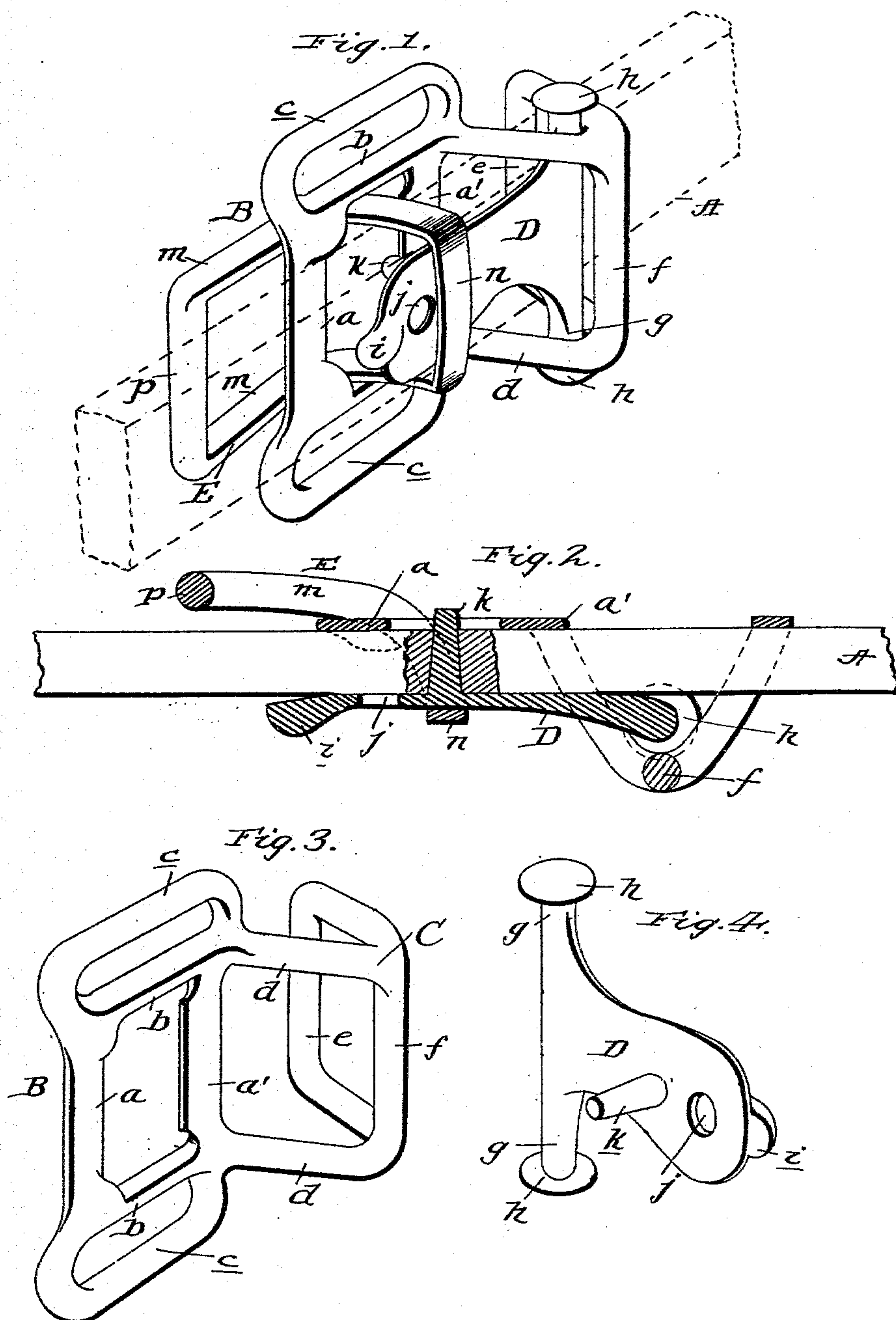


(No Model.)

G. V. MARTIN.
TRACE BUCKLE.

No. 515,780.

Patented Mar. 6, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE VICTOR MARTIN, OF WHITBY, CANADA.

TRACE-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 515,780, dated March 6, 1894.

Application filed November 15, 1893. Serial No. 491,042. (No model.) Patented in Canada July 5, 1893, No. 43,492.

To all whom it may concern:

Be it known that I, GEORGE VICTOR MARTIN, a subject of the Queen of Great Britain, residing at Whitby, in the county of Ontario and Province of Ontario, Canada, have invented certain new and useful Improvements in Trace-Buckles, (for which I obtained a patent in Canada, dated July 5, 1893, No. 43,492;) and I do 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 improvements in trace buckles; and it has for its general object to provide such a buckle of an exceptionally strong and durable construction, and one which may be readily connected to and disconnected from a trace and adjusted thereon and which may be employed with equal facility upon traces of various thicknesses.

Other objects and advantages will be fully understood from the following description and claim when taken in connection with the annexed drawings, in which—

Figure 1, is a perspective view of my improved buckle in an operative position upon a trace; the trace being illustrated in dotted lines. Fig. 2, is a longitudinal section of the same. Fig. 3, is a perspective view of the main or body frame of the buckle, and Fig. 4, is a similar view of the tongue plate.

Referring by letter to said drawings:—A, indicates a harness trace which may be of any desired thickness; and B, indicates the main or body frame of my improved buckle, which is designed to rest upon one side of the trace as better shown in Fig. 2. This frame B, is preferably cast or otherwise formed in one piece as illustrated and it comprises the cross-bars *a, a'*, which are preferably flattened as shown, the end bars *b*, the loop-eyes *c*, for the engagement of the back and belly-bands, respectively, of a harness, and the loop C, which is of a general acute-angle form and is disposed at one side of the cross-bar *a'*, as shown. The said loop C, is formed by the parallel side bars *d*, which branch laterally from the bar *a'*, and the transverse bars *e, f*, which connect the bars *d*, at their free ends and at the apex of the angle; and it serves to receive the trace and hold the main frame

thereto and also serves as a bearing for the trunnions *g*, of the tongue plate D, which trunnions rest between the angularly-disposed portions of the bars *d*, and are provided with heads *h*, as shown to hold them in position.

The tongue plate D, is preferably of the proportional length and width illustrated and it is provided at its forward or free end with a lip *i*, whereby it may be readily raised, and is also provided with an aperture *j*, to enable the operator to see the apertures in the trace, and with an angularly-disposed tongue *k*, which is designed to take through the apertures in the trace so as to fix the tongue plate and the main frame in position upon the same.

E, indicates the draft or tug link of the buckle, which is designed for the engagement of the tug or buckle strap of a harness. This link E, is preferably cast or otherwise formed in one piece and it comprises the side bars *m*, which have their rear portions curved or bent at an angle so as to take through the opening formed between the bars *a, a', b*, of the main frame, the end cross bar *n*, which is preferably flattened and is designed to rest upon one side of the trace and bear upon the tongue plate D, and the end cross bar *p*, which is designed to rest upon the opposite side of the trace and is preferably made round in cross-section for the engagement of the loop usually formed at the end of the tug or buckle strap.

The bars *m*, of the link E, are of such a width that the link may be freely moved in the main frame when the trace and tug are slackened, so as to permit the operator to raise the free end of the tongue plate and disengage the tongue from the trace, and move the buckle, to a new position upon the trace if desired. When the trace and tug or buckle strap of the harness are taut and the link is in its operative position, as shown in Fig. 1, its cross bar *n*, will bear upon the tongue plate so as to prevent a casual disengagement of the tongue from the trace and the rear curved or angularly-disposed portion of its side bars *m*, will bear against the cross bar *a*, of the main frame, which is preferably enlarged or reinforced where it merges into the bars *b*, as

shown. By reason of this arrangement it will be readily perceived that when the buckle is in use the strain will be distributed upon the side and end bars of the link, the tongue plate and the main or body frame, and consequently the buckle is enabled to withstand great strain, sudden shocks, and rough usage, which is an important advantage.

In the practice of my invention, when it is desired to place and secure the buckle in position upon a trace, it is simply necessary to place the trunnions of the tongue plate between the oppositely disposed portions of the bars *d*, of the loop C, and pass the trace through the said loop between the tongue plate and the bars *a*, *a'* and also through the link E, and then pass the tongue *k*, into and through one of the apertures of the trace. When the buckle is in use, and it is desired to adjust it upon the trace, it is simply necessary to slacken the tug or buckle-strap or the trace, when the operator may readily raise the tongue plate so as to disengage the tongue from the trace and may then move the buckle to the desired position and again place the tongue *k*, in engagement with the trace.

It will be noted from the foregoing description taken together with the drawings that my improved buckle is very simple, strong and durable and that it may be readily adjusted and adjustably fixed upon a trace; and it will also be noted that the buckle is adapted to be used upon traces of various thicknesses.

In addition to the foregoing, it will be readily perceived that if any one of the three parts constituting my improved buckle, should be worn or broken, it may be readily removed and a new part substituted without the necessity of modifying the other parts and without

in any way impairing the efficiency of the buckle.

Having described my invention, what I claim is—

In a trace buckle, the combination of the main or body frame B, formed in one piece and comprising the cross bars *a*, *a'*, the end bars *b*, and the angular loop C, disposed at one side of the cross bar *a'*, and formed by the angular parallel bars *d*, the cross bar *e*, connecting said bars *d*, at their free ends and the cross bar *f*, connecting the bars *d*, at the apex of the angle and adapted to rest on the opposite side of a trace with respect to the bars *a*, *a'*, *b*, and *e*, the tongue plate D, having lateral trunnions at one end bearing in the angular loop C, and also having an angular tongue adapted to engage a trace; the said plate D, being adapted to rest on the opposite side of a trace with respect to the major portion of the main or body frame, and the draft link E, adapted to extend through the frame B, between the bars *a*, *a'*, *b*, and comprising the side bars *m*, having their rear portions disposed at an angle so as to engage the forward cross bar *a*, of the frame B, the end cross bar *n*, adapted to rest on one side of the trace and bear upon the tongue plate D, and the end cross bar *p*, adapted to rest upon the opposite side of the trace and be connected to the tug or buckle strap, all substantially as and for the purpose set forth.

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

GEORGE VICTOR MARTIN.

Witnesses:

J. F. PAXTON,

A. E. CHRISTIAN.