

(No Model.)

G. F. FLANNERY & J. F. FROMM.  
HOSE BRIDGE.

No. 582,524.

Patented May 11, 1897.

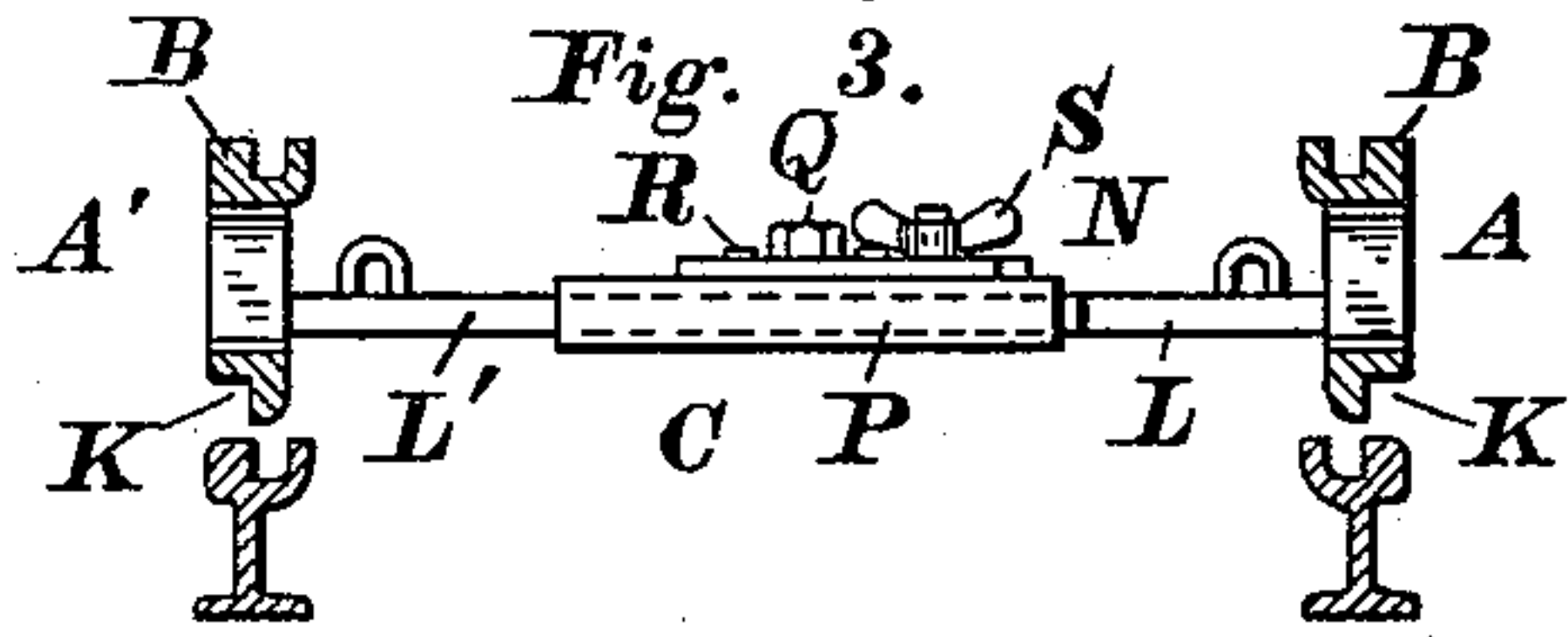
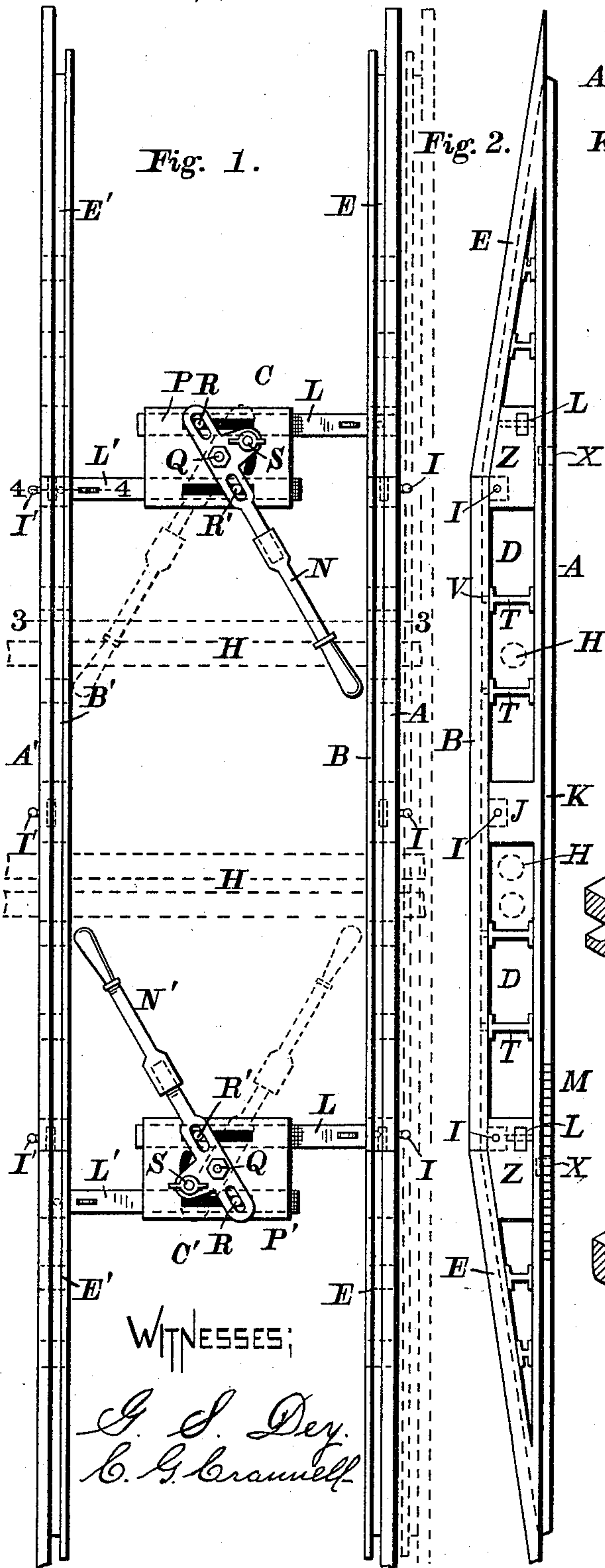


Fig. 4.

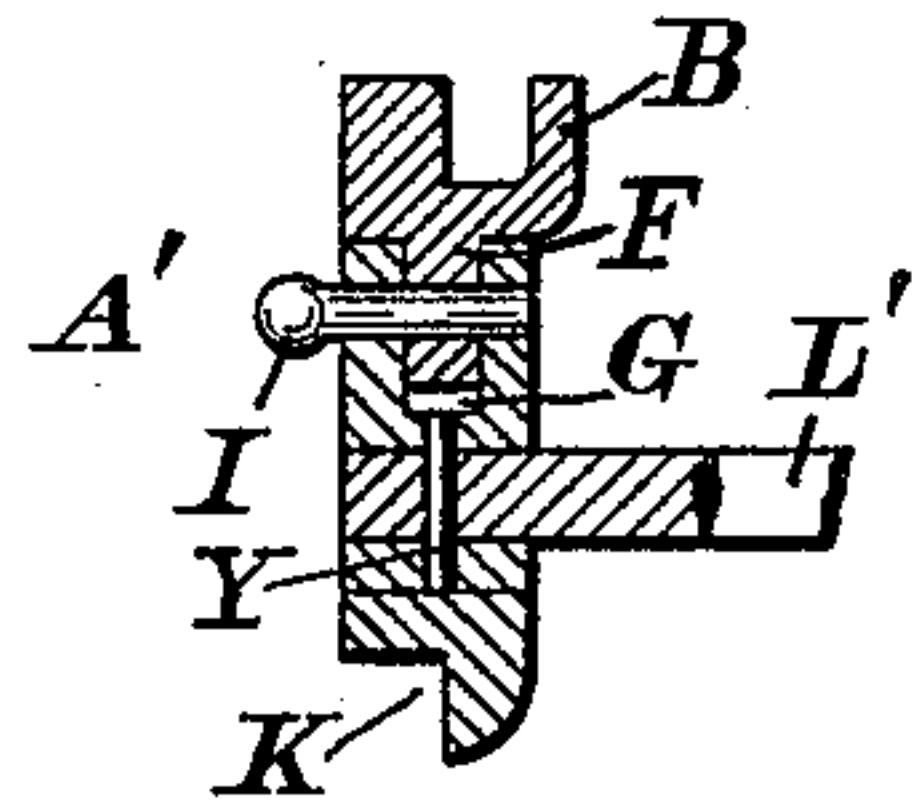


Fig. 5.



Fig. 6.

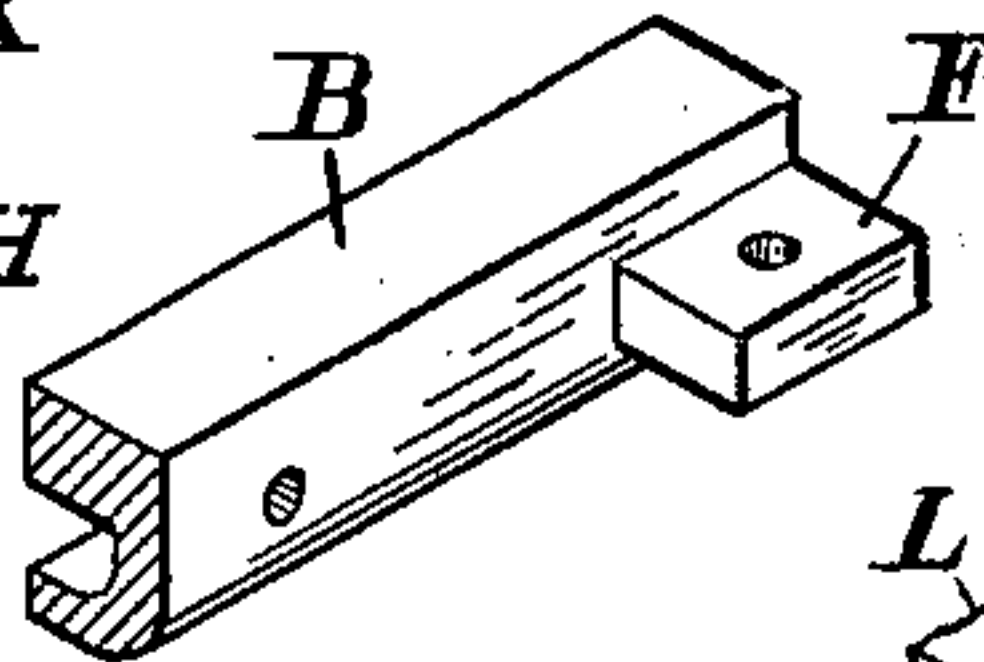
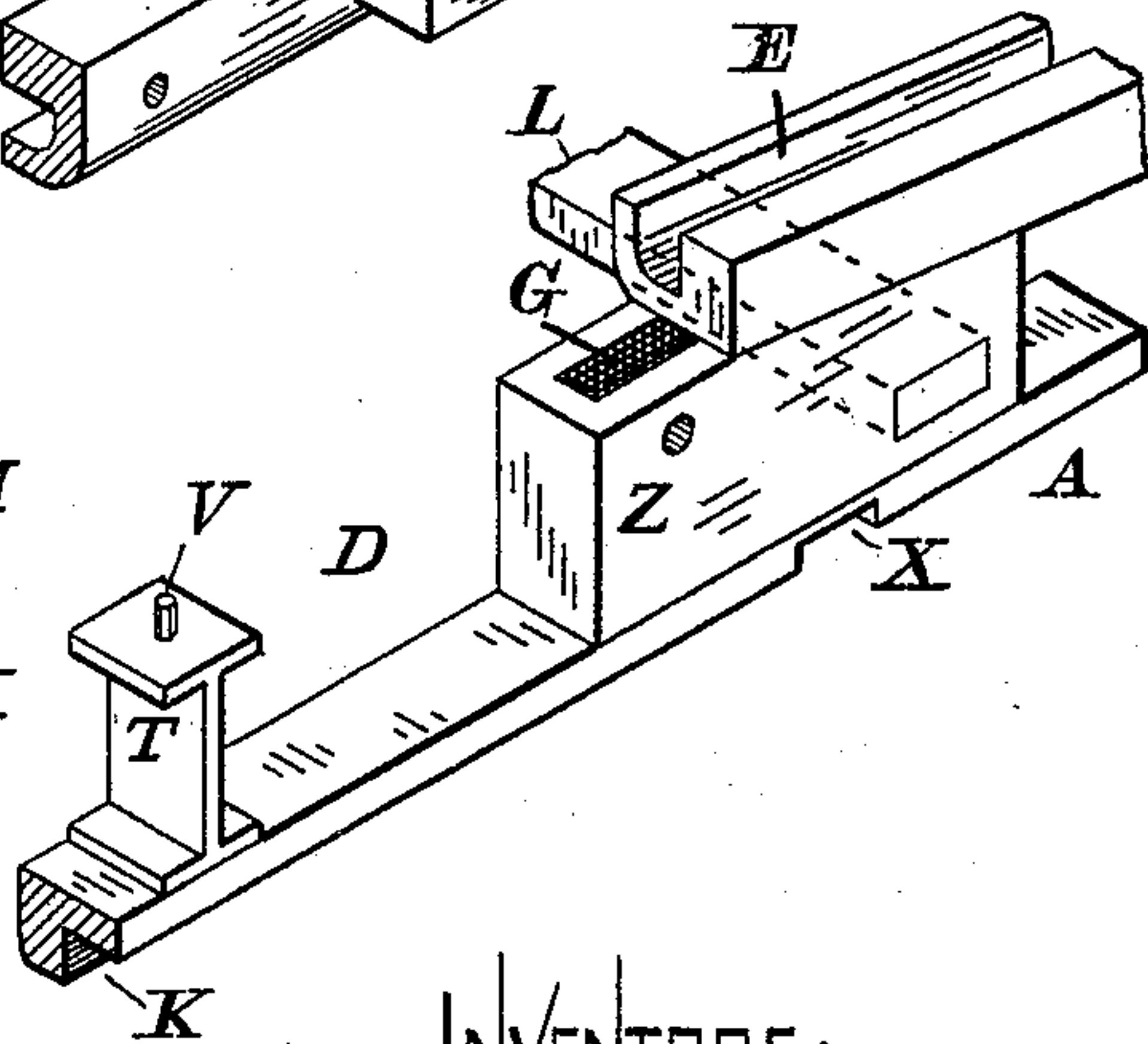


Fig. 7.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE F. FLANNERY AND JOHN F. FROMM, OF ROCHESTER, NEW YORK,  
ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF TWO-THIRDS TO  
JOSEPH P. McMAHON AND JOHN A. STAPLETON, OF SAME PLACE.

## HOSE-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 582,524, dated May 11, 1897.

Application filed March 13, 1897. Serial No. 627,338. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE F. FLANNERY and JOHN F. FROMM, citizens of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented certain Improvements in Hose-Bridges, of which the following is a specification, reference being had to the accompanying drawings.

10 Our invention relates to certain improvements in the construction of hose-bridges, whereby the same are cheapened and rendered more efficient and special provision is made for clamping the same to the rails, so  
15 as to prevent displacement by a car passing over the bridge.

Our invention is fully described and illustrated in the following specification and the accompanying drawings, the novel features  
20 thereof being specified in the claims annexed to the said specification.

In the accompanying drawings, representing our improved hose-bridge, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig.  
25 3 is a transverse section on the line 3 3, Fig. 1, showing the parts above that line. Fig. 4 is a transverse section on the line 4 4, Fig. 1. Fig. 5 represents the device for adjusting our improved hose-bridge to the rails. Fig. 6 represents one end of one of the removable bars  
30 with its lug. Fig. 7 is a partial perspective view.

Our improved hose-bridge consists, essentially, of the two parallel side frames A A',  
35 each of which is provided centrally with a removable bar B B', and the devices C C' for expanding the side frames, so as to secure a suitable grip on the rails, whereby the hose-bridge is held in place while the cars pass  
40 over it. Each of the side frames is provided with the recess D below the removable bars, through which recess the hose H passes when the bridge is in use, the bars serving to support the cars and to protect the hose in the  
45 recess from the wheels. The side frames A A' are provided at each end with suitable inclined ways or guides E E', up and down which the car runs as it passes over the hose. The upper surfaces of the side frames of the  
50 removable bars B B' are flanged or made to

agree with the shape of the upper surface of the rails of the track, as indicated most clearly in Fig. 4.

Any suitable means may be employed for attaching the bars B B' to the side frames so  
55 that the bars may be easily removed for the purpose of laying the hose through the recesses D. In the construction shown each bar is provided at its end with a projecting  
60 lug F, Fig. 6, which fits into a corresponding slot G, Fig. 7, in the side frame or block Z, the bar being secured in place by pins I I', Figs. 1 and 2. The bars B B' are supported  
by one or more lugs or projections J, Fig. 2, extending from the side frame up through  
65 the recess D. Opposite these projections the bars B B' are provided with lugs similar to lugs F, Fig. 6, which enter recesses in the projections and are secured therein by pins I I'. The bars are supported in the recesses D  
70 by one or more struts T, attached to the side frames and provided with pins V, Fig. 7, which engage in openings made in the lower sides of the bars. These struts support the  
bars and enable us to make the recesses of  
75 sufficient length to contain a considerable number of lines of hose.

The lower edges of the side frames are flanged or provided with suitable ribs, (see  
80 K, Fig. 4,) by which they are adapted to engage against the edges of the rails when expanded by the devices C C'. The construction adopted for the ordinary street-railway  
rails or for T-rails will be understood from the cross-section, Fig. 4. The flanges or ribs  
85 K extend the whole length of the lower edges of the side frames A A', so that when the side frames are expanded against the rails the hose-bridge is firmly secured in place on the  
track and all danger of its being shifted  
90 lengthwise when a car runs over it is avoided.

Any suitable construction may be adopted for the side frames. Thus they may be made wholly of wrought iron or steel, or partially of  
cast-iron, and they may be variously recessed  
95 or perforated to reduce the weight while securing sufficient strength. The depth of the recesses D in the side frames is made sufficient to admit hose H of the largest diameter  
without compressing it. The length of these  
100



recesses may be such as to admit of the passage of twelve or fifteen separate lines of hose alongside of each other through the recesses.

In order to expand the side frames so as to cause them to grip on the track, we employ the pivoted levers  $N N'$ , which are connected with the side frames by the transverse thrust-rods  $L L'$ . Lever  $N$  is pivoted at  $Q$  to the block  $P$ , which slides on the rods  $L L'$ . On the opposite sides of the pivot  $Q$  the lever  $N$  is provided with slots in which the pins  $R R'$  in the rods  $L L'$  slide, so that when the lever is turned on the pivot  $Q$  the rods are thrust outward, and as the outer ends of the rods are secured to the side frames the side frames are expanded, engaging the flanges on their lower sides with the inner edges of the rails, thereby firmly attaching the hose-bridge to the track. The block  $P$  is constructed in any suitable manner, so that it can slide on the rods  $L L'$ .

In order to secure the lever  $N$  in place when the hose-bridge has been adjusted and affixed to the track, we provide a clamp or binding screw  $S$  or other suitable similar device. In the construction shown the clamp-screw  $S$  is applied to the upper end of the bolt, which passes through the lever and a curved slot in the block  $P$ , the bolt being provided with an end or head below the block.

The block may be provided with radial serrations, in which corresponding projections on the lower side of the lever engage, but for ordinary purposes the friction caused by clamping the lever to the block by the screw will be found sufficient.

In order to facilitate the application of our improved hose-bridge to the rails, we employ a clip or guide  $U$ , of a form similar to that shown in Fig. 5, which is placed on the rail, extending inward, and acts to guide the side frames into proper position when the hose-bridge is expanded. Notches  $X$  may be cut in the lower edges of the hose-bridge to re-

ceive the clips  $U$  when the bridge is being expanded. At the inner ends of the inclined ways  $E E'$  the blocks  $Z$  serve to support these ways and to receive the lugs  $F$  in the recesses  $G$ . The rods  $L$  are secured in the blocks on the side frames by the pins or bolts  $Y$ , Fig. 4.

It will be observed that the bars  $B B'$  when in place and secured by the pins  $I I'$  give the structure the same strength as though the bars were not removable. Our improved hose-bridge may also be applied to a track consisting of any form of rail, and for the purpose of preventing displacement the surfaces of the flanges  $K$  which bear against the inside of the rails may be roughened or serrated in any suitable way, as indicated at  $M$ , Fig. 2.

Our improved hose-bridge will allow the firemen to stretch a larger number of lines of hose across the track without interfering with the street-car traffic than any other device for a similar purpose with which we are acquainted. It is also cheap in construction, durable in use, and simple and easy to apply to the track.

We claim—

1. The combination in a hose-bridge of the flanged and recessed side frames, the removable bars above the recesses, and means for expanding the frames to affix the bridge to the tracks, substantially as described.

2. The combination with the flanged and recessed side frame  $A$  provided with slots  $G$ , of the removable bar  $B$  having lugs  $F$ , substantially as described.

3. The combination with the flanged and recessed side frame  $A$  provided with a slot  $G$  and lugs  $J$  of the removable bar  $B$  having lugs  $F$ , substantially as described.

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Witnesses:

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