

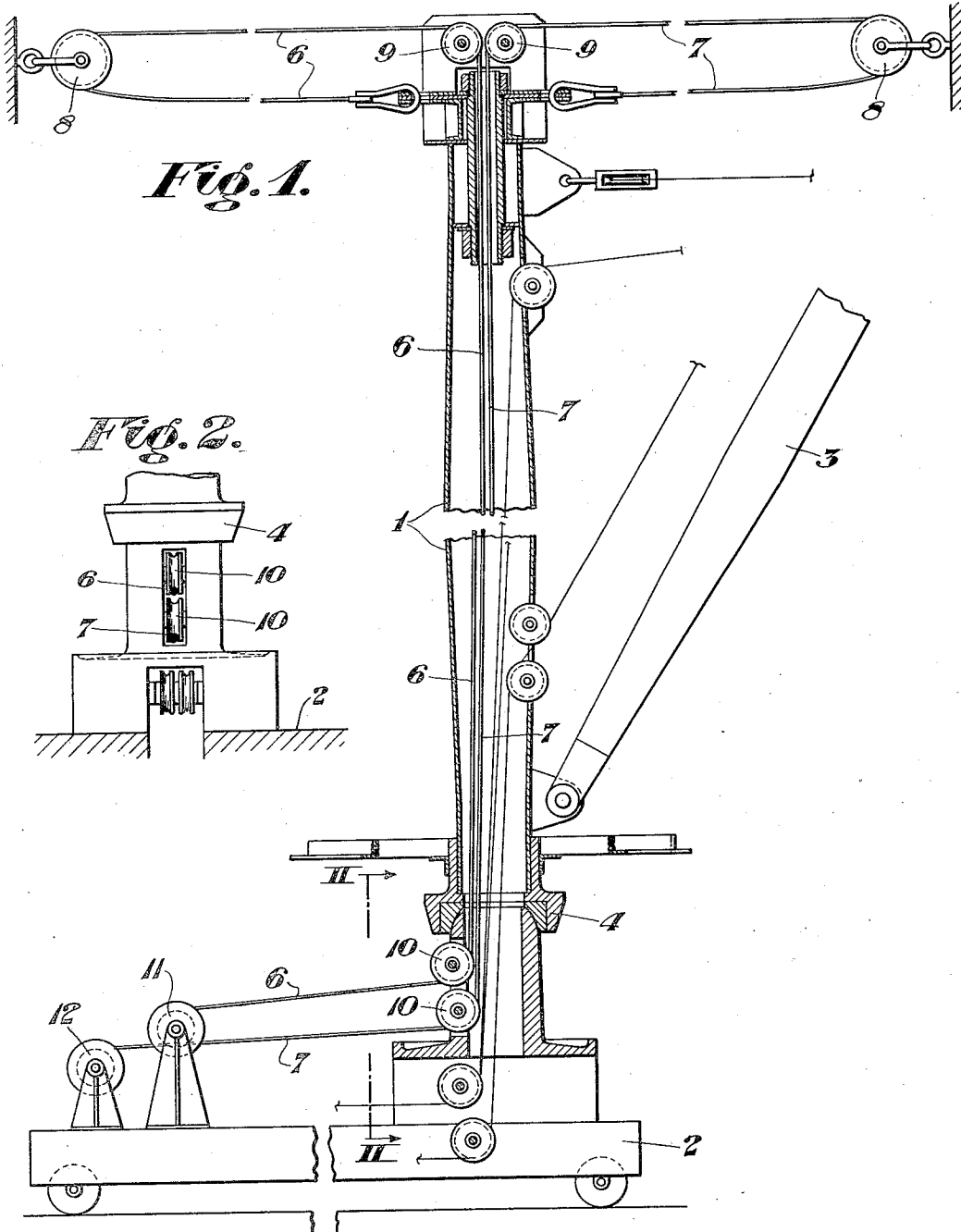
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DERRICK

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DERRICK

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2 Claims. (Cl. 189—11)

This invention relates to derricks used in the construction of bridges. These derricks generally must be moved along the bridge during its construction, one of the objects of the present invention being to properly guy them in position while they are being moved. Other objects will be understood from the following.

Having reference to the accompanying drawing which illustrates a specific example of the invention:

Figure 1 is a cross-sectional side elevation.

Figure 2 is a cross-section from the line II—II in Figure 1.

This drawing shows a hollow fabricated steel mast 1 rotatably carried on a movable support 2 and lifting through a boom 3. This is like all bridge derricks excepting that the foot-block 4 is constructed larger than is ordinarily the case. The top of this mast is positioned by guys which extend from it to supporting points which may be on either the bridge or river shore. In this instance the mast is guyed by cables 6 and 7 which are fixed to opposite sides of the mast's spider and extend to supporting points 8 and back to the top of the mast where they pass over sheaves 9 and downwardly through the inside of the mast 1. The portions of the cables between the mast's spider and the supporting points 8 are practically horizontal and at right angles to the mast 1. This results from the points 8 being arranged about at the level of the top of the mast 1, as is shown by Figure 1. Two more sheaves 10 are fixed to the mast adjacent its bottom, the cables 6 and 7 passing around them and extending to drums 11 and 12 which are mounted on the support 2.

When it is necessary to move the mast along the bridge one of the drums is simply let out and the other one taken in so that properly proportioned opposing forces may always be maintained at the top of the mast, this being possible because

the cables extend horizontally from the mast. These forces may be properly applied to guy the mast into position both during movement of the lifting rig and while it is in position. Preferably the drums are separated as illustrated because the pull on the mast top can then be proportioned to meet varying load conditions on the boom 3. If desired, however, the ends of the cables 6 and 7 may be joined and these cables given a few wraps around a single drum. Then when this drum is rotated one cable will be let out the same amount the other cable is taken in.

It should be understood that the support 2 is moved by a separate force and that the drums 11 and 12 are used to carry the excess of the cables 6 and 7 over what is actually being used for guying purposes, and to maintain tension on these cables during movement of the lifting rig.

Although a specific form of this apparatus has been shown and described in accordance with the patent statutes, it is not intended to limit the scope of the invention exactly thereto, except as defined by the following claims.

I claim:

1. A bridge derrick including a support constructed for movement along a bridge, a mast carried by said support, guys arranged to extend practically horizontally from said mast to suitable supporting points and means for varying the relative lengths of said guys during movement of said support.

2. A bridge derrick including a support constructed for movement along a bridge, a mast carried by said support, sheaves fixed to the top of said mast, guys extending practically horizontally from suitable supporting points towards said support by way of said sheaves and means carried by said support for varying the relative lengths of said guys during movement of the former.

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