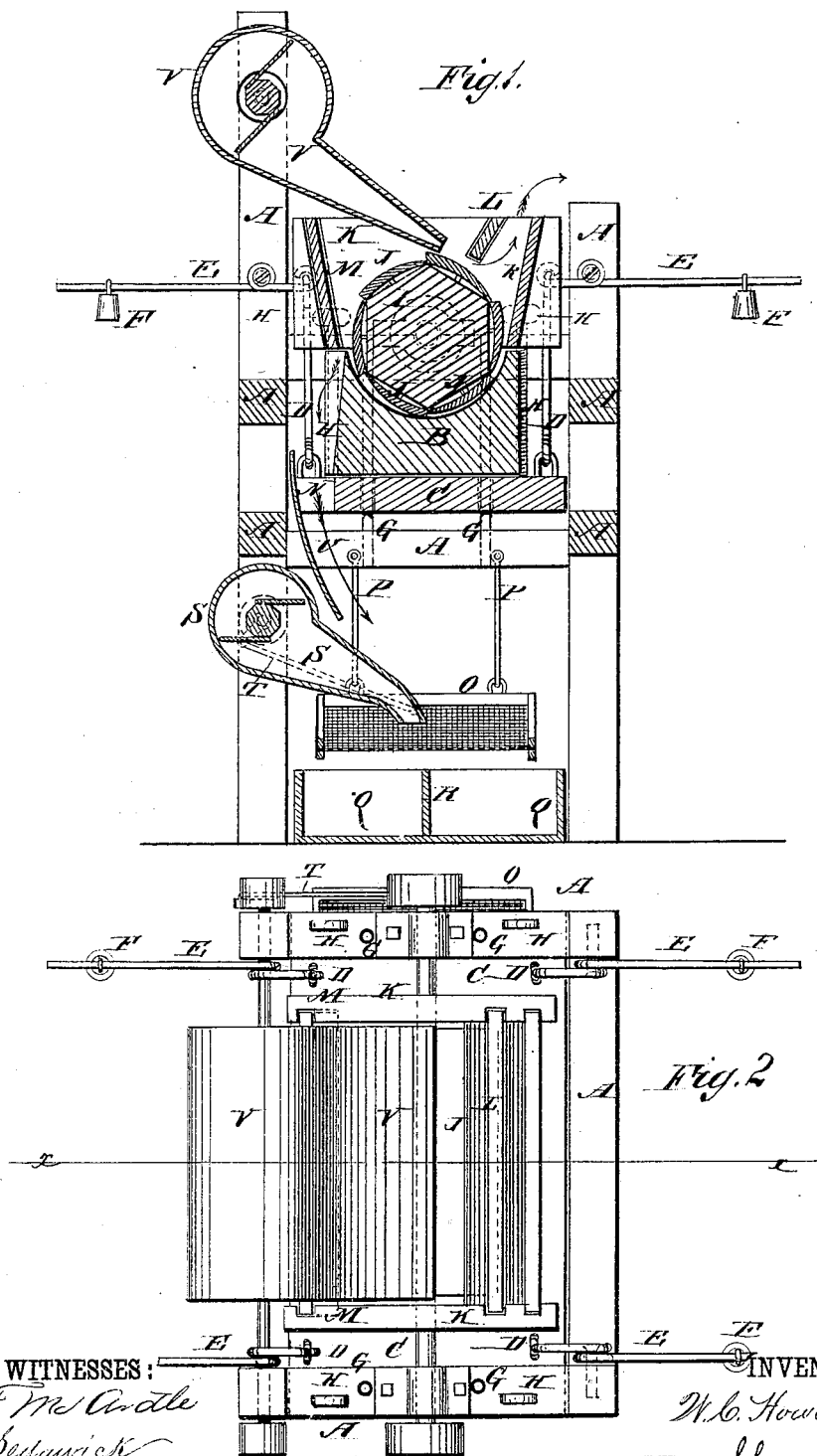


(No Model.)

W. C. HOWARD.
RICE HULLING MACHINE.

No. 269,674.

Patented Dec. 26, 1882.



WITNESSES:

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WILLIAM C. HOWARD, OF GRAHAMVILLE, SOUTH CAROLINA.

RICE-HULLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 269,674, dated December 26, 1882.

Application filed April 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HOWARD, of Grahamville, Beaufort county, South Carolina, have invented a new and useful Improvement in Rice-Hulling Machines, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 is a sectional side elevation of my improvement, taken through the line *xx*, Fig. 2; and Fig. 2 is a plan view of the same.

The object of this invention is to improve the construction of the rice-hulling machines for which Letters Patent No. 203,917 were issued to me May 21, 1878, in such a manner as to make them more effective in operation.

The nature of invention consists in combining, with a frame and platform supporting a stone, connecting-rods having weighted levers, substantially as hereinafter more fully set forth and claimed.

A is the frame of the machine. B is the stone, in the upper side of which is formed a semi-cylindrical cavity. The stone B rests upon a platform, C, to the corners of which are hinged the lower ends of the connecting-rods D. The upper ends of the rods D are hinged to the inner ends of the levers E, which are fulcrumed at a little distance from their inner ends to the posts of the frame A. Upon the outer arms of the levers E are placed weights F to balance the stone B and press it upward with the required force. With this construction, by adjusting the weights F the upward pressure of the stone B can be regulated as the grade of rice being operated upon may require.

The platform C and stone B are made to move up and down vertically by the guide-rods G, attached to side bars of the frame A, and which pass through guide-holes in the corners of the platform C. The upward movement of the platform C and stone B is limited by set-screws H, which pass through screw-holes in the top side bars of the frame A and rest against the upper side of the said platform C, so that by adjusting the set-screws H the stone B will be kept at any desired distance from the cylinder I. The cylinder I

may be made of any desired length and diameter, and is of polygonal form, with its sides or faces about two and a half inches wide.

To the faces of the cylinder I are attached, by wood-screws or other suitable means, steel plates J, the adjacent edges of which abut against each other, and which are made thicker at one edge than at the other, and with their outer surfaces slightly rounded. With this construction, shoulders will be formed at each joint of the plates J to carry the kernels of rice forward and rub them against the face of the stone B to clean them.

The cylinder I is surrounded by a hopper, K, which rests upon the upper side of the stone B, and which is provided with a partition, L, the ends of which slide in grooves in the ends of the said hopper for regulating the feed. One side, M, of the hopper K is movable, its ends sliding in grooves in the ends of the said hopper, so that the said side can be raised to allow the cleaned rice to escape from the said hopper. As the rice is discharged from the hopper K it falls through an opening, N, in the platform C, and is guided by an apron or spout, U, to the screen O, which is suspended from the frame A by hinged rods P. The rice passes from the screen O into a receiving-box, Q, which is divided by a partition, R, into two compartments—one to receive the small or broken rice and the other to receive the whole rice. The screen O is agitated from the shaft of the fan-blower S by a rod, T, pivoted to a short crank attached to the said shaft. The fan-blower S is so arranged that the air-blast will be directed against the screen O, so as to blow off the rice-flour as the rice is passing down the said screen.

To the upper part of the frame A is attached a fan-blower, V, which is so arranged as to discharge an air-blast into the hopper K to blow off the chaff as it is removed from the rice, to prevent the said chaff from impeding the operation of the cylinder I and stone B. The fans S V are driven from the cylinder-shaft by pulleys and belts, and the said cylinder can be rotated by hand, or may be driven from any convenient power by a band and pulleys or other gearing.

Rubber plugs or blocks are designed to be inserted in recesses in the cylinder I; or steel

springs can be used beneath one edge of each plate J to give a slight elasticity to the said plates J, and thus aid in preventing the kernels from being broken.

5 The detailed description and illustration are only given to aid a general understanding of the machine, the claims defining my exact invention.

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

In a rice-hulling machine, the combination,

with the frame A, the stone B, and its platform C, of the connecting-rods D and the weighted levers E F, substantially as herein shown and described, whereby the stone will
15 be held upward with any desired force, as set forth.

WILLIAM CARR HOWARD.

Witnesses:

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