P. H. Wiedersum,

Harness Saddle.

No. 111,502. Patented Jan. 31. 1871.

Fig. 4

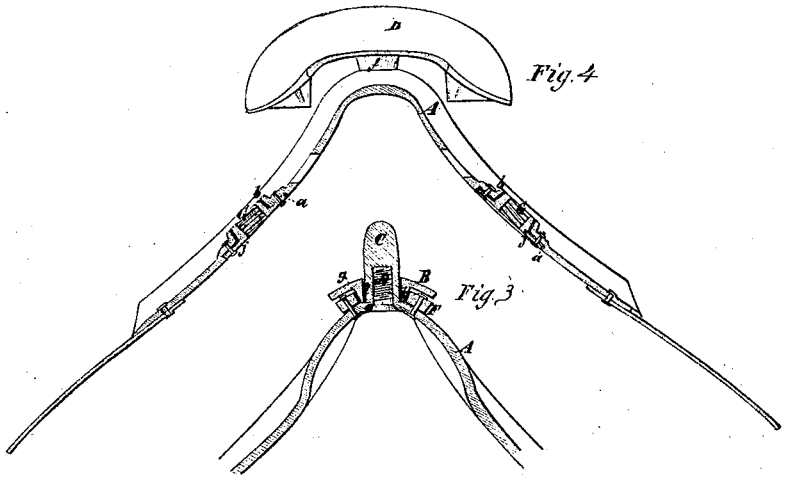


Fig. 3

Fig. 2

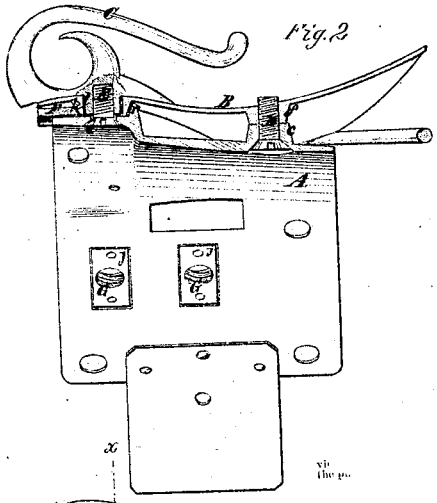
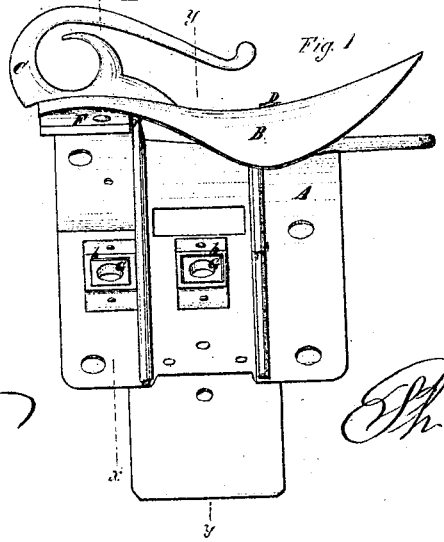


Fig. 1



Witnesses

Henry T. Brown

Fred. Haynes

P. H. Wiedersum

United States Patent Office.

PHILIP H. WIEDERSUM, OF NEW YORK, N. Y.

Letters Patent No. 111,502, dated January 31, 1871.

IMPROVEMENT IN HARNESS SADDLE-TREES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, PHILIP H. WIEDERSUM, of the city, county, and State of New York, have invented certain new and useful Improvements in Harness Saddle-Trees; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a harness saddle-tree, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation referring to the annexed drawing which forms a part of this specification, and in which—

Figure 1 is a side view of my saddle-tree;

Figure 2 is a longitudinal vertical section;

Figure 3 is a transverse vertical section through line *x x*, fig. 1; and

Figure 4 is a similar section through line *y y*, fig. 1.

My saddle-tree is composed of two metal castings or plates, A and B.

The plate A is provided with two ribs, *r r'*, running across the entire plate parallel with each other, and forming between them a groove or smooth recess, in which the back band is allowed to slide freely.

The front central portion of the plate A is made to bulge upward, as shown in fig. 3, so that under no circumstances can the back-bone of the horse come in contact with the same, thereby preventing injury to the horse.

On the interior of the plate A, at a suitable distance above the lower edge, is a rectangular recess, *a*, in the center of which there is a square hole of suitable dimensions.

The plate is here formed with a swell on its exterior to form a box, *b*, which receives the body of a square nut, G, said nut being provided with a flange or plate, *j*, which fits in the recess *a*, and is there secured by rivets.

It is, of course, understood that the square nut G is inserted from underneath, and the terret is then screwed into said nut.

If, by any means, the rivets securing the plate *j* in its position should become loose or broken, the terret will not turn around, as the nut G is square and held in the square hole and box *b* on the main plate A; and if the threads in the nut G should become worn out, the plate *j*, with the nut, can be slipped out without removing the covering of the saddle-tree, and another inserted in its place without riveting, as the box and nut, being square, will retain it in position.

These are the main advantages over the usual round nut in common use, although there are others which I deem it not necessary to mention here.

The recess *a*, with the hole, and box *b*, may be made between the ribs *r r'*, or in front of rib *r*, or in both places, as represented in the drawing.

Near the rear end of the upper portion of the plate A is a round boss, *c*, provided with a hole for the reception of a screw, D, and in the forward portion there is a hole for the reception of the screw E, and on the exterior of the latter portion there is a piece of leather, F, fastened by rivets, and provided with a square hole, *g*, into which the hole *e* opens.

It might here be mentioned that on the saddle-trees now in common use a piece of leather is fastened extending along the entire front edge of the tree.

I use merely a block or small piece, F, of leather, in the center, and also a small strip on each side, thereby lessening the expense, as scraps of leather hitherto deemed worthless may be used with equal advantage as a continuous strip.

The plate B, which forms the cantle, has a boss, *f*, formed on its under side, which, when in place, rests on the boss *c* formed on the plate A, and is provided with a tapped hole to receive the screw D, by which the rear portions of the two plates are secured together.

The cantle has also formed on its under side, near its forward end, a square box, *k*, which fits into the hole *g* in the leather F, and up against the front of the rib *r* on the plate A.

The check-hook C is formed with a concave bearing surface, and has projecting therefrom a square boss, *l*, which is provided with a tapped hole, and fits in the box *k* on the cantle B, and receives the shank of the screw E, by which the whole is firmly secured together.

The square projection *l* on the check hook prevents the same from turning if the screw should become loose by any means, which is a decided advantage over the usual mode of fastening, as it often happens that the check-hook becomes loose and turns as if on a pivot.

It is, of course, not absolutely necessary that the boss *l* should be on the under side of the check-hook. It may be on the upper side of the lower end, which end is then inserted from underneath the front edge of the main plate A, the boss *l* passing upward, and the screw E is inserted from the top.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The cantle-plate B, provided with the square box *k*, as and for the purpose set forth.

2. In combination with the cantle-plate B, provided with the square box *k*, the rib *r*, as and for the purposes set forth.

PH. H. WIEDERSUM.

Witnesses:

HENRY T. BROWN,

FRED. HAYNES.