

I. STARR.
Draft Equalizer.

No. 86,708.

Patented Feb. 9, 1869.

Fig. 1.

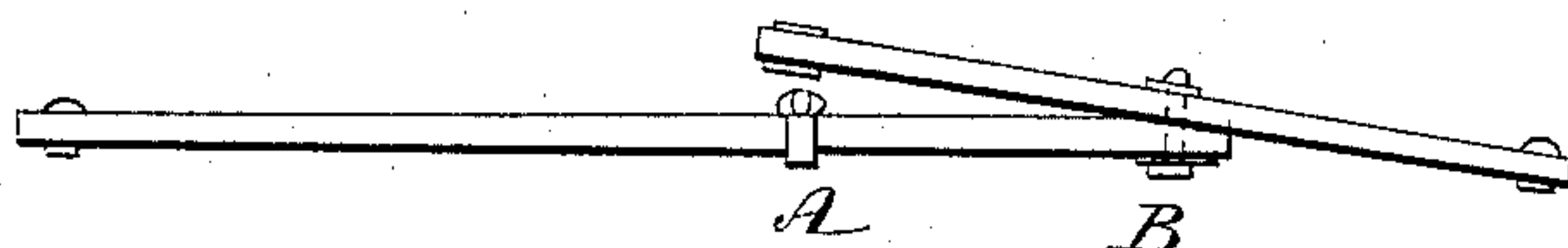
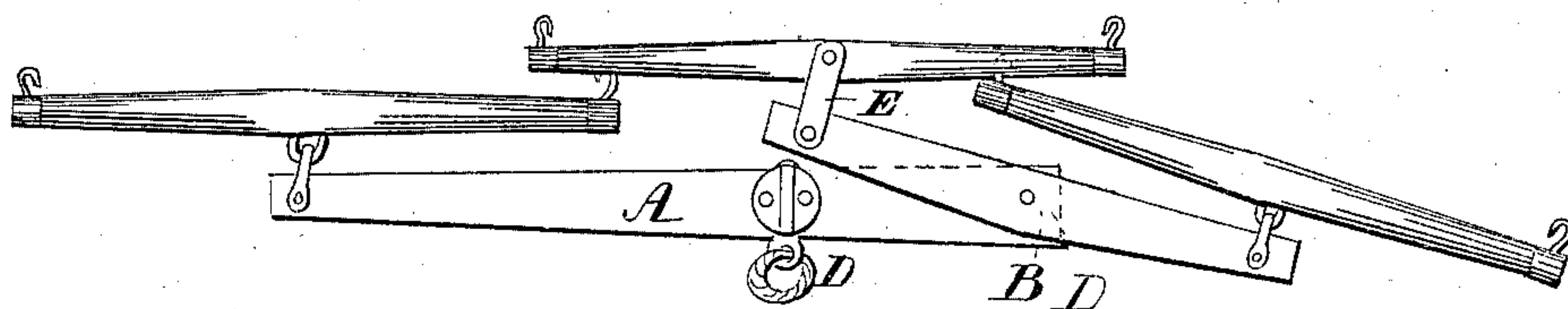


Fig. 3.



Fig. 2.



Witnesses.

*George F. Green
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ISAAC STARR, OF PRAIRIEVILLE, MICHIGAN.

Letters Patent No. 86,708, dated February 9, 1869.

IMPROVEMENT IN DRAUGHT-EQUALIZERS.

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

Be it known that I, ISAAC STARR, of Prairieville, Barry county, Michigan, have invented new and useful Improvements in Three-Horse Eveners and Whiffle-Trees; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 shows the two eveners, without whiffle-trees attached.

Letter A of fig. 1 is a band of iron, fitting the evener from the under side, and representing three sides of a square. In each end of this band is a hole, so that, when the band is fitted to the evener, these holes come opposite each other just at the upper surface of the evener.

Letter B shows the mode of attaching the two-horse evener to the long evener, representing, upon the end of the long evener, an inclined plane, the object of which is to raise the middle whiffle-tree above the others, and thus prevent any interference with the other whiffle-trees while the same are being worked.

Figure 2 is the eveners and whiffle-trees complete, while letter D is a clevis-swivel, which passes through the iron band, or plate, described in letter A of fig. 1, and shown in fig. 2.

Figure 3 is the two-horse evener-fastener, the base or lower part of which, including the lower upright section, which said section is designed to be in height just equal to the thickness of the evener, is of cast-iron, while the upper section of the figure shows the upper part of a wrought-iron pin, which extends through

the cast-iron section to the bottom of base, and is made a part thereof, as the base and lower section are cast and moulded upon this pin. The upper portion of this pin is designed to pass up through the two-horse or short evener, where it is fastened, by a small pin, upon a collar or burr.

The vertical line extending from the left-hand side or end of the base represents one of the bolts which passes up through the evener, fastening the casting to said evener, while the horizontal line on the top of said vertical line is a strap or plate of iron, upon the inclined portion of the long evener, and through which the bolts pass, and into which they are fastened by countersinking their heads.

The centre whiffle-tree is attached to the short evener by means of a strap of iron, as seen in fig. 2, at letter E, which passes entirely around the short evener, and is attached to the whiffle-tree by a bolt, thus holding the whiffle-tree firmly, so that neither end thereof can fall upon the tugs or whiffle-trees worked on either side of it.

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

1. The shorter arm in the equalizer, secured to bar A at an angle by means of the incline at its end, substantially as described.

2. In combination with the foregoing, the clevis-swivel D, secured to bar A, as shown and described.

ISAAC STARR.

Witnesses:

C. R. BROWN,
MORTIMER CAHILL.