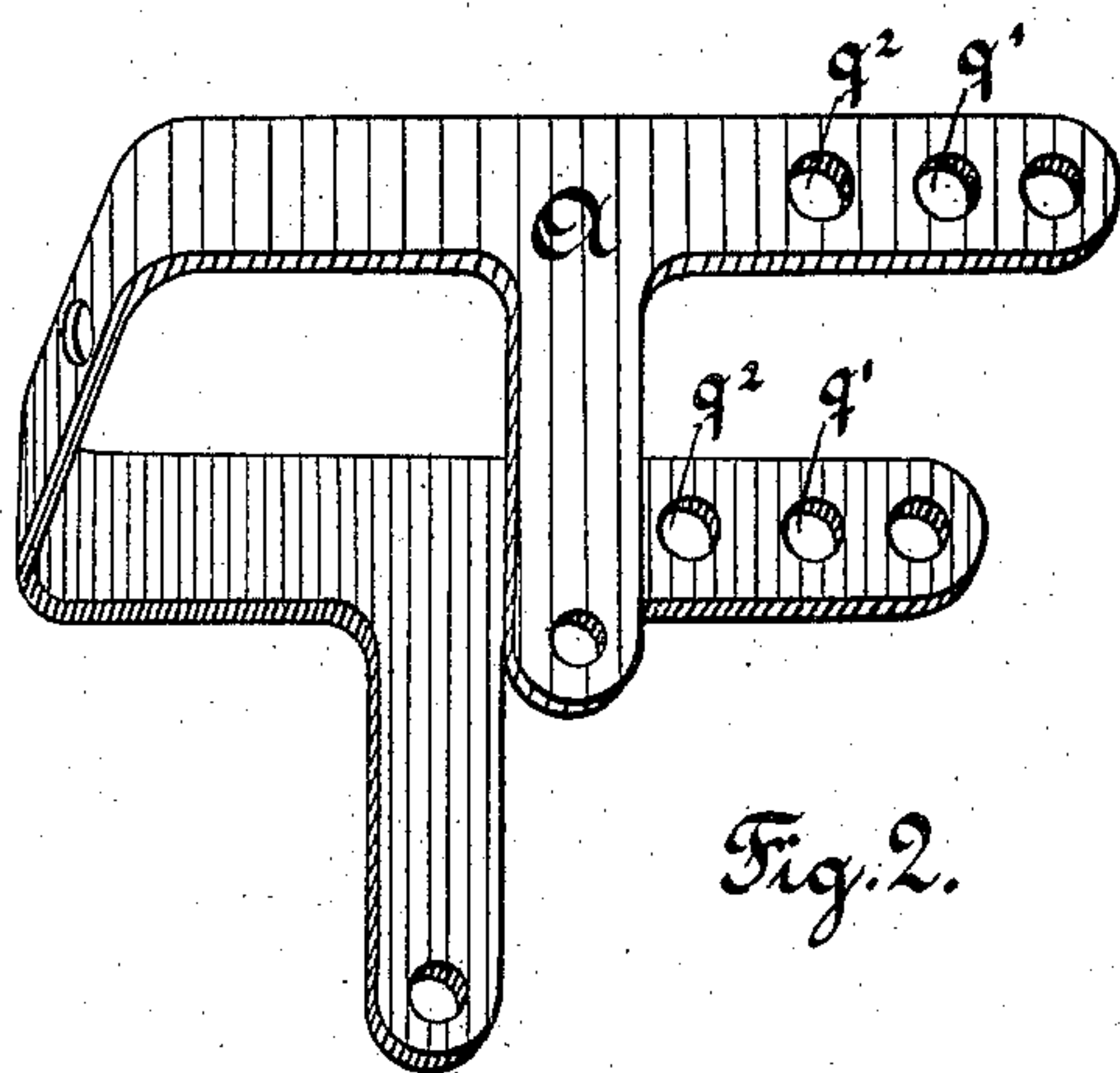
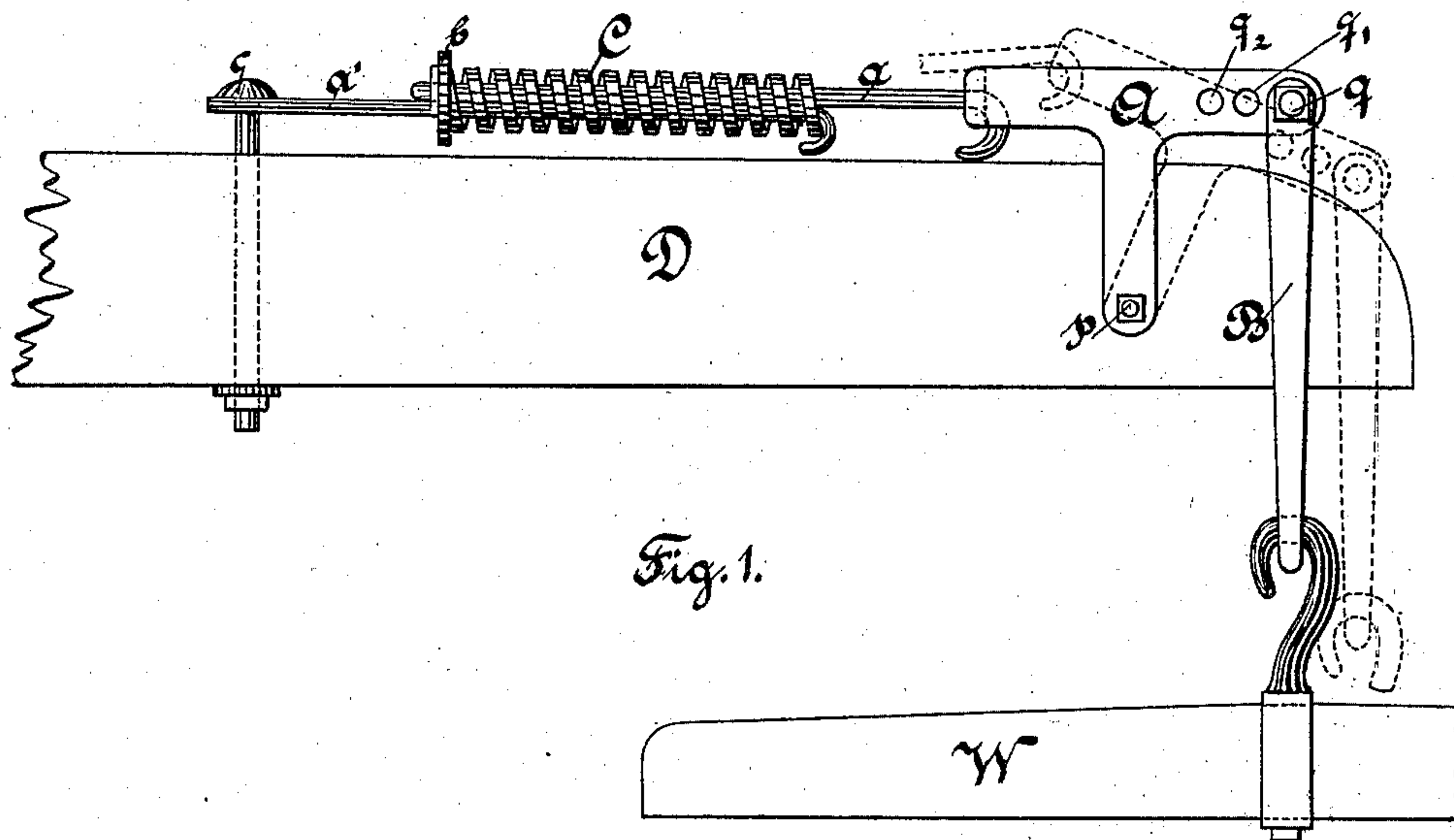


(No Model.)

J. R. DAVIS.
DOUBLETREE CLIP.

No. 365,735.

Patented June 28, 1887.



WITNESSES:

Storm Bull.

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JOHN R. DAVIS, OF SUN PRAIRIE, WISCONSIN.

DOUBLETREE-CLIP.

SPECIFICATION forming part of Letters Patent No. 365,735, dated June 28, 1887.

Application filed November 8, 1886. Serial No. 218,348. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. DAVIS, a citizen of the United States, residing at Sun Prairie, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Doubletree-Clips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to a doubletree-clip in which the draft-link is adjustably pivoted to an oscillating clevis pivoted to the doubletree and held in operative position by a coil-spring, whereby said clevis and draft-link, together with whiffletree attached, are held rigid and firm for all ordinary uses and purposes, but are also adapted to yield when any unyielding obstruction is encountered, thereby saving from wear and breakage the parts of the machine as well as the shoulders of the draft-animals.

My device also performs the function of a draft-equalizer, as will be more fully described.

Figure 1 is a top view of my device applied to the doubletree. Fig. 2 is a perspective, in detail, of the oscillating clevis.

In the drawings, similar letters, where they occur, refer to like parts in both views.

D represents the doubletree; W, one of the whiffletrees; B, the draft-link, to which the whiffletree is hooked; and A the oscillating clevis, to which is pivoted at its outer end the draft-link B by means of the pivot-pin *q*. The clevis A is preferably U-shaped, and is provided with parallel pivot-arms extending from the sides of the clevis, the whole being pivoted by means of the pin *p* to the doubletree D, and adapted to oscillate freely over the same. The draft-link B is also adapted to swing freely over the doubletree. The clevis is pivoted to the doubletree, so that the open part of the U-shaped portion extends outward. At the inner end of this clevis I secure a sliding rod, *a*, by hooking the bent end of said rod through a hole in the clevis, (see Fig. 2;) but I do not wish to restrict myself to this particular method of attaching these parts, as it is obvious that other equivalent mechanical devices can be used to accomplish

the same purpose—as, for example, a plain bolt-head or a nut and washer.

To the inner end of the slide-rod *a*, I secure a washer, *b*, provided with a slot to admit the free passage of the fixed rod *a'*, hooked at its outer end and pivoted to the bolt *c* at its inner end.

Instead of the hook a washer may be secured to the outer end of the fixed rod *a'*, being properly slotted to allow free play of the sliding-rod *a* through the same, in a manner similar to that described for the washer *b*. The coil-spring C is held in tension about the two rods *a a'*, between the washer *b* of the former and the hooked end of the latter.

A device similar in all respects to that described is also attached to the other end of the doubletree. (Not shown in the drawings.)

The operation is as follows: The tension of the coil-spring C will be sufficient to hold the clevis and the draft-link in their initial and normal position, as shown by the full lines of the drawings, (see Fig. 1,) except when some unyielding obstruction is suddenly met with. Then the strain on the whiffletree, being communicated through the draft-link B, will act on the outer end of the clevis A to draw it forward and outward into a position like that shown by the dotted lines, (see Fig. 1,) at the same time compressing the coil-spring C. By this means the sudden shock is relieved, both as to the parts of the machine attached to the doubletree and the shoulders of the draft-animals as well. Suppose in such a case that the doubletree is attached to a plow the point of which strikes against a stone or some other unyielding obstruction. The plow-point will be saved from breaking and the strain will be taken up in compressing the coil-spring, as described. The mechanism is so adjusted, both as to the draft-link connection and the stiffness of the spring, that the clevis will not be drawn out to the limit shown by the dotted lines unless the obstacle is absolutely unyielding, when the spring must be compressed to save the breakage of the parts. Sudden and violent jerks, however, may be relieved by less extensive oscillations of the clevis. Adjusting-holes *q' q''* are provided in the outer end of the clevis A, whereby the draft-link B may be adjustably attached. This adjustment

may be necessary alike for both ends of the doubletree when adjustment is made with reference to the nature of the work to be done—as for plowing; or it may be for the purpose of equalizing the draft.

If it be desired to have the spring respond less quickly, or if the stronger animal be attached to the whiffletree shown, then in either case the adjustment would consist in pivoting the draft-link at one of the inner holes, q' q^2 .

I am aware of the Patent to Blackford, March 12, 1872, No. 124,537, draft-equalizer, and do not wish to be understood as claiming anything covered by that patent.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In a doubletree-clip, an oscillating clevis pivoted to the doubletree, as described, and provided with a series of adjusting-holes for pivoting the draft-link, in combination with a draft-link, whereby the latter may be adjustably attached to said clevis with reference to the nature of the work to be done, so as to relieve from the effects of sudden strains the draft-animals, as well as the exposed parts of the machine to which the doubletree is attached, all as described, and for the uses and purposes set forth.

2. In a doubletree clip, in combination with an oscillating clevis pivoted to the doubletree and provided with adjusting-holes and a draft-link adjustably pivoted thereto, a slide-rod secured at its outer end to said clevis and having at its inner end a washer slotted to allow it to slide freely over a second parallel fixed rod bolted at its inner end to said doubletree, both of said rods being surrounded by a coil-spring held in suitable compression between said washer on the inner end of the sliding rod and the hooked outer end of said parallel fixed rod, all as set forth.

3. In a doubletree-clip, in combination with an oscillating clevis pivoted to the doubletree and a draft-link adjustably pivoted thereto, a slide-rod secured at its outer end to said clevis and provided at its inner end with a washer slotted to allow it to slide freely over a second

parallel fixed rod bolted at its inner end to the doubletree, both of said rods being surrounded by a coil-spring held in suitable compression between said washer on the inner end of the sliding rod and the hooked outer end of said fixed parallel rod, whereby the draft-animals and the machine attached to the doubletree are protected and relieved from sudden strains, substantially as described, and for the uses and purposes set forth.

4. In a doubletree-clip, in combination with an oscillating clevis pivoted to the doubletree and provided with adjusting-holes and a draft-link adjustably pivoted thereto, a slide-rod secured at its outer end to said clevis and having at its inner end a washer slotted to allow it to slide freely over a second parallel fixed rod bolted at its inner end to said doubletree, both of said rods being surrounded by a coil-spring held in suitable compression between said washer on the inner end of the sliding rod and the hooked outer end of said parallel fixed rod, whereby the draft-link may be so attached as to equalize the work of the draft-animals, substantially as described, and for the uses and purposes set forth.

5. In a doubletree-clip, in combination with the oscillating clevis A, pivoted to the doubletree D by the pin p , and provided with the adjusting-holes q' q^2 , and the draft-link B, pivoted to said clevis by the pivot-pin q , the slide-rod a , hooked to the clevis A, and having at its inner end the slotted washer b , the fixed rod a' , passing through said washer, being hooked at the outer end and pivoted at the inner end to the bolt c , and the coil-spring C, held in compression between the washer b and the hooked end of the fixed rod a' , all as described, and for the purposes set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN R. DAVIS.

Witnesses:

P. H. PERKINS,
CHAS. E. BUELL.