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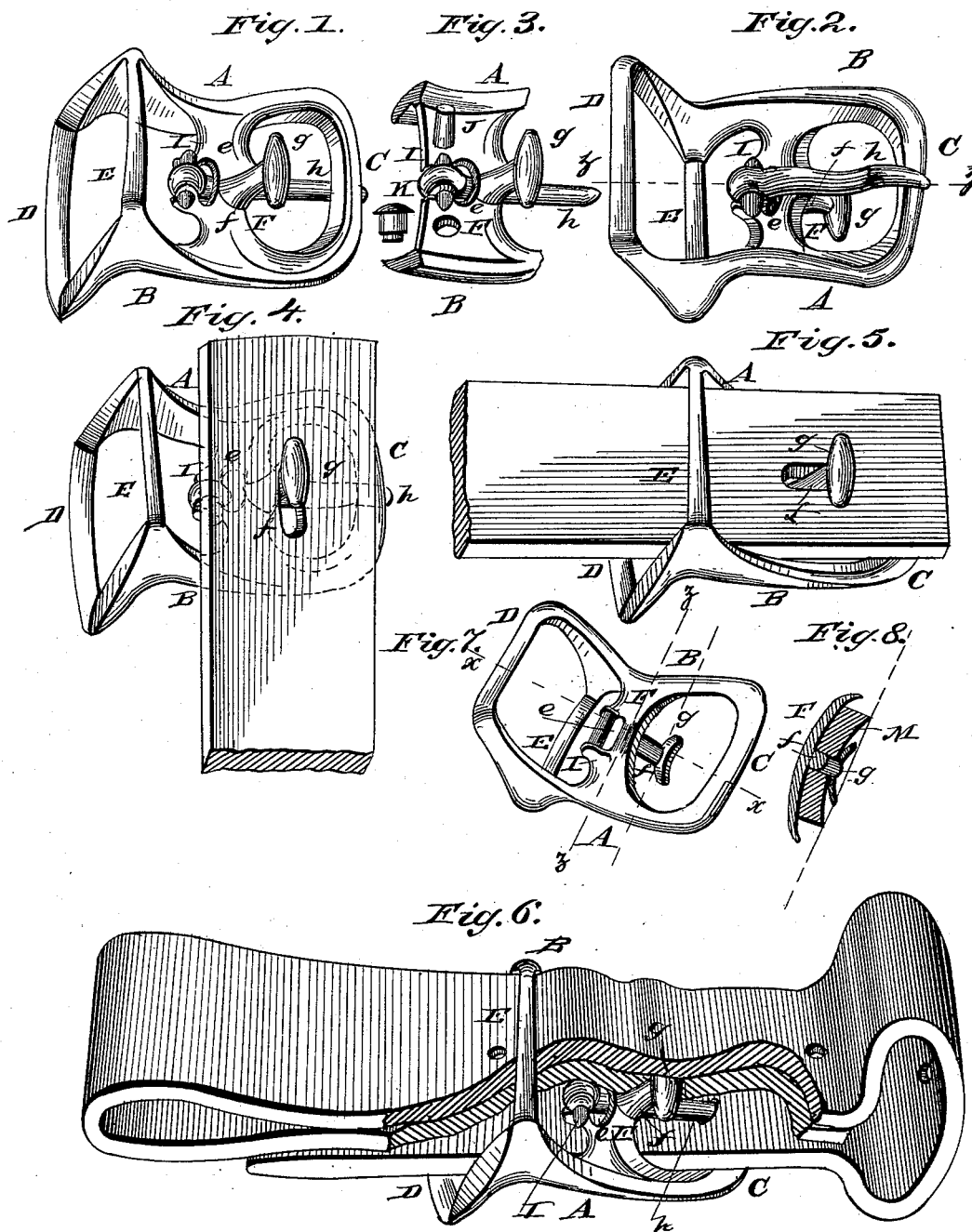
2 Sheets—Sheet 1.

J. A. PARK.

BUCKLE.

No. 302,518.

Patented July 22, 1884.



WITNESSES

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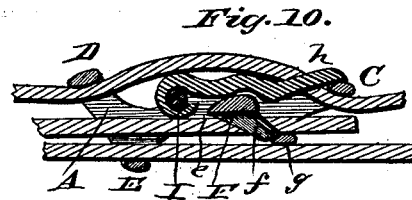
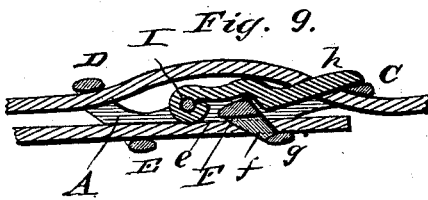
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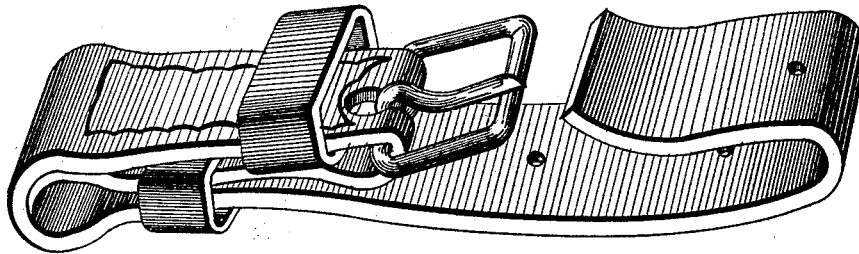
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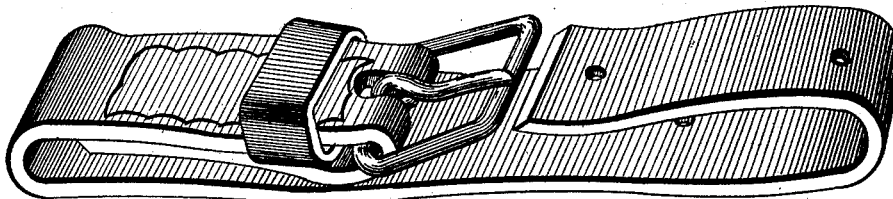
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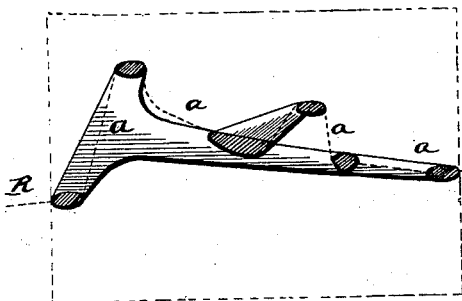
*Fig. 11.*



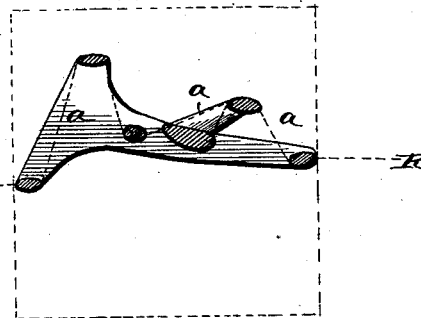
*Fig. 12.*



*Fig. 13.*



*Fig. 14.*



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# UNITED STATES PATENT OFFICE.

JAMES A. PARK, OF LANSING, MICHIGAN, ASSIGNOR TO PUELLA E. PARK,  
OF SAME PLACE.

## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 302,518, dated July 22, 1884.

Application filed December 19, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. PARK, of Lansing, in the county of Ingham and State of Michigan, 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, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to buckles, the primary object being to improve the construction of the pivoted tongue and to provide the central cross-bar of the buckle with devices of improved construction for engaging and securing a strap.

The invention consists, first, in providing a buckle with a pivoted tongue of the construction hereinafter described.

The invention further consists in providing the central cross-bar of a buckle with an inclined button-headed pin.

The invention further consists in the features of construction and combinations of parts as will be fully explained and specifically described hereinafter.

In the drawings, Figure 1 shows perspective view of my buckle inverted; Fig. 2, the same, face side up; Fig. 3, a modification of the central cross-bar upon sections of the side bars; Fig. 4, a partial view of the buckle, face side down, with strap partially inserted; Fig. 5, a partial view of the buckle, also face side down, with strap further inserted; Fig. 6, a partial view of the buckle, also face side down, with strap fully inserted, portions of the strap being cut away; Fig. 7, a modified perspective view of the buckle, face side up, without tongue; Fig. 8, a cross-sectional view on the lines *y y*, Fig. 7, as if strap were inserted; Fig. 9, longitudinal sectional view of my buckle, taken on lines *x x*, Fig. 7, a strap being inserted. Fig. 10 is a longitudinal sectional view of my improved buckle, taken on the line *z z*, Fig. 2, a strap being inserted; Figs. 11 and 12, perspective views of straps made up in the old way; Figs. 13 and 14, views illustrating the molding of the buckle.

The side bars, A B, may be shaped as shown throughout the drawings, or varied. A button-headed pin, *g*, upon the cross-bar F, pro-

jects from the under side of the buckle and inclines forwardly. The said button is elongated, its long side being parallel with the cross-bars of the buckle. The base of this button-headed pin is in front of the tongue-bar I, and is a part of the cross-bar F. (A cross-section of the latter is shown in Figs. 9 and 10.) Just in rear of the part of the bar F which is the base above referred to is a perforation or opening, *e*. Back of this opening is the tongue-bar I, to which is hinged the tongue *h*. The tongue is somewhat longer than is commonly used, and is bent so that when the free end of the tongue rests on the outer or front bar, C, the part nearest the hinge rests upon the base *f* of the button-headed pin *g*. This will be seen by reference to Figs. 2, 9, and 10. Just in front of the bar F, in the tongue *h*, is another downward bend, as seen by reference to the same figures. By reason of the latter bend the tongue *h* passes through the hole of the strap in a more inclined position than if the tongue were straighter. The first bend near the hinge makes the tongue rest so as to prevent the base *f* of the pin *g* from twisting up when the strain comes on the pin *g*, and the resting of the tongue *h* upon that part of the bar F above the pin *g* keeps it from bending down when strain comes upon it. One object of inclining the button-headed pin forwardly is that the button thereon can be more readily molded in the sand; and, secondly, the pull of the strap upon that pin comes against the inclination, so that the strap is forced against the base the more strain there is, so that the pin is less liable to be broken off on that account. The button part also escapes the strain, and has only to perform the office of retaining the strap on the pin. It will be apparent that the end of the strap that is on the pin will, under most circumstances, be no more liable to break than the other end, which engages with the tongue; but in Fig. 3 I have arranged the cross-bar for two additional studs, J K. These studs may be set, screwed, or riveted to the bar F, as occasion may require. They may have heads, or not. In any event, if used, they will enter holes through the strap and help to hold it. If used with heads on, as shown in Fig. 3, K, then the

strap cannot be removed without taking out the studs, unless the holes in the strap are enlarged to go over the heads.

In Fig. 7 I have shown the cross-bar F concaved slightly on the under side, and the upper side of the button of the pin slightly convexed, and in Fig. 8 I have shown a cross-section of Fig. 7, taken on the lines  $z z$ , as if a strap were in Fig. 7 before making the sectional view. M represents a cross-section of a strap, and F' the cross-section of the bar F.

When I make up a strap which would take the place of the old style, like Fig. 12, the buckle may often come next to the horse's body, so that the sides or outer edges of the strap, by being forced in a concave shape under the bar F, strike the horse's body before the button does, thus tending to prevent wearing the hair off the horse. At the same time I also make the button smooth on the bottom side, so as to decrease that danger as much as possible in any event.

My buckle is applied to a strap in the following manner: Into one end I cut an elongated hole, and hook the strap over the button in a transverse direction, as shown in Fig. 4. Then I turn the strap around and insert the free end under the bar E and pull it through to the position shown in Fig. 5. From this position the strap cannot be gotten off till it is pulled back from under the bar E and brought around to the transverse position shown in Fig. 4; hence the safety. Next I return the free end of the strap back again through the under bar, E, and thence engage it with the tongue, and finally pass it under the tuck-bar D, as shown in Fig. 6, and in the sectional view, Fig. 10.

Now, by reference to Fig. 10, it will be seen that the strap is made up without any lower loop, and when my buckle is used for a strap made up that way the lower bar, E, does not have to be so far from the bar D by the distance of the thickness of one strap, for I do not have to have room below the one thickness of strap for the passage of the returning strap between it and the bar E. The longitudinal sectional view, Fig. 9, explains this feature.

The parts of the buckle are all shown in that figure, as in Fig. 10, only that the lower bar, E, is up against one thickness of strap, instead of being under two, as shown in Fig. 10.

It is obvious that many slight alterations or changes in the shape of the various members or parts of the buckle may be made, and neither the principle nor general plan or operation of the buckle be affected.

In Figs. 13 and 14 I have illustrated the manner of molding or casting the buckle. In said figures the dotted square represents the flask. Below R R is the lower half of said flask, and above R R is the upper half of flask. The sand is first put in lower flask and rammed in around the pattern, so that it meets the dotted lines  $a a$ ; then the upper

half of the flask is placed in position and sand rammed therein. The upper half is then lifted off, leaving the pattern and sand in the lower half up to the dotted lines  $a a$ , and the part of the pattern above said lines is molded in the upper half. Now, it will be understood that these dotted parting-lines, or rather the surface represented thereby, must have some slant, so that in lifting out the pattern, or in taking off the upper section of the flask, the sand will not catch under anything or around anything; otherwise the mold would break down. So it will be understood that the button on pin  $g$  must stand out over open space, so that a line drawn from the base must extend upward obliquely, as it does in both figures, in order to get the button out of the sand. Now, the distance between the tongue-bar I and front bar, C, is governed by two or three things in my buckle: First, the lines  $a a$  must run up from the bar  $c$  and base of the pin obliquely; secondly, the base must be broad and heavy enough to have strength to stand strain; third, the bar I must be back of this base, leaving openings to admit of hinging the tongue. The button-pin must be far enough from bar E to admit of hitching the strap over the pin and giving it room to turn and be tucked under bar E; hence it is better to cast the pin forward of bar I than rearward, on account of the decreased length of the buckle and the general compactness and decreased weight. If the bar for the button-headed pin is just behind the tongue-bar, it would be relatively located as shown in Fig. 1.

It will be obvious that the button-headed pin  $g$ , instead of being formed integral with the cross-bar F, may be independent thereof, and secured thereto in any suitable manner. For instance, the lower end of said pin may be threaded to take into a threaded recess therefor in the said cross-bar; or the said pin may be riveted to said cross-bar.

I claim—

1. The combination, with a tongue-buckle, of an inclined rigid stud located on one of the cross-bars of the frame, and having a thickened or re-enforced base to form a seat for the pivoted tongue, substantially as set forth.

2. The combination, in a buckle, of an inclined-headed pin projecting from the under side of a central cross-bar of said buckle, and a tongue pivoted upon said bar, so as to rest upon the upper side of the cross-bar above the stud, substantially as set forth.

3. The combination, with a tongue-buckle, of a headed pin located on one of the cross-bars of the same, for securing or attaching the strap, said cross-bar being also provided with auxiliary securing devices J K, substantially as and for the purpose set forth.

4. The combination, in a buckle, of an inclined-headed pin projecting from the under side of a central cross-bar of said buckle, and a tongue pivotally secured on the upper side of said cross-bar, and provided with a bend

or shoulder adapted to bear on the base of the headed pin, substantially as set forth.

5 5. The improved buckle-frame herein described, having its several parts and projections arranged in relatively the same inclination to facilitate casting, substantially as herein described.

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

JAMES A. PARK.

Witnesses:

DEAN PARK,  
GEO. W. FREEMAN.