

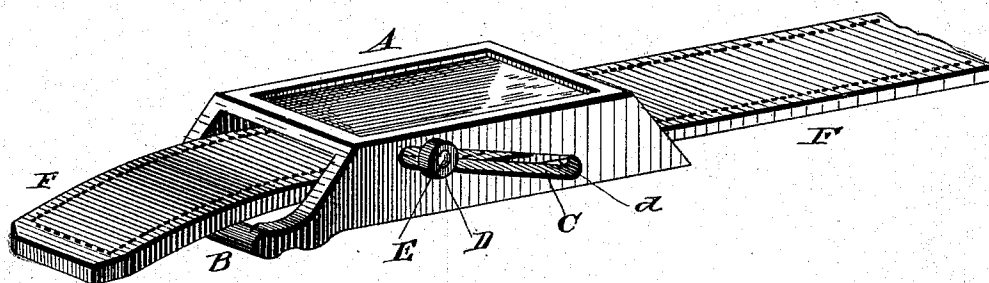
(No Model.)

W. L. BEACH.  
TRACE FASTENER.

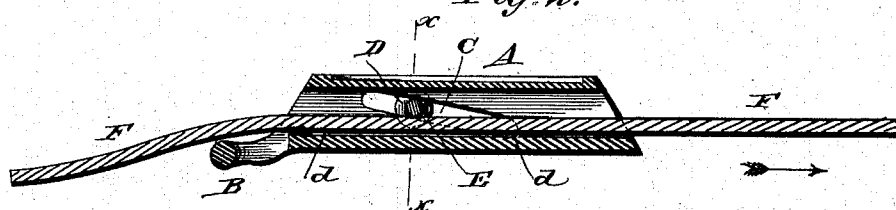
No. 289,375.

Patented Dec. 4, 1883.

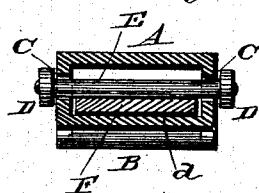
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM L. BEACH, OF WEBSTER CITY, IOWA.

## TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 289,375, dated December 4, 1883.

Application filed September 21, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. BEACH, of Webster City, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in Trace-Fasteners; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a perspective view of my improved trace-fastener, showing a portion of the trace secured thereto. Fig. 2 is a longitudinal section, taken centrally through the fastener. Fig. 3 is a cross-section, taken in the plane indicated by dotted lines *x x* on Fig. 2.

This invention relates to trace-fastening devices for holding the trace at the hame-tug, and allowing the trace to be adjusted as may be desired; and it consists in an automatic clamping device combined with the buckle-frame, as will be fully understood from the following description, when taken in connection with the annexed drawings.

A designates the frame of my improved trace-fastener, which frame may be made of malleable iron or other metal, plated or ornamented in any desirable manner, so as to present a handsome appearance. On one end of the frame A is a loop, B, adapted to receive a hame-tug. It will be observed that the cross-bar or bridge of this loop is located below the plane of the bottom of the frame A, thus keeping the hame closely pressed against the bottom or floor of the frame, and enabling it to be securely held at any desired place. Through the sides of the frame A are slots C C, which are inclined with respect to the inside face, *d*, and through which pass freely the ends of a cross-bar or roller, E, which ends are provided on the outside of the frame with secured washers D. (Shown clearly in Fig. 3.) The said cross-bar or roller E is free to traverse the entire length of the slots C C, and it is designed for firmly gripping the trace F, when the latter is under

strain, in the direction indicated by the arrow on Fig. 2. The roller or cross-bar applied in the oblique slots C C, as described and shown, forms an automatic clamping device, which is self-adjustable, for traces of different thicknesses, and which will positively grip and hold a trace without the necessity of perforating the same and using tongues, pins, or other retaining devices. It will be observed that the trace lies flat on the surface *d* of the frame A; or, in other words, the trace passes straight through this frame, and is held against the face *d* with a force which increases in proportion as a strain on the trace increases. By pulling the trace in a direction opposite that in which the arrow on Fig. 2 points, the roller E will move away from the trace and readily release it. When there is considerable strain on the trace, the roller will more or less embed itself in the leather, but will not weaken or injure it, as the pressure is direct, and there is no tendency to cut. It is obvious that my improved buckle or fastening device may be used for other parts of the harness, or wherever a buckle or strap-fastener is required.

I am aware that it is not new to clamp and hold a trace in the peculiar manner herein described, and I therefore lay no claim, broadly, to such a device; but

What I do claim, and desire to secure by Letters Patent, is—

The improved trace-fastener herein described, consisting of box A, having inclined slots C C, and formed with loop B, the cross-bar or bridge of said loop being below the plane of the floor of box A, in combination with gravitating roller or slide E, all constructed and adapted to operate as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM L. BEACH.

Witnesses:

T. H. ALEXANDER,  
F. O. MCCLEARY.