

C. G. STEARNS.

WHIFFLETREES.

No. 172,354.

Patented Jan. 18, 1876.

Fig: 1.

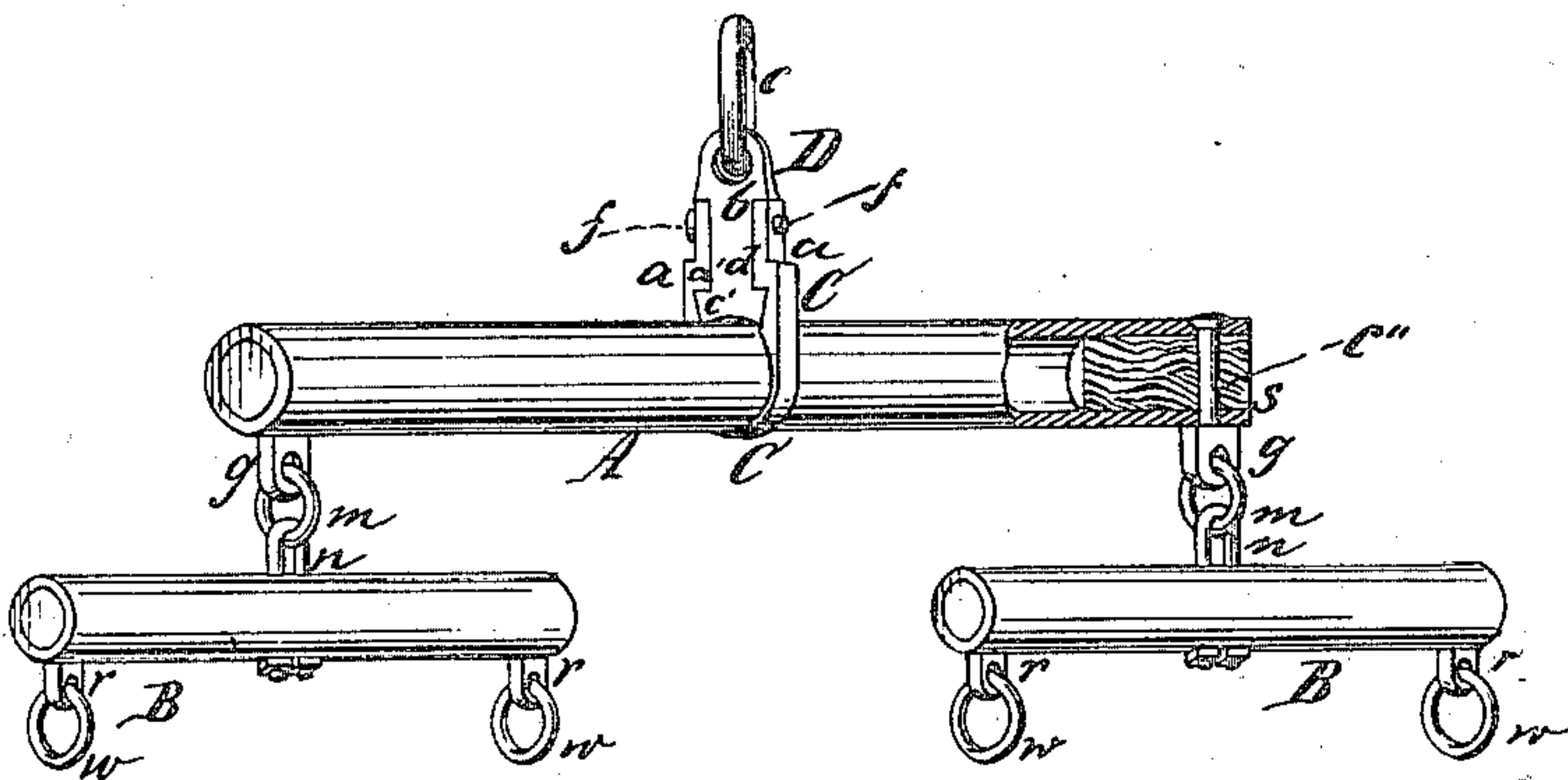
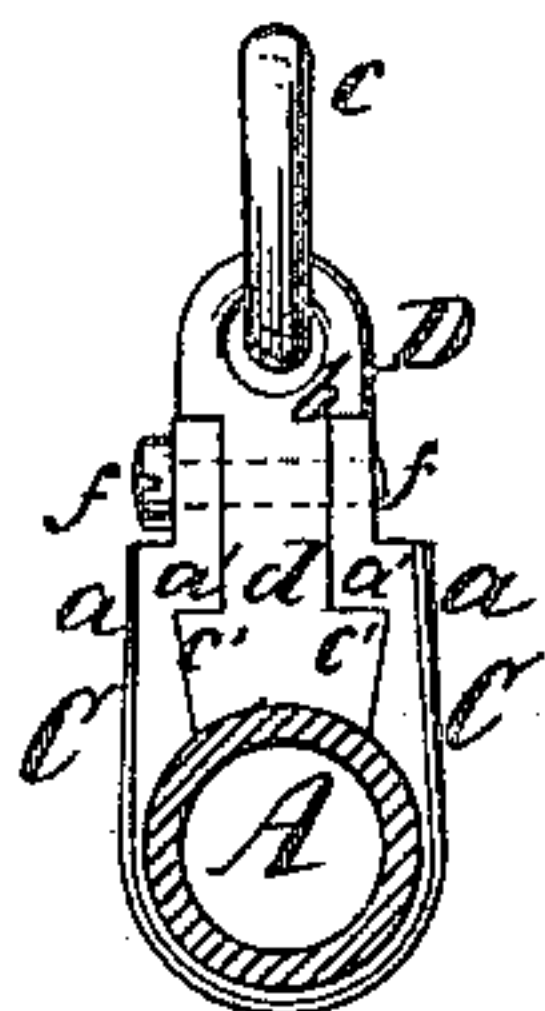


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WHIFFLETREES.

Specification forming part of Letters Patent No. 172,354, dated January 18, 1876; application filed September 3, 1875.

To all whom it may concern:

Be it known that I, CHARLES G. STEARNS, of the city, county, and State of New York, have invented certain Improvements in Whiffletrees, of which the following is a specification:

This invention comprises a draw-clevis of peculiar construction, in combination with a shouldered shackle, a fastening-bolt, and a whiffletree, whereby provision is made for the facile and inexpensive repair of the apparatus when disabled by the wear of the draw-clevis, my said invention being more especially applicable to iron whiffletrees, which ordinarily outlast a number of draw-clevises successively attached thereto.

Figure 1 is a perspective view and partial section of a whiffletree made according to my invention, and Fig. 2 is a transverse sectional view of the same.

A is the evener or double-tree, and B B are the small or end whiffletrees of a "set" of whiffletrees, as constructed for use with a two-horse team. The evener A and end whiffletrees B B are of tubular form, and made of metal, the evener having an internal diameter of, say, one inch and a half, the end whiffletrees an internal diameter of, say, one inch and a quarter. These may be most conveniently and cheaply made by taking iron pipe of the sizes above indicated and cutting them into suitable lengths, to which the requisite adjuncts are affixed as follows: Upon the center of the evener A is placed the shackle C, which encircles, say, three-fourths of the same, and is constructed with straight sides, as shown at *a*. On the inner surface of each of the said sides *a* is a shoulder, *a'*. D is the draw-clevis, constructed with a hole, *b*, at its outer end for the reception of the link *c*, whereby, when in use, the evener is attached to the draft-hook of a street-car, the clevis of a plow, or other means of attachment to the vehicle or implement to be drawn. The shank *d* of this draw-clevis is straight, to fit between the two sides *a* of the shackle C, as shown in the drawings, and is constructed at its lower ends with the shoulders *c'*, which fit within and against the shoulders *a'* of the shackle. The

draw-clevis D is inserted sidewise to its place in the shackle C, and a bolt, *f*, passed through coincident holes provided in the draw-clevis and the sides *a* of the shackle, prevents all lateral displacement of the draw-clevis.

The bolt *f* may be either riveted in position or provided with a head and nut.

When the apparatus is in use, and draft or strain is exerted upon the draw-clevis, this draft or strain is entirely upon the shoulders *a' c'*, so far as the draw-clevis and shackle are jointly concerned, the bolt *f* being merely to prevent the lateral displacement of the draw-clevis from the shackle, as just explained.

It will be seen that when the draw-clevis, which is the most liable to wear, (from the working and friction of the link *c*,) becomes weak or worn out, it may be readily removed by first removing the bolt *f*, and be then replaced by another.

The evener is provided at each end with a ring-bolt, *g*, in which is a link, *m*, connecting with the staple *n* of the adjacent end whiffletree B. Each of the latter is provided with a similar ring-bolt, *r*, carrying a loose link, *w*, to which the traces are attached when the apparatus is in use. The ring-bolts *g* and *r* are attached in place by having their shanks *e''* passed through suitable holes or sockets in the ends of the evener and end whiffletrees, as the case may be, the said shanks being either riveted over or provided with suitable nuts.

In order to prevent access of water to the interior of the evener and of the end whiffletrees, and the corrosion that would be likely to result therefrom, wooden plugs *s* may be driven into the ends, as indicated in the sectional portion of Fig. 1.

What I claim as my invention is—

The draw-clevis D, constructed with the shank *d* and shoulders *c'*, in combination with the shackle C, provided with the shoulders *a'*, the bolt *f*, and the whiffletree, substantially as and for the purpose set forth.

CHARLES G. STEARNS.

Witnesses:

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