

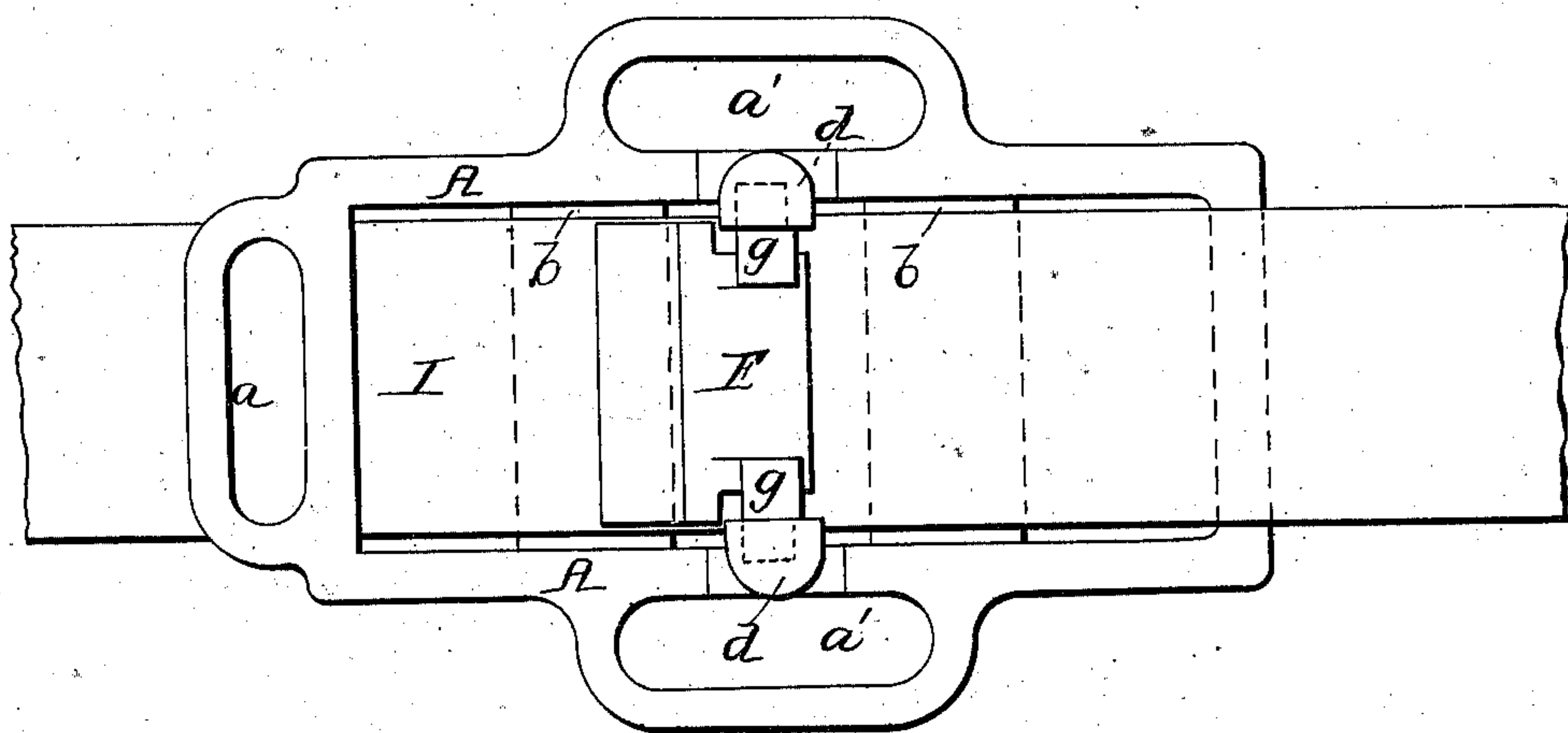
C. H. Miller,

Trace Buckle,

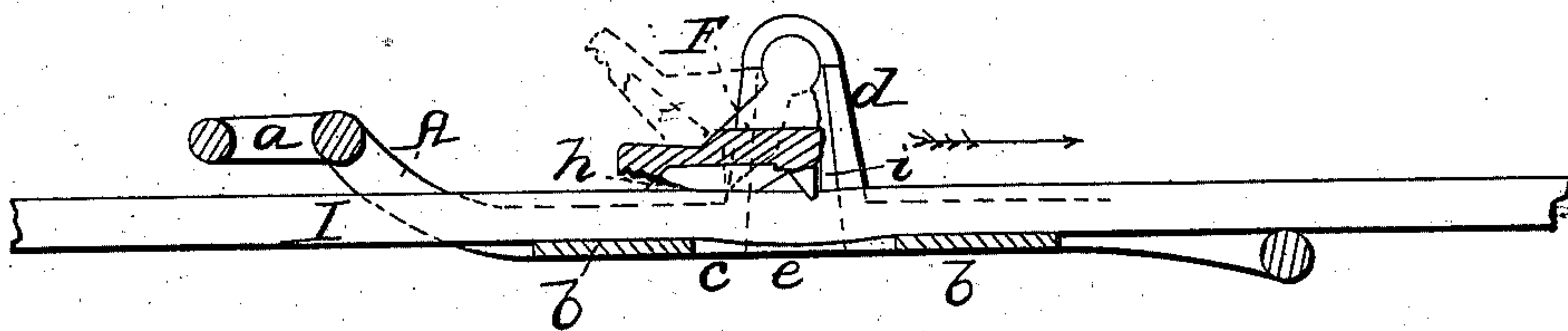
N<sup>o</sup> 81,394.

Patented Aug. 25, 1868.

Fig; 1.



Fig; 2.



Witnesses;  
Edward Wilhelm  
W. A. Becker.

Inventor;  
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# United States Patent Office.

CHARLES H. MILLER, OF BUFFALO, NEW YORK.

*Letters Patent No. 81,394, dated August 25, 1868.*

## IMPROVEMENT IN TRACE-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, CHARLES H. MILLER, of the city of Buffalo, in the county of Erie, and State of New York, have invented a certain new and useful Improvement in Trace-Buckles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure I is an outside elevation of my improved buckle, with a trace represented as held thereby.

Figure II is a longitudinal section thereof.

Like letters refer to like parts in both figures.

My invention consists of a frame, cast with two cross-bars or plates, each a short distance from the centre, and with two outwardly-projecting standard-bearings from the centre of each side, in which is hinged a cam, provided at the rear edge with a spur or tooth, said cam operating to press or wedge the trace against the cross-bars, and securely retain the same, thereby dispensing with the necessity of making holes in the trace, which, soon becoming worn by the tongue therein, greatly weakens the trace.

In the drawings, A represents the frame of the buckle, having a loop, *a*, for attaching that portion of the trace which connects with the hames or breast-collar, as the case may be; the ordinary slide loops *a' a'*; two cross-bars or plates, *b b*, flush with the inner side of the frame, arranged so as to leave a space, *c*, between them at the centre of the frame; and two arms or standards, *d d*, projecting outwardly from the centre of each side of the frame. These arms, which form bearings for the cam hereafter to be described, are each cast with a groove, *e*, in the inner side, extending to near the extremity, which permits the insertion of the cam by simply sliding the journals thereof in the same.

F is the cam or pressure-plate, formed with journals *g g* at each end, which have their bearings in the arms *d*, as above described. *h* is the cam or pressure-surface thereof, which may be roughened, as desired. A piece of leather may also be inserted in the face of the cam, if preferred, to increase the adhesion between the cam and trace I. The rear edge of the cam is formed with a tooth or spur, *i*, which may be made as shown, or with a dull extended edge, like a blunt chisel, having its edge running crosswise of the trace, so as to present a greater surface of resistance to the latter.

The trace is inserted by swinging up the cam, as shown in red lines, Fig. II, which leaves a free passage for the same. The cam is then pressed down against the trace, the tooth *i* indenting in the leather, as represented in black lines, when the strain on the trace in drawing (in the direction of the arrow) causes the cam to press with corresponding force the tug against the cross-bars on the opposite side, thus effectually preventing its withdrawal.

The space, *c*, between the cross-bars permits the trace to be slightly depressed therein, which renders the withdrawal of the trace more difficult.

The great advantages of my improvements are—

In dispensing with the necessity of punching holes in the trace, and thereby greatly weakening it. The clamping of the trace distributes the strain of the fastening equally over the entire width of the same, instead of at one point, as is the case where a tongue is employed.

Constructing the parts in the manner described enables them to be easily cast, and to be put together without finishing, and at the least possible cost.

Leaving a space, *c*, between the cross-bars *b b*, enables the grooves *e* in the arms to be moulded, and the pattern drawn from the sand, without using a core. This space also facilitates the insertion of the journals of the cam in the bearings.

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

The hinged pressure-cam F, constructed and operating as specified.

CHARLES H. MILLER.

Witnesses:

V. H. BECKER,

EDWARD WILHELM.