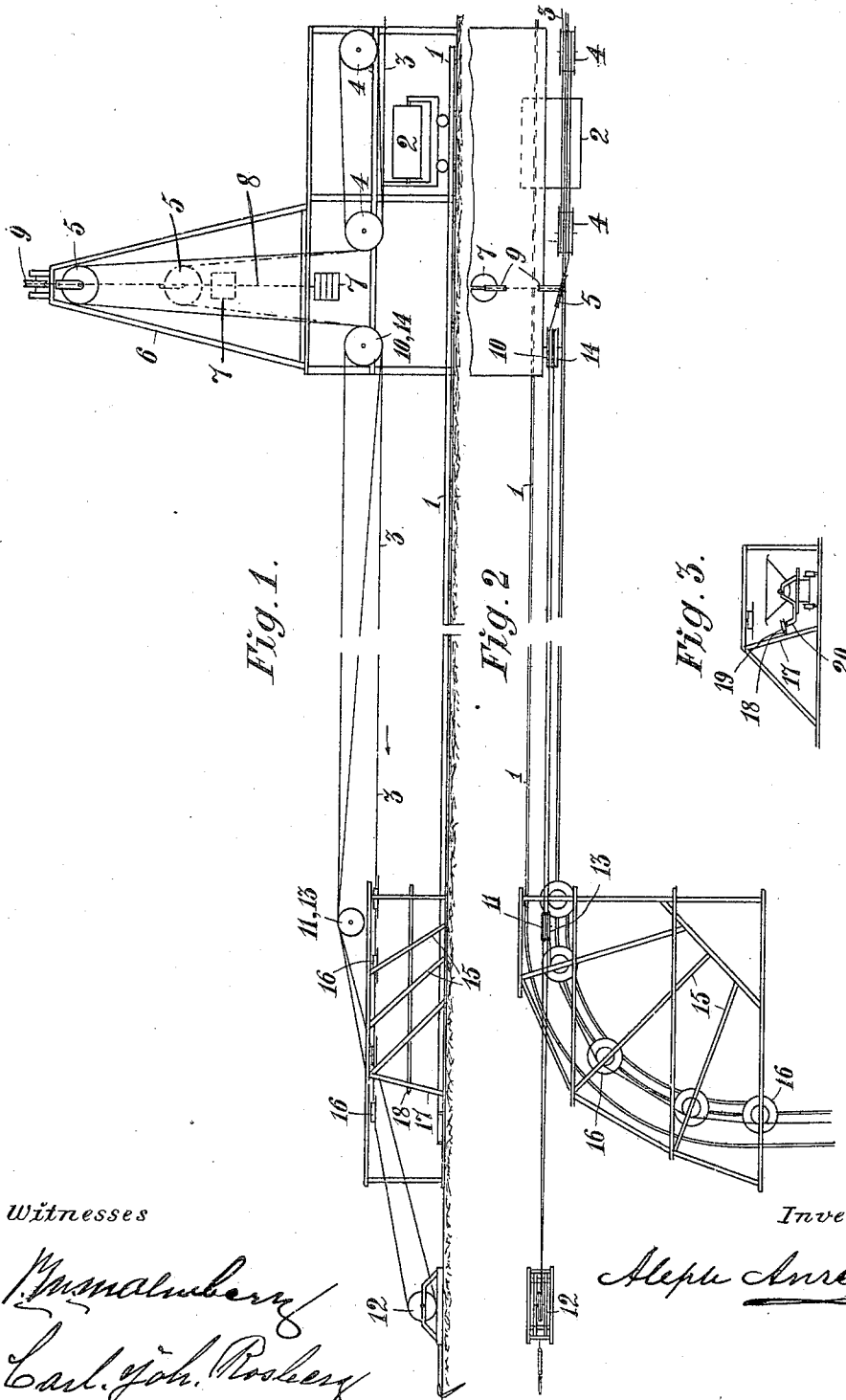


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 CABLE TRACTION SYSTEM FOR SHIFTABLE ENDLESS TRACKS.
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Witnesses

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CABLE-TRACTION SYSTEM FOR SHIFTABLE ENDLESS TRACKS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALEPH ANREP, a subject of the King of Sweden, residing at Helsingborg, in the District of Malmöhus, in the Kingdom of Sweden, have invented new and useful Improvements in Cable-Traction Systems for Shiftable Endless Tracks, of which the following is a specification, reference being had to the drawing accompanying and forming a part hereof.

This invention relates to cable traction systems for shiftable endless tracks.

Devices of this kind are generally used in laying out peat for drying.

The principal object of the invention is to enable the traveling cable to automatically increase or decrease in length according as the endless track is shifted on the field as the peat-machine with the digging device moves forward.

A further object of the invention is to provide a tensioning device for automatically stretching the cable according to the small changes in distance which may arise for one reason or another.

A still further object is to provide for an automatic guiding of the traveling cable.

The invention consists, chiefly, in the combination of a shiftable endless track, a traveling cable running along the said track, means for taking up a loop of the said cable, and a tensioning device for the said cable. The traveling cable, which is placed above the track, is suitably driven by a device adapted to engage a variable number of turns of the said cable, according as the shiftable track is increased or decreased in length, or the length of the active part of the traveling cable is to be varied.

In order that the lengthening and shortening of the part of the traveling cable running along the track may take place fully automatically, the tensioning device suitable consists of a guide pulley placed between the driving device and the aforesaid loop of the traveling cable, said guide pulley being adjustable in such a manner as not only to enable the said lengthening and shortening of the active part of the cable but also to enable a correct guiding of the traveling cable from the driving device to the loop, independently of the number of turns of the traveling cable engaged by the said driving device.

The traveling cable is suitably placed above the cars running on the endless track.

Preferably, the corners or curved parts of the said track are mounted in structures easily movable on the ground, said structures carrying, in addition to the said curved parts of the track, guide pulleys for the traveling cable and lateral guiding tracks for the cars rounding the curves.

The invention further comprises the construction and combination of parts herein-after more particularly described.

In the drawing, I have shown a section of a cable-traction system embodying the invention.

Figure 1 is a side view of the said section. Fig. 2 is a plan-view of the same. Fig. 3 is an end-view of the movable sledge or structure one of which is placed at each corner of the endless track.

Referring to the drawing, the endless track 1 is supposed to be substantially rectangular or square with rounded corners, each forming a quarter of a circle. Running on the track 1 are cars 2, and extending above the same is the traveling cable 3. The driving means, which may be connected to the peat-machine and moved thereby suitably consists of two pulleys 4 on which the traveling cable 3 is wound several times, the number of turns being dependent on the length of the cable necessary for admitting the desired extension thereof. Placed near the driving device is a guide pulley 5 suspended in a frame 6 in such a manner as to allow of being raised or lowered, the lowering of the said pulley being produced by the tension of the cable and the raising by the action of a weight 7 connected to the guide pulley 5, said weight being suitably suspended at one end of a chain 8 or the like passing over rollers 9 and carrying at its other end the guide pulley 5. The latter is suspended in such a manner as to be able to adjust itself in different vertical planes according as the cable is wound one or more times around the driving pulleys 4. The cable is thus correctly led from the driving device to a loop formed by three sheaves or pulleys 10, 11, 12, as shown in the drawing. The cable passes from the guide pulley 5 below the sheave 10, thence above the sheave 11, thence below and around the sheave 12, thence above a sheave or pulley 13 placed on the same axle as the sheave 11, thence over a sheave or pulley 14 placed on the same axle as the sheave 10, and thence along the track 1 in the direction of the arrow.

The pulley 12 is an adjustably anchored tension pulley which need not be shifted for smaller changes of the track, but the pulley 12 may be stationary during several changes of the track. First when the track has been shifted several times and no further slackening of the cable is obtainable by lowering the pulley 5, or by unwinding the cable from the pulleys 4, the pulley 12 may be shifted.

The pulling part of the traveling cable extending from the pulley 14 passes straight forward to the adjacent curve formed, according to the invention, by a frame or structure 15 movable in its longitudinal direction on the ground like a sledge or otherwise. The cable is guided by sheaves or pulleys 16 journaled in the upper part of the frame or structure while the lower part or bottom of the said structure carries the rails forming the curved part of the track. Attached to the oblique stays 17 between the upper part of the structure and the lower one, at about the middle thereof, is a track 18 serving to support the cars so as to prevent them from tilting or inward movement in rounding the curve. When a car is rounding the curve, a wheel 19 (Fig. 3) on the car runs on the track 18, said wheel being carried by an arm 20 extending upwardly from the frame or bottom of the said car.

The cable-traction system hereinbefore described works in the following manner: The driving pulleys 4, 4 are placed at the excavator or peat-machine movable along the excavation with a speed of about 2 inches a minute. The pulley 12 and its anchor form a fixed point during working for a certain period, for instance one day. When the peat-machine with the driving pulleys moves forward, the distance between the pulleys 12 and 14 is increased, and at the same time the part of the traveling cable between the said pulleys must increase in length, so that, if the peat-machine moves for instance $2\frac{1}{2}$ yards, the part of the cable between the said pulleys must be increased 5 yards. This is accomplished by the guide pulley 5 being lowered a corresponding distance. When the peat-machine has proceeded for instance $2\frac{1}{2}$ yards, the working is stopped and the curved sections of the track adjacent to the anchored pulley 12 are likewise shifted $2\frac{1}{2}$ yards. Hereby the guide pulley 5 under the influence of the weight 7 again rises $2\frac{1}{2}$ yards, and the traveling cable thus automatically maintains the length required for the track notwithstanding the shifting of the track. As is easily understood, the weight 7 at the same time serves as an automatic tensioning device for the cable. When greater changes in the length of the cable are required, for instance at varying widths of the draining

field, the length of the cable may be regulated at will by suitably shifting the position of the pulley 12.

I claim:

1. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device for the said cable, a tensioning device taking up a loop of the said cable, and means for taking up a second loop of the said cable allowing the length of the active part thereof to be varied, substantially as and for the purpose set forth.

2. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device for the said cable, a tensioning device taking up a loop of the said cable, and means comprising an adjustably anchored sheave for taking up a second loop of the said cable allowing the length of the active part thereof to be varied, substantially as and for the purpose set forth.

3. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device for the said cable, a weighted cable-tensioning pulley taking up a loop of the said cable, and means comprising an adjustably anchored sheave for taking up a second loop of the said cable allowing the length of the active part thereof to be varied, substantially as and for the purpose set forth.

4. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device engaging a loop of the said cable of a variable length, means comprising an adjustably anchored sheave for taking up a second loop of the said cable, and a tensioning device for the said cable placed between the two loops aforesaid and taking up a third loop of the said cable, substantially as and for the purpose set forth.

5. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device comprising sheaves engaging a variable number of turns of the said traveling cable, means comprising an adjustably anchored sheave for taking up a second loop of the said cable, and a tensioning device for the said cable placed between the two loops aforesaid and taking up a third loop of the said cable, substantially as and for the purpose set forth.

6. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a working machine adapted to move along the said track, a driving device for the traveling cable carried by the said working machine, a tensioning device for the said cable

carried by the said machine, and means comprising a sheave adapted to be adjustably anchored on the ground for taking up a loop of the said cable of a variable length, substantially as and for the purpose set forth.

5 7. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device engaging a variable number
10 of turns of the said traveling cable, means for taking up a loop of the said cable, and a cable-tensioning pulley placed between the driving device and the said loop, said pulley being adjustable in different planes of rota-
15 tion according to the number of turns of the cable engaged by the driving device, substantially as and for the purpose set forth.

20 8. In a shiftable cable-traction system, the combination of a shiftable endless track, a traveling cable running along the said track, a driving device engaging a variable number of turns of the said traveling cable, means
25 for taking up a loop of the said cable formed behind the driving device, a cable-tensioning pulley placed between the driving device and

the said loop, a chain carrying the said tensioning pulley in such a manner as to allow it to adjust itself in different planes of rotation, supporting rollers for the said chain, and a tension weight attached to the said chain, substantially as and for the purpose set forth. 30

9. In a shiftable cable-traction system, the combination of a shiftable endless track comprising curved parts, cars running on the
35 said track, shiftable structures carrying the said curved parts of the track, a traveling cable running along the said track, pulleys mounted in the said shiftable structures for guiding the traveling cable in the curves, 40
lateral guiding tracks for the cars rounding the curves, a driving device for the said traveling cable, means for taking up a loop of the said cable, and a tensioning device for the said cable, substantially as and for the 45 purpose set forth.

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Witnesses:

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