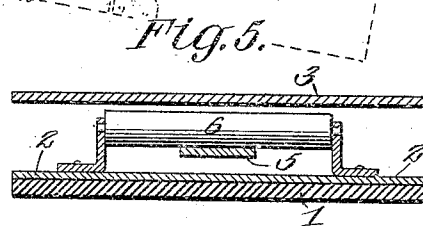
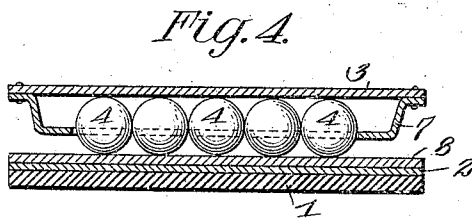
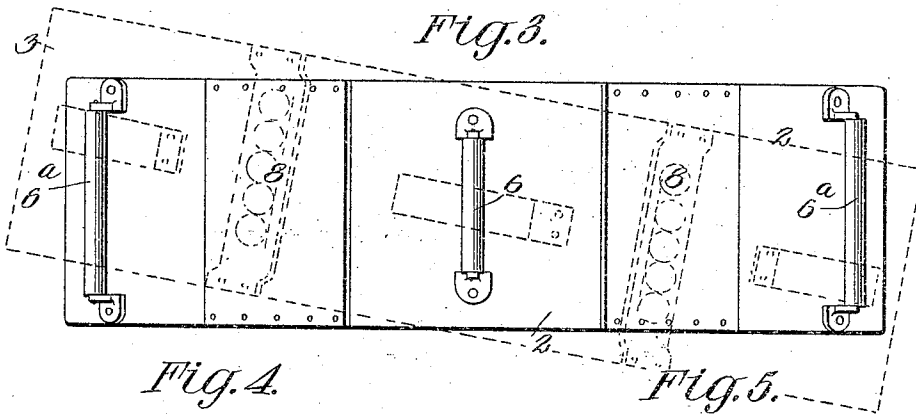
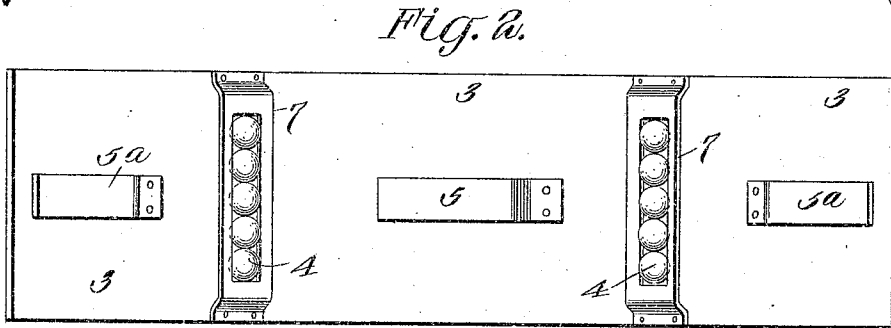
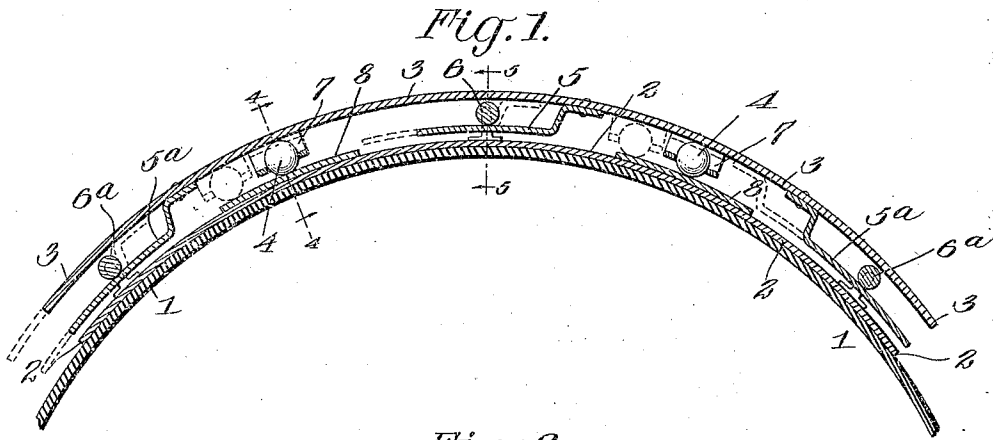


L. P. OVERSHINER.
 HARNESS BACK PAD AND COLLAR PAD.
 APPLICATION FILED OCT. 12, 1909.

959,381.

Patented May 24, 1910.



WITNESSES
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UNITED STATES PATENT OFFICE.

LINCOLN P. OVERSHINER, OF SAN DIEGO, CALIFORNIA.

HARNESS BACK-PAD AND COLLAR-PAD.

959,381.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed October 12, 1909. Serial No. 522,227.

To all whom it may concern:

Be it known that I, LINCOLN P. OVERSHINER, a citizen of the United States, and a resident of San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Harness Back-Pads and Collar-Pads, of which the following is a specification.

My invention is an improvement in that class of back-pads which are provided with a movable anti-friction bearing or top plate.

The invention is embodied in the new and superior construction of the pad as herein-after set forth, and illustrated in the accompanying drawing, in which—

Figure 1 is a longitudinal section of my improved pad; Fig. 2 is a plan view of the under side of a top or bearing plate; Fig. 3 is a plan view of the bottom plate; and Figs. 4 and 5 are cross sections along the line 4—4 and 5—5, respectively, of Fig. 1.

In Fig. 1, the numeral 1 indicates a leather back-strap, 2, a metal plate riveted thereto, 3, a metal top or bearing plate, 4, anti-friction balls held in slotted keepers secured to the under side of the top plate, and 5 and 5^a, indicate tongues or fingers that engage rollers 6 and 6^a mounted rotatably on supports fixed to the back-plate 2.

It will be understood that the back strap 1 may form an attachment of the pad which in use lies in direct contact with the back of the animal on which the pad is used. It will also be understood that the top or bearing plate 3 will be provided with leather or other loops adapting it for application of a bearing strap, which, in practice, will be connected with the shafts of the vehicle and by which the weight will be supported. The rollers, 6 and 6^a, are supported in brackets riveted to the metal plate 2 and leather strap 1. The roller 6 is arranged centrally, and the rollers 6^a on each side thereof. The roller 6, as shown in Fig. 3, is somewhat shorter than the side rollers 6^a. The several tongues 5 and 5^a are considerably narrower than the length of the rollers, and, since they underlie the latter, it is obvious that they will permit considerable lateral play or oscillation of the bearing plate 3. The central roller 6 limits the lateral movement of the bearing plate, 3, at the middle of its length, but permits the ends of the same a wider movement—see especially Fig. 3, where

dotted lines indicate a side movement or oscillation of the plate 3.

The endwise movement of the bearing plate 3 with its attachments is limited by engagement of the tongues or fingers 5^a with the rollers 6^a, as will be understood from the dotted lines in Fig. 1. In other words, the endwise movement of the bearing plate 3 is limited by contact of the rollers 6^a with the shoulders of the tongues or fingers 5^a. The anti-friction balls 4, held in slotted keepers 7 which are arranged transversely of, and attached to, the under side of the bearing plate 3, rest and travel upon wear-plates 8, which are secured to the metal back-plate 2.

By the above described construction, arrangement, and combination of parts I produce a back-pad which is light yet duly flexible, and which almost entirely relieves the friction between the portion resting in direct contact with the back of the animal and the portion to which the weight is applied by a strap or other means. The top plate is so arranged as to be limited in its endwise and lateral movement within certain limits. The weight of the pad as a whole is comparatively small.

It will be understood that substantially the same construction and arrangement of parts employed to produce a back-pad is applicable in the construction of collar-pads.

What I claim is:

1. The improved pad for the uses specified, comprising a back-strap, a back-plate secured thereto and having anti-friction rollers, a movable top or bearing plate having tongues engaging the aforesaid rollers and anti-friction bearings consisting of balls held in keepers on the under side of said bearing plate, substantially as described.

2. The combination, with the back-plate having transverse rollers, of the top or bearing plate having tongues projecting beneath said rollers and adapted to engage the same when the back plate is moved a certain distance, substantially as described.

3. The combination, with the back-plate having rollers arranged transversely and the central one made shorter than the others, of the bearing-plate having tongues projecting beneath the top of the rollers and made narrower than the length of the rollers and provided with shoulders adapted for contact with the rollers whereby the lateral oscilla-

tion and endwise movement of the bearing-plate are limited as described.

4. The combination, with the back-plate having transverse rollers arranged on the
5 side portions, and a bearing-plate having tongues projecting outward and beneath the said rollers, whereby the bearing-plate is held to the back-pad and limited in its end-
wise movement, substantially as described.

10 5. The combination, with the back-plate, of a bearing-plate having slidable keepers

which hold it to the back-plate and yet permit endwise and lateral movement of said bearing-plate, the latter being provided on each side of its middle with transverse rows
15 of anti-friction balls and slotted keepers for holding them in due position, as shown and described.

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Witnesses:

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