S. A. ROGERS.

TRACTION SYSTEM FOR CABLE RAILWAYS.

APPLICATION FILED MAR. 24, 1921.

1,386,534. Patented Aug. 2, 1921.

FIG. 1.

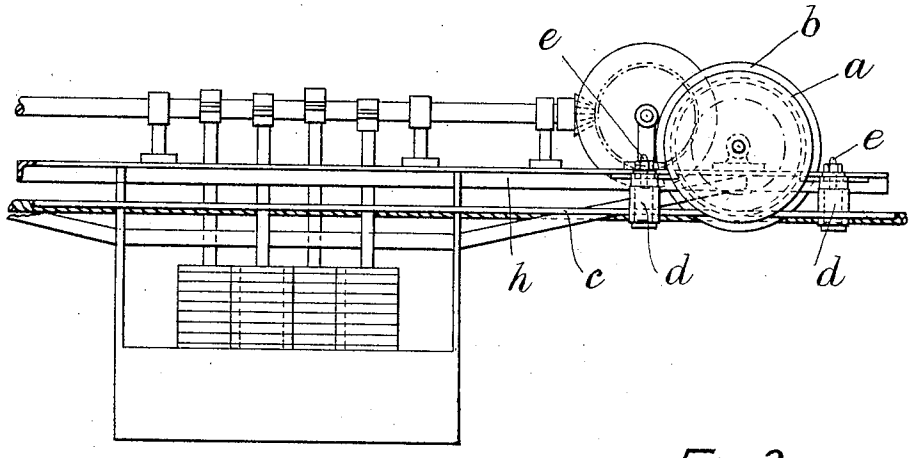


FIG. 2.

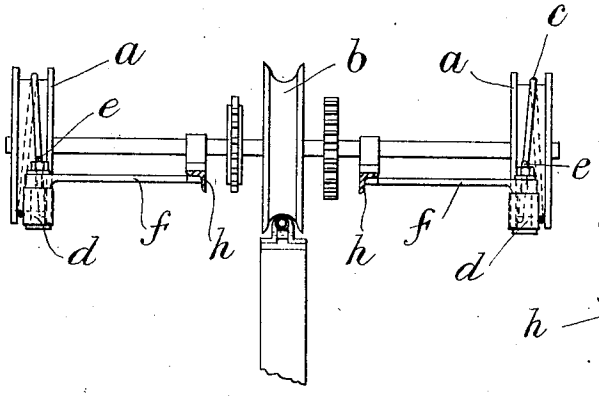
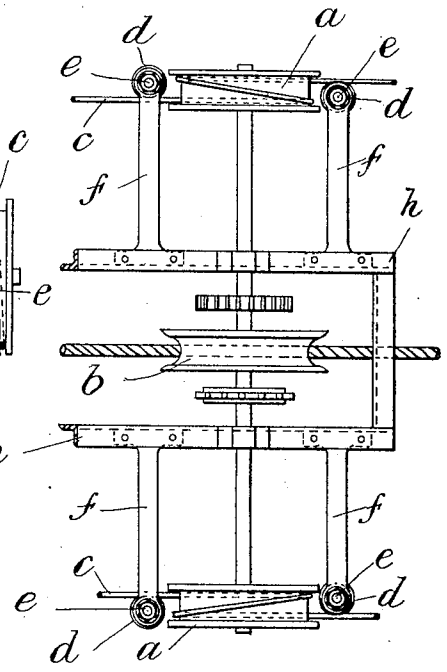


FIG. 3.



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TRACTION SYSTEM FOR CABLE-RAILWAYS.

1,386,534. Specification of Letters Patent. Patented Aug. 2, 1921.

Application filed March 24, 1921. Serial No. 455,239.

To all whom it may concern:

Be it known that I, STEWART ALEXANDER ROGERS, subject of the King of Great Britain and Ireland, residing at 270 Belgrano, in the city of Buenos Aires, in the State of Buenos Aires, Republic of Argentina, have invented a new and useful Improvement in Traction Systems for Cable-Railways, of which the following is a full and complete specification.

This invention relates to traction systems for cable railways and particularly to that type in which the tractive effort is imparted through auxiliary cables which are warped on winding drums mounted on or driven by the power unit of the train, and it has for its object to prevent any two parts of the cable from touching one another while it is in contact with its drum or when it is passing on and off said drum whereby any wear and tear from abrasion is avoided.

I attain this end by mounting fore and aft of the winding drum vertically arranged rollers located one on either side of the median line of the drum in such positions that they operate to guide the cable on to and lead the cable off the winding drum on one side thereof but at such a distance apart that the part being wound on to said drum does not come in contact with the part either wound on or being unwound from said drum.

In the accompanying drawing which shows—by way of illustration—the application of this invention to a single cable railway intended to carry running plant of the straddle type which necessitates the use of two driving cables:—

Figure 1 is a broken view in side elevation.

Fig. 2 is a view in transverse section, and,

Fig. 3 is a view in plan.

Throughout the views similar parts are marked with like letters of reference.

The two winding drums *a* and *a* are located one on either side of one of the wheels *b* of the power unit or driving trolley at such distance from same as will insure that the auxiliary driving cables *c* and *c* will not foul the vehicles of the train.

Mounted fore and aft of each of the winding drums *a* are vertically arranged rollers *d* and *d* which are so located on opposite sides of the median line of said drums as will cause the part of the driving cable passing on to the drum to engage said drum at such a transverse distance from the part of the cable leaving said drum as will insure said parts of the cable not coming into contact. These rollers are mounted on pins *e* carried by arms *f* fixed to the frame *h* of the power unit. The position of the rollers *d* in respect to the median line of the drums *a* may be made adjustable either by varying the position of each roller in respect to its arm *f*, or said arms may be made adjustable in length.

It will be understood that this auxiliary traction device may be used in connection with the trolley wheels of any of the vehicles of the train when such wheels are driven from the power unit.

What I claim is:—

1. In auxiliary traction systems for cable railways in which the traction cables are warped in single coils on the winding drums the combination with said cables and said winding drums of guide rollers located fore and aft of said drums and at such a transverse distance apart as will insure the cable passing on to said drum at a point out of line with its point of leaving said drum.

2. In an auxiliary traction system for single cable railways the combination with any vehicle of the train having one or more of its trolley wheels positively driven, of two auxiliary driving or winding drums mounted on the axle of the driven trolley wheel and located one on either side of said trolley wheel, of two auxiliary cables located on either side of the cable way, and of two pairs of guide pulleys located for and aft of the auxiliary driving or winding drums the position of each pair of rollers being such that one operates to guide the auxiliary cable on to its drums on one side of the median line thereof and the other operates to cause the said auxiliary cable to leave the drum on the other of the median line thereof.

3. In an auxiliary traction system for single cable railways comprising two auxiliary driving or winding drums driven by the power unit and two auxiliary cables arranged one on either side of the cable ways and adapted to be wound on said drums, the combinations with said elements of two pairs of guide pulleys located fore and aft of said driving or winding drums the position of the rollers of each pair being on opposite sides of the median line of the groove of the drum.

STEWART ALEXANDER ROGERS.