

No. 690,452.

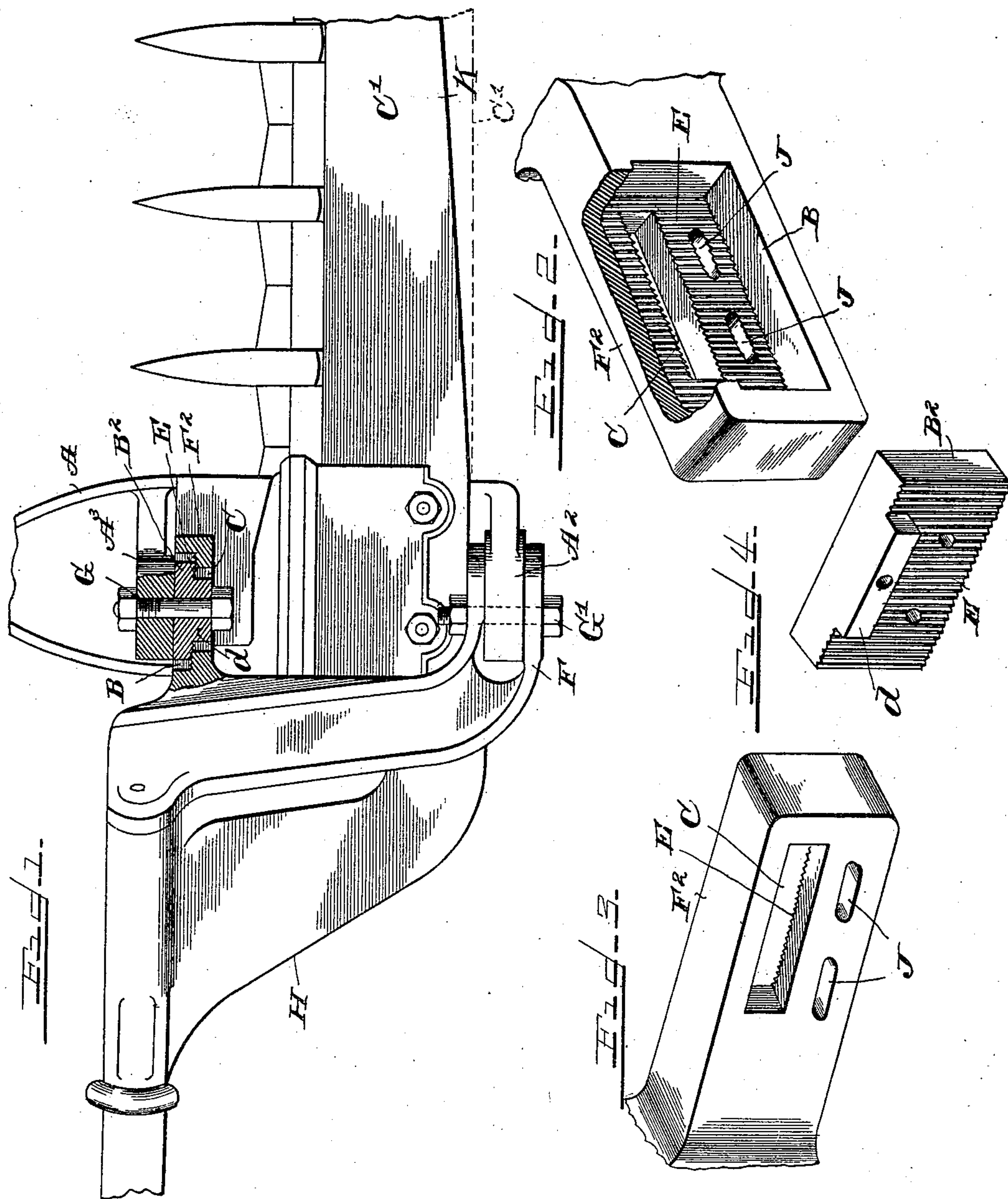
Patented Jan. 7, 1902.

W. D. MYERS.

MEANS FOR ADJUSTING FINGER BARS OF MOWING MACHINES.

(Application filed Nov. 3, 1900.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

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MEANS FOR ADJUSTING FINGER-BARS OF MOWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 690,452, dated January 7, 1902.

Application filed November 3, 1900. Serial No. 35,381. (No model)

To all whom it may concern:

Be it known that I, WILLIAM D. MYERS, a citizen of the United States, residing at Humboldt, in the county of Humboldt and State of Iowa, have invented a new and useful Means for Adjusting Finger-Bars of Mowing-Machines, of which the following is a specification.

This invention relates to means for adjusting finger-bars of mowing-machines.

The object of the invention is to provide means which are simple and efficient for maintaining alinement between the cutter-bar and its actuating-pitman.

The invention consists, substantially, in the construction, combination, location, and relative arrangement of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings and to the various views and reference-signs appearing thereon, Figure 1 is a top plan view of a portion of a finger-bar of a mowing-machine and the yoke for supporting the inner end thereof, parts being in horizontal section and showing a construction embodying my invention. Fig. 2 is a broken detail view in perspective, parts broken out, of a portion of the supporting-yoke. Fig. 3 is a similar view taken from the reverse side of Fig. 2. Fig. 4 is a view in perspective of a bearing-block adapted to be adjustably connected to the arm of the yoke or frame shown in Figs. 2 and 3.

The same part is designated by the same reference-sign wherever it occurs throughout the several views.

In the efficient operation of mowing-machines it is desirable and important to maintain accurate alinement between the cutter-bar and its operating-pitman. In use through the wear of joints and parts which support the inner end of the finger-bar, due to the backward pressure exerted upon the finger-bar as the machine advances over the ground and encounters the grass or grain to be cut or other obstruction, a tendency is quickly developed in the finger-bar to sag backward, and it is evident that only a slight wear of

joints at the inner end of the finger-bar will result in a magnified degree of backward sagging at the outer end of such bar. This backward sagging of the finger-bar is objectionable and undesirable, for the reason that thereby the path of reciprocation of the cutter-bar becomes deflected or changed out of accurate alinement with the pitman, through which reciprocations are imparted to the cutter-bar, and as a rapid reciprocation is imparted to the cutter-bar when the machine is in use such deflection of the path of reciprocation of the cutter from true and accurate alinement with the line of movement of the pitman (and which is not affected by the rearward pressure upon the finger-bar or by wear in the parts which support the finger-bar) develops friction and rapid wear and looseness of the cutter-bar, thus not only causing the machine to run heavy, but rapidly wearing out the parts. In my Patent No. 653,031, issued July 3, 1900, is disclosed and specifically claimed a construction designed to overcome this difficulty, wherein the shoe upon which the finger-bar is supported is provided with integral lugs for pivotally connecting such shoe with the coupling arm or frame, one of the lugs on the shoe being provided with an adjustable bearing for a pivot-bolt, whereby by adjusting such bearing the alinement of the finger-bar with the pitman may be restored and maintained. In said patent is shown and described a modified construction, wherein the adjustable pivot-bolt is mounted in the coupling arm or frame. It is the purpose of the present application to specifically cover this modified construction involving my invention.

In the drawings reference-sign A designates the shoe; H, the coupling frame or arm; K, the finger-bar, which is securely bolted or otherwise mounted on or secured at its inner end to shoe A. The shoe A is provided with lugs A^2 A^3 , adapted to cooperate with arms or projections F F^2 of the coupling frame or arm to form means for pivotally supporting said shoe upon said frame or arm, pivot-bolts G G' being passed through said arms and lugs F^2 A^3 and F A^2 , respectively. The bolts G G' are arranged in accurate alinement with each

other and not only form means for supporting the shoe upon the coupling arm or frame, but also constitute hinges or pivots by which the finger-bar and cutter may be raised or
5 folded in the usual manner against the side of the machine.

In the operation of the machine the wear upon the joints and bearings of pivot-bolts G G', due to the pressure exerted upon the outer
10 end of the finger-bar as it advances against the grass or grain to be cut or other obstruction, causes a looseness in such joints and bearings, which looseness results in a backward sagging of the finger-bar, as indicated
15 in dotted lines at C', Fig. 1, thereby destroying the alinement of the cutter-bar with its operating-pitman. In order to correct this fault, I provide one or both of the arms or supports F F² of the coupling frame or arm with
20 a recess B, in which is adapted to be received a block B². A lug or projection d is arranged to project into an elongated slot or opening C, formed in said arm or projection, the slot C being of sufficient length to permit the
25 block B² to be adjusted lengthwise with respect to the arm or projection, as clearly shown in the drawings. The pivot-bolt by which the shoe A is pivotally supported upon the coupling arm or frame is carried by block B².

30 From the foregoing description it will be readily seen that by adjusting the block B² in the arm or projection of the coupling-frame any deflection or sagging of the finger-bar out of true and accurate alinement with the
35 pitman may be readily restored. The arm or projection of the coupling-frame, as F², may be provided with elongated slots J, through which may pass bolts for clamping the adjustable bearing-block B² in adjusted position
40 within the recess B.

If desired and in order to efficiently hold the bearing-block in adjusted position, the abutting surfaces of block B² and the arm or projection of the coupling-frame may be co-
45 operatingly scored or grooved, as indicated at E.

It will be understood that the pivot-bolts G G' pass through openings in the lugs A³ A² and in the arms F F². By loosening the bolts
50 which clamp the bearing-block B² said block may be shifted laterally within the recess B until the desired adjustment or restoration of

alinement of the finger-bar is secured, and then said block is again clamped in adjusted position.

Having now set forth the object and nature of my invention and having explained the function and mode of operation thereof, what I desire to secure by Letters Patent is—

1. In a mowing-machine, a coupling having 60 arms or projections, pivot-bolts mounted in said arms or projections, a shoe supported upon said pivot-bolts, a finger-bar carried by said shoe, and means for adjusting one of said pivot-bolts relatively to its supporting 65 arm or projection to overcome backward sagging of said finger-bar, as and for the purpose set forth.

2. In a mowing-machine, a coupling arm or frame provided with a projection, said pro- 70 jection having an elongated slot, a horizontally-arranged pivot-bolt mounted for lateral adjustment in said slot, a shoe, a finger-bar carried thereby, said pivot-bolt forming means for pivotally supporting said shoe upon said 75 coupling-arm, whereby said finger-bar may be rocked into vertical position upon said bolt as and for the purpose set forth.

3. In a mowing-machine, a coupling-arm provided with a recessed projection having 80 an elongated slot, a bearing-block adjustably mounted in the recess in said projection, a pivot-bolt carried by said block and extending through said elongated slot, a shoe pivotally supported upon said pivot-bolt, and a 85 finger-bar carried by said shoe, all combined and arranged as and for the purpose set forth.

4. In a mowing-machine, a coupling-arm provided with a recessed projection having 90 an elongated slot, a bearing-block adjustably mounted in said recess and provided with a lug arranged to project into said slot, a pivot-bolt carried by said block, a shoe pivotally supported upon said pivot-bolt, a finger-bar carried by said shoe, and means for clamping 95 said bearing-block in adjusted position, as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 1st day of November, A. D. 1900, in the presence of the subscribing witnesses. 100
WILLIAM D. MYERS.

Witnesses:

E. C. SEMPLE,
S. E. DARBY.