

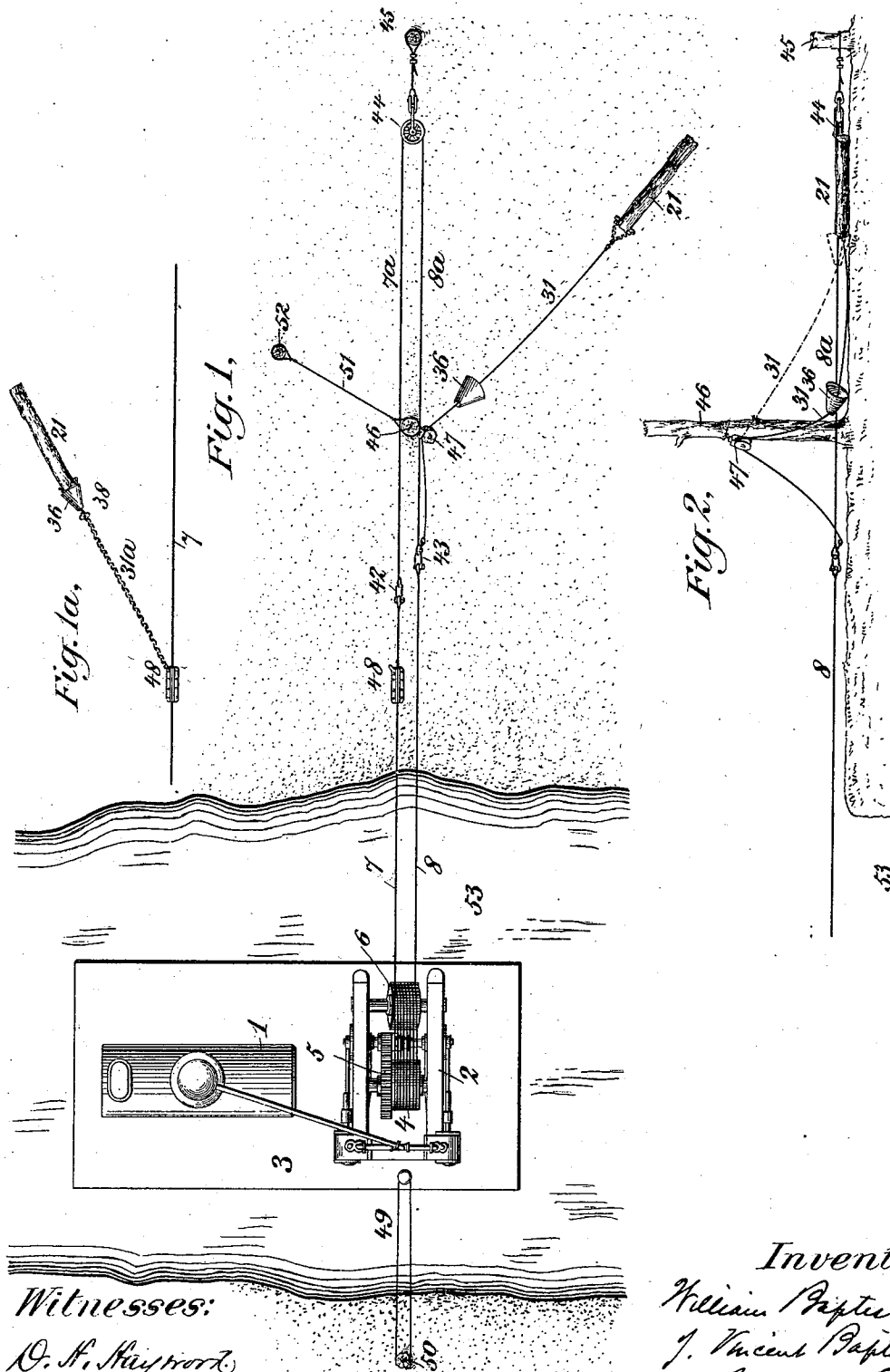
(No Model.)

2 Sheets—Sheet 1.

W. & J. V. BAPTIST.
HAULING APPARATUS.

No. 552,227.

Patented Dec. 31, 1895.



Witnesses:
O. H. Maybrook
M. Wilson

Inventors:
William Baptist and
J. Vincent Baptist
by Gifford & Pull
Atty.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

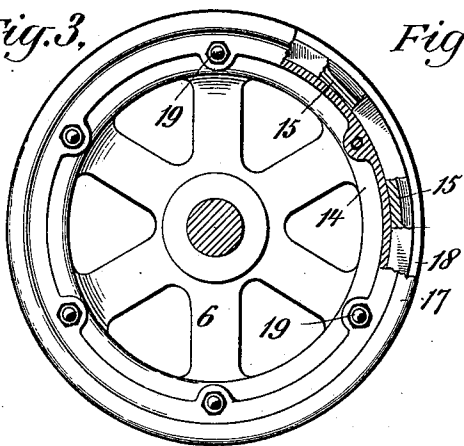


Fig. 4.

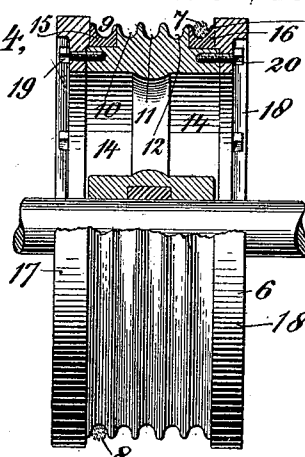


Fig. 5.

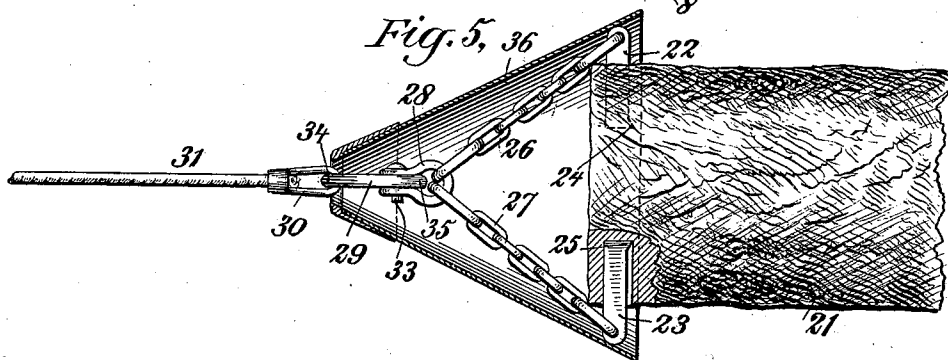


Fig. 6.

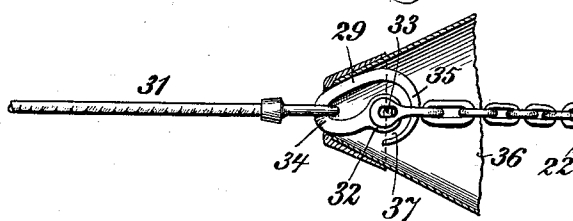
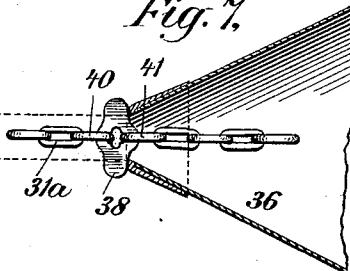


Fig. 8.



Fig. 7.



Witnesses:-

R. H. Hayworth
M. Wilson

Inventors:

William Baptist and
J. Vincent Baptist
by Gifford & Pile
Attys

UNITED STATES PATENT OFFICE.

WILLIAM BAPTIST AND JAY VINCENT BAPTIST, OF LUTCHER, LOUISIANA;
SAID JAY VINCENT BAPTIST ASSIGNOR TO SAID WILLIAM BAPTIST.

HAULING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 552,227, dated December 31, 1895.

Application filed March 25, 1895. Serial No. 543,055. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM BAPTIST and JAY VINCENT BAPTIST, citizens of the United States, and residents of Lutchet, in the parish of St. James and State of Louisiana, have invented certain new and useful Improvements in Hauling Apparatus and its Application to Logging, of which the following is a specification.

In the accompanying drawings, Figure 1 shows a hauling apparatus and the application of it to logging. Fig. 1^a shows a log and cable attached at clamp 48. Fig. 2 is a side view of a portion of Fig. 1. Figs. 3 and 4 are details of the hauling apparatus, and Figs. 5, 6, 7, and 8 are details of a portion of the logging mechanism.

We will first describe the improvement in hauling mechanism, which is not confined to the hauling of logs but particularly adapted therefor.

1, Fig. 1, is a boiler, and 2 is a rope-drum engine mounted upon a conveyance 3. The rope-drum engine contains the rope-drum 4 which is driven by means of the gearing 5; also a drum 6, which is shown in detail in Figs. 3 and 4. The engine shown is a reversible engine and two ends of rope 7 and 8 are operated by the drums. When the engine runs in one direction, it hauls upon the end 7, and when reversed it hauls upon the end 8. Each end is wrapped repeatedly around the drums 4 and 6, as shown, constituting, generally, the two ends of an endless rope. The drum 6 is provided with grooves 9, 10, 11, 12, and 13 to receive the rope. The rope end 7 is received and delivered by the outer groove 13 at one side of the drum 6, and the rope end 8 is received and delivered by the outer groove 9 on the other side of the drum 6. The result is that these two particular grooves, being the receiving and delivery grooves, are called upon to take most of the wear, and in point of fact, wear out much sooner than the other grooves upon the drum.

One of our improvements consists in making the groove removable from the drum so that it can be constructed of proper material to withstand the wear and may be removed and replaced when worn. Thus in Figs. 3 and 4 the grooves 10, 11, and 12 are shown as formed in the periphery of the drum 14, but

at its outer edges the periphery is rabbeted so as to receive the separate rings 15 and 16 upon the periphery of which, respectively, are formed the grooves 9 and 13.

17 and 18 are rings adapted to be bolted against opposite sides of the drum 14 by the bolts 19 and 20, so as to hold the grooved rings 15 and 16 in position. When either of the rings 17 or 18 is removed the grooved ring on that side can be slipped on or off. The grooved rings 15 and 16 may therefore be made of harder material so as to better resist the wear than the material of which the drum proper is made, and upon being worn either may be removed and replaced by a duplicate.

We turn now to Figs. 5 and 6, showing a new means of securing the log to the end of the chain. 21 is a log, in opposite sides of which, near the end, are bored two holes. 22 23 are dogs adapted to be inserted into these holes. Each dog is provided with a spur, as 24 and 25, extending away from the end of the log. The opposite ends of the dogs project some distance from the side of the log and are secured to the chains 26 27, which are connected by the coupling 28 with a hook 29 which engages with an eye 30 on the haul-rope 31. When the dogs 22 23 are in the position shown and the hauling commences, each dog will act as a lever to embed the spur 24 or 25 into the wood; but when the hauling-rope is slack the dogs can be readily inserted or removed.

The hook 29 is of the peculiar form shown in Fig. 6, consisting of a shank 32 containing a hole for the pin 33 and a point making an abrupt turn at 34 so as to return upon itself and at 35 partly encircle the pin 33. Therefore, when the strain is upon the haul-rope 31, the point of the hook at 35 projects through the eye of the shackle 28, and having once got in this position the strain may be assisted in holding it there by constructing the end of the cone 36 to fit against the hook, as shown in Fig. 6, and prevent the hook from substantially leaving that position so long as the cone remains there. When, however, the cone is not in that position and the haul-rope 31 is slack, the hook may be turned on the pin 33 until the eye 30 has passed out of the passage-way 37. This construction of hook enables the chains to be

readily made fast to and detached from the haul-rope, and at the same time prevents the possibility of disengagement through all the various conditions and positions incident to the hauling of the log.

38, Figs. 7, 8 and 1^a, is a link of the form shown placed in the haul chain or rope 31^a and which, when turned in the position shown in Fig. 8, will pass freely through the apex of the cone, but when turned in the position shown in Fig. 7 will not do so. The opening 39 of this link, into which the links 40 and 41 enter, is made in the form of a cross, so that in whichever position the link is placed the tendency will be for the strain to hold it there, and yet, when the strain is released, the operator can readily turn it in either position, as he may desire to hold the cone against the end of the log or slip it away therefrom.

When logs are being drawn in on the main run, as shown in Fig. 1^a, an obstruction is sometimes reached which throws up the nose of the log so that the cone, unless held, would slip ahead on the inclined portion of the haul rope or chain 31^a. Then when the nose of the log tips down in going over this obstruction it embeds itself in the dirt before the cone slips back and tends to stop the engine, as will not be the case if the cone is held in position by the link 38 to perform its function of deflector.

In the employment of the device described in United States Patent No. 400,728, dated April 2, 1889, it has been found to be a matter of great difficulty and labor to carry the cone, which sometimes weighs several hundred pounds. Thus it sometimes happens that logs are felled on the opposite side of a swamp or perhaps some hundred feet away from the main hauling-cable. We have therefore devised the following improvement (shown in Figs. 1 and 2) as an automatic conveyer of the cone to the log. 7 7^a and 8 8^a constitute the strands of the main cable, containing couplings at 42 and 43 and passing around a sheave 44 secured to a tree 45. 46 is a tree located preferably midway between the two strands of the main cable, to which is secured a heavy sheave-block 47. 31 is a side-line haul-rope connected with the strand 8 8^a between the tree 46 and the rope-drum engine and passing upward over the sheave 47. The logger secures the end of the haul-rope 31 to a log. He then slips the other end through the cone (which will have been left close to the tree 46 by a preceding haul) and through the sheave-block 47 and secures it to the main cable, as, for example, at 43. By the inhaul of that strand of the main cable the first effect will be to straighten the side line 31, as shown in dotted line, Fig. 2, raising the cone and causing it to slide out to the log by gravity. The elevation of the block 47 to satisfactorily accomplish this result will vary according to circumstances and can be readily determined by the judgment of the

logger. When the log has been hauled close up to the tree 46, the rope 31 is cast off and the log connected with the main cable by a line like 31^a. Then the log can be drawn along the main haul and deposited near the engine in the water at 53. Thus the log is drawn, from the lateral position shown in Fig. 1, up to the side of the main cable and then along the main cable to the engine and the engine is compelled to do the heavy work.

While the main cable strand 8 8^a is hauling logs laterally from a distance, as above described, the strand 7 7^a may be employed for logs on the main haul, as shown in Fig. 1^a, where the chain cable 31^a is coupled to a clamp 48, which is fastened on the cable-strand 7.

49 is a line secured to a tree 50 by which the flat-boat vehicle 3 is held in position.

51 is a line extending between the trees 46 and 52 for stability,

We do not wish to limit ourselves to the particular construction shown, since variations of construction and omission of certain elements may be made without departing from the principle of our invention. For example, in using the rope 31, the rope parts 7, 7^a, and 8^a might be omitted, leaving the log 21 connected with the rope-drum by the rope parts 8 and 31.

We claim—

1. In a logging apparatus, in combination, a rope, a cone free to move upon said rope, an elevated support for said rope between said cone and one end of said rope and means whereby said rope may be drawn taut whereby the said cone will be caused to descend the incline toward the other end of said rope, substantially as described.

2. In a logging apparatus, in combination, a rope-drum, a hauling-rope, means for connecting the hauling-rope with the log, a cone upon the hauling-rope and an elevated block intermediate the cone and the rope-drum whereby the tightening of the rope gives that portion of the same carrying the cone an inclination downwardly toward the log, substantially as described.

3. In a logging apparatus, in combination, the main cable, a side line connected therewith, an elevated support for said side line and a cone free to slide upon said side line beyond the elevated support, substantially as described.

4. In a logging apparatus in combination the haul rope 31, a coupling secured thereto, mechanism, as 26, pivotally secured to said coupling, a dog, as 22, pivotally secured to said member 26 and provided with a rearwardly extending spur, substantially as described; whereby the dog may be placed laterally into a hole in the log and the spur be forced into the side of said hole by the pivotal movement between the said dog and said member as set forth.

5. In a logging apparatus in combination the hauling rope, mechanism to be secured

to the end of the log, a member as 38^a where-
by said mechanism is connected with the haul-
ing rope, a cone as 26 adapted to slide on
said member and an adjustable stop as 38 be-
5 tween the ends of said member whereby the
sliding of said cone may be stayed in a po-
sition near the end of the log, substantially
as described.

Signed at Litcher, in the parish of St. James
and State of Louisiana, this 7th day of March, 10
A. D. 1895.

WILLIAM BAPTIST.
J. VINCENT BAPTIST.

Witnesses:

M. WILSON,
FRED S. KEMPER.