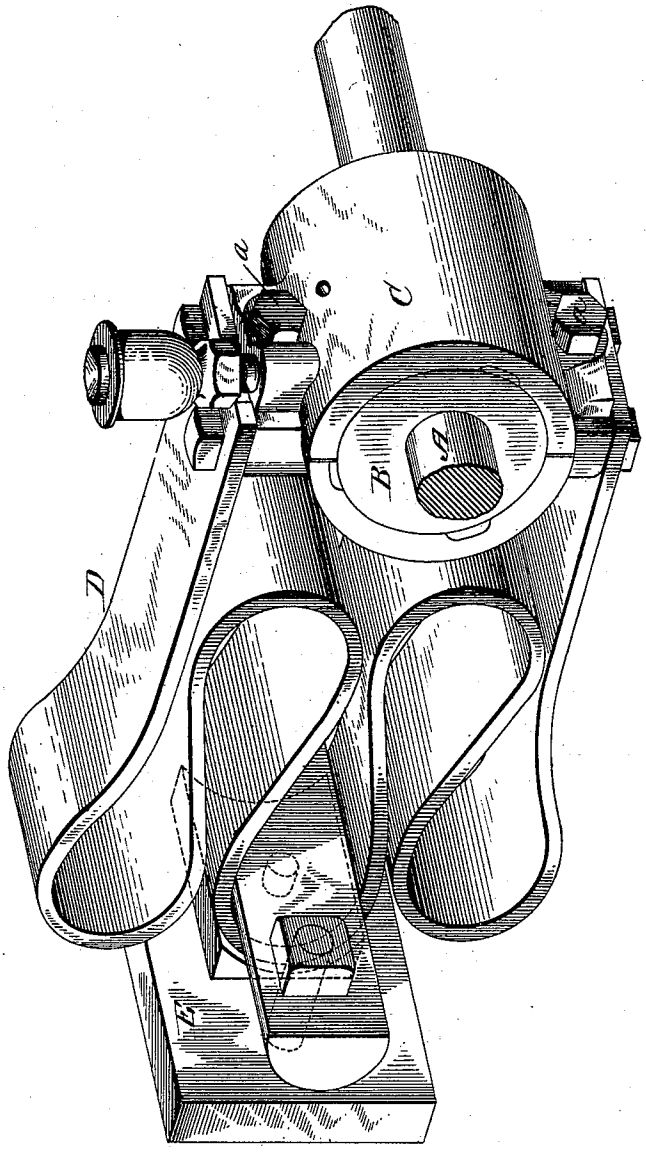
(No Model.)

J. T. WALTER.

ECCENTRIC FOR OPERATING SCREENS OF MIDDLINGS PURIFIERS.

No. 347,848. Patented Aug. 24, 1886.



Witnesses
Wm. L. Spaiden
L. L. Miller

Inventor
John T. Walter.
By his Attorney Chas. H. Fowler

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN T. WALTER, OF EASTON, PENNSYLVANIA.

ECCENTRIC FOR OPERATING SCREENS OF MIDDLINGS-PURIFIERS.

SPECIFICATION forming part of Letters Patent No. 347,848, dated August 24, 1886.

Application filed March 31, 1886. Serial No. 197,255. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. WALTER, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Eccentrics for Operating Screens of Middlings-Purifiers; 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.

The present invention has relation to all classes of eccentrics connected to the driving-shaft and employed for imparting to any object a vibratory motion—such as the shaking-screens of a middlings-purifier, grain-separators, or other class of machines where a shaking or high-speed motion is required.

The object of the invention is to provide means whereby any jar motion to the main frame of the machine is removed so far as practicable; and it consists in the employment of a spring having its ends connected to the eccentric box or casing and to the object to which the vibratory motion is imparted, substantially as shown in the drawing and hereinafter described and claimed.

In the accompanying drawing, which represents a perspective view of my invention, A represents the usual driving-shaft of the machine having the usual eccentric, B.

The casing or box C of the eccentric is of the usual form, constructed in sections or halves connected together by bolts *a* in the ordinary manner. A flat spring, D, is connected in any suitable manner to the casing or box C and to the object to which motion is imparted, as represented at E. The spring D is of serpentine form, to obtain a better or increased leverage, to more effectually balance the eccentric, and requiring less power to act on the spring. The serpentine form of the spring also increases its length, and acts as a cushion for the end bearings of the shaft, and takes, to a certain extent, the sudden jar off the main frame of the machine. With this construction of spring the eccentric is perfectly balanced when revolving at a high rate of speed, and avoids the tendency of the heavy side of the eccentric to throw a heavy strain on the shaft.

When the heavy side of the eccentric is below or at its lowest point, the spring has an upward pressure, and when above the spring has a downward pressure, thereby overcoming the centrifugal force which the heavier side of the eccentric has over the lighter side.

It is evident that a greater or less number of bends or curves may be made in the spring without departing from the principle of my invention, and the spring may be attached in any well-known manner, and therefore I reserve the right to make such changes in my invention as come within ordinary mechanical skill.

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

The combination, with a driving-shaft, eccentric, and the box or casing thereof, of a flat metal spring bent in serpentine shape or in folds, as shown, in contradistinction to the coil or spiral spring, and connected to the box or casing and to the object to be vibrated, substantially as and for the purpose set forth.

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

JOHN T. WALTER.

Witnesses:
L. L. MILLER,
M. P. CALLAN.