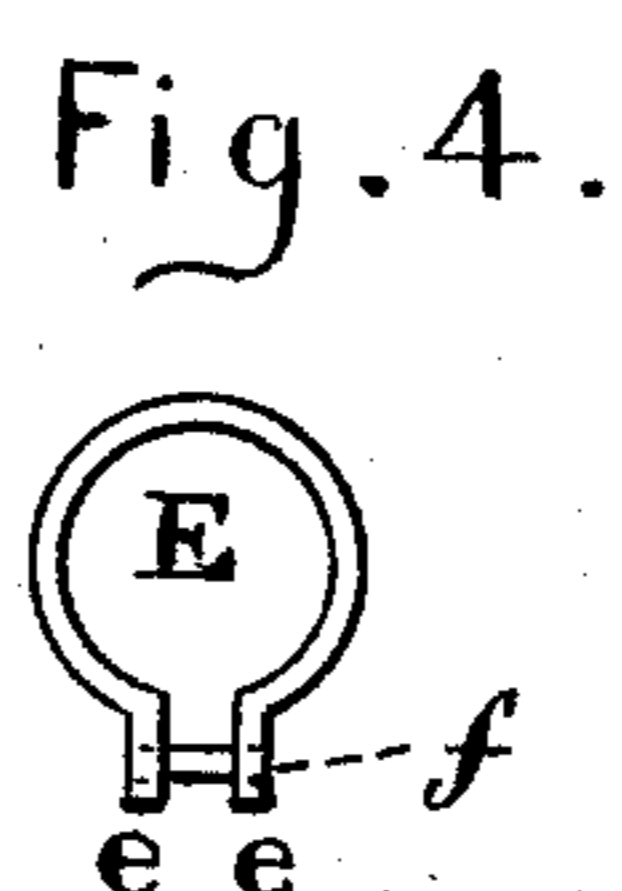
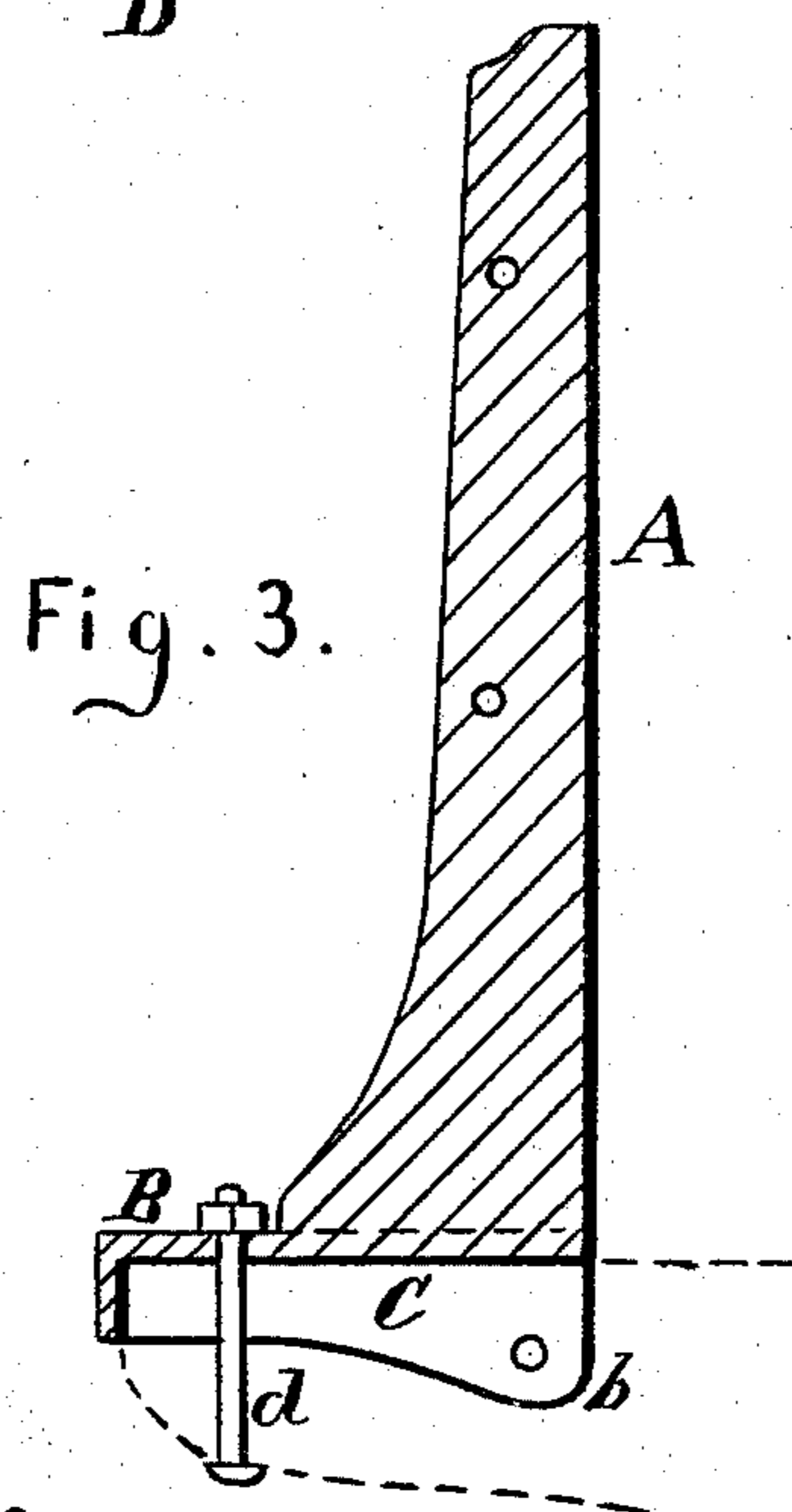
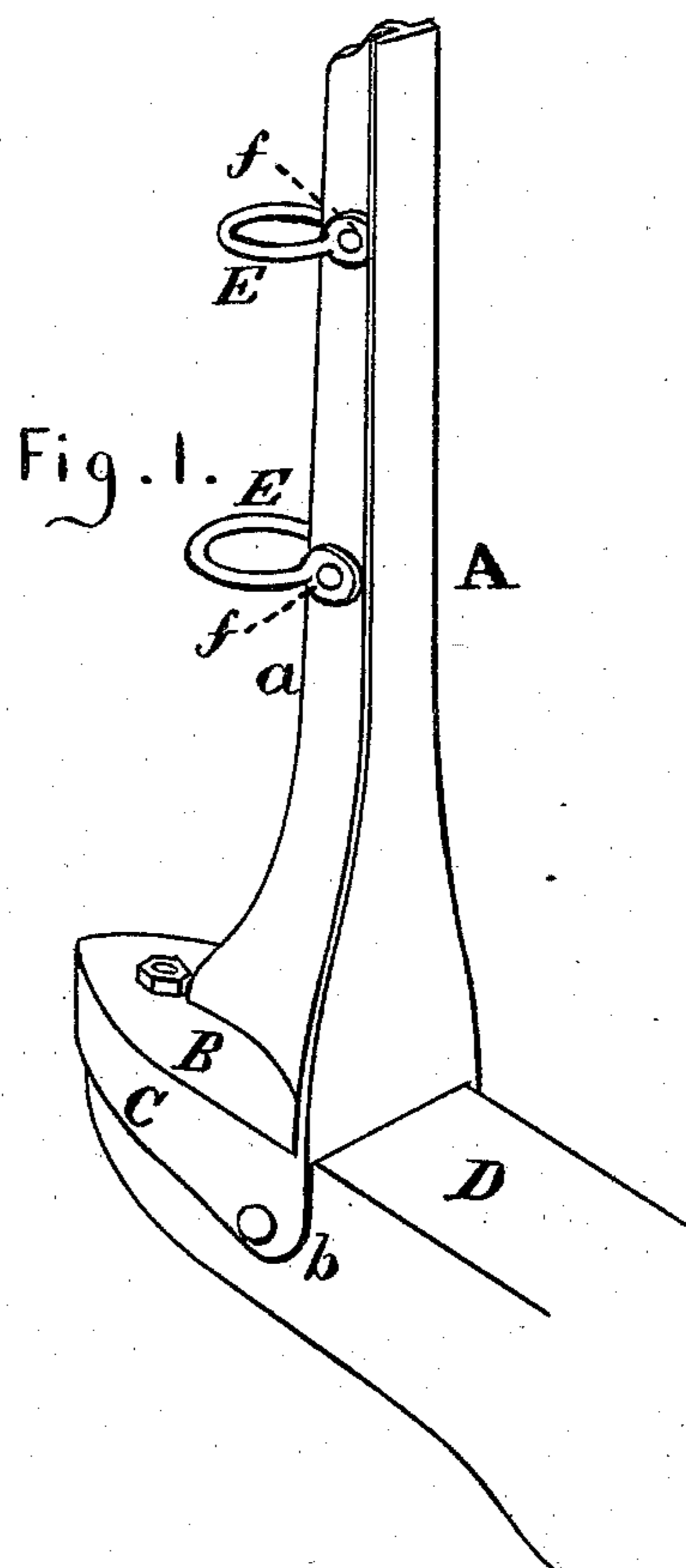
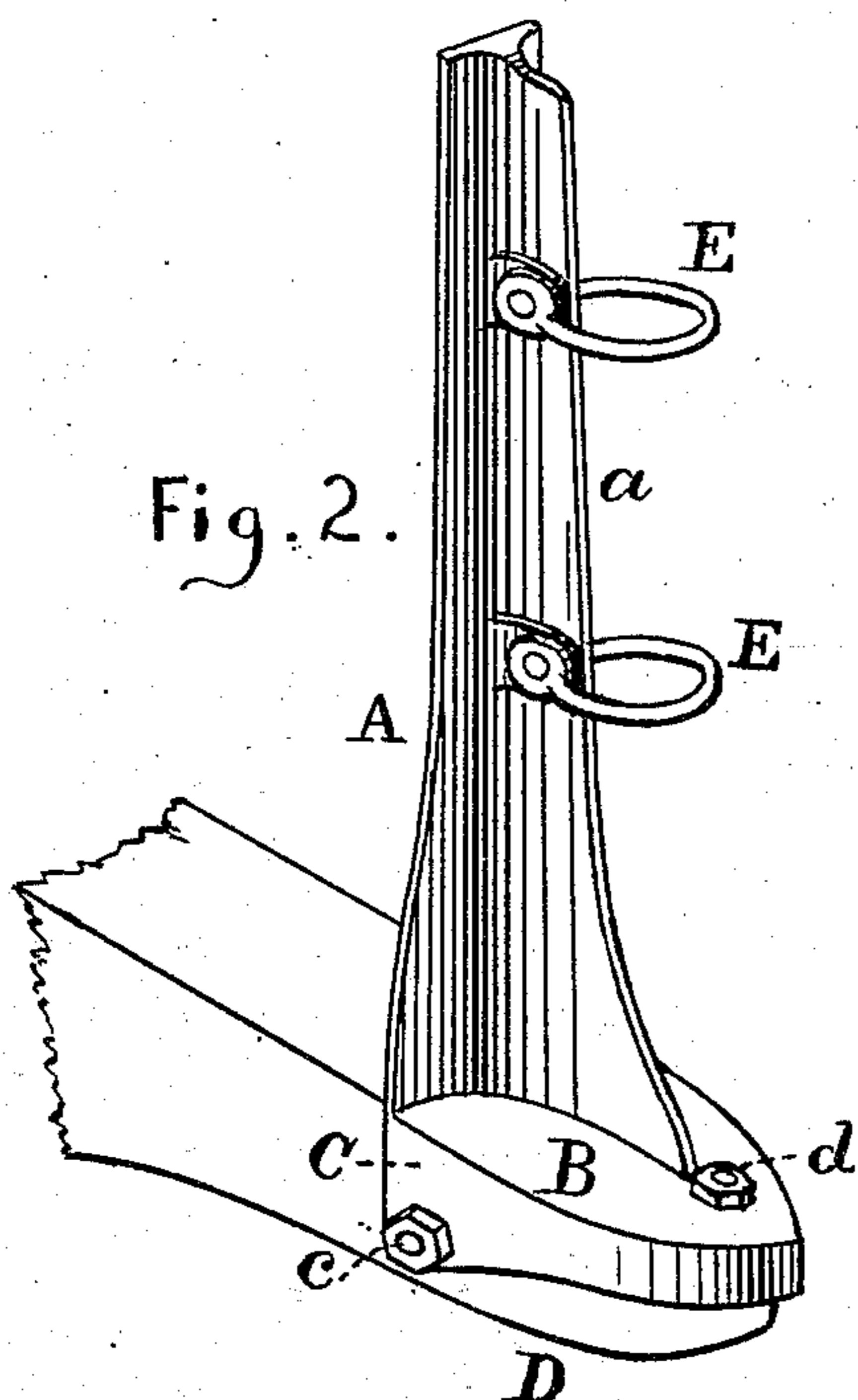


D. SULLIVAN.
Wagon-Standards.

No. 157,428.

Patented Dec. 1, 1874.



Witnesses:
J. H. Daniels.
W. A. Daniels

Inventor:
Daniel Sullivan
by Louis Bagger
his atty.

UNITED STATES PATENT OFFICE.

DANIEL SULLIVAN, OF MOLINE, ILLINOIS, ASSIGNOR OF ONE-THIRD HIS
RIGHT TO CYPRIAN VAN ORDER, OF SAME PLACE.

IMPROVEMENT IN WAGON-STANDARDS.

Specification forming part of Letters Patent No. **157,428**, dated December 1, 1874; application filed
September 21, 1874.

To all whom it may concern:

Be it known that I, DANIEL SULLIVAN, of Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Wagon-Stakes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective front view of my improved wagon-stake secured to the bolster. Fig. 2 is a perspective rear view of the same secured to bolster. Fig. 3 is a transverse vertical section; and Fig. 4 represents the ring used by me in combination with my improved stake.

Similar letters indicate corresponding parts in all the figures.

My invention consists in the manufacture of a malleable-iron stake, cap, and band in one piece, and also in the use, in combination with such stake, of rings constructed and arranged as hereinafter more fully set forth.

A is the stake proper, which is T-shaped, as indicated in the perspective views on the drawing. It widens at its base, where it merges into the horizontal cap B, which is cast or hammered in one piece with the stake A. C is the band, which is also in one piece with A and B, and which projects downward over the sides of the bolster, as shown. The cap B and band C thus, together, form a case or receptacle for the end of the bolster D, which, being fitted, is forced into it; and the stake, cap, and band are secured by bolts *e* and *d*, one, *e*, passing through both sides of the band and through the bolster laterally, and the other, *d*, passing through the cap and underlying bolster vertically. The band C projects downward in front on both sides of bolster, as shown at *b*. This is for the purpose of getting as much wood as possible between the cap B and bolt *e*, thereby increas-

ing the solidity of the fastening. The back part of the stake (denoted by the letter *a*) is wedge-shaped, which not only gives it greater strength, but assists in the operation of my improved stake-rings, of which there may be two (or more or less) on each stake. The ring employed by me is a split ring, with two projecting staples, *e e*, as shown in Fig. 4. The wedge-shaped back *a* of the stake is inserted between the staples *e e*, and the ring E is secured in place by the bolt *f*.

It will be observed that if the ring is pressed in a downward direction the staples *e e* will be expanded by the wedge *a*, and the spring or tension of the ring will keep this firmly in position. In this manner I avoid the usual jarring and rattling noise of the stake-rings when the wagon is in motion, and get a perfectly noiseless ring, which is much more desirable. The cap B and band C, after they are placed upon the bolster, will prevent this from swelling or cracking. If it does swell, it will only hold the stake more tightly and securely.

The cap and band being made in one piece with the stake makes the whole very solid and compact, and also improves the general appearance and finish of the wagon.

I am aware that it is not new to manufacture a malleable-iron standard and cap in one piece, with or without rings inserted in the standard, and I do not, therefore, broadly claim such; but

What I do claim, and desire to secure by Letters Patent, is—

In combination with a wagon-stake, the open rings E, provided with the bolts *f* and staples *e*, the latter working against the sides of the stake, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

DANIEL SULLIVAN.

Witnesses:

S. H. CORNWELL,
E. H. GLEASON.