

No. 696,184.

Patented Mar. 25, 1902.

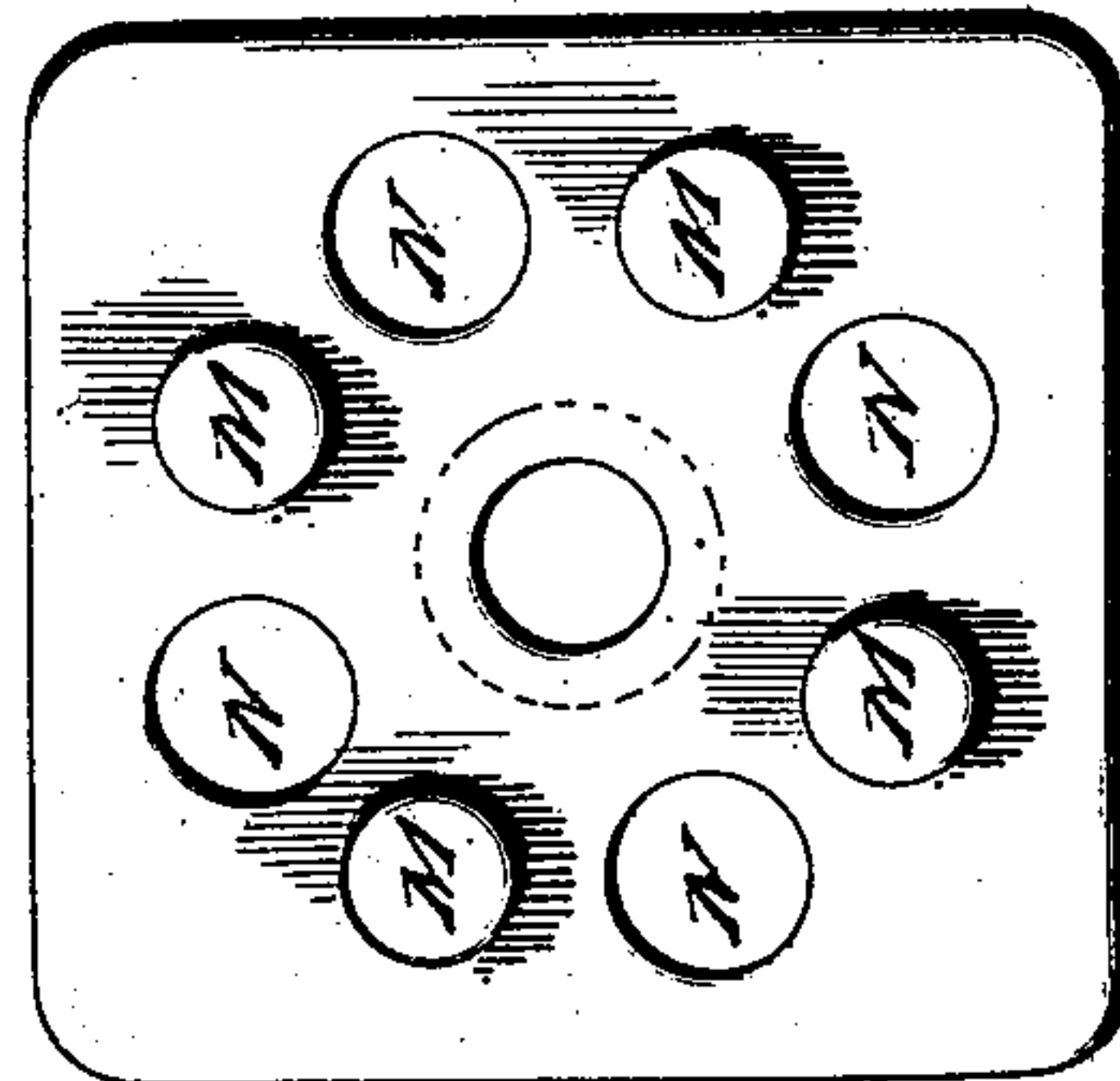
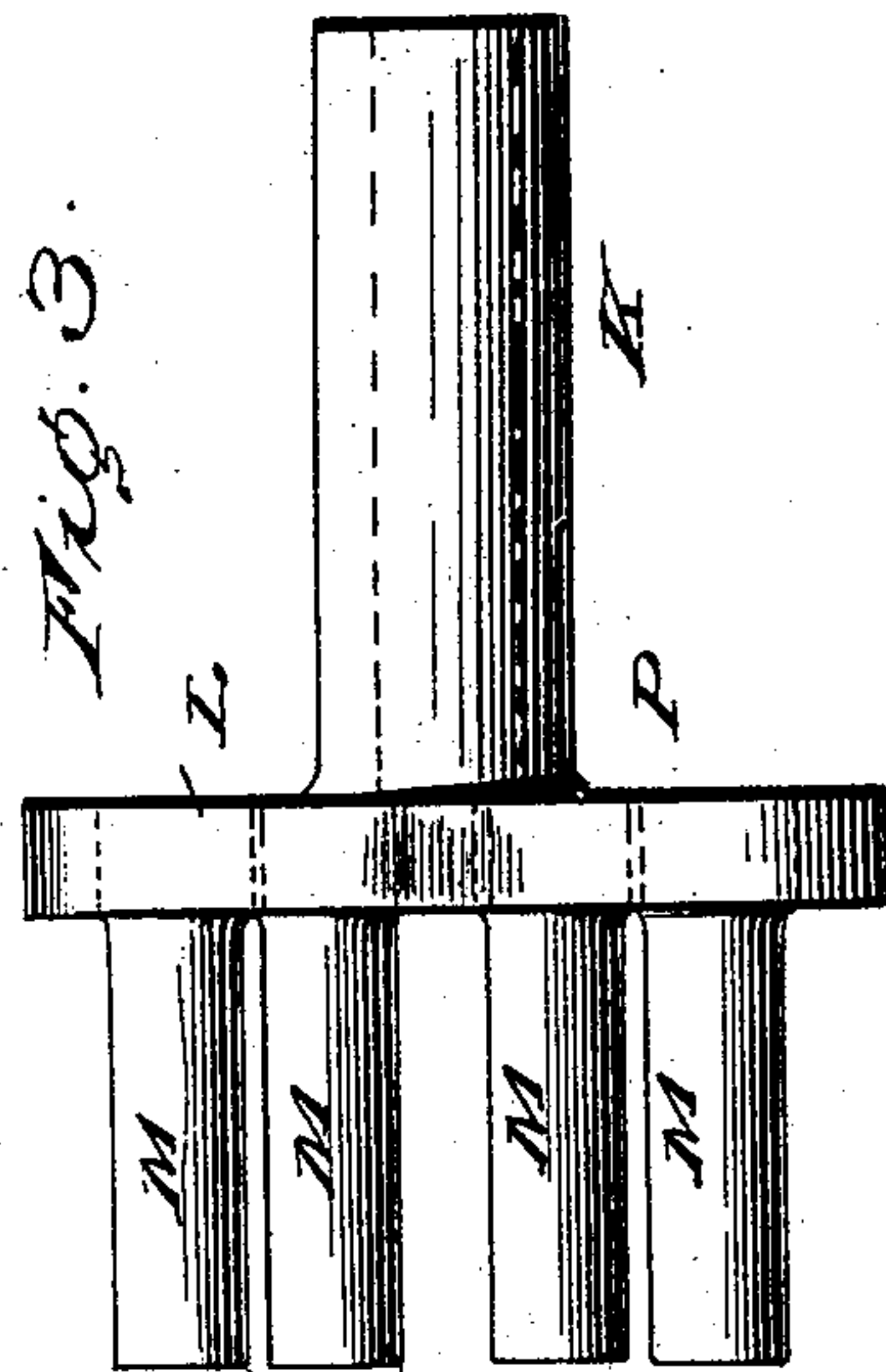
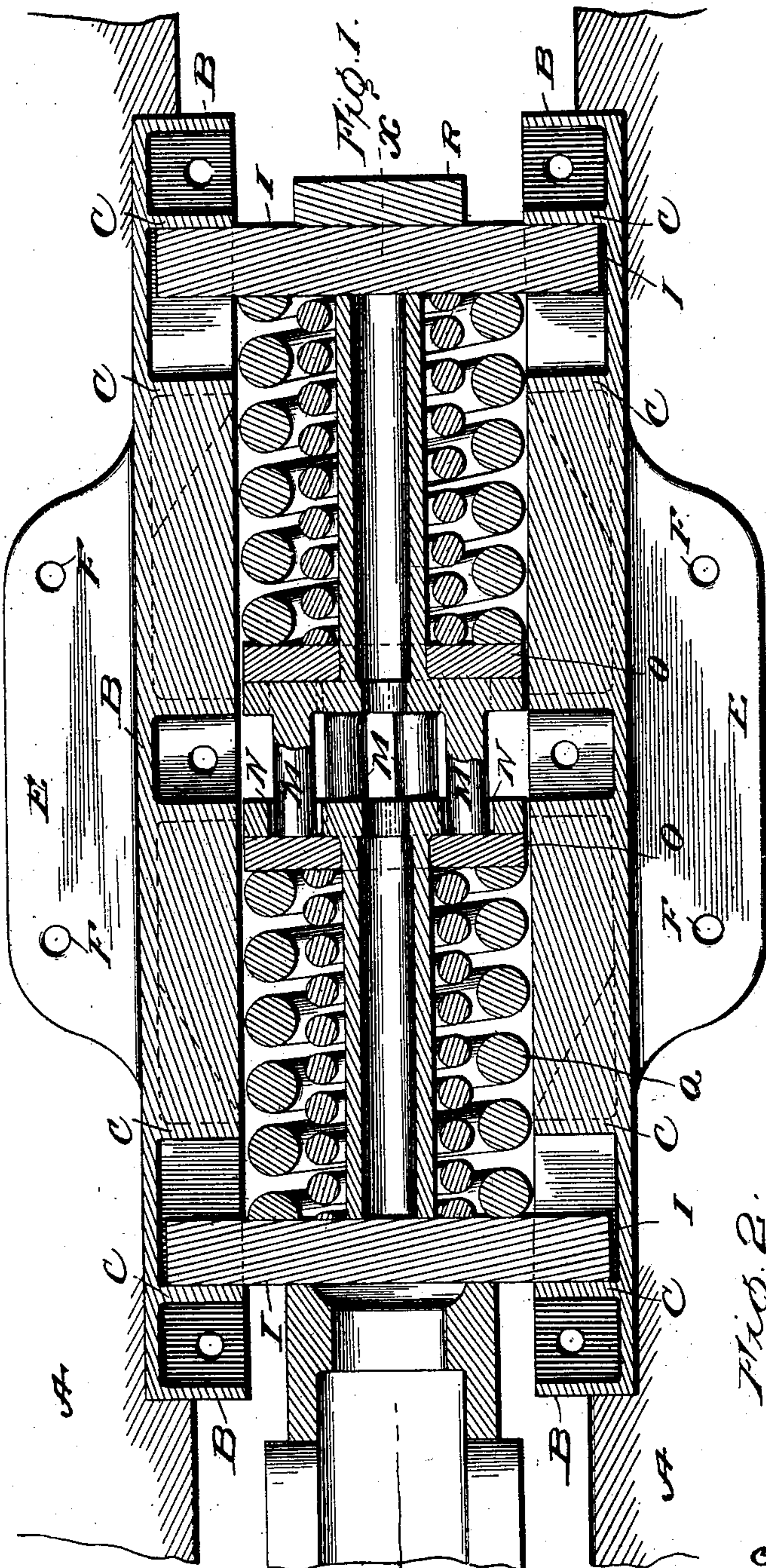
T. L. McKEEN.

TANDEM DRAFT RIGGING ATTACHMENT.

(Application filed Jan. 15, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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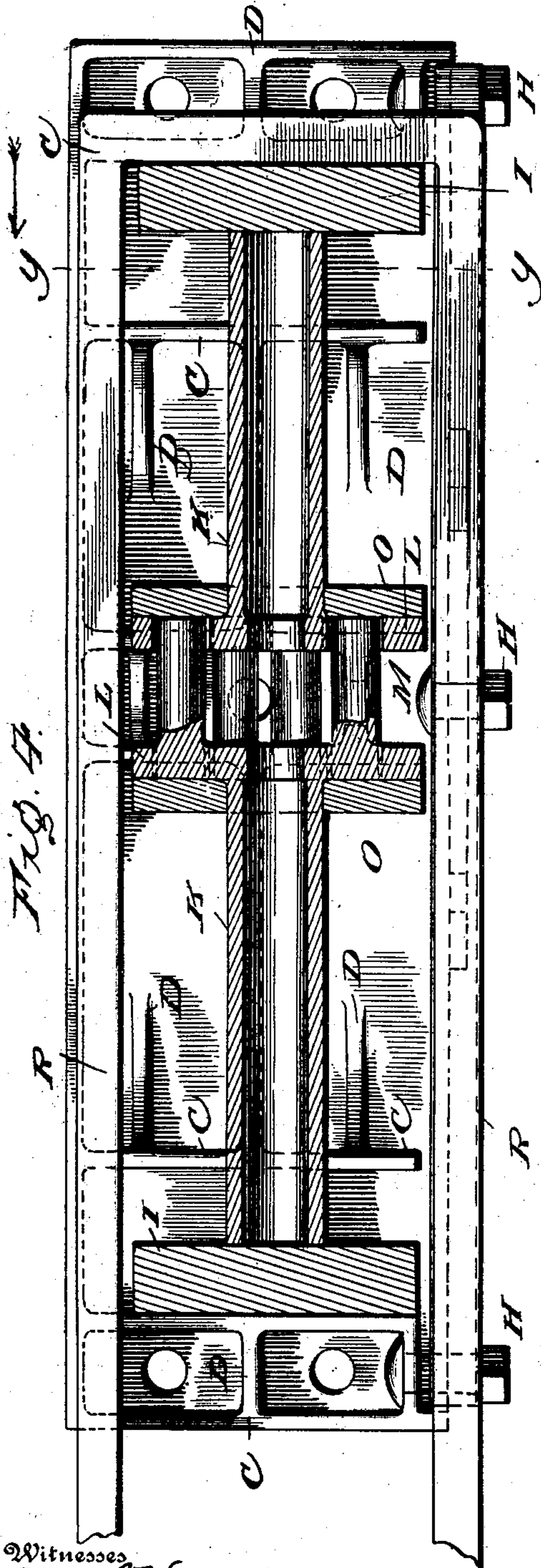
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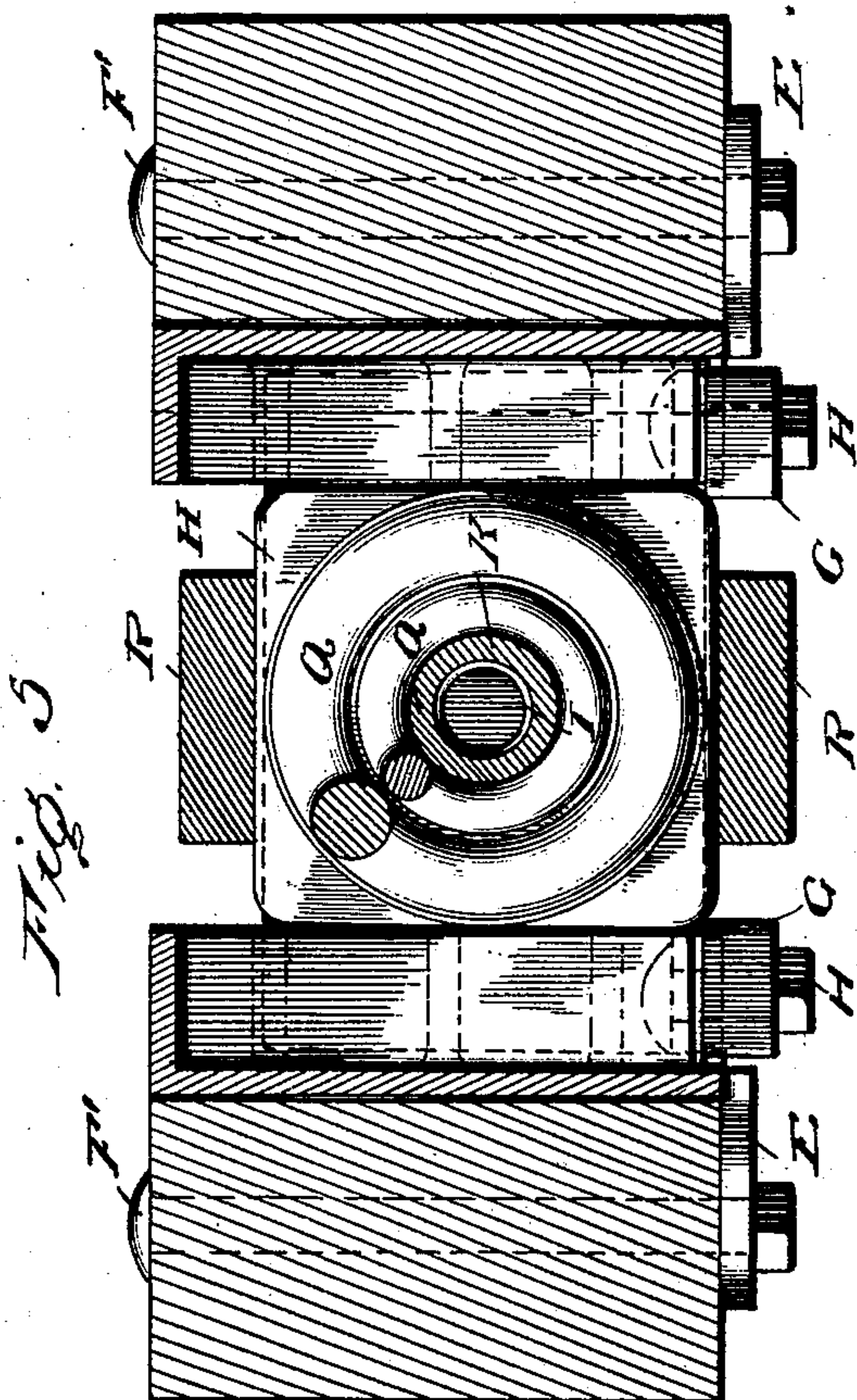
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(No Model.)

2 Sheets—Sheet 2.



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TANDEM DRAFT-RIGGING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 696,184, dated March 25, 1902.

Application filed January 15, 1902. Serial No. 89,840. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. MCKEEN, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Tandem Draft-Rigging Attachments; 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 appertains to make and use the same.

My invention relates to certain new and useful improvements in draw-bar or draft-rigging attachments for railroad-cars and particularly to that class known as "tandem draft-rigging."

My invention has for its object the production of a rigging which shall be economic of construction, readily assembled, and durable and positive in action; and with these objects in view my invention consists of suitable housings or cheek-plates adapted to be secured in position upon the draft-timbers of a car and provided with two stops near each end and two end followers, two interchangeable push-bars bearing at their outer ends against the end followers and formed at their adjacent ends with heads having longitudinal studs or fingers and intermediate gates or openings, two intermediate followers, springs between the end followers and intermediate followers, all inclosed within the yoke of an ordinary draw-bar and supported vertically upon suitable carry-bars, as will be herein after and in detail fully explained.

In order that those skilled in the art to which my invention appertains may know how to make and use my invention and to fully appreciate all of its advantages, I will proceed to describe the construction and operation of the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a central horizontal section showing my improved draft-rigging applied to the draft-timbers of an ordinary railroad-car. Fig. 2 is an end view of one of the push-bars. Fig. 3 is a side elevation of the same. Fig. 4 is a longitudinal vertical section taken on the line $x x$ of Fig. 1, and Fig. 5 is a transverse section taken on the line $y y$ of Fig. 4 looking in the direction of the arrow.

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

A A are the ordinary draft-timbers of the car, which are recessed to receive cheek-plates or housings B, formed with two vertical stops C at each end and which are braced and strengthened by longitudinal ribs D in an obvious manner.

E represents horizontal wings or flanges provided with bolt-holes F, by means of which and suitable vertical bolts F' the housings may be secured to the draft-timbers in the manner described in another application filed by me on the 3d day of August, 1901, No. 70,814, or they may be secured in position in any other desired manner. The vertical end stops C terminate a short distance above the lower edge of the cheek-plates, as clearly shown at Fig. 4, in order that suitable carry-bars G may be secured in position by bolts H or otherwise to support the followers, push-bars, and springs.

I I are end followers adapted to contact with the end stops C on the cheek-plates or housings to limit the movements of the draw-bar and to prevent the setting of the springs.

K K are push-bars formed at their adjacent ends with heads L, from which project fingers or studs M, and intermediate of these studs are correspondingly-shaped gates or passages N, so that when the two push-bars are properly located, as shown in Figs. 1 and 4, the fingers or studs M of each push-bar will enter and pass through the corresponding gates or passages of the other and bear against intermediate followers O, which are located upon the stem of the push-bars K, as clearly shown. The point of juncture between the stem and the head of the push-bars is strengthened and reinforced, as shown at P, Fig. 3, and the intermediate followers are correspondingly reamed out, so that they may be located against the inside surface of the heads L. The ordinary spiral springs Q are located around the stems of the push-bars and between the end followers I and the intermediate followers O, and the yoke R of the draw-bar passes around the assembled parts, as clearly shown in Figs. 1, 4, and 5.

The stems of the push-bars K are preferably cast hollow, as shown, to avoid unne-

essary weight, and the strengthening-ribs D of the cheek-plates or housings for strengthening the vertical stops C are inclined and terminate at such point as not to interfere
5 with the longitudinal movement of the heads of the push-bars and the intermediate followers, as clearly shown at Fig. 4 and in dotted lines at Fig. 1.

It will be seen that the push-bars are substantially duplicates of one another and that
10 likewise the end followers and intermediate followers are also respectively duplicates, as are also the cheek-plates or housings and the springs, and hence any one of the parts which
15 may become defective from wear or broken in use may be readily substituted and that the several parts being all held in proper assembled relation may be readily removed one from the other by simply removing the
20 carry-bars G, which, as hereinbefore stated, may be such as shown and described or of any other preferred form and manner of adjustment. It will also be seen that I avoid
25 the use of any cage or case for locating and retaining the springs Q by simply stringing them upon the stems of the push-bars, and hence my draft-rigging is constituted of a comparatively small number of parts, all of
30 simple construction, and hence the rigging as a whole is economic of construction. In operation and when a buffing strain is exerted the front end follower is forced against the front springs, and bearing also against the front end of the stem of the forward push-bar the latter
35 is forced to the rear. The studs or fingers M of the adjacent heads of the forward and rear push-bars enter and pass through the correspondingly-shaped gates or openings N and bear against the intermediate followers O, so
40 that both sets of springs are simultaneously compressed until the front end follower contacts with the inner vertical stops C of the cheek-plates or followers, and thus avoids the "setting" of the springs. When a pulling
45 strain is exerted, the action is reversed in an obvious manner, and the rear end follower contacts with the inner vertical stops C at that end of the device.

Many changes may be made in the mere details of construction and the character of material employed without departing from the
50 spirit of my invention.

Having described the construction and operation of my improved draft-rigging attachment, what I claim as new, and desire to secure by Letters Patent, is— 55

1. In a tandem draft-rigging, in combination with housings secured to the draft-timbers and provided with two vertical stops at each end with a recess between them, end followers located in said recesses, push-bars having stems bearing against the end followers and formed with heads having projecting studs or fingers and intermediate gates or openings, intermediate followers strung upon
60 the stems of the push-bars, springs surrounding the stems of the push-bars and confined between the end followers and intermediate followers, a yoke surrounding the followers, push-bars and springs, and carry-bars secured to the housings, and supporting the
70 followers, substantially as and for the purpose set forth.

2. In a tandem draft-rigging such as described, push-bars adapted to support the
75 springs and intermediate followers, and formed at their adjacent ends with heads provided with longitudinal studs or fingers and intermediate gates or openings, whereby the studs or fingers of each push-bar may enter
80 and reciprocate within the corresponding gates or openings of the other, to simultaneously act upon tandem springs, substantially as and for the purpose set forth.

3. In a tandem draft-rigging, and in combination with the housings secured to the
85 draft-timbers and provided with double end stops, and with end followers located between the double end stops; longitudinally-movable devices supporting intermediate followers and springs, and formed with means movable relatively to each other, for contacting
90 with the intermediate followers, a yoke surrounding the followers, springs and longitudinally-movable devices, and carry-bars secured to the housings and supporting the end
95 followers, substantially as and for the purpose set forth.

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

THOMAS L. McKEEN.

Witnesses:

J. W. WILSON,

H. D. MAXWELL.