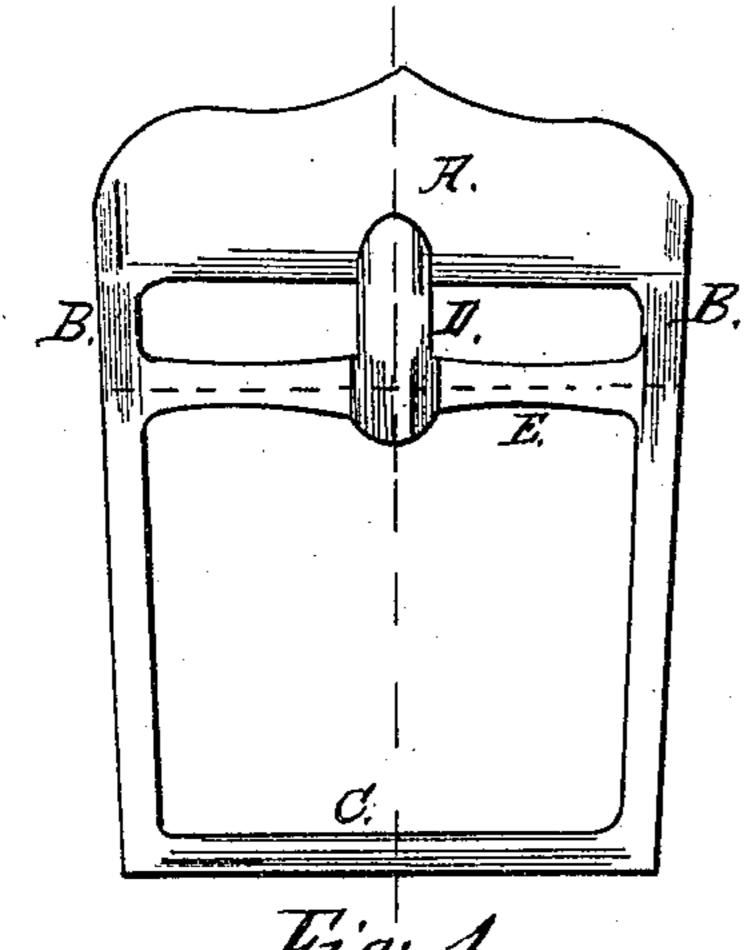
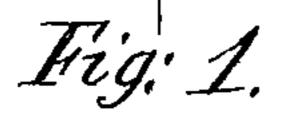
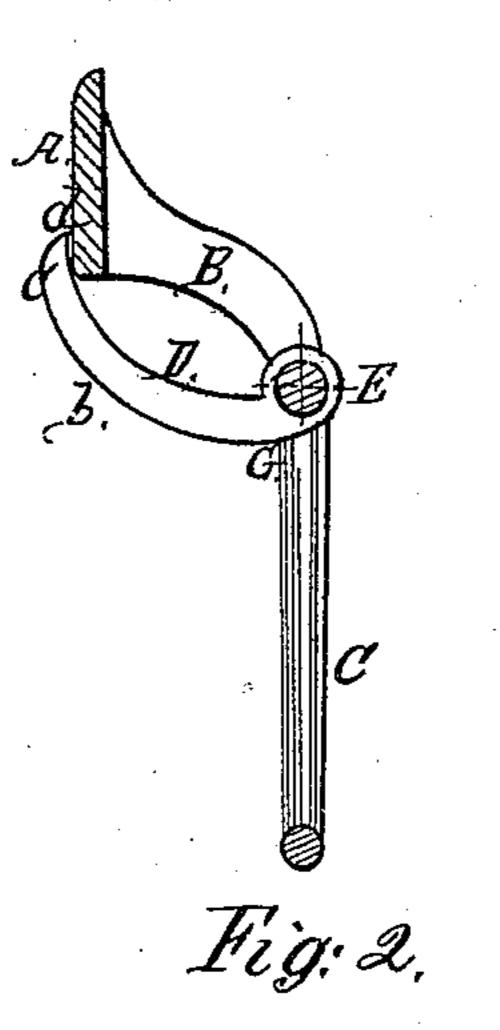
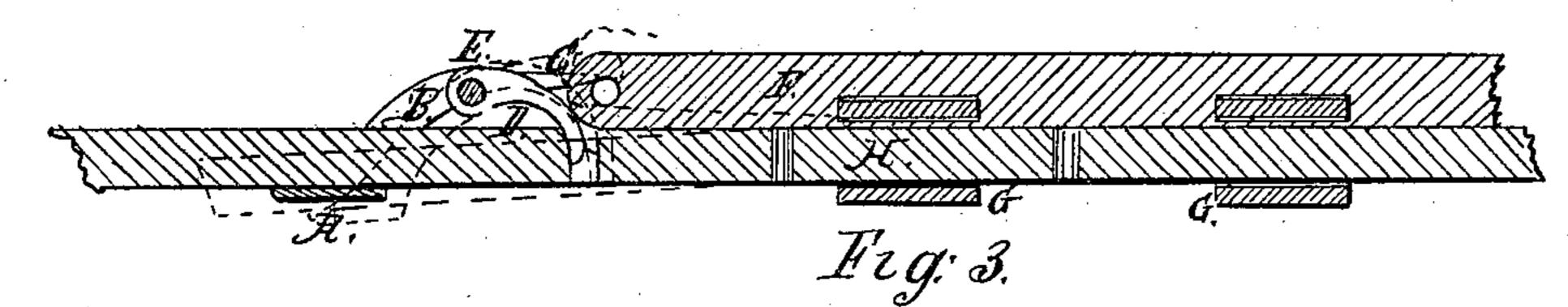
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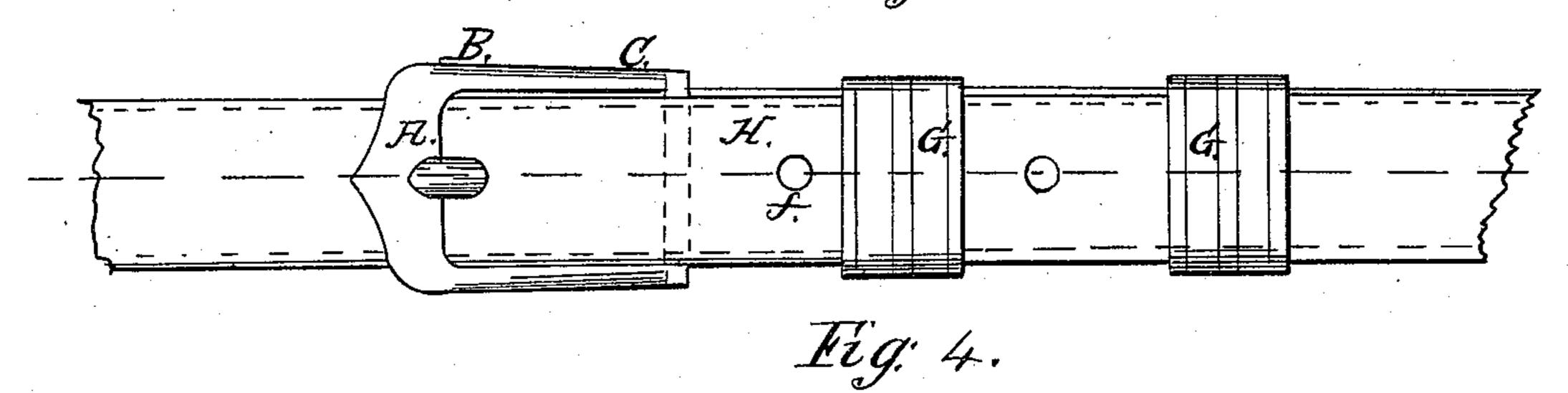
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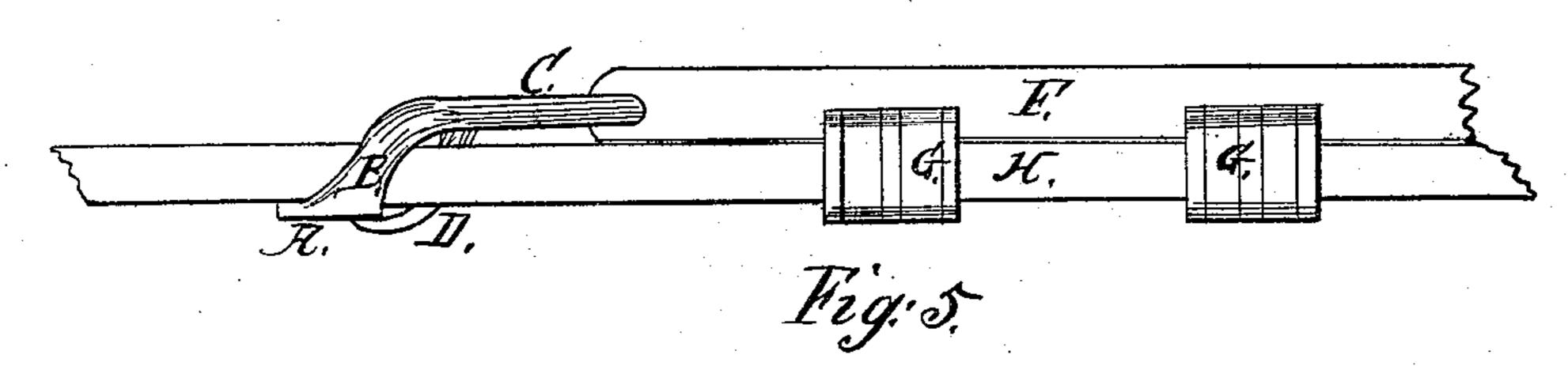












Witnesses. A. Hammond. A.J. Vandeach Gev. H. Buckins,

## Anited States Patent Office.

GEORGE H. BUCKIUS, OF CANTON, OHIO, ASSIGNOR TO HIMSELF, C. AULTMAN, A. C. TONNER, AND P. S. SOWERS, OF SAME PLACE.

Letters Patent No. 92,011, dated June 29, 1869.

## IMPROVED HARNESS-TUG BUCKLE

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE H. BUCKIUS, of Canton, in the county of Stark, and State of Ohio, have invented new and useful Improvements in Harness-Tug Buckles; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, of which drawings--

Figure 1 is a front elevation of my improved buckle.

Figure 2 is a sectional side elevation of the same. Figure 3 is a sectional plan of the buckle applied to a trace.

Figure 4 is a front view of the same.

Figure 5 is a plan of the same. The nature of my invention consists, first, in the novel construction of the frame of a harness-tug buckle, said frame being so constructed as that the tongue-base shall be at a sufficient height above the balance of the frame to allow the trace to pass under it and over the tongue-axle, in a plane parallel to the lower portion of the frame, and said axle being so arranged, with reference to the tongue-base, as that the buckle-tongue shall stand nearly at right angles with the trace to be buckled, whereby I obtain a square strain on the trace, and avoid throwing said trace out of line with the buckle-frame, thus making the trace less liable to undue strain and wear, and allowing the whole connection to lie down flat to the side of the horse, thus rendering it very neat and ornamental in appearance.

My invention consists, secondly, in the novel construction of a tongue for a harness-buckle, with a frame of the construction just described, said tongue being formed to a curve, which is nearly at right angles with the trace, through the thickness of said trace, and from thence rises gradually to the tonguebase on the buckle-frame, so that a square strain is thrown on the trace during a draught on the same, whereby its durability is much increased. Another great advantage resulting from the use of this tongue. is, that owing to its peculiar form, it draws out of the trace by the simple act of drawing the trace forward in the buckle, whether the end of said trace be or be not removed from the trace-loops, and also slides into the hole of the trace whenever the same is drawn backward through the buckle, thus making it perfectly easy to buckle or unbuckle the trace, for the purpose of changing its length or for removing it from the buckle, and dispensing with all that trouble in getting the tongue out of the trace, so common in the old form of pivoted tongue-buckles.

My invention consists, thirdly, in so constructing and arranging the tongue, tongue-axle, and frame of a harness-buckle, constructed as described, as that

when the trace is forced back through the buckle and loops, the end of the tongue will rest on the bucklestrap, and extend into the hole in the trace, and will thus prevent the tongue from coming out of the hole in the trace, until the main frame of the buckle and the trace are thrown out of their usual parallel position sufficiently to allow the tongue to clear the trace, whereby I avoid any danger of the trace coming unbuckled from any slackness in the same, caused by any irregular movement of the horse or load.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construc-

tion and operation.

The frame of my buckle is composed of the part O, of the general form shown, (which has the tongueaxle E secured thereto,) the front ends B B of which are turned so as to be nearly at right angles with the plane of the part C, as seen in fig. 2.

The ends B B are secured to the tongue-base A, which can be of the broad, flat form shown, or of any other suitable form.

This base is so arranged, with reference to the tongue-axle E, as that a tongue pivoted to this axle, and having its end resting on the base A, shall be nearly at right angles with the plane of the part C.

The tongue D is secured to the axle E in an ordinary manner, and is curved into such a form as that the part a b shall have a general direction perpendicular to the plane of the part C of the frame, or at least nearly perpendicular to said plane, as shown in fig. 2, while the part b c d forms a gradual curve around to the base A, the general curve of the whole tongue, forming a gradual curve from the point a to the end d of the tongue, which rests squarely on the tongue-base A, as shown.

The buckle is secured in the strap F by the rear bar of the part C, as shown in figs. 3 and 5, and the trace H is buckled into the buckle A CD, and has its

end secured in the loops G G, as shown.

When in this position, the tongue-base A lies flat on the trace H, and the part C of the buckle is in line with the strap F and parallel to the trace H, so that the whole connection lies up close to the side of the horse, thus making a smooth and finished appearance.

The tongue D, as will be readily seen from the foregoing description, stands with the part in the trace H, at about right angles with the plane of the trace, thus avoiding that oblique position of the tongue in the leather seen in the ordinary buckle, which makes a large, unsightly hole necessary, and throws the trace out of line with the buckle, giving it a poor appearance, and, from its position with respect to the tongue and tongue-base, tends to tear the trace apart at the ongue-hole in the trace.

Now, if the strap F be grasped by one hand, and the trace H be drawn through the buckle with the other hand, it is evident that the tongue D will rotate around the axle E, and from its peculiar form will slide out of the hole f in the trace, without any binding in said hole, and in the same manner will slide into said hole, when the trace H is drawn backward through the buckle.

The tongue D and buckle-frame E Care so arranged, with respect to each other and the strap F, as that the end of said tongue shall rest on said strap when turned back, the end of the tongue still remaining in the hole f in the trace, as shown in fig. 3, from which it is readily seen that the trace H cannot slide any further back until the buckle-frame and trace are thrown out of their ordinary parallel position into the position indicated by the dotted lines in fig. 3, so that there is no danger of the trace coming unbuckled from a slacking of the draught on the trace, as such slacking could only bring the trace back into the position shown by full lines in fig. 3; and on again applying the draught, the tongue would at once come into the position shown in fig. 5, thus securely buckling the trace.

Having thus fully described my invention,

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

1. The buckle-frame C E B B A, herein described, having the tongue-base A, arranged with respect to the tongue-axle E and the portion C of the frame, substantially as and for the purpose specified.

2. The buckie-tongue D, constructed as described, when used in combination with the buckle-frame C E A, constructed as specified, substantially as and for the

purpose herein specified.

3. So constructing and arranging the frame C, tongue-axle E, tongue D, and buckle-strap F, with respect to each other, as that the tongue D shall prevent the trace H from sliding back sufficiently to allow the tongue to free itself from the trace, except when the frame C and trace H are made to assume an angle with each other, substantially as and for the purpose specified.

As evidence that I claim the foregoing, I have hereunto set my hand, in the presence of two witnesses,

this 23d day of March, 1869.

GEO. H. BUCKIUS.

Witnesses:
RUTH K. ABBOTT,
JOB ABBOTT.