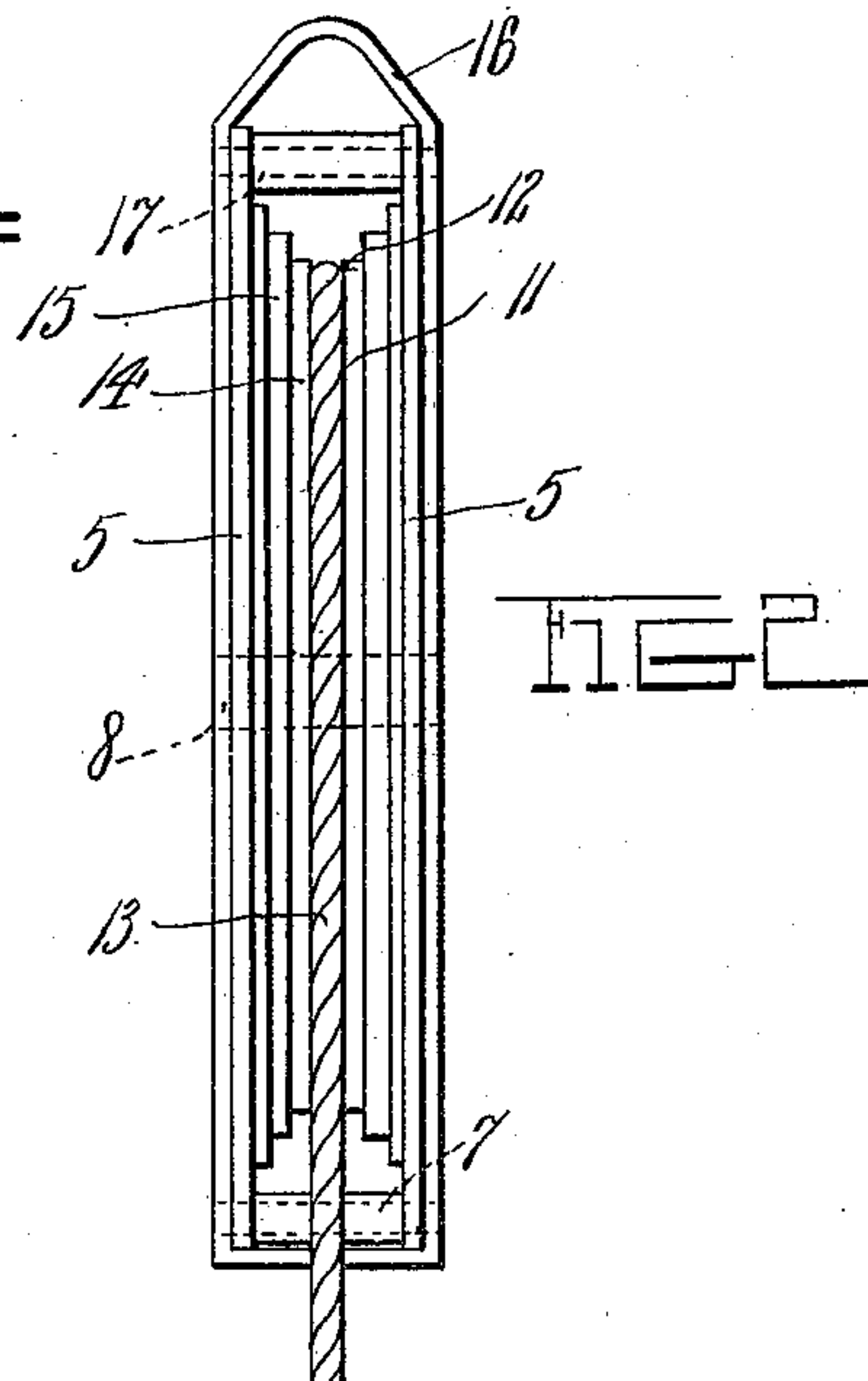
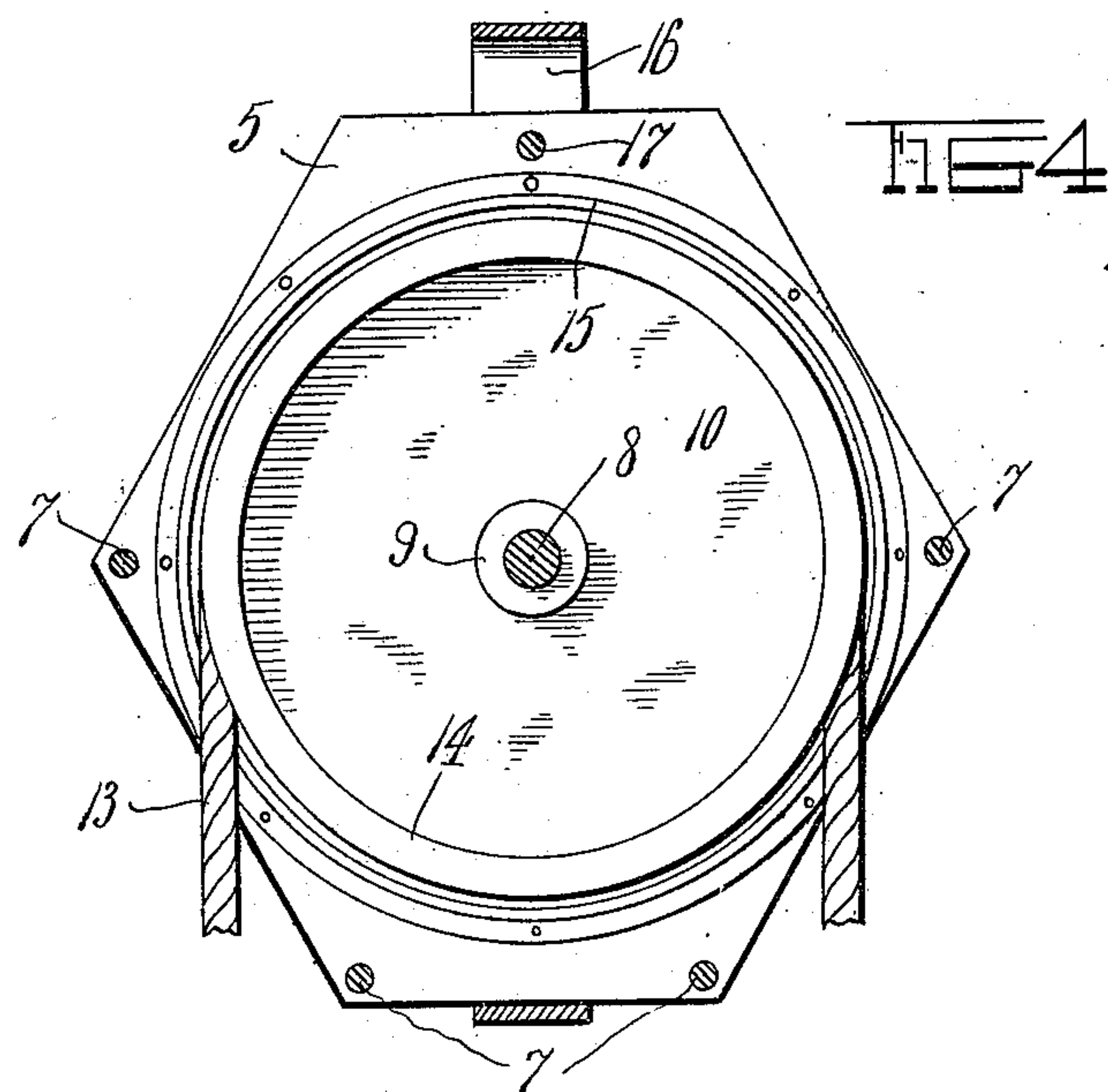
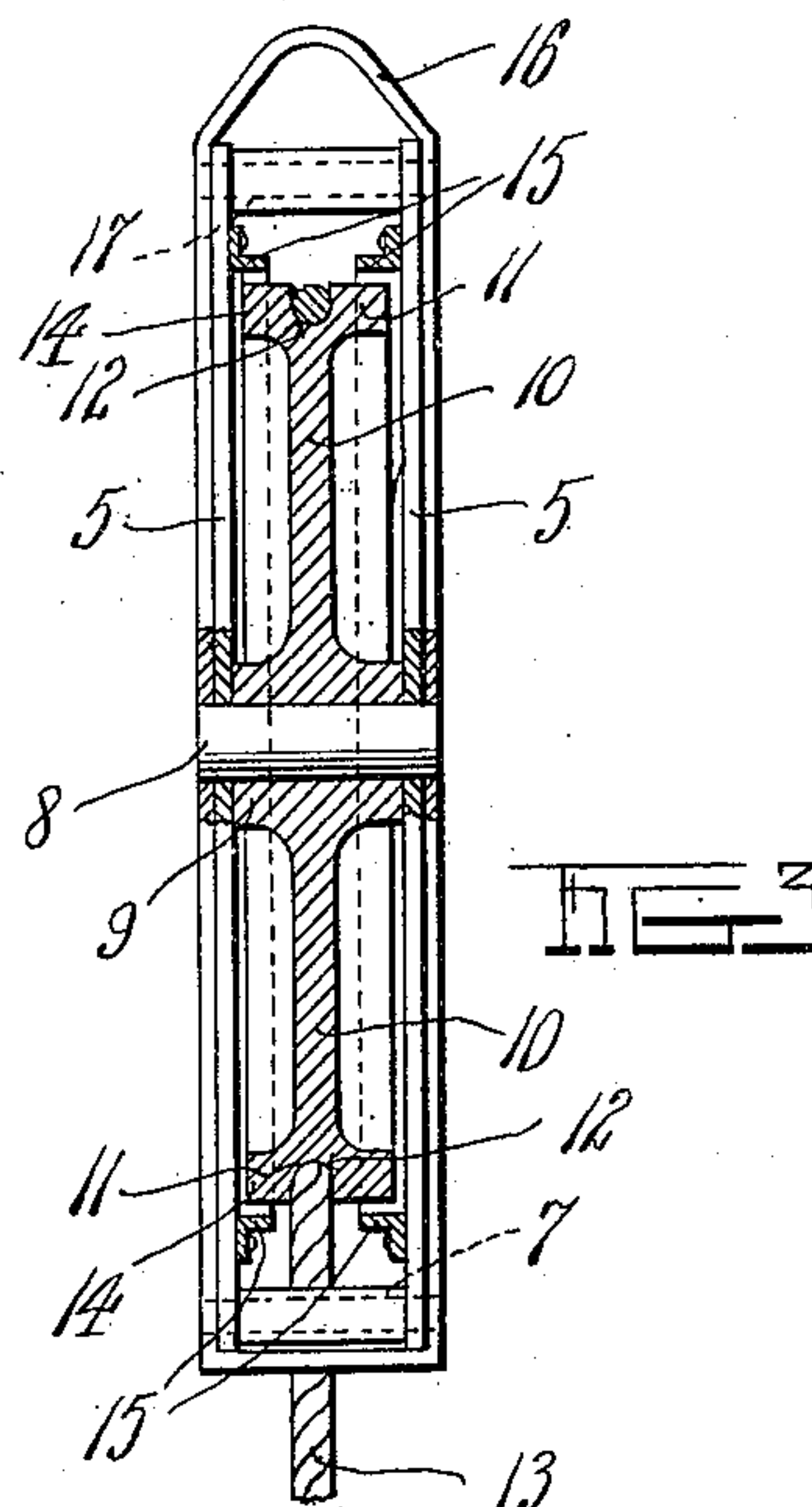
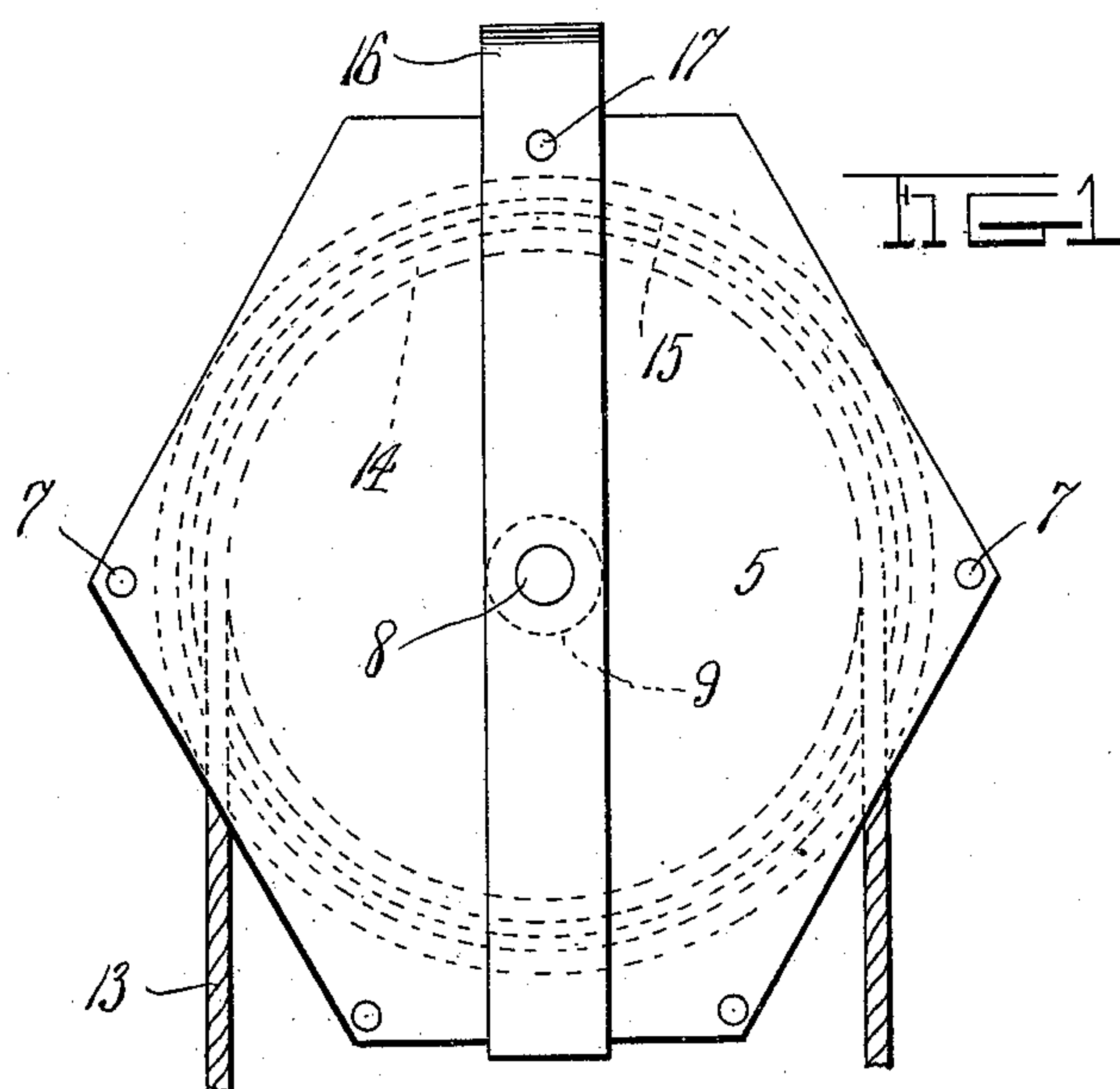


W. D. LOCKWOOD.  
SAFETY SHEAVE.  
APPLICATION FILED SEPT. 9, 1908.

975,052.

Patented Nov. 8, 1910.



Witnesses  
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Attorneys



# UNITED STATES PATENT OFFICE.

WILLARD D. LOCKWOOD, OF SCHENECTADY, NEW YORK.

SAFETY-SHEAVE.

975,052.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed September 9, 1908. Serial No. 452,314.

*To all whom it may concern:*

Be it known that I, WILLARD D. LOCKWOOD, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Safety-Sheaves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to safety sheaves and more particularly to the class of sheaves having a shell or casing in which the sheave is rotatably mounted.

The primary object of the invention is the provision of a safety sheave comprising a grooved pulley, a shell or casing having spaced side cheeks formed with inwardly directed annular flanges which project over the sheave at its rim portion to prevent a cable trained over the pulley or sheave from riding the same or jamming between the said cheeks and the pulley or sheave.

A further object of the invention is the provision of a safety sheave having means for maintaining a cable or rope trained thereover from riding the said sheave or jamming the same.

A still further object of the invention is the provision of a safety sheave of simple construction, durable, efficient and inexpensive in the manufacture.

With these and other objects in view the invention for example consists in the novel construction, combination and arrangement of parts, substantially as hereinafter fully described, illustrated in the accompanying drawings and claimed. However, it is to be understood that changes, variations and modifications may be made such as come properly within the scope of the claim hereunto appended without departing from the spirit of the invention.

In the drawings: Figure 1 is a side elevation of the invention. Fig. 2 is an end view thereof. Fig. 3 is a transverse sectional view. Fig. 4 is a vertical longitudinal sectional view through the shell or casing.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings the numeral 5 designates spaced cheek plates which are preferably of corresponding hexagonal shape although the same may be of any other desirable shape

and are held in their spaced parallel relation by spacer sleeves mounted between the same and circumferentially thereof and through which sleeves and the cheek plates pass bolt fasteners or rivets 7 which unite the said plates to form a shell or casing. Journaled centrally transversely in the said cheek plates 5 is a pin or spindle 8 which latter supports a pulley or sheave comprising a hub 9 formed with a web 10 terminating in an annular rim 11 containing throughout its periphery a groove 12 receiving a rope or cable 13 trained over the said pulley or sheave. The said rim 11 on opposite sides of the groove 12 therein is formed with laterally projecting flanges 14 which protrude in close proximity to the inner faces of the cheek plates 5 of the shell or casing. Secured to the inner faces of the cheek plates 5 are annular inwardly projecting flanges 15 arranged in close proximity to the rim 11 of the sheave or pulley and lying a distance over the laterally projecting flanges 14 thereof so as to prevent the cable 13 riding the sheave or pulley by disengaging the groove 12 therein and also to overcome the liability of the said cable running off of the sheave or pulley and entering between the same and the cheek plates to jam the said sheave or pulley and thereby prevent the rotation of the same within the shell or casing.

Extending centrally across the outer faces of the cheek plates is a yoke hanger strap 16 the same secured to the said cheek plates by fasteners 17 and which hanger strap serves as a means whereby the sheave or pulley can be suspended when in use. The said hanger strap 16 is provided with suitable openings to accommodate the pin or spindle 8 journaled in the cheek plates forming the casing or shell for the sheave.

With reference to Fig. 2 of the drawings it will be noted that the annular flanges 15 are formed of angle bars so that each present two steps while the periphery of the wheel forms a third step and the bottom of the groove of the wheel that receives the cable, the final step. By reason of the abrupt vertical faces of these steps there is little liability of the cable climbing out of the groove of the wheel while should it so climb, it will pass readily from one step to another back to the groove of the wheel.

With reference to Fig. 4, it will be noted that the free edges of the inwardly projecting portions of the angle bars are traversed



transversely by the cable as it enters and leaves the pulley so that they serve to prevent dislodgment of the cable to a marked degree.

5 What is claimed is—

As an article of manufacture, a sheave comprising spaced cheek plates and a connecting spindle, a wheel carried by the spindle and rotatably fitted between the  
10 cheek plates, the periphery of the wheel having a journal intermediate the ends of the wheel, an annular angle bar secured against the inner face of each cheek plate concentric with the wheel and each closely encircling  
15 an end portion of the periphery of the wheel

and terminating short of the groove of the wheel to form a step, each of said angle bars having that portion that is secured to the corresponding cheek plate, directed from the wheel encircling portion away from the  
20 wheel, whereby a succession of steps from each cheek plate to the bottom of the groove of the wheel is provided and suspending means connected with the cheek plates.

In testimony whereof, I affix my signature, in presence of two witnesses. 25

WILLARD D. LOCKWOOD.

Witnesses:

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