

Nov. 15, 1932.

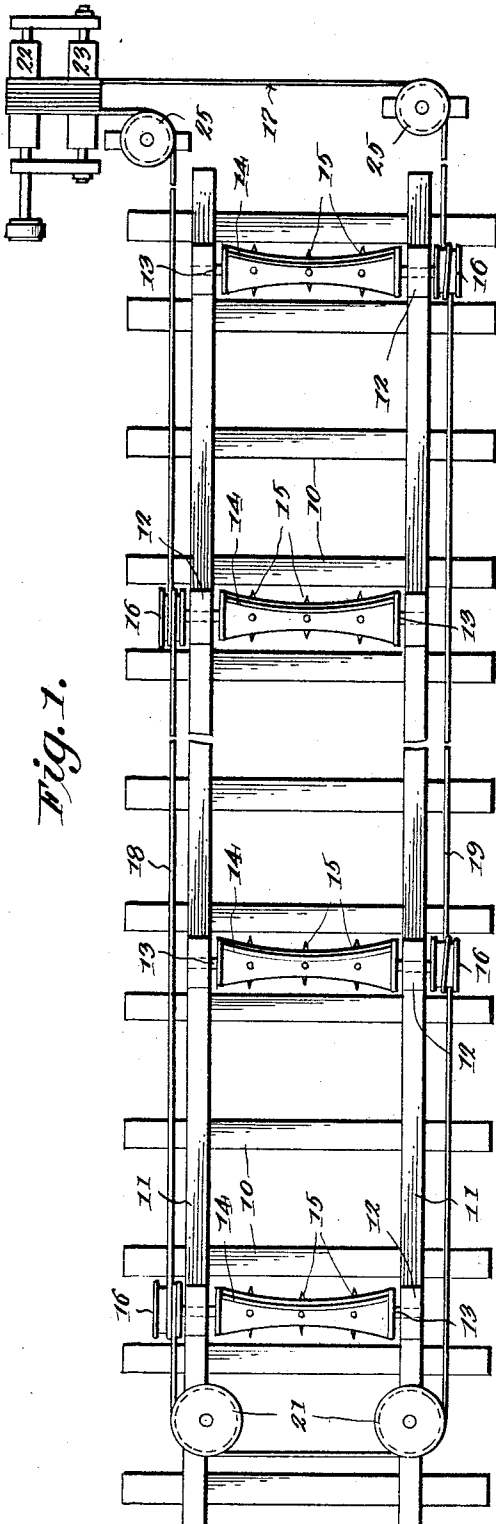
A. A. MACLEOD

1,888,004

LOGGING ROAD

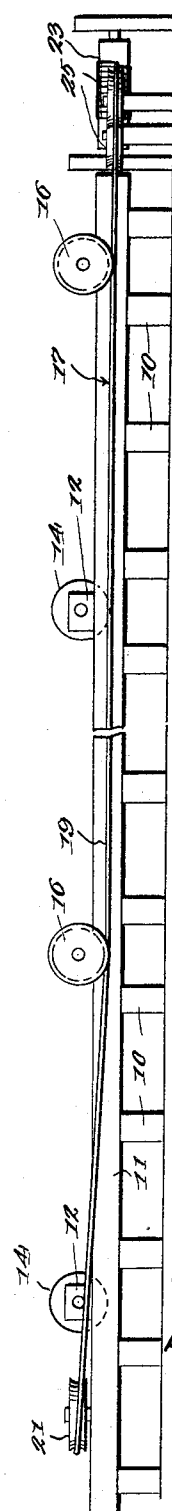
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*Fig. 2.*



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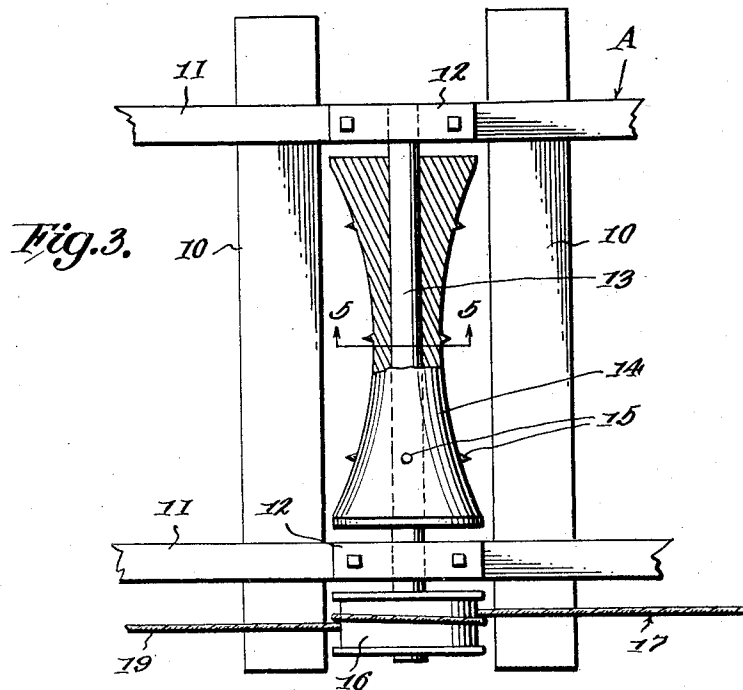


*Fig. 4.*

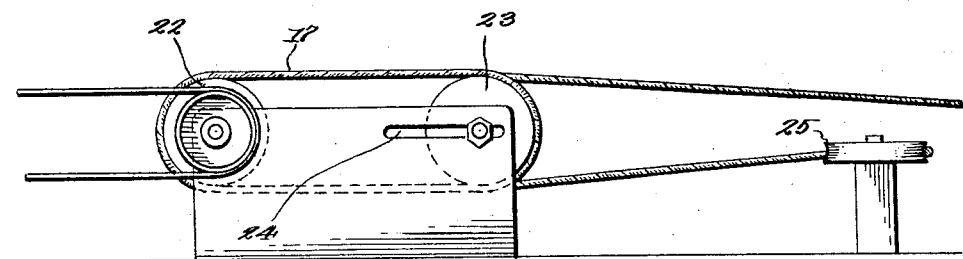
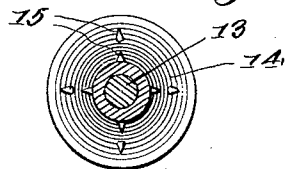


*Fig. 5.*



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## UNITED STATES PATENT OFFICE

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## LOGGING ROAD

Application filed March 14, 1931, Serial No. 522,741, and in Canada December 8, 1930.

This invention appertains to logging and more particularly to a novel means for handling and transporting logs, so as to eliminate the necessity of providing logging railways, truck roads and the like, and the consequent difficulties contingent therewith, such as the expensive grading required for said railways, truck roads, and the like, the expensive equipment in the form of locomotives and cars, trucks, or other similar means of conveyance, and the cost of operating such conveyances; the elimination of loading machines or like devices required to load logs on the cars or vehicles, and the cost of operating the loading machine, and the necessity of waiting for the return of logging trains or trucks, and the operation of switches or the like in such logging railways.

A primary object of my invention is the provision of a novel means for transporting logs embodying a conveyor having a plurality of live rolls for engaging and carrying the logs whereby the logs can be conveyed in a steady uninterrupted stream, the rolls being arranged substantially at the ground level, whereby the raising of the logs will be eliminated.

Another salient object of my invention is the provision of novel means for mounting the rolls and novel means for continuously rotating the rolls in the desired direction for transporting the logs.

Another important object of my invention is the provision of novel means for forming the rolls themselves, whereby the loss will be held properly aligned and conveyed to the desired destination.

A still further object of my invention is to provide a novel logging road of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be operated at a minimum cost.

With these and other objects in view, the invention consists in the novel construction,

arrangement and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:—

Figure 1 is a top plan view of my improved logging road,

Figure 2 is a side elevation of the same,

Figure 3 is an enlarged fragmentary top plan view showing one of the logging rolls in detail,

Figure 4 is a detail view illustrating the operating means for the endless cable, and

Figure 5 is a detail sectional view through one of the live logging rolls.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates my improved logging road, which includes a plurality of cross ties 10, which can be in the nature of ordinary railroad cross ties. These ties 10 are imbedded in the ground in any desired way. These ties 10 are rigidly connected together by longitudinally extending stringers 11, which can be made of wood or other desired material.

Between certain pairs of the ties 10, bearing boxes 12 are rigidly secured to the stringers 11, and these bearing boxes rotatably support the shafts 13 of the logging rolls 14. These logging rolls 14 are rigidly secured to the shafts 13 and are of a special construction so as to permit the effective engagement of these rolls with the logs to be transported. As shown, the rolls 14 are made smaller in the middle than at their ends and that the same gradually increase in diameter from the transverse center of the rolls to the ends of the rolls. This gives, in effect, a concave roll, and the face of the roll is provided with a plurality of spurs 15, for engaging the logs. One end of each shaft has rigidly secured thereto beyond the adjacent stringer 11, a pulley 16 and it is to be noted that these pulleys are alternately arranged relative to

one another, that is certain pulleys are arranged on one side of the road and certain pulleys on the other side of the road.

The pulleys 16 form a part of the novel driving mechanism for the rolls 14, as will now be described.

In order to drive the rolls 14 I provide an endless cable 17 having spaced parallel longitudinally extending runs 18 and 19 arranged on opposite sides of the road. These runs 18 and 19 are given a single turn about adjacent pulleys, as indicated by the reference character. At one end of the roadway I arrange guide sheave blocks 21, around which are trained the cable 18. At the opposite end of the roadway is arranged the driving engine (not shown), for operating the driving drum 22 and idle drum 23. These drums 22 and 23 are driven in the same direction and can be adjusted because of the mounting of the drum 23 in the slots 24. The drum 22 is provided with a shaft having connection with a source of power through any suitable means such as a belt drive. These drums have wound about the same the cable 17, and the cable is guided off and on the rolls by means of sheave blocks 25.

During the rotation of the drums 22 and 23 one run of the endless cable will be wound upon the drum while the other run of the cable will be wound off of the drum. As one run of the cable actuates certain of the live rolls 14 from one side thereof and the other run engages and drives the other rolls from the other side thereof, the rolls will all be driven in the same direction, and consequently the logs placed on the first rolls will be fed to each successive roll and thus effectively conveyed down the roadway. It is obvious that a continuous stream of logs can be fed from one end of the roadway to the other.

Preferably, the rolls are placed about eight feet apart and the log rides forward on the rolls when the cable is set in motion.

The sizes of the rolls, shafts, etc., shown on the plan are about what will suit an ordinary logging operation, but the size may be increased or diminished according to the size of the timber or the requirements of the operator.

Changes in details may be made without departing from the spirit or the scope of this invention, but:—

What I claim as new is:

In a logging road, a series of parallel rollers having alternate ends thereof provided with pulleys and the remaining ends thereof free of pulleys, a driving cable having runs at opposite ends of said rolls and trained about said pulleys, pairs of sheaves at opposite ends of the series of rolls and engaged by said cable, and a driving mechanism engaging that portion of the cable between the sheaves of one pair and having means for tensioning the cable, said driving means being spaced lat-

erally of the plane of said series of rolls affording access to said tensioning means and allowing adjustment of the tensioning means during operation of the rolls.

In testimony whereof I affix my signature.  
ALLAN ALEXANDER MACLEOD.