UNITED STATES PATENT OFFICE.

JESSE CARTER, OF LAKE CITY, FLORIDA.

IMPROVEMENT IN RICE-CLEANING MACHINES.

Specification forming part of Letters Patent No. **188,499**, dated March 20, 1877; application filed November 18, 1876.

To all whom it may concern:

Be it known that I, JESSE CARTER, of Lake City, in the County of Columbia and State of Florida, have invented a new and useful Improvement in Machine for Cleaning Rice, &c., of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved machine, taken through the line *x x*, Fig. 2. Fig. 2 is a vertical cross-section of the same, taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for cleaning or hulling rice, coffee, barley, and other grains, which shall be simple in construction and effective in operation, doing its work quicker and better, and with a less expenditure of power than the machines heretofore used for this purpose.

The invention consists in the combination of the stones, the screw, and the disk with the cylinder and the shaft, as hereinafter fully described.

A is a cylinder, which has outwardly-projecting ring-flanges formed around its ends, to which are bolted the end plates or heads B C. The cylinder A is made in two halves, and has flanges or lugs formed upon the sides of the lower half, to rest upon the top side bars of the frame D.

The grain is introduced through the hopper E, secured in an opening, a^1, in the upper side of the cylinder A, and is discharged through an opening, a^2, in the lower side of said cylinder near one end, which opening is closed by a slide, F, passing in through a hole in the head B, as shown in Fig. 1. In a recess in the lower side or bottom of the cylinder A is placed a stone, G, of suitable grit to operate upon the grain, and in a recess in the head B, at the discharge end of the cylinder, is secured a stone, H. Through the centers of the cylinder A, the heads B C, and the stone H, passes a shaft, I, the journals of which revolve in bearings attached to the top end bars of the frame D. To the shaft I, within the cylinder A, is attached a spiral thread, J, of such a width as to reach to, or nearly to, the shell of the cylinder, so as to move the grain toward the discharge end of said cylinder, rubbing it upon the stones G H. To the shaft I, at the end of the screw J farthest from the stone H, and at a little distance from the head C, is secured a disk, K, a small space or chamber being left between the said disk K and the said head. Through the head C is formed a hole, *c'*, to act as a ventilator for the machine, and to withdraw dust from the grain. To the shaft I is attached a pulley, L, to receive the band, by which power is applied to the machine.

When the grain has been sufficiently cleaned or hulled, the slide F is drawn out and the grain allowed to escape into the discharge-spout M, from which it passes to the usual screens, fans, and polishers.

The main object of my rice-cleaner is to combine in one machine means for both hulling and pounding or mortaring the rice, while in fact it also hulls the small rice that fails to get hulled in the ordinary huller. This is accomplished by my median screw J, that projects down to the stone G, working the rice from one end of the cylinder to the other, over the stone G and against the stone H. The screw forces the grain by a gentle and gradually-increasing pressure against the stones and effectually rubs off the skin as well as the hull. Ordinarily the rice is passed between stones to hull it, and then pounded in a mortar to relieve it of the skin. The screw-cylinder is adjustably attached to its shaft so as to allow the screw to be brought closer to or farther from the stone H, according to the quality of the grain.

What I claim as new and of my invention is—

The combination, with hoppered cylinder E A, having air-space at one end and delivery-aperture at the other, of the bottom stone G, the end stone H, and the spiral conveyer J, as and for the purpose specified.

JESSE CARTER.

Witnesses:
W. B. N. CREWS,
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RICE CLEANING MACHINE.

No. 188,499. Patented March 20, 1877.

Fig. 1.

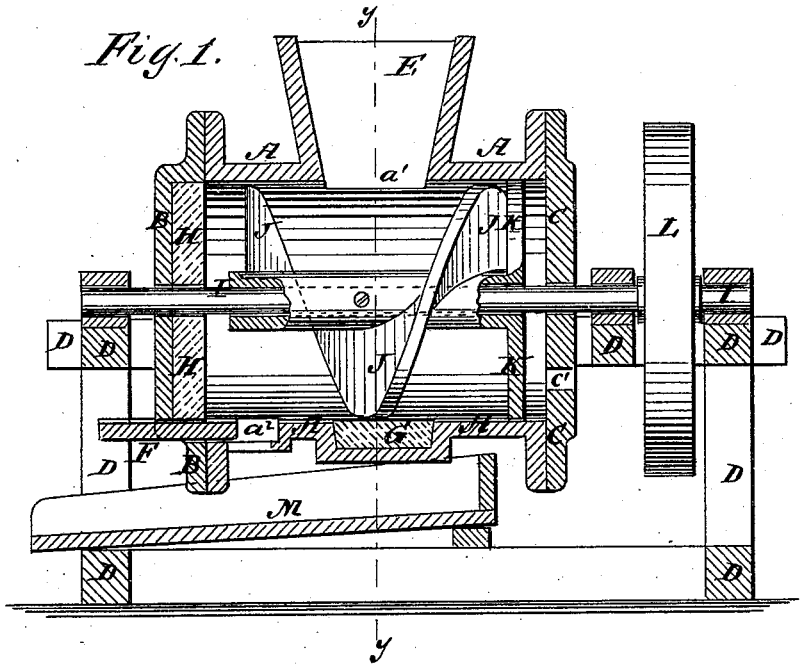
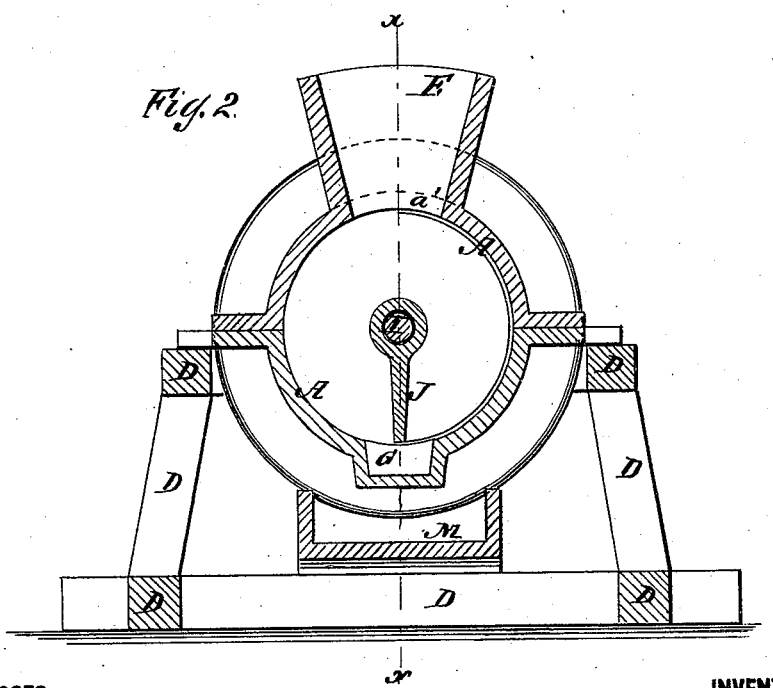


Fig. 2.



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