

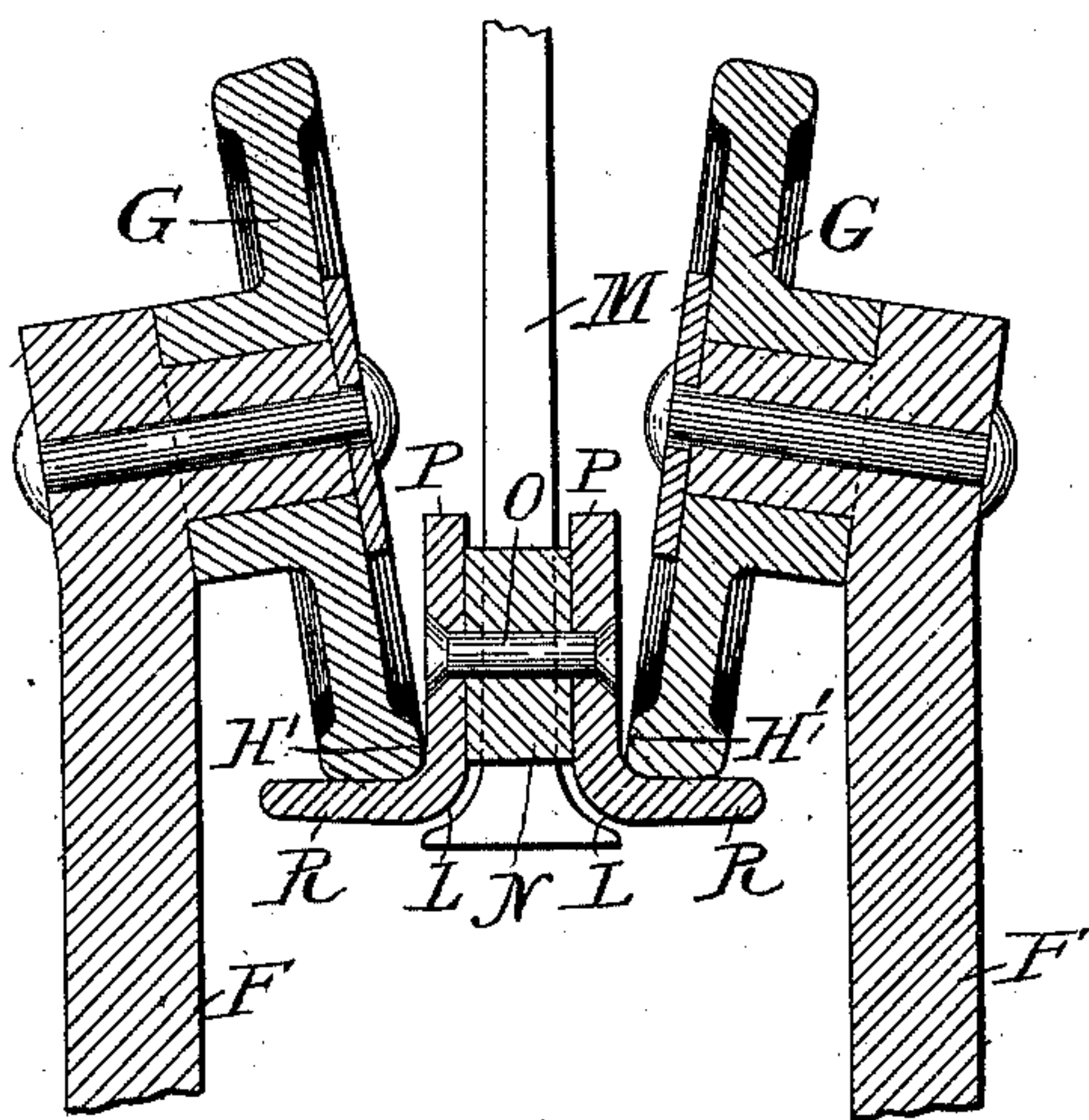
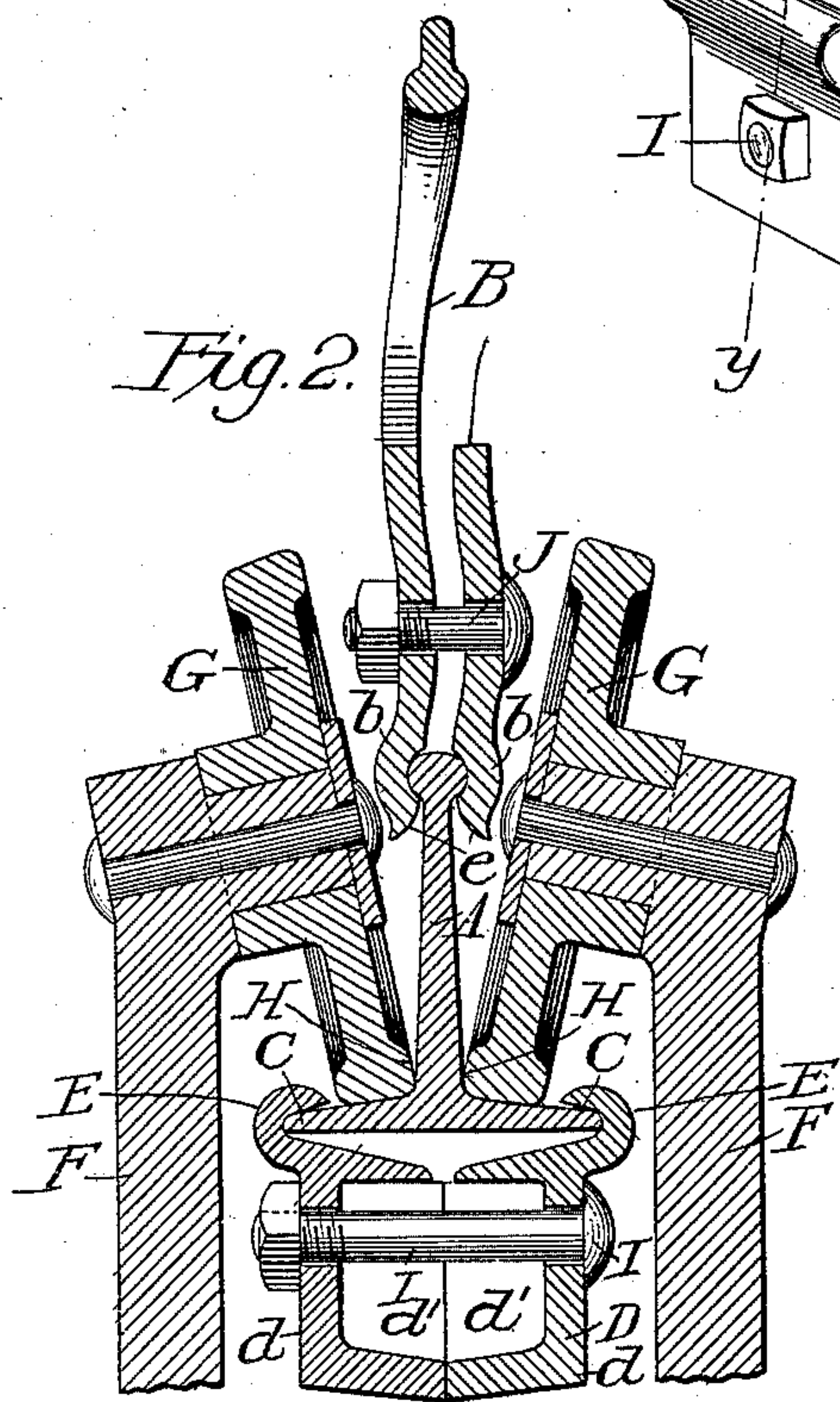
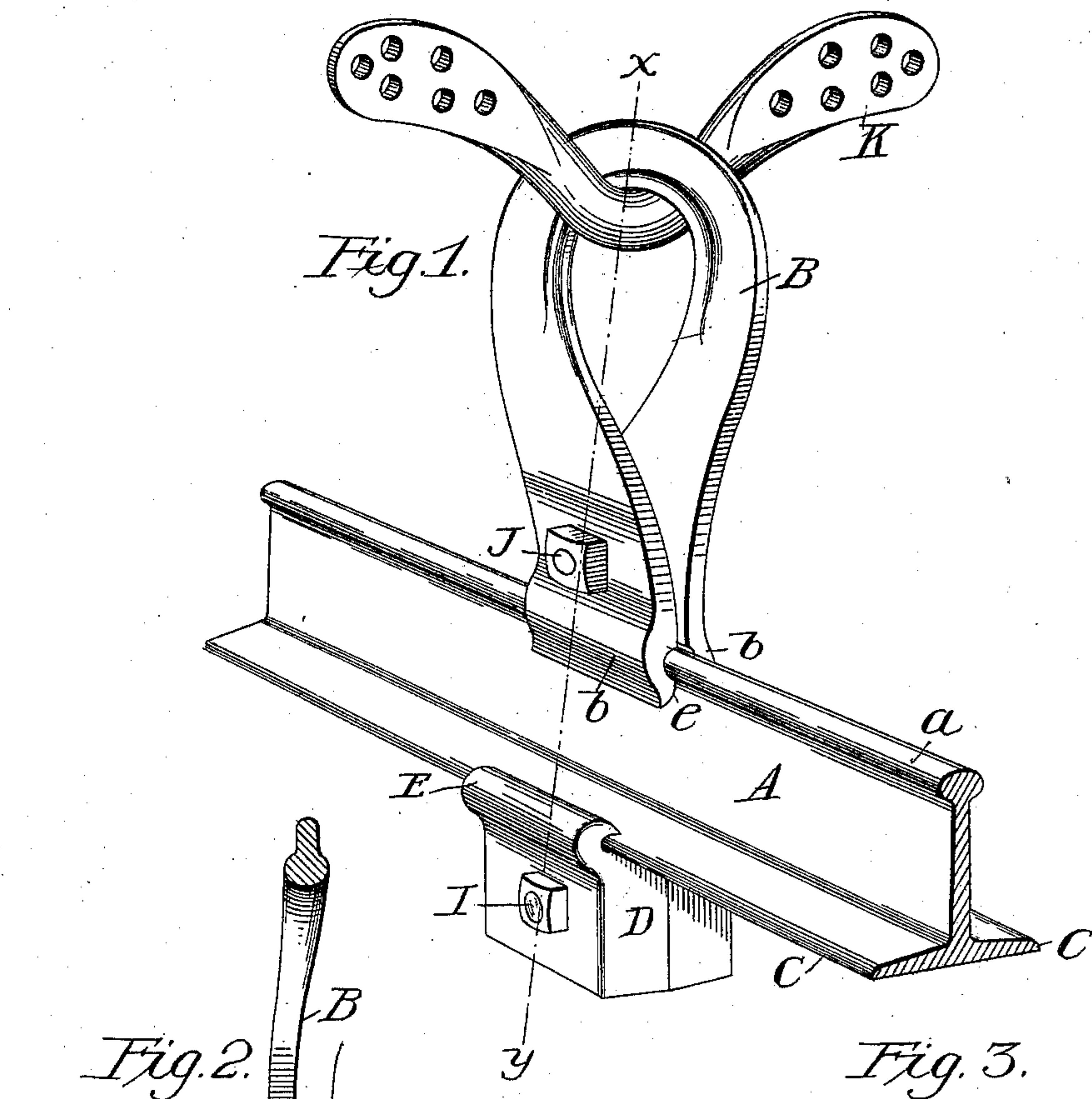
(No Model.)

W. LOUDEN.

HAY CARRIER AND ATTACHMENT THEREFOR.

No. 568,953.

Patented Oct. 6, 1896.



Witnesses.

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# UNITED STATES PATENT OFFICE.

WILLIAM LOUDEN, OF FAIRFIELD, IOWA.

## HAY-CARRIER AND ATTACHMENT THEREFOR.

SPECIFICATION forming part of Letters Patent No. 568,953, dated October 6, 1896.

Application filed March 14, 1896. Serial No. 583,256. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM LOUDEN, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Hay-Carriers and Attachments Therefor, of which the following is a specification.

My improvement relates to hay-carriers which are adapted to run on a track-rail having a vertical web or webs and laterally-projecting flanges; and it consists, first, of the arrangement of the carrier-wheels to run on the inner portions of the lateral flanges and to bear against and be guided by the vertical web or webs; second, of the attachment of a stop-block to the outer edges of the lateral flanges, so as to not interfere with the passage of the carrier-wheels; third, of a novel form of suspending device, and, fourth, of other features hereinafter set forth.

Figure 1 is a perspective showing a suspending device supported by a rafter-bracket and connected to the vertical web of a track-rail; also, a stop-block secured to the lateral flanges of said rail. Fig. 2 is a transverse section drawn on the line  $x y$  of Fig. 1, the rafter-bracket being omitted, and showing the wheels of the carrier adapted to run on the inner portions of the lateral flanges and bear against the vertical web. Fig. 3 is a transverse section of a track-rail composed of two angle-bars each having an inner vertical web (or flange) and a laterally-projecting flange, said bars being secured together so as to leave a space between them for the connection of a suspending device and the carrier-wheels adapted to run on the inner portions of the horizontal flanges and to bear against the inner vertical webs or flanges of the angle-bars composing the track-rail.

The track-rail shown in Figs. 1 and 2 has a central vertical web A, to the upper edge of which the suspending device B is connected, and on the lower edge of said web are laterally-projecting flanges C, to which the stop-block D is secured by means of its lips E catching over and clamping upon the outer edges of said flanges.

F represents the part of a carrier-frame upon which the wheels G are mounted. The carrier-wheels G are set with their upper edges

outwardly inclined, so as to escape the suspending device B, while their lower edges will run on the inner portions of the flanges C and their sides H will bear against the lower part of the vertical web A and be guided thereby in running along the flanges.

The sides H of the carrier-wheels G are made so as to bear against and be guided by the web A with the least amount of friction. It is not necessary that they be constructed exactly as shown in the drawings; but they must have no sharp edges to catch against and bind upon the web A, and should be so shaped as to slide easily along said web.

By having the track-wheels run along the inner portions of the flanges C and be guided thereon by bearing against the central web A, instead of the outer edges of said flanges, as heretofore constructed, the flanges C can be made narrower and the track-rail lighter and stronger, and the stop-block D can be secured to the outer edges of the flanges C without interfering with the free passage of the carrier along the track-rail.

The stop-block D is preferably made in two parts  $d$ , so as to be placed more readily on the flanges C, and are held together by the bolt I. Each of the parts  $d$  is formed with a cavity  $d'$ , by means of which the stop-block may be made light and yet broad, so as to engage the lock mechanism of the carrier (not shown) anywhere between the carrier side pieces F. It is especially desirable to have the stop-block broad when used with a swivel-carrier, so that the lock mechanism in swiveling around the stop will not slip past it, as it might if the stop-block were made solid and narrow in the usual way.

The suspending device B is made of a single piece of metal shaped like an inverted letter U with its lower ends  $b$  drawn together, so as to stand face to face and embrace the web of the track-rail between them. Inwardly-projecting lips or fingers may be formed on the adjoining faces to catch under the bead  $a$  of the rail in the usual way, and a bolt J or other equivalent means is used to hold them in engagement therewith.

The hanger B can be readily slipped over the bead of the rail by springing its ends apart, or it may be driven over said bead with a hammer, the faces  $e$  of the ends  $b$  being in-



wardly beveled to facilitate this operation. It can also be driven on the rafter-bracket K in the same manner after said bracket has been fastened to the rafters, which are not  
5 shown in the drawings.

The track-rail shown in Fig. 3 is composed of two angle-bars L, having vertical and horizontal webs or flanges, said angle-bars being joined together in any suitable manner, but  
10 preferably by means of rivets O, passed through spacing-blocks N, so as to leave a space between the bars for the attachment of the track-hangers M, all arranged in the usual manner. The carrier-wheels G' being set so  
15 the side edges H' will bear against the vertical flanges P, the horizontal flanges R may be made narrower and lighter and will be relieved of the strain of carrying the load on their outer edges, as heretofore done. Also  
20 when it is not desirable to secure a stop-block to the track-rail through the space between the bars it may be secured to the outer edges of the flanges R, as shown in Figs. 1 and 2, and be adjusted along any part of the track  
25 without interfering with the passage of the carrier along the rail. The wheels G, being set with their upper edges outwardly inclined to escape the track-hanger B, will be securely held in their proper place and be made to run  
30 steadily along the track by their faces H bearing against the vertical web A.

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

35 1. The combination of a track-rail having a centrally-located vertical web or webs and laterally-extended flanges projecting therefrom, and a hay-carrier having wheels adapted to run on the inner portions of said lateral  
40 flanges, and to bear against the vertical web or webs and be guided thereby along the track, substantially as set forth.

2. The combination of a track-rail having a centrally-located vertical web or webs and laterally-extended flanges projecting therefrom,  
45 and a hay-carrier having wheels adapted to run on the inner portions of said lateral flanges, the upper edges of said wheels being outwardly inclined and the lower edges  
50 adapted to bear against the vertical flange and be guided thereby, substantially as described.

3. The combination of a track-rail having a central vertical web and laterally-projecting  
55 flanges, a hay-carrier having wheels adapted to run on the inner portions of said flanges, and a stop-block adapted to clamp on the

outer edges of the flanges, and be adjusted thereon independently of the carrier, substantially as set forth. 60

4. The combination of a track-rail having a central vertical web and laterally-projecting flanges, a suspending device connected to said vertical web, a hay-carrier having wheels set to escape said suspending device and adapted  
65 to run on the inner portions of the lateral flanges, and a stop-block adapted to clamp on the outer edges of said flanges and be adjusted thereon independently of the carrier, substantially as described. 70

5. A suspending device for elevated track-rails consisting of a single piece of inverted-U-shaped metal having its ends drawn together so as to stand face to face and embrace  
75 the edge of a track-rail between them, substantially as described.

6. A suspending device for elevated track-rails consisting of a single piece of inverted-U-shaped metal having its ends drawn together so as to stand face to face and embrace  
80 the edge of a track-rail between them, and means to hold said ends in engagement with the rail, substantially as set forth.

7. The combination of a track-rail having a vertical web with a bead or T-head on the  
85 upper edge thereof, a suspending device consisting of a single piece of inverted-U-shaped metal having its ends drawn together so as to stand face to face, their inner faces being adapted to catch under the bead of the rail,  
90 and a bolt to hold them in engagement with the bead, substantially as shown and described.

8. The combination of a track-rail having a vertical web with a bead or T-head on the  
95 upper edge thereof, a suspending device consisting of a single piece of inverted-U-shaped metal having its ends drawn together so as to stand face to face and embrace the bead of the rail between them, their lower ends being  
100 inwardly beveled to slip over said bead, substantially as set forth.

9. A stop-block composed of two members arranged face to face and adapted to clamp over the edge of a track-rail, a cavity being  
105 formed in the adjoining face of each member, substantially as and for the purpose set forth.

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

WILLIAM LOUDEN.

Witnesses:

A. D. LONG,  
F. H. HIGBY.