfect buckle without teeth from a single piece of metal, and which, when punched, shall not require to be subsequently operated upon or changed in form. This is accomplished by punching or cutting through the blank at a convenient distance from its edge on three of its sides only, the upper side being simply cut through without removing any metal from the blank.

Another feature of the invention consists in the combination of a triangle formed of wire, such as was the subject-matter of Letters Patent of the United States No. 179,724, granted to me the 11th day of July, 1876, with a buckle, so as to form a flexible joint at the point of junction of the triangle with the buckle.

The invention with the triangle attached in one of the many ways in which the same can be done so as to make a flexible joint is shown in position on the webbing or strap in the accompanying drawings in the front view, Figure 1. Fig. 2 represents a front view of the whole device. Fig. 3 is a cross-section of the same in position on the webbing or strap.

In a generally rectangular piece of metal I form the tongue A by cutting or punching through the metal at a convenient distance from the edge of the blank on three of its sides only, in the line *a*, *a'*, and *b*, and upon its upper side, or in the line *a*, I simply cut through the blank and do not remove the

metal, so that between the bow or frame of the buckle, in the line *a*, and the tongue A there is no space when the buckle is closed. The fourth or lower side is not cut, but left to form the hinge, as the same has heretofore been done by others.

The upper part of the tongue is, in the operation of punching, forced forward through the surrounding parts of the frame C just far enough to admit of the passage of the web or strap D freely through the same when no strain is applied. A slot, B, is then punched through the blank at any convenient place, either to receive the loose end of the strap or to make attachment of other straps.

It will be obvious that any strain when the buckle is in position will tend to close the opening and prevent the passage of the web; but as the tongue completely fills the opening between the tongue and frame when the tongue is closed, the greater the strain the more securely is the web held, and when the strain is removed and the loose end of the strap taken from the tuck the opening of the metal will open the buckle and permit the same to move freely backward or forward upon the web.

The advantages of buckles thus constructed over other buckles punched from a single piece of metal are that they are more quickly and cheaply made, and, not having teeth, the web is not fretted and torn, and they are more easily moved backward and forward upon it into any desired position.

The buckle is chiefly intended for suspenders or for the adjusting-buckles of clothing, but may be used for any purpose where such buckle may be desired.

I claim as my invention—

1. An improved buckle, cut or stamped from a single piece of metal, having a spring-tongue with a contacting end, in contradistinction to a toothed or serrated end, all substantially as shown and described.

2. The combination, with a buckle, substantially as shown and described, of a wire, triangular in form, having a flexible or jointed connection with the buckle, all substantially as set forth.

GEORGE H. PALMER.

Witnesses:

JOHN M. ALLEN,  
F. A. MILLIKEN.