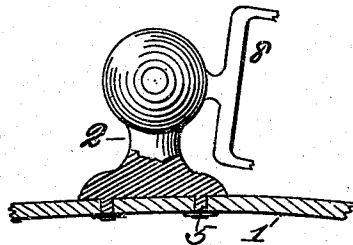
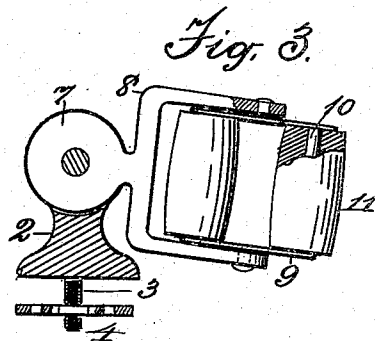
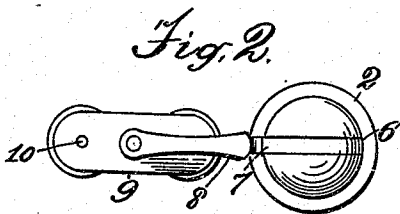
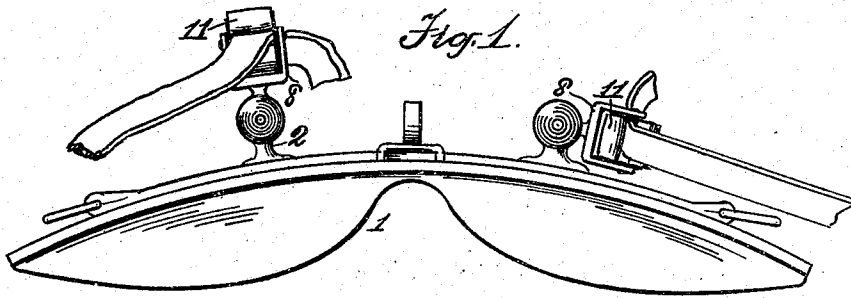


F. BUERKLE.
LINE ROLLER.

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930,591.

Patented Aug. 10, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

FRED BUERKLE, OF ALLISON, IOWA.

LINE-ROLLER.

No. 930,591.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed February 18, 1909. Serial No. 478,755.

To all whom it may concern:

Be it known that I, FRED BUERKLE, a citizen of the United States, residing at Allison, in the county of Butler and State of Iowa, have invented certain new and useful Improvements in Line-Rollers, of which the following is a specification.

This invention relates to harness, and has for its object to produce a roller or runner for the harness reins, adapted to permit the reins to run freely through the runner regardless of their angle of draft with respect to the heads of the team.

For convenience in the description following the device will be generally referred to as a line roller, this being the common name for devices of this nature. The character of the device will fully appear in the description and claim following, reference being had to the accompanying drawing in which—

Figure 1 is a rear view illustrating a back pad with a pair of my improved line rollers attached thereto, the lines being in differing positions to illustrate the mobility of the line roller. Fig. 2 is a top view of one of the line rollers. Fig. 3 is an enlarged view of the same, as seen from the front or rear, the post thereof being in section. Fig. 4 is a similar view illustrating a modified form of post.

The device is designed to take the place of the ordinary terret and to permit greater freedom of movement on the part of the rein, or "line", by providing antifriction rollers to take the diagonal stress of the rein. My improvement embodies such a construction as will allow these rollers to swing at any angle corresponding to the diagonal pull of the rein, and thus permit the rein to slip back and forth.

Referring now to the drawing:—1 designates an ordinary back pad to which is suitably secured the part of my device which may be called the post 2. This may be attached to the back band in the usual way by means of a threaded stud 3, engaging a threaded bur 4, or the same may be riveted

by means of one or more studs 5, as shown in Fig. 4. The latter construction is specially more applicable to flat back straps, and the former to padded ones, as illustrated in Fig. 1. In the middle of this post at the upper enlarged end is a slot 6, and in this is pivoted the head 7, of a stirrup 8. Between the arms of this stirrup is pivoted a pair of roller plates 9, connected by cross pins 10, on which are revolvably mounted small rollers 11, preferably of hard wood.

The rein may be threaded through the device, either between the stirrup and both of the rollers, or preferably, between the rollers, as illustrated in Fig. 1. The action of the device is clearly shown in said Fig. 1, it being seen that the stirrup swings on its pivot to correspond with the angle at which the reins are drawn at any time. Thus, as shown at the right of said figure, the driver is supposed to stand at the right as in driving a team while walking along the ground at the side. In this case the stirrup swings sideways and the rollers are presented flatwise to the rein. The same action takes place in case the driver is behind and relatively lower than the team, and conversely if he sits much higher than the team, as when mounted on a load of hay or the like.

With slight modification in the post attachment, the device may be applied to hames, as well as to back-pads or straps.

Having thus described my invention I claim:

In a line roller the combination of a post adapted for attachment to a back band or pad, a stirrup pivoted therein, roller holding plates pivoted between the arms of said stirrup, and a pair of rollers revolvably mounted between the said plates.

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

FRED BUERKLE.

Witnesses:

H. FOLKEN,
R. E. THOMPSON.