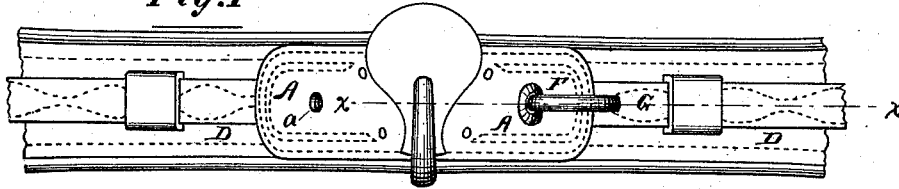


G. W. GRAVES.  
Harness Saddle-Trees.

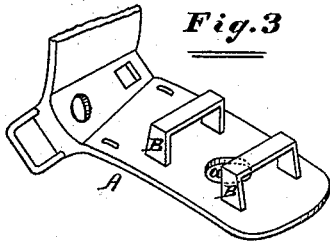
No. 214,772.

Patented April 29, 1879.

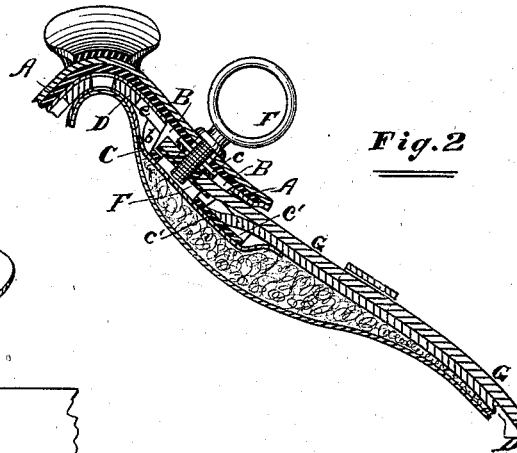
*Fig.1*



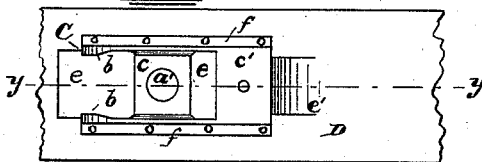
*Fig.3*



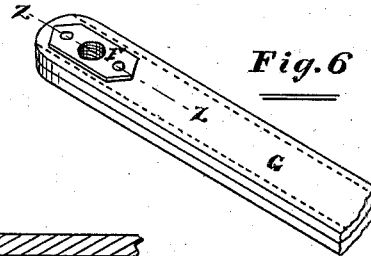
*Fig.2*



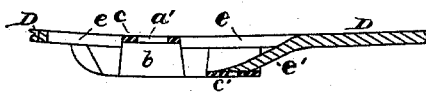
*Fig.4*



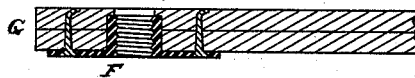
*Fig.6*



*Fig.5*



*Fig.7*



*Attest:*

*S. S. Schoff*  
*Chas. H. Schoff*

*INVENTOR:*

*George W. Graves*  
*By F. F. Warner, his*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

GEORGE W. GRAVES, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO PETER HAYDEN, WILLIAM B. HAYDEN, AND COTTON H. ALLEN, OF SAME PLACE.

## IMPROVEMENT IN HARNESS-SADDLE TREES.

Specification forming part of Letters Patent No. 214,772, dated April 29, 1879; application filed September 16, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE W. GRAVES, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Harness-Saddle Trees, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a top or plan view of a harness-saddle embodying my invention; Fig. 2, a section thereof in the plane of the line *x x*; Fig. 3, a perspective of the looped tree or fork; Fig. 4, a bottom view of the skirt and box attached to the skirt; Fig. 5, a section in the plane of the line *y y*; Fig. 6, a perspective of the upper end of the bearing-strap and of the nut attached thereto, and Fig. 7 a section in the plane of the line *z z*.

Like letters of reference indicate like parts.

The object of my invention is to lessen the labor heretofore required in the manufacture of harness-saddles, to simplify the construction of certain parts, and to render them capable of being easily arranged together and locked firmly in their respective places, as well as to facilitate the act of disconnecting the several parts of the saddle, as will be hereinafter more particularly set forth.

A represents the saddle-tree. This part, with the exceptions hereinafter mentioned, may be made in any well-known or suitable way, being made to receive the terret screws or stems, as shown at *a*.

B B are loops extending downward from the under face of the part A, and arranged across the same, a little way from each other, substantially as shown, the opening *a* being between the loops. C is a box, consisting of the sides *b b*, connected to each other by means of cross bars or webs *c c'*. The web *c* has in it an opening, *a'*, to receive the terret stem or screw, and is flush or nearly flush with one pair of longitudinal edges of the sides *b b*, and the web *c'* is similarly arranged with relation to the opposite pair of edges thereof. A considerable space also exists between the webs *c* and *c'*, measuring longitudinally along the sides *b b*, as shown at *d*.

The loops B B and the box C are the principal features of my invention, and in order

to apply them to use for the purposes set forth I proceed as follows: The skirt D is slotted, as shown at *e*, leaving on the skirt, by preference, a short tongue, *e'*, at the lower end of slot *e*, the cuts producing the tongue being the continuation of the longitudinal cuts made to produce the slot.

I apply the box C firmly to the lower face or side of the skirt, arranging the box so that the web *c* will extend across the central part of the slot *e*, and so that the web *c'* will be nearest the lowest end of the slot *e*, as well as in a lower plane than the web *c*, measuring from the skirt to the web.

In order that the box C may be firmly fastened with facility to the skirt, I deem it preferable to make on the box the flanges *f f*, perforated to receive either nails or stitches; and in order that the web *c* may be flush with the upper face of the skirt, the web may extend a little way above the sides or upper edges of the box; but this nicety of construction, though preferable, is not absolutely essential.

I arrange the terret-nut F upon the upper end of the bearing-strap G, or in a box fastened thereto; and in order to fasten all the parts together, the skirt, with the box C attached thereto, is arranged underneath the tree A in such a manner that the web *c* will pass up between the loops B B. The upper end of the bearing-strap, with the terret-nut thereon, is then passed above the web *c'* and below the loop *c*, and also into the loops B B. To fasten all the parts together firmly it is now only necessary to screw the terret into its nut. It will also be perceived that in order to separate the parts nothing is to be done except to unscrew the terret and draw out the strap G. The passage of the strap G into the box and loops holds or locks the skirt to the tree or fork A, and the terret-screw draws the parts tightly together and prevents the accidental removal of the strap G.

These parts are simple in construction, and facilitate the work of making and repairing saddles of which they are a part.

The tree or fork A and the box C, when made and adapted to each other substantially in the manner described, require nothing further to

be done by harness-makers relating to construction, it being only necessary to arrange these parts properly with relation to each other in the saddle, and to adapt the skirt and bearing-strap to be used in connection therewith, as described.

It will be perceived that the results described may be accomplished by means of only one loop, B, though not as satisfactorily as by two, and I deem the lowest loop the more important. I do not, therefore, here intend to restrict myself to the employment of both loops for the purposes set forth; but,

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

A harness-saddle tree, A, provided with two or more loops, B B, extending downward from

the under side thereof, and arranged near the terret-openings therein, in combination with the independent box C, provided with the sides *b b*, connected to each other by means of the cross bar or web *c*, having therein the terret-opening *a'*, and extending from the opposite upper edges of the said box, and by means of one or more cross bars or webs, *c'*, extending from the opposite lower edges of the said box, and arranged far enough laterally from the bar or web *c* to admit of the loop B between the said upper and lower bars or webs, substantially as and for the purposes specified.

GEORGE W. GRAVES.

Witnesses:

F. F. WARNER,

JESSIE E. STUART.