

No. 646,095.

Patented Mar. 27, 1900.

W. P. MURPHY.
TRACE EYE GUARD.

(Application filed Apr. 10, 1899.)

(No Model.)

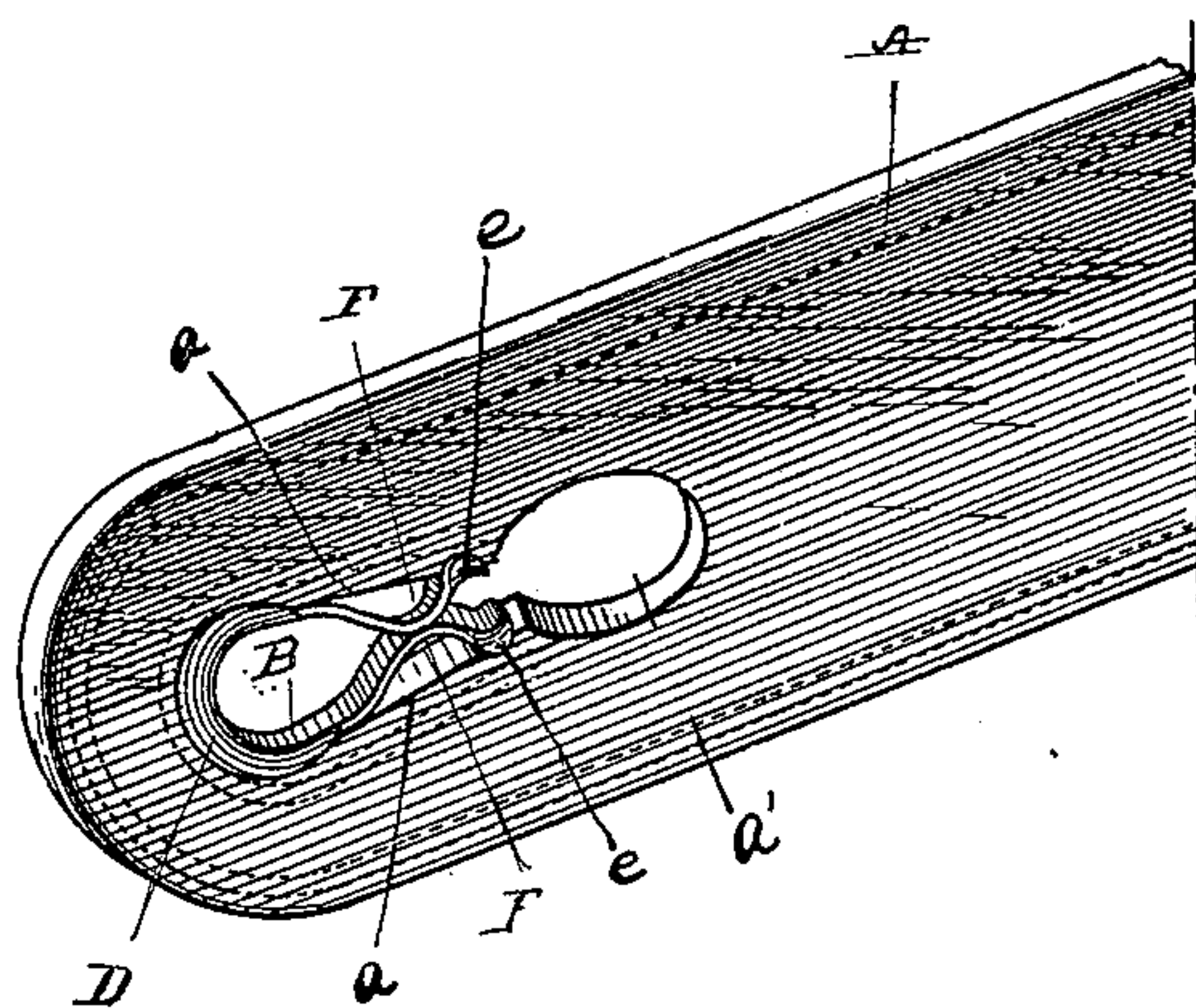


Fig. 1.

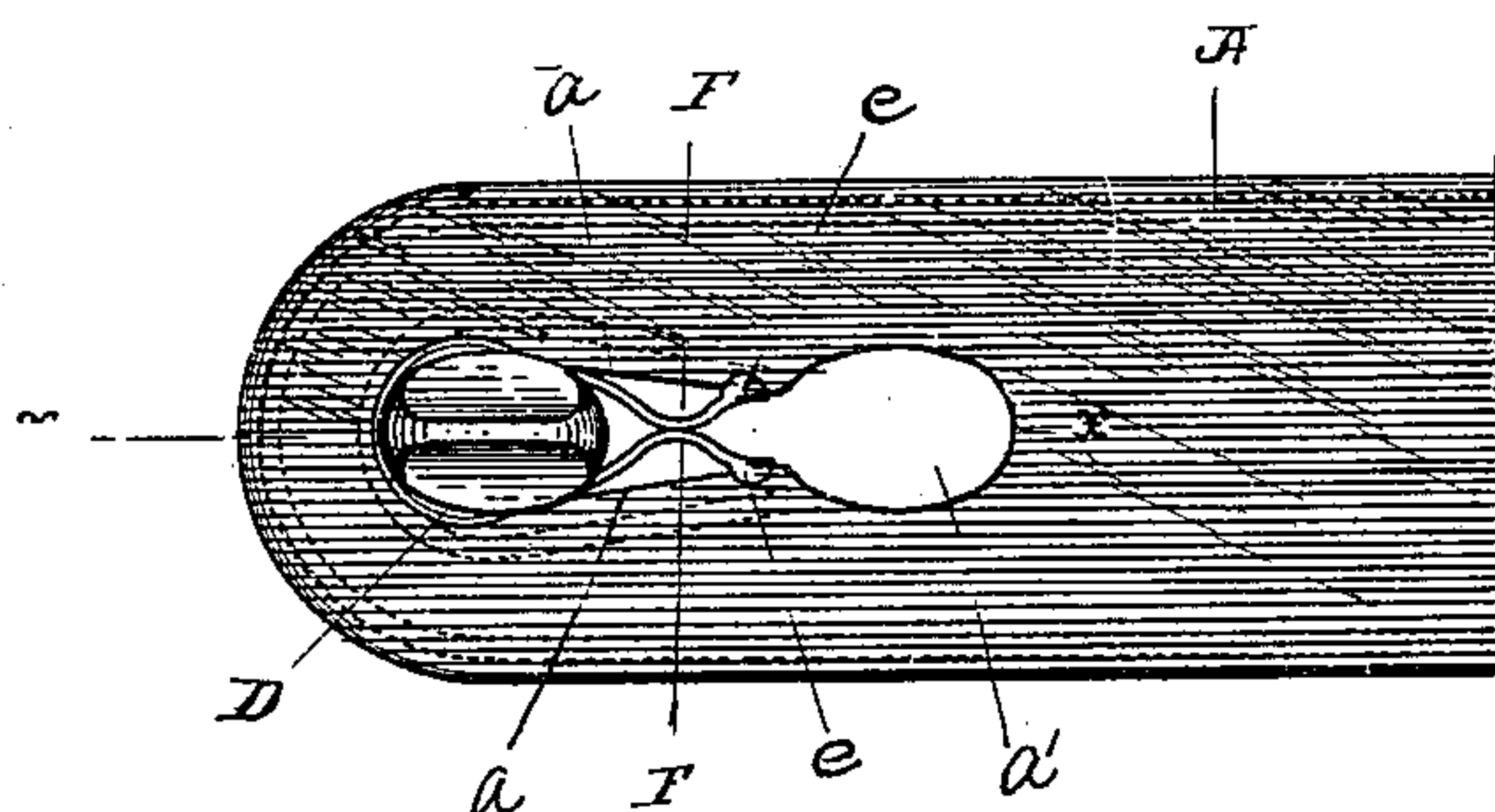


Fig. 2.

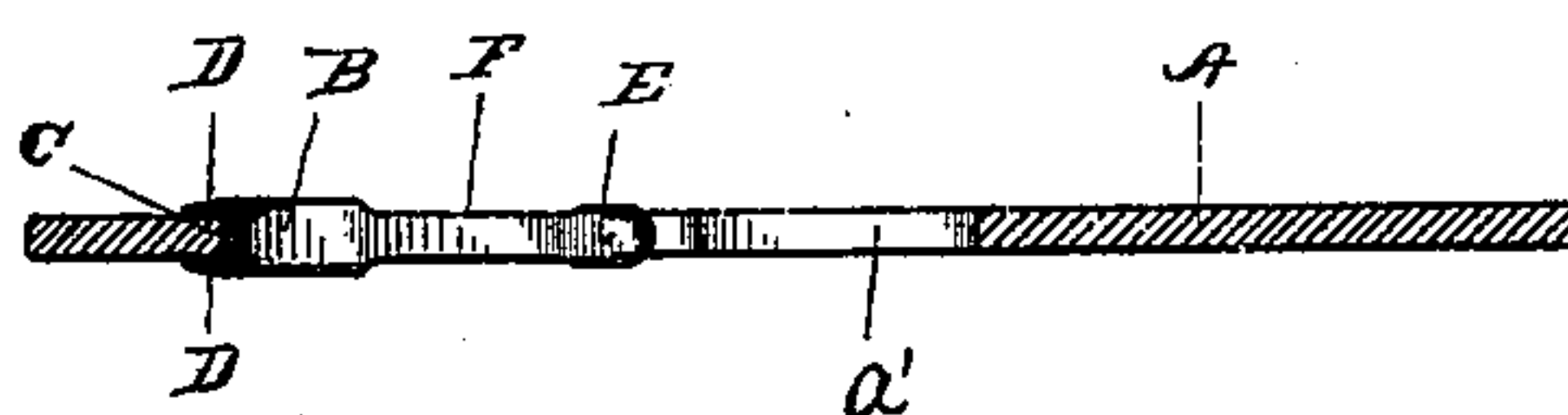


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM P. MURPHY, OF SAN JOSÉ, CALIFORNIA.

TRACE-EYE GUARD.

SPECIFICATION forming part of Letters Patent No. 646,095, dated March 27, 1900.

Application filed April 10, 1899. Serial No. 712,536. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. MURPHY, a citizen of the United States, residing at San José, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Trace-Eye Guards; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to improvements in harness, and more particularly to trace-eye guards; and it consists in the novel construction and arrangement of the parts, whereby the leather of the trace is prevented from tearing and whereby the tug-hooks, bars, or the ends of singletrees are prevented from accidental dislodgment from the eye.

In the drawings, Figure 1 is a perspective view of the end portion of a trace provided with this invention. Fig. 2 is a side view showing the trace connected with a singletree. Fig. 3 is a cross-section of this invention, taken on the lines X X in Fig. 2.

To facilitate the description of the invention with reference to the drawings, the letter A will designate the trace. In the end the trace is provided with an eye, after the manner usual in the manufacture of harness, and said eye communicates by obliquely-approaching walls *a* with an opening *a'*. It is into this eye that the guard constructed in accordance with this invention is forced. The guard consists of the rigid body portion B, which is formed in the shape of an outwardly-open channel in cross-section. This channel C, which is formed by the two sides D D, is preferably constructed of a width to neatly fit upon the leather constituting the trace. Extending from the ends of the body portion and preferably formed integrally therewith are the spring-tongues E E. These tongues are constructed in the form shown in the drawings, having the shoulders or "humps" F F. It is designed that these humps come closely together when the guard is placed in the eye of the trace, the ends of the tongues E E resting in the forward portion of the eye of the trace, against the side of the same, and having flanges *e*, which overlie the walls *a* and serve to retain said tongues in position. The free

ends of said tongues thus have longitudinal movement along the said walls, whereby when the tongues are separated the action tends to force the body portion against the rear end of the eye. Furthermore, said obliquely-approaching walls assist in retaining the guard in position.

When the body portion B of the guard has been forced into the eye of the trace, the sides D D, as mentioned, overhang the leather portion to either side of the opening of the eye. If the fit is not neat or if for other reasons it be desired, the outer edges of the sides D D are compressed on the leather, so that the guard body portion is retained rigidly in position. In this position, as shown in the drawings, the spring-tongues E E are contained within the eye of the trace and extend forward from the rear end or the wearing end of the same. The opening *a'* is larger than is the singletree-receiving opening of the eye, said opening of the eye being reduced by reason of the thickness of the material of the guard.

In inserting the end of the singletree into the trace it will now be observed that it is inserted in the opening *a'* and by spreading the humps F F is then drawn backward toward the body portion B. In passing the humps F F the spring-tongues E E yield and afterward close in front of the singletree. The singletree is now engaged by the trace-eye in such a manner that in order to be withdrawn therefrom it is necessary to spread the humps F F in leaving the eye. This it is unable to do without the necessary force being applied to draw it forward. This could not be applied by accident.

In the drawings I have shown a trace, when provided with this invention, as applied to the end of a singletree. In this usage it will be observed that the ordinary pin or retaining device which is usually applied to the end of a singletree after placing the trace over the hook or knob on the end of the singletree is dispensed with.

Having thus described this invention, I claim—

1. The combination with a trace provided with an eye which communicates by means of obliquely-approaching walls with an opening of larger size than is the singletree-receiving

opening of said eye, of a trace-eye guard comprising a body portion secured in and protecting the rear or wearing end of the eye, and spring-tongues extending from opposite ends
5 of the said body portion toward the said opening, said tongues being each provided with a shoulder extending toward the shoulder of the opposite spring-tongue and serving to prevent
10 accidental displacement of the singletree, the free ends of said tongues bearing against the said obliquely-approaching walls and having longitudinal movement thereon; substantially as described.

2. The combination with a trace provided
15 with an eye which communicates by means of obliquely-approaching walls with an opening of larger size than is the singletree-receiving opening of said eye, of a trace-eye guard comprising a body portion secured in and protect-

ing the rear or wearing end of the eye, and 20 spring-tongues extending from opposite ends of the said body portion toward the said opening, said tongues being each provided with a shoulder extending toward the shoulder of the opposite spring-tongue and serving to prevent 25 accidental displacement of the singletree, each of said tongues having flanges which overlie the edges of the said obliquely-approaching walls and serve to retain said
30 tongues in position; substantially as described.

In testimony whereof I have hereunto set my hand this 3d day of April, 1899:

WILLIAM P. MURPHY.

Witnesses:

W. KENNEDY,

H. A. BLANCHARD.