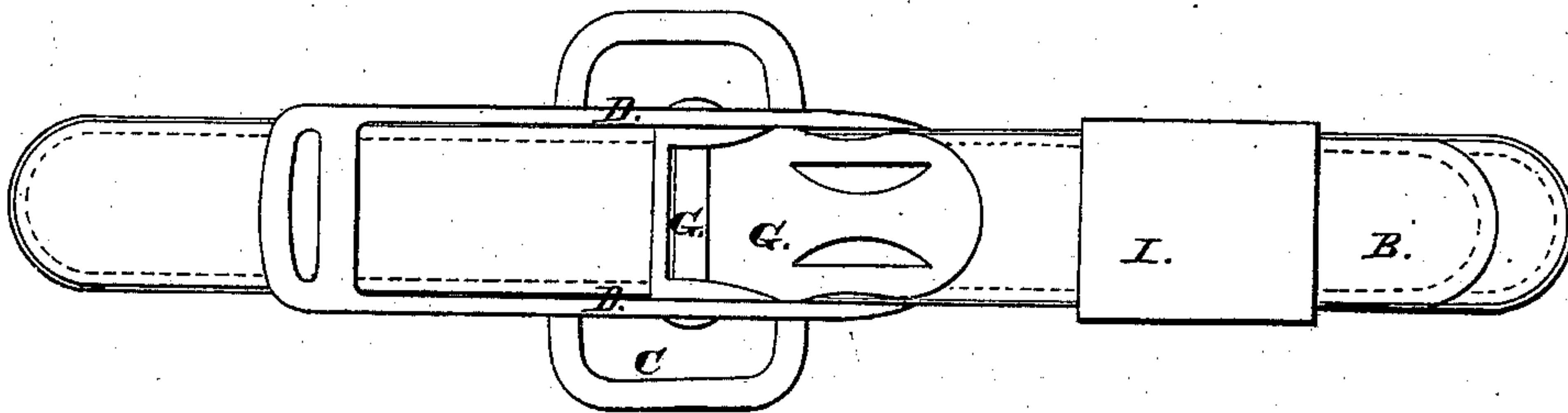


*I. Poraback,*  
*Harness Buckle*

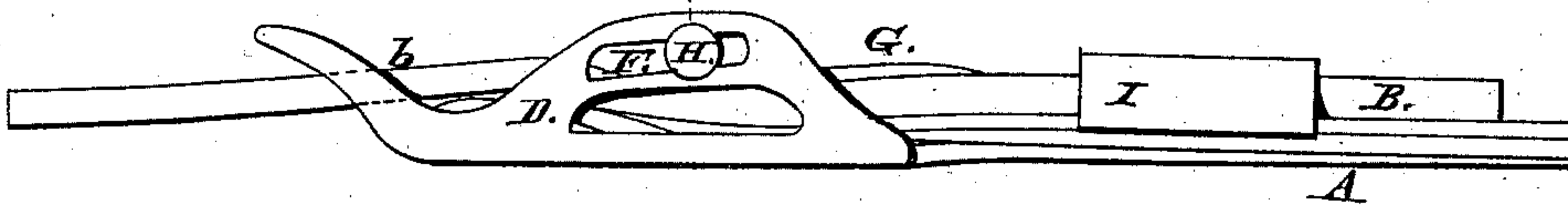
*N<sup>o</sup> 79,779.*

*Patented July 7, 1868.*

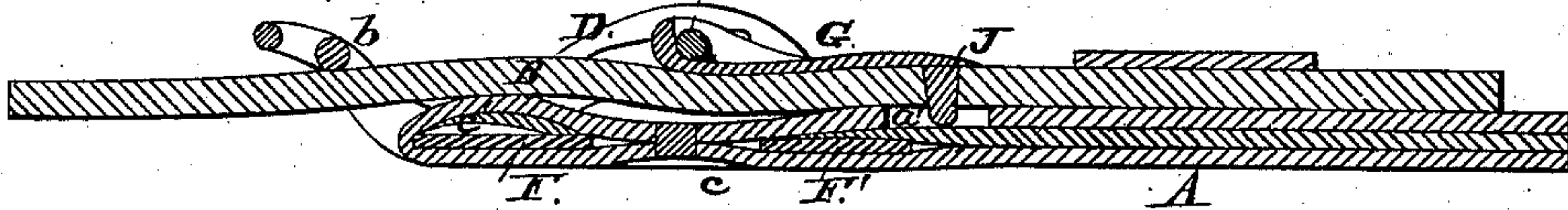
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*

*J. H. Burridge*

*E. E. Waiter.*

*Inventor.*

*Isaac Poraback.*

# United States Patent Office.

ISAAC RORABACK, OF SOUTH BEND, INDIANA.

*Letters Patent No. 79,779, dated July 7, 1868.*

## IMPROVED HARNESS-BUCKLE.

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

### O ALL WHOM IT MAY CONCERN:

Be it known that I, ISAAC RORABACK, of South Bend, in the county of St. Joseph, and State of Indiana, have invented certain new and useful Improvements in Harness-Buckles; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plane view.

Figure 2 is a side view.

Figure 3, a longitudinal section.

Like letters of reference refer to like parts in the different views presented.

In the drawing, A represents the hames-tug, B the trace, and C the clasp or buckle. This buckle consists of the two sides, D, in which is cut a slot, E. These sides are connected to each other by cross-plates F F', fig. 3, the purpose of which will hereinafter be shown.

G is the tongue of the buckle, and is secured between the sides D by a roller, H, which allows the tongue to move freely in the direction of the dotted line *a*, and backward and forward between the sides, the ends of the roller moving along in the slots.

The practical use of this clamp is as follows, viz.

The hames-tug is secured to the cross-plates F by being lapped around it, as shown in fig. 3, then returned, and being sewn down, and further secured by the rivet *c*.

The trace is attached by inserting the end through the loop *b*, fig. 2, at the end of the buckle. From thence it is passed along under the tongue, and confined in the loop I, and thus secured from pulling out by the tongue being pressed down, as shown in fig. 3.

A pin, J, projecting from the under side of the tongue, enters a hole in the trace, which, on the trace being pulled back, draws the tongue also back, thereby depressing the confined end down upon the trace, in consequence of the downward inclination of the slot, which forms an inclined plane, on which the roller moves back, thereby pressing hard down upon the trace and upon the hames-tug. The tug, as will be seen, is swelled upward by the introduction of filling C' upon the cross-plate F, thereby making an inclined plane in the opposite direction of that in the slot. Hence, as the roller moves back and downward in the slot, depressing the trace down upon the tug, it is resisted by the upward inclination of the tug, the result of which is to clamp the tug and trace firmly together, so that the stronger the draught exerted upon the trace, the tighter will the trace and tug be clamped together.

The trace can be shortened up or lengthened out by shifting the pin J from one hole to another, in either direction, as the case may require. This pin, it will be seen, penetrates the trace, and enters the tug in a slot, *a'*, which allows the trace to move in either direction, for a short distance, so as to bring the trace within the action of the inclined plane of the slot E.

This clamp, in practical use, is far superior to the ordinary buckle, for the reason that the trace is not subjected to any cramping or short bends. The trace being nearly straight, hence will wear much longer than the trace confined in the common buckle. It is also much more easily manipulated than the buckle in ordinary use.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The sides D, provided with inclined slots E, cross-plate F, and filling C', as arranged in combination with the tongue G and roller H, in the manner as and for the purpose specified, as a new article of manufacture.

ISAAC RORABACK.

Witnesses:

A. ANDERSON,

JAMES H. ELLSWORTH.