

(No Model.)

H. E. MESSIMER.

BUCKLE.

No. 397,811.

Patented Feb. 12, 1889.



Fig. 1.

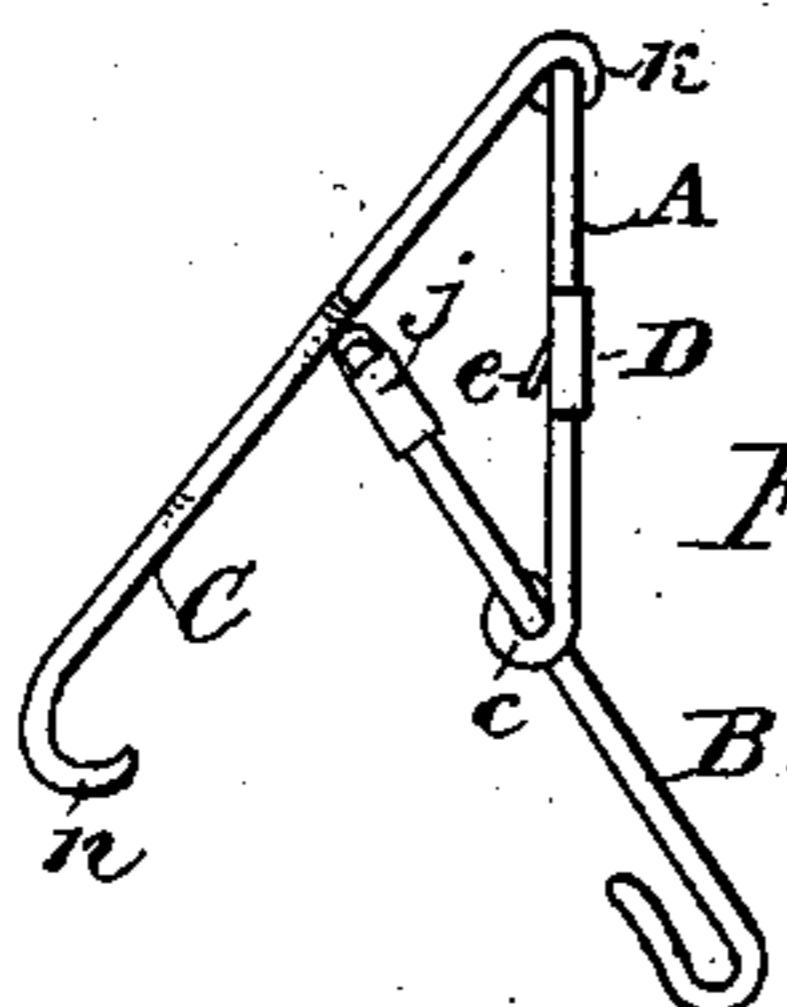


Fig. 2.

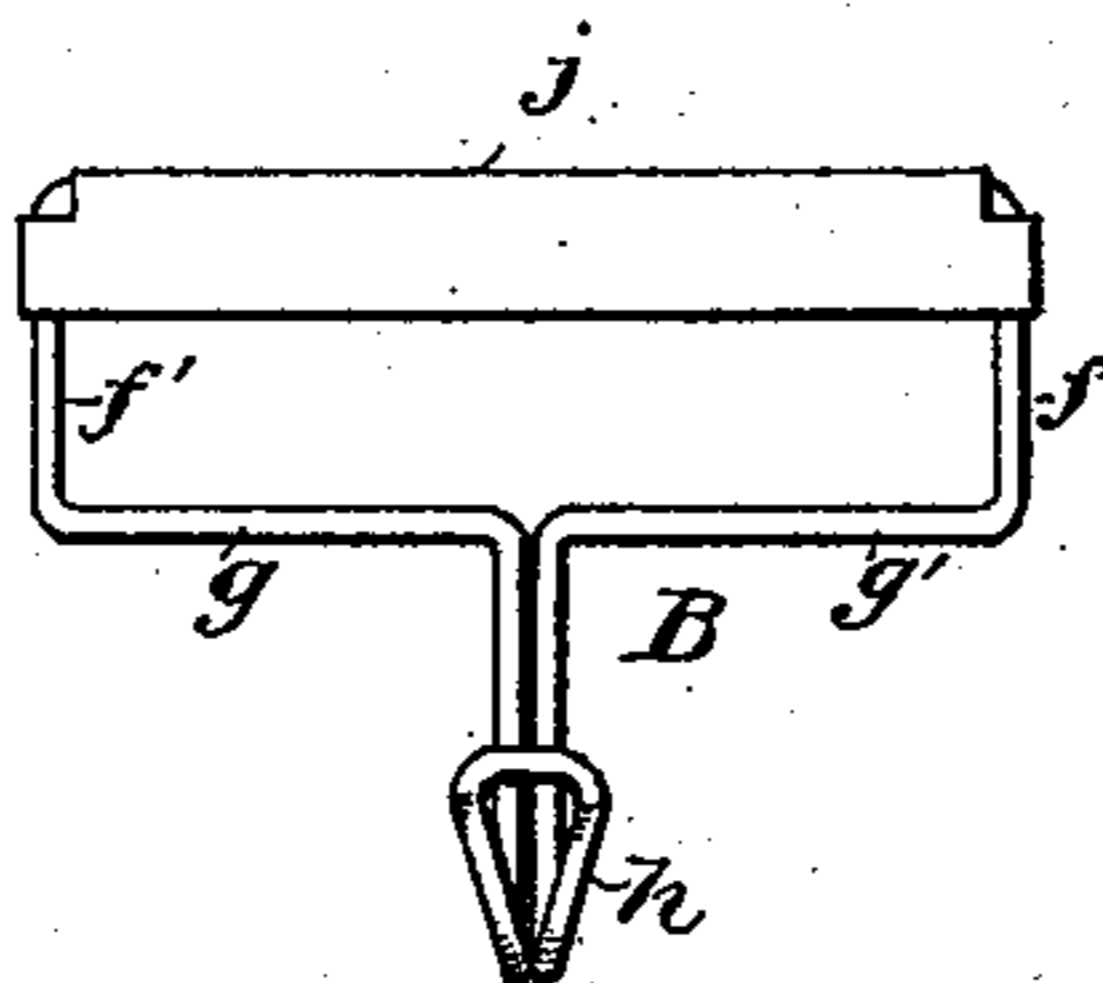


Fig. 4.

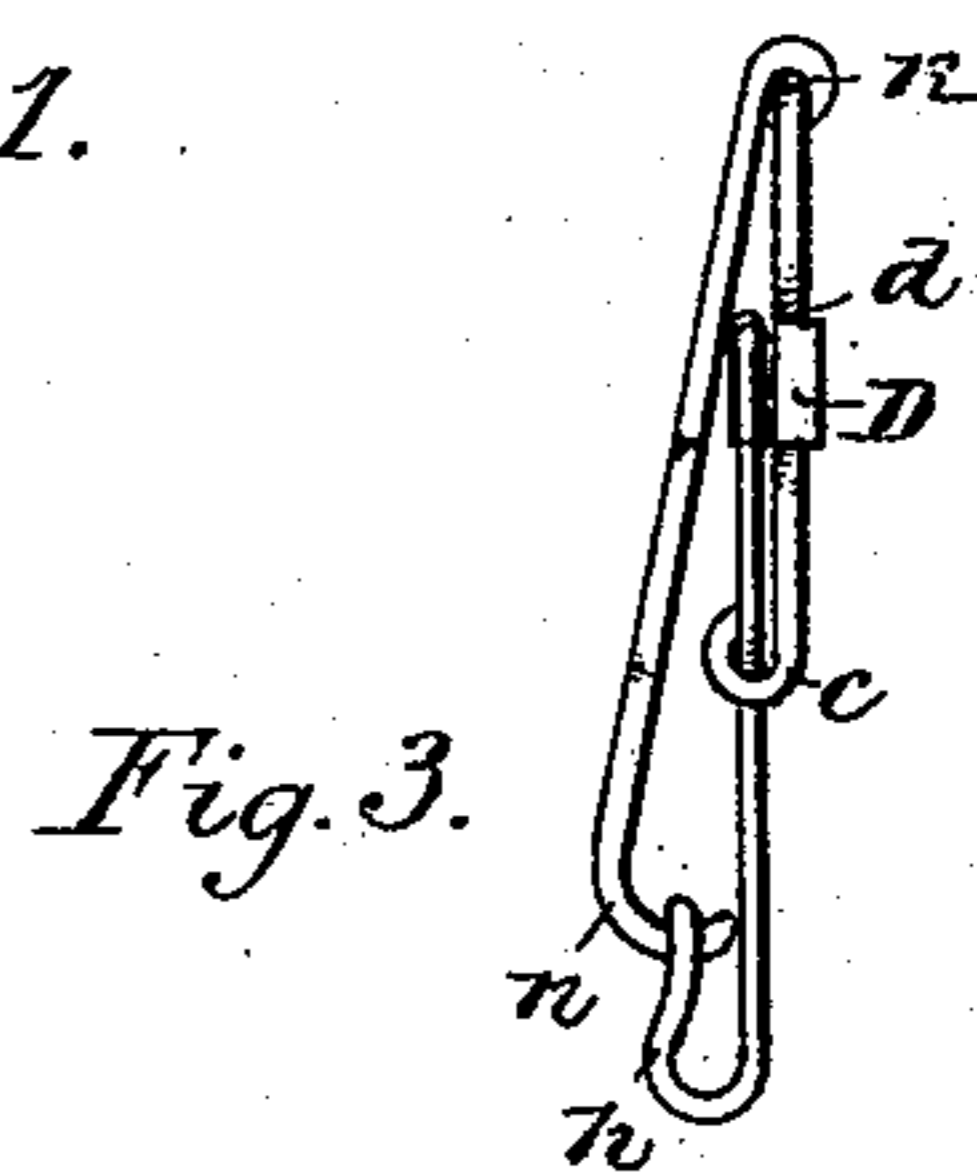


Fig. 3.

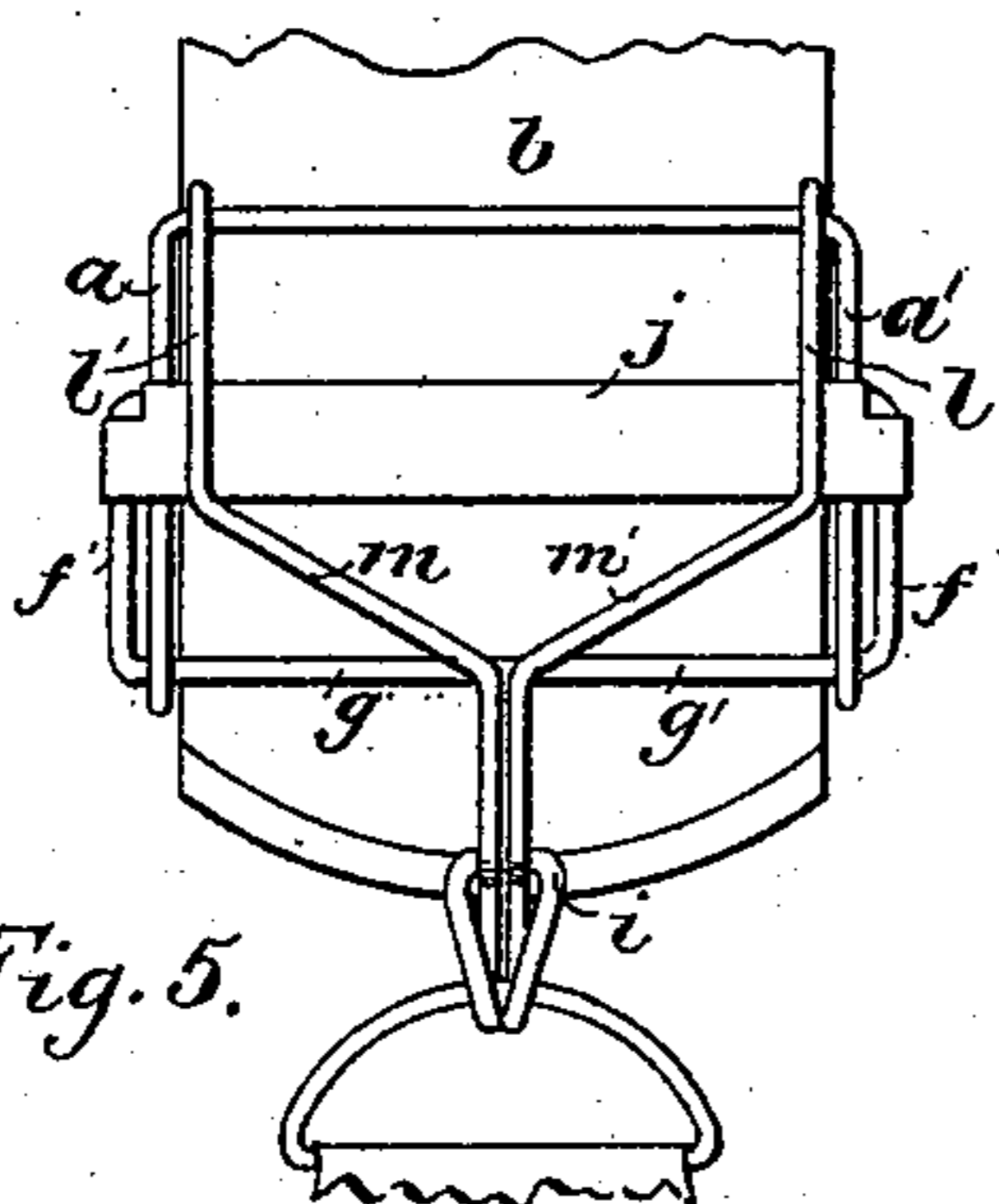


Fig. 5.



Fig. 6.

Witnesses,
E. A. Perry,
Frank Lewis Dyer.

Inventor,
Henry E. Messimer
by Geo W Dyer.

Attorney.

UNITED STATES PATENT OFFICE.

HENRY E. MESSIMER, OF WILLIAMSPORT, PENNSYLVANIA.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 397,811, dated February 12, 1889.

Application filed November 14, 1888. Serial No. 290,807. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. MESSIMER, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Buckles; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to various new and useful improvements in suspender-buckles; and by the use of my invention the support offered by the buckle for the braces of the trousers is much stronger than at present, and when worn the supporting-teeth of the buckle may be easily removed and replaced by unworn teeth, and when in position on the suspender-strap there is no danger whatever of said strap becoming disengaged from the buckle.

It is the object of my invention to provide and produce a suspender-buckle that can be easily and economically manufactured, efficient and durable in use, and which can be applied readily to the suspender-strap.

The principal novelties of my invention consist of a number of coworking parts made of wire, so arranged that when locked the supporting-ring for the trousers-straps is securely locked in position in the buckle, and is incapable of being removed therefrom under ordinary usage, and the suspender-strap is tightly jammed against the teeth of the locking-bar by means of a pressure-plate, as well as to other details of construction, all of which will be hereinafter described in the specification, and which will be embodied in the subject-matter to be claimed. These different details of construction are illustrated in the accompanying drawings, wherein like parts are designated by similar letters of reference.

Figure 1 is a view showing the buckle in position; Fig. 2, a sectional detached view of the same, showing the parts as being unlocked; Fig. 3, a similar view showing the parts as being locked; Fig. 4, an elevation of the locking-bar and supporting-frame; Fig.

5, an elevation of the entire buckle, and Fig. 6 a modification of a clamping arrangement for the supporting-straps.

It will be seen from an inspection of Figs. 1, 2, and 3 that my invention consists of three parts working in conjunction with one another and made principally of wire. These parts are tooth-bar and support A, the supporting-hook and pressure-plate B, pivoted thereto, and the locking-hook C, also pivoted to said part A. These different coacting parts will be described in their order. The supporting-frame of the tooth-bar is composed of the two vertical arms *a a'* and the horizontal connecting-arm *b*. At the lower portion of each vertical arm, and bending away from the same, is formed an eye, *c*, preferably made integral with said vertical arms, for the purposes hereinafter described.

At the central portion, or nearly so, of each vertical arm is formed a bent-in portion, *d*, and connecting these bent-in portions is a flat metallic strip, *D*, secured in position thereon by being bent over on itself, as shown. This metallic strip is provided with a series of teeth, *e e*, formed therein by any convenient means—such as punching—and these teeth are so formed that their points will extend downwardly. Pivoted within the eyes *c c* is the supporting-hook and shield B. The supporting-hook is composed of the vertical arms *f f'*, the integral horizontal arms *g g'*, passing through the eyes *c c'*, and the hook *h*, formed at the lower ends of the horizontal arms. This hook is provided with an enlarged head, *i*, to be used for the purpose set forth.

The extreme upper ends of the vertical arms *f f'* are connected by means of a metallic strip or pressure-plate, *j*, similar to the strip *D*, but without the teeth of the latter. The strip or pressure-plate *j* is secured in position in a manner precisely similar to the strip *D*.

When the supporting-hook B is pivoted, as just described, within the eyes *c* of the part A, the pressure-plate *j* should be in position directly in front of the strip *D*.

Pivoted to the arm *b* by means of eyes *k k* is a locking-hook, C. This locking-hook C is composed of the vertical arms *l l'*, the inclined

arms $m m'$, and the shallow hook n . The inclined arms $m m'$, and indeed the whole locking-hook, are made of spring-wire—such as brass—so that the hook n is capable of a limited vertical movement.

When all the parts are in a closed position, as shown in Figs. 1 and 2, the locking-hook is in a nearly-vertical position, and the hook n is inserted under the enlarged head i of the supporting-hook n , and thereby forcing the shield firmly against the teeth of the strip D.

The buckle is placed in position on the suspender-straps by first unlocking the parts, as shown in Fig. 2—that is, by disengaging the hook n from the hook h , and forcing the pressure-plate j away from contact with the teeth on the strip D. This is accomplished in two ways—either by pressing simultaneously on the arm b and hook h with the thumb and index-finger, and at the same time exerting a backward pressure on both, so that the parts will give sufficiently to cause the disengagement of the two hooks, or by pressing simultaneously on the lower portions of the inclined arms $l l'$ and the hook h , so that the arms $l l'$ will spring downwardly and thereby disengage the two hooks, so that the parts will assume the position shown in Fig. 2. The suspender-strap is now passed down back of the arm b in front of the toothed bar D and back of the inclined arms $l l'$, as shown in Fig. 1, and the locking-hook C is pressed downward, so as to force the pressure-plate toward the toothed strip D and cause the teeth to enter into the strap. When the locking-hook has reached the limit of the downward movement, the hook n becomes engaged with

the head of the hook h , and thereby retains the pressure-plate in position against the toothed strip D and prevents the supporting-ring o from becoming disengaged from the supporting-hook h .

In Fig. 6 I have shown a modification in the clamping arrangement for the suspender-strap. Instead of the teeth formed on the strip D, a plain ridge or arm, p , is substituted. This arm is preferably made by bending the upper portion of the strip D back on itself, as shown.

At the upper portion of the pressure-plate is formed an integral circular lug, q , and with a projection at its lower portion similar to the ridge p . When these two parts are forced together by the locking-hook, the suspender-strap is tightly jammed between these different ridges, and is thereby prevented from moving.

Having described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

As an improved article of manufacture, a buckle composed of the toothed bar and support A, the supporting-hook and pressure-plate B, pivoted thereto, and the locking-hook C, also pivoted to said friction or toothed bar support, substantially as and for the purposes mentioned.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY E. MESSIMER.

Witnesses:

W. C. WILSON,
A. T. BOWER.

It is hereby certified that in Letters Patent No. 397,811, granted February 12, 1889, upon the application of Henry E. Messimer, of Williamsport, Pennsylvania, for an improvement in "Buckles," an error appears in the printed specification requiring the following correction, to wit: in line 62, page 2, the words *friction or* should be inserted before the word "toothed;" and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 19th day of February, A. D. 1889.

[SEAL.]

D. L. HAWKINS,
Assistant Secretary of the Interior.

Countersigned:

BENTON J. HALL,
Commissioner of Patents.