J. F. OREY.

DIVISIBLE SHAFT COLLAR.

APPLICATION FILED AUG. 3, 1915.

1,201,863. Patented Oct. 17, 1916.

Fig. 1.

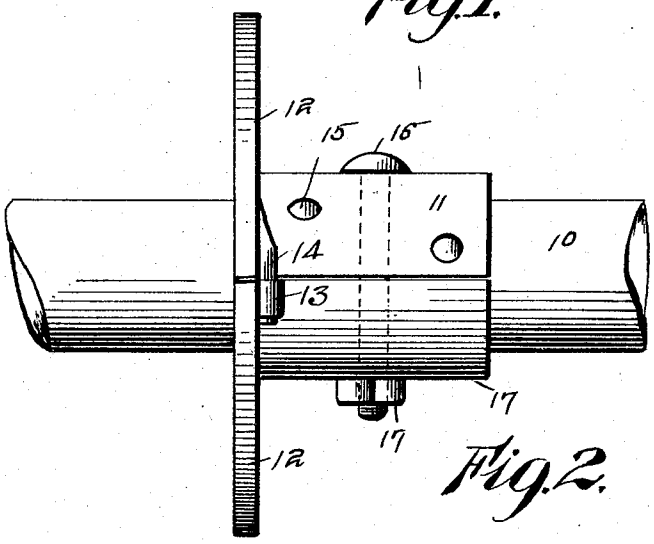
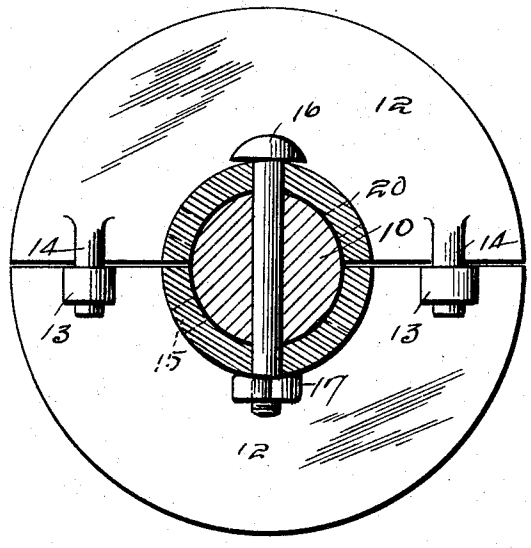


Fig. 2.



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UNITED STATES PATENT OFFICE.

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DIVISIBLE SHAFT-COLLAR.

1,201,863. Specification of Letters Patent. Patented Oct. 17, 1916.

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To all whom it may concern:

Be it known that I, JAMES F. OREY, a citizen of the United States, and resident of Centerville, in the county of Appanoose and State of Iowa, have invented a certain new and useful Divisible Shaft-Collar, of which the following is a specification.

The object of my invention is to provide a divisible shaft-collar adapted to be mounted on a shaft and to be firmly held thereon against rotary or longitudinal movement on the shaft.

Still a further object is to provide such a collar made in two opposite parts adapted to be mounted on the shaft from opposite sides and to be properly connected together by coacting parts, and also to be firmly secured to the shaft.

More particularly it is my object to provide such a device as to be mounted on the shaft at any point and which does not need to be placed over the end of the shaft and slid longitudinally thereon to proper distance.

My invention consists in the construction, arrangement and combination of the various parts of the device whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claim and illustrated in the accompanying drawings, in which:

Figure 1 shows a side elevation of a portion of the shaft having thereon a divisible shaft collar embodying my invention, and Fig. 2 shows a vertical sectional view through the collar and shaft.

My improved divisible collar is intended for use in a great variety of places, for instance on dump cars used on railroads, and the like, where rods are employed and chains connected with the dump-doors are wound on said rods, either directly on the rods or on pulleys thereon. In either case it is necessary to have collars for holding the rod in place, and such collars frequently become broken, where the ordinary collars are used, and where such an accident occurs, it is necessary to spend a great deal of time and labor in removing the entire rod or shaft from its bearings for the purpose of placing the collar over the end of the rod and shoving it longitudinally of the rod to proper position.

It is my purpose to provide a collar which can be mounted on the shaft or rod at any point without the necessity for removing the rod or shaft from its bearings.

In the accompanying drawings, I have used the reference numeral 10 to indicate generally a rod or shaft, such, for instance, as those used for dump door chains on dump cars.

My improved divisible shaft-collar is made in two halves, each comprising a semi-cylindrical portion 11 having at one end a lateral extending flange 12. The portions 11 are placed opposite each other forming a complete cylinder on the shaft 10, as shown in Fig. 1. The flanges 12 are placed opposite to each other, so that when the two parts are placed together on the shaft or rod 10, the completed collar comprises a cylinder having at one end a laterally extending annular flange.

The flange 12 on one part of the collar has a pair of opposite spaced yokes or sockets 13 near its straight edges. The other flange 12 has formed thereon a pair of projecting pins 14, adapted when the two parts of the collar are placed together to project beyond and overlap the flange on the other part of the collar and to be received in the yokes or sockets 13, as clearly shown in the drawings. The yokes 13 and the pins 14 tend to hold the two halves of the divisible collar together against any relative movement, except movement toward or from each other.

On many rods or shafts used on dump cars of the general type mentioned, the shafts or rods are provided with openings to receive bolts extended through the shafts to hold the ordinary collar on the shafts.

In order to adapt my divisible shaft-collar for use on the ordinary shafts or rods, so that the hole already in said shaft or rods may be utilized, I have provided on the semi-cylindrical members 11 opposite spaced bearings or openings 15, so arranged that each member 11 has a plurality of said openings 15, and each opening 15 on one of the members 11 registers with a similar opening 15 of the other member 11.

When the collar is placed on the shaft, a bolt 16 is extended through the opposite pair of said openings 15 and through the hole in the shaft 10 and is locked in position by means of a nut 17.

When it is desired to vary the position of the collar somewhat on the shaft, the bolt may be removed and the collar rotated and moved longitudinally until another pair of openings 15 register with the opening in the shaft, whereupon the bolt may be placed in position and the collar locked on the shaft. In this connection it may be mentioned that particularly in the use of rods or shafts on dump cars or the like, as hereinbefore referred to, shaft collars of some kind are used for holding the shaft against longitudinal movement. These shaft collars frequently become broken and it is one of the important purposes of my invention to provide a shaft-collar which can be quickly and easily installed on the shaft without the removal of the shaft from its bearings. This purpose is accomplished by my divisible shaft-collar.

Some changes may be made in the construction and arrangement of the parts of my improved divisible shaft-collar without departing from its essential features and purposes, and it is my intention to cover by this application, any such changes which may be included within the scope of my claim.

I claim as my invention—

In a device of the class described, the combination of a shaft with a transverse hole therein, a collar mounted thereon consisting of a longitudinally halved cylinder with an annular flange at one end, one half of the flange being provided with lugs, the other half being provided with corresponding slots to receive said lugs when the halves are brought together around the shaft, the cylindrical portion being provided with a plurality of pairs of alined openings, each pair being at different points in the cylinder longitudinally and circumferentially, a bolt passed through the hole in the shaft and selectively through the pair of openings in the collar, which will secure the collar nearest the desired place on said shaft.

Des Moines, Iowa, July 21, 1915.

JAMES F. OREY.

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