

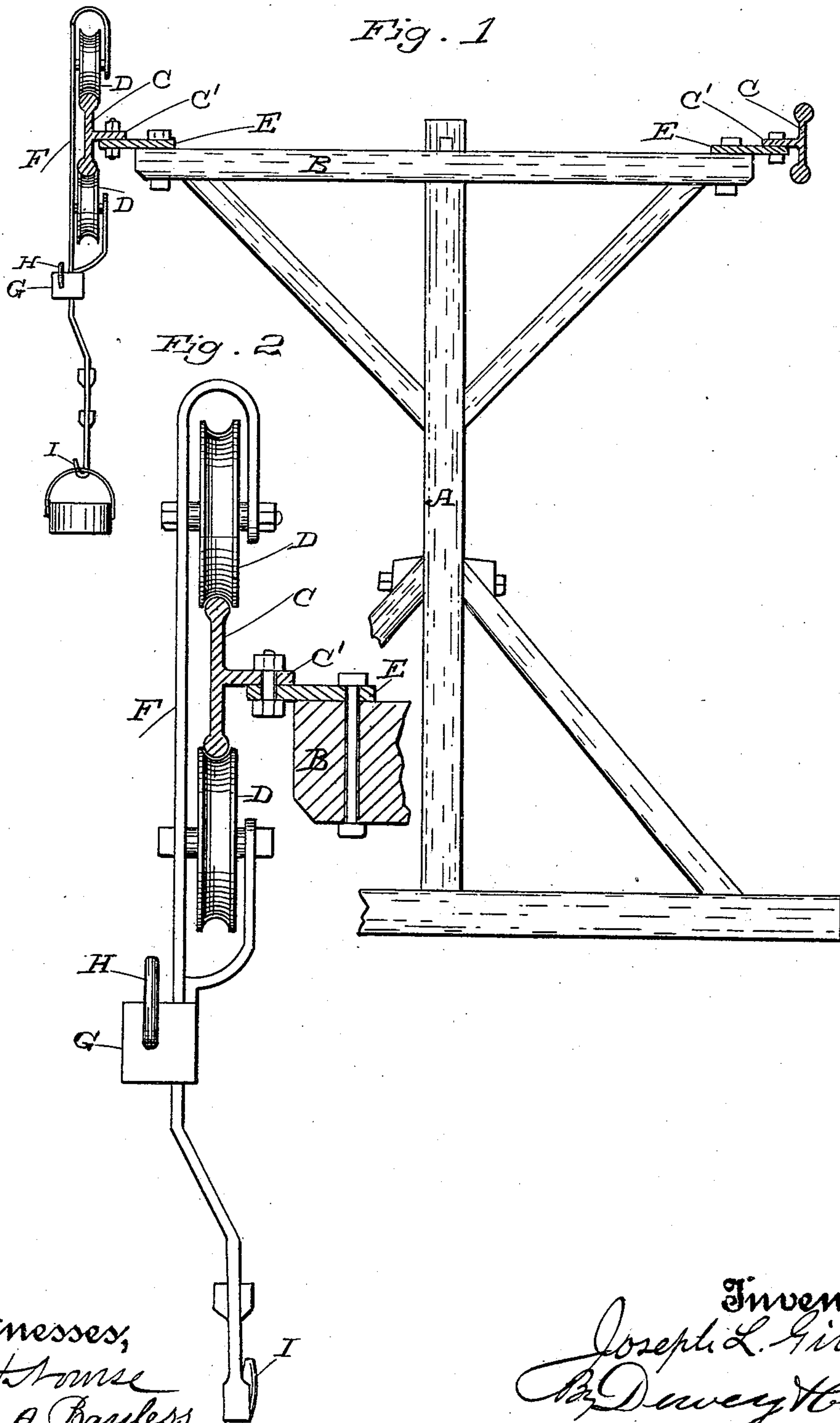
(No Model.)

2 Sheets—Sheet 1.

J. L. GIROUX.
CABLE TRAMWAY.

No. 488,734.

Patented Dec. 27, 1892.



Witnesses,
J. A. Bayless

Inventor,
Joseph L. Giroux
By D. W. H. Co.
attys

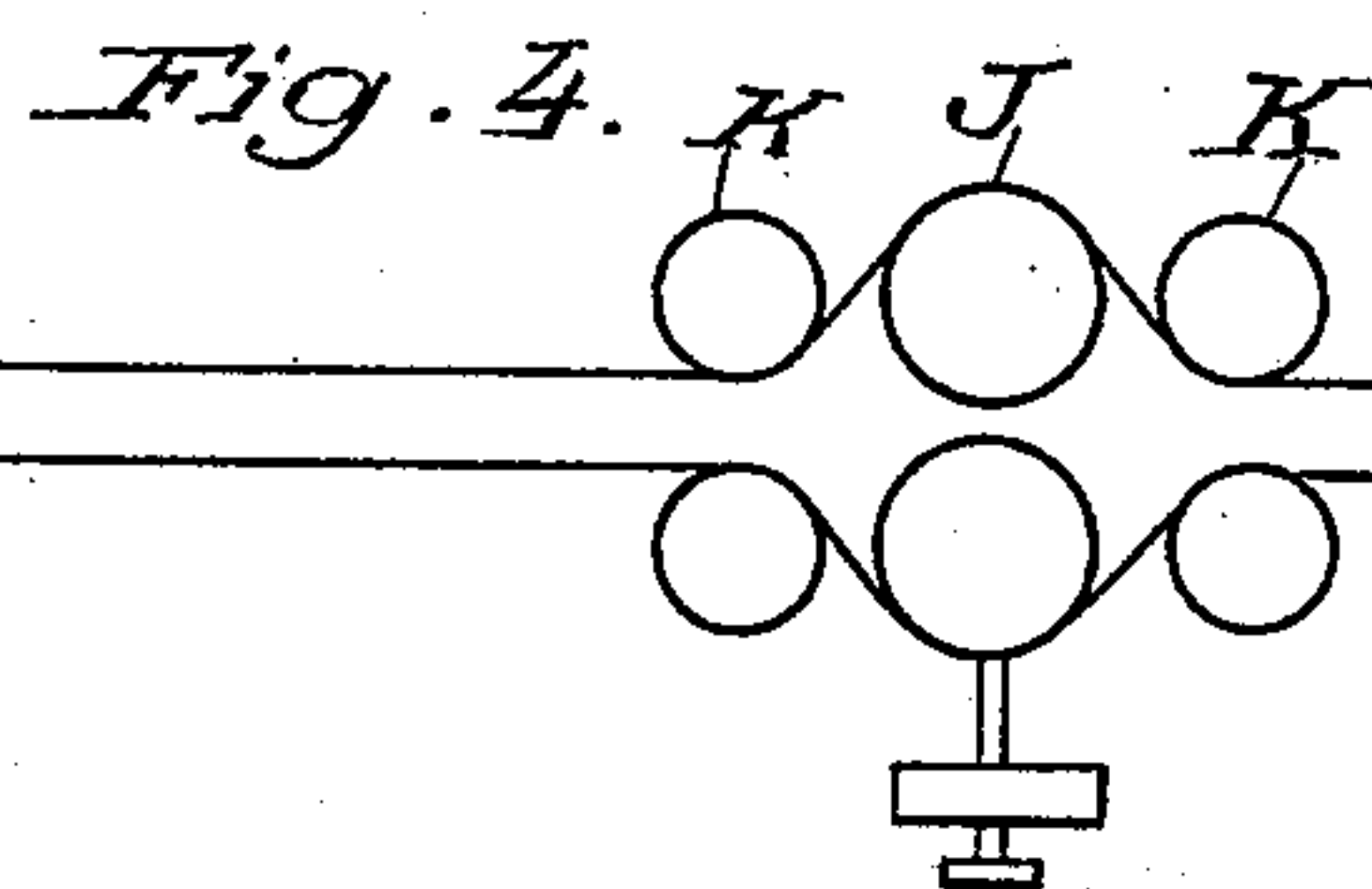
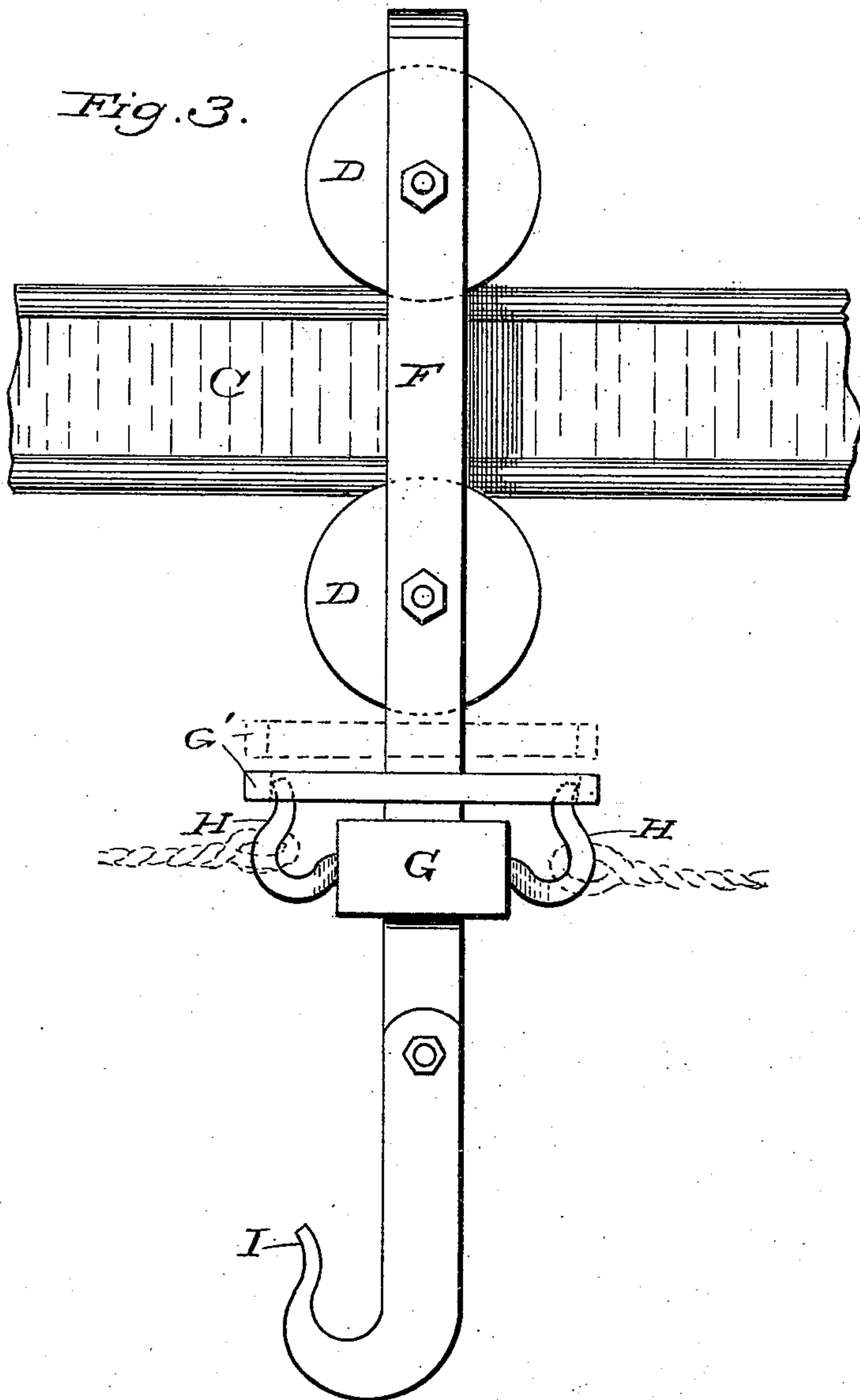
(No Model.)

2 Sheets—Sheet 2.

J. L. GIROUX.
CABLE TRAMWAY.

No. 488,734.

Patented Dec. 27, 1892.



Witnesses,
J. A. Bayless

Inventor,
Joseph L. Giroux
B. Dewey & Co.
attys.

UNITED STATES PATENT OFFICE.

JOSEPH L. GIROUX, OF JEROME, ARIZONA TERRITORY.

CABLE TRAMWAY.

SPECIFICATION forming part of Letters Patent No. 488,734, dated December 27, 1892.

Application filed March 5, 1892. Serial No. 423,913. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. GIROUX, a citizen of the United States, residing at Jerome, Yavapai county, Territory of Arizona, have invented an Improvement in Tramways; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in tramways of that class in which buckets or carriers are suspended from wheels or pulleys traveling upon rails and impelled by endless traveling ropes.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view showing the transverse section of the rails and the supporting posts with the sheaves or hangers. Fig. 2 is an enlarged section of the rail sheaves and hangers. Fig. 3 is a side view of the same. Fig. 4 is a view of the grip and tightening pulleys.

A is a supporting post properly braced and set to suit the exigencies of its position.

B is a transverse timber secured across the top of the post and properly braced and steadied as shown.

C C are my improved T rails having cylindrical heads at top and bottom upon which the sheaves D are fitted to travel.

C' is a flange forming the stem of the T which extends horizontally inward, and is supported by the horizontal timber B. In order to properly secure this flange, I have shown a metal bar E having holes along both edges through which bolts pass, one row serving to secure this plate to the supporting timbers B, and the other row serving to secure the T rails to the plate, so that both upper and lower heads of the rails are sufficiently removed from the supports, to allow the sheaves D to travel freely upon them.

F is the hanger made of iron or steel having the grooved sheaves D fitted between its sides at such a distance apart that one will travel upon the top head of the rail C and the other upon the bottom head, and the two sheaves thus support each other and prevent the device from leaving the track in turning sharp curves, or by reason of change of direction in passing through canyons or low places, and

over mountains and elevations where the strain upon the propelling rope would tend to lift the wheels from the track if they only traveled upon the upper surface of the rail. 55

G is a cast block fixed to the lower part of the hanger and having the hooks H fastened to it to receive the rope or cable by which power is transmitted to drive the hanger and its load along the track. Above the block G is a sliding keeper G' which is movable up and down upon the lower part of the hanger F, and is adapted to engage the points of the hooks H when it is down, so as to strengthen the hooks and also serve as a keeper to prevent the escape of the rope when the latter is attached to the hooks. If it is desired to remove the rope from the hooks, the keeper is moved upward (as shown in dotted lines) thus uncovering the points of the hooks. To the lower end of the hanger is pivoted the hook I from which the bucket or load is suspended. 60 65 70

The rope by which power is transmitted to drive the carriers above described, passes over grip pulleys J at the central station and around tightening pulleys K which insure its being driven by the grip pulleys. This rope is connected with the hangers by means of the hooks before described so that any number of these hangers with the load suspended from them, may be driven by power applied to the rope. It will be seen that these carriers are driven in one direction by that part of the rope situated upon one side of the framework, and in the opposite direction by that part of the rope situated upon the other side. 75 80 85

The T rails previously described are supported by the posts or bents A, B, at suitable or convenient intervals apart, and they are also braced between these supports if found necessary to give them stiffness. 90

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is— 95

1. The improvement in tramways consisting of the vertical rails having heads at top and bottom for the travel of pulleys, a flange or shank extending inwardly from the central portion of the rails, metal bars to the outer edges of which said flanges are bolted, and supporting timbers to which the inner edges 100

of the plates are bolted whereby the heads of the rails are supported exterior to the frame-work, substantially as herein described.

2. In a tramway the combination of a supporting frame work, the vertical rails having a centrally disposed inwardly projecting flange by which they are secured to the frame work so as to support the rails outside of the plane of the same, hangers having pulleys journaled within them and adapted to travel upon opposite sides of the rails, an endless traveling rope extending parallel with

lines of rails, hooks H on the hanger for connection with the rope, and other hooks also on said hangers adapted to suspend articles therefrom, and a keeper for the hooks H, substantially as herein described. 15

In witness whereof I have hereunto set my hand.

JOSEPH L. GIROUX.

Witnesses:

D. L. ROBINSON,
MYRON CORY.