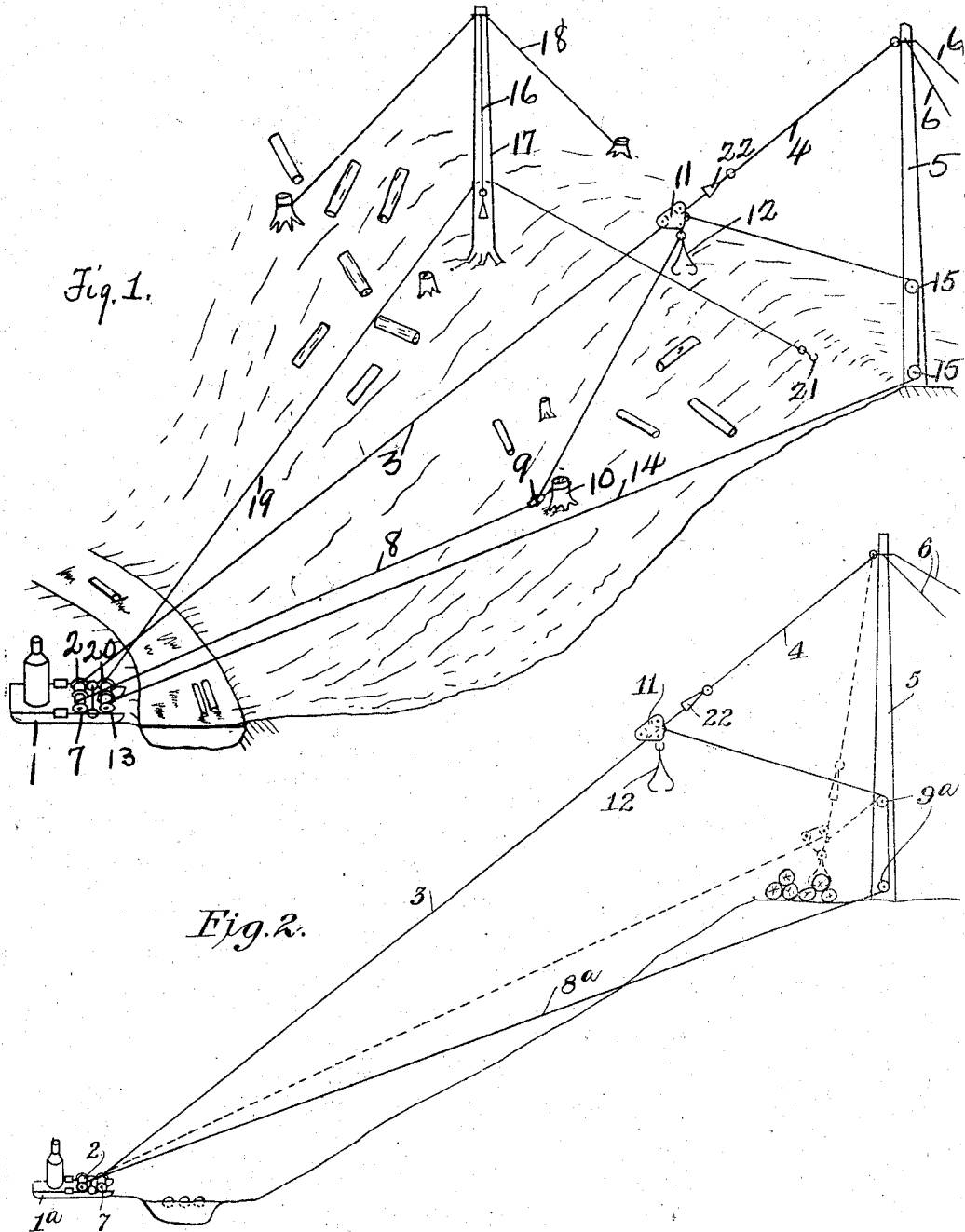


C. E. MACFARLANE.
LOGGING SYSTEM.
APPLICATION FILED JUNE 29, 1911.

1,019,170.

Patented Mar. 5, 1912.



Witnesses
B M Hartman
Vinner & Thoe

Inventor
Charles E MacFarlane
by N. F. L. d
Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. MACFARLANE, OF PORTLAND, OREGON.

LOGGING SYSTEM.

1,019,170.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed June 29, 1911. Serial No. 636,060.

To all whom it may concern:

Be it known that I, CHARLES E. MACFARLANE, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented new and useful Improvements in Logging Systems, of which the following is a specification.

This invention relates to logging systems and consists in certain improvements in the construction thereof as will be hereinafter fully described and set forth in the claims.

More particularly, the invention relates to a logging system in which cables are used for handling the logs. Cables have been used heretofore for logging purposes, the ordinary practice being to secure a heavy cable so as to form a trolley support and then haul the logs by separate cable to the trolley on this trolley support and then along the trolley support to the point of delivery.

The object of the present invention is to simplify a system of this type and at the same time add to its efficiency.

In the present system the cable which is used as a trolley support is also utilized in gathering the logs. For this purpose it is slacked and deflected sidewise to the log and then drawn taut so as to form a cable support carrying with it the log, after which the log is run along this cable. In the simplest form, the side line which deflects the main line, may be also used as a hold-back for the log if the cable is inclined. Under some conditions, it is desirable to provide a hold-back in the same vertical plane with the main cable when taut so that the hold-back may operate substantially in line with the main cable. In this instance, a third cable may be used. It is also desirable to provide means whereby the main line may be quickly run to a new lead. The importance of this will be understood when it is considered that a large part of the force of men must necessarily be idle during this change of lead, and as these are of more or less frequency, quite a saving of time can be effected when this change can be quickly accomplished. This general outline gives a broad idea of the invention.

Further objects will appear from the specification and claims.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 shows a perspective view of a logging system, in which four lines are used. Fig. 2 a perspective view of a logging system in which but two of the lines are utilized.

1 marks the logging engine. This is provided with a drum 2 for the main line 3. The main line is secured to a stub line 4 and this stub line is attached to a post 5, guyed by the lines 6-6, a tree being ordinarily used for the post 5. A drum is provided for the side line 8. This extends through the pulley 9 secured to the post 10 and is attached to the trolley 11 on the main line. The trolley is provided with the usual hooks 12 by means of which the logs may be engaged. Where these two lines alone are used, or only two lines are used, the main line is slacked and deflected by means of the side line 8 so as to carry the trolley to the log. After the log is attached, the main line is drawn taut carrying with it the log, the trolley is then run down the main line, the side line 8 acting as a hold-back. In some instances, the hold-back and deflecting line may be directly in a vertical plane. This is especially true where the logs are taken from a skid way as shown in Fig. 2.

It is often desirable where a side line is used, as in Fig. 1, to provide a hold-back directly in a vertical line with the main line thus giving a more complete control to the trolley. The engine 1 is provided with a drum 13 from which the hold-back line 14 extends passing through the pulleys 15 to the trolley 11. Where this is used, it is not necessary to use the line 8 as a hold-back although it may act in conjunction with the line 14 for this purpose. Or line 8 may be attached to a separate block on the main line above the trolley 11 and not travel up and down with the loads, but only be used to pull the main line 3 sidewise. Or line 8 may be used as a pull-in line when there is not sufficient grade for the load to run by gravity.

In order to make a quick shift of the lead of the main line 3, I prefer to provide a stub line 4 with which the main line is detachably attached by any convenient means. Where this is done, a second stub line 16

may be provided and this attached to a post 17, this post being guyed by the guy wires 18 and if desired, the lead changing line 19 may be used, this being controlled by the drum 20 on the engine. The lead line is provided with a hook 21 by means of which the main line may be engaged and quickly moved to the new position. When it is understood that the main line is of very heavy cable and very difficult to handle, the importance of this quick shift will be realized.

I prefer to provide a stop on the main line so that the trolley may be quickly drawn to the proper position and there stopped. This is particularly true where the main line is to be deflected to some fixed position as in the structure shown in Fig. 2. In this structure, the engine 1^a has the drum 2 which operates the main line 3 which is supported in the same manner as in Fig. 1. The line 8^a corresponds to the line 8 in the construction of Fig. 1. The line is carried around the pulleys 9^a—9^a and extends to the trolley 11. In this way, the main line is deflected principally in a vertical direction and the line 8^a acts as a side line for deflecting the main line and as a hold-back.

With this system, logs may be quickly handled over rough ground, the leads quickly changed and the whole operation is accomplished with a logging engine of general type.

What I claim as new is:

1. In a logging system, the combination of a main line; a main line drum operating the main line; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; and a side line drum for operating the side line.

2. In a logging system, the combination of a main line; a main line drum operating the main line; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; a mounting for said side line to adapt it to act as a hold-back for the trolley; and a side line drum for operating the side line.

3. In a logging system, the combination of a main line; a main line drum operating the main line; a trolley on the main line; a stop on the main line for locating the trol-

ley; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; and a side line drum for operating the side line.

4. In a logging system, the combination of a main line; a stub line to which the main line is detachably attached; a main line drum operating the main line; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; and a side line drum for operating the side line.

5. In a logging system, the combination of a main line; a main line drum operating the main line; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; a side line drum for operating the side line; a hold back line for controlling the trolley; and a hold back drum for operating the hold-back line.

6. In a logging system, the combination of a main line; a main line drum for operating the main line; a stub line to which the main line is detachably attached; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; a side line drum for operating the side line; a lead changing line for carrying the main line to a new lead; and a lead changing line drum for operating the lead changing line.

7. In a logging system, the combination of a main line; a main line drum for operating the main line; a stub line to which the main line is detachably attached; a trolley on the main line; a side line secured to the trolley for deflecting the main line to bring the trolley to a log; a side line drum for operating the side line; a lead changing line for carrying the main line to a new lead; a lead changing line drum for operating the lead changing line; a guide pulley for the lead changing line; and a second stub line arranged in proximity to the lead changing line guide pulley.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES E. MacFARLANE.

Witnesses:

ELIJAH CORBETT,

H. V. CARPENTER.