

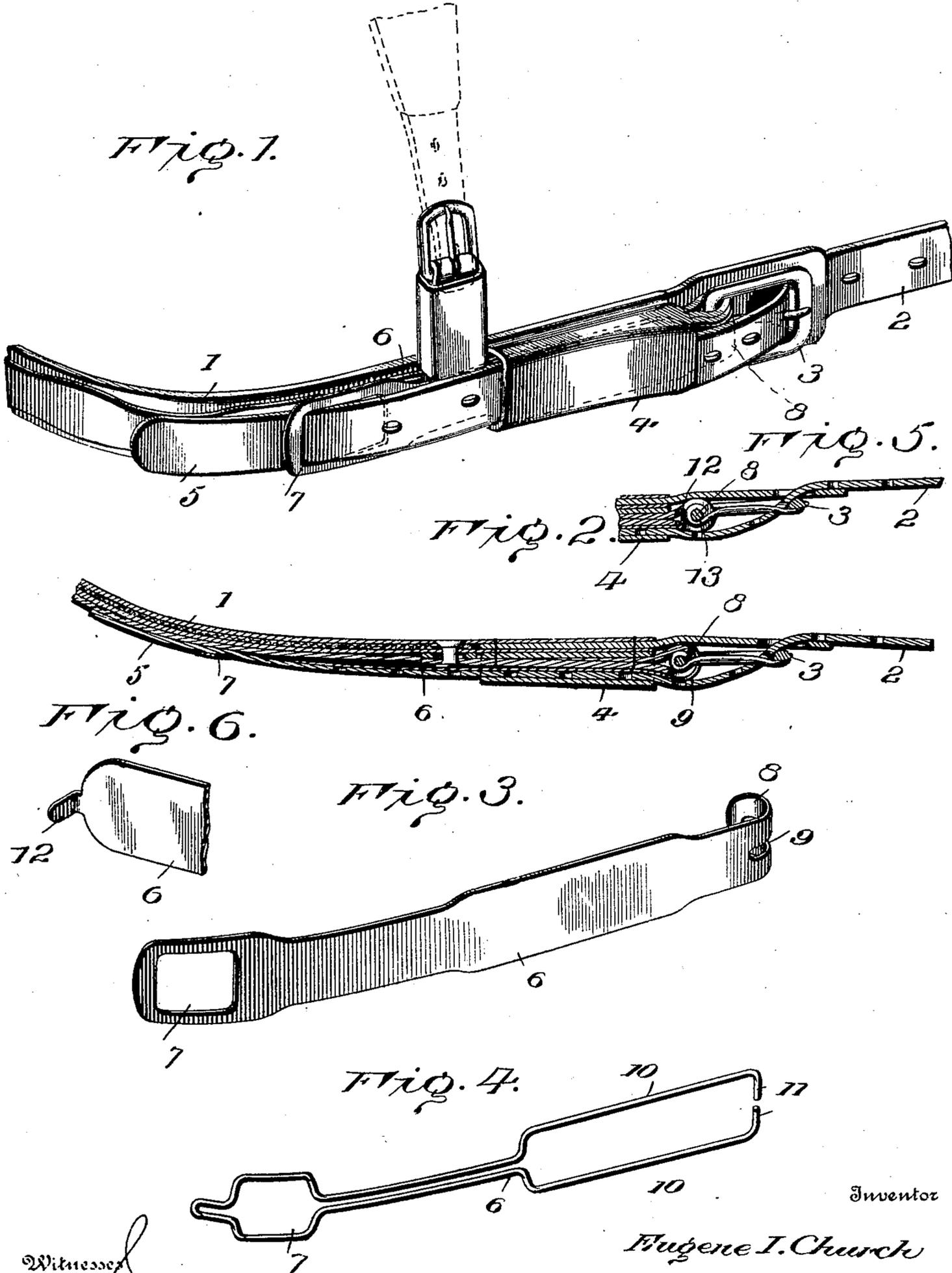
No. 689,459.

Patented Dec. 24, 1901.

E. I. CHURCH.  
STRAP END RETAINER.

(Application filed Feb. 23, 1901.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

EUGENE I. CHURCH, OF WEST HANOVER, MASSACHUSETTS.

## STRAP-END RETAINER.

SPECIFICATION forming part of Letters Patent No. 689,459, dated December 24, 1901.

Application filed February 23, 1901. Serial No. 48,556. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE I. CHURCH, a citizen of the United States, residing at West Hanover, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Trace-Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention provides a simple and effective means for supporting the loose ends of traces and holding them close against the breast-strap, thereby obviating the feature which detracts from the trim appearance which is essential to a fine rig or turnout.

Traces are generally of a length to fit the largest-sized horse, and when a small horse is used or the traces stretch the shortening of the traces results in lengthening the end projecting beyond the buckle and adjacent billet-loop. These ends flapping and swaying with every motion of the horse present an awkward appearance and detract materially from the neat appearance of the team. This invention provides a holder for these loose ends to keep them close against the breast-strap and prevent their swaying and flapping, which is objectionable, as stated.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the end portion of a breast-strap and trace, showing the application of the invention. Fig. 2 is a longitudinal section of the parts shown in Fig. 1. Fig. 3 is a perspective view of one form of holder. Fig. 4 is a view similar to Fig. 3, showing the holder constructed of wire. Fig. 5 is a longitudinal section showing a different construction and manner of applying the holder. Fig. 6 is a perspective

view of the inner end portion of the holder shown in Fig. 5.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The breast-strap 1, trace 2, buckle 3, and loop 4 are well-known parts of harness for comparatively light draft vehicles and are illustrated to demonstrate the application of the invention. The loose end of the trace is indicated at 5, and is shown supported by the holder 6, which may be a plate or flat strip, as illustrated most clearly in Fig. 3, or formed of wire, as shown in Fig. 4. This holder 6 is attached to the strap adjacent to the buckle 3 and passes through the loop 4, and its outer end is provided with an eye 7, through which the loose end 5 of the trace is passed. The holder is curved slightly to conform to the curvature of the breast-strap 1 and press the loose end 5 of the trace thereagainst, so as to give a neat and trim appearance to the harness. The holder is possessed of sufficient spring, so as to readily conform to any variation in the curvature of the breast-strap, and is applied to the latter in such a manner as to be readily detached when not required for use, as when the trace is lengthened, so as to leave but a very short end projecting beyond the loop, which will not fly outward, because of the stoutness of the material from which the trace is formed.

When the holder 6 is formed of a strip or plate of metal, the end opposite that provided with the eye 7 is formed into a hook 8 and is provided with a slot 9, the hook 8 embracing the inner cross-bar of the buckle and the fold of the strap fitted thereto and the slot 9 receiving the tongue of the buckle, as indicated most clearly in Fig. 2.

The holder passing through the loop 4 is retained in place by the end portion of the trace, and when the latter is disconnected from the buckle 3 an inward movement of the holder 6 will suffice to detach it from the buckle and strap. It will thus be seen that the holder can be quickly placed in position when required for use and instantly removed when not required for immediate service.

In the form of holder shown in Fig. 4 the

end portions 10 of the single length of wire from which the device is constructed are adapted to be separated or moved apart to admit of the bent ends 11 being engaged with the fold of the strap adjacent the buckle, said end portions springing inward and serving to hold the bent ends 11 in the space formed between the fold of the strap, as will be readily understood.

10 The holder is adapted for application to harness of any pattern or make and is intended to be variously constructed and when in position receive the loose end of the trace after the latter has been buckled to the strap and the end thrust through the loop.

15 The invention while specially designed for harness is susceptible of a broader application and use and may be employed wherever it is desired to support and hold the loose end portion of a strap so as to prevent its dangling and flapping about and getting in the way, besides detracting from the neat and trim appearance of the connection or strap.

20 In the construction shown in Figs. 5 and 6 the holder 6 has a tongue or lateral extension 12 to enter the tongue-slot 13 of the breast-strap, which slot is extended for this purpose. This holder is free from longitudinal movement and can be placed in position and removed without requiring the detachment of the trace from the buckle. Moreover, it fits closer against the breast-strap and presents a neater appearance.

35 Having thus described the invention, what is claimed as new is—

1. The combination with a strap, a buckle secured to the end thereof, a second strap having an end portion making adjustable connection with said buckle and overlapping the buckle-carrying strap, of a holder for said

overlapping end portion, said holder being secured to the buckle-carrying strap at a point adjacent the buckle and having a portion extending parallel with and lying close against the said buckle-carrying strap and provided with engaging and supporting means for the said overlapping portion of the second strap, substantially as set forth. 45

2. The combination with a strap, a buckle secured to the end thereof, a second strap having an end portion making adjustable connection with said buckle and overlapping the buckle-carrying strap, of a holder for said overlapping end portion, said holder being detachably secured at one end to the buckle-carrying strap at a point adjacent the buckle and having a portion extending parallel with and lying close against the said buckle-carrying strap and provided with a loop at its opposite end to receive and support the said overlapping portion of the second strap. 55 60

3. The combination with a breast-strap, a buckle at the end thereof, and a trace making adjustable connection with the said buckle and having an end portion overlapping the breast-strap, of a spring-metal holder for said overlapping end portion, said holder being secured to the breast-strap at a point adjacent the buckle and curving longitudinally and having a portion extending parallel with and lying close against the said breast-strap and provided with means to engage with and support the overlapping portion of the trace, substantially as described. 65 70

In testimony whereof I affix my signature in presence of two witnesses. 75

EUGENE I. CHURCH. [L. S.]

Witnesses:

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