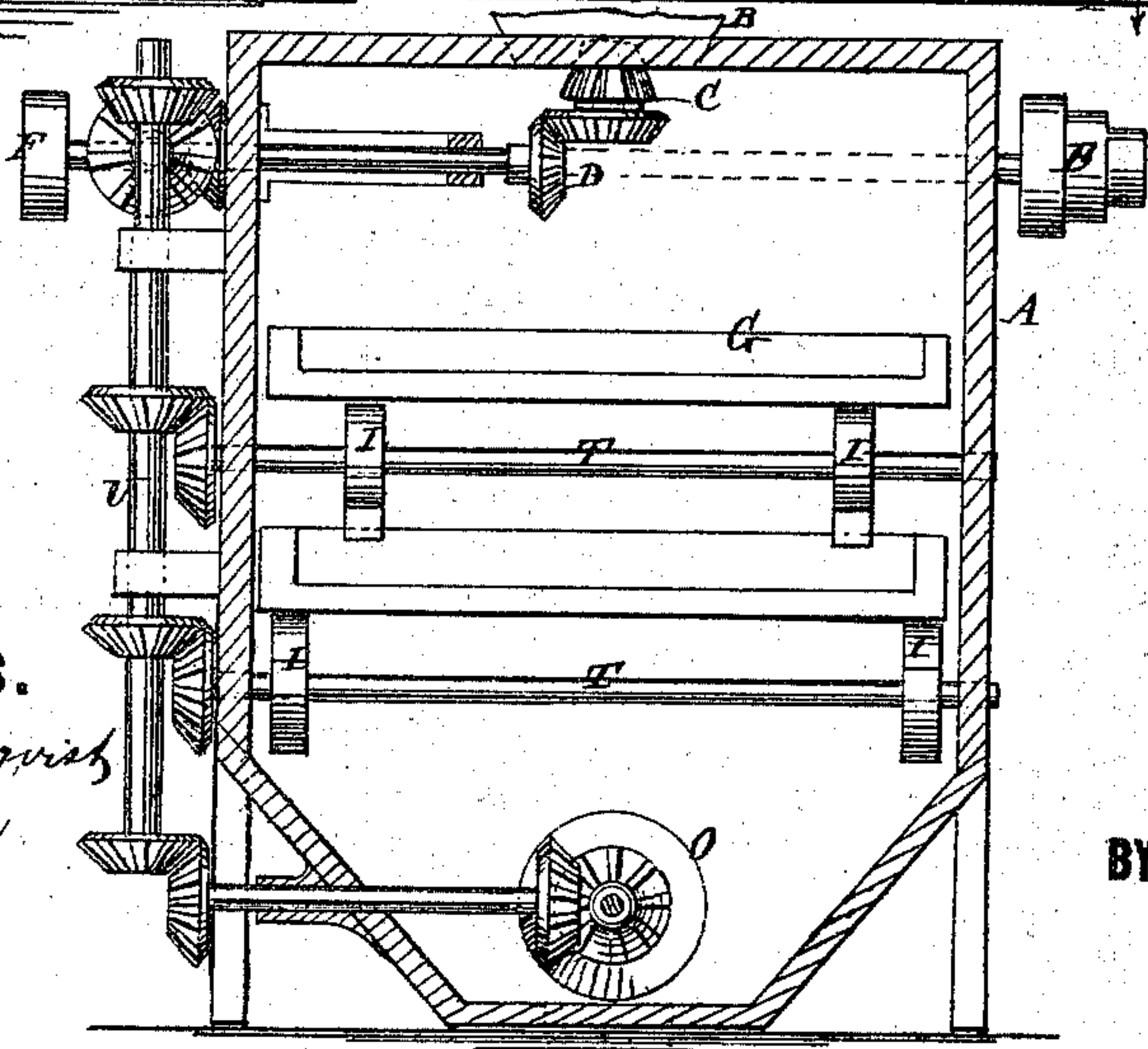
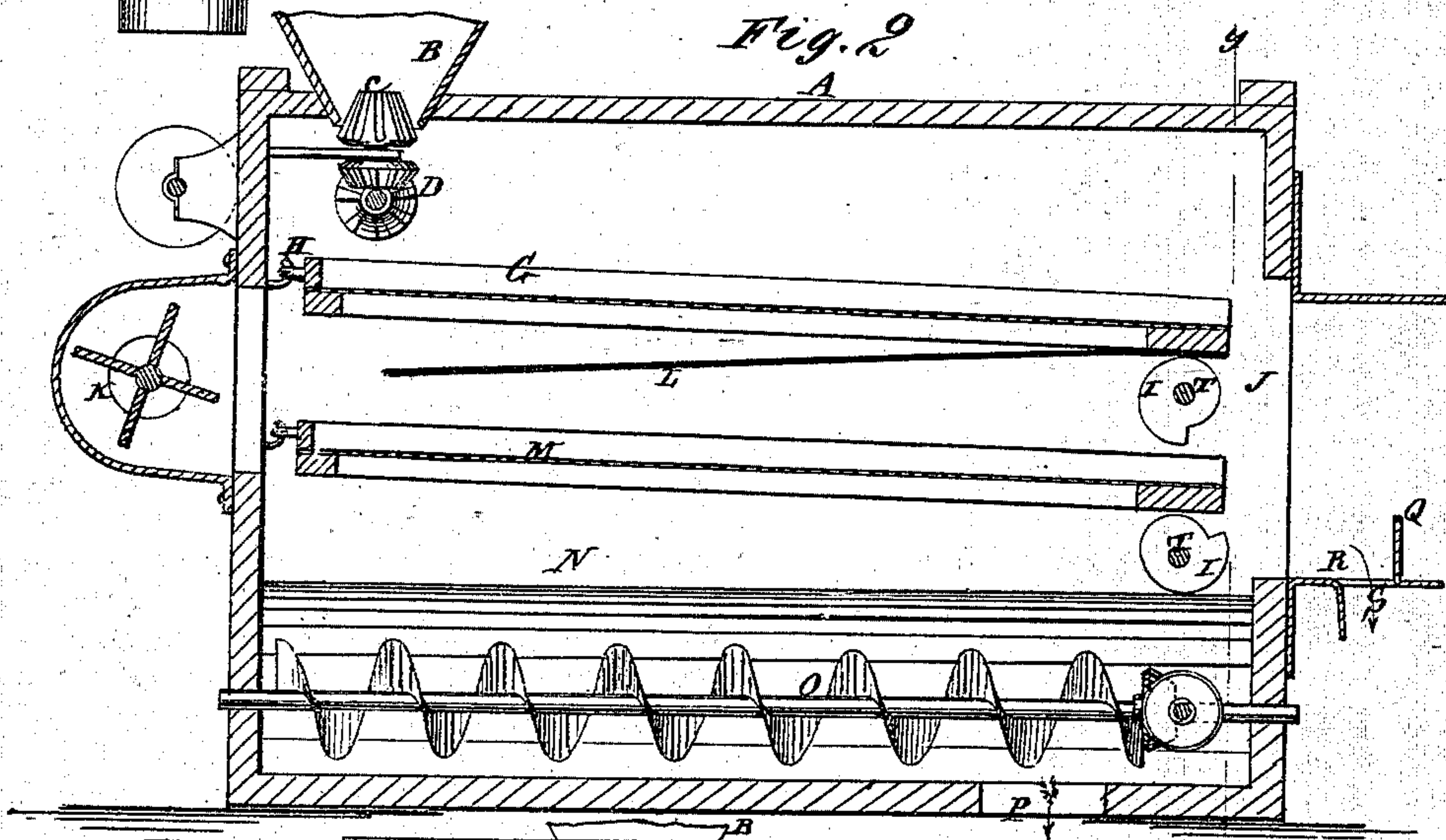
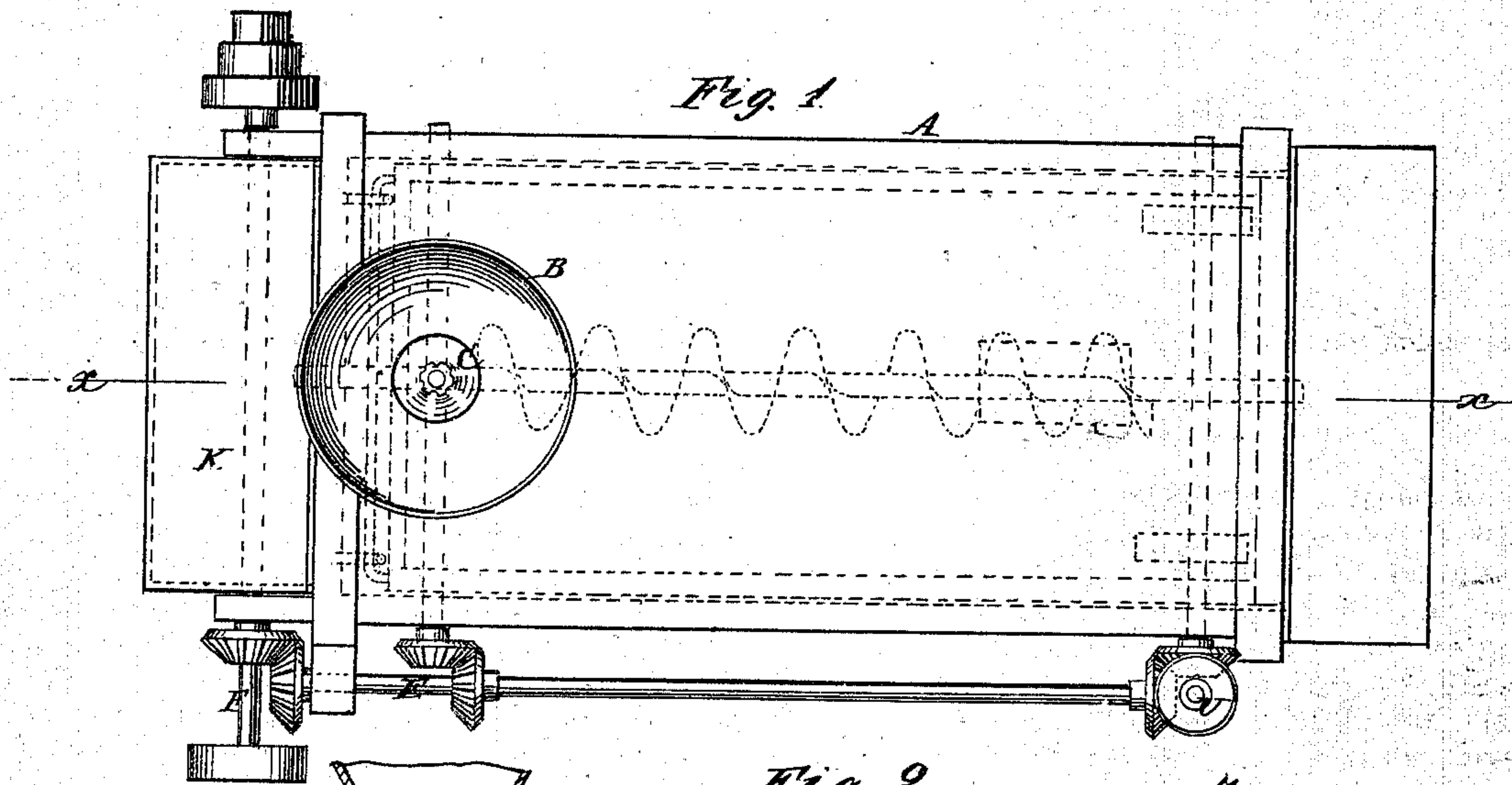


**G. PARKER.**  
**Middlings Purifiers.**

No. 144,697.

Patented Nov. 18, 1873.



**WITNESSES.**

A. W. Amqvist  
Bergman

**INVENTOR.**

*G. Parker*

BY

# ATTORNEYS.



# UNITED STATES PATENT OFFICE.

GEORGE PARKER, OF POUGHKEEPSIE, NEW YORK.

## IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. **144,697**, dated November 18, 1873; application filed November 1, 1873.

*To all whom it may concern:*

Be it known that I, GEORGE PARKER, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and Improved Middlings-Purifier, of which the following is a specification:

My invention consists of an arrangement of sieves, return-chutes, feeder, fan-blower, separator, and operating mechanism, by which it is designed to simplify and cheapen the cost of these machines, and at the same time increase the efficiency, and also adapt the machine to feed regularly and successfully from a large mass accumulated on a floor or in a bin.

Figure 1 is a plan view of my improved middlings-purifier. Fig. 2 is a longitudinal sectional elevation taken on the line *x x* of Fig. 1, and Fig. 3 is a cross-section on the line *y y*.

A represents a rectangular case or chest, such as commonly is used for such machines, on the top of which, near one end, is a funnel-shaped receiver or hopper, B, which is to be placed directly under the floor on which the pile of middlings lies, the floor having a hole as large as the top of the funnel, or thereabout. In the opening of the funnel at the lower end, which is at the top of the case, is a revolving cone-feeder, C, nearly filling the opening. This cone, which is in practice made adjustable vertically to open the passage more or less, is provided with grooves in the sides, which facilitate the feeding by scraping off the mass lying upon the cone regularly, and producing an even stream. It is revolved by gearing D at the lower end, connected outside of the case with the shaft E, which gears with the main driving-shaft F. Immediately under the cone is the upper end of the upper sieve G, which is a flat shaking sieve hung by hooks H at the upper end to the wall of the case, and at the lower end resting on the cams I, which lift it and let it fall at each revolution. At the lower end the coarse matters escape into the space J, to be blown out of the

case by the blast from the fan K, but the finer portions fall through the sieve onto the returning-chute L attached to the under side of the sieve, and descending toward the upper end of the next sieve M below, onto which it discharges. This sieve M is like the one above, except it is a little finer. The matters falling through it into the space N may be received on another return-chute, L, and discharged onto another sieve, if required; but as two are sufficient for ordinary use they are deposited in the conveyer O below, to be discharged at the spout P. The coarse light matters from the lower sieve also escape off the end at the space J, and are blown out of the case. These are again separated into two grades by the plates Q and R and the passage S, which turn the heavier portions downward, while the lighter portions pass over and beyond. In practice, the sieves will be suspended at the upper ends so as to be shifted higher or lower to vary the inclination, as may be required for middlings of different qualities and conditions. The cams are arranged on short shafts, T, extending through the case and gearing at one end with the vertical shaft U, which is driven by the shaft E and drives the conveyer. The fan is driven from the shaft F by a belt and cone-pulleys for varying the speed.

I do not claim the feeding-cone specially, as that has already been secured to me by a former patent; but

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

The funnel B, feeding-cone C, two or more inclined shaking sieves, G M, one or more return-chutes, L, cams I, fan K, conveyer O, and separators Q R S, all combined and arranged in a middlings-purifier, substantially as specified.

GEORGE PARKER.

Witnesses:

JOHN G. PARKER,  
LEWIS WARD.