

(No Model.)

2 Sheets—Sheet 1.

J. E. OFFUTT.

ADJUSTING LEVER FOR TEDDERS, &c.

No. 356,371.

Patented Jan. 18, 1887.

Fig. 2.

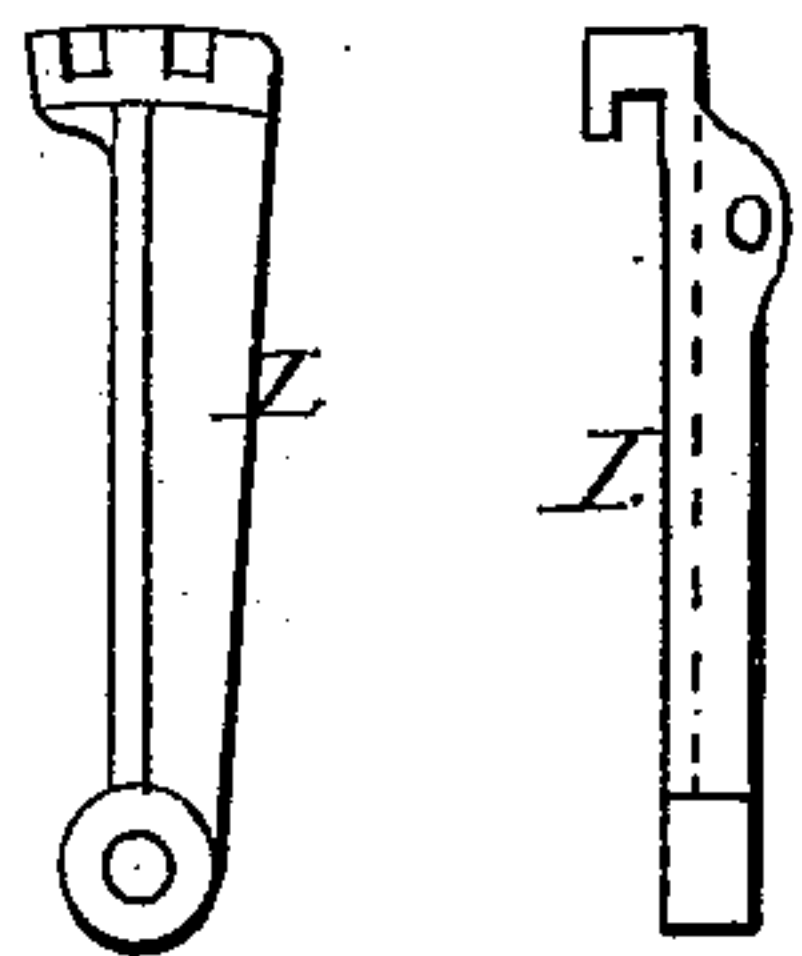


Fig. 1.

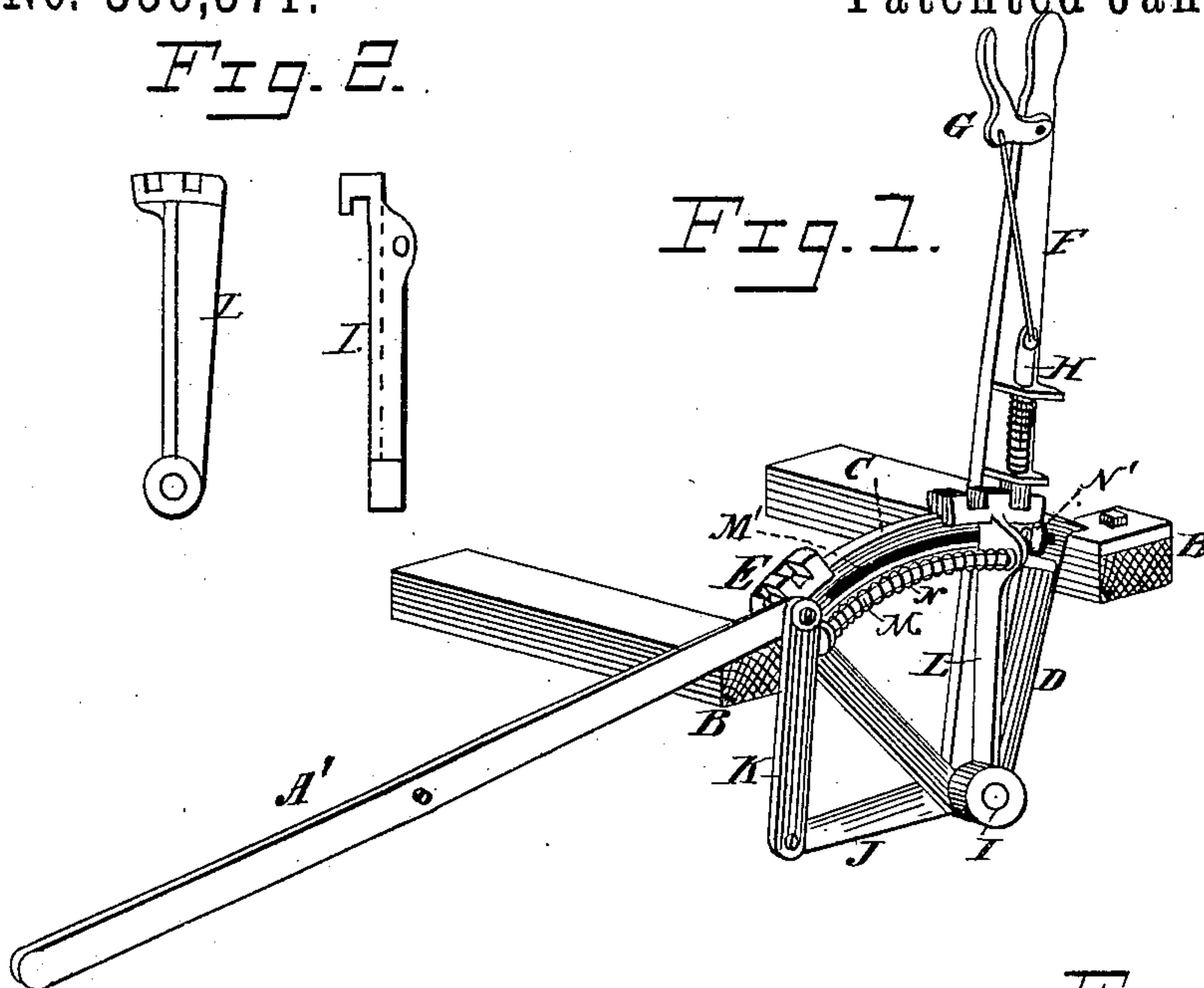


Fig. 3.

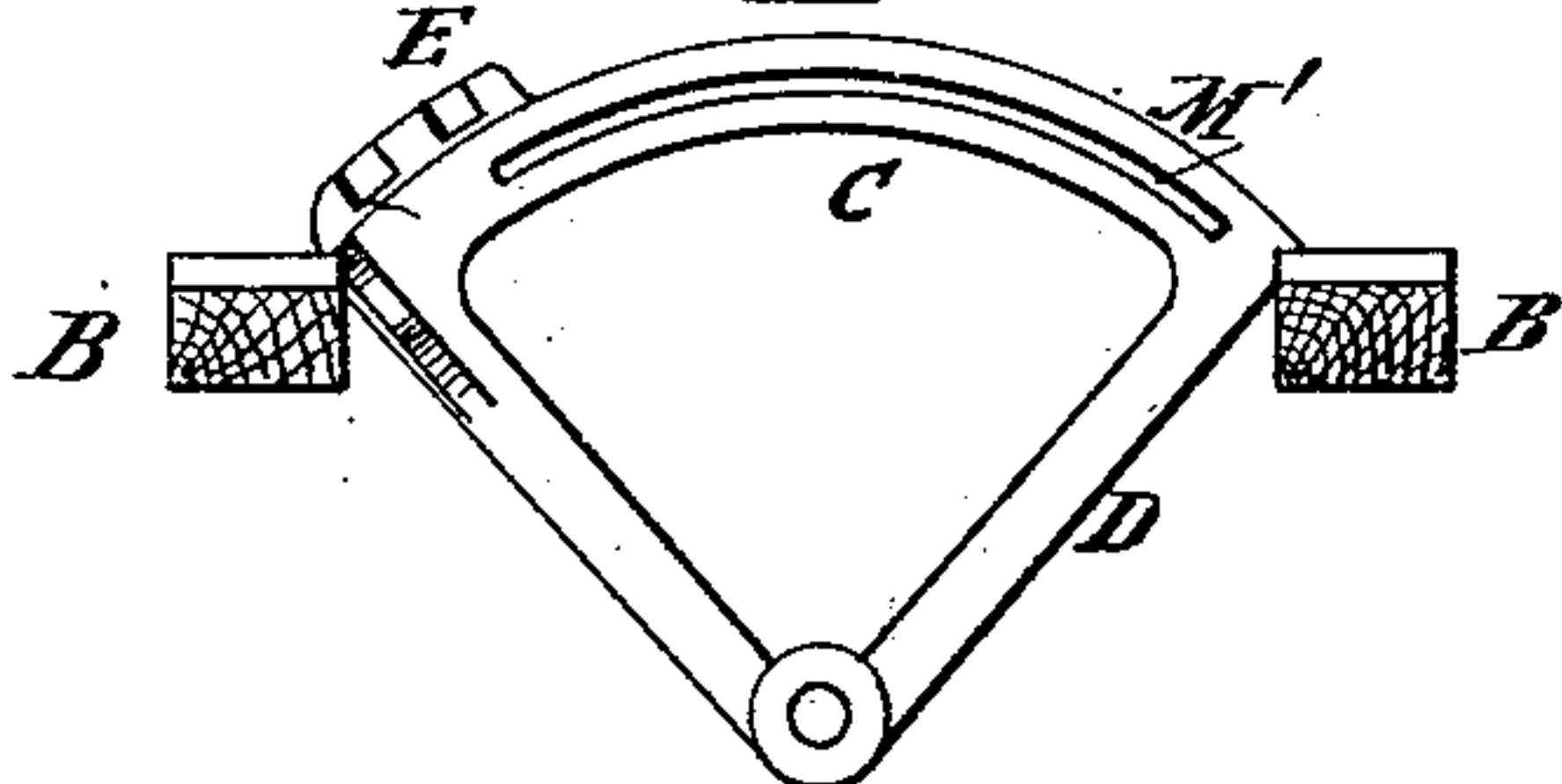


Fig. 4.

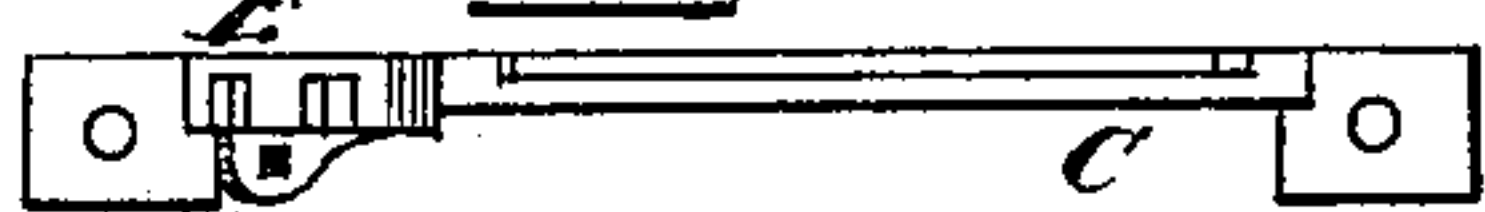
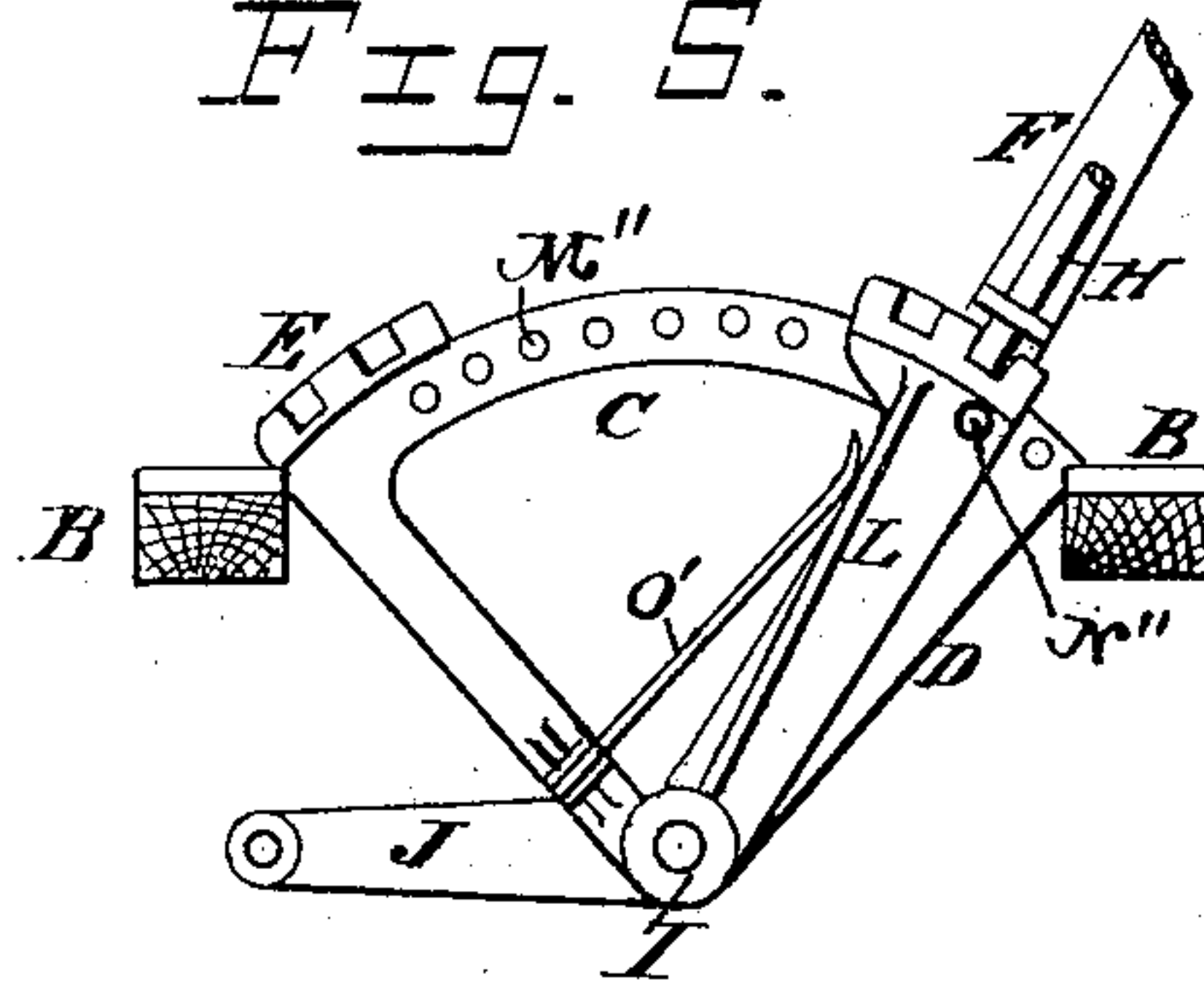


Fig. 5.



Attest.

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Attys.

(No Model.)

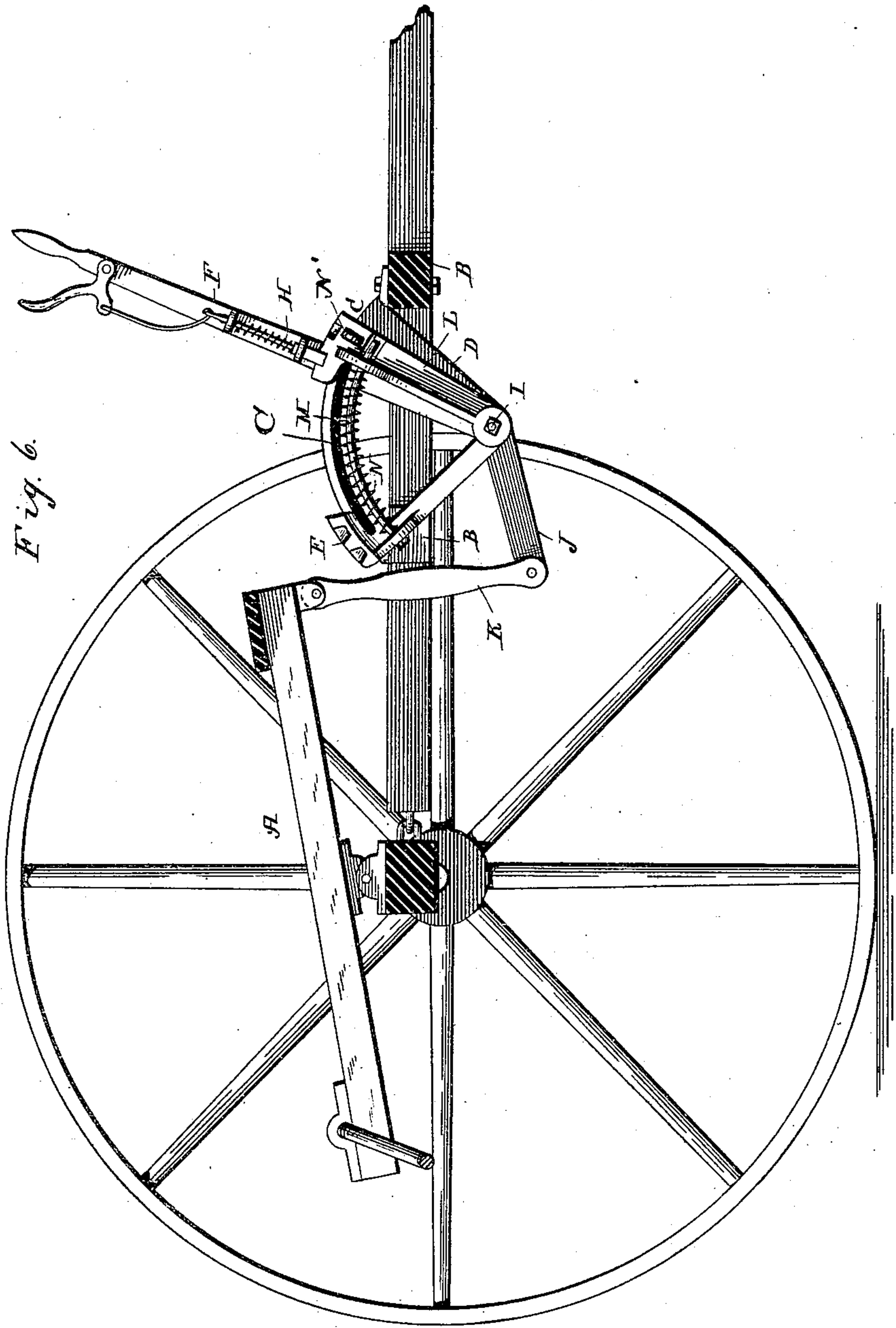
2 Sheets—Sheet 2.

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WITNESSES

Colvin L. Bradford  
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INVENTOR

Joseph E. Offutt,  
By Paul M. Ferriss,  
his Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH E. OFFUTT, OF SPRINGFIELD, OHIO, ASSIGNOR TO JOHN H. THOMAS,  
OF SAME PLACE.

## ADJUSTING-LEVER FOR TEDDERS, &c.

SPECIFICATION forming part of Letters Patent No. 356,371, dated January 18, 1887.

Application filed March 4, 1886. Serial No. 194,007. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH E. OFFUTT, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Adjusting-Levers for Tedders, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in adjusting-levers, and is specially intended for use in connection with hay-tedders, though its scope of usefulness is not confined to such machines; and the invention (when used upon

15 a tedder) has for its objects, first, to provide an adjusting-lever for adjusting the tedder-frame to different positions with respect to the ground, and a spring acting between the lever and the tedder-frame and arranged in

20 such a manner as to resist the lever and to permit of the adjustment of the lever, so as to vary the position of the tedder-frame without changing the yielding capacity of the spring; second, to provide an adjusting-lever proper

25 with a fixed locking-segment, a movable locking-segment with which the lever has adjustable connection, and a spring which resists the lever through the locking-segment and does not change its yielding capacity by change

30 of the position of the lever.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding features, Figure 1 represents a perspective view

35 of my improved lever entire; Fig. 2, side and edge elevations of the movable locking-segment; Fig. 3, a side elevation of the fixed locking-segment; Fig. 4, a plan view of the fixed locking-segment; Fig. 5, a side elevation of

40 the lever entire, showing a modified form of spring; and Fig. 6, a side elevation of the lever entire, showing also its application to the thills and tedder-frame of a hay-tedder, the thills and tedder-frame being in section.

45 In Letters Patent on improvements in combined hay rakes and tedders, dated March 16, 1886, No. 337,891, granted John H. Thomas and myself, is set forth an adjusting-lever and a yielding connection between the tedder-

50 frame and adjusting-lever, which accomplishes

the same end, or substantially the end, accomplished by the present improvements; but in that device the spring is itself supported by the lever—a movable point—while in this improvement the spring is supported upon a

55 point other than the lever, preferably a fixed point, and herein lies the difference in principle between the two devices; yet both are capable of reaching the same results.

I shall now describe my invention in its application to tedders.

The letter A designates the tedder-frame proper of a tedding-machine, constructed and mounted upon a suitable running-gear in the ordinary manner, and the letter B designates

65 the cross-pieces of the thills, which are also of usual construction.

To the thills B, in any convenient manner, is secured the fixed locking-segment C, and two legs or members, D, depend therefrom, and

70 constitute at their place of meeting a convenient fulcrum-point for the lever proper. At or near one extremity of the segment it is provided with notches E, which serve to secure the detent of the lever when the machine

75 is not in operation.

The letter F refers to the adjusting-lever proper, the same consisting, preferably, of a metallic bar fashioned into a handle at one end and provided with a spring-detent, G H. This

80 lever is pivoted at some convenient point, preferably at I, to the legs D, and has a shorter arm, J, and to this shorter arm J is connected the tedder-frame by a link, K. It will be seen, then, that by adjusting the lever back

85 and forth the position of the tedder-frame with respect to the ground will be changed; but in order to maintain the said frame in the different adjusted positions, yet in a yielding manner and in a manner which will yield equally

90 well and free, no matter what the position may be, I provide the devices now to be described.

The letter L refers to the movable segment, consisting of a bar pivotally mounted upon an axis coincident or common with the axis of

95 the lever F, that the detent carried by the lever will readily engage notches in the said movable segment.

The letter M designates a rod, preferably curved to agree with the sweep described by

100



the movable segment, and connected at one or both ends to the fixed segment, or to some other fixed point, and encircled by a spiral spring, N, which bears with one end against the movable segment and the other end against the fixed segment, and operates to resist any weight or strain tending to draw the lever toward the spring. It will be seen that by adjusting the lever to the one or the other of the notches in the movable segment the position of the structure—the tedder-frame in this instance—connected to the shorter arm will be changed, but that the tension of the spring is not affected by this adjustment, so that the yielding capacity of the spring remains the same, whatever be the position of the lever with respect to its movable segment. It is obvious that the success of the invention does not depend upon the character of spring employed, as any yielding device will answer the purpose, if properly arranged; nor is it essential that it be guided by a rod or be supported by the fixed segment. It is essential, however, that the position of the lever with respect to the spring be capable of being changed without affecting the yielding capacity of the spring.

A spring, *o'*, such as shown in Fig. 5 may be employed, if desired, and may be fixed to the fixed segment or to some other point, and adapted to bear against the movable segment. Any number of notches may be made in the segments.

The reason for allowing the tedder-frame to yield freely and uniformly irrespective of its relative adjustment to the ground is fully explained in the Letters Patent above alluded to, and therefore need not be repeated here.

Of course, while my invention is peculiarly useful in connection with hay-tedders, I do not wish to be understood as limiting myself to its use when combined with a tedder.

As shown in Figs. 1 and 3, I have provided the fixed segment with a slot, *M'*, and the movable segment with a bolt, *N'*, having a thumb-nut, whereby the movable segment and the lever through the segment may be firmly locked at any point along the fixed segment if, for any cause, it should be desirable to do so, as would be the case when the improvement herein described is used in a combined hay rake and tedder, the lever being set for raking purposes. Instead of the slot *M'*, a series of holes, *M''*, may be made in the fixed segment, and a pin, *N''*, passed through the movable segment and into one or the other of the holes, as seen in Fig. 5.

The letter *A'* in Fig. 1 designates the pivoted bar connected with the lever, and illustrative of another use to which the lever may be applied, the bar being connected with any device which it may be desired to adjust.

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

1. The combination, with a pivoted adjusting-lever and a spring supported at one end, of a device interposed between the lever and

the spring with respect to which the lever has adjustable connection and which the spring resists, whereby the position of the lever relative to this device may be changed without changing the position of said device relative to the spring, and therefore without affecting the yielding capacity of the spring.

2. The combination, with a tedder-frame and a thill-frame, of a pivoted adjusting-lever mounted upon the thill-frame and connected with the tedder-frame, a spring supported at one end on the thill-frame, and a device interposed between the lever and the spring with which the lever has adjustable connection and which the spring resists, whereby the position of the lever and the tedder-frame may be changed relative to the device without affecting the position of that device relative to the spring, and therefore without altering the yielding capacity of the spring.

3. The combination, with a pivoted adjusting-lever and a movable segment with which the lever engages, of a spring having a fixed support at one end and resisting said segment at the other, whereby the position of the lever with respect to the segment may be changed without altering the position of the segment itself, and without affecting the yielding capacity of the spring.

4. The combination, with a tedder-frame and a thill-frame, of a pivoted adjusting-lever and a movable segment mounted upon one of them, and the lever connected with the other of said frames, and a spring having a fixed support at one end and resisting the movable segment at the other, whereby the position of the lever relative to the movable segment and the tedder-frame may be changed without affecting the yielding capacity of the spring.

5. The combination, with the pivoted adjusting-lever, a movable segment with which the lever engages, and a fixed segment to which the lever and the movable segment are pivoted, of a spring supported by the fixed segment at one end and resisting the movable segment at the other, whereby the position of the lever may be changed with respect to the movable segment, and without affecting the yielding capacity of the spring.

6. The combination, with a tedder-frame and a thill-frame, of a fixed segment mounted upon one of them, a movable segment and a pivoted adjusting-lever, both connected to the fixed segment and the lever to the other of said frames, a spring supported by the fixed segment at one end and resisting the movable segment at the other end, whereby the position of the lever with respect to the movable segment and the tedder-frame may be changed without affecting the yielding capacity of the spring.

7. The combination, with a pivoted adjusting-lever and a movable segment with which it engages, of a fixed segment having depending members to which the lever and the movable segment are pivoted, a rod supported by



the fixed segment, and a spring coiled about said rod and resisting the movable segment, whereby the position of the lever may be changed with respect to the movable segment without affecting the position of the movable segment relative to the fixed segment, and without altering the yielding capacity of the spring.

8. The combination, with the tedder-frame and a thill-frame, of a fixed segment mounted upon the thill-frame, an adjusting-lever, and a movable segment with which the lever engages, both pivotally mounted to the said fixed segment, a link connecting the tedder-frame with the lever, a rod supported by the fixed segment, and a spring coiled about the rod and resisting the movable segment, whereby the position of the lever with respect to the movable segment and the tedder-frame may be changed without affecting the yielding capacity of the spring.

9. An adjusting-lever consisting of the fol-

lowing elements: a pivoted lever proper having an arm, a fixed segment, a movable segment with which the lever engages, a guide-rod supported by the fixed segment, and a spring carried by the rod, one end bearing on some fixed point and the other resisting the movable segment, whereby the position of the lever with respect to the movable segment may be changed without changing the relative position of the two segments, and without affecting the yielding capacity of the spring.

10. The combination, with a fixed segment and a pivoted lever, of a pivoted movable segment, with which the lever has adjustable connection, and devices to lock the two segments together.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH E. OFFUTT.

Witnesses:

A. N. YEATMAN,  
CHASE STEWART.