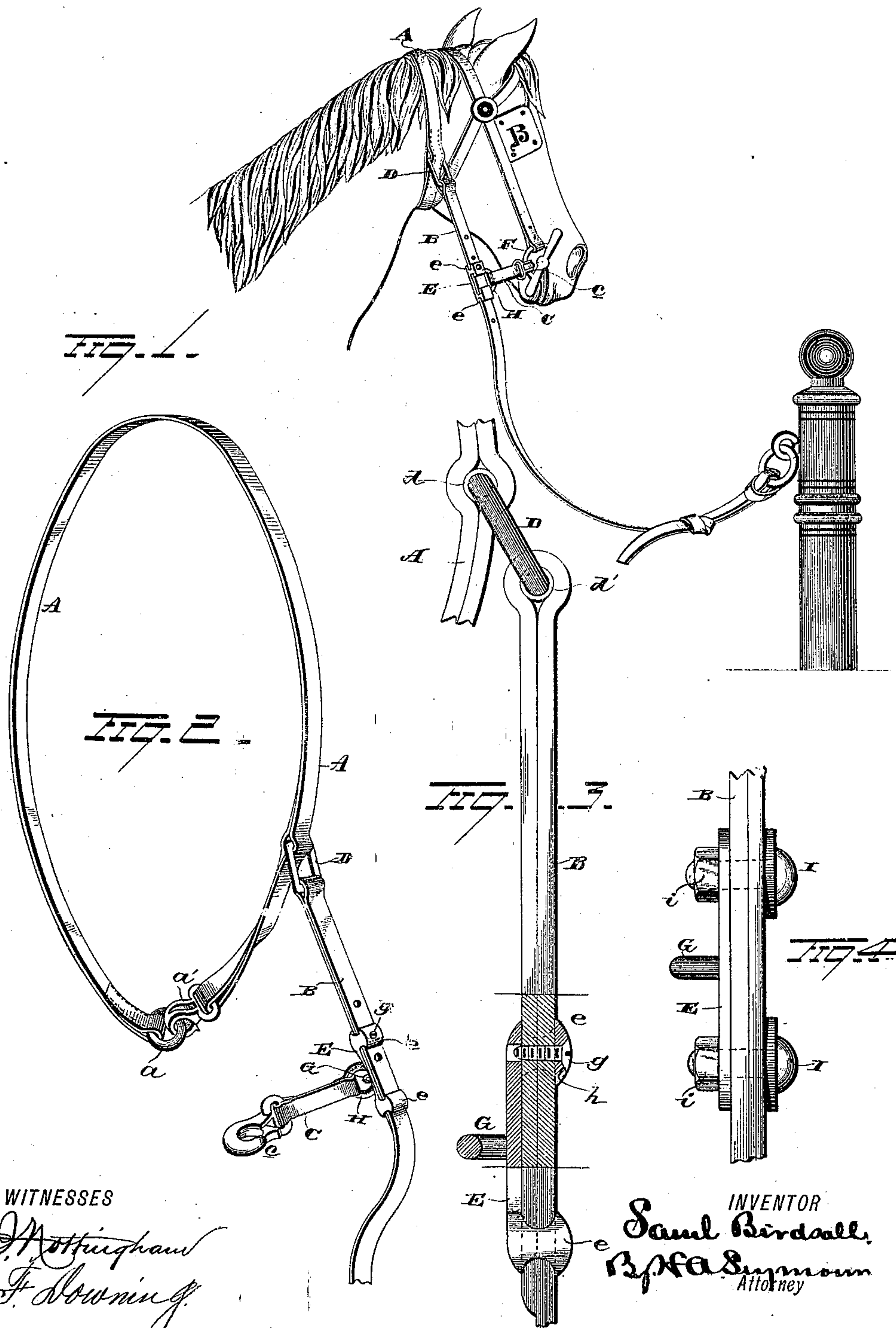


(No Model.)

S. BIRDSALL.
HITCHING STRAP.

No. 332,779.

Patented Dec. 22, 1885.



WITNESSES

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SAMUEL BIRDSALL, OF SUSQUEHANNA, PENNSYLVANIA.

HITCHING-STRAP.

SPECIFICATION forming part of Letters Patent No. 332,779, dated December 22, 1885.

Application filed July 9, 1885. Serial No. 171,059. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL BIRDSALL, of Susquehanna, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Hitching - Straps; 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.

My invention relates to an improvement in hitching-straps.

In Letters Patent No. 300,561, granted me June 17, 1884, I described a hitching-strap consisting of a neck-strap, a tie-strap secured thereto, and a brace-strap for connecting the tie-strap with the bit or bridle ring. The brace-strap was here shown pivotally connected to the tie-strap by means of a bolt provided with a thumb-nut and washer. This connection, while fairly practicable under ordinary circumstances, proved unsatisfactory in general use, as it was found that the strain upon the pivotal bolt, when from any cause the horse set back upon the hitching-strap, was liable to enlarge the hole through which the pivotal bolt passed, and thereby weaken or destroy the snugness of the connection, while the thumb-nut had something of a clumsy appearance. It was also liable to get out of order by the loosening of the thumb-nut.

On January 13, 1885, Letters Patent No. 310,643 were granted me for an improvement upon the construction above outlined, consisting in forming the connection between the brace-strap and tie-strap by providing the tie-strap with a clasp having end loops adapted to embrace the entire strap, and provided with a centrally-located stud, on which the flat shank of a loop attached to the brace-strap was pivotally secured. This device, while it provided for the deficiencies of the former connection, was found to be somewhat defective in the following respect: When the shank of the loop on the brace-strap dropped into a position parallel with the tie-strap, and a sudden jerk was exerted on the brace-strap in a direction perpendicular or at right angles to the clasp, it was liable to bend the

shank of the said loop or the stud, or possibly break or weaken them.

The object of my present invention is to provide a simple and inexpensive means of connecting the brace-strap to the tie-strap, which shall be free from the former objections, and to further provide an improved connection between the neck-strap and tie-strap for preventing the wear.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the hitching-strap in position for use. Fig. 2 is a detached view of the same; and Fig. 3 is a detached view of the connection between the brace-strap and tie-strap, called the "coupling." Fig. 4 is a modification.

A represents the neck-strap, B the tie-strap, and C the brace-strap, the whole forming the hitching-strap. The neck-strap A is adapted to embrace the neck of the horse, and is conveniently provided with a ring, *a*, on one end, and with a snap-hook, *a'*, on the other end for adjusting it on the neck. About five inches (more or less) from one of the ends of the neck-strap, preferably the one with the snap-hook attached, a loop or square, D, is attached. The loop or square D is constructed with two parallel sides, one of which is inserted between the two parts of leather composing the neck-strap at the point of attachment, and is provided with an anti-friction sleeve or roller, *d*, to prevent the wear on the strap and allow the loop or square a free rocking motion. The opposite side of the loop or square D is also provided with a similar sleeve or roller, *d'*, and to this side or end of the loop or square the end of the tie-strap B is secured.

To give strength and afford a solid bearing for the coupling E the end of the tie-strap B is turned under and extends a considerable distance toward the free end of the strap, being firmly stitched to the main portion and tapered at the end to make a neat finish. At such a distance from the secured end of the tie-strap as to bring it on a horizontal plane

with the bit or bridle ring F the coupling E is firmly secured. The coupling E consists, preferably, of a firm metallic plate provided with a loop, *e*, at each end adapted to fit and
 5 closely embrace the two parts of the tie-strap. The plate portion of the clasp of the coupling is provided at or near its center with an eye or staple, G, formed integral therewith or firmly secured thereto, in which a ring, H, is
 10 attached. The coupling is conveniently locked in the desired sliding adjustment on the strap by means of a screw, *g*, which extends through a perforation, *h*, in one of the end loops of the clasp, and thence through the strap into a per-
 15 foration in the plate; or the clasp may be locked by a small bolt with nut, or by a stud upon the clasp fixed or removable, as may be desired. The brace-strap C is secured at one
 20 end to the ring H, and is provided at the other end with a snap-hook, *c*, adapted to engage the bit or bridle ring F. This method of attaching the brace-strap to the coupling prevents any liability of the latter becoming cramped or subjected to undue strain, and
 25 allows the said brace-strap to turn to any desired angle and readily swing to either side, thus admitting of its attachment to the ring at either end of the bit as freely as the construction hitherto employed. It can, more-
 30 over, be manufactured at a reduced cost and will prove more durable. The attachment of the tie-strap at a point a short distance from the connected ends of the neck-strap will throw the said connection of the neck-strap
 35 to one side of the horse's neck, and will thereby render the detachment of the ends from accident or failure of the spring in the snap-hook to act, unlikely to occur, the strain upon the two parts acting automatically to hold
 40 them in a locked position.

The modification represented in Fig. 4 con-

sists in providing the plate portion of the coupling with perforations near its ends, and securing it to the tie-strap by means of a pair of bolts, I, provided with draw-nuts *i* and
 45 suitable washers. This construction is somewhat more clumsy than that hereinbefore described, but may be produced at a slightly-reduced cost, and answers well for a cheaper grade of strap.

It is evident that other changes might be resorted to in the form and construction of the coupling and its locking devices, and also in other parts of the apparatus described
 55 without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters
 60 Patent, is—

1. The combination, with a neck-strap and a tie-strap secured thereto, of a plate adjustably secured to the tie-strap and provided with an eye, a ring secured within the eye and
 65 carrying a brace-strap, and a snap-hook secured to the free end of said brace-strap, substantially as set forth.

2. The combination, with a neck-strap, of a tie-strap secured to the neck-strap by means
 70 of a loop or square having two parallel sides supplied with anti-friction rollers, and a brace-strap adapted to connect the tie-strap to the bit or bridle ring at either side of the horse's mouth, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL BIRDSALL.

Witnesses:

J. A. SMITH,

A. S. BENEDICT.