No. 815,852. PATENTED MAR. 20, 1906.

T. S. MILLER & J. H. DICKINSON.

CONVEYER.

APPLICATION FILED FEB. 29, 1904.

3 SHEETS—SHEET 1.

Fig. 1

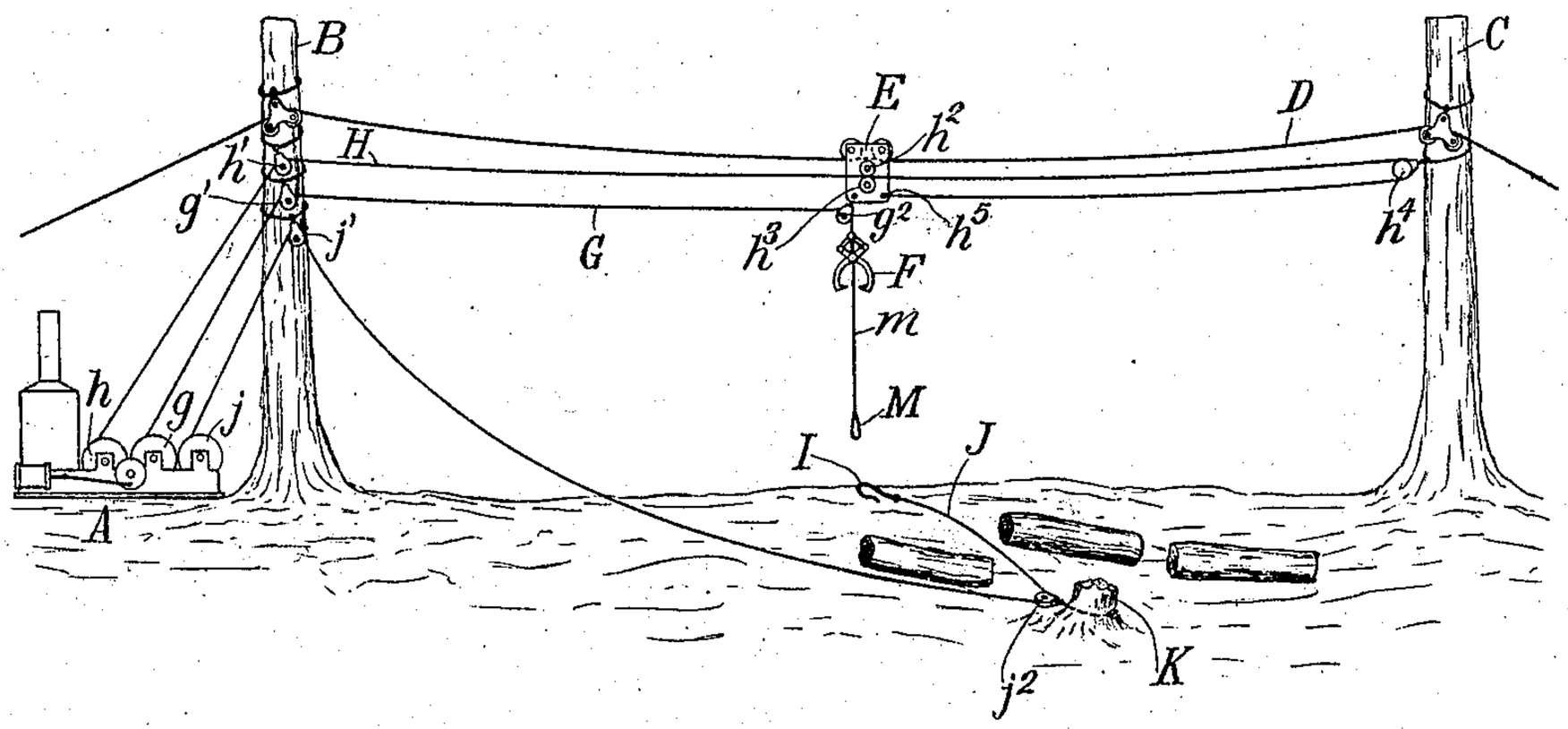


Fig. 2

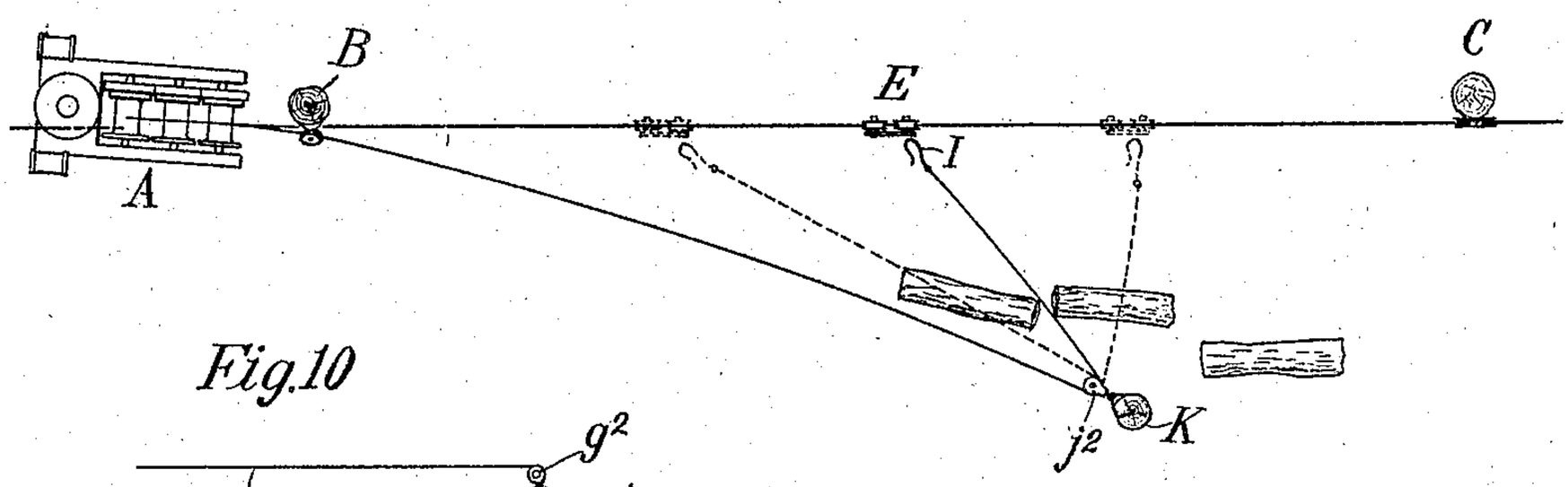


Fig. 10

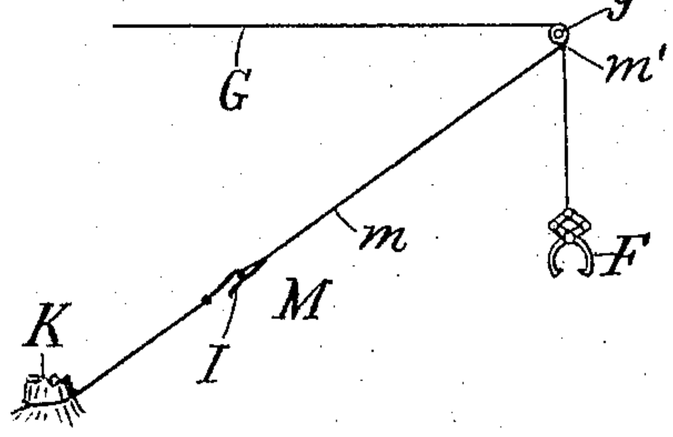
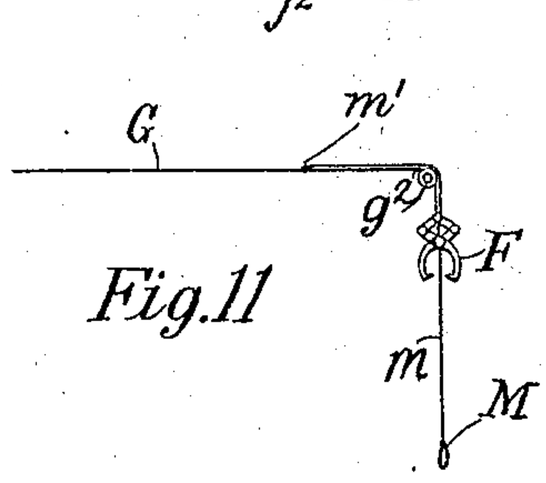


Fig. 11



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3 SHEETS—SHEET 2.

Fig. 3

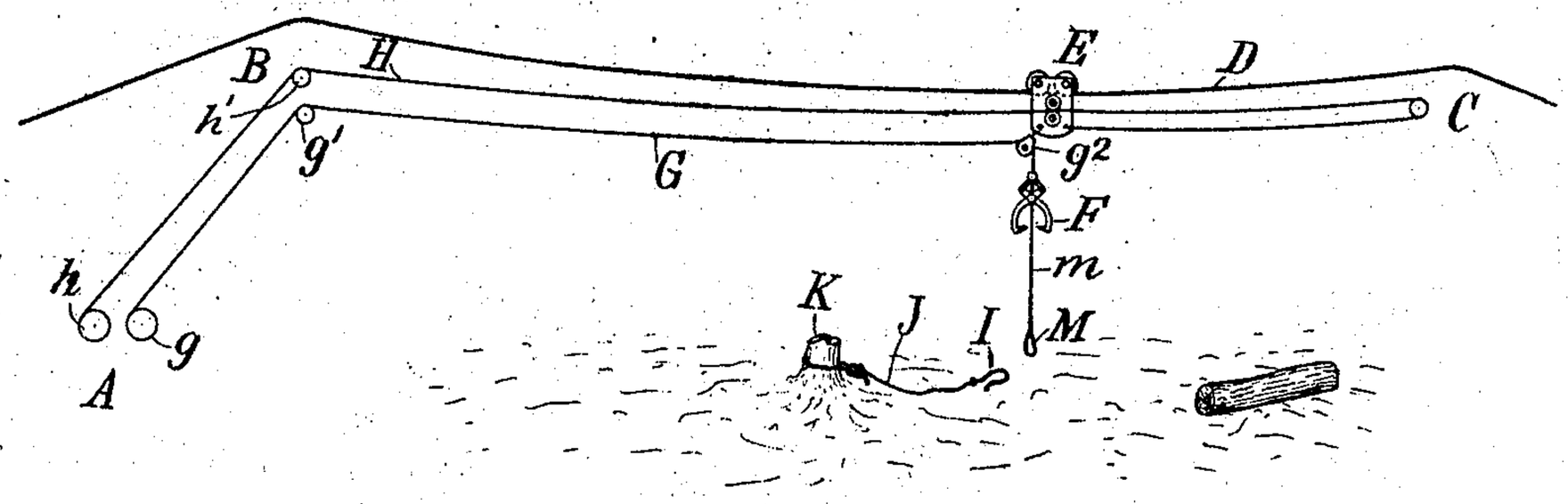


Fig. 4

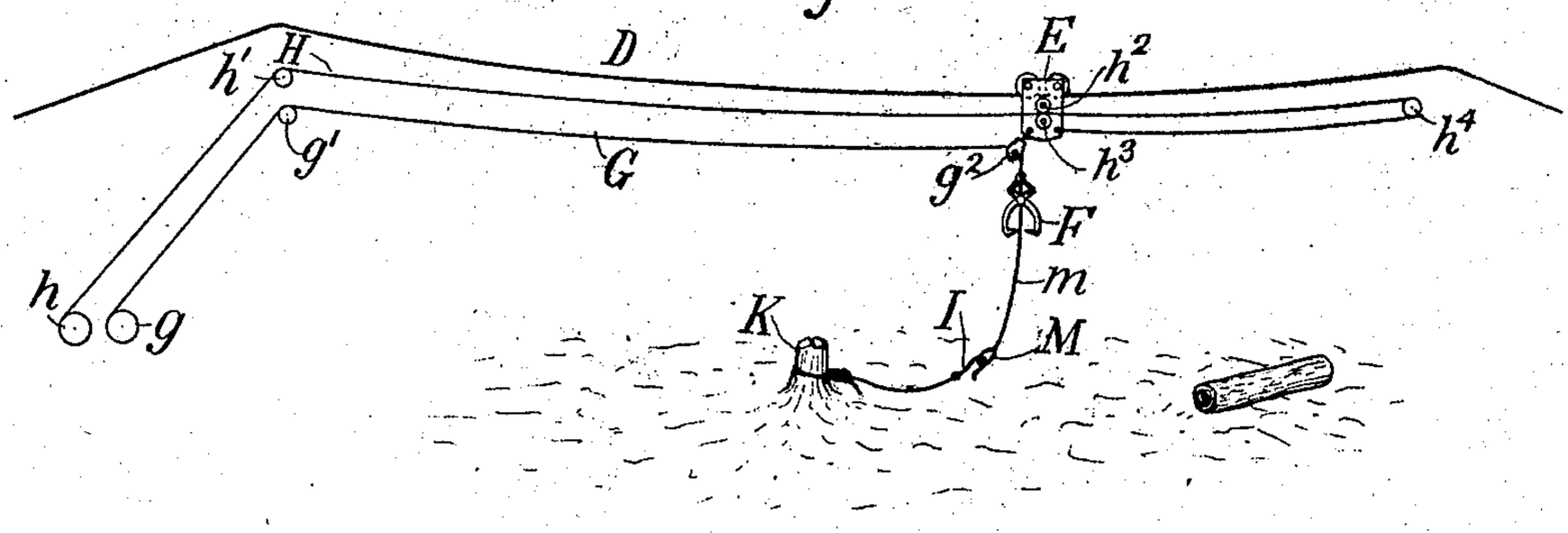
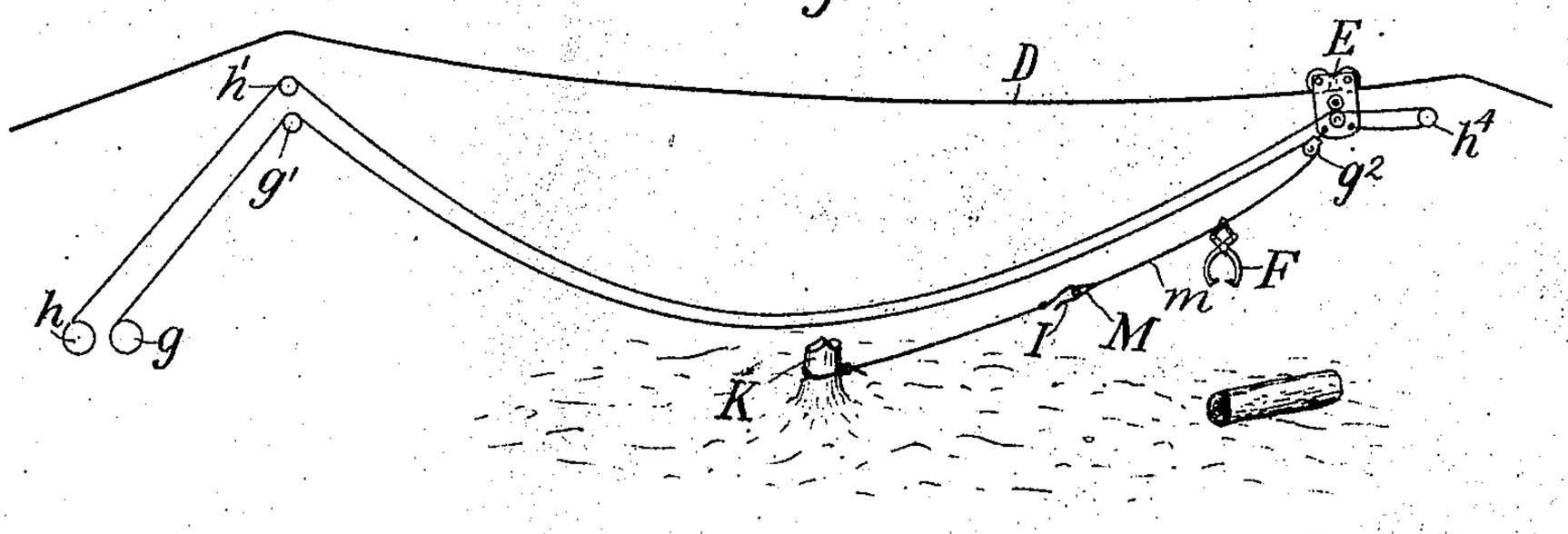


Fig. 5



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CONVEYER.

APPLICATION FILED FEB. 29, 1904.

3 SHEETS—SHEET 3.

Fig. 6

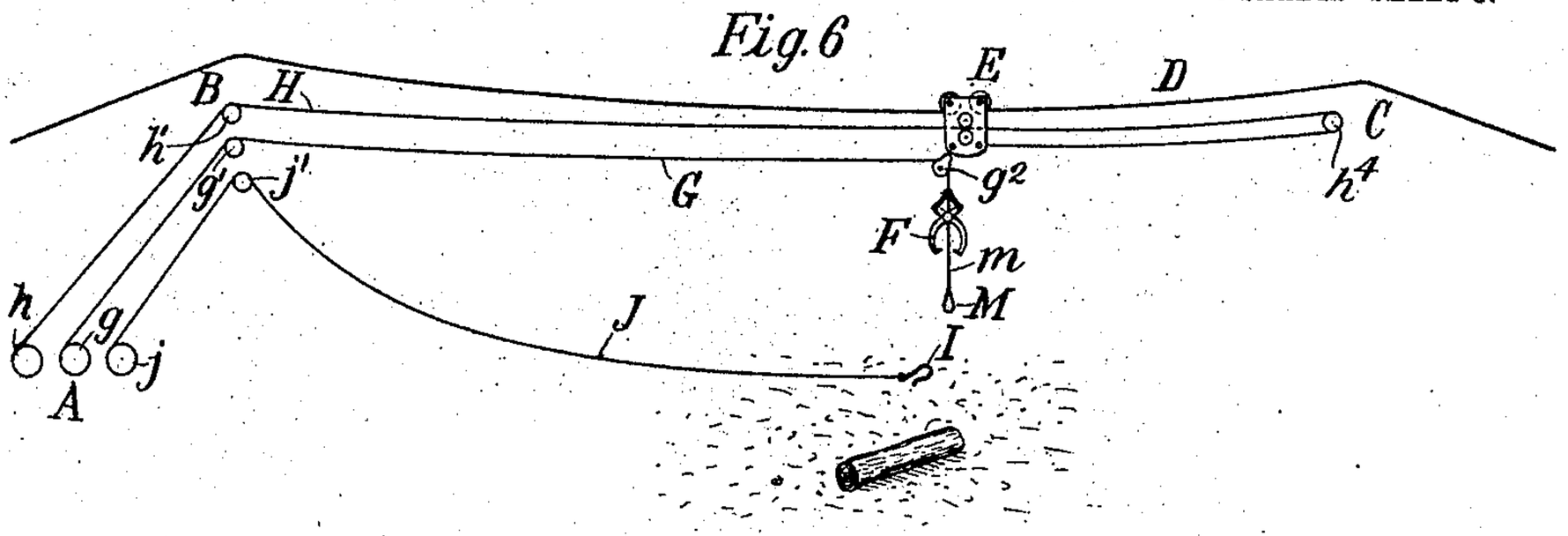


Fig. 7

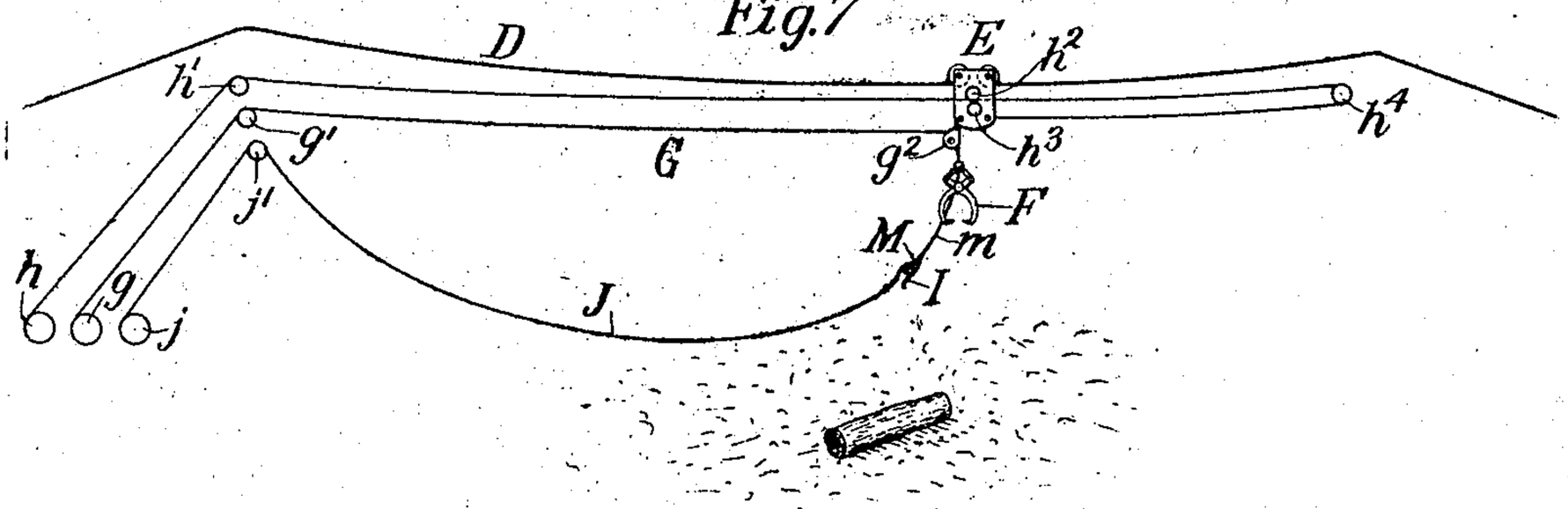


Fig. 8

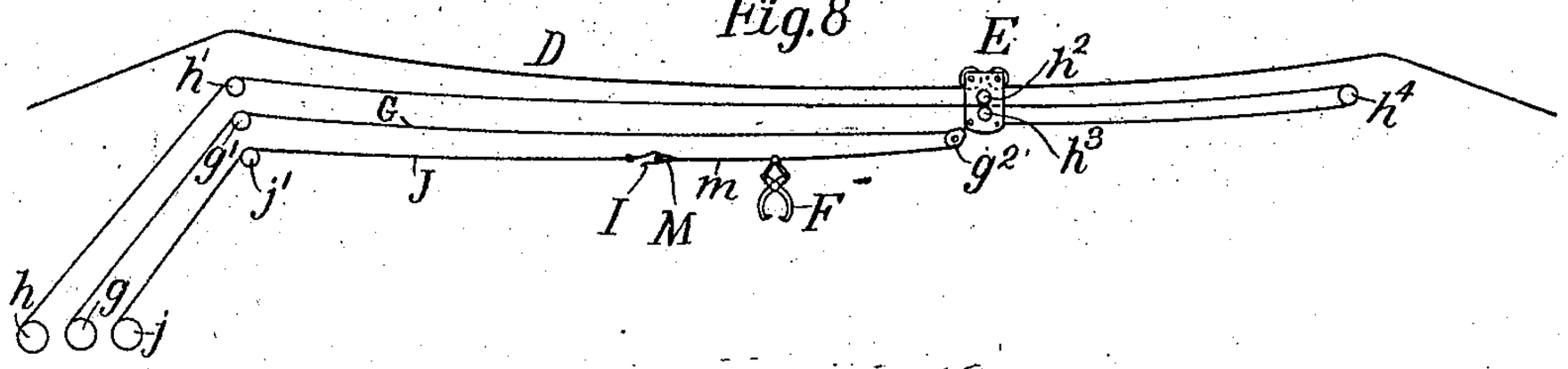
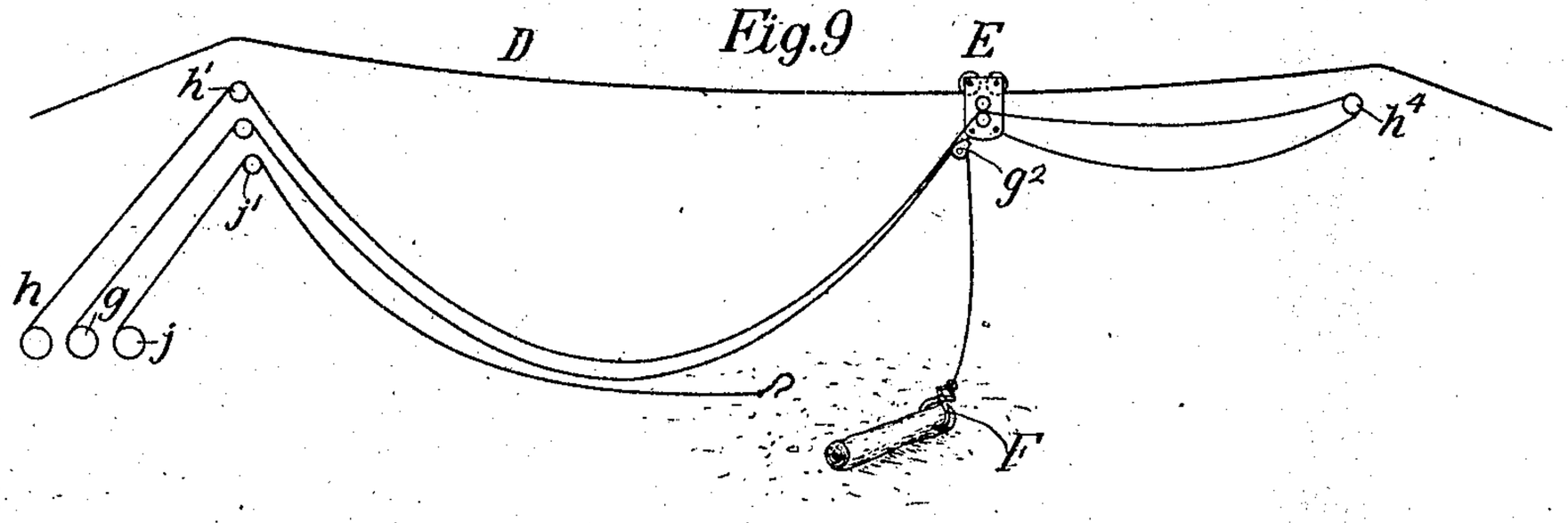


Fig. 9



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UNITED STATES PATENT OFFICE.

THOMAS SPENCER MILLER, OF SOUTH ORANGE, AND JOSEPH H. DICKINSON, OF MONTCLAIR, NEW JERSEY.

CONVEYER.

No. 815,852. Specification of Letters Patent. Patented March 20, 1906.

Application filed February 29, 1904. Serial No. 195,754.

To all whom it may concern:

Be it known that we, THOMAS SPENCER MILLER, a resident of South Orange, and JOSEPH H. DICKINSON, a resident of Montclair, Essex county, and State of New Jersey, citizens of the United States, have invented a new and useful Conveyer, of which the following is a specification.

This invention relates to the general class of apparatus which is the subject of our Patent No. 688,475, dated December 10, 1901, in which a grip actuated by an outhaul-rope is adapted to engage the load-pulling rope and draw it outwardly.

In the accompanying drawings, Figures 1 and 2 are a side and plan view of one form of our invention. Figs. 3, 4, and 5 are side views of another form in various positions. Figs. 6, 7, 8, and 9 are side views of still another form in various positions. Figs. 10 and 11 show a modification in two positions.

In all the figures, A is a friction-drum engine.

B is the head-support.

C is the tail-support.

D is the cable upon which the carriage E runs.

F represents the tongs or other receptacle for the load.

G is the load-pulling rope, actuated by the drum g and extending over the sheave g' at the head-support and the sheave g^2 on the carriage.

H is the carriage traversing or traction rope, actuated by the rope-drum h and extending over the head-sheave h' between the carriage-sheaves h^2 h^3 around the tail-sheave h^4 and back again to the carriage, to which it is secured at h^5.

I is a grip actuated by the outhaul-rope J. This grip may be of any suitable form, being shown as an open hook in the drawings. Said outhaul-rope is shown as operated in various ways in the different figures. In Figs. 1 to 5 it is shown as secured to an anchorage K, located at or near the ground and at a considerable distance at one side of the cable. In Figs. 3, 4, and 5 said outhaul-rope is shown as fixed to said anchorage; but in Figs. 1 and 2 it is shown as secured thereto by passing through the sheave-block j^2, fixed thereto, and thence passing over the head-support sheave j' to its rope-drum actuator j.

In Figs. 6 to 9 the anchorage K is omitted and the outhaul-rope J extends directly from the grip I, over the head-support sheave j', to its actuator j.

The engagement of the grip I with the load-pulling rope is made in Figs. 1 to 9 through the eye M, suspended by the suspender m from the load-pulling rope G at a point beyond its carriage-sheave g^2.

The operation is as follows: In the construction shown in Figs. 1 and 2 when the tongs are elevated the eye M hangs within reach from the ground. The grip I is hooked into the eye M, the rope J is hauled in by the drum j, while the rope G is paid out by the drum g. In this manner whatever may be the position in which the carriage is held by the rope H the tongs will be drawn toward the anchorage K until they reach the desired position. Thereupon the ropes G and H are given all the slack that they will take from the drums. In a long span they may even rest upon the ground between the head-support and the carriage. Then the grip I may be cast off, the tongs attached to a log, the rope G hauled in, and the carriage by the cooperation of the ropes G and H moved to any point of the cableway to which it is desired to drag the log. In the construction shown in Figs. 3, 4, and 5 when the grip I has been hooked into the eye M the carriage is moved toward the tail-support, so as to draw out the load-hauling rope G, as shown in Fig. 5. Thereupon the ropes G and H are given all the slack that they will take from the engine-drums. Then the grip is unhooked, so as to permit the tongs to be engaged with the log, which is then hauled as before. In the construction shown in Figs. 6 to 9 upon hooking the grip to the eye M the rope J is hauled in, so as to draw out the load-hauling rope G, as shown in Fig. 8. The tongs are then lowered by paying out the rope J. The ropes G, H, and J are then given all the slack that they will take from the engine-drums. The grip is then unhooked from the eye, the tongs attached to a log, as shown in Fig. 9, and hauled as before.

It will be observed that in each of the constructions above described the suspender m constitutes a substantial extension or prolongation of the load-pulling rope G beyond the load-receptacle F. In Figs. 1 to 9, inclusive, this extension m starts substantially from the point of attachment of the tongs to the load-

pulling rope; but it may start from a point further back on the load-pulling rope. For example, in Figs. 10 and 11 it is shown as starting from the point m' of the load-pulling rope G, which is so far back of the tongs f that when the tongs are elevated the point m' is back of the carriage-sheave g^2, the two branches of the rope extending together over said sheave. This form of construction has the advantage that it permits the tongs to be handled to a considerable extent while the suspender m is held by the grip.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a conveying device, in combination, a carriage, a load-pulling rope extending over a guide on the carriage, a load-receptacle, traversing means, an outhaul-rope and a grip actuated by said outhaul-rope and adapted to engage the load-pulling rope to draw it outwardly; said grip being secured at a point beyond the load-receptacle.

2. In a conveying device, in combination, a carriage, a load-pulling rope extending over the guide on the carriage, a load-receptacle, traversing means, an outhaul-rope, and an extension of said load-pulling rope engaging said outhaul-rope beyond said load-receptacle.

3. In a conveying device, in combination, a carriage, a load-pulling rope extending over the guide on the carriage, a load-receptacle, traversing means, an outhaul-rope, and an extension of said load-pulling rope engaging said outhaul-rope beyond said guide.

4. In a conveying device, in combination, a carriage, a load-pulling rope extending over a guide on the carriage, traversing means, an outhaul-rope, an anchorage with which said outhaul-rope is connected and an extension of the load-pulling rope with which said outhaul-rope is detachably connected.

5. In a conveying device, in combination, a load-pulling rope, a carriage, carriage-traversing means, an outhaul-rope, an anchorage with which said outhaul-rope is connected by a sheave, an actuator for said outhaul-rope and an extension from said load-pulling rope with which said outhaul-rope is detachably connected.

6. In a conveying device, in combination, a carriage, a load-pulling rope extending over a guide on the carriage, an extension of said load-pulling rope extending side by side with the same over said guide, traversing means and an outhaul-rope engaging said extension.

In testimony whereof we have hereunto signed our names in the presence of two subscribing witnesses.

THOMAS SPENCER MILLER.
JOSEPH H. DICKINSON.

Witnesses:
C. B. CROOK,
JNO. J. DERRICK.