No. 815,261. PATENTED MAR. 13, 1906.

G. W. BROWN.

CABLE REEL WINDER AND BRAKE.

APPLICATION FILED AUG. 16, 1905.

Fig. 1.

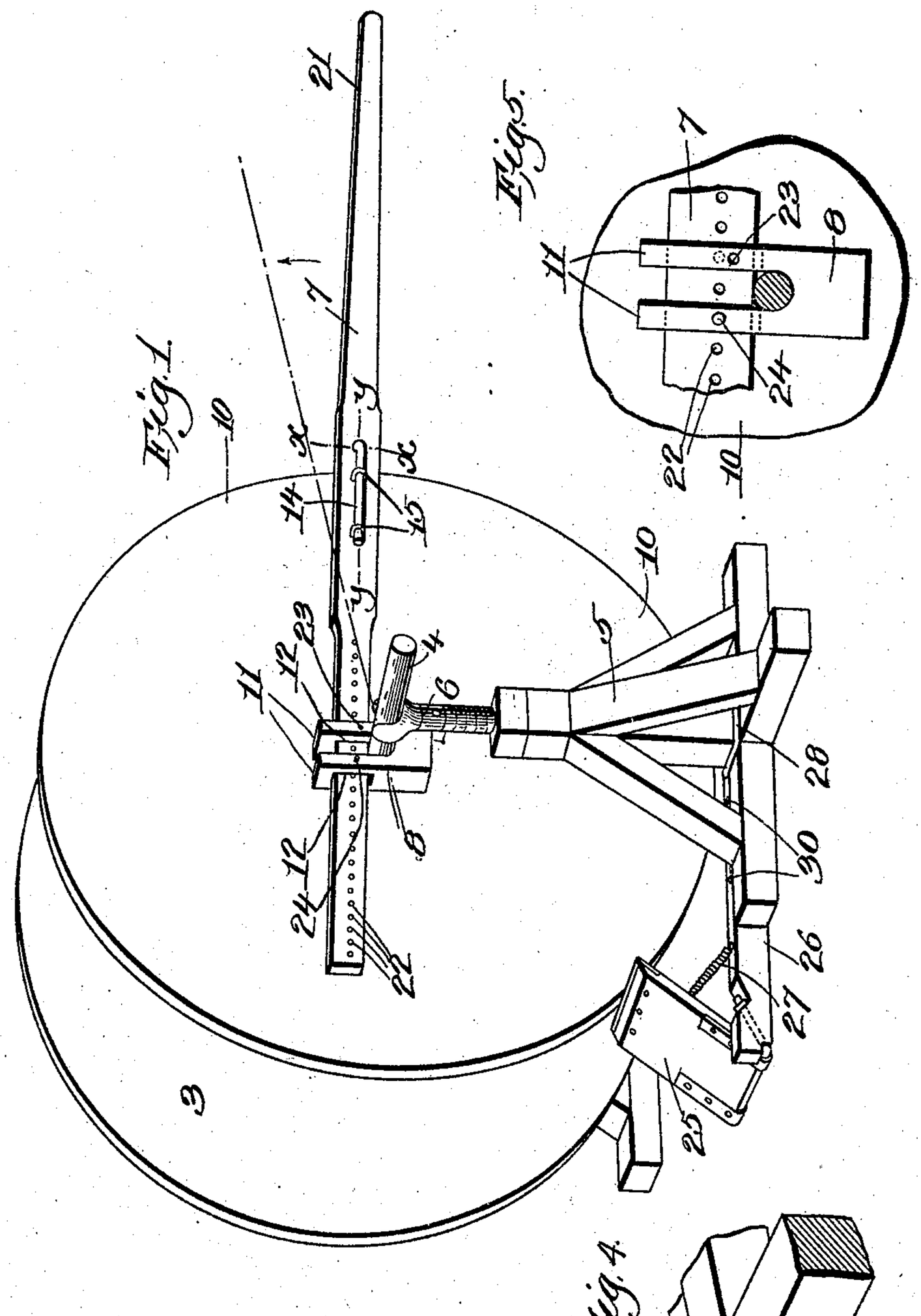


Fig. 5.

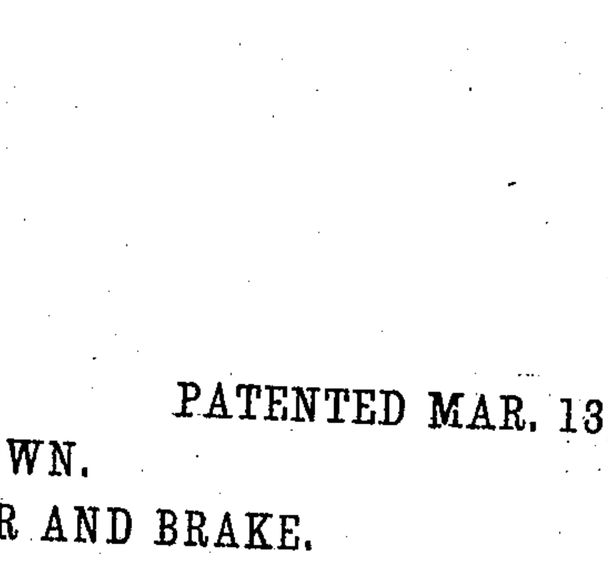


Fig. 4.

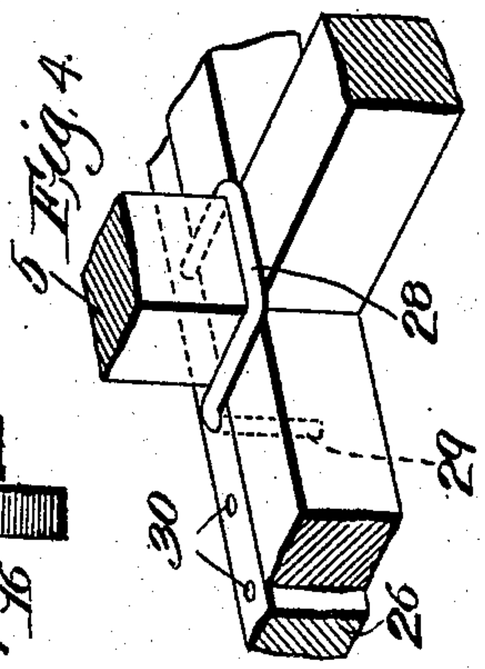


Fig. 2.

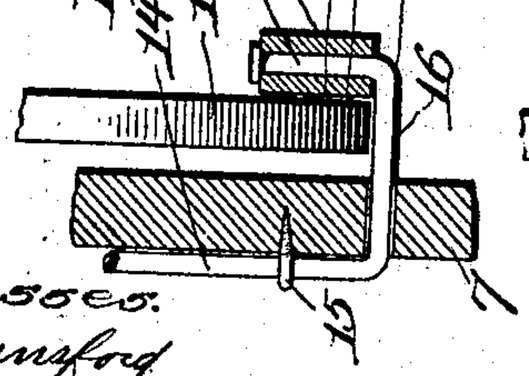
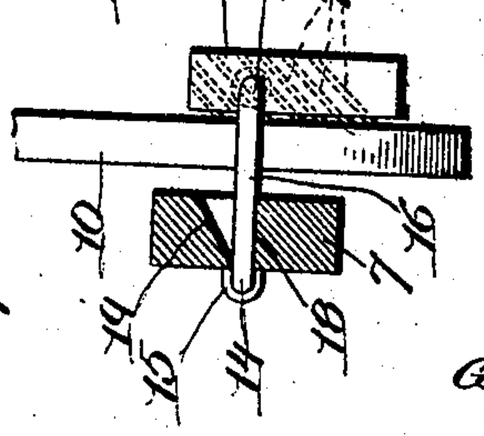


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CABLE-REEL WINDER AND BRAKE.

No. 815,261. Specification of Letters Patent. Patented March 13, 1906.

Application filed August 16, 1905. Serial No. 274,474.

To all whom it may concern:

Be it known that I, GEORGE WILLIAM BROWN, a citizen of the United States, residing at Hyde Park, county of Norfolk, and Commonwealth of Massachusetts, have invented an Improvement in Cable-Reel Winders and Brakes, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

This invention has for its object to provide a novel device by which the large reels on which lead cables are wound may be readily turned, either for reeling the cable onto the reel or for unreeling it therefrom, as it is pulled into underground conduits. It is a common practice now to turn these reels for either winding the cable thereon or unwinding it therefrom by grasping the flange of the reel; but such method has many disadvantages.

My invention comprises a lever which is mounted at one end in a fulcrum-block carried by the arbor of the reel and which has a gripping-block adapted to engage the inner face of the flange of the reel, said gripping-block being so constructed that when the lever is moved in one direction it will grip the flange of the reel and turn the latter and when the lever is moved in the opposite direction it will become released from the flange, thereby permitting the lever to be shifted into a new position for getting another grip.

The particular features of my invention will be more fully hereinafter described and then pointed out in the following claims.

In the drawings, Figure 1 is a perspective view showing my improved device applied to a reel. Fig. 2 is a section on line *y y*, Fig. 1. Fig. 3 is a section through the lever on substantially the line *x x*, Fig. 1. Fig. 4 is a detail of the locking device for the brake, and Fig. 5 is a detail of the fulcrum-block.

3 designates a reel of any suitable construction on which the lead cable or conduit is adapted to be wound. During the winding of the lead conduit on the reel or the unwinding of it therefrom said reel is usually supported on a suitable arbor 4, which is mounted in a support or jack 5, the latter frequently having the adjustable bearing 6, by means of which the arbor may be raised or lowered.

The parts thus far described form no part of my present invention.

My improved device comprises a lever 7, which is mounted at one end in a fulcrum-block 8, adapted to be carried by the arbor 4 and which carries a gripping-block 9, arranged to grip the face of the flange 10 of the reel 3. The fulcrum-block 8 is shown as being made with the two arms 11, each of which has a transverse aperture 12, through which the lever 7 extends. The slot between the two arms 11 of the fulcrum-block extends some distance beyond the apertures 12, so that when the block is slipped over the arbor, as shown in Fig. 1, said apertures 12 are above the arbor and when the lever is slipped through the apertures the arbor is confined between the lever and the arms 11. The lever is by this construction fulcrumed on the arbor 4. The gripping-block 9 is pivotally mounted on an arm 13, which in turn is pivoted to the lever 7. The arm 13 may have any suitable construction; but, as herein shown, it is constructed to present the shank portion 14, which extends along parallel to the arm 7 and is journaled in suitable eyes 15 thereon, the transverse portion 16, which extends through an aperture in the lever 7, and the grip-block-sustaining portion 17, on which the gripping-block 9 is pivotally mounted. The aperture through the lever 7 has a substantially horizontal bottom 18 and an inclined upper side 19, as shown best in Fig. 3. The gripping-block 9 may be of any suitable or usual construction, and preferably its gripping-face will be serrated or provided with projections 20, which are adapted to grip the face of the flange 10.

In using the device the free end 21 of the lever is raised, and during such movement the gripping-block becomes released from the flange 10 and is carried up into position to grip the flange again. As the lever is swung downwardly the gripping-block is carried against the inner face of the flange 10 and is caused to grip the latter. The construction is such that the greater the force applied to the lever the greater will be the gripping action of the gripping-block, as will be obvious.

The lever 7 is adjustably mounted in the fulcrum-block 8, so that the device may be used with reels having flanges 10 of different sizes. As herein shown, said lever is provided with a plurality of apertures 22, and each arm 11 is also provided with an aperture 23, and the lever is held in its adjusted position by a suitable pin 24, which is inserted through one of the apertures 23 and an aperture 22 of the lever. One of the apertures

23 is slightly nearer the closed end of the slot between the arms 11, and the pin 24 will be inserted in one or the other of the apertures 23, according to the size of the arbor on which the reel is mounted.

In connection with my improved gripping-lever for turning the reel I employ a brake for preventing the backward movement of the reel. This brake comprises a brake-block 25, which is shown as pivoted to a base-piece 26 and which is shaped to engage the rim of the flange 10 and prevent it from turning backwardly. Said brake-block is held against the rim and in operative position by a suitable spring 27. The base-piece 26 is made adjustable, so that the brake may be used with flanges of different sizes. For holding the base in place I have herein shown a dog 28, which is shaped to embrace the stand 5 of the jack and which has a nose 29, adapted to enter one of a series of notches 30 in the top of the base-piece 26.

It will be seen that the construction of my device is very simple, that it is effective in operation, and that it can be adjusted so as to be used with reels of different sizes.

The device herein illustrated is a preferred embodiment of my invention; but it will be obvious that various changes in the construction of the device may be made without departing from the invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class described a fulcrum-block adapted to be detachably secured to the arbor of a cable-reel, a lever mounted in said fulcrum-block and extending transversely to the axis of the reel, and a pivoted gripping-block carried by the lever and adapted to grip the flange of the reel.

2. In a device of the class described, a fulcrum-block to embrace the arbor of a cable-reel, a lever adjustably mounted in said fulcrum-block and extending parallel to the flange of the reel, and a gripping device carried by the lever and adapted to grip the flange of the reel.

3. In a device of the class described, an adjustable lever fulcrumed on the arbor of a cable-reel, and a gripping device carried by said lever and adapted to engage the inner face of the flange of the reel.

4. In a device of the class described, a fulcrum-block adapted to be mounted on the arbor of a cable-reel, a lever adjustably mounted in said fulcrum-block, and a gripping-block pivoted to the lever and adapted to engage the inner face of the flange of the reel.

5. In a device of the class described, a bifurcated fulcrum-block adapted to straddle the arbor of a cable-reel, each arm of said fulcrum-block having an aperture therethrough, a lever extended through said apertures, and a gripping-block carried by the lever and adapted to engage the inner face of one of the flanges of the reel.

6. In a device of the class described, an adjustable lever fulcrumed on the arbor of a cable-reel, a gripping device carried by said lever and adapted to engage the inner face of the flange of the reel, and a brake to engage the rim of the reel and prevent backward rotation thereof.

7. In a device of the class described, an adjustable lever fulcrumed on the arbor of a cable-reel, a gripping device carried by said lever and adapted to engage the inner face of the flange of the reel, and a brake comprising a pivoted brake-block to engage the rim of the reel and prevent backward rotation thereof.

8. In a device of the class described, a fulcrum-block adapted to be mounted on the arbor of a cable-reel, a lever adjustably mounted in said fulcrum-block, a gripping-block pivoted to the lever and adapted to engage the inner face of one of the flanges of the reel, and an adjustably-mounted pivoted brake-block to engage the rim of the reel and prevent backward rotation thereof.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE WILLIAM BROWN.

Witnesses:
T. F. COLLINS,
J. L. P. ST. CORM.