

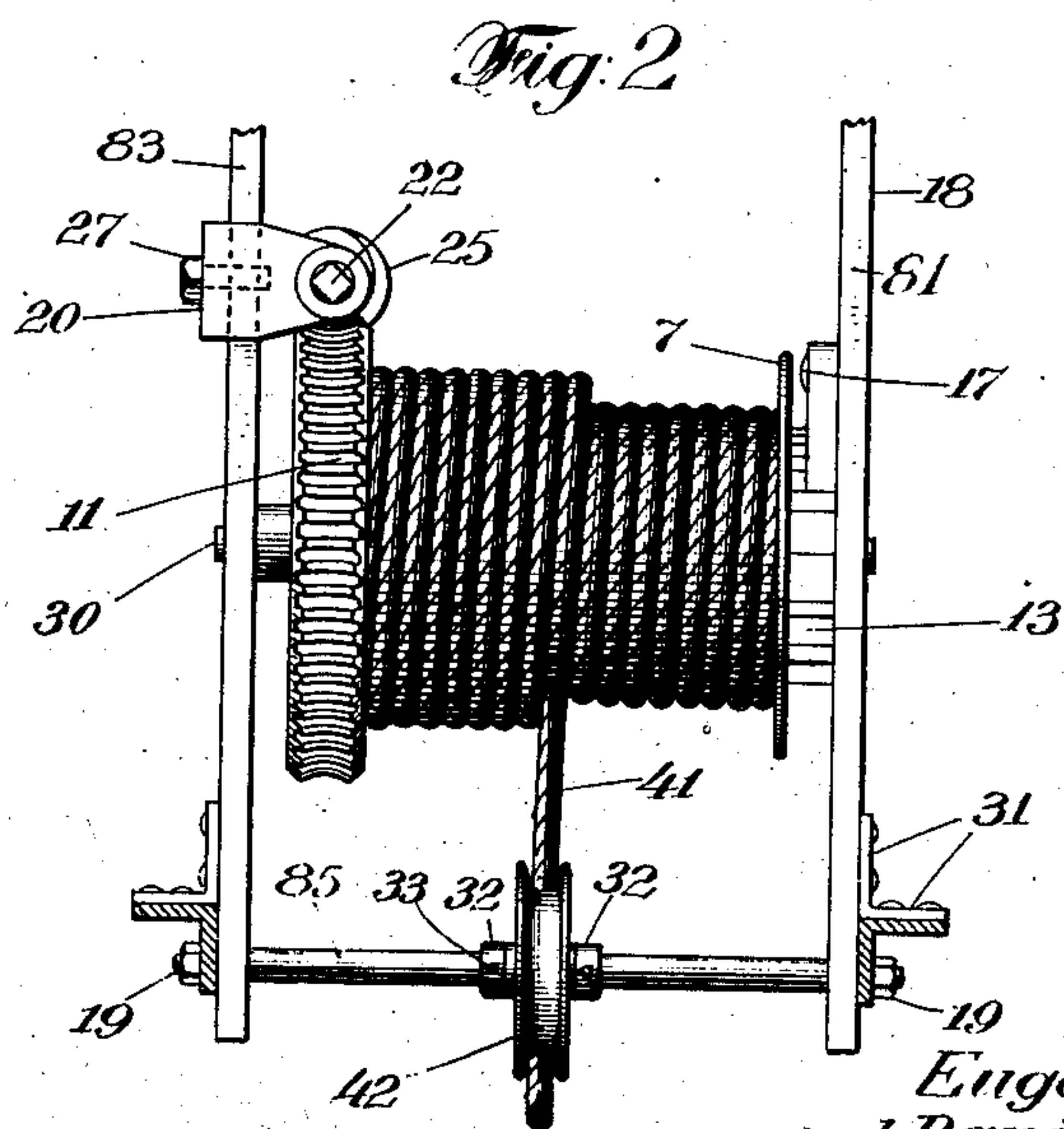
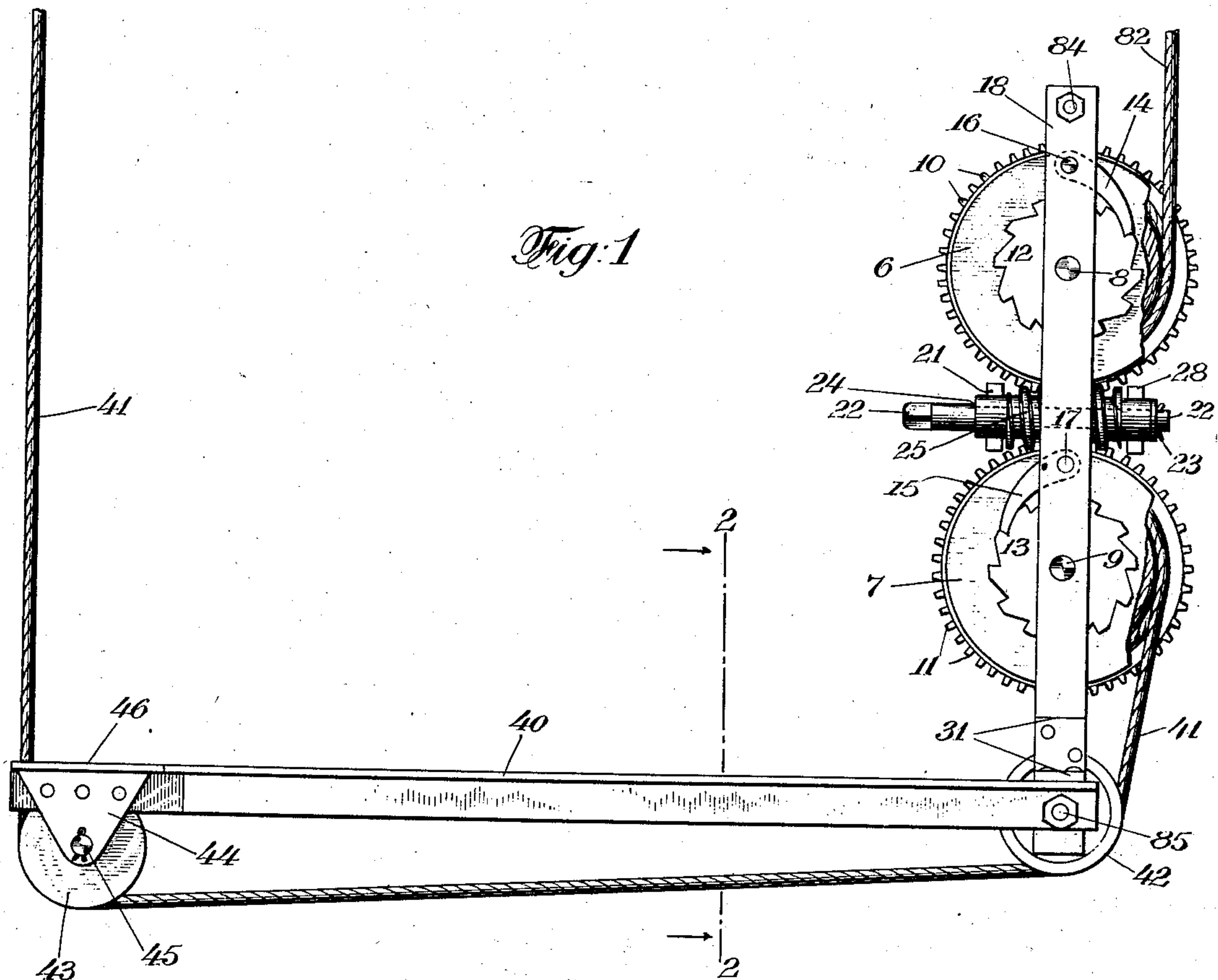
E. M. & D. F. CAVANAGH.

SCAFFOLD SUPPORT.

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978,823.

Patented Dec. 13, 1910.



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UNITED STATES PATENT OFFICE

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SCAFFOLD-SUPPORT.

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Specification of Letters Patent.

Patented Dec. 13, 1910.

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To all whom it may concern:

Be it known that we, EUGENE M. CAVANAGH and DANIEL F. CAVANAGH, citizens of the United States, and residents of the borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Scaffold-Supports, of which the following is a specification.

This invention relates to scaffold-supports, and more particularly to such as are used in the construction of high modern iron or steel-frame structures, which make demands peculiar to themselves on the apparatus used during the progress of the same, as convenience of installation, capability of moving from floor to floor, security, and positive manipulation.

The object of our invention is to provide a structure having these characteristics, and for this purpose our invention consists of the combination in a scaffold-support, of a horizontal platform supporting frame, having a pulley wheel located at the end thereof, of a drum supporting frame located entirely at one other end of the platform supporting frame and winding mechanism on said drum-frame.

The invention consists further in arranging the parts so that one end of one of the ropes is passed under the scaffold so as to afford greater security and safety.

In the accompanying drawings forming part of this specification, Figure 1 represents a perspective view of our improved scaffold-support, showing the same in operative position, and Fig. 2 is a detail view of the same, as seen from line 2—2 of Fig. 1.

Similar characters of reference indicate corresponding parts.

Referring to the drawings, the drums 6 and 7 for winding and unwinding the supporting-ropes 41 and 82, rotatable on shafts 8 and 9 which have their ends in suitable bearings in the frame 18, are provided with gears 10 and 11 at one end, and with ratchets 12 and 13 at the other. The ratchets are engaged by pawls 14 and 15 pivotally supported by pins 16 and 17 on the vertical side-bar 81. The frame 18, in the embodiment shown in the drawings, is formed of two vertical side-bars 81 and 83 and two transverse bars or rods 84 and 85 secured by nuts 19, the side-bars 81 and 83 supporting the

bearings in which the ends of the shafts 8 and 9 rotate, while the lower transverse bar 85 is provided with a guide-pulley 42 rotating on the bar 85 and between two collars 32 fixed thereon by screws 33. On the side-bar 83 is supported a bracket 20 substantially of U-shape having its base secured to the side-bar 83 by the bolt 27, and having its two arms 21 and 28 extending inwardly between the side-bar 83 and side-bar 81 so as to have the central points of the openings which are provided therein in a line with the periphery of the gear-wheels 10 and 11. A pin 22 passes through the opening of the arms 21 and 28, and this is provided near one end with a shoulder 24 so as to limit the movement of the pin in inward direction, and provided at the other end with a key 23 so as to secure the pin in position and limit its movement in the other direction.

Located intermediately between the arms 21 and 28 of the bracket 20 is a worm 25 keyed to the pin 22 by suitable means. By removing the key 23 and withdrawing the pin 22, the worm 25 may be removed, and thus being brought out of engagement with the gears, each gear may be rotated in either direction as desired. The object of this is to permit either gear to be moved independently of the other so as to take up any inequality in the ropes, or in other words, permit a ready horizontal equalization of the scaffold or platform. The rotation of the gear of the drums may be brought about by a suitable crank-wrench engaging the square ends 30 of the shafts 8 and 9. During the equalizing rotation of the drums 6 and 7, the ratchets and pawls engaging therewith must be correspondingly manipulated to permit the desired movement.

A second part of our invention consists in the arrangement of the platform-frame. This platform-frame constitutes the scaffold proper, and is called in the trade "putlocks" or "ledgers". Hitherto, one drum was placed on the platform-frame at each side of the same and separately manipulated, or one drum was placed at each side of the platform-frame, but at the top end of the ropes, namely on the supporting-beams, which are not shown in the drawings but which are well known in the operation of these scaffold supports and to which the upper ends of the supporting ropes are secured. Our inven-

tion consists in the arrangement of the drums at one side at the platform-frame, off from the building side, and passing one of the supporting ropes under the platform-frame, namely, from one of the drums and over a pulley in proximity thereto, and then under the platform-frame and over a pulley located at the inner end of the platform-frame close to the building side. This arrangement has the great advantage of facilitating the manipulation, affording a practical arrangement of the parts, counterbalancing of weights, since the workman usually stands at the innermost or building side of the platform or scaffold, and gives additional safety since the supporting rope passes, so to say, in loop fashion under the platform. For this purpose, the ends 46 of the frame 40 are arranged substantially parallel and provided with bearing-plates 44 supporting the shaft 45 of pulley 43. Lugs 31 are provided to hold the frames in position; but other securing means may be provided. The invention therefore consists in the arrangement of the drums on the drum-supporting frame and the platform supporting frame at right angles thereto and adapted to receive the platform, with the rope, passing from the drum supporting frame to and under the platform supporting frame, guide pulleys being effectively provided.

Our scaffold has the advantage of simplicity in construction and operation and facility of installation and removal, together with safety and efficient operation.

One embodiment of our invention has been shown, but we do not wish to be understood

to limit ourselves to the same, since changes may be made therein without departing from the spirit and underlying principle of our invention.

We claim:

1. In a scaffold-support, the combination of a horizontal platform supporting frame, having a pulley wheel located at one end thereof, a drum supporting frame located entirely at the other end of the platform supporting frame, and winding mechanism on said drum-frame.

2. In a scaffold-support, the combination of a horizontal platform supporting frame, a pulley wheel located at one end of the platform supporting frame, a drum supporting frame, located entirely at the opposite end of the platform supporting frame, separately rotatable drums mounted on said drum supporting frame, and means for rotating said drums together.

3. In a scaffold-support, the combination of a horizontal platform-supporting frame, and a vertically disposed drum supporting frame secured therewith, a pair of drums mounted one above the other in the drum supporting frame, means for rotating said drums, and means for guiding a rope to one of said drums.

In testimony, that we claim the foregoing as our invention, we have signed our names in presence of two subscribing witnesses.

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