G. H. REYNOLDS.

Support for Rope for Transmitting Power.

No. 208,850. Patented Oct. 8, 1878.

Fig. 1.

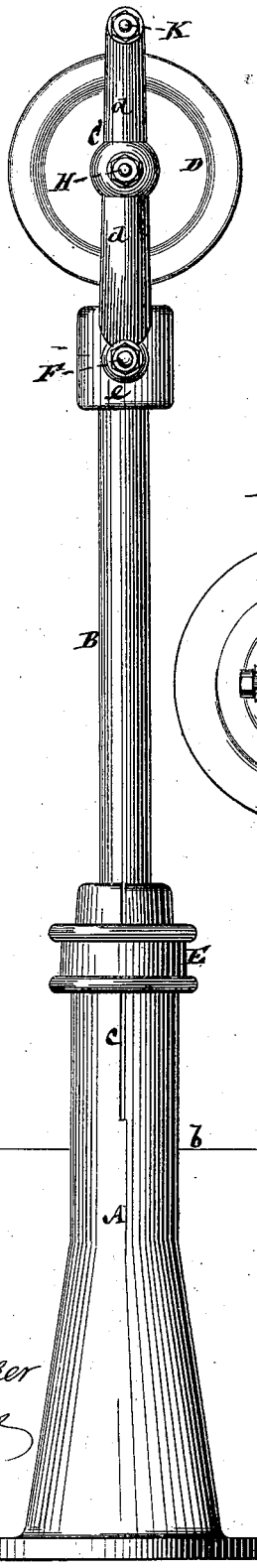


Fig. 2.

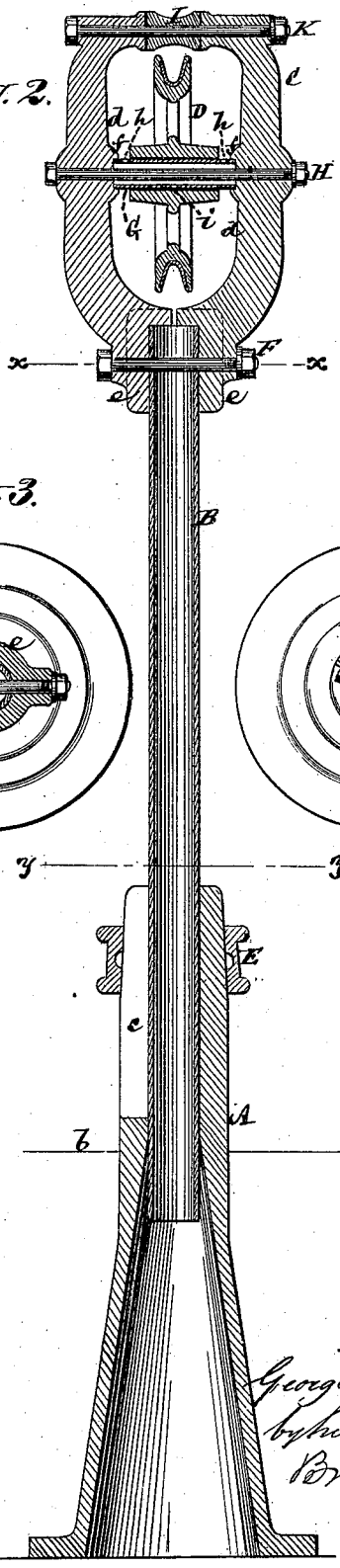


Fig. 3.

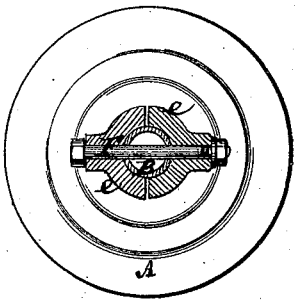
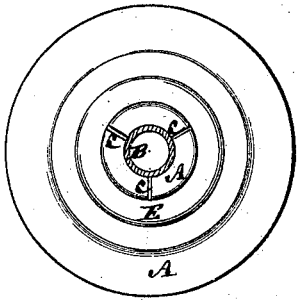


Fig. 4.



Witnesses

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GEORGE H. REYNOLDS, OF NEW YORK, N. Y., ASSIGNOR TO CORNELIUS H. DELAMATER AND GEORGE H. ROBINSON, OF SAME PLACE—ONE-THIRD TO EACH.

IMPROVEMENT IN SUPPORTS FOR ROPES FOR TRANSMITTING POWER.

Specification forming part of Letters Patent No. **208,850**, dated October 8, 1878; application filed April 23, 1878.

To all whom it may concern:

Be it known that I, GEORGE H. REYNOLDS, of the city, county, and State of New York, have invented certain new and useful Improvements in Supports for Ropes for Transmitting Power, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

This invention more particularly relates to supports for ropes used in transmitting power for hoisting and other purposes, and is more especially advantageous in cases where said ropes are of great length and require to be be carried at varying heights or in different directions above the ground.

The invention consists in various novel constructions and combinations of parts for supporting and adjusting the rope-carrying sheave, to adapt the latter to different angles and altitudes for carrying the sheave by means of a divided column-head, for providing for the ready removal and displacement of the sheave and its axle, and for automatically lubricating the sheave, substantially as hereinafter described.

In the accompanying drawing, Figure 1 represents an elevation of a rope-support constructed in accordance with my invention. Fig. 2 is a sectional elevation of the same in a plane at right angles to Fig. 1. Fig. 3 is a horizontal section on the line *x x*, and Fig. 4 a horizontal section on the line *y y*.

A is the base of the support. This base is an upright tubular casting, the lower portion of which is designed to be embedded in the ground, and the upper portion of which, that may project above the level *b* of the ground, is of a cylindrical construction internally, and has one or more narrow openings or slits, *c*, extending from the top of the base to any desired distance down it, left or formed therein. This construction of the base provides for the support and entry down within it of the column B of the support. This column may be a plain cylindrical tube, and is of a size to closely fit the cylindrical opening in the upper portion of the base, so that not only may said column be turned in the base as a socket to change the angle or direction of the column-head C and sheave D in the latter, but also may be raised and lowered to vary the height of the sheave D above the ground, and admitting, if necessary, of the lower portion of the column being projected below and through the bottom of the base into a pit in the ground made for the purpose, thus providing for a very extended raising and lowering adjustment of the column with its attached head and sheave. Said column is secured, when adjusted in the various directions described, by means of a clamping-band, E, which is driven over the upper slitted portion of the base, that is made slightly tapering externally to provide for springing said portion of the base to clamp the column within it. To release the column B, when it is required to raise or lower or to turn it to suit different heights and directions in run of the rope over the sheave D, it is only necessary to slacken the clamping-band E.

Such construction of the base and mode of holding the column within it also afford great facility for the erection and removal of the rope-support, and combines lightness with stability.

The column-head C is of a divided construction, it being composed of independent upright side arms or jaws *d d*, meeting together below to form a split socket, *e e*, which receives within it the upper end of the column B, and provides for the attachment of the head C to the column, and of the two portions or halves of said head together by one and the same bolt or bolts, F, arranged to pass through the divided socket *e e* and portion of the column therein.

The sheave D is fitted to run loosely, and also preferably with freedom of play in a longitudinal direction of its axis, on an axle, G, which, for a reason hereinafter given, it is desirable should be hollow and stationary, and to these ends is formed of a tube the ends of which are received within recessed portions or collars *f f*, arranged upon or formed within the inside faces of the jaws *d d*, so that when the head C is closed and secured to its place the arms or jaws *d d* clamp and close the ends

of the hollow axle G, and keep it from turning. A bolt, H, passing through said arms or jaws and through the axle G, very materially serves to thus hold said axle as well as to stiffen the column-head generally. The hollow axle G is also made to form an oil box or receptacle for the hub or bearing portion of the sheave D upon it, to which end said hollow stationary axle is provided on its upper surface with one or more inlets, *h*, for lubricating material, and one or more distributing-outlets, *i*, in its lower portion, whereby the sheave-bearing is automatically lubricated. When not required to thus utilize the axle G as a reservoir and distributer of lubricating material, it may be made solid.

The upper part of the column-head D is constructed to admit of a cap-piece or guard, I, for the rope on the sheave being inserted between the upper ends or portions of the head, so as to close the latter at top and give increased stiffness to the head. This guard I, which forms a simple filling-piece between the upper ends of the arms or jaws *d d* of the column-head, is secured, when inserted in its place, by a bolt, K, arranged to pass through it and through the arms or jaws *d d* of the column-head, and constructed and fitted to admit of its entry and removal in an endwise direction without opening the jaws. Thus, by simply drawing out the bolt K, the guard I may be removed from between the jaws. This removability of the guard I provides for taking out or putting in rope without passing the latter endwise throughout its length between the sheave and the guard, which is a very important consideration when the rope designed to be carried by the sheave is a long one.

By slackening the several bolts, or certain of them which serve to keep the divided head C closed, the axle G and sheave D may readily be taken out for repair, cleaning, or renewal without taking down the column B or removing its head C.

The divided column-head hereinbefore described essentially differs from the clamp constructed with a spherically-shaped socket for holding a ball attached to the pivot of an angle-sheave, described in Letters Patent No. 196,250, granted me October 16, 1877, as in this invention the column-head, by its special construction, does not provide for the angular adjustment of the sheave irrespectively of the column.

I claim—

1. The tubular base A, having one or more slits or openings, *c*, down its upper portion, in combination with the clamping-band E and the column B, having an attached column-head and sheave, substantially as and for the purposes herein set forth.

2. A column-head, C, inclosing the rope-supporting sheave D within it, constructed of divided halves or sections, in combination with the column B and the bolts for securing said divided halves together and clamping them to the column, essentially as described.

3. The combination, with the arms or jaws of the divided column-head C and the loose sheave D, of the independent stationary axle G, held in position by said jaws when closed, and provided with one or more upper lubricating-inlets, *h*, outside of or beyond the end or ends of the hub of the sheave, and one or more lower distributing-outlets, *i*, essentially as and for the purposes herein set forth.

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