

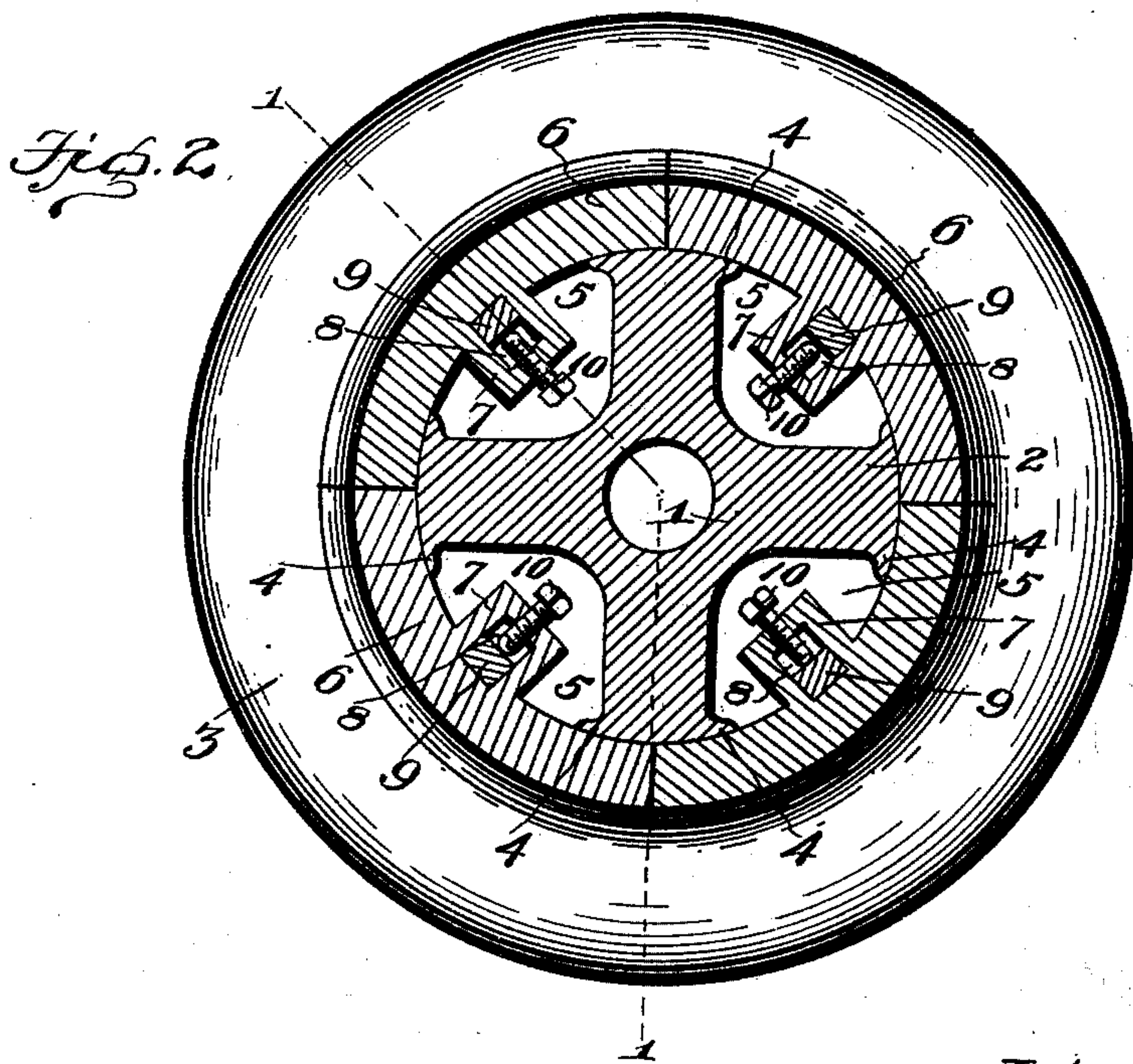
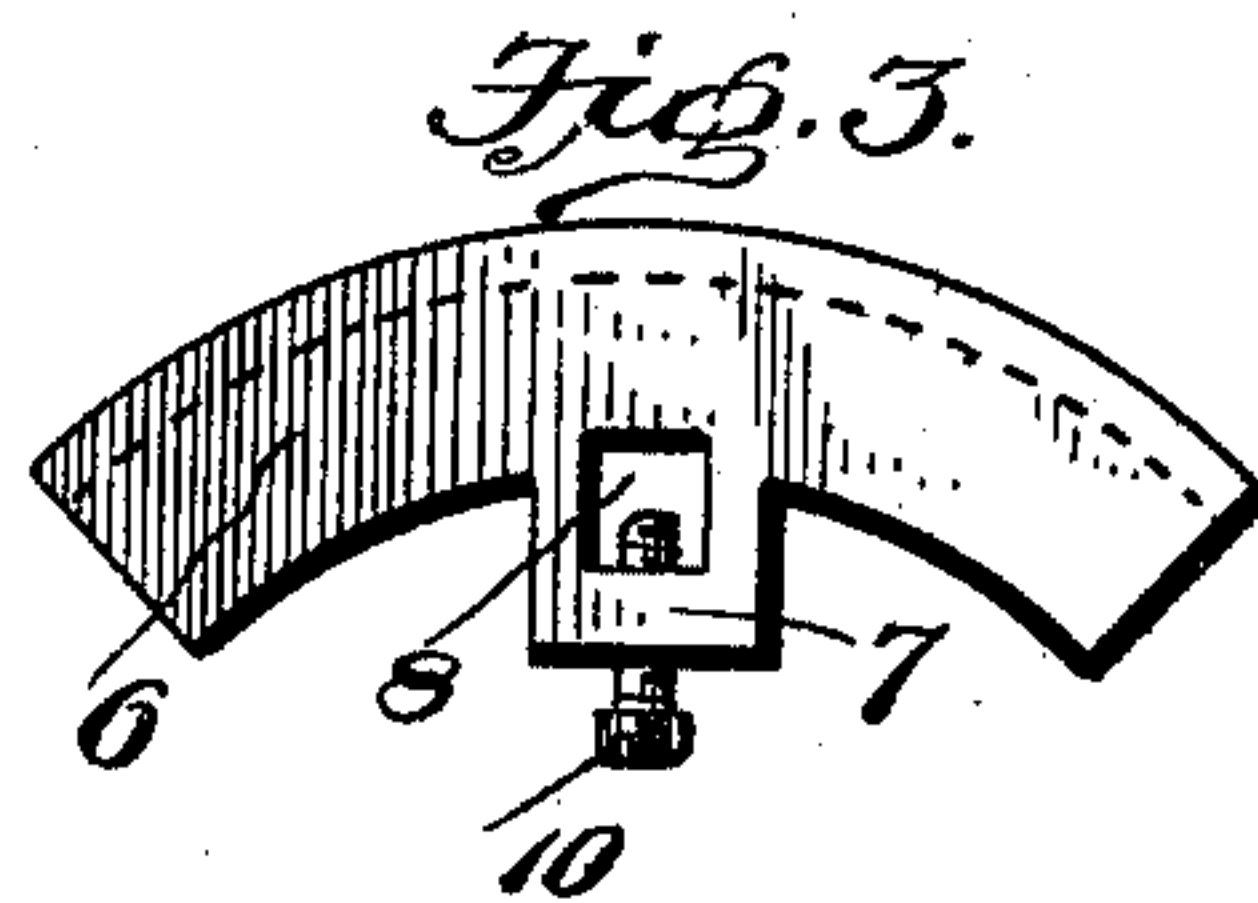
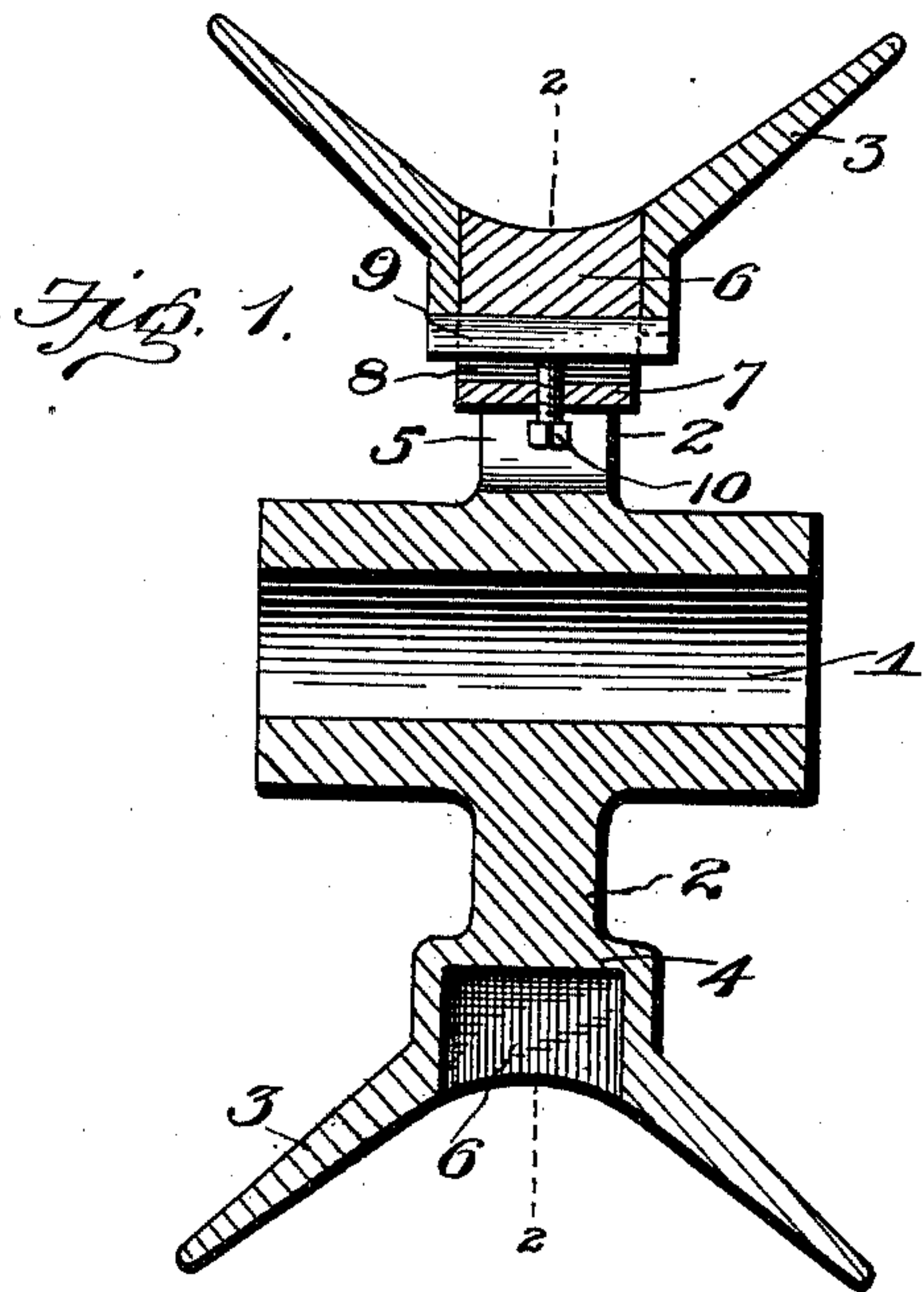
No. 670,756.

Patented Mar. 26, 1901.

J. R. BALL.  
SHEAVE.

(Application filed Dec. 20, 1900.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN R. BALL, OF DURANGO, COLORADO, ASSIGNOR TO THE BALL-HANNO  
MACHINE WORKS.

## SHEAVE.

SPECIFICATION forming part of Letters Patent No. 670,756, dated March 26, 1901.

Application filed December 20, 1900. Serial No. 40,558. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. BALL, a citizen of the United States, residing at Durango, in the county of La Plata and State of Colorado, have invented certain new and useful Improvements in Sheaves; and I do 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.

This invention relates to improvements in sheaves, and particularly to an improved sheave of the type used in aerial tramways.

The sheave-wheels now in general use are solid wheels and have a rim-groove in which the cable runs. When the rim of the sheave becomes worn out, which happens in a comparatively short period of time, the entire sheave is useless and has to be thrown away.

The object of my invention is to provide a sheave having detachable rim-sections which receive the wear and are readily replaceable, thus obviating the necessity of throwing away the body of the sheave when the rim portion becomes worn and rendering the use of such sheaves materially less expensive.

To this end the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be herein- after more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a vertical transverse section, on line 1 1 of Fig. 2, of a sheave embodying my invention. Fig. 2 is a vertical section taken at right angles to that shown in Fig. 1 and on the line 2 2 of said figure. Fig. 3 is a detail view of one of the rim-segments.

The numeral 1 in the drawings designates the hub or sleeve of the sheave, which is provided, as usual, with the radial arms 2, by which the grooved rim and guard-flanges 3 are ordinarily carried, the whole being integrally formed in a single casting.

Instead of forming a grooved rim portion

around the inner circumference of the guard-flanges I connect the flanges to the arms by short webs 4 only at their points of intersection and provide spaces or slots 5 between said webs for the reception of grooved rim-segments 6, which rest at their ends upon the webs and sustain the wear caused by the action of the cable and usually received by the ordinary fixed rim. These rim-segments, of which any desired number may be employed, are provided upon their inner sides with lugs 7, having transverse slots 8 to receive keys 9, bearing upon the inner edges of the sides of the rim and holding the segments in position. These lugs also carry set-screws 10, which are adapted to engage and hold the keys in place, thus locking the parts firmly together. It will be seen that by this construction the rim-segments sustain practically all the wear on the wheel and when worn so as to be unfit for further use may be readily detached and new segments substituted therefor. Thus the body of the sheave may be used indefinitely and considerable saving in the use of sheaves of this character effected.

The invention is of course susceptible in application to pulleys and sheaves generally.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

A sheave or pulley provided with rim-slots, rim-segments occupying said slots and having lugs provided with transverse slots and set-screws, and keys fitting in said slots and bearing against the inner circumference of the rim and held by said set-screws; substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN R. BALL.

Witnesses:

C. A. PIKE,  
I. G. PRICE.