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G. J. FAYETTE

SKY LINE LOGGING CARRIAGE LOCK

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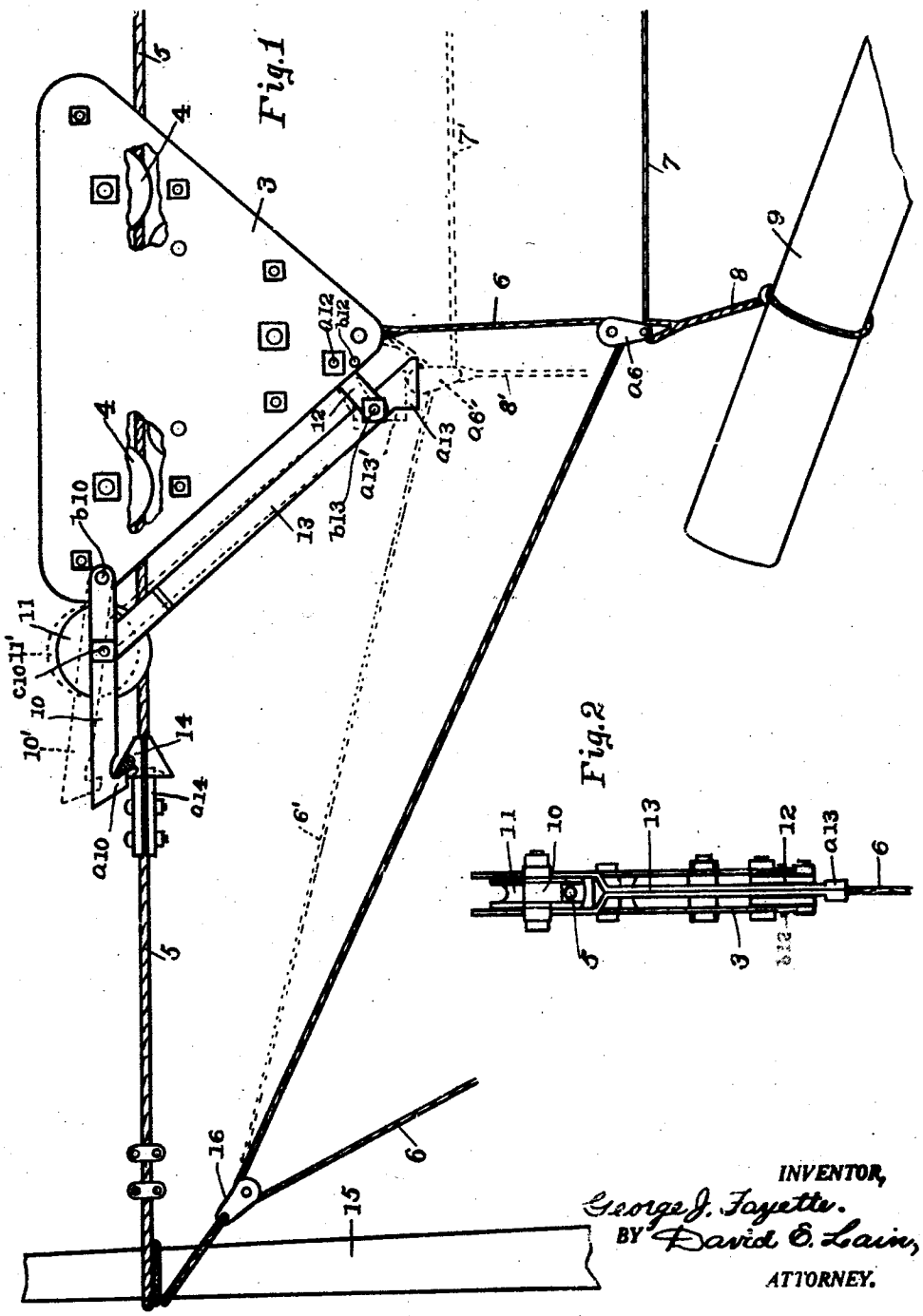

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SKY-LINE LOGGING-CARRIAGE LOCK.

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To all whom it may concern:

Be it known that I, GEORGE J. FAYETTE, a citizen of the United States, and a resident of Blaine, in the county of Whatcom and State of Washington, have invented a new and useful Sky-Line Logging-Carriage Lock, of which the following is a specification.

My invention relates to improvements in sky-line logging carriage locks, the kind used to fasten a logging carriage in a desired location on its cable, especially when yarding up hill, and the object of my improvements is to provide means for automatically engaging a logging carriage with its cable when at the end of its run with its load and which will automatically release said carriage when the change is made which will send it back for another load.

I attain this object with the mechanism illustrated in the accompanying sheet of drawings, which form a part of this specification, and in which Figure 1 is a side elevation of a sky-line logging carriage in place on its cable with a log supported thereby and having my locking mechanism attached thereto in engagement with said cable, and Fig. 2 is an end elevation of said carriage and mechanism not including the catch.

Similar characters refer to similar parts throughout. Certain parts are broken away to show other parts hidden thereby.

More particularly: The housing plates of a high-lead logging carriage are shown at 3, the wheels at 4, the supporting cable, or sky-line cable, at 5, the hauling line at 6, the haulback line at 7, the hauling block at a^6, a choker cable at 8, a log brought into the yard and supported by the rigging at 9, a spar tree in the yard at 15 and a lead block fastened thereto at 16.

Catch 10 is fastened to one end of the carriage near the top at b^{10} for oscillation. This catch is bifurcated at its pivoted end to engage on both the front and back of the carriage housing plates and also to mount latch wheel 11 on pin c^{10}. Wheel 11 is mounted to run on cable 5 when said cable is curved downward under load, but when near straight under little load stop pin b^{12} does not allow said wheel to roll on the cable, thus saving lubricant and yet preventing latch 10 from fouling the cable. The front end of latch 10 is made solid and is beveled from its lower edge forward and has hook a^{10} on its lower edge in front. Link 12 is pivoted at a^{12} to the lower part of the housing on its front end and extends forward. Its front end is pivotally connected with bar 13 at b^{13}. Bar 13 extends along the front end of the carriage and is pivoted below at a^{13} with link 12, as stated, and above with latch 10 at c^{10}. Bar 13 preferably extends below link 12 and has foot a^{13}. Catch 14 is a longitudinally divided cone with clamp a^{14} extending from its base. It is clamped to cable 5 at a point where it is desired to temporarily hold the carriage. Spar tree 15 stands in the yard and to it are fastened the yard end of sky-line cable 5 and lead block 16. Hauling line 6 is reeved over block 16 and thence carried to a drum of the yarding donkey engine, not shown. Haulback line 7 is fastened to hauling block a^6 and thence extends to the distant spar tree, not shown, where it is reeved over a lead block and returned to a drum on said yarding donkey.

In operation: As shown in Fig. 1, in full lines, carriage 3 has been brought into the yard by hauling line 6 with log 9. Assume that cable 5 inclines downward from spar tree 15, which is the condition in which my invention is most useful. On approaching catch 14 latch 10 strikes its upwardly inclined surface, is lifted thereby and passes over the edge to drop and have its hook engage with said catch as soon as the pull on line 6 is slackened to allow carriage 3 to drop back on cable 5. As soon as latch 10 becomes engaged with catch 14 carriage 3 can run back no further and the slacking off of line 6 is continued till log 9 is lowered to the ground at exactly the desired spot. While this is readily accomplished by using my device, it is most difficult when yarding up hill without it. In sky-line logging in the Northwest the logs are large and heavy and it is not unusual to bring in several of them at one turn. This requires large cables at 5, a heavy carriage and heavy blocks. Hauling block a^6, alone, weighs several hundred pounds. Hence it is readily understood that the spotting of a turn of logs at a desired place in the yard requires practiced skill on the part of the donkey engineer. A part of the successful maneuver by which this is attained requires the sudden dropping of the load to the

ground which causes a most strong recoil in the overhead rigging to its injury and often to the irreparable injury of the spar trees. As the log is being slowly lowered to the ground its position is adjusted to bring the choker hook within convenient reach. On reaching the ground the choker 8 is disengaged from the log and hauling block a^6 is raised to the carriage to be returned for another load. In raising block a^6 haulback line 7 is maintained taut while hauling line 6 is drawn in resulting in block $a^{6'}$ being carried to its dotted-line position at $a^{6'}$ where it forces bar 13 upward to its dotted-line position and latch 10 upward to its dotted-line position at 10′ when hook a^{10} is out of engagement with catch 14 and carriage 3 is sent rearward by pulling on haulback line 7 while hauling line 6 is first held taut till said hook is free of said catch after which the hauling line is allowed to run out as fast as desired that carriage 3 shall travel. Although latch wheel 11 ceases to bear on cable 5 while the latch is in operation it runs on the cable when the same sags under load and, as stated, prevents latch 10 from contacting with said cable under conditions when stop pin b^{12} can not be effective.

When yarding on an up grade without my device the carriage runs back down the grade after the logs reach the ground and holds the chokers so tense as to make disengagement very difficult.

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

In combination, a logging carriage mounted for travelling on a sky-line cable, a latch pivotally connected to the front end of said carriage projecting forward therefrom, a wheel mounted for revolution on said latch adapted to travel on said cable, a catch fastened to said cable adapted to engage said latch, a bar mounted for longitudinal vibration on the front end of said carriage adapted to operate said latch, and a hauling block operably connected to said carriage adapted to operate said bar when in proximity to said carriage whereby said latch is disengaged.

GEORGE J. FAYETTE.