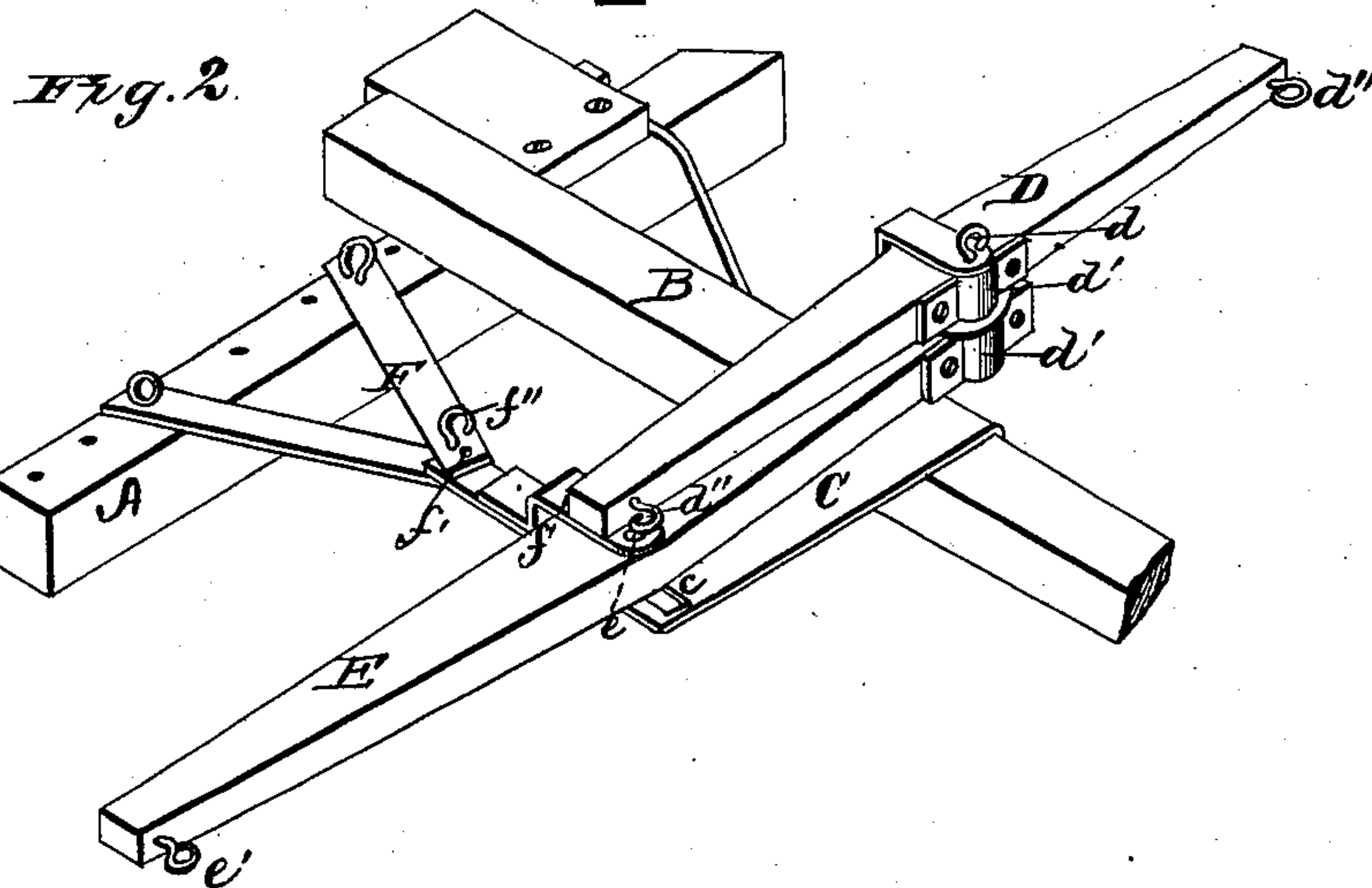
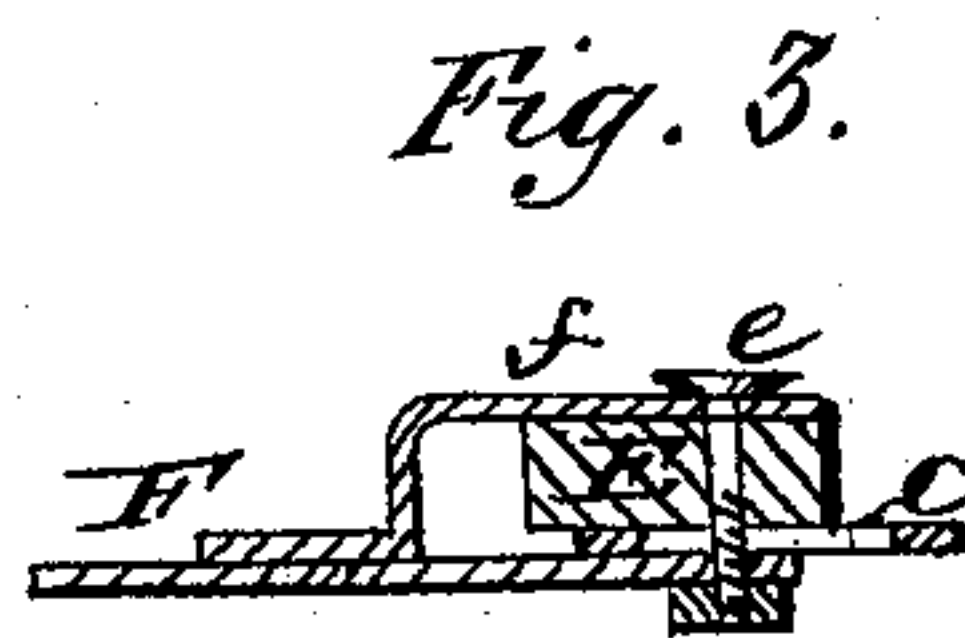
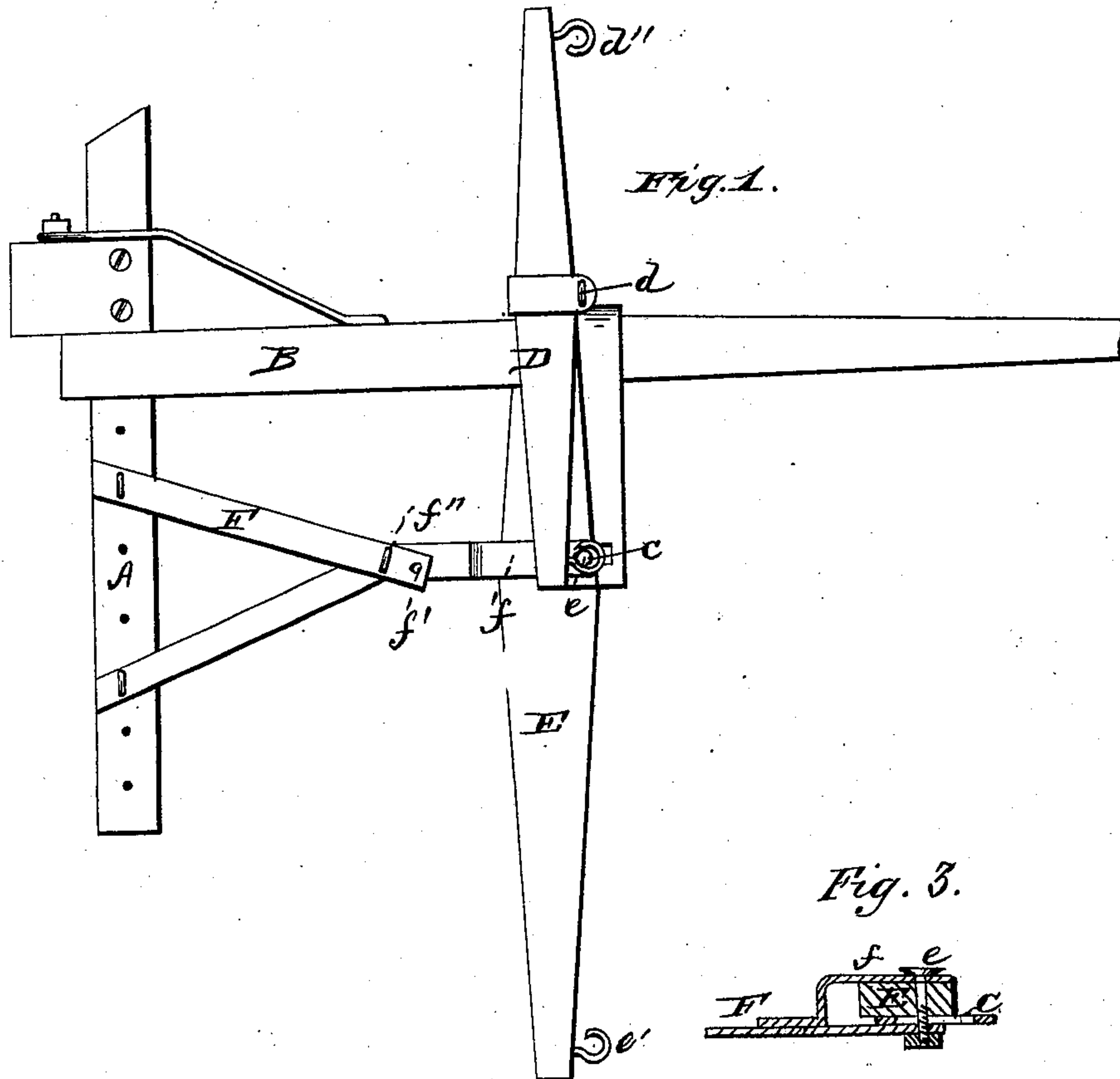


J. N. TRAVIS.
Draft Equalizer

No. 202,075.

Patented April 2, 1878.



WITNESSES
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By

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JOHN N. TRAVIS, OF OWATONNA, MINNESOTA.

IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. **202,075**, dated April 2, 1878; application filed February 28, 1878.

To all whom it may concern:

Be it known that I, JOHN N. TRAVIS, of Owatonna, in the county of Steele and State of Minnesota, have invented certain new and useful Improvements in Triple-Trees and Draft-Equalizers, of which the following is a specification:

Figure 1 is a top-plan view. Fig. 2 is a perspective; and Fig. 3 is a sectional detail through the hammer-strap.

This invention relates to improvements in triple-trees or draft-equalizing devices; and consists more particularly in the peculiar combination of the double-tree with the triple-tree; also, in the peculiar construction of the hammer-strap and its combination with the triple-tree, and in the double connection of the triple-tree with the machine, so that a direct draft can be had, or a draft at either side of a direct line.

In the accompanying drawings, A denotes the front sill of a harvester, and B the usual tongue, hinged to it, so that it can be tilted to take up the lodged grain.

Upon the tongue, and at right angles thereto, and at a suitable distance from the machine or harvester, is securely fixed an arm or projection, C, which is sufficiently long to make room for the inside single-tree, when the triple-tree E is mounted on said projection or arm.

The triple-tree is secured to the end of the projection or arm C by means of bolt *e*, which passes through the front end of the hammer-strap *f*. This strap forms the forward part of the strap or link tongue F, which tongue, at its rear end, is connected at one or more points to the sill A, and thus said strap may, on occasion, serve the purpose of a double or auxiliary tongue.

The hammer-strap embraces the rear and upper and under sides of the triple-tree, and the bolt *e* passes through said tree near its front side.

The oblong shape of the slot *c*, near the end of the arm C, through which the bolt *e* passes, allows the bolt some play, and thus a slight forward or backward movement may be had by the triple-tree.

At one end of the triple-tree is the usual

eye *e'*, and upon the other end is secured the double-tree D. This connection is made by means of the draft-bolt *d*, which passes through suitable eyes *d'*, fixed on the front edge or face of both D and E. This peculiar method of making the connection serves to prevent any rolling of the triple-tree, which oftentimes in other methods of attachment occurs, and is a source of great disadvantage in draft. The double-tree has the usual eyes *d''* at its ends.

By this construction a direct draft can be had, or a draft at either side of a right or direct line, as may be desired. The shape of the slot in the end of the arm C will allow such forward and backward movement of the triple-tree that the draft will usually be in line of the auxiliary tongue F, and nearly or quite parallel with the tongue B, all side draft being overcome by the bearing which the bolt *c* may have on the side of the slot.

My invention has also the advantage that by means of it the horses can be brought almost a foot nearer the machine than when the double-tree is attached in the old way. This equalizer can also be used on plows; and since, by the construction and combination described, the use of the clevises and links which cause the double-tree usually to drag on the ground in turning corners is dispensed with, this method of draft, as now explained, will be of very great advantage.

The auxiliary tongue F may be made of several straps or links, and these may be detachably connected at about the center, and provision may be made for lengthening or shortening the tongue thus made by using the holes or slots *f'* and bolts *f''*.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a draft-equalizer, the combination of tongue B, having strap C rigidly fixed thereto, with the auxiliary and adjustable tongue F and triple-tree E and double-tree D, mounted on the same, substantially as and for the purposes set forth.

2. The triple-tree E, combined with the auxiliary and adjustable tongue F, having hammer-strap *f*, and, by means of bolt *e* and

slot *c*, with strap C, which is rigidly fixed to tongue B, substantially as described.

3. The double-tree D, mounted upon and combined with the triple-tree E by eyes *d'* and draft-bolt *d* on their front faces, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as

my own I affix my signature in presence of two witnesses.

JOHN N. TRAVIS.

Witnesses:

W. H. BURDICK,

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