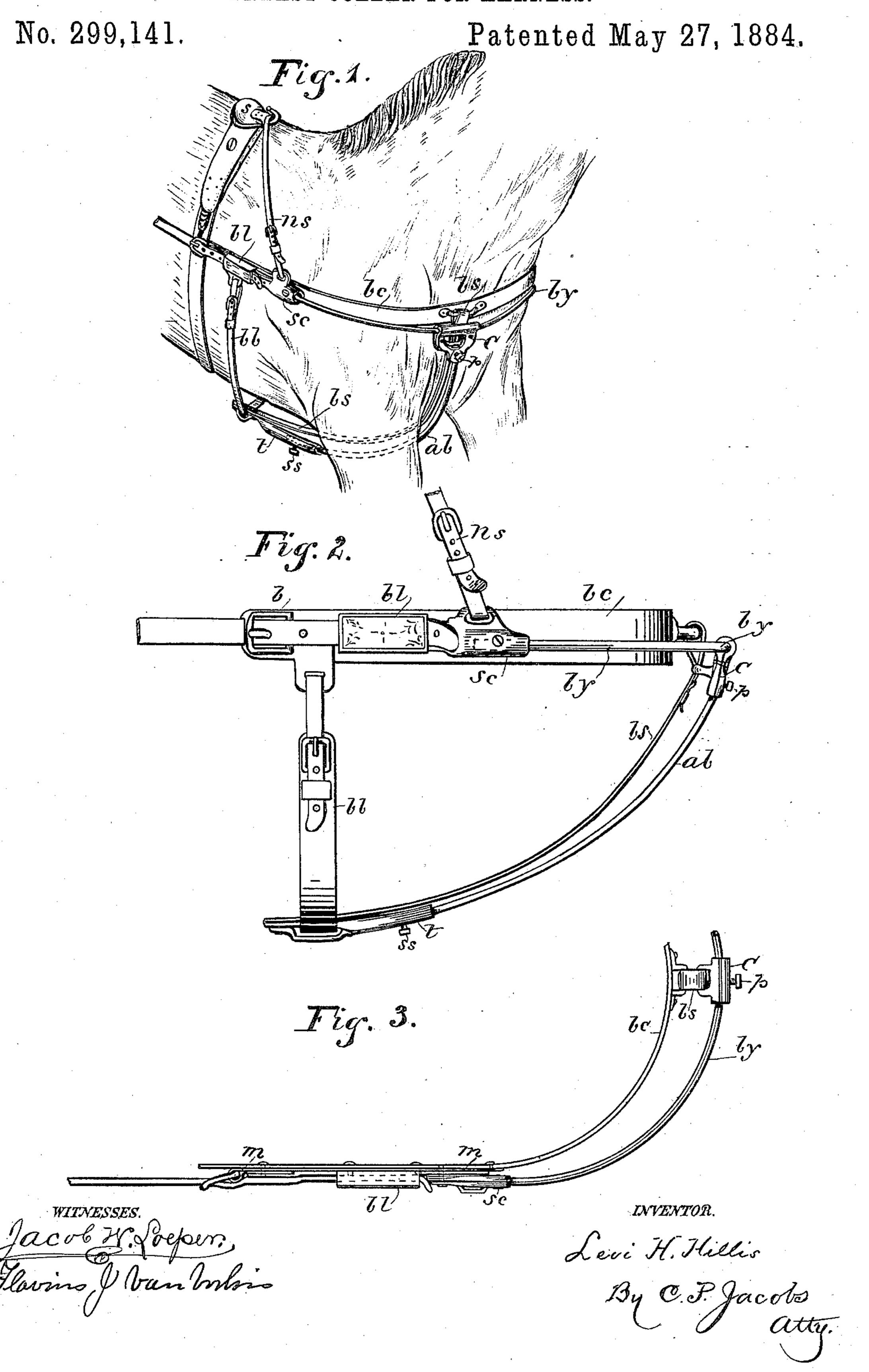
L. H. HILLIS.

BREAST COLLAR FOR HARNESS.



United States Patent Office.

LEVI H. HILLIS, OF KOKOMO, INDIANA.

BREAST-COLLAR FOR HARNESS.

SPECIFICATION forming part of Letters Patent No. 299,141, dated May 27, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, Levi H. Hillis, a resident of Kokomo, Howard county, Indiana, have made certain new and useful Improvements in Breast-Collars for Harness, a description of which is set forth in the following specification, reference being made to the accompanying drawings, in the several figures of which like letters indicate like parts.

breast-collar for harness, adjustable so as to fit different-sized horses, securely stayed from beneath, and fastened at the sides by adjustable clamps, so as to permit the breast-yoke and brace to be removed when it is desired to use the gear as a single harness. I accomplish these results by the device herein shown and described.

In the drawings, Figure 1 represents a perspective view of a portion of a horse's body, showing my device fitted upon it, the belly-band loosened, so as to allow the adjustable brace to be moved near the front side and brought into view. Fig. 2 is a side view of my device, and 25 Fig. 3 is a top view of the box-loop and a part of the breast-voke

of the breast-yoke. In detail, bc is the breast-collar, having buckles b fastened at each end, a metal strip, m, having an opening through which the tongue 30 of the buckle passes, being placed on the side of the breast-collar, and a box-loop having a strip of metal inside and against its bottom is then placed against the end of the collar and over the strip m, and screws are then driven 35 through the collar from the inside, passing through the strip m and the box-loop bottom and metal lining, holding the loop firmly to the breast-collar. The metal lining-strip of the loop passes beyond the loop to the buckle and 40 over the return of the strip m, and these are secured together by another screw, also driven through the breast-collar from the inside. The front end of the metal lining of the loop is formed into the lower half of the side clamp, 45 sc, and the outer half of this clamp has an opening to receive the end of the neck-strap ns, and the two parts of the clamp sc are shaped to receive and hold the end of the breast-yoke by, the parts, when in place, being secured by a 50 screw, by loosening which the end of the breast-

yoke by may be taken out, and the whole breast-

yoke and its appendages may be removed!

whenever it is desired to use the gear as a single harness. This breast-yoke is made of metal, and secured at each end between the halves 55 of the side clamps, sc. In front it passes through an eye formed by the union of the halves of a metal clamp, c, united by screws on either side below the eye, and having a projection below adapted to receive the upper end of the ad- 60 justable brace ab, which has an eye formed in it, through which a pivot, p, passes, and is screwed into the lower half of clamp c. This pivot allows a loose lateral movement of the adjustable brace ab. The lower end of this 65 brace fits into a tube, t, having a set-screw, ss, by means of which the brace ab is secured at any desired point in the tube t. An extension of this tube passes under the horse, and the end of the breast-strap bs is riveted to the upper and 70 a loop to the lower side of this extension. Through this loop the belly-band bb passes, holding it up, and the brace ab, being thus secured at either end, keeps the breast-yoke firmly up in place, and braces it firmly in con- 75 nection with the end fastenings. The breaststrap is fastened in front through a loop in the breast-collar. The neck-strap is secured in an opening to each of the side clamps, and when used is drawn back and looped over the sad- 80 dle-hook.

If desired, the side clamps may be dispensed with and the breast-yoke extended and rigidly connected with the trace-buckle; but by using these clamps it is easy to remove the breast-yoke and adjustable brace, slipping the bellyband through the loop, and the harness can then be used for driving single.

I am aware that iron breast-yokes have been used in connection with breast-collars, and do 90 not therefore broadly claim them as my invention; but I am not aware that they have ever been used and made adjustable with side clamps or in connection with an adjustable metal brace passing between the legs of the 95 horse, as herein shown and described.

My device thus braced and secured, and pivoted so as to allow a lateral motion, is free from the objections usually made to gear of this class, and constitutes a valuable improve- 100 ment over all old devices.

What I claim, and desire to secure by Letters Patent, is the following, viz:

1. The breast-yoke by, secured by side clamps,

sc, to the harness-collar in the rear, said clamps adapted to be loosened to permit the removal of the breast-yoke, all combined substantially as described.

2. The breast-yoke by, the adjustable brace ab, the clamp c, connecting the two, the tube t, set-screw ss, and the belly-band bb, all com-

bined substantially as described.

3. The box-loop bl, provided with metal lining inside, and the breast-collar bc, having a metal backing, with openings to receive screws, whereby the box-loop may be secured to the breast-collar without stitches, substantially as described.

4. The breast-yoke by, connected by clamp c 15 to the adjustable brace ab, moving in tube t at the rear, the breast-strap bs, neck-strap ns, side clamp, sc, securing breast-yoke to the breast-collar, the belly-band bb, and box-loop bl, secured to breast-collar bc by screws passing 20 through metal plates, all combined substantially as described.

In witness whereof I have hereunto set my

hand this 22d day of November, 1883.

LEVI H. HILLIS.

Witnesses:

C. P. JACOBS, JACOB W. LOEPER.