(No Model.)

T. MEYER.

TRACE SUPPORTER.

No. 343,828. Patented June 15, 1886.

Fig: 1.

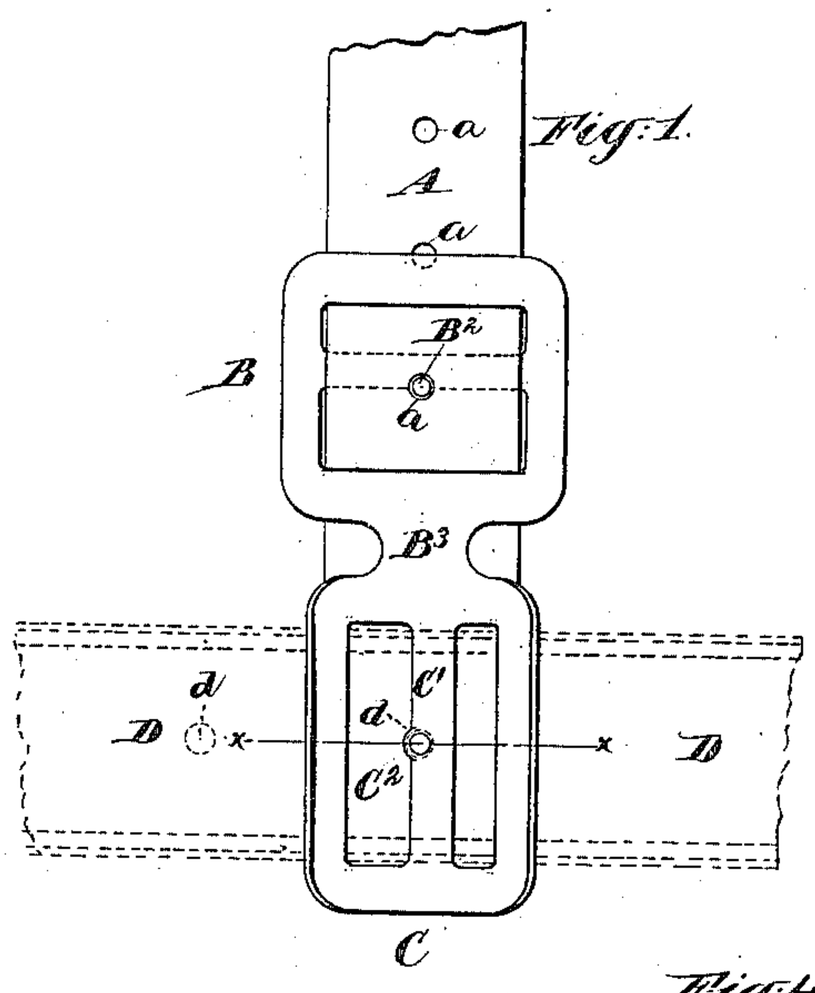


Fig: 2.

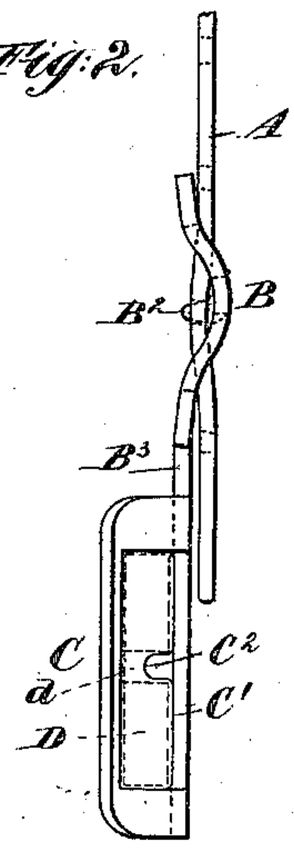


Fig: 4.

Fig: 3.

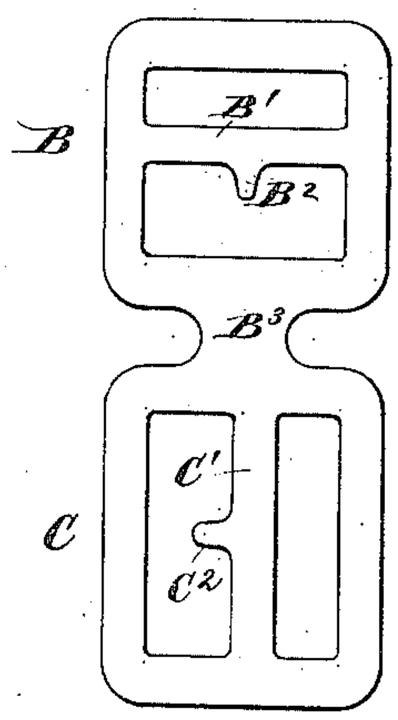
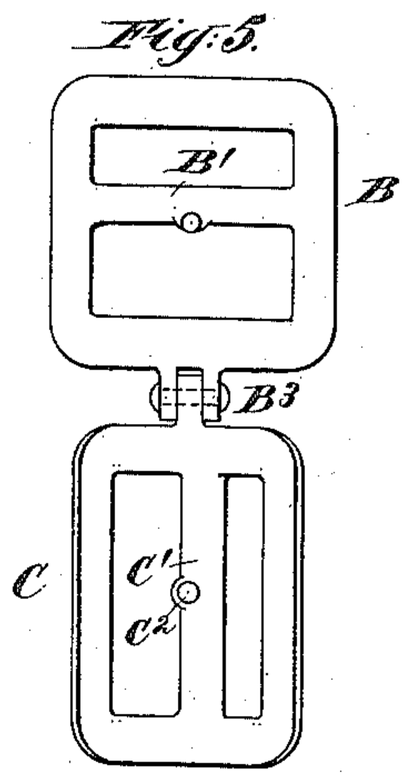


Fig: 5.



Witnesses:

Charles R. Searle,

L. P. Smith.

Inventor:

by Thomas Meyer

by his attorney

Thomas Drew Stetson

UNITED STATES PATENT OFFICE.

THOMAS MEYER, OF LOGANSPORT, INDIANA, ASSIGNOR TO HIMSELF, AND HENRY TUCKER, OF NEW YORK, N. Y.

TRACE-SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 343,828, dated June 15, 1886.

Application filed March 26, 1886. Serial No. 196,620. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MEYER, of Logansport, in the county of Cass and State of Indiana, have invented a certain new and useful Improvement in Trace-Supporters, of which the following is a specification.

The device is adapted to connect the trace to the hip-strap, to prevent the trace from sagging too much when slackened. It is more especially important in double harness.

The patent to me dated June 6, 1882, No. 259,034, shows a device for supporting a trace which is capable of serving well. I have discovered that a single piece of metal properly formed may serve to engage both with the hip-strap and with the trace, holding firmly and allowing all necessary adjustments. The device may be made from hard brass, iron, or steel, by cutting with dies from sheet metal of proper thickness and bending. The leather parts are connected by being bent to a certain degree of curvature, in which position each may be moved through the device without resistance. On being straightened it is firmly engaged. The construction is simpler and cheaper and probably more durable than that set forth in my patent of 1882.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a face view with the position of the trace shown in dotted lines. Fig. 2 is an edge view of the same. Fig. 3 shows the appearance at one stage of its manufacture. This is the sheet-metal blank after it has been cut out by a suitable pair of dies and before it has been bent and finished. Fig. 4 is a horizontal section on the line *x x* in Fig. 1. Fig. 5 is a face view showing a modification.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the hip-strap; *a a*, holes punched therein to allow my device to be adjusted higher or lower thereon, and B C my improved supporter, the part B engaging with A, and the part C engaging with the trace, the latter not shown except by dotted lines D.

The entire device B C is a single piece of metal peculiarly formed to adapt it to its use, with a cross-bar, B, extending longitudinally across an inclosing frame or yoke.

B^2 is a front projection from B′.

The yoke B is bent as shown in Fig. 2.

The part C is provided with a cross-bar, C′, extending vertically across an inclosing-yoke, C. This cross-bar has also a front projection or spur, C^2.

The yoke C is bent as shown in Fig. 4.

The parts B and C are united by a neck, B^3, which may be of greater or less length or suppressed entirely. It is only essential to so connect B and C that each may be bent as shown—the former in the vertical and the latter in the horizontal plane.

In the manufacture I propose, generally, to cut a blank of the form shown in Fig. 3, and at one or more operations by different dies to bend the parts B^2 and C^2 forward, and to bend the parts B and C in the different directions shown. The projections or spurs B^2 C^2 are then rounded by any suitable tool to fit kindly in round holes in the leather, and the entire device is ready for use either with or without plating, japanning, or otherwise coating.

In adjusting for use, the hip-strap A is bent and inserted through B till a hole, *a*, is presented to the spur B^2; then straightening the strap A engages B^2 in *a*, and the device is reliably suspended.

To adjust the trace D in C, the leather is bent and thrust through C till a hole, *d*, in D is opposite the projection C^2; then straightening D engages C^2 in *d*, and all is secure. When the trace requires readjusting for any reason, rebending it allows it to be shifted to any extent desired and refitted.

In bending the spurs B^2 and C^2 out of the plane of the original plate, I bend them a little less than a right angle. The spur B^2 is thus left inclined downward and the spur C^2 inclined forward. Gravity draws downward on B^2. It is found by trial that some force, not always clearly apparent, tends to shift C forward on the trace. The inclination of the spurs favors the holding firmly until it is desired to disengage the parts.

Modifications may be made in the forms and proportions without departing from the prin-

ciple or sacrificing the advantages of the invention. Additions may be made. I can form a hinge in the neck B^3.

I can make the entire device of malleable cast-iron, cast-brass, or other metal without any bending, all the parts being cast in the true form, with the spurs B^2 C^2 standing at the proper angle; but I prefer to cut a blank, as shown in Fig. 3, and complete the device by subsequent operations.

Iron or steel may be used, as convenience or price may indicate.

The spurs may stand at right angles to the general plane of the device, if desired. I prefer the whole as shown.

I claim as my invention—

A sheet-metal trace-supporter in a single piece, composed of two frames or yokes, B C, curved in the vertical and horizontal directions, respectively, and provided with the cross-bars B′ C′, and spurs or projections B^2 C^2, adapted to serve as herein specified.

In testimony whereof I have hereunto set my hand, at Logansport, Indiana, this 19th day of March, 1886, in the presence of two subscribing witnesses.

THOS. MEYER.

Witnesses:

ANDREW W. STEVENS,

CHAS. B. STEVENSON.