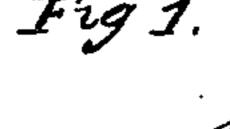


Harness-Saddle Tree, Patented Oct. 13, 1868.

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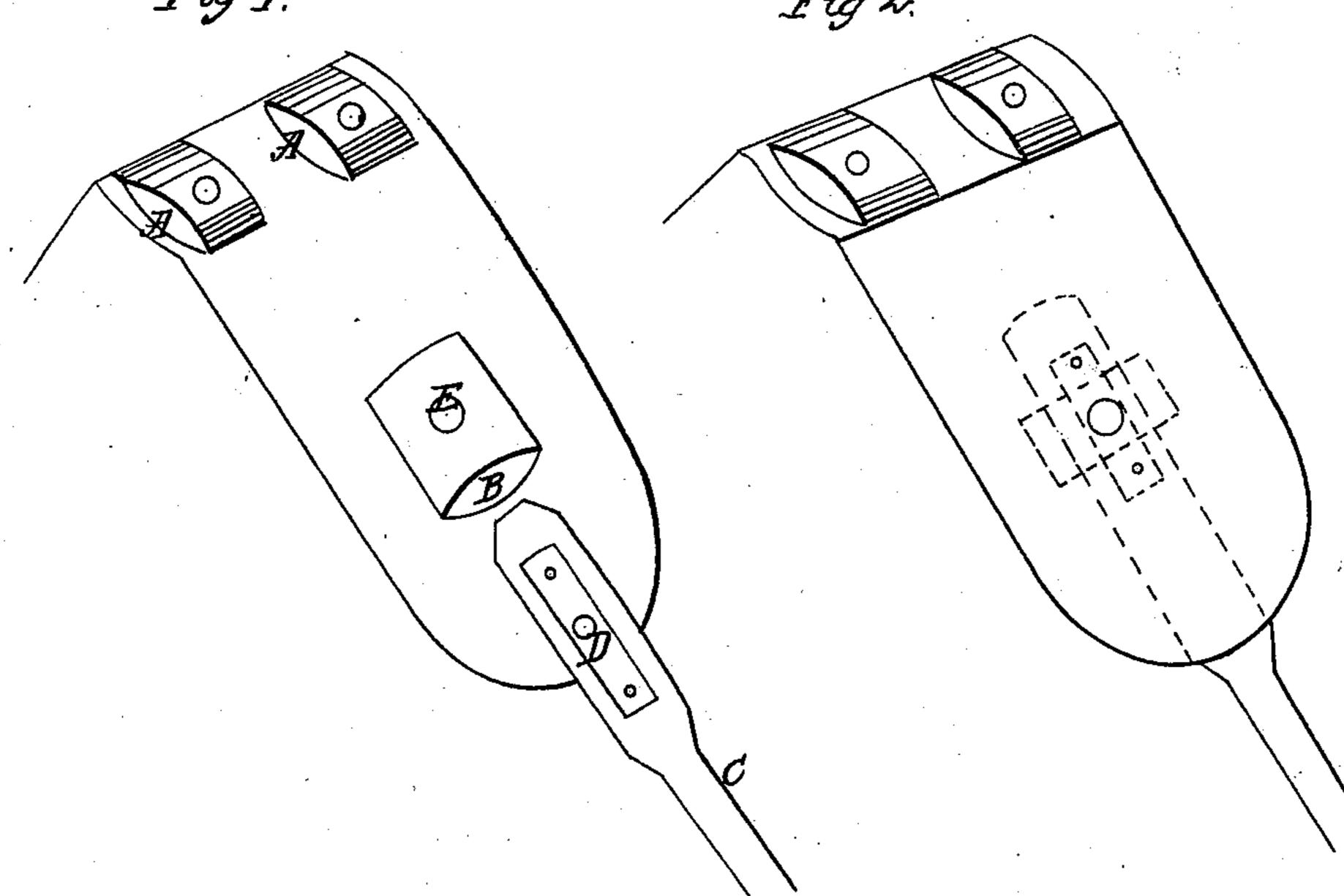


Fig 3.

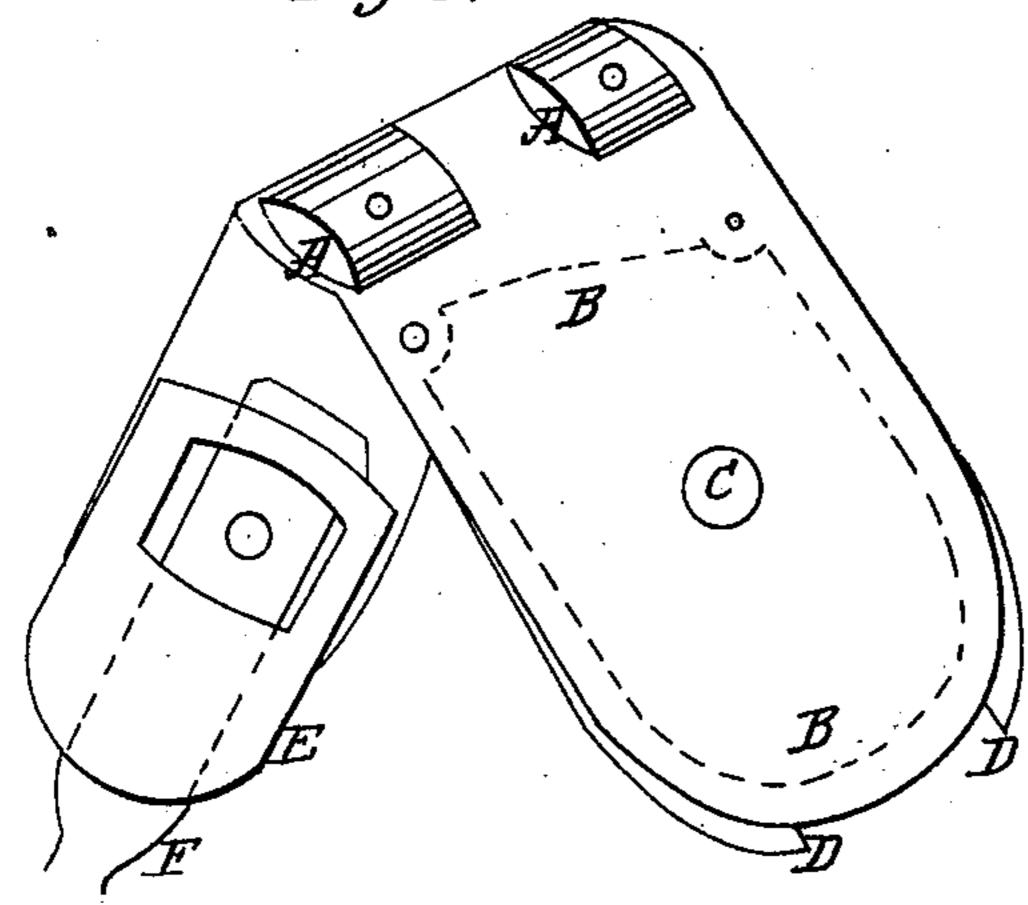
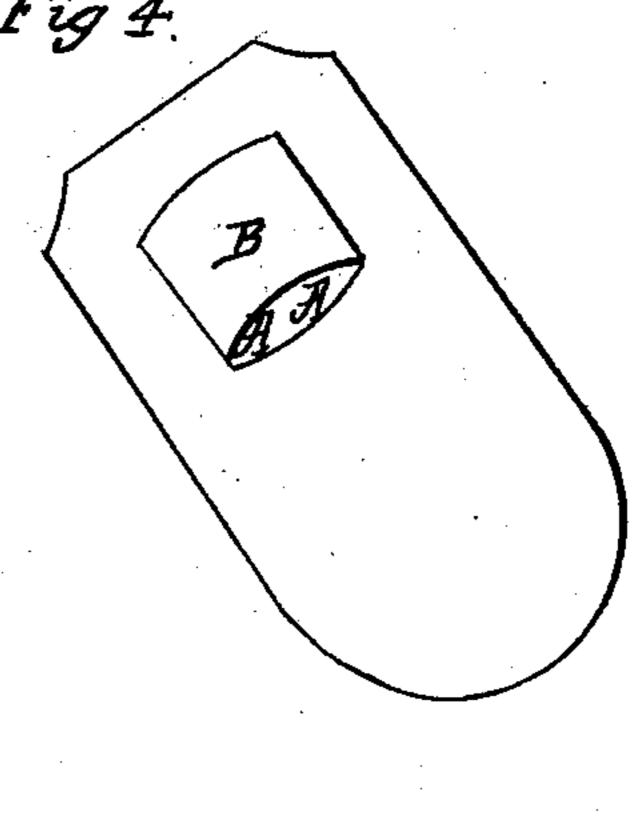


Fig 4



Witnesses; wante & Tempkins.

Inventor;

J. F. Know

UNITED STATES PATENT OFFICE.

JACOB F. KNORR, OF ORANGE, NEW JERSEY, ASSIGNOR TO FRANK K. HIPPLE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED HARNESS-SADDLE TREE.

Specification forming part of Letters Patent No. 82,961, dated October 13, 1868; antedated October 3, 1868.

To all whom it may concern:

Be it known that I, JACOB F. KNORR, of Orange, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Harness-Saddle Trees; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is the drawing of a saddle-tree. Letters A A are the tubulated opening for the crupper-loop and saddle-hook. B is the tubulated opening or loop for the back-band. C is the back-band. D is the burr or nut for the screw end of the terret. E is the opening to allow the screw end of the terret to pass.

Fig. 2, the same as No. 1, with the backband in place; Fig. 3, drawing of saddle-tree, with "iron jockey." Letters A A, tubulated opening for crupper-loop and saddle-hook. B B is the iron jockey. C is the opening to receive the screw end of the terret. D D is the opening at the lower end of the jockey to receive the back-band F. E is the flange, affixed to the tree by means of back-band F.

Fig. 4 is a drawing of the flange to be used with the tree, Fig. 3. Letters A A, tubulated opening or loop for back-band; B, the opening to receive the screw end of terret.

The nature of my invention consists in the making a harness-saddle tree of wrought-iron or any other sheet metal, the plates forming the saddle-tree being cut from sheet metal by the aid of dies and formed into shape by means of swaging or the aid of dies; also, the improvement of a tubulated opening for the crupper-loop and saddle-hook, (see Figs. 1 and

3, letters A A;) also, the improvement of a tubulated opening or loop for the end of the back-band, (see Figs. 1 and 4, letters B and A A;) also, the improvement for conveying to their proper places the burrs or nuts for the terrets through the opening at the lower end of the jockey, (see Fig. 3, letters D D;) also, the affixing the burrs or nuts to the end of the back-band, or to any piece of leather or metal plate, for the purpose of conveying them to their proper place to receive the screw end of the terrets.

To enable others skilled in the art to make my improved saddle-tree, I will proceed to describe its construction.

The plates for the formation of the trees are cut from sheets of metal by means of dies; then they are punched and cut for the formation of tubulated and other openings, and brought into shape by means of swaging or dies.

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

1. A loop or bridge spanning the avenue through which the back-band, crupper-loop, and saddle-hook pass, substantially as described, and for the purpose set forth.

2. The affixing the burrs or nuts of the terrets to the back-band, and conveying it beneath the bridge to receive the screw end of the terrets, substantially as described, and for the purpose set forth.

J. F. KNORR.

Witnesses:

DANIEL F. TOMPKINS, JOSEPH PEARSON.