(No Model.)

W. R. BROWN.

ECCENTRIC GEAR.

No. 546,757. Patented Sept. 24, 1895.

Fig. 1.

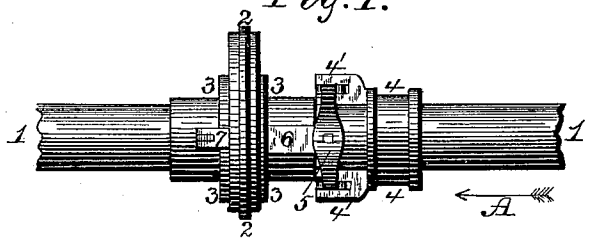


Fig. 2

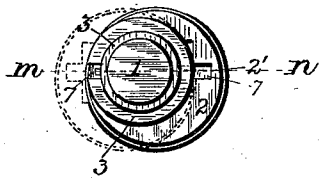


Fig. 6.

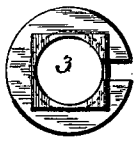


Fig. 7.

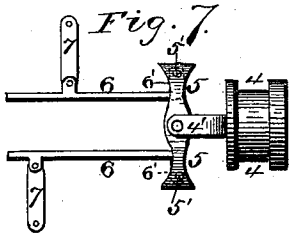


Fig. 3

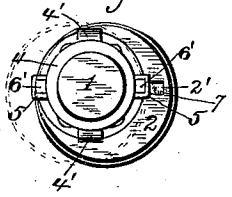


Fig. 4.

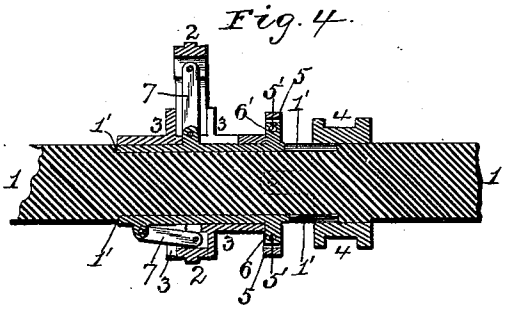
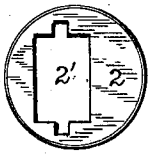


Fig. 5.



Witnesses
J. M. Willis.
G. W. Whittington

Inventor.
Wm. R. Brown,
per Oliver W. Perrin
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM R. BROWN, OF NEW MARKET, INDIANA.

ECCENTRIC GEAR.

SPECIFICATION forming part of Letters Patent No. 546,757, dated September 24, 1895.

Application filed June 7, 1895. Serial No. 551,978. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. BROWN, a citizen of the United States, residing at New Market, in the county of Montgomery and State of Indiana, have invented a new and useful Shiftable Eccentric, of which the following is a specification.

My invention relates solely to improvements in shiftable eccentrics, and has for its object the production of a mechanism of the character described in which the operating parts are very simple, durable, and efficient; and it consists in the peculiar organization of the several parts, which is fully set forth in the following description and claim.

Referring to the accompanying drawings, forming a part of this specification, Figure 1 is an elevation of my invention entire. Fig. 2 is an end plan of my invention. Fig. 3 is a view obtained by looking at my invention in the direction shown by arrow A, Fig. 1. Fig. 4 is a longitudinal section of my invention entire on the line *m n*, Fig. 2. Fig. 5 is a detail view of the movable circular disk 2. Fig. 6 is a view of the disk-boxing 3. Fig. 7 is a detail view of the shaft-ring 4, frame 5, bars 6, and links 7.

Like numbers of reference indicate corresponding parts throughout the several views.

In the embodiment of my invention I use a revoluble shaft 1, a shiftable circular disk 2, a disk-boxing 3 in the two sections, a movable shaft-ring 4, a frame 5, a pair of bars 6, and a pair of links 7, coupling the bars and the circular disk.

The revoluble shaft 1 is provided with a sectional disk-boxing 3, rigidly mounted thereon in two sections, and a circular disk 2, mounted movably on the inner rims of the sectional boxing. The circular disk 2 is formed with an oblong opening 2′, which receives the inner rims of the sectional boxing for the purpose of permitting it to be thrown transversely on the boxing and revoluble shaft and radially in two directions from the center of its figure. The circular disk 2 is provided with means for operating it transversely on its boxing and revoluble shaft, which comprises a shaft-ring 4, a frame 5, a pair of bars 6, and a pair of links 7. The shaft-ring 4 and the pivoted frame 5 encircle the revoluble shaft 1 and are longitudinally movable thereon. The pair of bars 6 are mounted in grooves 1′ on the revoluble shaft and are longitudinally movable in said grooves between the disk-boxing and the shaft. The links 7 connect the bars 6 and the circular disk 2 by pivot-pins in the usual manner. The pivoted frame 5 couples the shaft-ring 4 and the movable bars 6 by pivot-pins 5′, mounted in the usual way through the lugs 4′ of the shaft-ring and the lugs 6′ of the movable bars. It will be observed that the sectional circular boxing 3 is formed with the necessary openings essential for the operation of the links 7 and bars 6.

My invention is operated as follows: The shaft-ring 4 is moved longitudinally in either direction on the revoluble shaft to the extreme limit of its travel, which also moves the pivoted frame, the bars, and the pivoted links in the direction of the movement of said ring, and simultaneously therewith causes the circular disk to move transversely on its boxing and revoluble shaft to the extreme limit of its travel and locks it rigidly in this position. It will be noticed that when the circular disk is locked in position one of the links 7 stands out radially from its movable bar, which holds the disk firmly in its position, and that the other link 7 has swung down almost parallel with its bar. The shaft-ring 4 is moved longitudinally on the revoluble shaft to the other extreme limit of its travel, which again moves said frame, bars, and links in the direction of its movement and causes the circular disk to move transversely on its boxing and revoluble shaft to the other extreme limit of its travel, coincidently with the movement of the shaft-ring, and to be rigidly held in position by the link 7, standing out radially from its movable bar. In this construction I have produced a simple, durable, and efficient mechanism for shifting the circular disk from one side of the revoluble shaft-center to the other and for securing it rigidly and firmly in either position, which may be applied with advantage to steam-engines and other machinery requiring the use of shiftable eccentrics.

Having thus fully described my invention and set forth the operation and advantages thereof, what I claim as new, and desire to secure by Letters Patent, is—

In a shiftable eccentric, the combination with the revoluble shaft and sectional boxing rigidly mounted thereon, of the movable circular disk, an oblong opening in said disk, and means for operating said disk transversely on its sectional boxing and revoluble shaft, said means comprising a movable shaft ring, a pivoted frame, a pair of movable bars, and a pair of links, all as, and for the purposes, set forth, substantially as specified.

WILLIAM R. BROWN.

Witnesses:
WILLIAM H. BROWN,
SAMUEL M. ZACHARY.