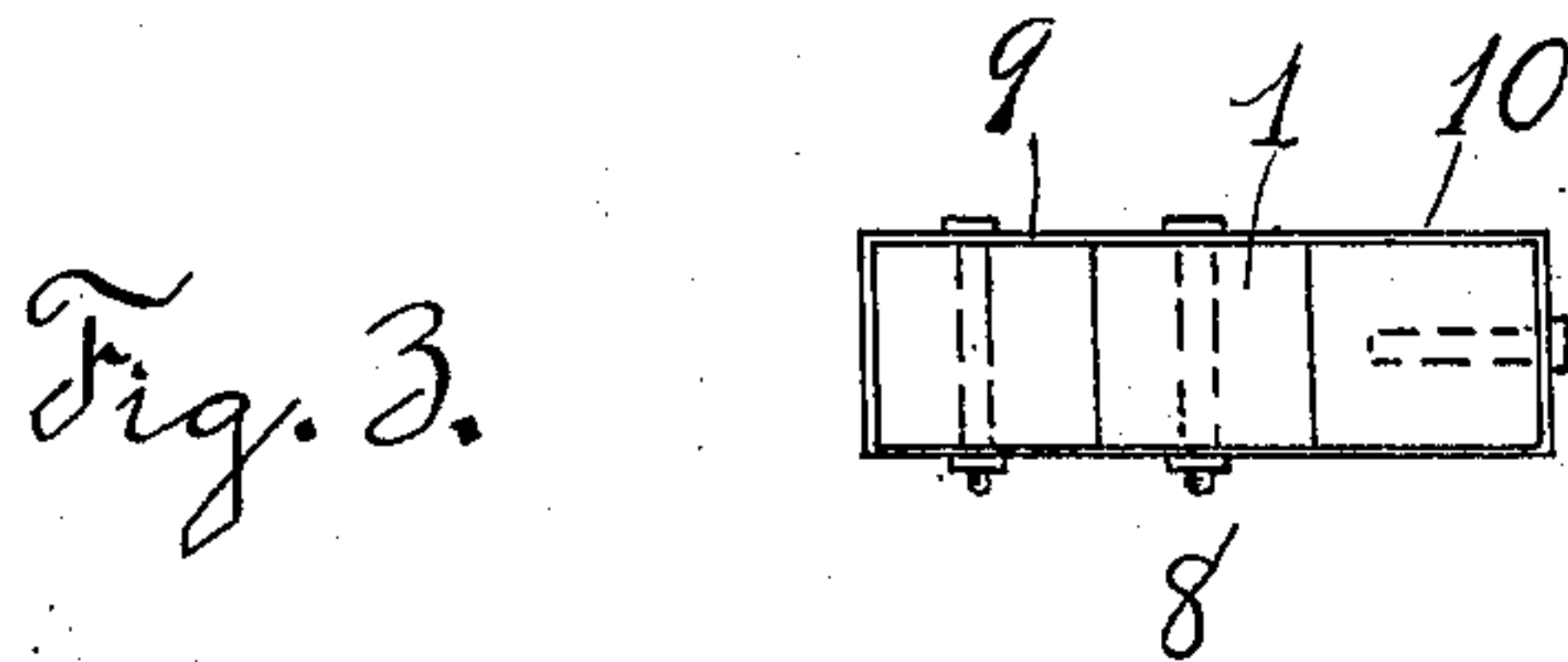
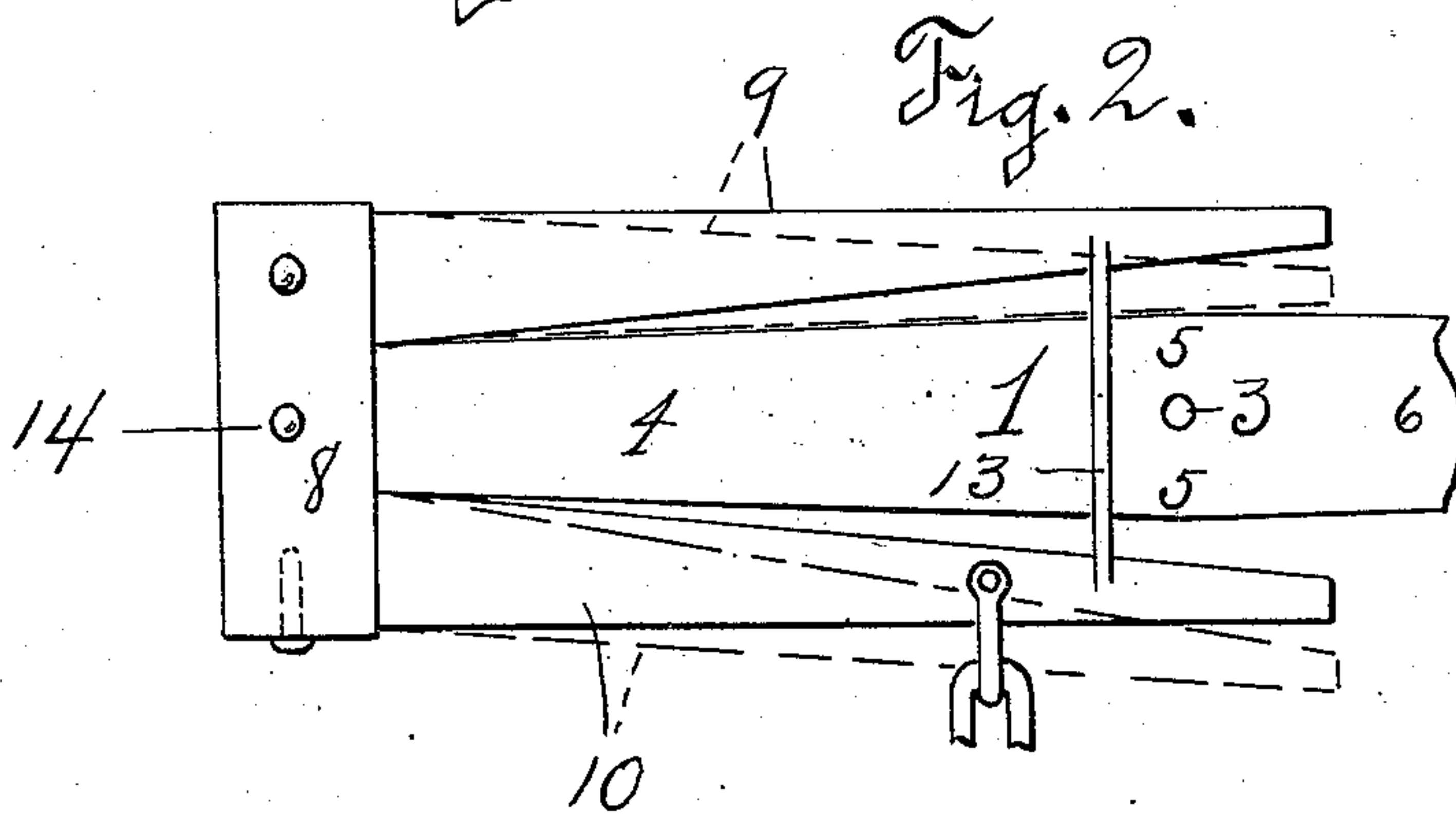
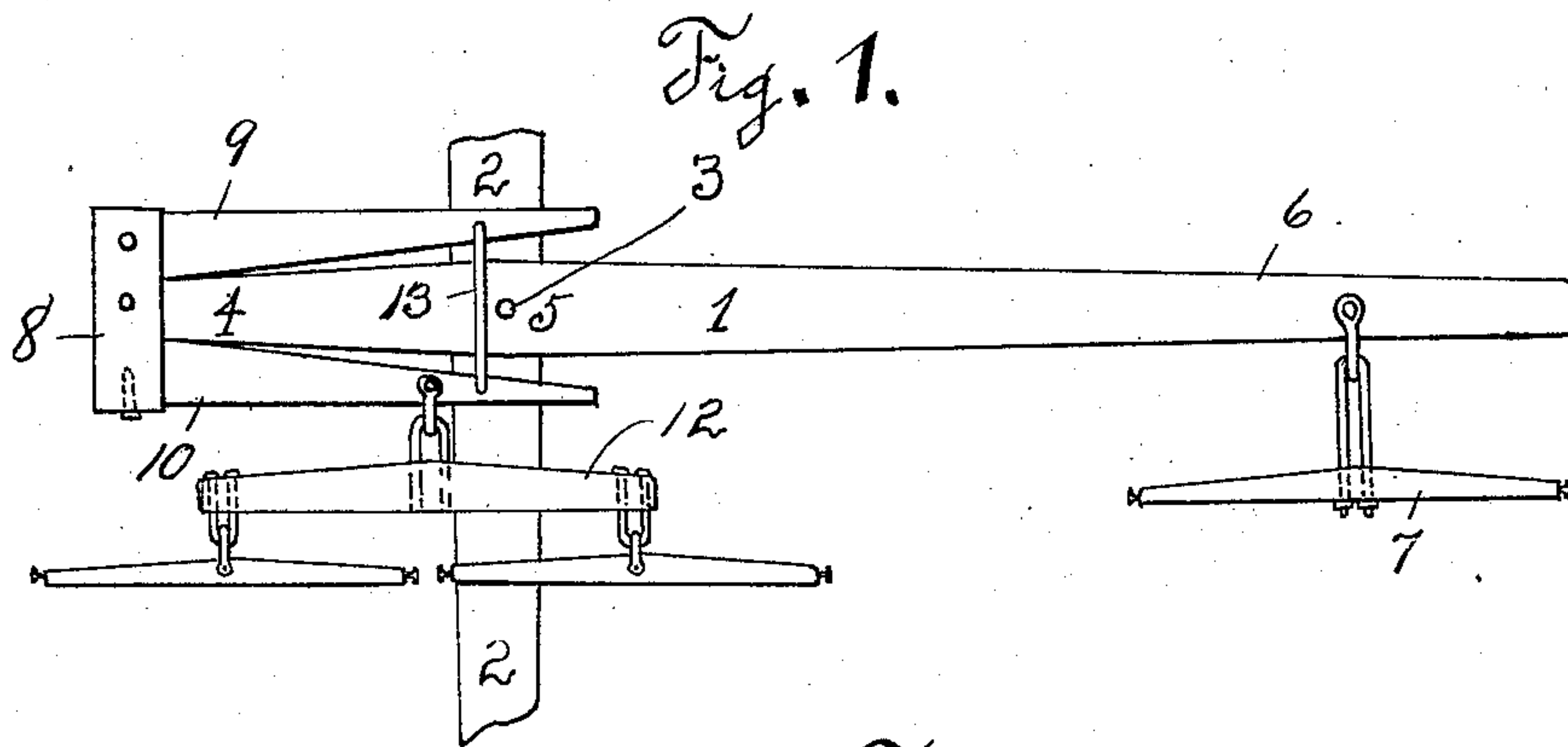


No. 841,930.

PATENTED JAN. 22, 1907.

W. R. CAMPBELL.
DRAFT EQUALIZER.
APPLICATION FILED OCT. 25, 1906.



WITNESSES:

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WILLIAM R. CAMPBELL, OF LITTLE YORK, ILLINOIS.

DRAFT-EQUALIZER.

No. 841,930.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed October 25, 1906. Serial No. 340,562.

To all whom it may concern:

Be it known that I, WILLIAM R. CAMPBELL, a citizen of the United States, residing at Little York, in the county of Warren and State of Illinois, have invented a new and useful Draft-Equalizer, of which the following is a specification.

The present invention has relation to draft-equalizers, and has for its primary object to provide a device of that character having improved means for equalizing inequalities, due to any cause whatsoever, tending to produce side draft; and to this end the invention, broadly stated, consists in a single equalizing-bar pivoted or swiveled unequidistant from its ends to the ordinary vehicle-tongue and provided at one of its ends with a pair of compensating or equipollent arms. Subsidiary objects will hereinafter appear.

It further consists in the features of novelty that are hereinafter described with reference to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a plan embodying my invention and showing a portion of a wagon-tongue to which it is attached; Fig. 2, a similar view, enlarged, showing one movement of the compensating arms; and Fig. 3, an end view.

Reference being now had to the drawings, in which like numerals refer to corresponding parts in the several figures, 1 represents my improved equalizing-bar fulcrumed in an ordinary manner to a tongue 2 by a pin 3. For a purpose hereinafter described the bar is broadest at its pivotal point 5 and slightly tapered toward its short end 4. An ordinary swingle-tree 7 is secured in any preferred manner to the longer arm 6 of said bar. Transversely of the shorter arm 4 is a strap 8, to which it is pivoted centrally thereof. At the rear side of the end 4 is a compensating arm 9, which is also pivoted to the strap 8. Forwardly of the end 4 is another compensating arm 10, rigidly fixed by a pin 11 or in any other manner to the strap 8. The arms 9 and 10 are in contact at their outer ends with the end 4 of the bar and are tapered to such an extent that their inner ends are spaced some distance from the portion 5 of the equalizer-bar, which is broadest at that point for the purpose of strength, the draft of the wagon, fertilizer-distributor, or other vehicle being there applied. An ordinary double-tree 12 is swiveled or otherwise attached to the arm 10, as shown. The inner or distal

portions of the arms 9 and 10 are held firmly and securely together by a hammer-strap 13. It will be evident that the point of equalization will be that which I have marked 14, and that when the team of draft-animals hitched to the double-tree on the shorter arm 4 moves forwardly of the one hitched to the longer arm 6 the arm 10 will, by reason of its being rigidly fixed to the strap 8 and its inner end by the hammer-strap to the arm 9, be moved to the dot-line position at Fig. 2 and carry with it said last-named bar. Their positions will be reversed—that is, they will move rearwardly—when the single draft-animal is in advance.

The advantages of the invention have been partly set forth in the statement of the purposes and objects thereof and the detail description of the mechanism; but, concisely stated, the leading benefits secured thereby are as follows: First, the equalization is absolute and perfect; second, a single equalizing-bar only is employed; third, the compensating arms relieve a great portion of the strain when a sudden jerk is given either by the team or by the single draft-animal; fourth, because of its simplicity the device is not only strong and durable, but is extremely economical of manufacture; fifth, by turning it upside down it is reversible; sixth, it may be readily manipulated, even by a novice; seventh, the several parts are readily adjustable to any positions desired.

I do not wish to be confined to the exact construction shown, as other means than those illustrated may be employed for connecting the equalizer-bar and the compensating arms, other means than a hammer-strap may be used for connecting the inner ends of the latter, the points of securement may be elsewhere than where shown, and the arrangement and disposition of the several parts may be altered; but

What I do claim is—

1. A draft-equalizer including a single equalizer-bar, a strap, said bar pivoted thereto, a compensating arm also pivoted thereto, and a second compensating arm, the latter fixed to said strap.

2. A draft-equalizer including a single equalizer-bar, a strap, said bar pivoted thereto, a compensating arm also pivoted thereto, a second compensating arm, the latter fixed to said strap, and means for connecting the distal ends of said arms.

3. A draft-equalizer including a single equalizer-bar, a strap, said bar pivoted thereto, a second compensating arm, the latter fixed to said strap, means for connecting the
5 distal ends of said arms, a doubletree secured to said last-named arm and a swingletree to said bar.

4. A draft-equalizer including a single equalizer-bar, compensating arms at one end
10 thereof, a strap to which said bar and arms are secured, and means for connecting the distal ends of said arms.

5. The combination with a vehicle-tongue, of a single equalizer-bar fulcrumed thereon
15 transversely thereof, compensating arms at

one end of said bar and lying along its sides, a strap to which said bar and arms are secured, a hammer-strap connecting the distal ends of said arms, a doubletree secured to one of them, and a swingletree to said bar. 20

6. In a draft-equalizer, a single bar comprising a longer and a shorter arm, compensating arms at the sides of the shorter arm, and means for uniting said bar and arms.

In witness whereof I hereto subscribe my
name in presence of two witnesses. 25

WILLIAM R. CAMPBELL.

Witnesses:

L. F. WERTMAN,

L. M. RICHARDS.