

(No Model.)

W. PHENIX.

OILING AND ADJUSTING DEVICE FOR CABLE SHEAVES.

No. 415,792

Patented Nov. 26, 1889.

Fig. 1.

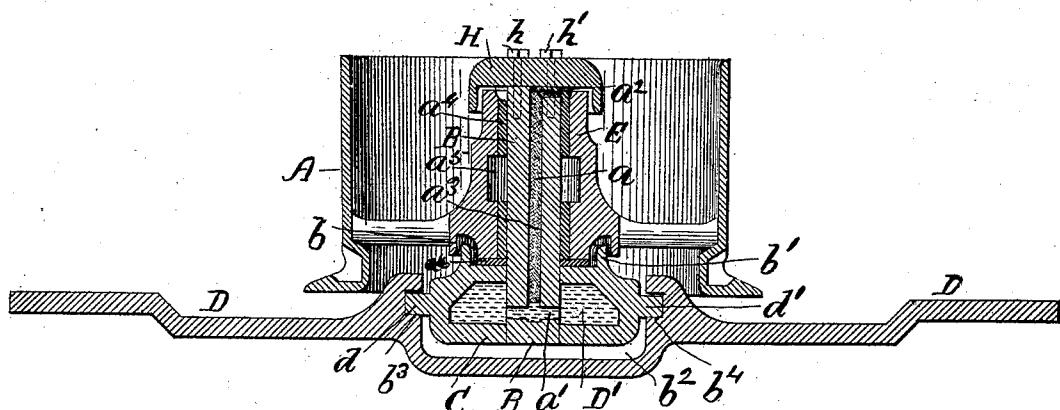
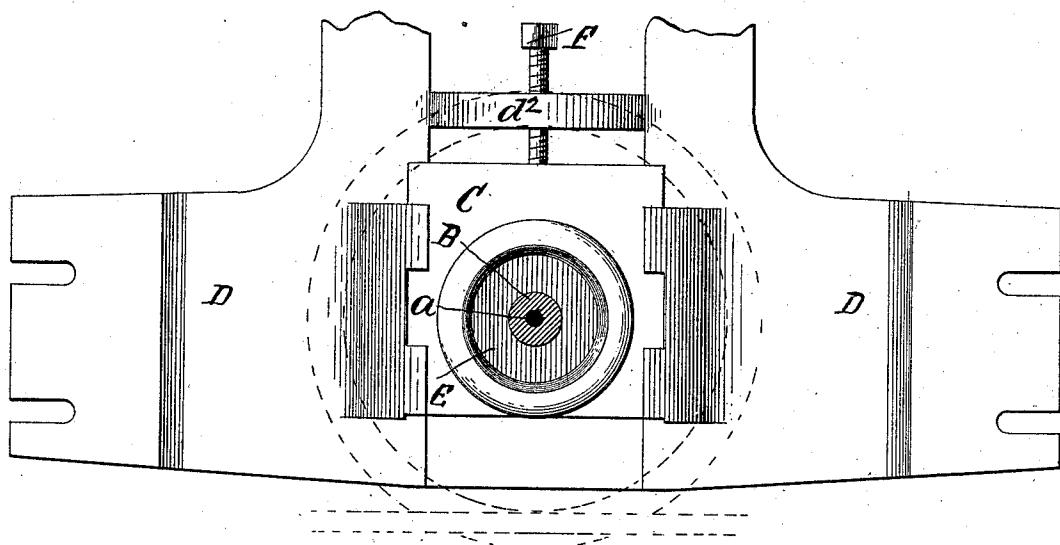


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM PHENIX, OF CHICAGO, ILLINOIS.

## OILING AND ADJUSTING DEVICE FOR CABLE-SHEAVES.

SPECIFICATION forming part of Letters Patent No. 415,792, dated November 26, 1889.

Application filed March 8, 1889. Serial No. 302,504. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PHENIX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in an Oiling and Adjusting Device for Cable-Sheaves, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of this invention is to provide a combined oiling and adjusting device for sheaves rotating in a horizontal position and arranged in a curved plane for the purpose of carrying or guiding traction-cables around curves.

Figure 1 is a vertical section of a sheave and supporting-base embodying my improved features, and Fig. 2 a plan with the sheave removed.

Referring to the drawings, A represents a sheave loosely mounted on the vertical stationary shaft or axle B. The lower end of this shaft is rigidly secured in the slide-block C, which is adjustably inserted in the stationary bed-plate or frame D. The shaft B is provided longitudinally with the aperture or central oil-passage a, starting in from the upper end and stopping just short of the lower end and terminating in the intersecting aperture a', passing horizontally through the shaft, as shown in Fig. 2. The transverse aperture a' opens into the oil chamber or reservoir D', formed in the slide-block C. The upper end of the shaft is provided with the horizontal groove a<sup>2</sup>, extending across from the vertical oil-passage to the periphery. A wick a<sup>3</sup> is inserted in the vertical oil-passage in the shaft and in the groove a<sup>2</sup> for the purpose of conducting the oil by capillary attraction to the sheave-bearings, and thus providing a continuous lubrication.

E represents the hub of the sheave, and a<sup>4</sup> the bearing-box, of Babbitt metal or other suitable material. The hub is provided with the annular oil-pocket a<sup>5</sup>, which forms an auxiliary reservoir for the lubricant fed from above, and assists in maintaining a continuous lubrication. The lower end of the sheave-hub rests on the bearing a<sup>6</sup>, placed in the up-

per cupped side of the slide-block C. The lower end of the hub is also provided with the annular groove b for the reception of the vertical rim b', formed on the slide C and loosely engaging with said groove, whereby the sheave is caused to follow the adjustment of the slide. 55

The bed-plate D is provided with the recess b<sup>2</sup> for the reception of the slide-block. This plate is also provided with rectangular grooves b<sup>3</sup> b<sup>4</sup>, into which the corresponding ribs d d', formed on the slide-block, loosely fit, thus providing for the required adjustment.

F is an adjusting-screw having a threaded engagement in the lug d<sup>2</sup>, formed on the bed-plate. The inner end of this screw bears against the end of the slide-block, whereby said block may be adjusted to bring the sheaves into line with reference to each other 70 and the line of the cable, the relative position of the cable being indicated in dotted lines.

The overhanging cup-shaped cap H is removably secured to the upper end of the shaft by tap-bolts h h', and serves the purpose of 75 excluding the dust and dirt from the oil-chamber and bearing-surfaces.

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

1. The combination of a sheave, a stationary shaft having a transverse groove in the upper end and provided longitudinally and centrally with an aperture or oil-passage starting in from the upper end and stopping short 85 of the lower end, and the intersecting horizontal aperture opening into the oil-chamber in the slide-block, said slide-block, and the wick for conducting the oil to the parts to be lubricated, substantially as and for the purpose set forth.

2. The combination, with an adjustable slide-block provided interiorly with an oil-chamber, of the sheave-shaft having the lower end fixed in said slide and provided with oil-passages, as described, and the wick for conducting the oil from said chamber to the parts to be lubricated, substantially as and for the purpose set forth. 95

3. The combination, with a vertical stationary shaft, of a sheave loosely mounted thereon, the adjustable slide-block provided interiorly with an oil-chamber, said axle-shaft having oil-passages communicating with said cham- 100

ber, the wicking for conducting the oil, and the bed-plate in which said slide is adjustably inserted, substantially as and for the purpose set forth.

5 4. The combination, with the bed-plate, of a slide-block adjustably secured in said plate and provided interiorly with an oil-chamber, the adjusting-screw, the shaft having the lower end rigidly fixed in said slide and passing through said oil-chamber and provided

with oil-passages communicating therewith, the wicking inserted in said oil-passages, the sheave loosely mounted on said shaft, and the overhanging cap removably secured to the upper end of the axle-shaft, all substantially as and for the purpose set forth.

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Witnesses:

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