(No Model.)

# A. F. DUVALL.

## HARNESS SADDLE TREE.

No. 368,913. Patented Aug. 23, 1887.

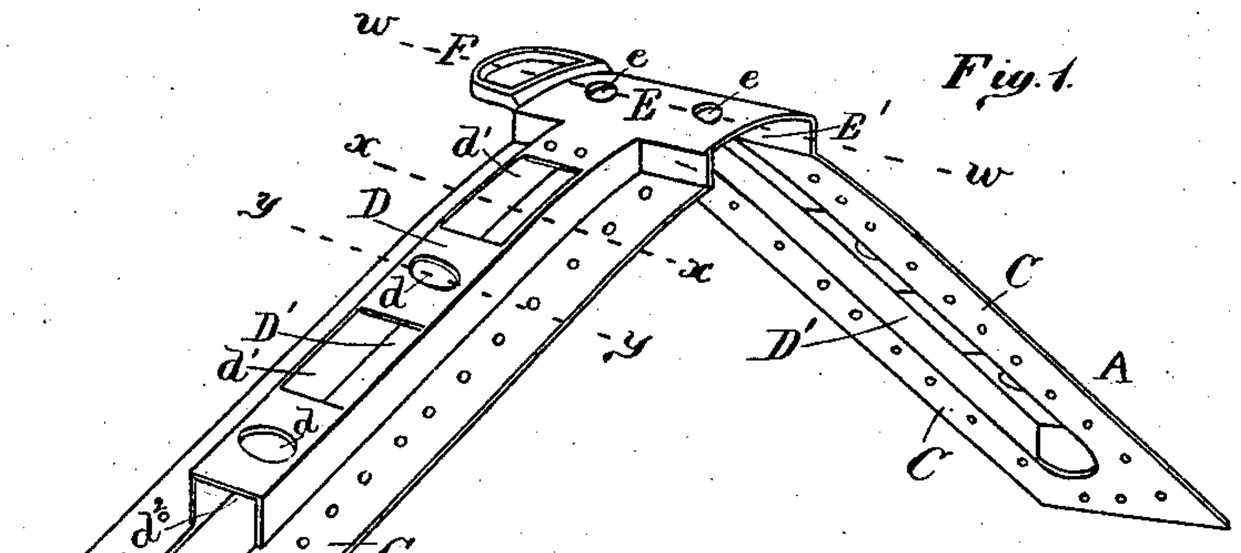


Fig. 1.

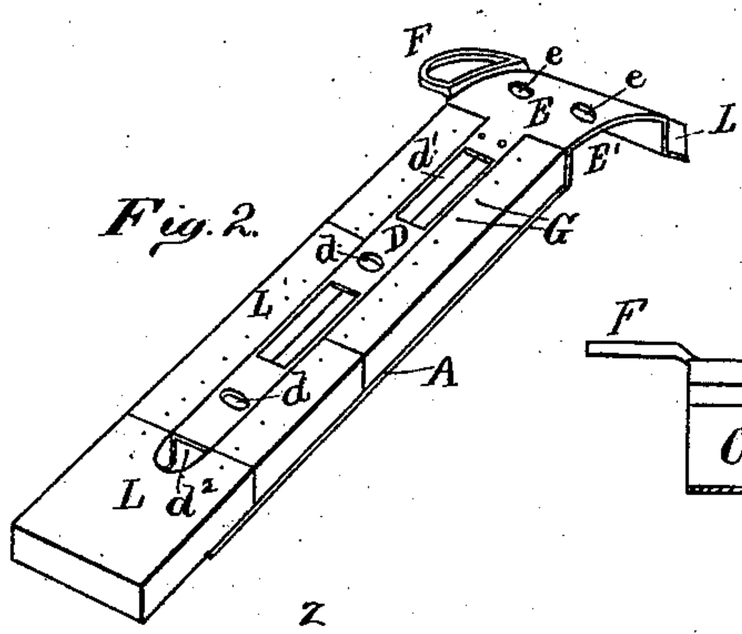


Fig. 2.

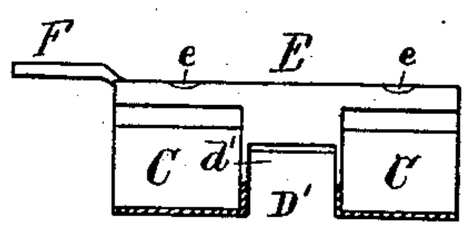


Fig. 3.

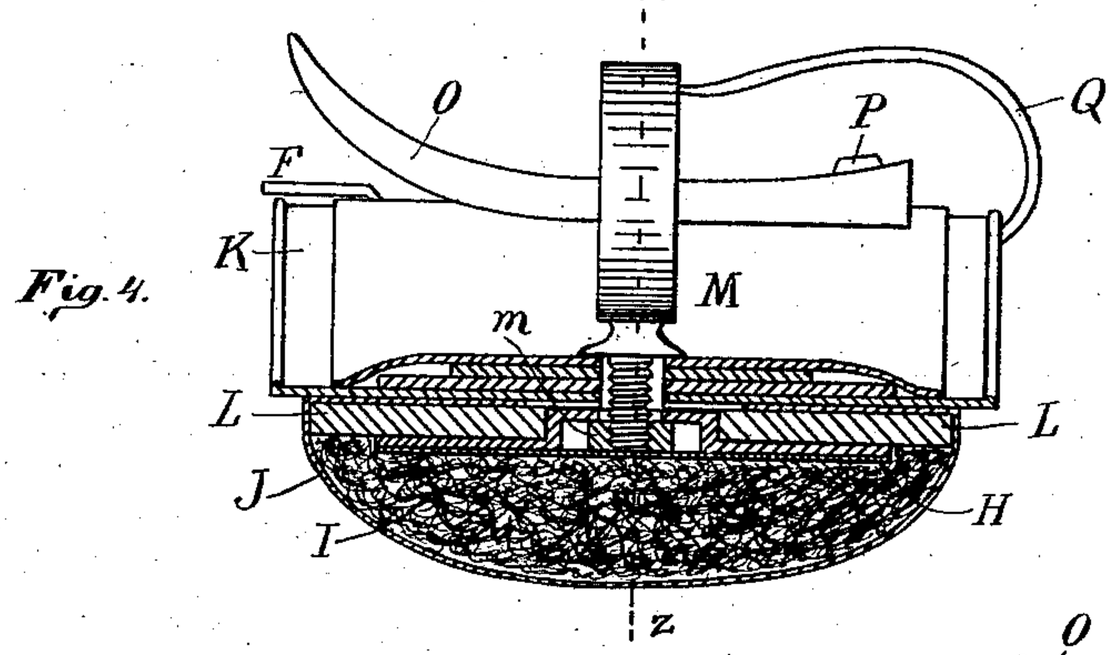


Fig. 4.

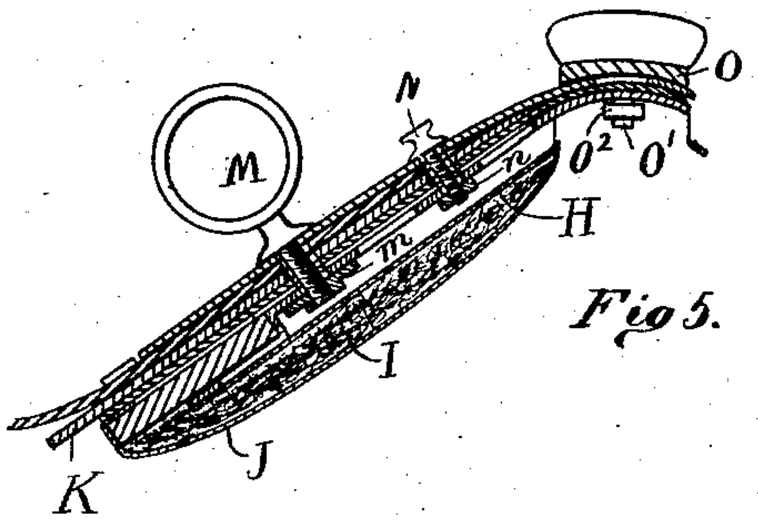


Fig 5.

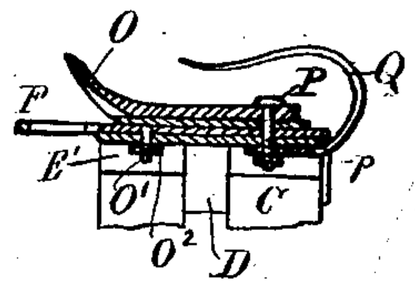


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## HARNESS-SADDLE TREE.

SPECIFICATION forming part of Letters Patent No. 368,913, dated August 23, 1887.

Application filed February 19, 1887. Serial No. 228,175. (No model.)

*To all whom it may concern:*

Be it known that I, ANTHONY F. DUVALL, a resident of Ann Arbor, county of Washtenaw, and State of Michigan, have invented certain new and useful Improvements in Saddle-Trees, of which the following is a specification.

The various features of my invention and the advantages arising from their use, conjointly or otherwise, will be apparent from the following description.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved saddle-tree. Fig. 2 is a perspective view of one leg of the tree provided with its first layer of leather. Fig. 3 is a sectional elevation of the saddle-tree, taken at the line *x x*, Fig. 1. Fig. 4 is a sectional elevation of the complete saddle, taken at the line *y y*, Fig. 1. Fig. 5 is a longitudinal section of one-half of the complete saddle, taken at the line *z z*, Fig. 4. Fig. 6 is a vertical central transverse section taken at the line *w w*, Fig. 1.

The saddle-tree consists, essentially, of two legs, A, rigidly united to each other at an angle. The union between the two legs A is preferably secured by having the whole saddle-tree made in one piece of metal. The central part of the metal forming each leg is raised, constituting the ridge D, at the sides of which are the flanges C. Beneath the ridge D is a hollow space, D′. The flanges C are perforated by a series of openings, C′. The top surfaces of the ridges D are continuous with the surface of the arch E at the angle of the tree. The arch E extends entirely across the top of the tree, and beneath it, throughout its whole extent, is the space E′. The usual eye, F, projects backwardly from the top of the arch E. The arch E is provided with two openings, *e*, whose purpose will be explained farther on. Each of the ridges D is provided with two circular openings, *d*, and two rectangular openings, *d′*, the latter extending across the ridge. The flanges C are covered with leather L to the height of the ridge D. This leather L is secured to the saddle-tree by means of nails or tacks G, which are driven into the leather through the openings C′. These nails are driven into the leather from the under side of the saddle-tree, the leather resting on a block of metal or other hard material, which produces a clinching of the nails. A particular advantage of this feature of my invention lies in the fact that scrap-leather may be employed in this building up of the saddle. This use of scrap-leather is indicated in Fig. 2, where the leather L is seen to be made up of a number of separate pieces. By making the pieces of leather used wide enough to project beyond the edge of the tree I am enabled to build the saddle out to any desired extent. With a saddle-tree two inches wide I can make a saddle six inches wide. In Fig. 4 the saddle is shown built out slightly beyond the edges of the tree. After the leather L has been secured in place a backing, H, is put under the leg A. This backing H may be made of pasteboard, thin wood or metal, or other similar material. The padding I is next placed in position, and secured there by the leather J, which laps over the leather L, and is secured thereto by tacks driven through it into the leather L. These tacks strike against the flanges C and are thereby clinched. The outer cover or housing, K, of the saddle lies immediately over the structure already described, and is preferably held to its place, as shown, by the cantle-bolts P O′ and the rein-eyes M and the bolts N. Before the cover K is put on, a nut, *m*, of a size to fit the bolt of the rein-eye M, is passed through one of the openings *d′* and then slipped down under the adjacent opening *d*, and similarly a nut, *n*, fitting the bolt N, is slipped under the other opening *d*. The same arrangement is carried out on both legs of the saddle-tree. The outer cover, K, is now fitted over the saddle-tree and secured in place by the cantle-bolts P O′ and the rein-eyes M and the bolts N, the rein-eyes and bolts N being screwed into their respective nuts *m* and *n*. When desired, the relative positions of the bolts N and the rein-eyes M may be readily changed, first changing the positions of the nuts *m* and *n*. The outer end of each of the ridges D is left open, making the opening *d²*. By cutting away the leather L, as shown in Fig. 2, the nuts *m* and *n* may be introduced or withdrawn for change or repair through the opening *d²*, instead of

openings *d*, which last-named openings may consequently be omitted, though preferably retained.

The ornamental seat or cantle O is provided with a screw-threaded lug, O′, which passes through one of the openings *e* in the arch E, and has on its lower end the nut $O^2$, which is received within the recess E′. The other fastening of the cantle O is preferably a bolt, P, which passes downwardly through an opening in the cantle, then through the forward opening, *e*, in the arch E, and finally through the end of the checkrein-hook Q, beneath which is a nut, *p*, screwed to the end of the bolt. The end of the hook Q and the nut *p* are received within the recess E′, and do not project below the surface of the flanges C.

The principal advantages of my device are, first, that on saddle-trees of a given size saddles of very greatly different widths may be built; second, the nuts on the under surface of the tree, being received in recesses, never become the source of any discomfort to the horse; third, the ridges D give strength to the saddle-tree, and their junction with the raised arch E contributes to the strength of the saddle-tree at the arch, which in most trees is the weakest point and the one subjected to the greatest strain.

Another advantage of my invention is the means for adjusting the positions of the nuts *m* and *n*—namely, the openings *d* and *d*′.

While the various features of my invention are preferably employed together, one or more of said features may be used without the remainder, and, in so far as applicable, one or more of said features may be used in connection with saddle-trees of a description other than the one herein specifically set forth.

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

1. The combination of the legs A, rigidly united together and each provided with raised ridge D, having suitable openings, and flange C, located at the sides and the lower end of ridge D, and a backing forming a flat under surface to the leg, substantially as and for the purposes specified.

2. The combination of the legs A, rigidly united together and each provided with flanges C and raised ridge D, having beneath it the recess D′, and provided with the openings *d* for shanks of terret-bolts, and rectangular openings *d*′, and a backing, H, substantially as and for the purposes specified.

3. In a saddle, the combination of the leg A, having ridge D, with recess D′ beneath, leather, nails, backing, padding, leather, cover K, and rein-eye M, nut *m*, bolt N, and nut *n*, substantially as set forth.

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Witnesses:
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