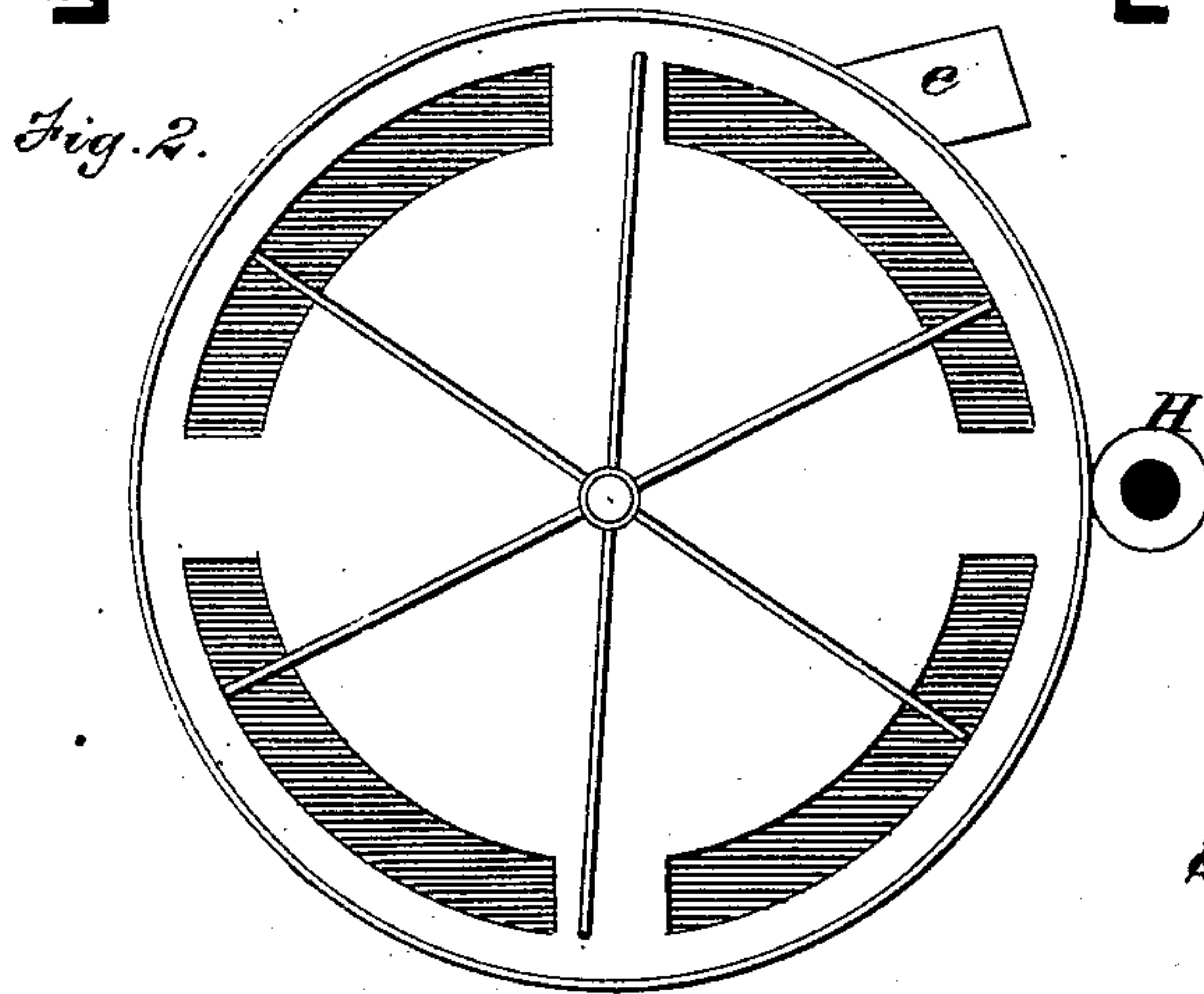
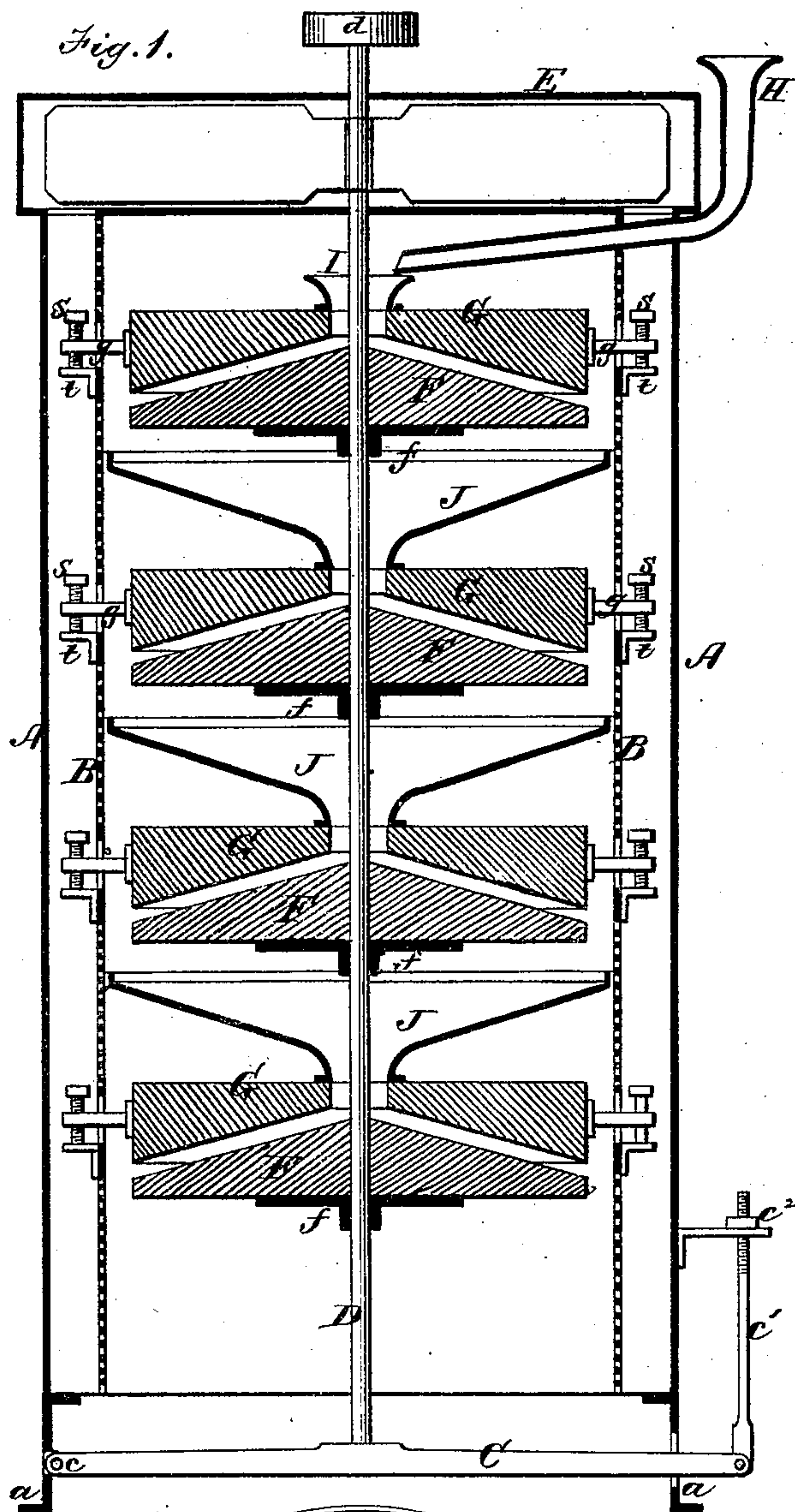


J. S. POULTNEY.
Smut-Machines.

No. 133,480.

Patented Nov. 26, 1872.



Witnesses.
C. F. Brown.
Dr. J. Ellsworth.

Inventor.
J. S. Poultney
By his Atty
H. J. Ellsworth

UNITED STATES PATENT OFFICE.

JOSIAH S. POULTNEY, OF AKRON, OHIO, ASSIGNOR OF ONE-HALF HIS
RIGHT TO JOHN L. TOPLIN, OF SAME PLACE.

IMPROVEMENT IN SMUT-MACHINES.

Specification forming part of Letters Patent No. 133,480, dated November 26, 1872.

To all whom it may concern:

Be it known that I, JOSIAH S. POULTNEY, of Akron, in the county of Summit and State of Ohio, have invented a new and Improved Smut-Machine; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which--

Figure 1 is a vertical section, and Fig. 2 a horizontal section representing my improved machine.

Similar letters of reference in the accompanying drawing denote the same parts.

The object of this invention is, first, to improve the means for dressing the wheat; and, secondly, to enable the parts to be more perfectly adjusted than heretofore; and the invention consists in the several devices for effecting these results, as I will now proceed to describe.

In the drawing, A represents a cylindrical case containing a cylindrical foraminated screen, B, suitably supported, the case and the screen being provided with doors, and being mounted upon legs *a a* or other suitable supports. C is a lever articulated at *c* to one side of the case or frame A, and supported at the other side of the machine by an adjustable arm, *c*¹, which can be raised and lowered by turning a screw-nut, *c*², as shown. D is a shaft, stepped in a box affixed to the lever C, and extending up through the center of the machine and through a fan-box, E, at the upper end thereof, and terminating in a pulley, *d*, to which a belt may be applied to run the shaft. In the place of the cast-iron surfaces heretofore employed for dressing the wheat I use stone surfaces F, affixed to the shaft by means of iron plates *f* and set-screws, so that the shaft may be withdrawn and the stones taken out and dressed the same as an ordinary mill-stone. The upper surfaces are constructed of stationary stones G, vertically adjustable by means of arms *g* and supporting-screws *s*, which rest upon ledges *t* or other suitable supports attached to the side of the screen, or, if preferred, to the outer case, substantially as represented. The form of the stones may be varied, as desired, so as to present a conical dressing surface, as shown in the drawing, or an inverted cone, up which the grain will be forced by the friction of the stones

and by the centrifugal force of its own revolution around the shaft.

The grain fed to the machine through a tube, H, falls into a small hopper, I, and thence passes through the eye of the upper stone into the space between the two stones, where, after being partially dressed, it falls onto a second large hopper, J, beneath the upper pair of stones. This hopper delivers it to the second pair of stones, where it is further dressed, after which it passes to the next pair, and so on through the whole series, finally being discharged at or near the bottom of the machine. The smut, dust, &c., are drawn out through the screen by the force of the fan-blast, and are driven off through a discharge-spout, *e*, at one side of the fan-box.

Each stationary stone may be adjusted at the proper distance from the revolving stone by means of the screws *s s*, and the whole series of revolving stones may at any time during the running of the machine be raised or lowered at the option of the person in charge.

A trap-door or slide may be provided in each hopper, in front of the door that opens through the case and screen, to enable the operator at any time to examine the quality of the work done by each pair of stones and make any adjustments that may be found necessary.

Having thus described my invention, what I claim as new, is—

1. In a smut-machine, the employment of a series of adjustable stones having conical surfaces for the purpose of dressing the grain, substantially as described.

2. The adjusting-screws *s*, arms *g*, and supporting-brackets *t*, in combination with the upper stones G, substantially as and for the purpose set forth.

3. A smut-machine having two or more sets of stationary and revolving stones, the dressing-surfaces of which are adapted to be separately and to different degrees adjusted to or from each other by separately moving the stationary stones, or simultaneously and to the same extent adjusted to or from each other by moving the shaft with the revolving stones, substantially as described.

JOSIAH S. POULTNEY.

Witnesses:

O. M. HAMILTON,
P. McDUFFY.