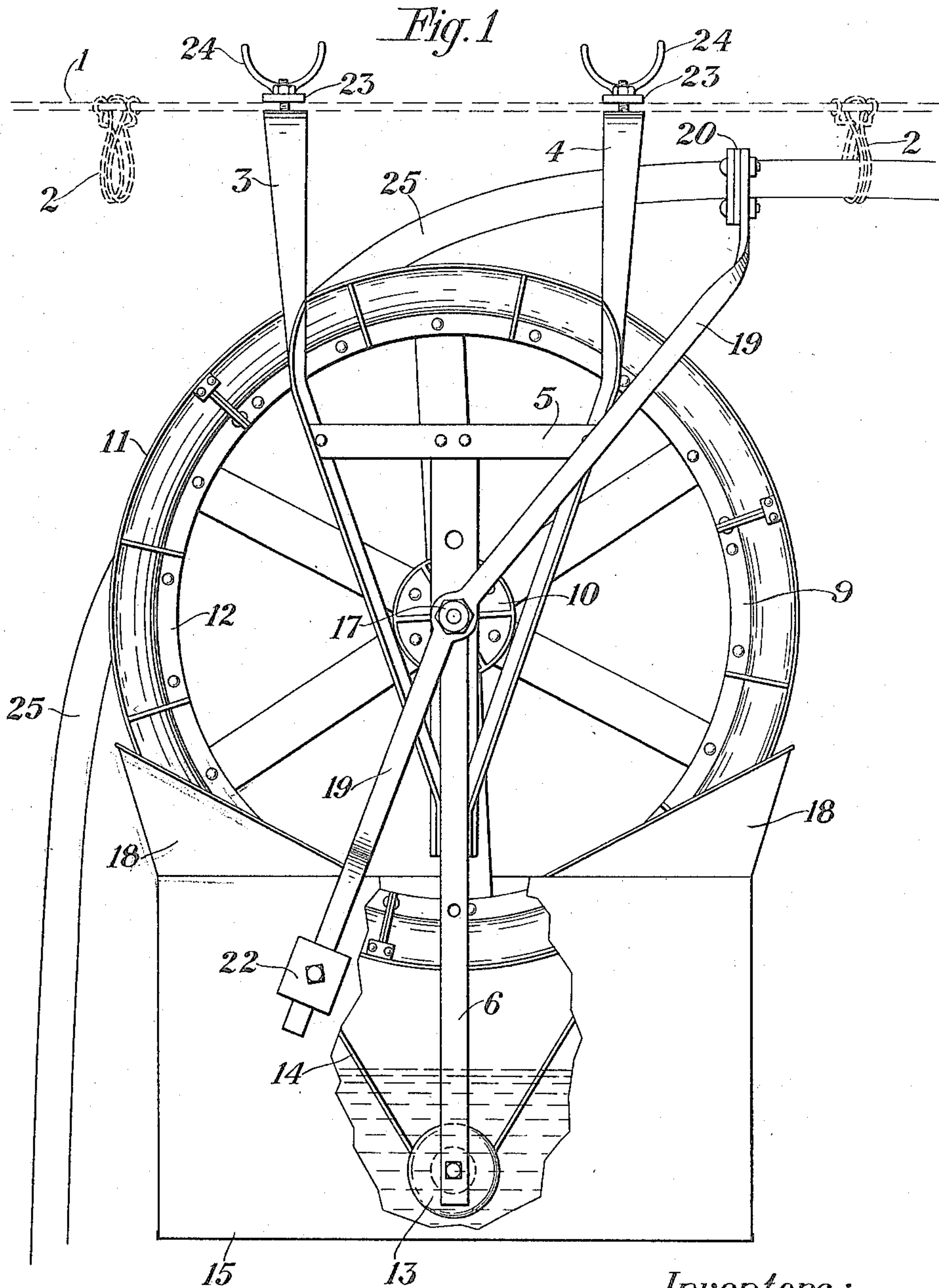


W. M. VAN DEUSEN & F. PERSSON.
CABLE LUBRICATING WHEEL.
APPLICATION FILED MAY 10, 1916.

1,207,447.

Patented Dec. 5, 1916.
2 SHEETS—SHEET 1.

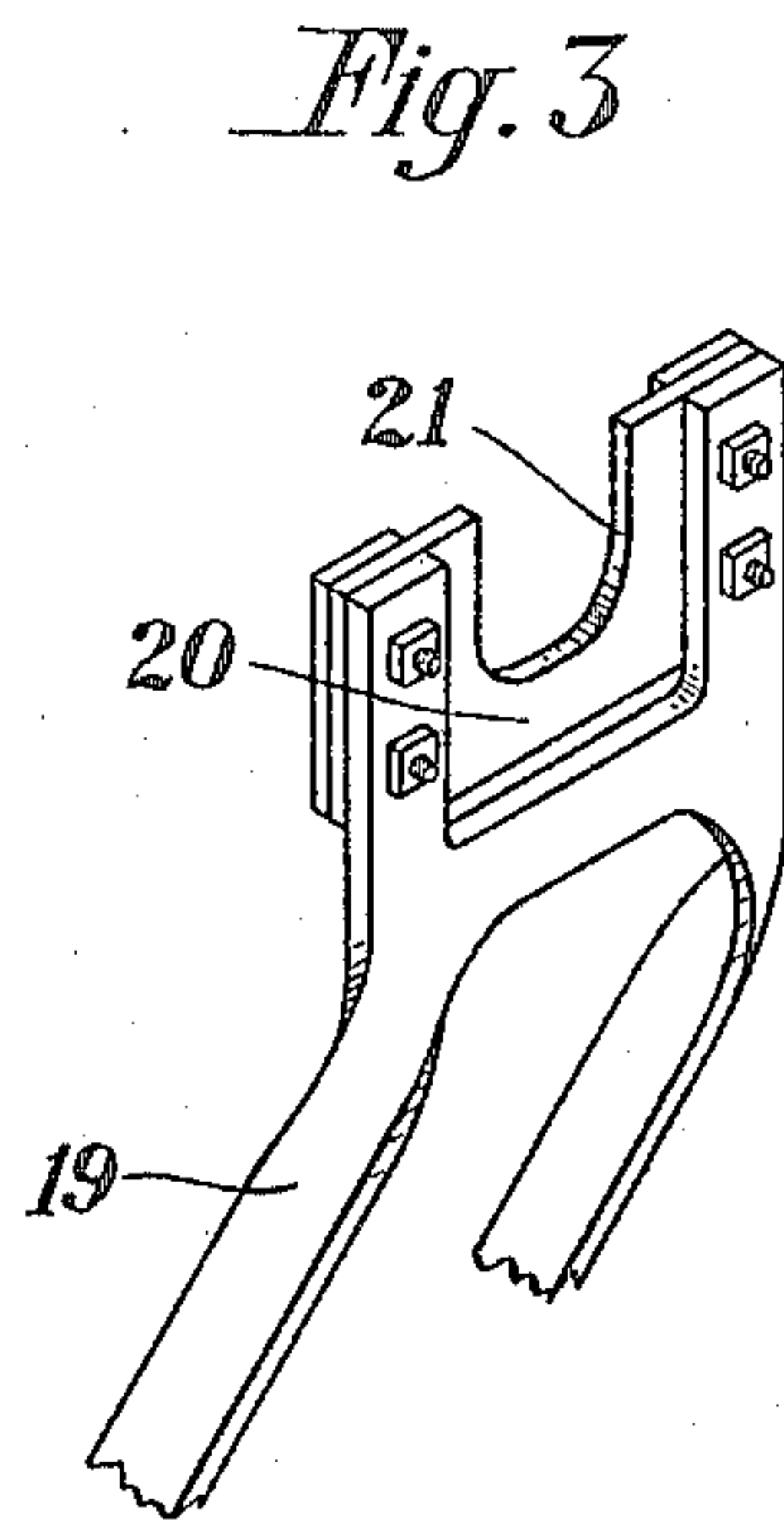
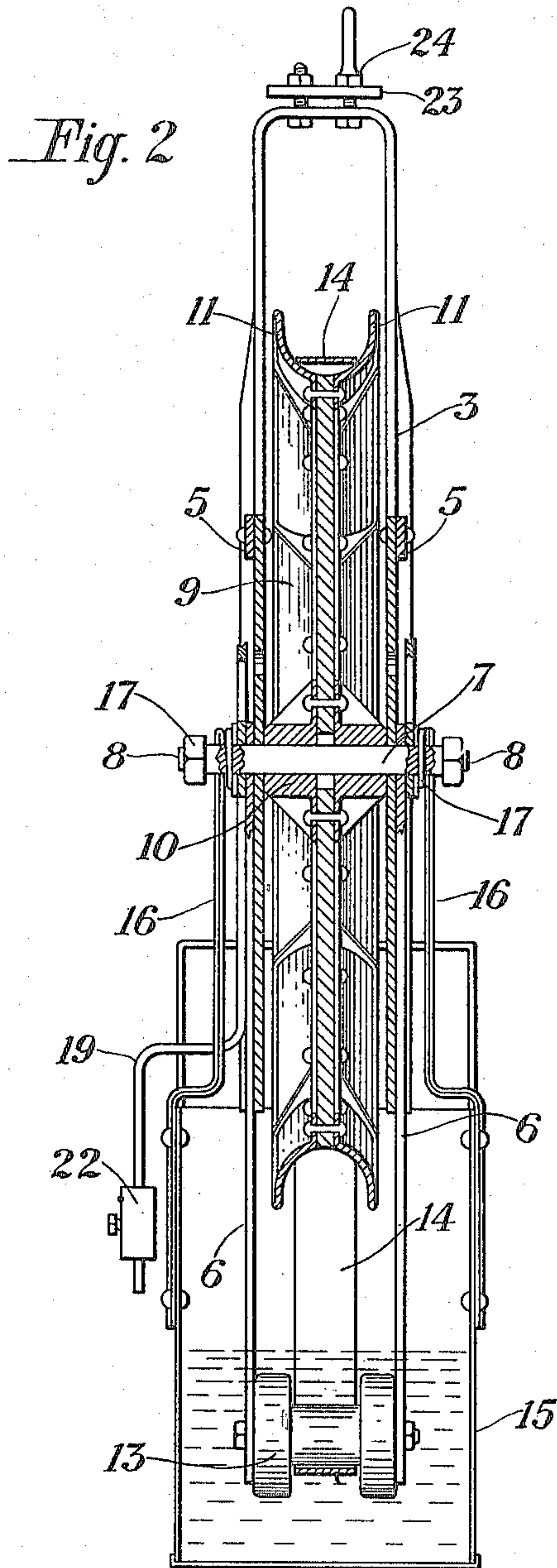


Inventors:
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per Thomas D. Lockwood
Attorney.

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Attorney.

UNITED STATES PATENT OFFICE.

WALLACE M. VAN DEUSEN AND FRANS PERSSON, OF BROOKLYN, NEW YORK, ASSIGN-
ORS TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF
NEW YORK.

CABLE-LUBRICATING WHEEL.

1,207,447.

Specification of Letters Patent.

Patented Dec. 5, 1916.

Application filed May 10, 1916. Serial No. 96,612.

To all whom it may concern:

Be it known what we, WALLACE M. VAN DEUSEN and FRANS PERSSON, residing at Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Cable-Lubricating Wheels, of which the following is a specification.

This invention relates to the art of lubrication, and more particularly to the lubrication of cables in process of installation such as the aerial cables employed for telephone and telegraph work, power transmission and other purposes.

In installing cables in aerial cable rings it is necessary, especially with the larger sized cables, to lubricate the cable with grease or oil so that it will slide easily through the rings. Heretofore the lubricant has generally been applied by a workman on the ground, who rubs the lubricant over the cable sheath as the cable comes from the reel. This invention is designed to eliminate this labor and to automatically lubricate the cable as it is installed.

The invention will be more fully understood upon reference to the accompanying drawing in which—

Figure 1 is an elevation of the cable lubricating apparatus, the pan being shown in section to more clearly disclose certain of the parts; Fig. 2 is a vertical section through the axis of the lubricating wheel, and Fig. 3 a perspective of a detail.

In the drawing 1 represents the messenger strand which carries the cable supporting rings 2 commonly employed in suspending telephone cables. The lubricating apparatus proper comprises a main frame consisting of a pair of elongated U shaped supports 3 and 4, (see Fig. 2) which are arranged as shown in Fig. 1, to form the legs of a V. A pair of spreader bars 5 are riveted to the U shaped supports for the purpose of holding the legs of the V spread apart at the top. A pair of vertical members 6 extend from the center of each spreader bar, down to a point somewhat below the apex of the V, and are securely riveted to the spreader bar and to the junction of the lower ends of the legs of the V.

A suitable pintle 7 is secured to the vertical members 6 about midway between the spreader bars and the apex of the V. This pintle is provided with extensions 8, which project to the outside of the vertical mem-

bers for a purpose hereinafter set forth. Upon the pintle 7 is rotatably mounted the main lubricating wheel 9. This wheel comprises a hub 10 from which suitable spokes radiate, and to the outer ends of the spokes is riveted the rim of the wheel, which is shown as being V shaped in cross section, and constructed of two flanged members 11, each riveted to the ends of the spokes and to filler members 12 between the ends of the spokes.

A grooved pulley 13 is pivotally mounted between the lower ends of the vertical members 6 of the main frame and a belt 14 of canvas or other suitable material is arranged to pass over the lubricating wheel 9 and the grooved pulley 13, the groove of the pulley and the side flanges of the V shaped rim of the lubricating wheel retaining the belt in position.

To hold the lubricant an elongated pan or tank 15 is provided, and supporting members 16 are riveted to each side thereof, said supporting members, (which are provided with suitable holes in their upper ends) being adapted to be "sprung" over the extensions 8 of the pintle 7, and secured in position by suitable nuts 17 so that the pan may swing freely from the main frame. The pan when in position envelops the pulley 13 and the lower portion of the main lubricating wheel 9, and is provided at its ends with flared extensions 18 which are carried part way up the circumference of the wheel, in order to catch any lubricant which may drip from the sides of the wheel. An arm 19 may also be pivotally mounted upon one of the extensions 8 of the pintle, said arm being provided at its upper end with a suitable strip or pad of felt or other material 20 having a notch 21 cut in it and adapted to engage the cable which in operation is passed over the lubricating wheel 9. Upon the other end of the arm a counterpoising weight 22 may be placed. This weight should be just heavy enough to cause the strip of felt to press lightly against the under surface of the cable so that the felt distributes the lubricant over the sheaths of the cable and wipes off any excess. At the same time, on account of the balance of the arm, the end is free to move in a vertical direction so that it can follow any bends or irregularities in the cable.

In operation the lubricating apparatus is

secured to the messenger strand 1 by means of clamping members 23, attached to the upper ends of the legs of the V shaped frame, and held in clamping position by wing nuts 24 or equivalent means. The cable 25 as it comes from the usual reel is passed over the lubricating wheel 9, (which is made of relatively large diameter to afford an easy bend for the cable) and is then threaded through the cable hanging rings 2. As the cable moves along, the lubricating wheel 9 is rotated so that the canvas belt 14 is carried over the pulley 13, which is immersed in the oil in the pan 15, and carries oil up over the rim of the wheel 9, so that a certain amount of the lubricant adheres to the sheath of the cable. As the cable passes off from the lubricating wheel 9 the felt pad 20 rests lightly against the under surface thereof and distributes the oil evenly over the sheath, at the same time wiping off any excess, which is allowed to run down the arm 19 and drip back into the pan.

It will thus be seen that the instrumentality herein disclosed provides a means to lubricate the cable as it is hung, without any labor upon the part of the workmen other than that incidental to the hanging of the cable itself.

While for purposes of illustration the apparatus has been shown as embodied in a particular form, it will be understood that it is capable of other and widely different embodiments within the scope of the appended claims.

What we claim is:—

1. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted upon the main frame, said wheel being rotated by the cable to carry

lubricant from the container and deposit it upon the cable, and means pivotally mounted upon the frame to spread the lubricant over the cable and wipe off the excess.

2. A cable lubricating apparatus, comprising a main frame, a lubricant container pivotally suspended from said frame, a wheel pivotally mounted upon the frame at a point external to said container, said container being provided with flared extensions to partially inclose said wheel.

3. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted on the main frame, said wheel being rotated by the cable to carry lubricant from the container and deposit it upon the cable, and an arm pivotally mounted on the container and bearing against the cable to spread the lubricant and remove the excess.

4. A cable lubricating apparatus, comprising a main frame, a lubricant container attached to the main frame, a wheel pivotally mounted on the main frame, said wheel being rotated by the cable to carry lubricant from the container and deposit it upon the cable, an arm carrying a wiper pivotally mounted on the container and means to hold said wiper against the cable to spread the lubricant and remove the excess.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses this 6th day of May, 1916.

WALLACE M. VAN DEUSEN.
FRANS PERSSON.

Witnesses:

RALPH W. WOLF,
FRED'K S. ROBINSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."