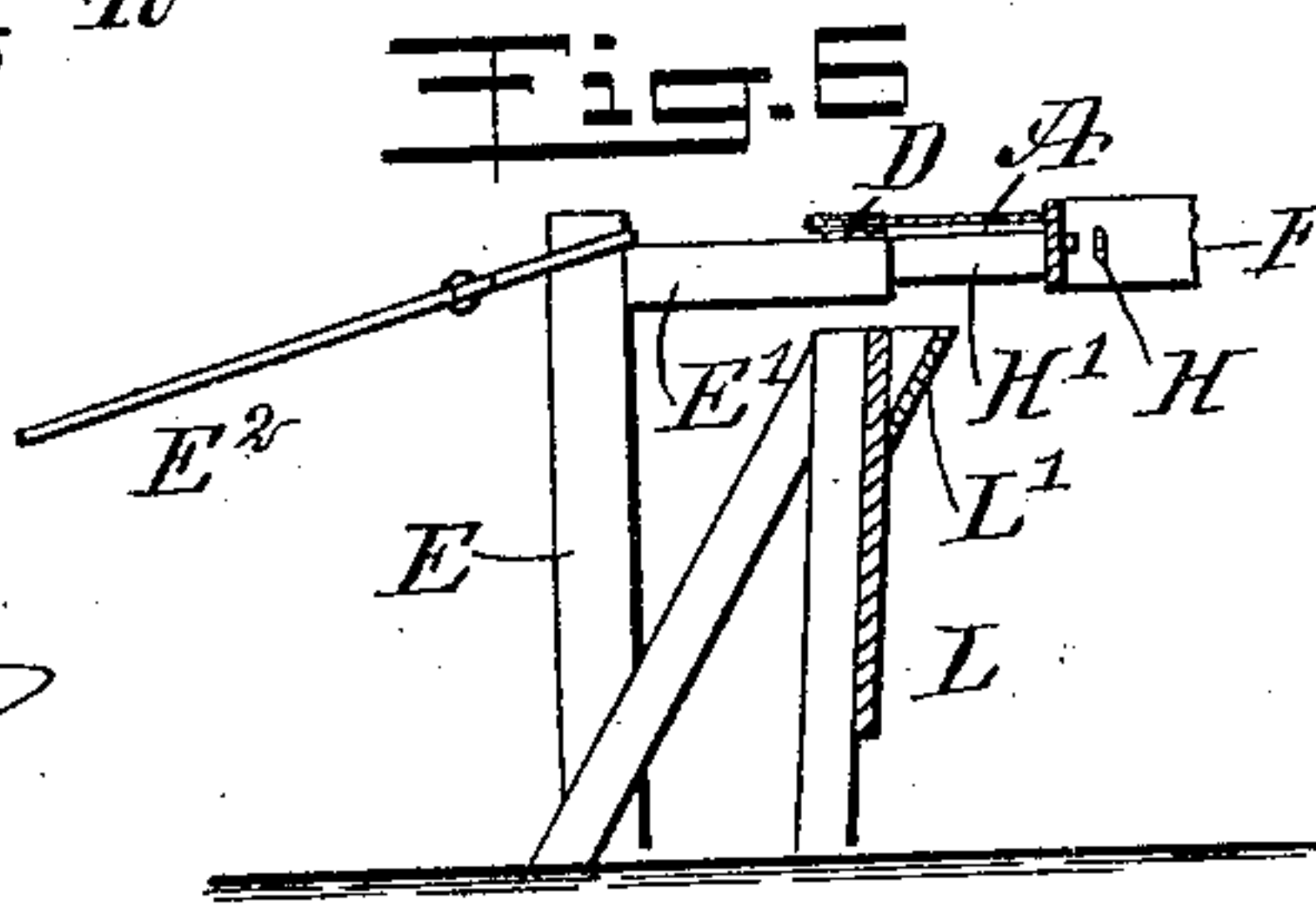
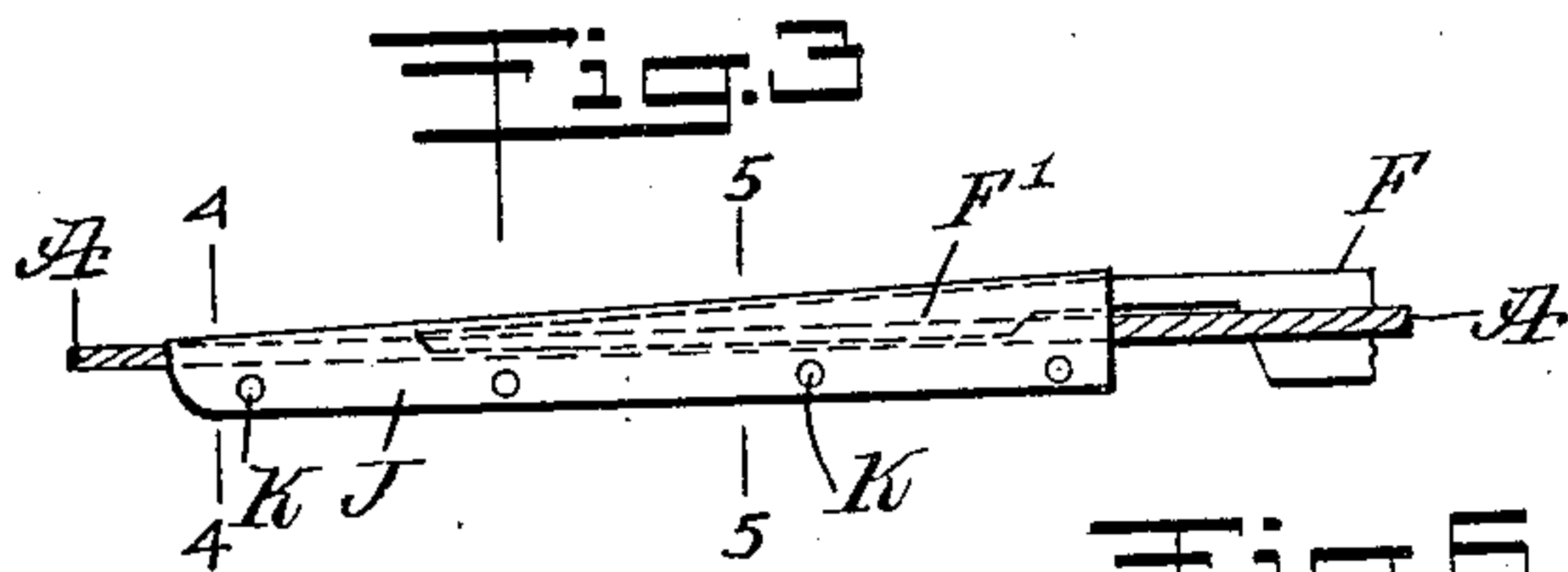
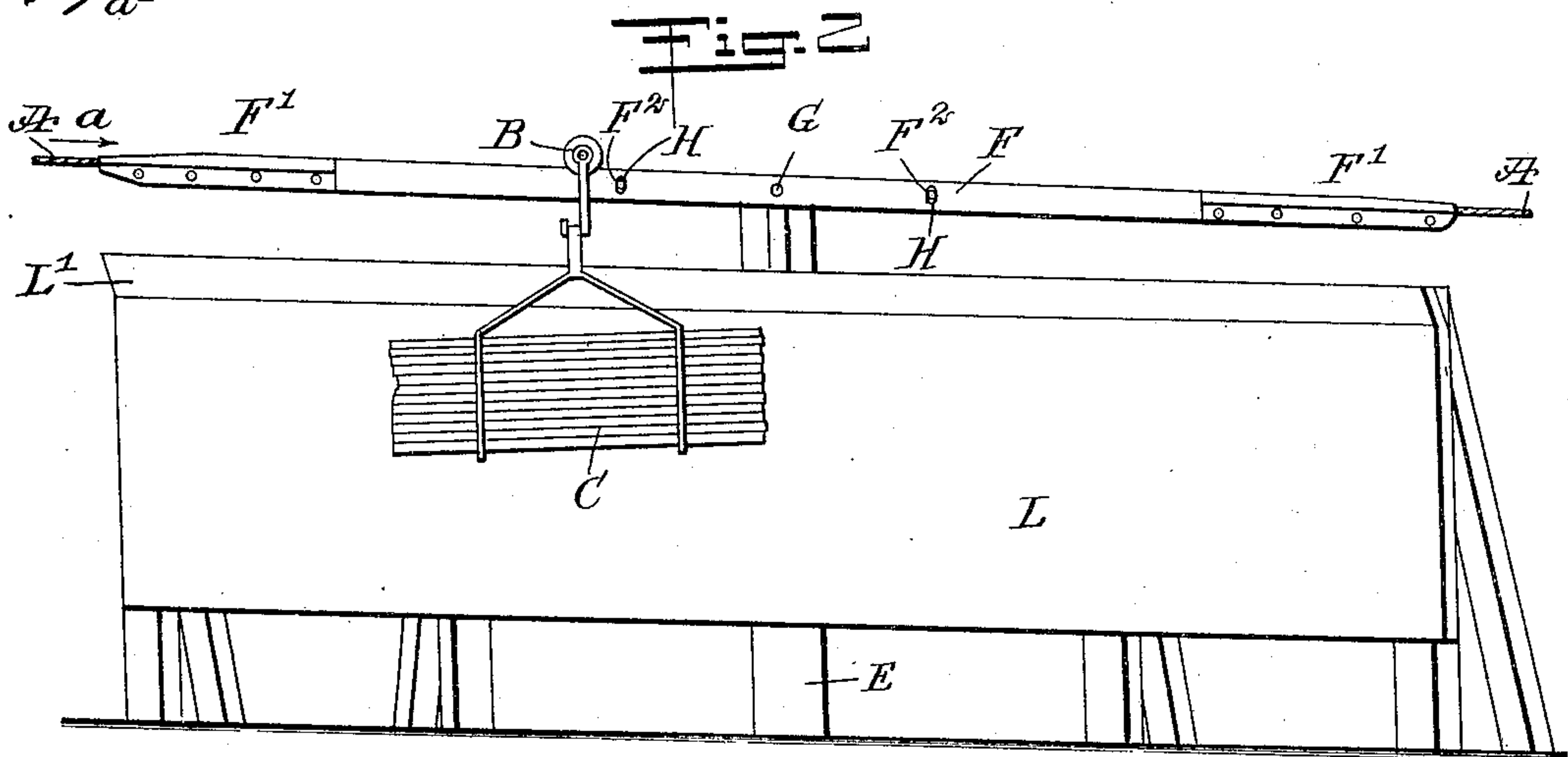
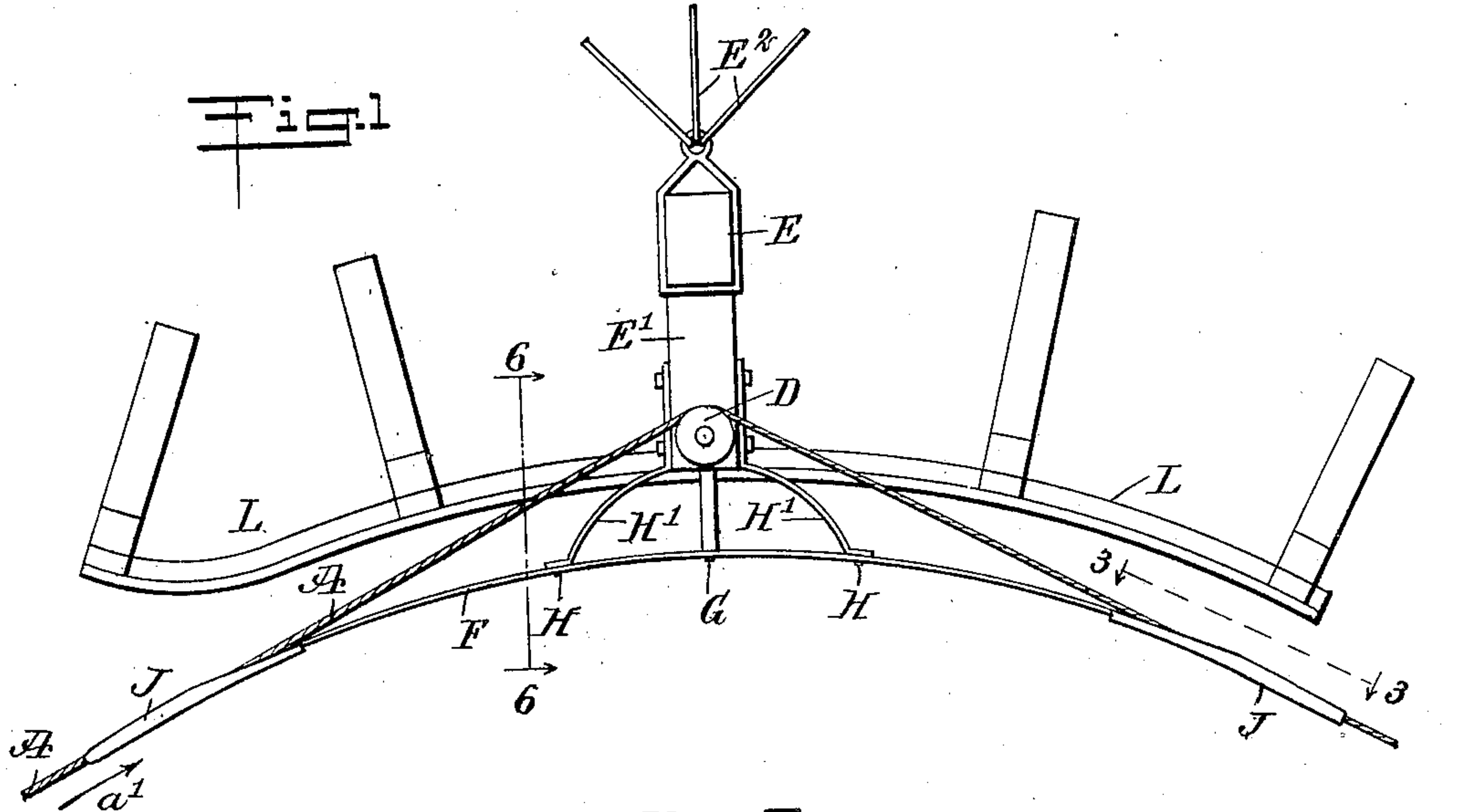


No. 891,154.

PATENTED JUNE 16, 1908.

T. J. DRIVER.
RUNNING SWITCH AND GUIDE.
APPLICATION FILED OCT. 12, 1907.



WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS JEFERSON DRIVER, OF HOLUALOA, TERRITORY OF HAWAII.

RUNNING-SWITCH AND GUIDE.

No. 891,154.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed October 12, 1907. Serial No. 397,105.

To all whom it may concern:

Be it known that I, THOMAS JEFERSON DRIVER, a citizen of the United States, and a resident of Holualoa, North Kona, Territory of Hawaii, have invented a new and Improved Running-Switch and Guide, of which the following is a full, clear, and exact description.

The invention relates to elevated railways for the transportation of field products, merchandise and the like, and its object is to provide a new and improved running switch and guide arranged to permit an uninterrupted transportation of the merchandise over a circuitous route, thus avoiding undesirable rehandling of the merchandise at the point of divergence in the route, and thereby reducing the cost of the operation to a minimum.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement; Fig. 2 is a side elevation of the same; Fig. 3 is an enlarged rear side elevation of one end of the switch, illustrating the attachment of the switch to the cable; Fig. 4 is an enlarged transverse section of the same on the line 4—4 of Fig. 3; Fig. 5 is a similar view of the same on the line 5—5 of Fig. 3, and Fig. 6 is a transverse section of the improvement on the line 6—6 of Fig. 1.

The cable A over which travels the trolley or carriage B supporting the sugar-cane, merchandise or other load C, passes at its point of divergence in the route over a horizontally disposed pulley D, journaled on an arm E' projecting from a post E set in the ground and held in place by suitable anchoring means E², as plainly indicated in Figs. 1 and 6.

The trolley or carriage B while passing around the point of divergence in the route, leaves the cable A at one side of the said point of divergence and passes onto and over a switch F, to then pass back onto the cable

at the other side of the point of divergence in the route. The switch F is in the form of a strip of metal terminating at its ends in seats or shoes F' seated on top of the cable A, the latter passing to the back of the switch F to the pulley D, as plainly indicated in Fig. 1. The middle of the switch F is fulcrumed on a pivot G held on the arm E', and the said pivot G allows the switch F to rock, but the rocking movement is limited by stop pins H, projecting into elongated slots F² formed in the switch F, the pins H being formed at the ends of arms H' secured to the arm E'.

The cable A at each seat or shoe F' of the switch F is supported on a longitudinally extending bar I held in place in the lower portion of a clip J extending over the shoe F and part of the cable A, as plainly indicated in Figs. 3, 4 and 5, the lower portions of the clip J and the bar I being secured together by transverse bolts K, having the inner heads rounded off, so as not to form an obstruction for the passage of the trolley B. Now by the arrangement described the ends of the switch F are connected with the cable A at opposite sides of the points of divergence in the route, so that the trolley B traveling down the cable A in the direction of the arrow a' readily passes from the cable A onto the left hand end of the switch, to then travel over the switch and back again onto the cable A, at the right hand end of the switch, as will be readily understood by reference to Figs. 1 and 2.

In order to prevent the trolley B from accidentally leaving the switch owing to the centrifugal action of the load C when passing around the curved switch, a guide L is provided erected on the ground approximately parallel to the switch F and somewhat in the rear thereof, as plainly indicated in Figs. 1 and 6. The guide L is formed of boards, sheet metal or the like, and is slightly inclined to the vertical, so that the sugar-cane C or like material forming the load, in striking the guide L tends to pull the trolley B downward, so that a firm contact is had between the trolley and the switch F, to prevent the trolley from leaving the switch while passing over the same. The inclined head L' of the guide L also prevents upward

movement of the load C. The guide L at its forward end is slightly curved outward (see Fig. 1), to prevent the approaching load from striking an abrupt or sharp end of the guide L, and thereby avoiding impediment of the load in its onward travel.

Each seat or shoe F' of the switch F is grooved at the bottom to fit the cable A, and the top of the seat or shoe is inclined to allow the wheel of the trolley or carriage B to readily pass from the cable A onto the switch F, or from the latter back onto the cable. By passing the cable A at an angle to the rear of the switch F and fitting the latter onto the cable at the legs of the said angle, it is evident that the same curvature in the switch may be retained when fitting the switch onto the cable having a more or less acute angle portion, according to the divergence to be given to the cable along the route. By allowing the switch F to rock slightly it readily adjusts itself to the direction of the cable, as the latter is pressed down by the approaching trolley and its load.

Where it is necessary to connect or splice two wires on a straight angle or straight lines, it may be done very effectually by eliminating the arms H' and bolting two hooks to the back of the switch F, and fastening the ends of the cables to be connected to these hooks.

The sole support of the switch when used as a splice is by the pivot G, which may in turn be supported by any efficient device used to support any ordinary cable line.

The device is very simple and durable in construction and may be readily set up along any point of the route.

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

1. An elevated carrier provided with a cable forming a track for the trolley to run on, a support for the cable at the point of divergence in the route, a switch engaging with its ends the cable at opposite sides of the said support, and a fixed guide for guiding the material carried by the trolley and while the latter passes over the switch, the guide being approximately parallel to the said switch.

2. An elevated carrier provided with a cable forming a track for the trolley to run on, a support for the cable at the point of divergence in the route, a switch engaging with its ends the cable at opposite sides of the said support, and a fixed guide for guiding the material carried by the trolley and while the latter passes over the switch, the guide being approximately parallel to the said switch, and inclined to the vertical.

3. An elevated carrier provided with a cable forming a track for the trolley to run

on, a support for the cable at the point of divergence in the route, a switch engaging with its ends the cable at opposite sides of the said support, and a pivot engaging the switch at or near the middle thereof to allow the switch to rock.

4. An elevated carrier provided with a cable forming a track for the trolley to run on, a support for the cable at the point of divergence in the route, a switch engaging with its ends the cable at opposite sides of the said support, a pivot engaging the switch at or near the middle thereof to allow the switch to rock, and means for limiting the rocking motion of the switch.

5. An elevated carrier provided with a cable forming a track for the trolley to run on, a switch in the form of a metal strip having its ends terminating in seats engaging the cable to form a switch connection with the cable at each end of the switch, a supporting bar fitting the underside of the cable at each seat, and a clip engaging the said seat, the bar and the cable.

6. An elevated carrier provided with a cable forming a track for the trolley to run on, and a switch in the form of a metal strip having its ends terminating in seats, engaging the cable to form a switch connection with the cable at each end of the switch, the said seats being grooved at the underside and beveled at the top.

7. An elevated carrier provided with a cable forming a track for the trolley to run on, and a pulley located at the point of divergence in the route and around which passes the cable, to change the direction thereof and to allow lengthwise movement of the cable.

8. An elevated carrier provided with a cable forming a track for the trolley to run on, a pulley located at the point of divergence in the route and around which passes the cable, and a switch engaging with its ends the said cable at opposite sides of the pulley.

9. An elevated carrier provided with a cable forming a track for the trolley to run on, a pulley located at the point of divergence in the route and around which passes the cable, and a switch mounted to rock and engaging with its ends the said cable at opposite sides of the pulley.

10. An elevated carrier provided with a cable forming a track for the trolley to run on, a support for the cable at the point of divergence in the route, a switch engaging with its ends the cable at opposite sides of the support, a pivot on which the switch is mounted to rock, the said switch having elongated slots at opposite sides of the pivot, and stop pins projecting into said slots to limit the rocking movement of the switch.

11. An elevated carrier provided with a

cable forming a track for the trolley to run on, a switch in the form of a metal strip having its ends terminating in seats engaging the cable to form a switch connection with the
5 cable at each end of the switch, and a fixed guide for guiding the material carried by the trolley while the latter passes over the switch.

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

THOMAS JEFERSON DRIVER.

Witnesses:

WM. M. McQUAID,
CHAS. COWAN.