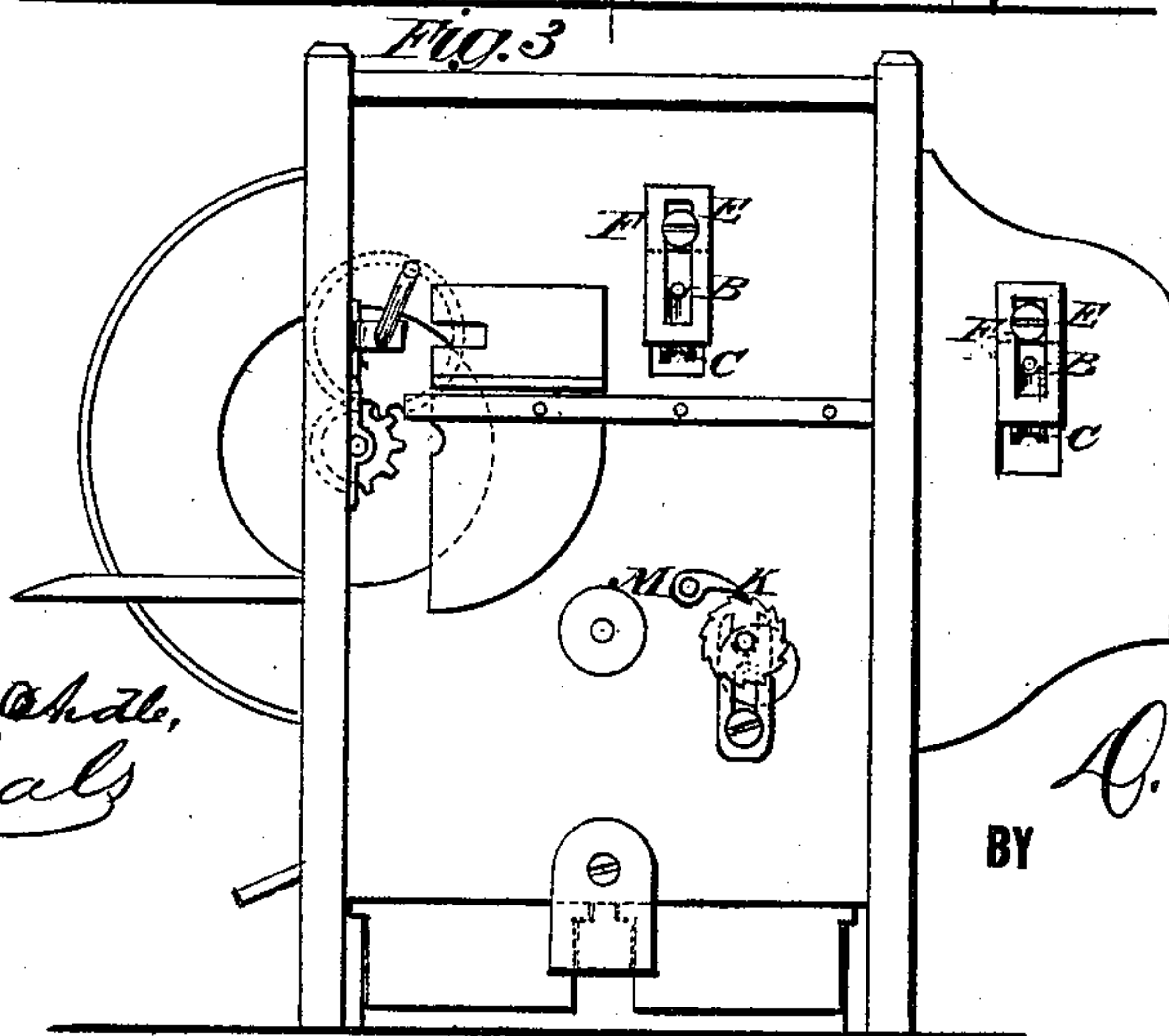
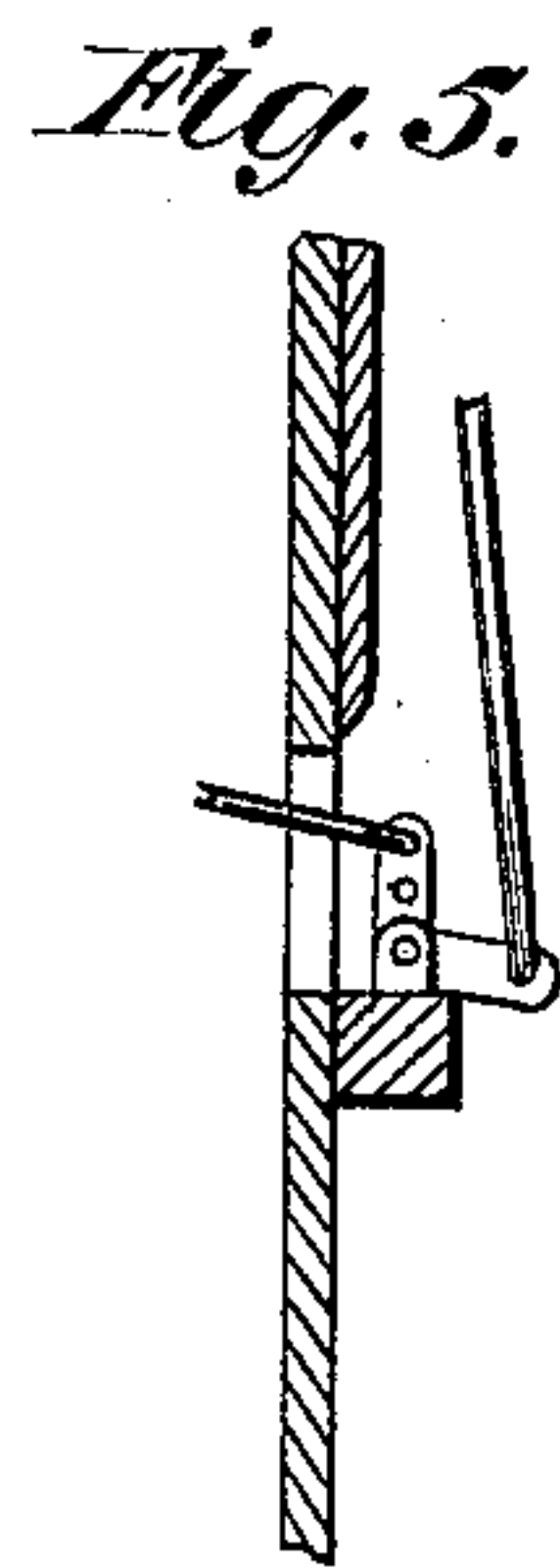
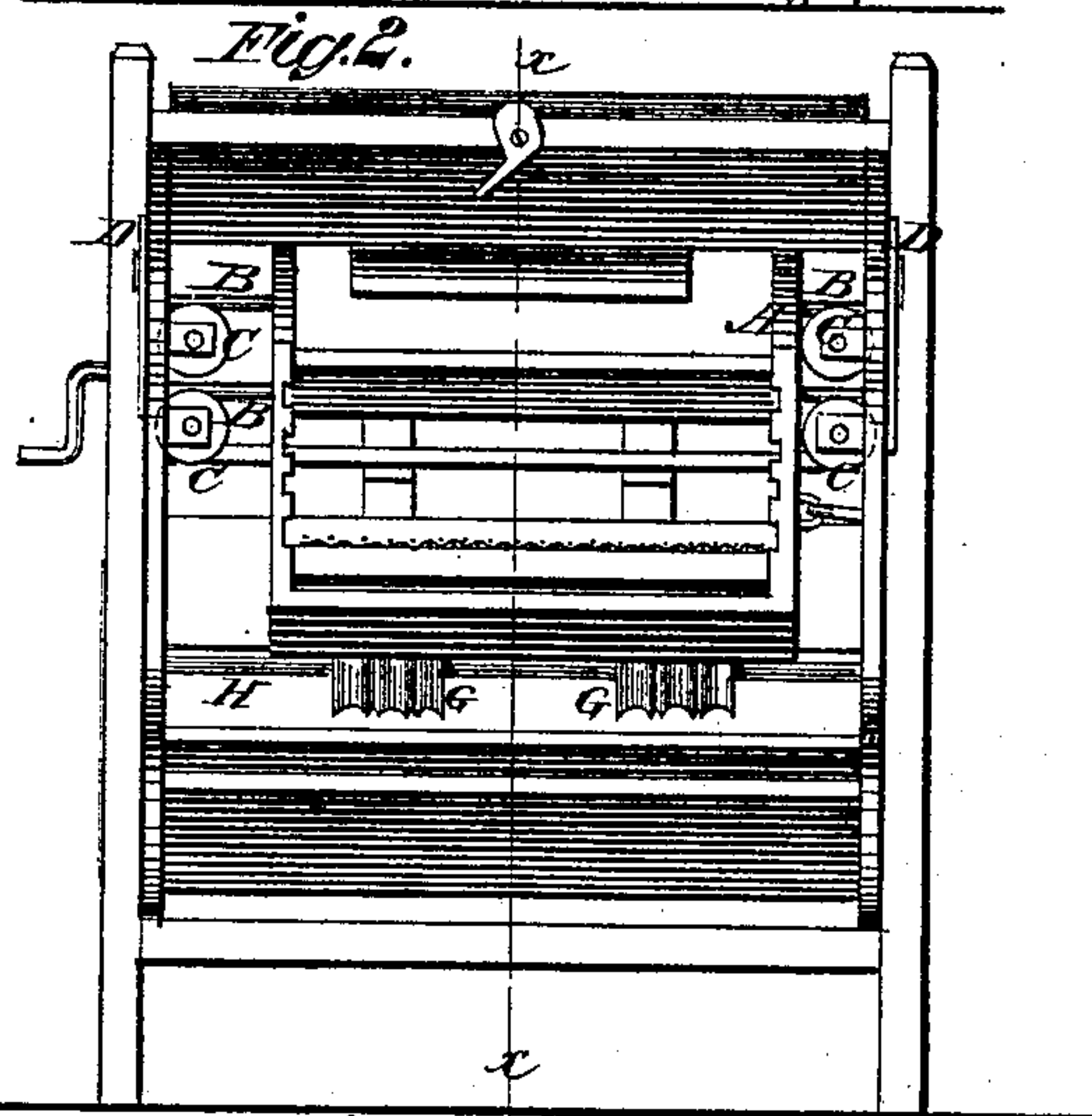
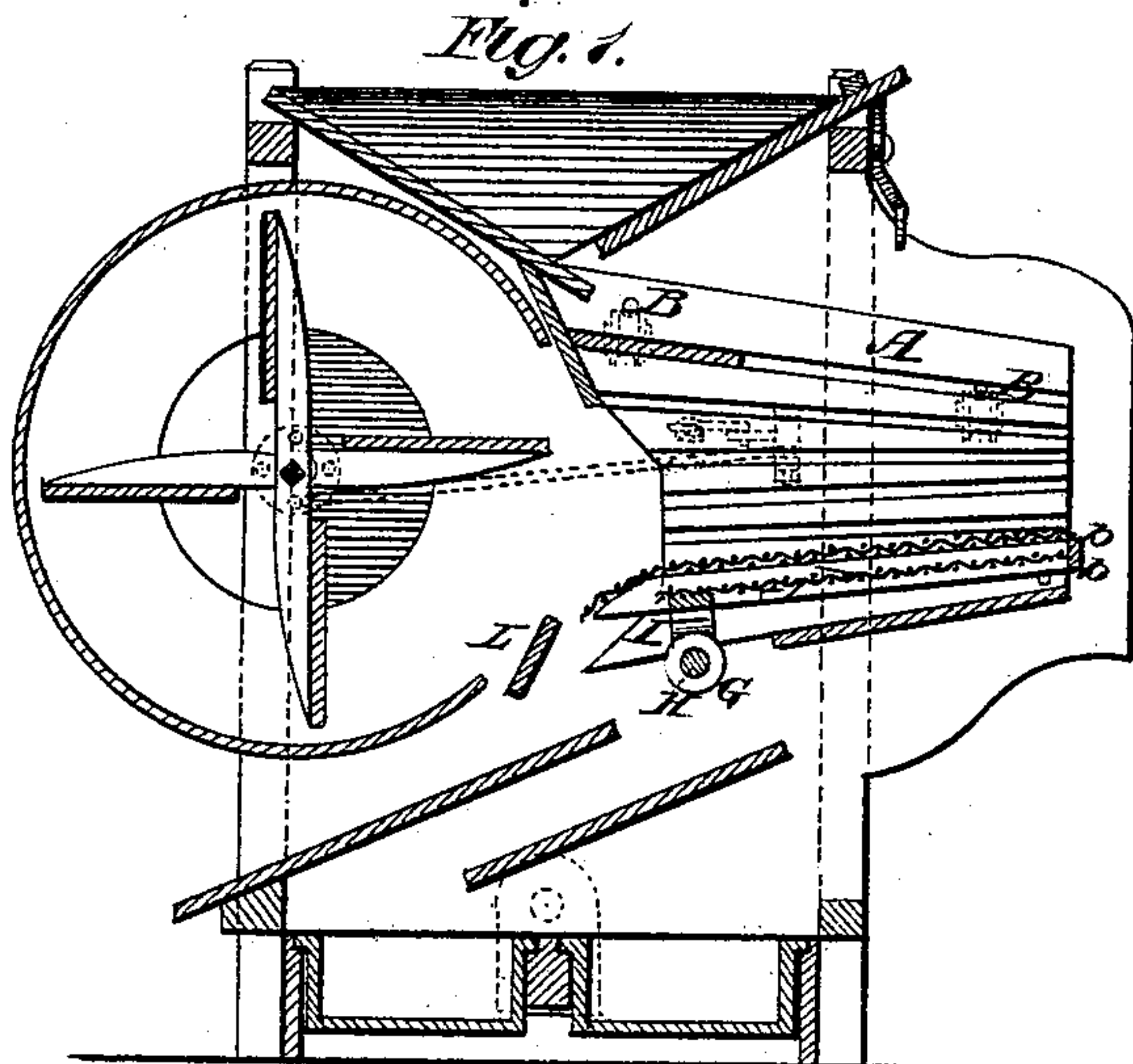


D. E. FISHER.
GRAIN-SEPARATOR.

No. 178,621.

Patented June 13, 1876.



WITNESSES:
Francis M. Chubb,
John Goethals

INVENTOR:
D. E. Fisher
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

DAVID E. FISHER, OF PATTERSON, OHIO.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **178,621**, dated June 13, 1876; application filed January 15, 1876.

To all whom it may concern:

Be it known that I, DAVID E. FISHER, of Patterson, in the county of Hardin and State of Ohio, have invented a new and Improved Fanning-Mill, of which the following is a specification:

The invention relates to that class of fanning-mills which are provided with shaking screens; and it consists in novel devices for operating or shaking the screen-shoe, as will be hereinafter more fully set forth.

Figure 1 is a longitudinal sectional elevation of the improved fanning-mill, taken on the line *x x* of Fig. 2. Fig. 2 is a front elevation. Fig. 3 is a side elevation. Fig. 4 is a transverse section of the jar; and Fig. 5 is a detail section, showing the contrivance for shaking the shoe.

Similar letters of reference indicate corresponding parts.

The shoe A has short rods B attached to the sides, and supporting it on the rollers C, which are adjustably attached to the sides D of the machine by slotted boxes E and screws F, so that the shoe can be shifted at one or both ends, to vary the height for different kinds of grain. These short rods only extend from the sides of the shoe outward, and not across over the sieves, as in previous arrangements for mounting the shoes on rollers, and so do not clog the sieves. The improvement of the jar consists in making it of a round differentially-ribbed and eccentrically-mounted

block or cam, G, on a shaft, H, to be shifted around to different positions, so that the larger or smaller parts of the ribs will act on the toothed plate I, according as light or heavy jars are required, and the cam is arranged to act directly on the screen J, so as to work it without interfering with the screen. A ratchet and pawl, K, are combined with the jar-shaft to hold it in position. L is a valve arranged between the fan and the screen to regulate the blast on the latter. The shaft extends outside of the case of the machine, and has a hand-wheel, M, outside for turning it. The screen is made of two sheets of wire-cloth, *b*, attached to the upper and lower sides of the screen-frame, so as to obtain double screen capacity within the space of one screen.

The eccentric form of the cam or "jar" enables it to be adjusted to the shoe as it is shifted up or down to vary the inclination of the sieves.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The differentially-ribbed and eccentrically-mounted revolving cam or block G, combined with the shoe or screen of a fanning-mill, substantially as specified.

DAVID E. FISHER.

Witnesses:

EUGENE M. YOUNG,
SOLOMON C. COLTON.