No. 618,173. Patented Jan. 24, 1899.

F. HASSIS.

ECCENTRIC.

(Application filed Aug. 3, 1898.)

(No Model.)

Fig. 1.

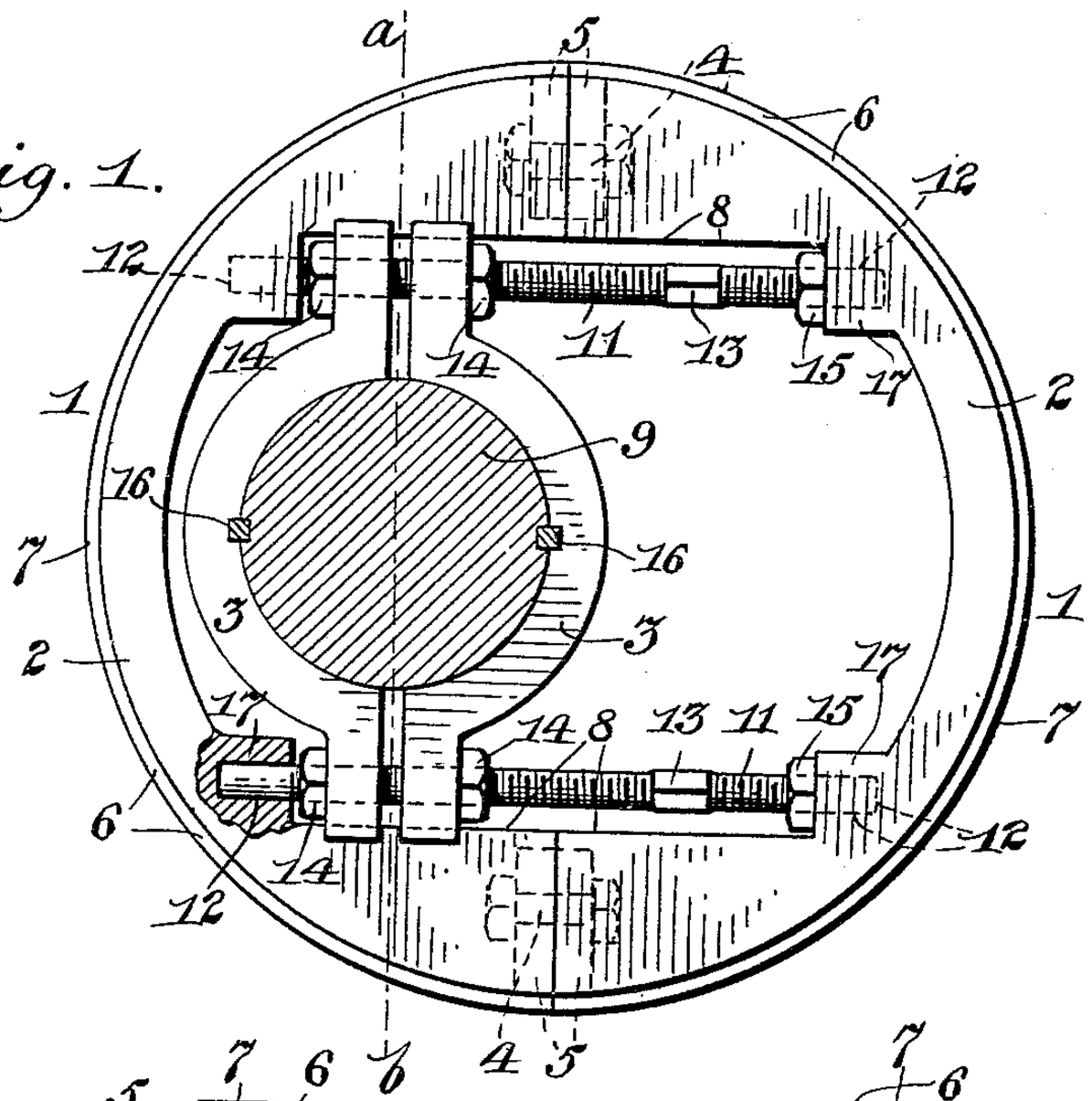


Fig. 2.

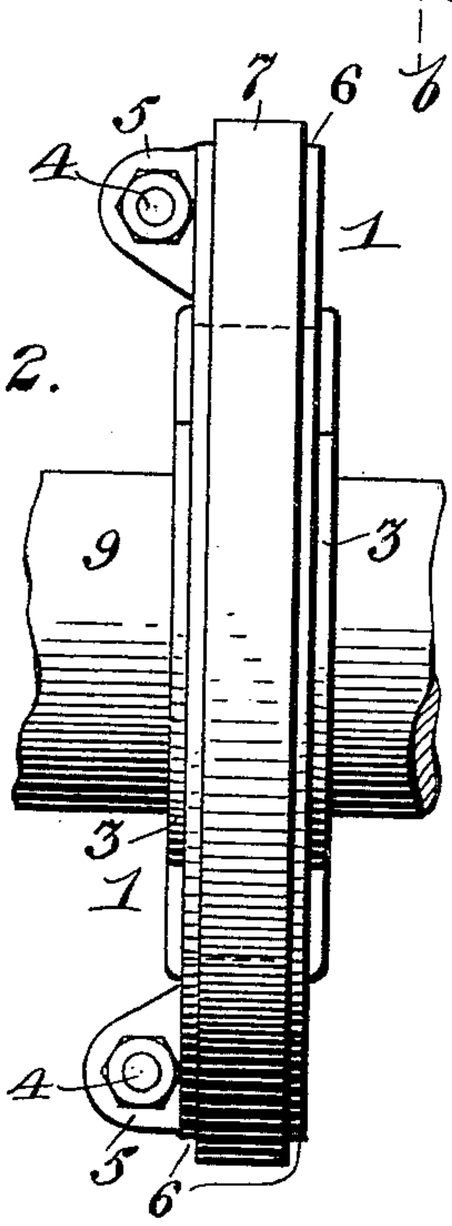
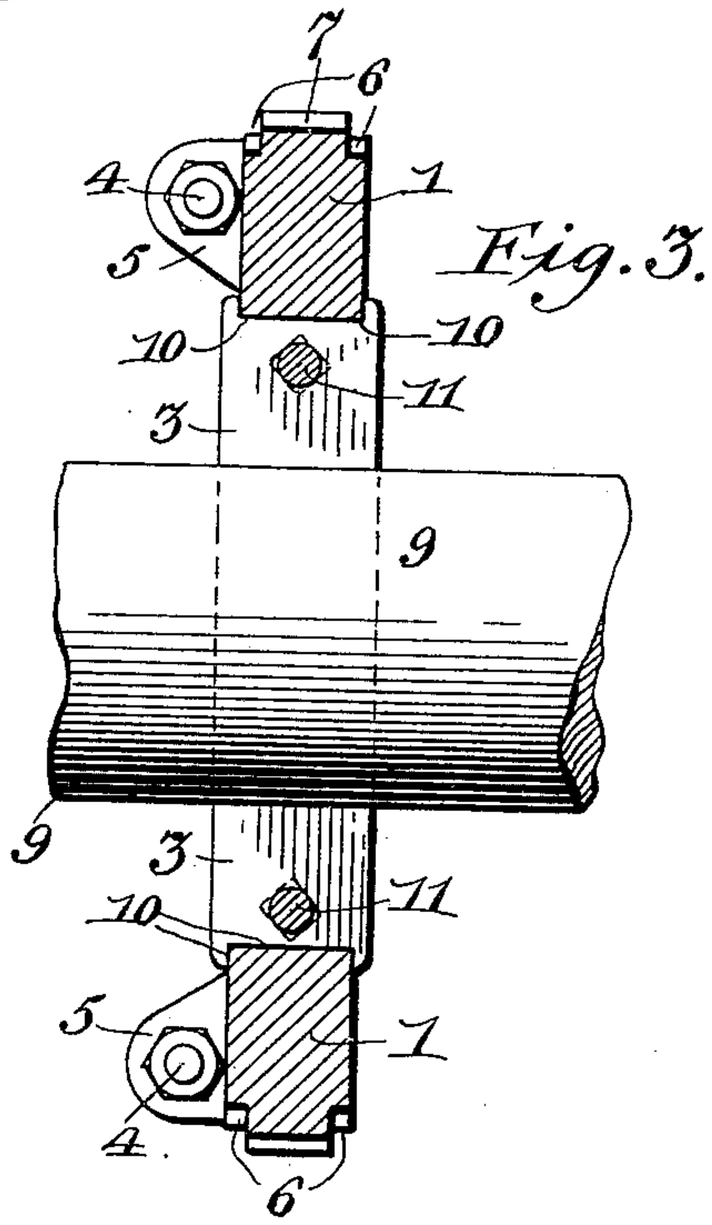


Fig. 3.



WITNESSES

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ECCENTRIC.

SPECIFICATION forming part of Letters Patent No. 618,173, dated January 24, 1899.

Application filed August 3, 1898. Serial No. 687,659. (No model.)

To all whom it may concern:

Be it known that I, FELIX HASSIS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Eccentrics; 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.

My invention relates to improvements in eccentrics, and more particularly to that class of eccentrics which are split and adapted to be applied to a shaft at any point or removed therefrom without being slipped over the end of the shaft.

It consists in certain novel constructions, combinations, and arrangements of parts, as will be now fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of an eccentric constructed in accordance with my invention. Fig. 2 is an edge view of the said eccentric, and Fig. 3 is a section upon the line *a b* of Fig. 1.

1 in the drawings indicates my improvep eccentric; 2, the split parts thereof; 3, a collar for securing the said eccentric to a shaft.

It is often desirable to apply eccentrics to shafting without having to slip them over the ends of said shafting, especially in the case of locomotive-eccentrics, where it is usually necessary to remove the wheels before the eccentrics can be applied. It is also very desirable to be able to adjust the throw of the eccentrics to suit different valve movements. I have constructed my improved split eccentric with a view to accomplishing these functions.

In carrying out my invention I form the eccentric 1 of the split segmental peripheral bearing portions 2 2, adapted to be drawn and held together by means of clamping-bolts, as 4, which pass through suitable lugs, as 5, formed upon the sides of each of the segments 2. The peripheral bearing portion of the eccentric is preferably formed, as seen in the drawings, with annular recesses or seats, as 6 6, forming a raised central portion 7, adapted to receive and engage the usual eccentric-strap. (Not shown.) The interiors of the segments or peripheral portions are cut away to receive the attaching-collar 3 and its adjusting means. Portions of the inner edges of the segments 2 are made straight, as at 8 8, to form guideways or interior bearings for the adjustment of the attaching-collar. The attaching-collar 3 is formed of split segmental portions adapted to inclose the shaft, as 9, to which the eccentric is to be attached, the ends of said split portions being bifurcated, as at 10 10, to form bearing portions to engage the guide edges or bearings 8 8. In order to clamp the collar 3 upon the shaft and afford a means for adjusting the same interiorly of the eccentric 1, I employ adjusting-screws, as 11 11, mounted in sockets, as 12 12, formed in the segments 2. These screws 11 11 pass through screw-threaded apertures in the opposite ends of the split portions of the collar 3 and are each formed with a squared portion, as at 13, to which a wrench or key may be applied to adjust the same. Binding-nuts, as 14 14, are preferably applied upon the screws 11 11 upon each side of the collar 3 to hold the said collar positively in place after it has been adjusted. Binding-nuts, as 15, may also be used upon the said screws to further hold them in their adjusted positions.

In order to prevent the possibility of the collar 3 turning upon the shaft, splines or keys may be inserted in the grooves 16 16, as seen in Fig. 1 of the drawings.

At the points where the sockets 12 12 are formed the segments or peripheral bearing portions are preferably provided with projections or shoulders, as 17 17, to accommodate the said sockets.

In applying the eccentric 1 to a shaft the collar 3 is first placed upon the same, the adjusting-screws 11 11 being inserted to hold them in place. The split segments or peripheral bearing portions 2 are then slipped in place on the ends of the said screws, the guides being passed through the bifurcated end portions or bearings of the collar-segments, and the segments 2 are then firmly bolted in place by means of the bolts 4.

It will be apparent from this description that when it is desired to adjust the eccentric so as to vary the throw thereof the binding-nuts 14 and 15 may be loosened, when by applying a key or wrench to the squared portions 13 the screws 11 11 may be adjusted to draw the collar nearer to the center of the

eccentric or to move it farther therefrom. The binding-nut can then be tightened again. It will be seen that this operation does not require the removal of the eccentric from the shaft. It also obviates the necessity of employing new eccentrics in the place of the old to change the throw of the same. It will be further seen that the eccentrics can be attached to any shaft irrespective of any wheels or pulleys that may be mounted thereon and without removing them.

The parts of an eccentric constructed in accordance with my invention are very simple, yet can be made of any required strength.

My invention also possesses advantages when used upon stationary engines which do not have reversing-links, as do locomotives, in that they can be loosened and turned halfway around upon their shafts to reverse the movement of the said stationary engine. This is accomplished by loosening the binding-nuts and the collar and taking out the keys or splines. The collar is then turned halfway around the shaft, the keys slipped into the grooves, and the parts tightened up again. The keys and grooves render it possible to make this change without the risk of losing the proper positions of the eccentric. It will also be apparent that such an eccentric can be readily removed from one engine and placed upon another.

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

1. An eccentric comprising a peripheral bearing portion, interior bearings formed therein, an attaching portion mounted in said eccentric, bearings formed thereon engaging said interior bearings and capable of sliding thereon, and means for adjusting the said attaching portion to a greater or less distance from the center of the said eccentric, to vary its throw, substantially as described.

2. An eccentric comprising a peripheral bearing portion, an attaching-collar adapted to be attached to a shaft and having bearings formed thereon, corresponding bearings arranged interiorly of said eccentric for the collar-bearings to slide upon, and means for adjusting the said collar upon said bearings to vary the throw of the eccentric, substantially as described.

3. An eccentric comprising a peripheral bearing portion, an attaching-collar having suitable bearing-surfaces and adapted to be secured to a shaft, interior bearings in the eccentric upon which the collar-bearings slide and adjusting-screws mounted in said eccentric and engaging said collar whereby the collar may be adjusted upon the bearings to vary the throw of the eccentric, substantially as described.

4. In an eccentric the combination with a peripheral portion having a central cut-away portion, of an attaching-collar, comprising split segmental portions adapted to be secured to a shaft, the projecting ends of said segments being bifurcated to engage the inner edges of the peripheral portion and adjusting-screws mounted in the eccentric and engaging the segments of the collar for adjusting the same back and forth to vary the throw of the eccentric, substantially as described.

5. An eccentric comprising split portions, a split attaching-collar mounted interiorly thereof, adjusting-screws mounted in sockets in said split portions of the eccentric and engaging the split portions of the collar, the said screws having squared portions, whereby they may be turned to adjust the collar back and forth, and binding-nuts for holding the parts in their adjusted positions, substantially as described.

6. An eccentric comprising split peripheral portions, a split attaching-collar mounted therein, the said collar having grooves to receive keys or splines, and keys or splines adapted to engage said grooves and corresponding grooves upon the shaft carrying the said eccentric, whereby the said eccentric may be accurately adjusted upon the said shaft to reverse the movement of the engine, substantially as described.

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

FELIX HASSIS.

Witnesses:
JENNIE P. HOFFMAN,
JOHN A. RUPERT.