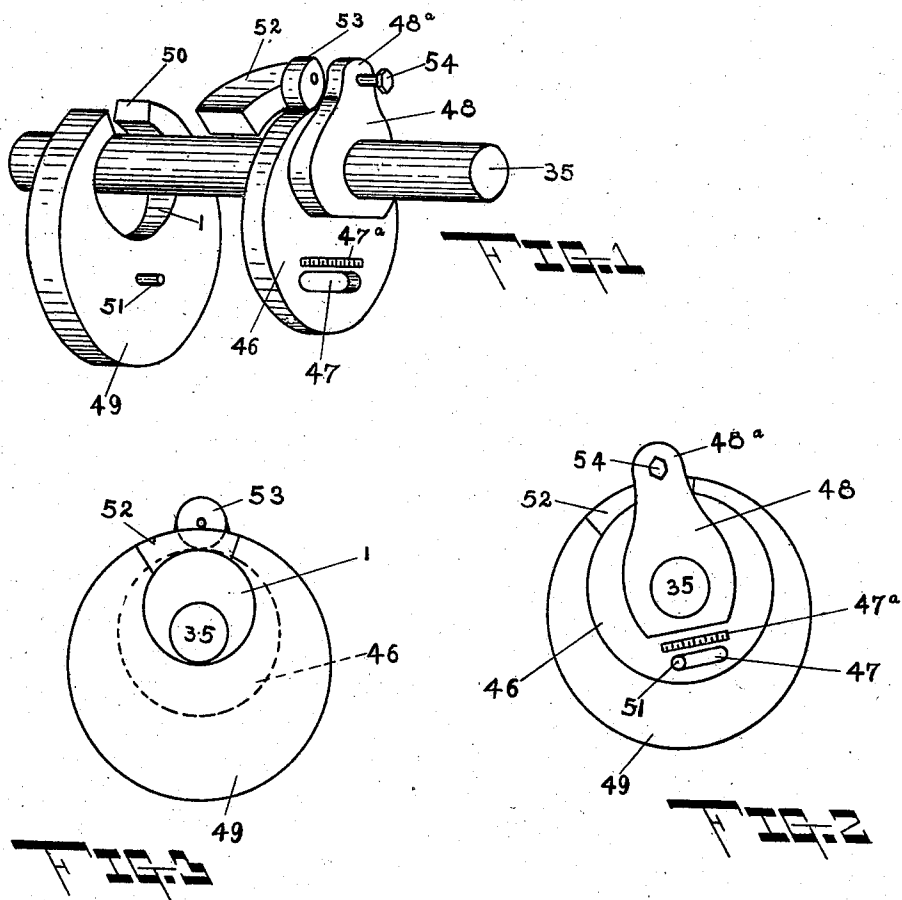


No. 867,724.

PATENTED OCT. 8, 1907.

J. P. HEDSTROM.
ADJUSTABLE CAM.
APPLICATION FILED JAN. 22, 1907.



WITNESSES:

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JOHN PATRICK HEDSTROM, OF BIG RAPIDS, MICHIGAN, ASSIGNOR TO VOLNEY H. HANCHETT AND ARTHUR K. HANCHETT, COMPOSING THE FIRM OF HANCHETT SWAGE WORKS, OF BIG RAPIDS, MICHIGAN.

ADJUSTABLE CAM.

No. 867,724.

Specification of Letters Patent.

Patented Oct. 8, 1907.

Original application filed April 26, 1906, Serial No. 313,823. Divided and this application filed January 22, 1907.
Serial No. 353,507.

To all whom it may concern:

Be it known that I, JOHN PATRICK HEDSTROM, a citizen of the United States, residing at Big Rapids, in the county of Mecosta and State of Michigan, have invented certain new and useful Improvements in Adjustable Cams; 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.

10 My invention relates to cams or eccentrics.

One object is to provide a cam or eccentric which may be removed and replaced without dismantling the machine with which it is assembled, or removing the shaft carrying the cam or eccentric.

15 Another object is the provision of an adjustable cam or eccentric, whereby the throw of the cooperating parts may be varied.

By arranging for the easy removal and replacement of the cam or eccentric, I can substitute cams of varying contours.

20 To these and other ends, my invention consists of a supporting plate or disk fixedly secured to the shaft and having a cam or eccentric adjustably and removably secured thereto.

25 My invention further consists in the provision of a cam so recessed as to be removable from the shaft in combination with adjustable means for closing the peripheral portion of such recess.

30 In the accompanying drawings, Figure 1 is a perspective view of the cam disassembled; and Figs. 2 and 3 are views taken from opposite sides of the cam when in assembled position.

35 (35) indicates a shaft suitably driven and journaled in bearings, not shown. Firmly secured on the shaft and preferably eccentrically thereof is a supporting disk or base plate (46), the eccentric portion of which may be apertured or slotted, as shown at (47), such slot being arc-shaped, if desired.

40 A boss (48) is carried by the base plate and projects beyond the periphery of the base plate, preferably along the line of its shortest radius, the projecting end of the boss being apertured to receive a pin (54).

45 Associated with the fixed base plate and boss is a circular disk (49), having a hole (1) formed therethrough eccentrically of the periphery and communicating with the periphery along its shortest radius by means of a slot (50). The hole may or may not be larger than the cross-sectional area of the shaft (35), and the slot is preferably of a width slightly larger than the diameter of the shaft, 50 in order to permit the disk to be placed or removed from the shaft transversely thereof. A bolt (51) or other suitable fastening means is passed through the eccentric portion of the disk and is receivable in the slotted aperture (47), the bolt being adjustable in the aperture 55 (47), adjacent which aperture I may place a gage (47^a).

By means of the bolt (51), I am enabled to adjust the disk relative to the base plate.

While the above construction would operate under some conditions, it is sometimes desirable to provide means for filling or bridging the recess (50) of the disk, 60 to which end, I provide a filling or bridge piece (52), preferably of a thickness equal to the thickness of the disk. This bridge piece is curved in the arc of a circle, such arc corresponding to the cut-away or recessed portion of the disk, into which it fits conforming to the periphery of the disk and forming a continuation thereof. 65 An apertured lug (53) projects laterally from a point in intermediate the ends of the bridge piece, the lug preferably extending across the thickness of the base plate and adapted to receive the pin (54) carried by the ear 7 (48^a) of the boss (48). The bridge piece is thus adjustably pivoted to the ear and may be inclined forwardly or rearwardly to accommodate the adjustment of the disk relative to the boss plate.

The rotation of an ordinary fixed cam will always 75 cause an oscillation of a predetermined scope, travel or arc, and in order to change such travel or arc, it has heretofore been necessary to change the cam by removing the cam and shaft, then removing the cam longitudinally of the shaft and replacing it with a cam capable 80 of imparting the required movement. Naturally, this entailed a great loss of time and labor, besides making it necessary to keep a large stock of various cams on hand.

My invention economizes both time and labor and reduces the number of cams required to be kept in stock. 85 By adjusting the disk (49) relative to the base plate (46), the throw of the cam is varied, the bridge piece being tilted at one end or the other, to accommodate the adjustment of the disk. 90

This case is a divisional part of my original application filed April 26, 1906, Serial No. 313,823, on a machine for sharpening saw teeth.

Having thus fully disclosed my invention, what I claim as new is— 95

1. The combination with a shaft, of an eccentric comprising a support fixedly secured to the shaft, a disk eccentrically apertured and slotted at its periphery, to permit the disk to be removed and replaced transversely of the shaft, a pivotally supported filling member adjustably received in the peripheral slot, and means for removably and adjustably connecting the disk and support. 100

2. The combination with a shaft, of a base plate fixedly mounted thereon, an eccentrically apertured disk having a peripheral slot communicating with the aperture, the disk placed and removed transversely of the shaft, means pivotally secured to the base plate and received in the slot for bridging the peripheral slot, and means for removably connecting the disk and base plate. 105

3. The combination with a shaft, of a base plate secured thereon, an eccentrically apertured circular disk having a peripheral slot communicating with the aperture, the diameter of the shaft being less than the width of the slot 110

to permit the disk to be placed and removed transversely of the shaft, an adjustable bridge piece pivotally secured to the base plate and receivable in the slot to form a continuation of the periphery of the disk, and means for removably securing the disk to the fixed base plate.

- 5 4. The combination with a shaft, of a base plate secured thereon, an eccentrically apertured circular disk having a peripheral slot communicating with the aperture, a boss on the base plate, an apertured ear carried by the boss and
10 projecting beyond the periphery of the base plate, an eccentrically apertured disk having a peripheral slot, communicating therewith, the shaft receivable in the aperture through the slot, a bridge piece pivotally secured to the ear and bridging the peripheral slot, and fastening means
15 received and adjustable in the slot for connecting the base plate and disk.

5. The combination with a shaft, of a fixed support having a slot therein, an eccentrically apertured disk provided

with a peripheral slot communicating with the aperture, means received in the slot in the disk for bridging the slot and fastening means carried by the disk and received in the slot in the plate for removably and adjustably connecting the disk and plate. 20

6. The combination with a shaft, of a base plate fixedly secured thereon, an eccentrically apertured disk having a peripheral slot communicating therewith, a bridge piece pivotally secured to the base plate for bridging the slot, and means for removably connecting the disk and base plate. 25

In testimony whereof, I affix my signature in presence of two witnesses. 30

JOHN PATRICK HEDSTROM.

Witnesses:

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