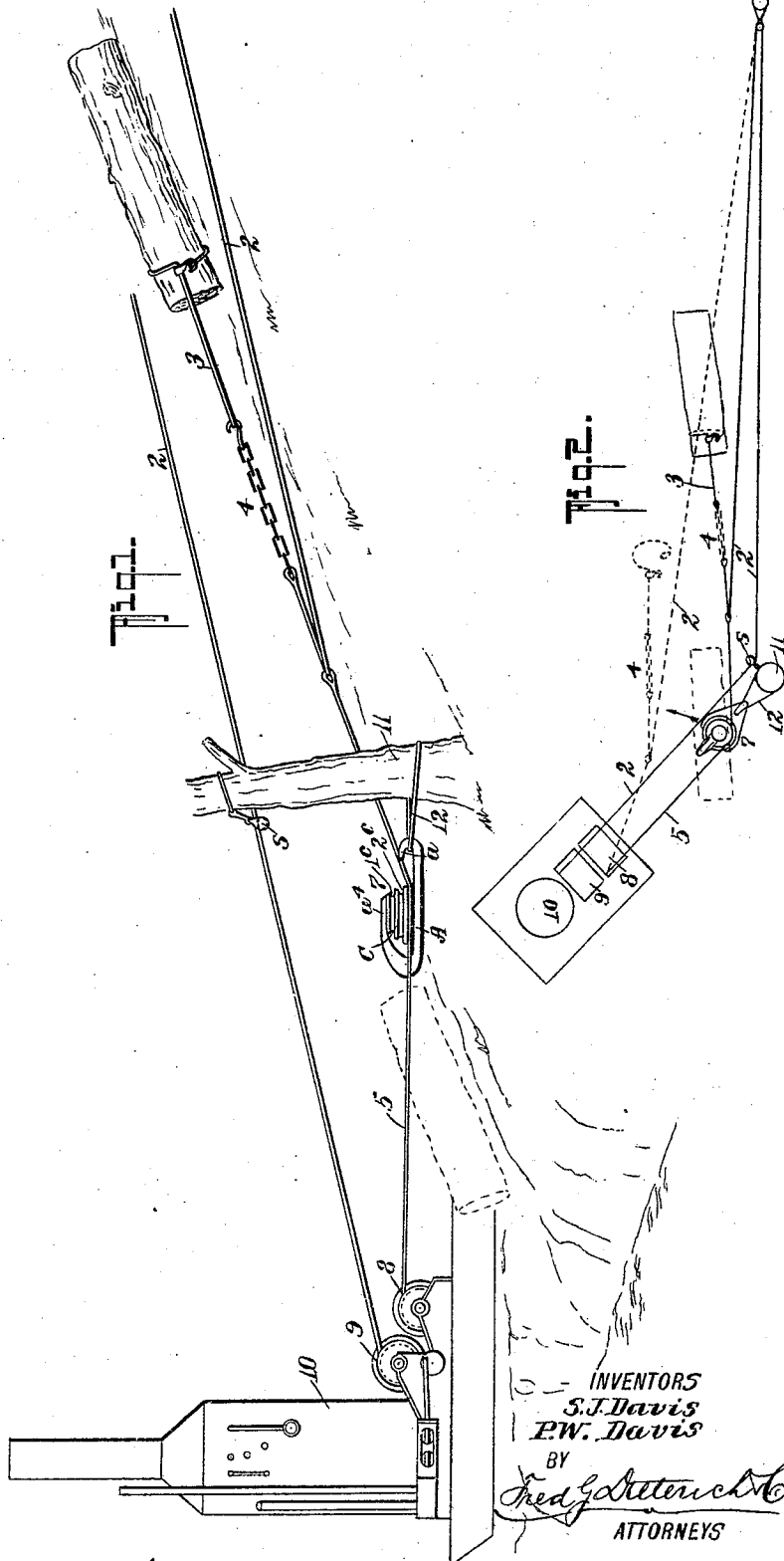


933,533.

2 SHEETS—SHEET



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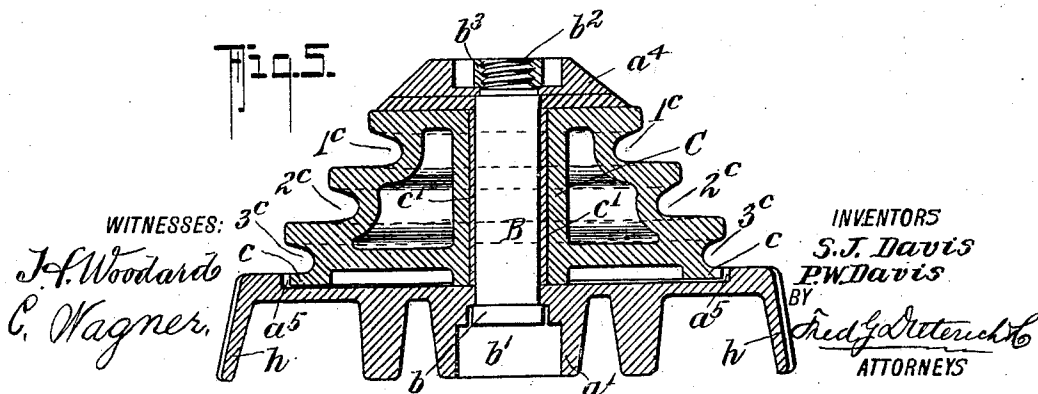
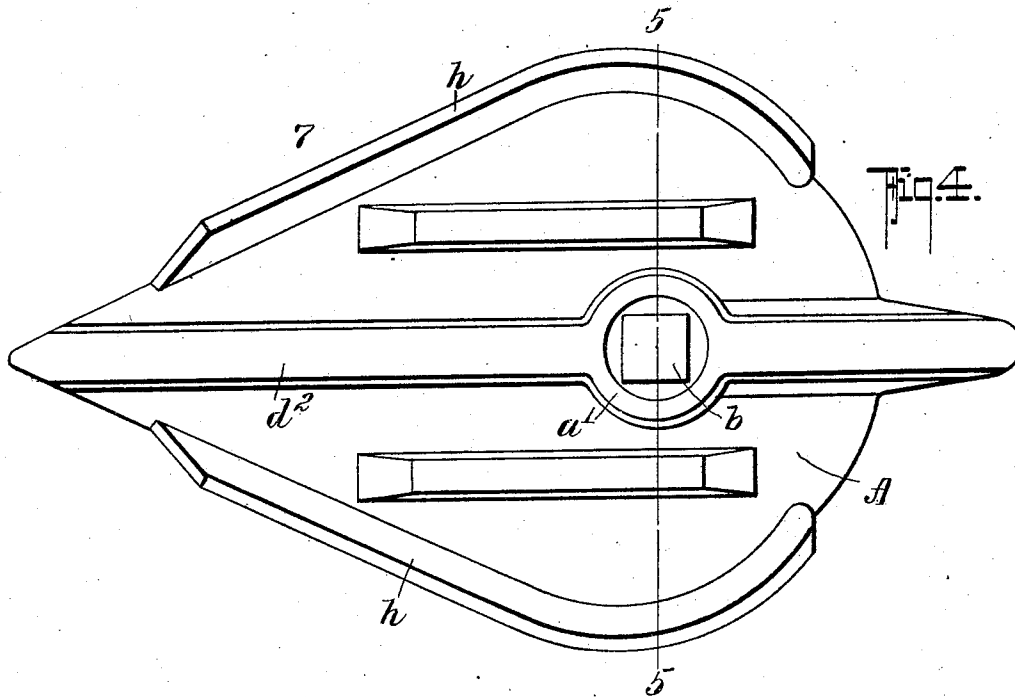
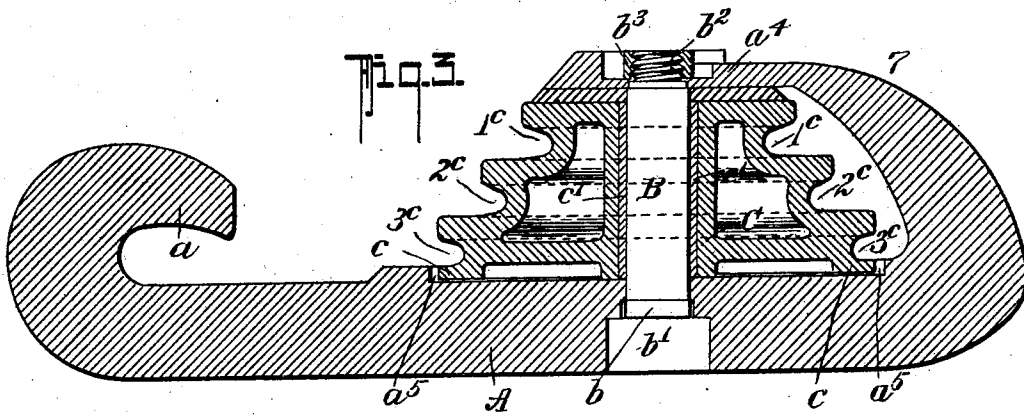
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S. J. & P. W. DAVIS.
LEAD BLOCK FOR LOGGING MEANS.
APPLICATION FILED OCT. 3, 1908.

933,533.

Patented Sept. 7, 1909.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

SPURGEON J. DAVIS AND PARLEY W. DAVIS, OF EUREKA, CALIFORNIA.

LEAD-BLOCK FOR LOGGING MEANS.

933,533.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed October 3, 1908. Serial No. 455,997.

To all whom it may concern:

Be it known that we, SPURGEON J. DAVIS and PARLEY W. DAVIS, residing at Eureka, in the county of Humboldt and State of California, have invented certain new and useful Improvements in Lead-Blocks for Logging Means, of which the following is a specification.

In the practical application of logging means, it is always necessary to have a lead block placed ahead of or in front of the engine to properly "lead" the cable onto the pulling drum, and our invention has for its object to provide a new and improved construction of lead block that can be readily substituted for the blocks now in common use, and which is of a simple but stable and durable construction.

With the above and other objects in view, our invention comprehends an improved construction of lead block, adapted for being operatively mounted in such manner that neither the engine nor the cable will have to be stopped running while shifting the log to one side at the delivery point, and in which the slipping of the pull rope from the lead block is automatic.

Our invention also comprehends a construction of pulley block for logging means adapted for leading the pulling or main cable until the log reaches the discharge point and which automatically effects rolling the last or chain end of the pull rope off the block so as to provide for pulling the log directly toward the engine and from contacting with the block, and at the same time retain the haul back rope thereon.

In its more subordinate features, our invention consists in certain details of construction and novel combination of parts, all of which will be hereinafter fully described, specifically pointed out in the appended claims, and illustrated in the drawings, in which:—

Figure 1, is a view in elevation, that illustrates the general arrangement of a logging means in which is embodied our form of lead block. Fig. 2, is a diagrammatic plan view thereof. Fig. 3, is a longitudinal section of the lead block. Fig. 4, is a bottom plan view thereof, and, Fig. 5, is a transverse section taken on the line 5—5 of Fig. 4.

By referring to Figs. 1 and 2, which illustrate the general arrangement of a logging means that embodies our form of lead block, it will be seen the engine 10 is located near

the log discharging point, and it has the usual drum 8, on which winds the main or pull cable 5 that draws the load or log toward the engine, and a drum 9 on which winds the haul back cable 2 that unwinds from the drum 9 so long as the log approaches the engine, and is wound up for the purpose of pulling the pull cables with the chain end 4, that is spliced to the end of the said cable 5 and the chocker cable 3 back into the woods to connect with another log. It should be stated the haul back cable 2 extends into the woods and is inserted through a head block, see Fig. 2 located at a suitable point in the woods and returns to the point where it splices with the cable 5. As will be clearly understood from the figures, while pulling the log toward the engine, the pull cable 5 passes over the lead block 7 that is anchored to a tree or other support 11 by a short cable sling 12, the support 11 also forming a hanger for a guide sheave *s* for the return or haul back cable 2, the said support 11 being disposed at an angle relatively to the engine.

The lead block 7 which forms the essential feature of our invention comprises a body or shell A having a hook *a* at one end, a circular or base portion *a'* that forms the support for the block pin B, the lower end of which has a head *b* to fit socket *b'* in the bottom of the base *a'* and a threaded upper end *b*² to receive the clamp nut *b*³ that seats in the top of the overhanging portion *a*⁴ of the shell A, as best shown in Fig. 3, by reference to which it will be also observed that the base *a'* has a recess *a*⁵ into which seats the base *c* of the sheave C, the construction of which forms an essential feature of our invention. The sheave is journaled on the bushing *c'* on the pin B and it is formed with three annular grooves 1°—2°—3° of progressively reduced diameters, and the said grooves are beveled upwardly to facilitate the chain end of the cable 5 slipping upward and off the block in the manner presently described. By seating the bottom of the sheave C in the recess in the shell or frame base, as shown, prevents the cable from fouling between the sheave and the shell A and to further strengthen the bottom of the said shell A it has drooping side flanges *h* which latter also serve to prevent hooks, etc. catching on the rim of the block while passing over it loosely or under strain. To further strengthen the shell or frame A

a rib d^2 pendent from the under side extends lengthwise the frame.

From the foregoing, taken in connection with the accompanying drawings it is believed the complete construction and advantages of our invention will be readily understood.

It should be stated that in the use of the ordinary lead blocks when the pull cable passes over the block and it is desired to pull the cable out of the block, the motion of the engine and the cable must be stopped and the motion of the cables reversed until the pull cable is slack enough to disconnect at the hook 15 when the pull cable is pulled out of the block and hooked again before the log can be pulled in its proper course. In our construction of block, neither the engine nor cables have to cease running since the chain 4 turns itself out of the block, owing to the peculiar construction of the sheave and furthermore, as one side of the chain is striking the high side of the flange on the bottom of the groove in the sheave causes the chain to roll over the lower flange on the other side of the groove which is caused by making the block conical or tapered. When the chain rolls out of the flange it rolls off the side edge of the block and the entire pull rope then becomes taut and the direction of the log is shifted, it now being pulled directly toward the engine as indicated by dotted lines on Fig. 2.

By connecting the haul back cable with the main cable as shown and described, the said haul back cable will also be against the sheave of the block when the chain 4 comes in contact with the said sheave and it will remain in one of the three grooves of the machine since if the haul back cable 2 is down low on the chain it will drop in the lower groove. If it is lying on or above the chain it will drop into one or the other of the two upper grooves of the sheave. In all cases the block will be spaced on an angle or bight on the cable, see Fig. 2 and the said cable at all times will have a tendency to press hard against the sheave of the lead block.

Fig. 1 illustrates how the logs sheer away from the engine. The first log being left by the side of the engine it is pushed ahead by the succeeding log and so on until the log

reaches the water, the road-way or the delivery point.

Having thus described our invention, what we claim and desire to secure by Letters Patent, is:—

1. The combination with the pulling cable and the haul back cable connected to the outer end thereof, and a chain connection that joins the pulling cable with the log to be pulled; of a lead block having an annular groove to receive the pulling cable, said groove being of less width than the chain end of the pulling cable.

2. The combination with the pulling cable, the haul back cable secured thereto, the chocking cable and chain, said chain being of greater width than the width of said cables, a lead block having an annular groove of a size to receive the pulling cable and the haul back cable only, as set forth.

3. A lead block for logging means, comprising a frame having means at one end for connecting to a support, and a sheave journaled on the shell having one or more annular grooves, of gradually reduced diameter, and a device on the pulling rope for throwing the said rope off the sheave when it engages the sheave.

4. A lead block, comprising a suitable frame, a cone shaped sheave mounted in the frame, with the base seated thereon, said sheave having a plurality of annularly horizontal grooves for receiving the pulling rope and a device connected with the pulling rope for throwing the said rope off the sheave when it comes in contact therewith.

5. As a new article, a lead block for logging means that comprises a frame having a base portion and an overhanging member, said base portion having a central depressed circular seat, a pin mounted in the base and overhanging portion, the base portion having an extended end for attaching to a support, said base having flared sides and pendent ribs, and a cone shaped sheave journaled on the pin that has its base seated in the circular groove in the frame, said sheave having a plurality of annular horizontal grooves.

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PARLEY W. DAVIS.

Witnesses:

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E. T. CARRICO.