Oct. 26, 1926. 1,604,192

F. M. PARKER

HOISTING DRUM

Filed Jan. 9, 1926

Fig. 1.

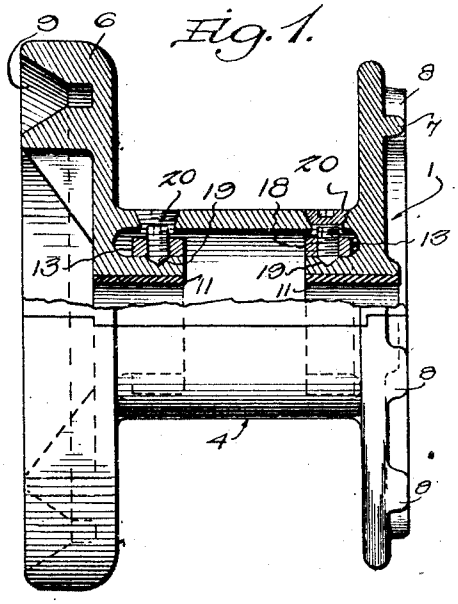


Fig. 2.

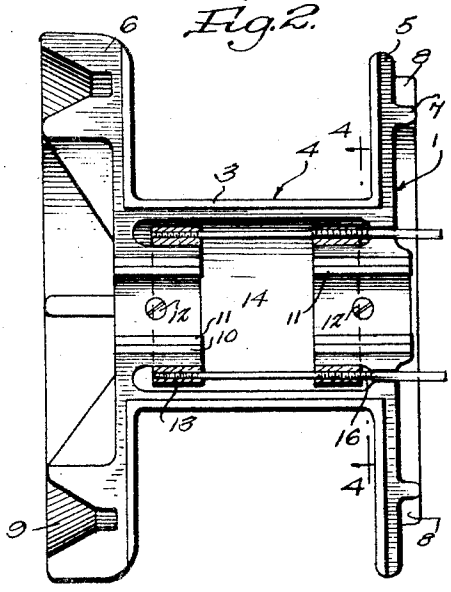


Fig. 3.

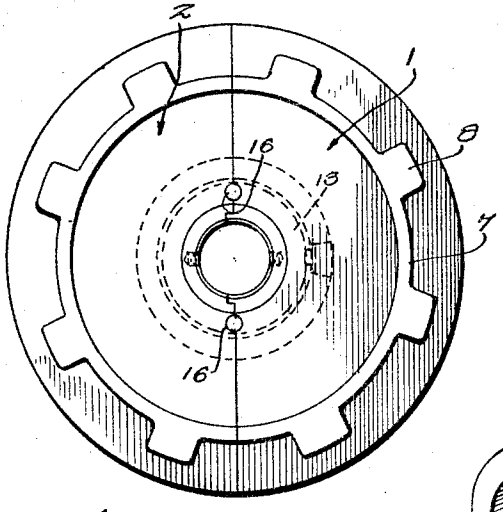


Fig. 4.

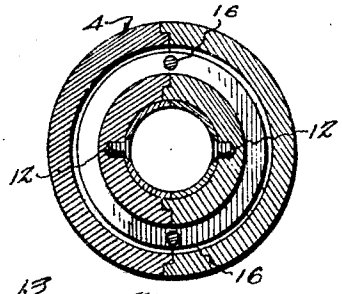
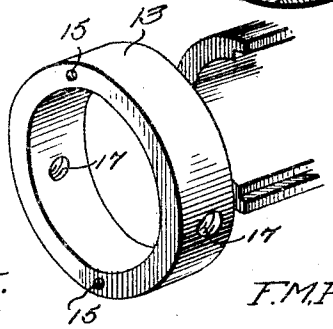


Fig. 5.



Inventor

F. M. PARKER

By C. M. Parker

Attorney

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UNITED STATES PATENT OFFICE.

FRANK M. PARKER, OF NORFOLK, VIRGINIA, ASSIGNOR OF ONE-HALF TO HERBERT R. LEONARD, OF NORFOLK, VIRGINIA.

HOISTING DRUM.

Application filed January 9, 1926. Serial No. 80,281.

This invention relates to hoisting drums and more particularly to removable hoisting drums.

An object of the invention is to provide a drum formed of two complementary sections which may be readily assembled on a shaft and disassembled.

An object of the invention is the provision of a drum in which any of the parts may be readily replaced without disassembling the entire structure from the shaft.

A further object of the invention is the provision of a hoisting drum in which the sections of the drum are retained in position by retaining rings.

In the accompanying drawings I have shown one embodiment of the invention. In this showing,—

Figure 1 is a front elevation of the assembled drum, parts being shown in section,

Figure 2 is a similar view of one section of the drum showing the retaining rings in section,

Figure 3 is an end elevation,

Figure 4 is a vertical sectional view on line 4—4 of Figure 2, and,

Figure 5 is a perspective view of one of the retaining rings and the adjacent portion of the hub of the drum.

Referring to the drawings the drum is formed in two complementary sections 1 and 2, being split or separated longitudinally as shown. The contacting faces of the two sections are provided with interlocking grooves and ribs as shown in Figures 3 and 4 of the drawings. The male section is provided with a rib 3 adapted to be received in a similar groove of the female section. As shown the drum consists of a cylinder or sleeve 4 having disks 5 and 6 formed at its opposite ends. The disk 5 is provided with an annular rib 7 having spaced lugs 8 adapted to be engaged by a suitable dog (not shown) to retain the drum in a desired position. The disk 6 is provided with a brake groove 9 of the usual construction.

To retain the two sections of the drum in assembled position I provide each section with an inner sleeve 10 adjacent each end which sleeves are of substantially the same diameter as the shaft (not shown) and serve as bearing members. As shown, a bushing 11 may be arranged within each of the sleeves and these bushings are split (see Figure 4) in the same manner as the sleeve and drum. Each section of the bushing is retained in position by means of a set screw 12. When the two halves of the drum are assembled the sleeves 10 are spaced from each other as shown in Figure 1 of the drawings. Prior to the assembly of the two halves a pair of retaining rings 13 are arranged in the central space 14. These retaining rings are provided with longitudinally extending threaded openings 15 (see Figure 5) and one of the end disks of the drum is provided with openings in alinement therewith. The openings 15 in the ring adjacent the disk provided with the openings are slightly larger than the openings in the other ring. The retaining rings are provided with radial threaded openings 17 adapted to receive set screws 18 which extend into depressions 19 in the faces of the sleeves 10. These set screws may be passed through openings in the main cylinder 4 of the drum and the openings then closed by pipe plugs 20.

The advantages of the construction will be apparent from the foregoing description. By providing the drum formed of two sections it may readily be assembled at any point on a shaft without driving the shaft through the drum from one end. It also permits more ready removal of a worn or broken part for replacement and permits the friction blocks of the brake to be renewed without removing the drum from the shaft. When the drum is to be assembled the retaining rings are first arranged in the space 14. A threaded rod 16 of the same diameter as the opening 15 in the retaining ring to the left in Figures 1 and 2 is passed through the opening in the disk and the opening 15 in the ring to the right. It is then threaded into the opening in the left ring and the ring forced over the sleeve. The set screw 18 is then passed through the opening in the cylinder into the radial opening 17 to retain the ring in operative position. The rod is then removed and a larger rod inserted in the opening in the other retaining ring to permit it to be arranged in its proper position in a similar manner. In Fig. 2 of the drawings I have shown a pair of threaded rods 16 in position. When the assembly is completed the rods are removed as shown in Figure 1.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape,

size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. A drum comprising a pair of semicylindrical members, semicylindrical bearing members formed within each of said members, and retaining rings adapted to be arranged within said drum and moved longitudinally over said bearing members to retain said drum in assembled position.

2. A drum comprising a pair of complementary sections, each of said sections being provided with an inner semicircular sleeve, and a retaining ring adapted to be arranged within said drum and moved longitudinally to embrace said sleeve sections and retain said drum in assembled position.

3. A drum comprising a pair of complementary sections, each of said sections being provided with inner semicircular sleeves, and retaining rings adapted to be arranged within said drum and moved longitudinally to embrace said sleeve sections and retain said drum in assembled position, said rings being provided with longitudinally extending threaded openings, the ends of said drum being provided with openings in alinement therewith, whereby threaded rods may be passed through said alined openings to position said retaining rings on said sleeve sections.

4. A drum comprising a pair of semicylindrical members, each of said members being provided with a semicircular plate on each end adapted to form disks when the drum is assembled, sleeves carried by said disks within said drum, the inner ends of said sleeves being spaced from each other, and retaining rings within said drum adapted to be moved longitudinally on said sleeves to retain said drum in assembled position.

5. A drum comprising a pair of semicylindrical members, each of said members being provided with a semicircular plate on each end adapted to form disks when the drum is assembled, sleeves carried by said disks within said drum, the inner ends of said sleeves being spaced from each other, retaining rings within said drum adapted to be moved longitudinally on said sleeves to retain said drum in assembled position, and means for retaining said rings on said sleeves.

6. A drum comprising a pair of semicylindrical members, each of said members being provided with a semicircular plate on each end adapted to form disks when the drum is assembled, sleeves carried by said disks within said drum, the inner ends of said sleeves being spaced from each other, and retaining rings within said drum adapted to be moved longitudinally on said sleeves to retain said drum in assembled position, said rings being provided with longitudinally extending openings, said disks being provided with openings in alinement therewith, whereby threaded rods may be passed through said openings to position said rings on said sleeves.

In testimony whereof I affix my signature

FRANK M. PARKER.