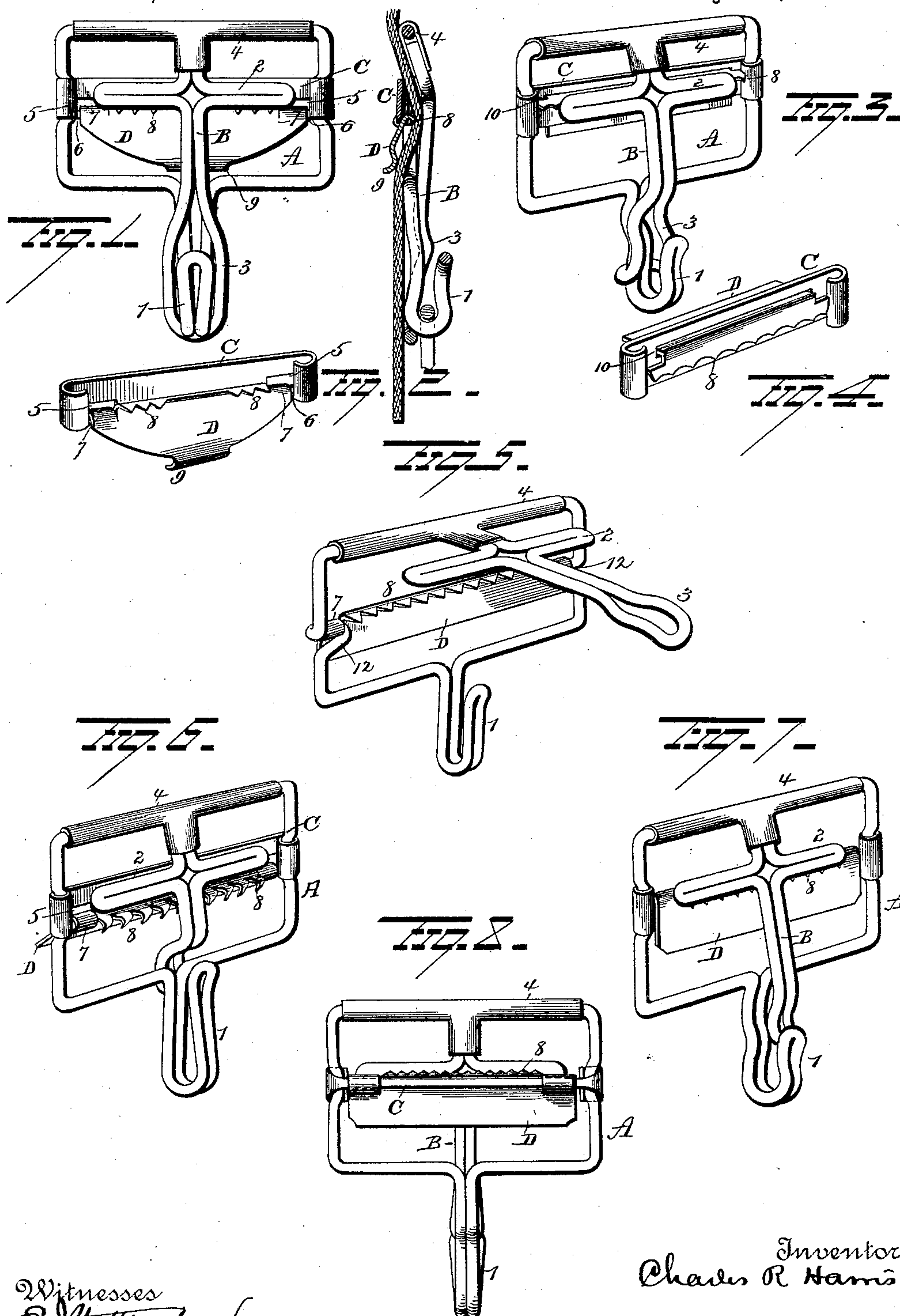


(No Model.)

C. R. HARRIS.  
SUSPENDER BUCKLE.

No. 452,374.

Patented May 19, 1891.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES R. HARRIS, OF WILLIAMSPORT, PENNSYLVANIA.

## SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 452,374, dated May 19, 1891.

Application filed October 24, 1890. Serial No. 369,199. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES R. HARRIS, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Suspenders-Buckles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in suspender-buckles, the object being to provide a simple and neat-appearing buckle capable of quick and easy manipulation and adjustment, and at the same time incapable of accidental displacement; and with this end in view my invention consists in a main wire frame and a wire front or presser bar hinged at one edge of the main frame and adapted to loosely engage the main frame at its free end, in combination with a swinging cross-bar capable of swinging on its axis when the other parts are closed and adapted to engage one side of a suspender-strap or other web and hold it against the wire front or presser bar.

It further consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of one form of buckle, the parts being engaged. Fig. 2 shows the parts detached. Fig. 3 is a modification showing the parts permanently connected together. Fig. 4 shows the parts detached. Fig. 5 is a modification showing the swinging cross-bar connected directly to the main wire frame. Fig. 6 is a view of another modification, in which the free end of the wire front or presser bar is caught under the lower end of the main frame. Fig. 7 is a view of still another modification, in which the lower end of the wire front or presser bar is caught in the hook on the main frame, and Fig. 8 is a rear view of the buckle shown in Fig. 7.

A represents a wire frame, the same being preferably composed of a single wire bent into rectangular form, with a hook 1 formed at the lower end by means of a bend in the middle of the wire and terminating at the

ends in pintles to which the wire front or presser bar is hinged. B represents this presser bar; and it consists, preferably, of a single wire bent to form a cross-bar 2 and a loop 3, which latter slips over the hook; but it may, however, be made in plate form of sheet metal. The end opposite the loop is provided with a sleeve 4, which is rigidly secured to the wire and adapted to receive the pintles in its ends, whereby a hinged connection is formed between the main frame and the front or presser bar.

C is a rigid cross-bar, consisting of a narrow strip of sheet metal bent at its ends around the sides of the wire frame. This cross-bar is provided with slots 5 5 at or near its ends and located near enough one edge so that the narrow portion left forms pintles 6 6. A swinging cross-bar D has lips 7 7 at its ends bent around these pintles, whereby a hinged connection is effected. This swinging bar is provided with teeth 8 8 at one edge adapted to penetrate the suspender-strap or web to which the buckle is attached. This bar terminates at a point opposite the teeth in a thumb-piece or handle 9, by which it is manipulated. The suspender-strap passes through the buckle on each side of the rigid cross-bar, and the presser-bar is swung in place. Then to hold the strap in position the swinging cross-bar is turned until its teeth enter the web, thus holding it between them and the presser-bar. The teeth are preferably given a slight downward pitch, as the pull is always upward upon them, and they not only strike against the cross-bar 2, but the handle 9 strikes against the shank of the presser-bar. In this way the web is held tight, and it is impossible to draw a strap upward through the buckle.

In the modification shown in Figs. 3 and 4 the lower end of the loop 3 is bent backward, so that the lower ends of the frame and presser-bar are permanently connected together, but not rigidly, thus allowing a slight yielding of the two parts, and thus keeping the hook closed. This buckle is designed to open from the back only. The rigid cross-bar C' in this instance is provided with an elongated slot 10, extending nearly its entire length. The swinging cross-bar passes loosely



through this slot, the handle extending outside and the portion with the teeth thereon inside. Said portion is longer than the handle portion, so as to prevent the bar from coming  
5 out of the slot.

In the modification shown in Fig. 5 the rigid cross-bar C is dispensed with, and the main frame is furnished with lateral ears 12  
10 or pivoted. The remaining portion of the buckle is the same as that shown in Fig. 1.

In the form shown in Fig. 6 the only departure from the construction shown in Fig. 1 is that the face end of the presser-bar is  
15 shortened and caught under the lower part of the main frame or the upper end of the hook, where it is retained permanently but yieldingly.

In the buckle shown in Figs. 7 and 8 the  
20 free end of the presser-bar is a trifle longer than it is in the construction just described and terminates inside of the hook, where it is yieldingly but permanently retained, thus keeping the hook normally closed. The rigid  
25 cross-bar in this case is round instead of flat, as in the other forms, and the swinging cross-bar is loosely mounted on it.

In conclusion, mention may be made of the fact that in two of the forms shown and described the presser-bar is provided with a  
30 loop adapted to be sprung under the lower end of the hook, so that the parts may be swung together or apart, and when thus constructed facility may be attained in adjusting the strap by swinging the parts open; but  
35 it is by no means necessary that these parts should be capable of being disconnected, and not only in these forms, but as shown in the other forms, the web may be fastened or un-  
40 fastened by simply moving the swinging bar at the back and without disturbing, detaching, or releasing the yielding front or presser bar.

In several figures of the drawings the  
45 swinging cross-bars are shown mounted on rigid bars, which in these instances constitute parts of the main frame, while in Fig. 5 the sides of the main frame are turned inwardly and form approximately U-shaped ears, the  
50 upper members of which support the swinging cross-bar, while the lower members form stops for limiting the movement of the swinging cross-bar.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a buckle, the combination, with a main frame and a front or presser bar, the latter being connected to the top of the main frame and engaging said main frame at or  
60 near the lower end of the latter, of a swinging cross-bar having a bent edge or teeth for engaging the web or suspender-strap and hinged to the main frame in position to hold a suspender-strap or other web between it and the  
65 front or presser bar, the space between the inner face of the front or presser bar and the axis of the swinging cross-bar being sufficient to allow the bent edge or teeth of the cross-bar to move freely to grasp or release the web,  
70 substantially as set forth.

2. In a suspender-buckle, the combination, with a main frame having a depending hook thereon and a front or presser bar carried by the upper bar of said main frame, the lower  
75 end of said front or presser bar engaging the hook, whereby the latter is normally closed or partly closed, of a swinging cross-bar having a bent edge or teeth for engaging the web or suspender-strap and pivoted to the main  
80 frame in position to hold a suspender-strap or other web between it and the front or presser bar, said swinging bar constructed to swing on its axis when the front or presser bar is in closed position, substantially as set  
85 forth.

3. The combination, with a main frame having inwardly-projecting ears of approximately U shape located at or near the center thereof, and a yielding front or presser bar, the latter  
90 being connected to the main frame and engaging said main frame at or near the lower end of the latter, of a swinging cross-bar mounted on the upper members or sections of the U-shaped ears, the lower members or  
95 sections of said ears forming stops for limiting the movement of the cross-bar, the said cross-bar having a bent edge for engaging the web and clamping it against the front or presser bar, substantially as set forth.  
100

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES R. HARRIS.

Witnesses:

HENRY MYERS,  
A. W. BRIGHT.