

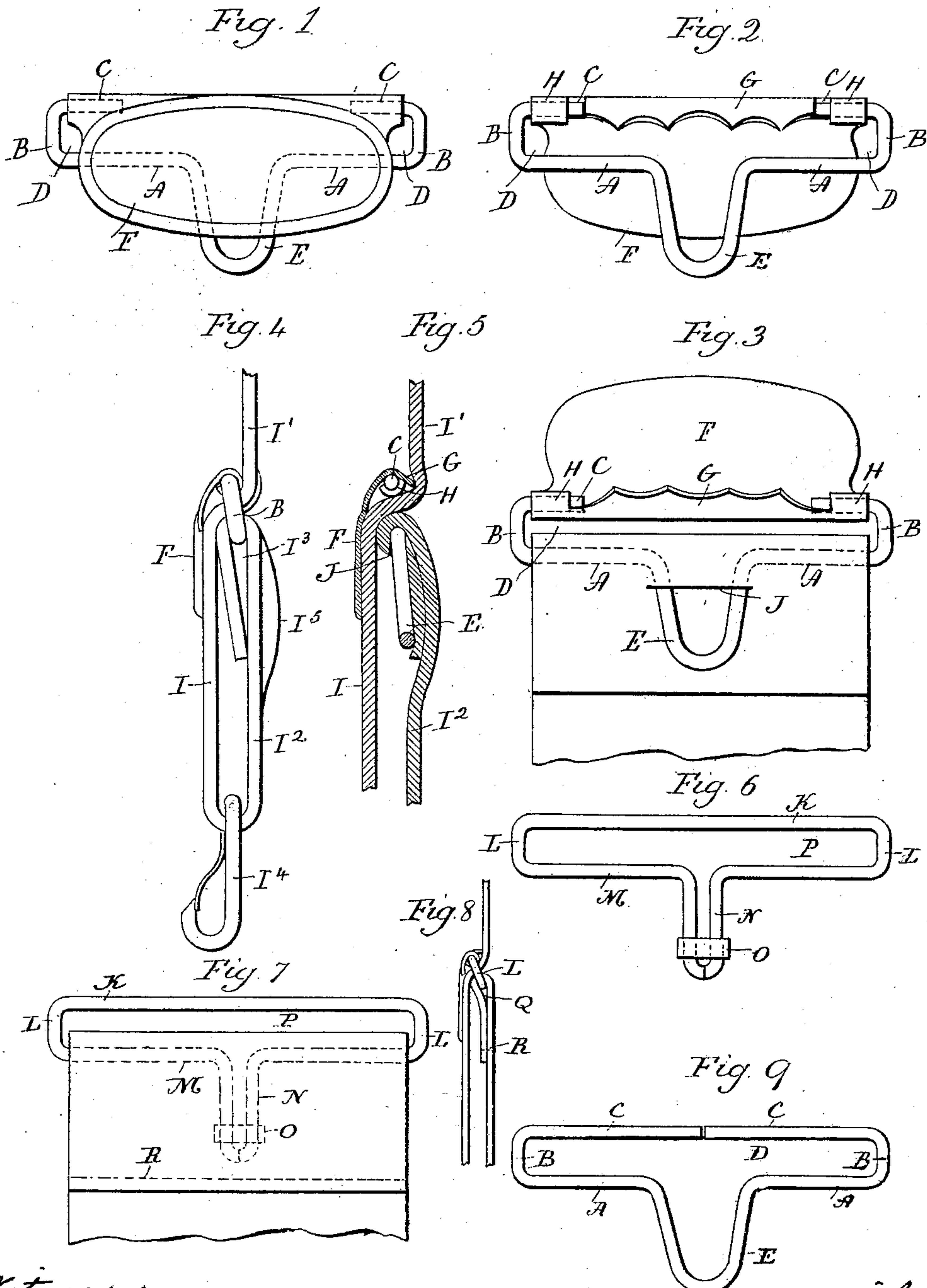
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PATENTED JUNE 14, 1904.

D. L. SMITH.  
BUCKLE.

APPLICATION FILED FEB. 14, 1902.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 762,662, dated June 14, 1904.

Application filed February 14, 1902. Serial No. 94,098. (No model.)

*To all whom it may concern:*

Be it known that I, DWIGHT L. SMITH, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Buckles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of a rustless buckle constructed in accordance with my invention; Fig. 2, a rear view thereof; Fig. 3, a front view of the buckle with the lever raised to show the finger of the frame passed through a slit in the loop formed in the webbing for the attachment of the webbing to the lower side of the frame; Fig. 4, an edge view of the buckle with the webbing applied thereto; Fig. 5, a view in vertical central section through the webbing and buckle; Fig. 6, a detached front view of one of the modified forms which the buckle-frame may assume; Fig. 7, a view of the buckle-frame shown in Fig. 6 with the webbing attached to its lower side by means of stitching; Fig. 8, an edge view of a buckle-webbing in accordance with Figs. 6 and 7; Fig. 9, a detached front view of another modified form of buckle-frame.

My invention relates to an improvement in that class of suspender-buckles called "rustless," for the reason that the webbing is disposed so that the perspiration of the wearer is kept away from the metal, the object being to produce a simple, compact, effective, and convenient buckle constructed with particular reference to economy of webbing and to the avoidance of the production of any such humps or bunches of webbing upon the back of the webbed buckle as will interfere with the comfort of the wearer.

With these ends in view my invention consists in a rustless suspender-buckle having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As shown in Figs. 1 to 5, inclusive, the buckle-frame or loop member comprises a lower side

A, ends B B, and an upper side which consists of two inwardly-turned pintle ends C C, which may, if desired, be extended to meet each other, as shown by Fig. 9. Under this construction a threading-opening D is formed between the upper and lower sides of the frame. The said lower side A of the said buckle-frame is bent downward midway of its length to form a finger or projection E, which is located in the plane of the frame. The sheet-metal lever comprises an operating-arm F, a clamping arm or edge G, located at an angle thereto, and two sockets H, which receive the pintle ends C C, whereby the lever and frame are pivotally connected together. Under this construction and arrangement of the buckle-frame and lever when they are properly proportioned the clamping edge G of the lever coacts with the upper edge or top of the lower side A of the buckle-frame to pinch and grip the webbing I, which for convenience I shall speak of as having an "upper" reach I' and a "lower" reach I'', these terms being chosen somewhat arbitrarily to designate that portion of the webbing above and below the buckle proper.

To web the buckle, one end of the webbing I is passed from rear to front through the threading-opening D of the buckle-frame and turned downward to produce a loop I<sup>3</sup>, the free end of which is formed with a transverse slit J, through which the finger E is passed, as shown by Figs. 3 and 5, whereby the webbing is fastened without stitches to the lower side A of the buckle-frame. The webbing is then passed through a cast-off I<sup>4</sup> and from front to rear through the opening D, after which the buckle-lever is pressed down, as shown in Figs. 4 and 5, whereby its clamping edge forces the webbing from front to rear over the lower side of the buckle-frame, the webbing being not only gripped by the edge of the lever, but also pinched between the same and the lower side of the frame and forced into close frictional contact with the bend of the loop I<sup>3</sup> where the same surrounds the lower side of the frame. In this manner the back of the buckle is covered with webbing and the buckle made "rustless" not



only with the utmost economy of webbing, but also without the production of any such bunches or humps upon the back of the buckle as can incommode the wearer, for when the webbing is under draft or strain, as in use, its upper and lower reaches  $I'$  and  $I''$  will be brought into line or substantially into line, making the back of the buckle substantially flat. Inasmuch as the finger E is passed through the slit J, there will be a double thickness of webbing back of the finger, which will push the central portion of the webbing where so doubled rearward out of the plane of the lower reach  $I''$  of the webbing, as shown at  $I^5$  in Figs. 4 and 5, which being drawn on an enlarged scale make this displacement of the webbing back of the finger D much more prominent than it is in practice, in which it is unobjectionable. When the webbing is under draft, it acts upon the finger E as upon a lever to keep the buckle-frame from tilting or rocking, which might result in releasing the webbing.

In the modified form of buckle-frame shown by Figs. 6, 7, and 8 of the drawings the frame has a continuous upper side K, ends L L, and a lower side M, midway of the length of which the ends of the wire depend to form a finger N, which is embraced by a strap or clip O. This buckle-frame has a threading-opening P. Instead of fastening the webbing to the lower side of the buckle-frame by passing the finger of the frame through a slit in the loop end of the webbing the webbing may be applied as shown in Figs. 7 and 8, in which its end is passed from front to rear through the threading-opening P of the frame, so as to form a loop Q and stitched down upon itself by stitches R, whereby the finger N is confined between the two sides of the loop. The webbing may be fastened to the buckle-frame by slitting it and passing the finger of the frame through the slit, as described in connection with Figs. 3, 4, and 5, or it may be passed through the buckle-frame and stitched down upon itself, as described in connection with Figs. 7 and 8. These two ways of fastening the buckle-frame may be used alone, or, if desired, they may be used in conjunction.

I do not broadly claim a rustless buckle in which the lever is constructed and arranged with reference to the buckle-frame so that the clamping edge of the lever will force the upper reach of the webbing over or substantially over the upper edge or top of the lower side of the frame, that being broadly the invention of Morris Peller and shown and described in his pending application, filed January 8, 1902, serially numbered 88,854.

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

1. In a rustless suspender-buckle, the combination with a frame having an upper and a lower side with an opening between the same,

the lower side having a downward projection midway of its length, of a lever pivoted to the upper side of the frame in position to have its clamping edge coact with the upper edge or top of the lower side of the frame, and a piece of webbing having its lower reach attached to the lower side of the frame and its upper reach passed from front to rear through the said opening and engaged by the clamping edge of the lever which deflects it over or approximately over the upper edge or top of the lower side of the frame.

2. In a rustless suspender-buckle, the combination with a frame made from a single piece of wire bent to form two pintles forming the upper side of the frame, a bar forming the lower side of the frame, and a finger depending from the said bar midway the length thereof, and the said bar being separated from the pintles by an opening, of a lever pivoted to the said pintles in position to have its clamping edge coact with the upper edge or top of the lower side of the frame, and a piece of webbing having its lower reach attached to the lower side of the frame and its upper reach passed from front to rear through the said opening and engaged by the clamping edge of the lever which deflects it over or approximately over the upper edge or top of the lower side of the frame, whereby the upper reach of the webbing is brought into or approximately into line with the lower reach of the webbing on the back of the buckle when the webbing is under draft as in use.

3. A buckle consisting of two members, one member in the form of a loop, with a finger formed integral therewith and extending downward therefrom in the plane of the loop; the other a lever member having a pivotal part and two arms, one a clamping-arm and the other an operating-arm, said lever member pivotally mounted on the loop member and rotatable with respect thereto, in combination with a web attached to the loop member, another portion of the web passing through the loop member, the clamping-arm of the lever member being so proportioned and disposed as to press the web which passes through the loop member toward that portion of the loop member to which the web is attached.

4. In a buckle, the combination with a loop member having a projection midway one of its longitudinal sides, of a lever member pivotally mounted on the loop member and rotatable with respect thereto, said lever member having two arms at an angle to each other, one a clamping-arm and the other an operating-arm, and a web attached to the loop member, another portion of the web passing through the loop member, the clamping-arm of the lever member being so proportioned and disposed as to press the web which passes through the loop member over the portion of the loop member to which the web is attached.



5. In a buckle, the combination with a loop member having an outwardly-extending projection midway one of its longitudinal sides, of a lever member pivotally mounted on the loop member and rotatable with respect thereto, said lever member having two arms at an angle to each other, one a clamping-arm and the other an operating-arm, and a web attached to the loop member, another portion of the web passing through the loop member, the clamping-arm of the lever member being so proportioned and disposed as to press the web which passes through the loop member over the portion of the loop member to which the web is attached.

6. A buckle consisting solely of two members, one member in the form of an oblong loop having a projection from one of its longitudinal sides, the other a lever member having a pivotal part and two arms, one a clamping-arm, the other an operating-arm, said lever member pivotally mounted on the loop member and rotatable with respect thereto on an axis extending in the direction of its length, in combination with a web attached to the longitudinal side of the loop member opposite to that upon which the lever member is pivoted, a portion of said web passing through the loop member, the clamping-arm of the lever member being so proportioned and disposed as to press the web which passes through the loop member, approximately over the lon-

gitudinal side of said loop member to which the web is attached.

7. In a rustless suspender-buckle, the combination with a buckle-frame comprising an upper and a lower side, and having a webbing-opening located between the said upper and lower sides and lying in their plane, the said lower side being formed with a downward projection; of a lever comprising a finger-piece and a clamping edge, the latter extending inwardly from the upper portion of the former, and the said lever being located in front of the said frame and pivoted to the upper side thereof in position to have its clamping edge coact with the upper edge or top of the lower side thereof; and a piece of webbing having its lower reach formed with a loop embracing the lower side of the frame, whereby the webbing is attached to the frame, and its upper reach passed from front to rear through the said opening of the frame, and engaged by the clamping edge of the lever which deflects it rearwardly over or approximately over the upper edge or top of the lower side of the frame.

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

DWIGHT L. SMITH.

Witnesses:

WM. L. KING,

MINNIE M. M. TRIPP.