No. 676,751. Patented June 18, 1901.

A. LA RUE.

WHIFFLETREE.

(Application filed Feb. 18, 1901.)

(No Model.)

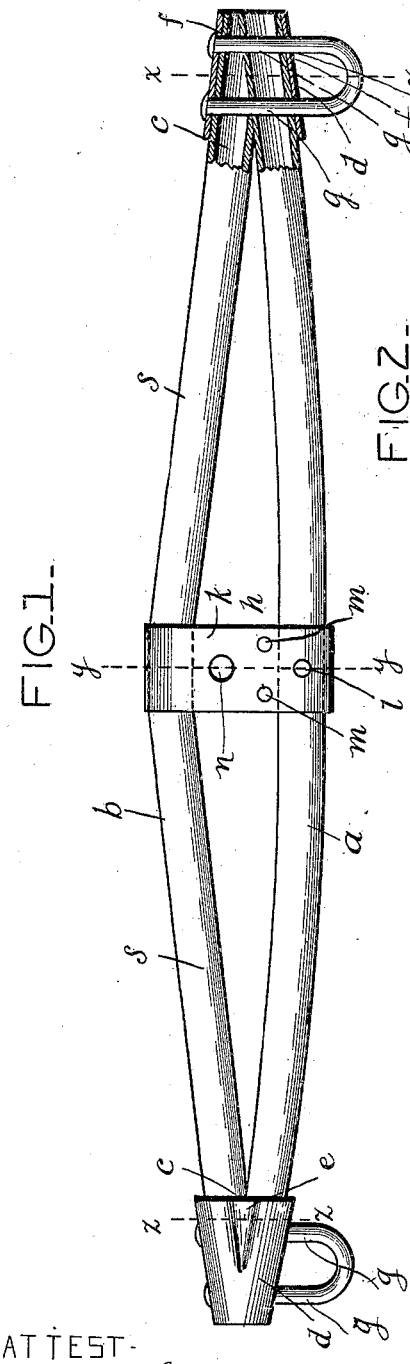

FIG. 1.

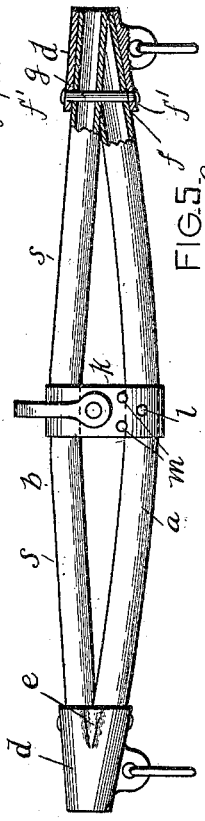

FIG. 2.

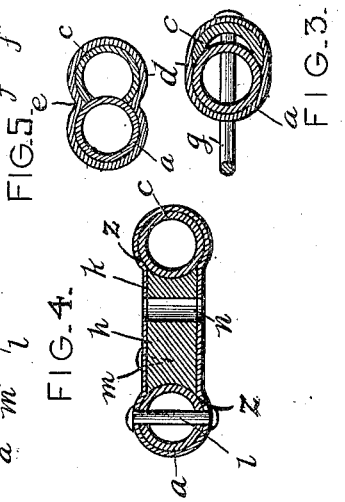

FIG. 3.

FIG. 4.

FIG. 5.

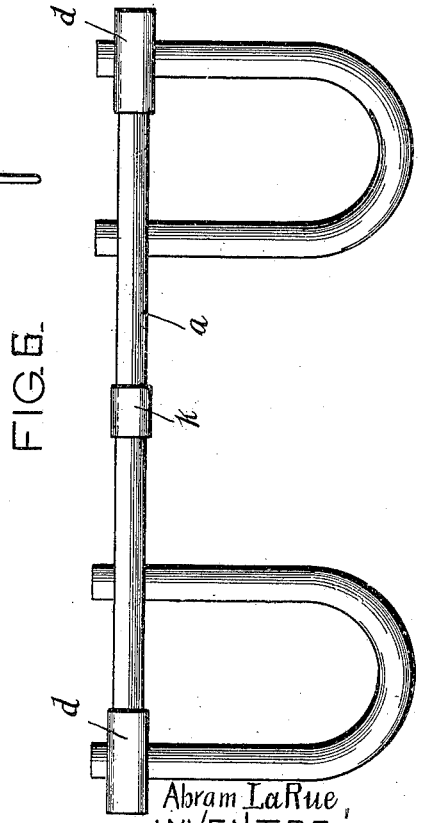

FIG. 6.

ATTEST-

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UNITED STATES PATENT OFFICE.

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WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 676,751, dated June 18, 1901.

Application filed February 18, 1901. Serial No. 47,769. (No model.)

To all whom it may concern:

Be it known that I, ABRAM LA RUE, a citizen of the United States, residing at Danville, in the county of Montour and State of Pennsylvania, have made a certain new and useful Invention in Whiffletrees; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of the doubletree, partly in section. Fig. 2 is a similar view of the singletree. Fig. 3 is a section on the line *x x*, Fig. 1. Fig. 4 is a section on the line *y y*, Fig. 1. Fig. 5 is a section on the line *z z*, Fig. 1. Fig. 6 is a front view of a yoke having my device applied thereto.

The invention relates to whiffletrees or draft-bars; and it consists in the novel constructions and combinations of parts, as hereinafter set forth.

In the accompanying drawings the letter *a* designates the forward portion of the whiffletree, which consists of a section of steel pipe bent in the form of a bow or arc whereof the convexity is in front. The curvature of this portion of the whiffletree is not very marked. Attached to this slightly-curved pipe is the back portion *b* of the tree, which also consists of a bent piece of steel pipe formed in two bracing branches meeting at the center of the whiffletree. The lateral portions or branches *s s* of the section of pipe *b* are straight, and their ends *c c* are beveled or cut away in front in a convex manner longitudinally and in a concave manner transversely to fit the cylindroid ends of the forward pipe *a*, to which they are fitted neatly, and are secured in position by the flattened conoidal clips *d d*, the broad ends of which are creased or bent inward, as at *e*, to fit the valley formed between the rounded surfaces of the pipe ends when they come together. The ends of the pipes are perforated, as at *f f*, and the clips are also perforated at *f' f'* to correspond, the fastening bolts or staples (indicated at *g g*) passing through the perforations and serving to hold the pipe ends securely in position. At the middle of the whiffletree is provided a brace *h*, the ends of which are concave transversely and convex longitudinally, and this brace is placed in position between the middle portions of the front and back pipe-sections before the ends are secured by the clips. Around the middle portions of the whiffletree and closely binding the two pipe-sections and the intervening brace is the band *k*, which is secured by a small pin *l* to the front section of pipe, so that it cannot move laterally. The brace is also secured against lateral movement by small indentations or pins in engagement therewith, as indicated at *m m*. Through the band and brace near the back pipe-section is made a bolt-hole *n* for the reception of the bolt of a clevis or other device for the attachment of the whiffletree to a wagon, plow, or other machine of suitable character. In this construction the ends of one of the pipe-sections are continued in full pipe or cylindroid form to the extremities, while those of the other pipe-section are beveled to fit them. It is preferred to bevel the ends of the back section, which serves as a tie or girder, in order not to weaken the arch of the front section; but, if desired, the ends of the front section may be beveled. In either case the fit should be accurate and the clip should be closely adapted in order to avoid crevices, which would hold soil and render the tree unsightly.

The front section *a* is an arch or brace, which is tied back by the rear section of piping, the brace *h* serving to give great firmness to the bar and at the same time to afford a part for the perforation for the draft-bolt.

In order to avoid very acute edges of the brace *h* if made of wood, which is preferable, the band *k* is brought a little beyond the upper and lower surfaces of the pipes, so that each end of the band forms a pipe-seat, as indicated at *z*.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

A whiffletree, consisting of a front arc-form

section of steel pipe, and a back section of steel pipe, having two straight bracing branches meeting at the center of the whiffletree, one of said sections having beveled ends fitting the cylindroid ends of the other section, and secured by clips, a middle brace having concave ends fitting said pipes, and a middle band connecting said pipes, and covering in said brace, both brace and band being perforated for the draft-bolt, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ABRAM LA RUE.

Witnesses:
C. SHULTZ,
ROY A. KISNER.