

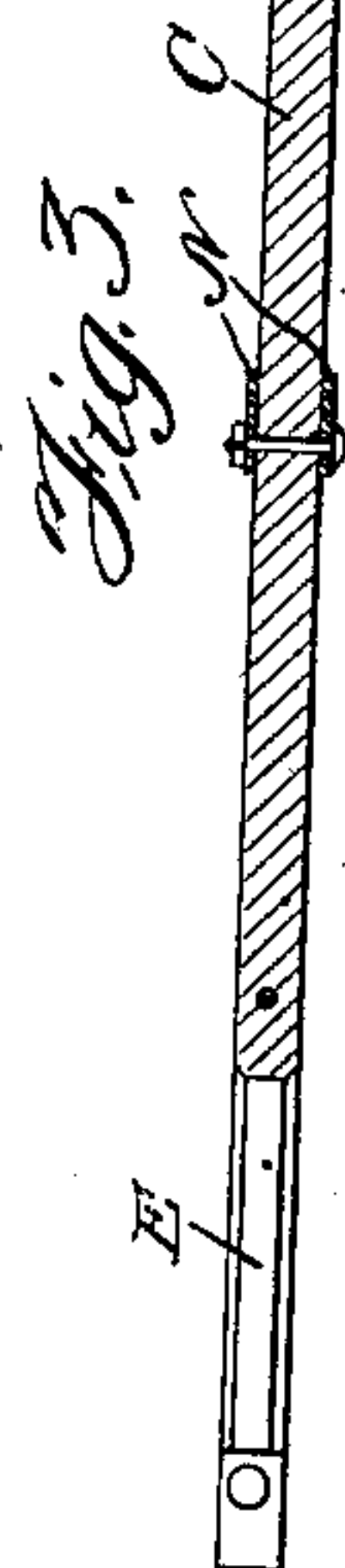
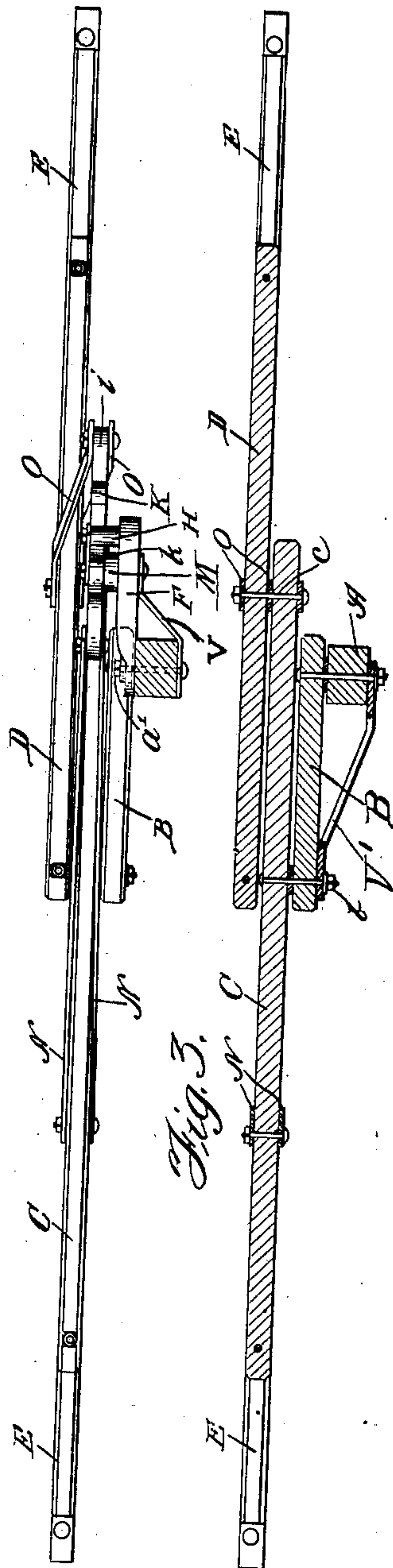
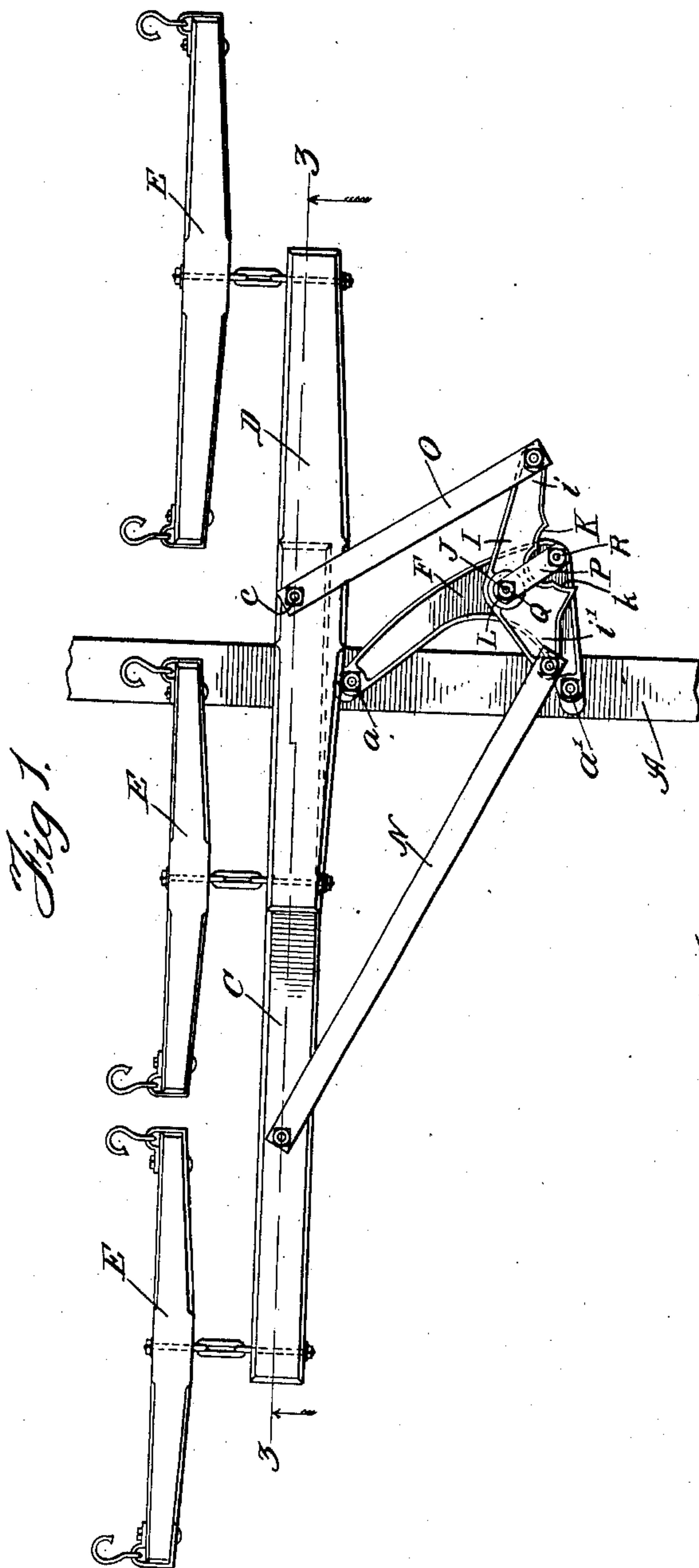
No. 826,778.

PATENTED JULY 24, 1906.

J. W. GAMBLE.
DRAFT EVENER.

APPLICATION FILED SEPT. 11, 1905.

2 SHEETS—SHEET 1.



Witnesses:
Wm. D. Perry
Robert H. Weir

Inventor:
Joseph W. Gamble
by *Raymond Barnett*
Attorney

No. 826,778.

PATENTED JULY 24, 1906.

J. W. GAMBLE.
DRAFT EVENER.

APPLICATION FILED SEPT. 11, 1905.

2 SHEETS—SHEET 2.

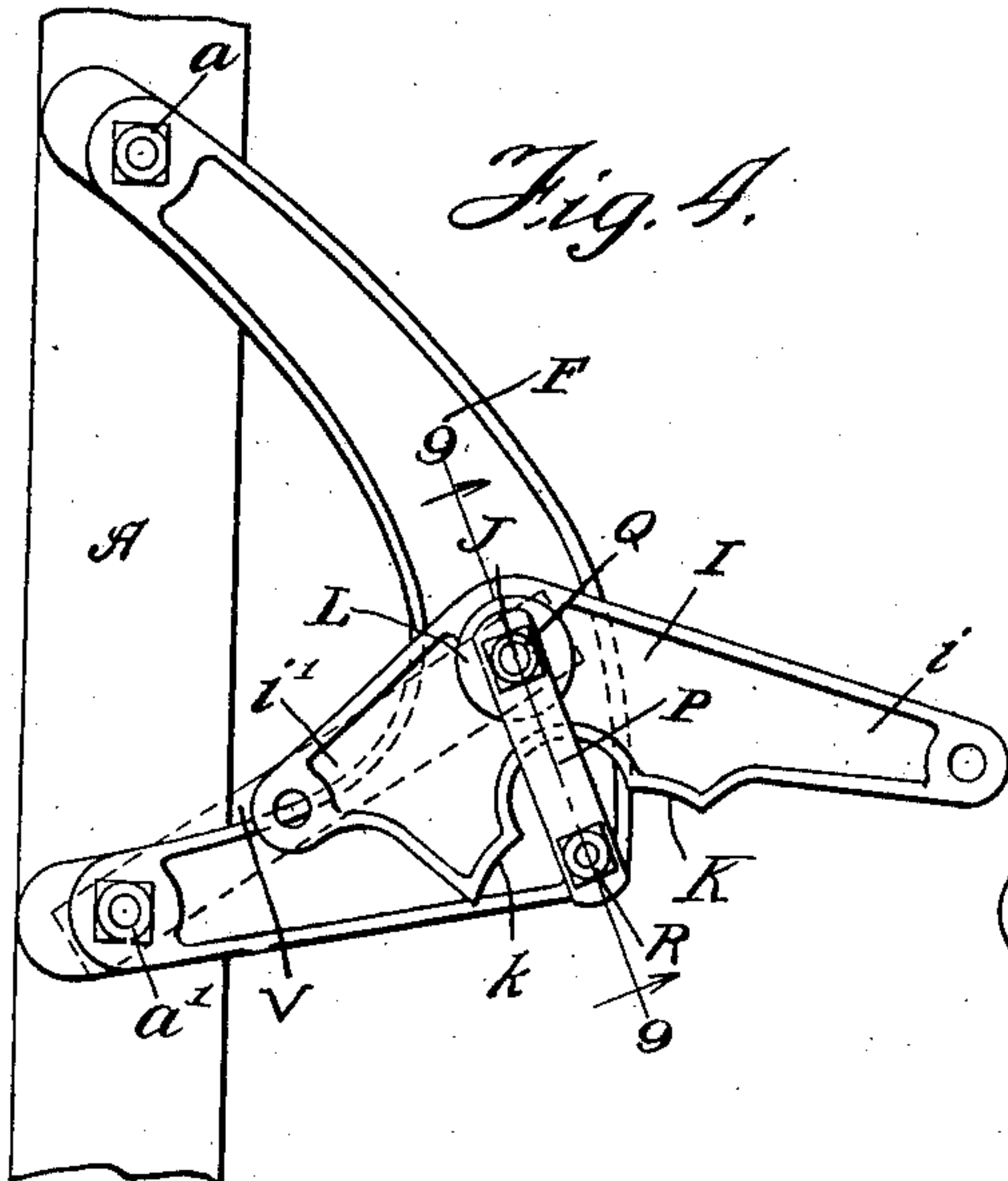


Fig. 4.

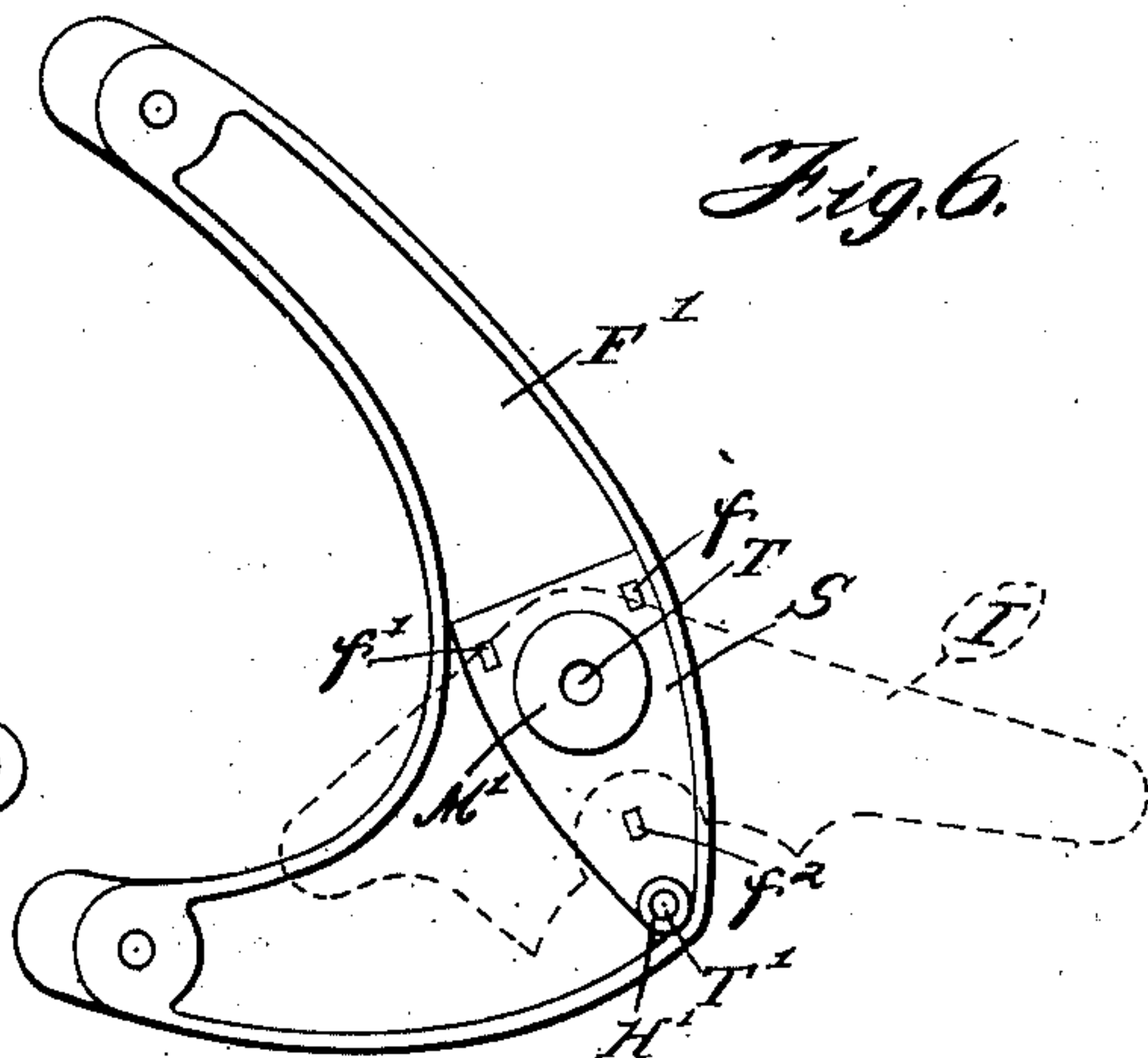


Fig. 6.

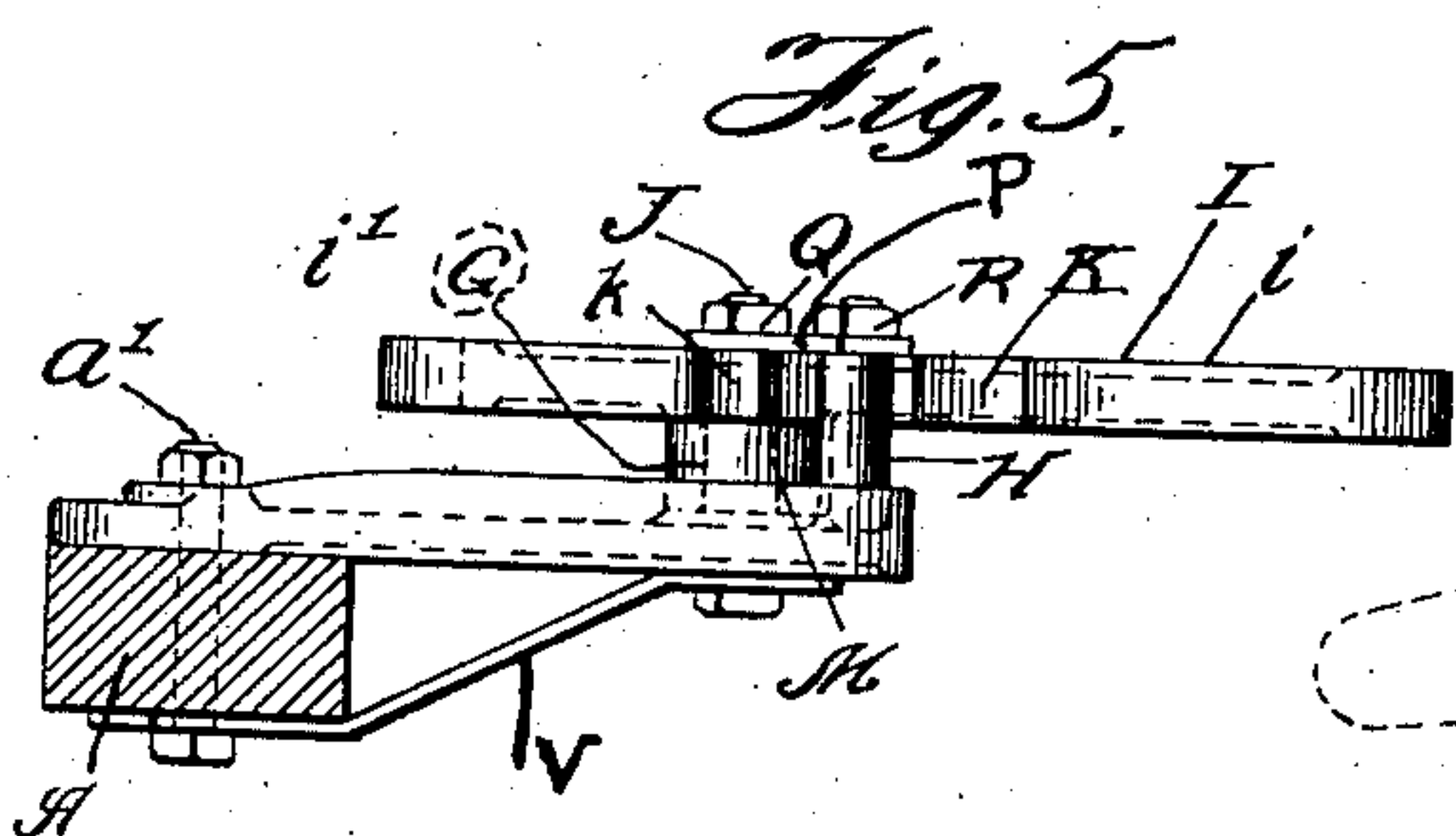


Fig. 5.

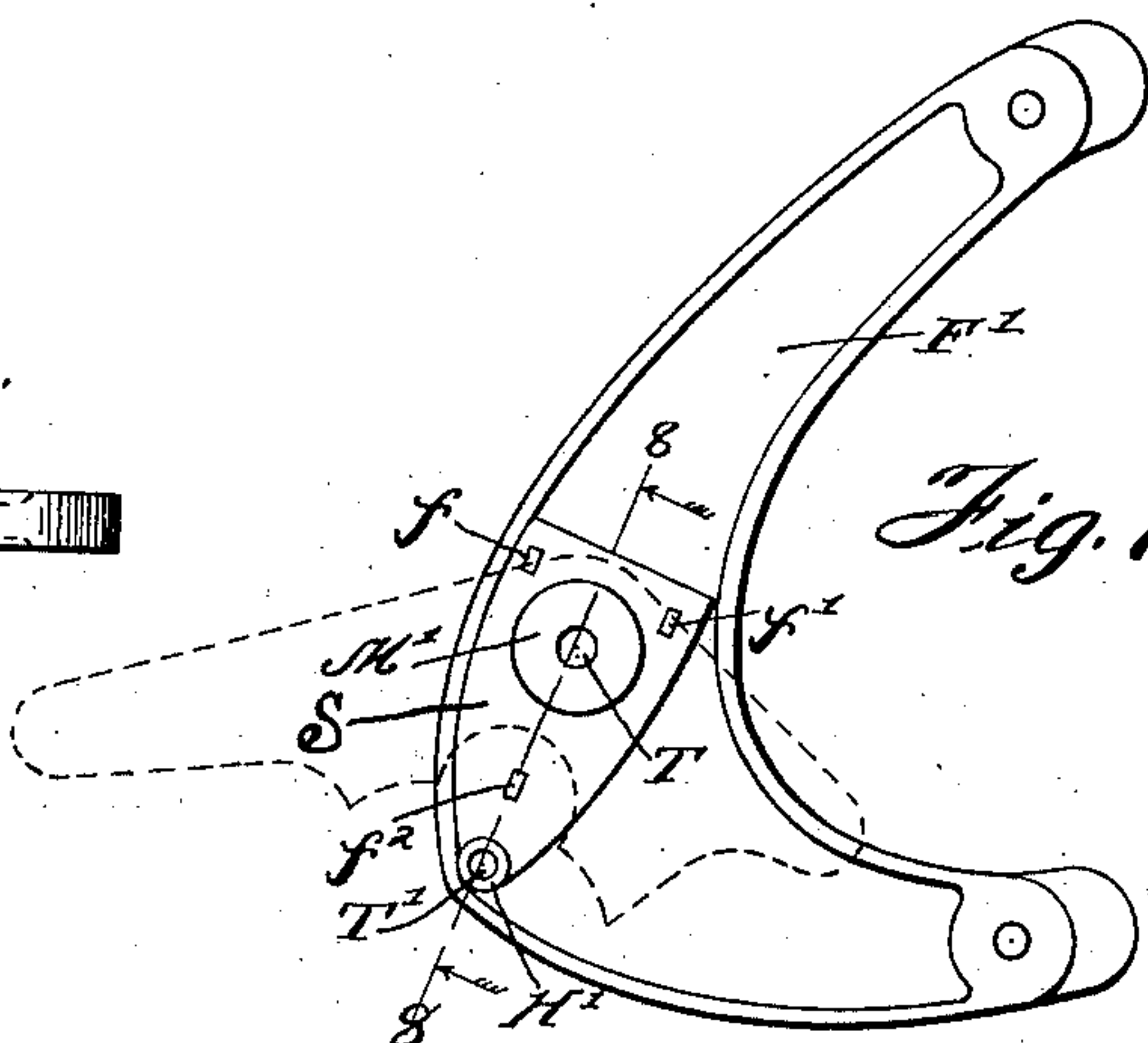


Fig. 7.

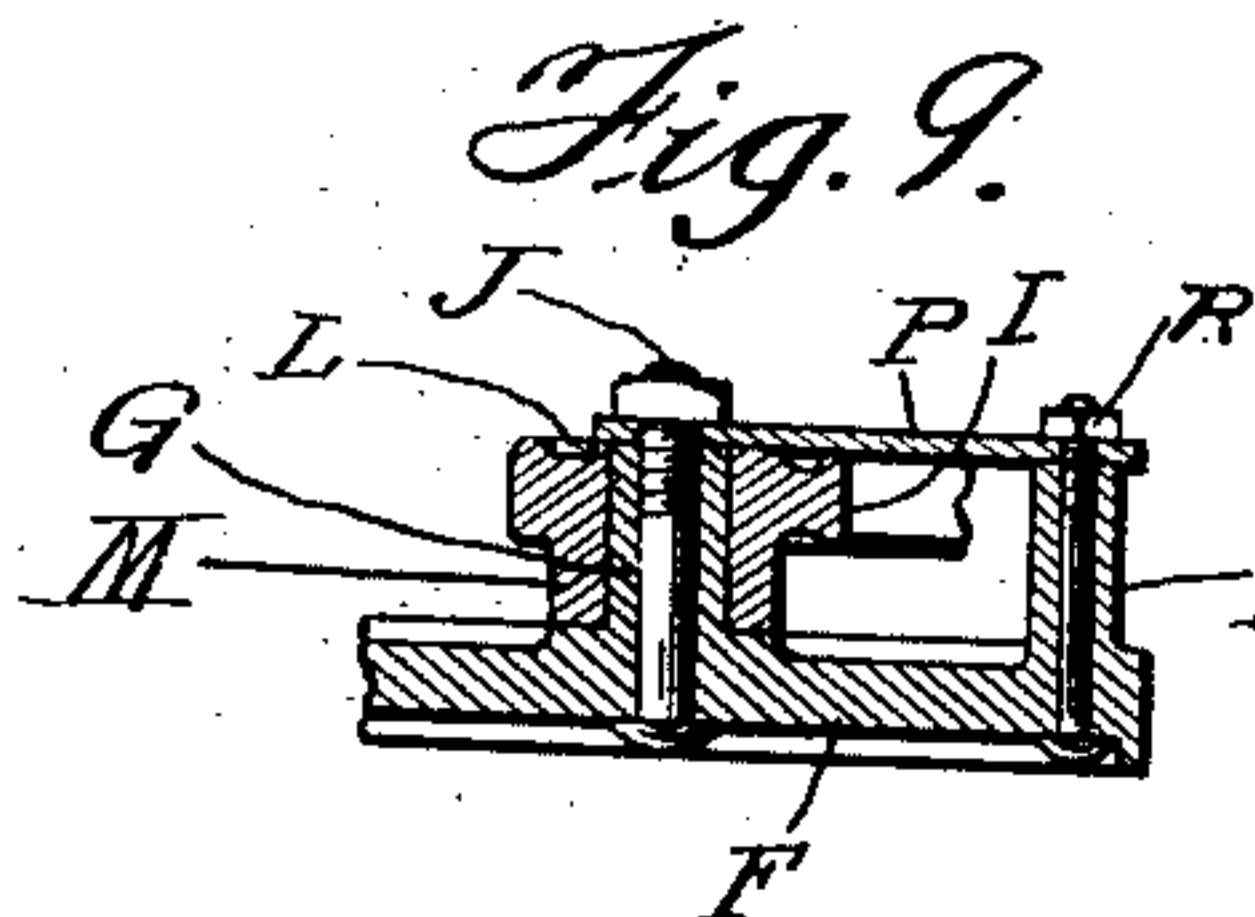


Fig. 9.

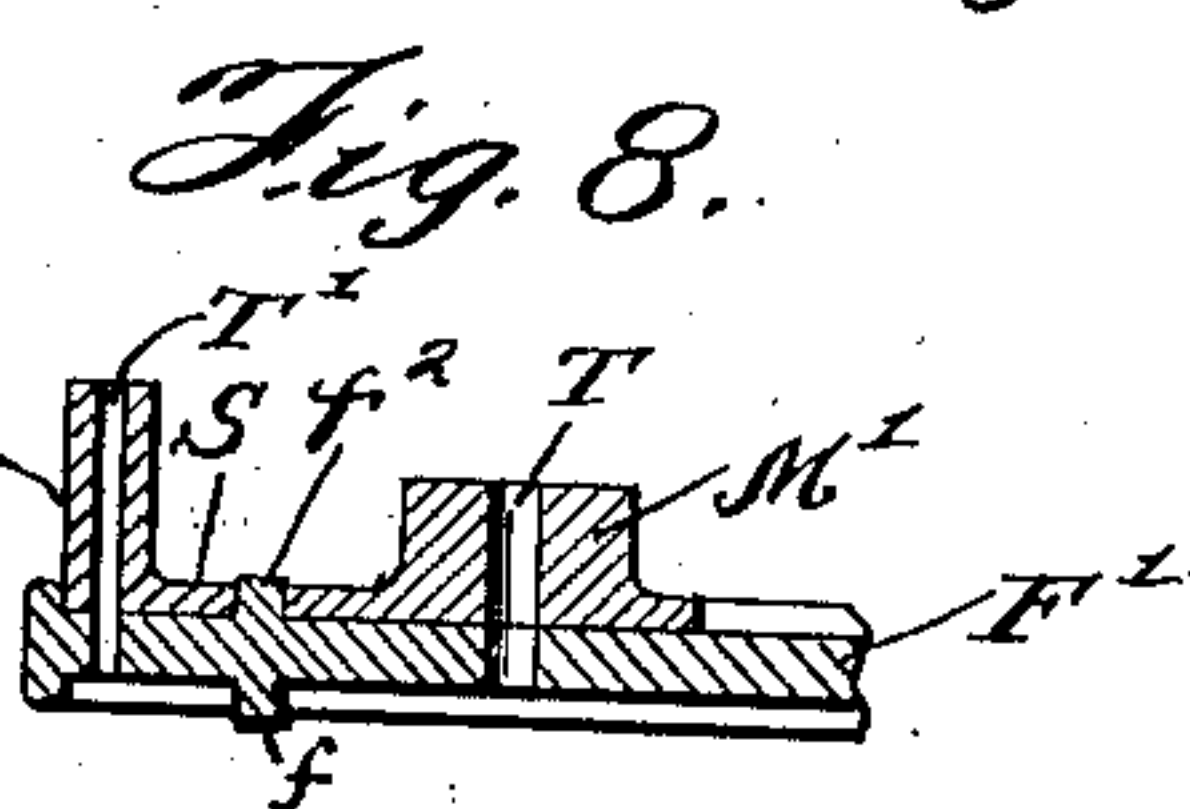


Fig. 8.

Witnesses:

Ed. Perry

Robert H. Weir

Inventor:
Joseph W. Gamble
by *Raymond Barnett*
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH W. GAMBLE, OF CARPENTERSVILLE, ILLINOIS.

DRAFT-EVENER.

No. 826,778.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed September 11, 1905. Serial No. 277,931.

To all whom it may concern:

Be it known that I, JOSEPH W. GAMBLE, a citizen of the United States, residing at Carpentersville, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Draft-Eveners, of which the following is a specification.

My invention relates to improvements in draft eveners or equalizers, and has for its object the production of an evenner that will be of simple construction and yet capable of withstanding the hardest usage.

A further object is the production of an evenner that will give a positive result by the use of the fewest parts and one that cannot be thrown out of adjustment by the movement of the horses or the implement.

A further object is the production of an evenner that may be used on either side of the tongue by a simple adjustment of the parts thereof.

These and such other objects as may hereinafter appear are attained by my device, embodiments of which are illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of my improvement applied to a three-horse evenner. Fig. 2 is a rear elevation of Fig. 1. Fig. 3 is a sectional view on the line 3 3 of Fig. 1 looking in the direction indicated by the arrows. Fig. 4 is a plan view of my evenner-castings attached to a tongue. Fig. 5 is an end elevation of Fig. 4. Fig. 6 is a plan view of a modified form of my invention. Fig. 7 is a plan view of Fig. 6, showing the parts reversed. Fig. 8 is a sectional view on the lines 8 8 of Fig. 7 looking in the direction indicated by the arrows, and Fig. 9 is a sectional view on the line 9 9 of Fig. 5 looking in the direction indicated by the arrows.

Like letters of reference indicate like parts in the several figures of the drawings.

Referring to the drawings, A represents the tongue of an agricultural implement, B a bracket-bar bolted thereon, C a brace-bar pivotally secured to the bracket-bar at *b*, and pivotally secured to this brace-bar at *c* is a doubletree D. At the ends of the doubletree D and at the outer end of the brace-bar C are swingletrees E E E.

Mounted on the tongue A, back of the bracket-bar B, is a bracket F, rigidly secured to the tongue at *a*. Extending upwardly from the face of this bracket F are bosses G H surrounding bolt-holes. An evenner-lever

I, having a long arm *i* and a short arm *i'*, is pivoted on the boss G. The lever I is also provided with stop-shoulders K *k*, adapted to engage the boss H, which preferably extends upwardly on a level with a low boss L on the upper face of the lever and surrounding the boss G. There is also a boss M on the under side of the lever I, mounted on the boss G and serving to support the lever I above the face of the bracket F and permit a free movement thereof on the pivot or boss G. A connecting-brace V is rigidly secured to the under side of the bracket F and to the under side of the tongue A in order to give proper rigidity to the bracket, and a connecting-brace V' is rigidly secured to the bracket-bar and the bottom of the tongue in order to give proper rigidity to the structure. Tie-rods N O pivotally connect the arms, respectively, of the lever I with the brace-bar C and doubletree D, respectively. A strap P, connecting the tops of the bosses L H, is held in place by a nut Q on the bolt J, which extends through the boss G, and by a nut R on a bolt which extends through the bolt-hole in the boss H and serves also to confine the lever I to its seat.

Referring to Figs. 6, 7, and 8, showing a modification of my invention, the bracket F' is provided on each face with a series of bosses or pins *f f'* *f*² *f*³, and on this bracket is seated a plate S, having holes therein registering with the bosses or pins on the bracket F'. On the upper face of this plate S are bosses or lugs M' H', having bolt-holes T T' through their centers registering with the corresponding holes in the bracket F'. With this modified device the lever I may be pivotally mounted upon the lug M', the lug H' serving as a stop to engage the shoulders K *k* on the lever I. By reversing the bracket F' and removing the plate S from one side of the bracket and placing it upon the other, as shown in Figs. 6 and 7, the device may be quickly and effectively reversed, so that the bracket F' will extend from the right or from the left hand side of the tongue A, as may be desired.

The initial draft exerted by the horses attached to the doubletree D will be transmitted from the pivot-bolt *c* through the rod O to the long arm *i* of the lever I and will be taken up by the bolt J on the bracket F. At the same time the draft exerted by the single horse attached to the brace-bar C will be

transmitted through the rod N to the short arm *i'* of the lever I, and since the brace-bar C is pivoted at *b* to the bracket-bar B it will be seen that the arms of the brace-bar C and of the lever I are arranged in counter relation to each other, so that the longitudinal draft as between the single horse attached to the brace-bar C and the two horses attached to the doubletree D will be equalized. At the same time the bracket-bar B, pivoted to the tongue A and to the brace-bar C on that side of the tongue opposite to the bracket, will serve to resist the side draft. Consequently by adjusting any of the controlling pivotal points the side draft may be neutralized while at the same time maintaining the flexibility of the entire draft-rigging.

By using the reversible or modified form of my device it becomes possible to transpose the entire rigging, so that one set of equalizing apparatus may be used as either a right-hand device or a left-hand device, as may be desired.

I claim—

1. In a three-horse evenner, the combination with a tongue, of a bracket mounted upon said tongue, an evenner-lever pivotally mounted upon said bracket, means for limiting the movement of said lever, a brace-bar secured to said tongue, a swingletree secured to the outer end of said brace-bar, a doubletree secured to the opposite end of said brace-bar, said doubletree being secured to said brace-bar on the bracket side of the tongue, a connecting-rod pivotally uniting the long arm of the lever and the center of said doubletree, and a connecting-rod pivotally uniting the short arm of the lever with said brace-bar.

2. In a three-horse evenner, the combination with a tongue, of a bracket mounted upon said tongue, an evenner-lever pivotally mounted upon said bracket, means for limiting the movement of said lever, said means comprising shoulders upon said evenner-lever and a stop carried by said bracket, a brace-bar secured to said tongue, a swingletree secured to the outer end of said brace-bar, a doubletree secured to the opposite end of said brace-bar, said doubletree being secured to said brace-bar on the bracket side of the tongue, a connecting-rod pivotally uniting the long arm of the lever and the center of said doubletree, and a connecting-rod pivotally uniting the short arm of the lever with said brace-bar.

3. In a three-horse evenner, the combination with a tongue, of a bracket mounted upon said tongue, an evenner-lever pivotally mounted upon said bracket, means for limiting the movement of said lever, said means comprising shoulders upon said evenner-lever and a stop carried by said bracket, means for preventing the displacement of said evenner-lever, a brace-bar secured to said

tongue, a swingletree secured to the outer end of said brace-bar, a doubletree secured to the opposite end of said brace-bar, said doubletree being secured to said brace-bar on the bracket side of the tongue, a connecting-rod pivotally uniting the long arm of the lever and the center of said doubletree, and a connecting-rod pivotally uniting the short arm of the lever with said brace-bar.

4. In a three-horse evenner, the combination with a tongue, of a bracket mounted upon said tongue, an evenner-lever pivotally mounted upon said bracket, means for limiting the movement of said lever, said means comprising shoulders upon said evenner-lever and a stop carried by said bracket, means for preventing the displacement of said evenner-lever, said means comprising a tie-bar connecting the top of the pivotal connection of said evenner-lever with the stop, a brace-bar secured to said tongue, a swingletree secured to the outer end of said brace-bar, a doubletree secured to the opposite end of said brace-bar, said doubletree being secured to said brace-bar on the bracket side of the tongue, a connecting-rod pivotally uniting the long arm of the lever and the center of said doubletree, and a connecting-rod pivotally uniting the short arm of the lever with said brace-bar.

5. As a new article of manufacture, an evenner attachment comprising a bracket, an evenner-lever, a downwardly-projecting boss integral therewith surrounding a pivot-boss upon said bracket, a stop on said bracket, shoulders on said evenner-lever adapted to engage said stop to limit the movement of said lever, means for preventing the lever from being detached from said bracket, and connecting-rods pivotally secured to the ends of said evenner-lever.

6. As a new article of manufacture, an evenner attachment comprising a bracket, an evenner-lever, a downwardly-projecting boss integral therewith surrounding a connecting-bolt pivotally securing said bracket and lever together, a stop on said bracket, shoulders on said evenner-lever adapted to engage said stop, means for preventing the lever from being detached from said bracket, said means comprising a tie-bar secured to said first-named bolt, and a corresponding bolt passing through said stop and the other end of said tie-bar and bolted thereto, and connecting-rods pivotally secured to the ends of said evenner-lever.

7. As a new article of manufacture, an evenner attachment comprising a bracket, a symmetrical plate adapted to be attached thereto, a stop integral with said plate, an evenner-lever pivotally mounted on said plate and adapted to engage said stop, and connecting-rods pivotally secured to the ends of said lever.

8. As a new article of manufacture, an

evenner attachment comprising a bracket, projecting lugs on the face of said bracket and integral therewith, a symmetrical plate adapted to be attached thereto and provided with openings adapted to receive said lugs, a stop integral with said plate, an evenner-lever pivotally mounted on said plate and adapted to engage said stop, and connecting-rods pivotally secured to the ends of said lever.

9. As a new article of manufacture, an evenner attachment comprising a bracket, a symmetrical plate adapted to be attached thereto, a stop integral with said plate, an evenner-lever pivotally mounted on said plate and adapted to engage said stop, means for preventing the displacement of said lever, and connecting-rods pivotally secured to the ends of said lever.

10. As a new article of manufacture, an evenner attachment comprising a bracket, a symmetrical plate adapted to be attached thereto, a stop integral with said plate, an evenner-lever pivotally mounted on said plate and adapted to engage said stop, means for preventing the displacement of said lever, said means comprising a tie-bar rigidly secured at one end to the means connecting said bracket, plate and evenner and at the other end to the integral stop carried by said plate, and connecting-rods pivotally secured to the ends of said lever.

11. An evenner device, comprising a reversible bracket adapted to be secured to one side of a tongue and provided with retaining devices upon its horizontal faces, a symmetrical plate adapted to be mounted in engagement with said retaining devices, said plate being provided with a pivot-boss and a stop, and a reversible evenner-lever adapted to be mounted upon said pivot-boss and provided with shoulders arranged to alternately engage said stop.

12. A draft-evenner, comprising a reversible bracket adapted to be attached to a tongue so as to project from either side thereof, and provided upon its horizontal faces with projecting lugs, a plate constructed to be mounted upon either face of said bracket so as to engage said lugs, said plate being provided with a pivot-boss and with a stop, and a reversible evenner-lever arranged to be pivotally mounted upon said boss and pro-

vided with means for alternately engaging said stop.

13. A draft-evenner, comprising a reversible bracket constructed to be attached to a tongue so as to project from either side thereof, a plate constructed to be mounted upon either horizontal face of said bracket and provided with a pivot-lug, a reversible evenner-lever constructed to be pivotally mounted upon said lug, and means for securing said elements in operative relation to each other.

14. A three-horse evenner, comprising the combination with a tongue, of a bracket mounted thereon so as to project from one side thereof, an evenner-lever pivotally mounted upon said bracket, a bracket-bar pivotally secured to said tongue and projecting from the side thereof opposite to said bracket, a brace-bar pivotally mounted upon the projecting end of said bracket-bar, a swingletree secured to the outer end of said brace-bar, a doubletree secured to the inner end of said brace-bar on the bracket side of said tongue, a connecting-rod pivotally uniting the long arm of the evenner-lever with the center of said doubletree, and a connecting-rod pivotally uniting the short arm of said lever with said brace-bar.

15. An evenner, comprising the combination of a tongue, a bracket mounted upon said tongue so as to project from one side thereof, an evenner-lever having arms of unequal length and pivotally mounted upon said bracket, a bracket-bar pivotally connected with said tongue and extending on the opposite side of said tongue from said bracket, a brace-bar pivotally connected with said bracket-bar and having arms of uneven length extending in counter relation to the arms of said evenner-lever, a swingletree secured to the long arm of said brace-bar, a doubletree secured to the short arm of said brace-bar on the bracket side of the tongue, a connecting-rod pivotally uniting the long arm of the evenner-lever with the center of said doubletree, and a connecting-rod pivotally uniting the short arm of the evenner-lever with said brace-bar.

JOSEPH W. GAMBLE.

Witnesses:

F. H. DRURY,
G. Y. DANKWARD.