(No Model.)

C. JOHNSON.

ECCENTRIC.

No. 282,327. Patented July 31, 1883.

Fig. 1.

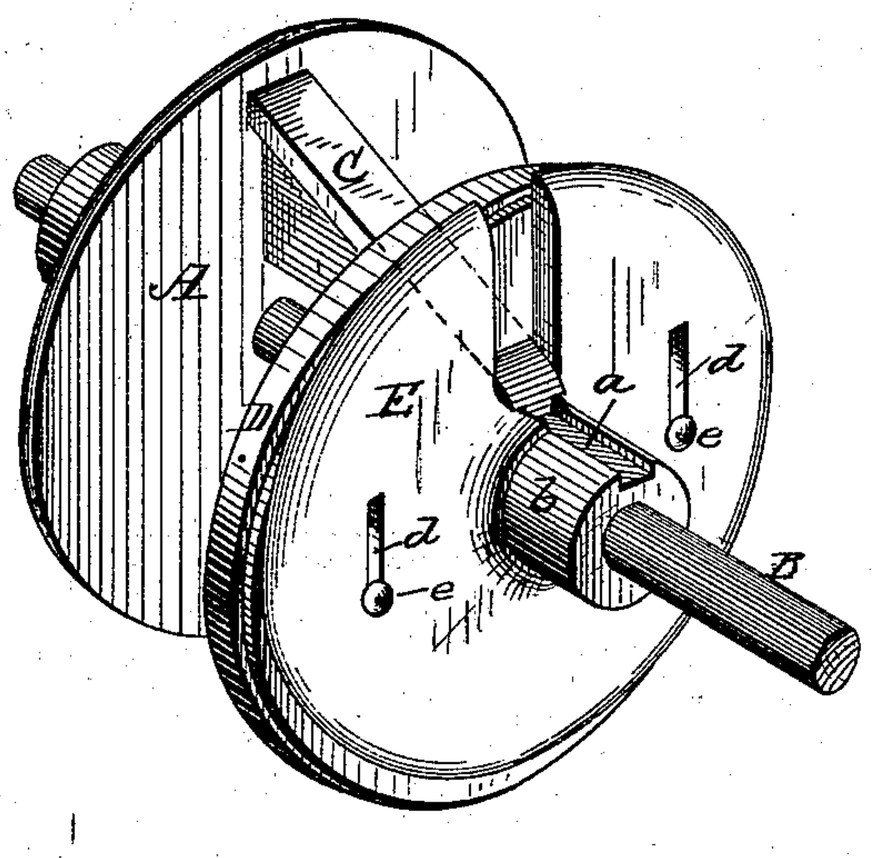


Fig. 2.

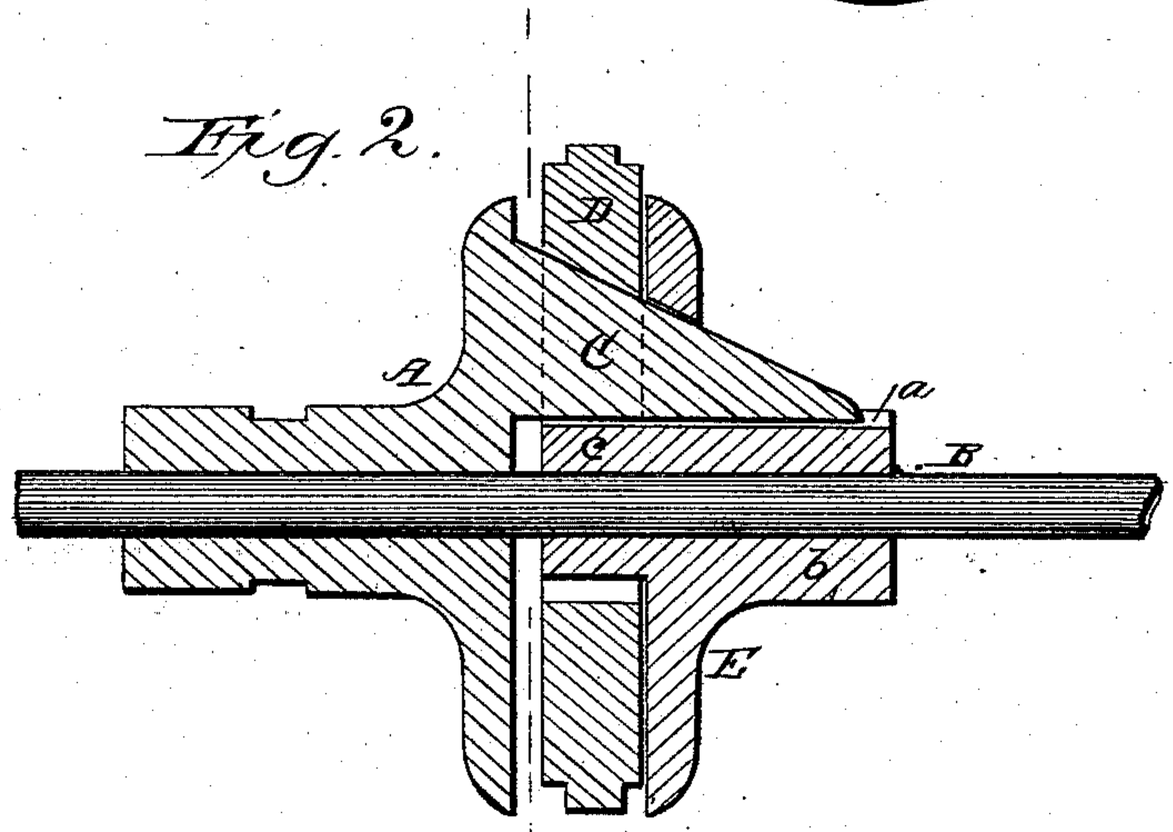
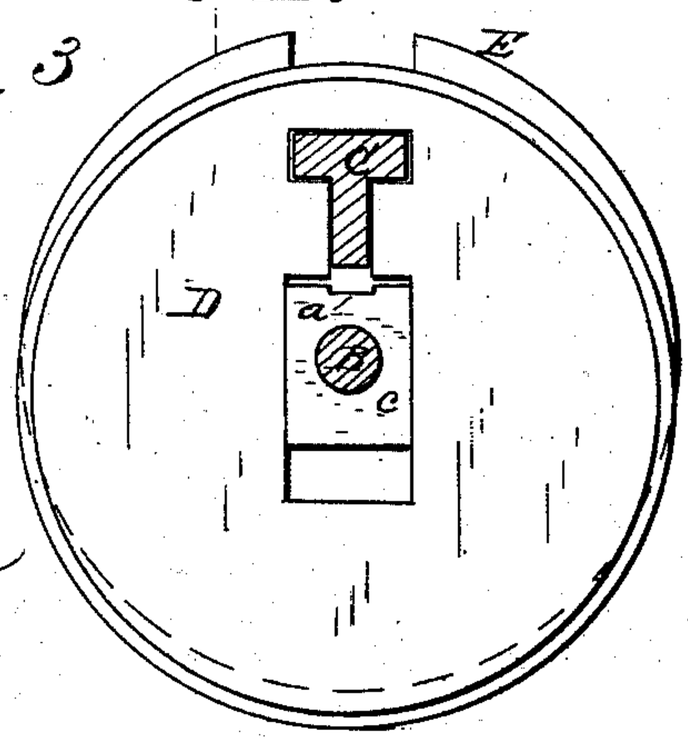


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

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ECCENTRIC.

SPECIFICATION forming part of Letters Patent No. 282,327, dated July 31, 1883.

Application filed March 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHNSON, a citizen of the United States, residing at Union City, in the county of Branch and State of Michigan, have invented certain new and useful Improvements in Eccentrics; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention; Fig. 2, a longitudinal vertical section of the same; and Fig. 3, an elevation of the eccentric-block and stationary flange, with the shaft and taper pin or web in section.

This invention relates to certain new and useful improvements in eccentrics; and the object thereof is to provide such a device that can be readily adjusted upon its shaft to increase or diminish the throw of said device in either direction, according to the amount of power required, and at the same time effect a saving in steam, as by having the eccentric adjustable, when less power is required, the same is brought up nearer the center, thereby reducing the flow of steam from the valve, the motion of the engine being readily reversed by passing said eccentric beyond the center. These objects I attain by the construction substantially as shown in the accompanying drawings, and hereinafter more fully described.

In the drawings, A represents a suitable flange adapted to work loosely upon a shaft, B, and provided with a taper pin or web, C, which passes through suitable openings in the eccentric-block D and flange E, said pin or web having its bearing in a slot, *a*, cut in the hub *b* of the flange E, said slot forming a guide for this pin or web. The flange E is also provided with an extension, *c*, upon its inner face, on which the eccentric-block D works, said flange being rigidly secured to the shaft. This flange E is also provided with slots *d*, in which work pins *e*, connected to the eccentric-block, said pins having suitable heads, which act as stops to prevent the several parts from becoming disconnected when the flange A is extended along the shaft to the full extent of the taper pin or web C.

By extending the flange A along the shaft, as above described, and shown in Fig. 1, it will throw the eccentric-block D off the center, so that when connected with an engine it will throw the valve open and shut, so as to give the steam in its proper place, the eccentric having in this instance its greatest throw and consequent power. When less power is requisite, the flange A is pushed up on the shaft, thereby decreasing the throw of the eccentric and effecting a saving in steam as said eccentric comes on the center.

When the eccentric-block is brought on the center, it necessarily has no throw, and consequently the valve stands still and the engine stops, a reverse motion being imparted to said engine by bringing the flange A up against the eccentric-block, said eccentric-block and flanges revolving with the shaft B, adapted to connect with the crank and fly-wheels of the engine, so that when in operation all revolve together.

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

1. The adjustable flange A, provided with a taper pin or web, C, in combination with the eccentric-block D, suitably connected to a flange, E, and the shaft B, substantially as and for the purpose set forth.

2. The flange E, formed with the extension *c* and hub *b*, having a slot, *a*, in combination with the eccentric-block D, adapted to work on said extension, and the taper pin or web C upon the flange A, all adapted to revolve with the shaft B, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES JOHNSON.

Witnesses:

M. A. MERRIFIELD,

H. T. CARPENTER.