(No Model.)

S. A. PICKETT.

RICE MACHINE.

No. 426,738. Patented Apr. 29, 1890.

Fig. 1

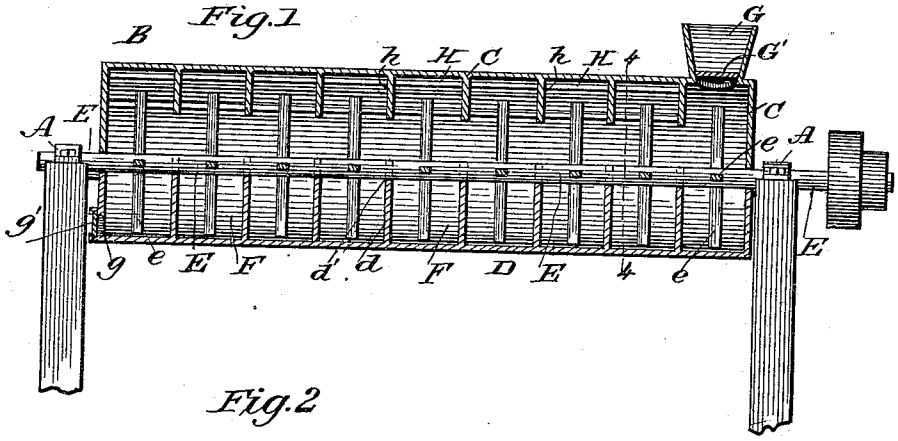


Fig. 2

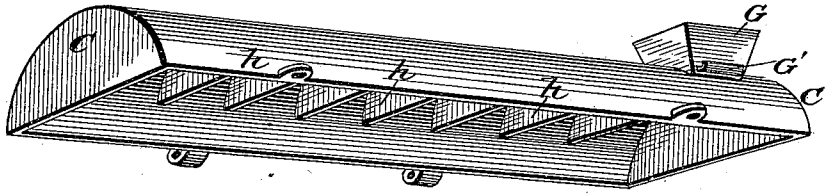


Fig. 3.

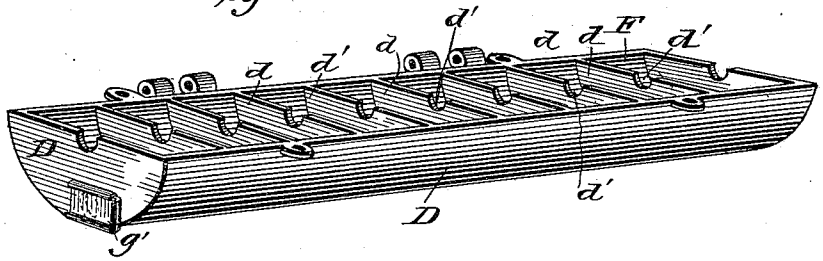


Fig. 4

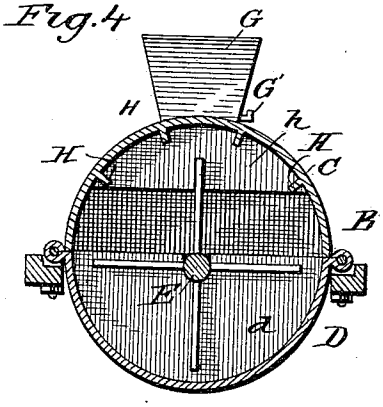
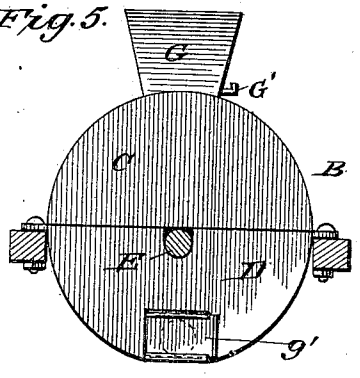


Fig. 5.



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Fig. 6



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SQUIRE A. PICKETT, OF CROWLEY, LOUISIANA.

RICE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 426,738, dated April 29, 1890.

Application filed October 29, 1889. Serial No. 328,535. (No model.)

To all whom it may concern:

Be it known that I, SQUIRE A. PICKETT, of Crowley, in the parish of Acadia and State of Louisiana, have invented a new and useful Improvement in Rice-Machines, of which the following is a specification.

My invention is an improved rice-machine intended especially for use in hulling and in scouring grain; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a vertical longitudinal section of a machine constructed according to my invention. Fig. 2 is a detail view of the upper cylinder-section. Fig. 3 is a detail view of the lower cylinder-section. Fig. 4 is a cross-section on about line 4 4 of Fig. 1. Fig. 5 is an end view, part in section; and Fig. 6 shows a somewhat different manner of securing the arms or beaters to the shaft.

The machine comprises a suitable frame having bearings at A for the shaft and adapted to support the drum or casing B. This casing B is made, preferably, cylindrical and in two sections—an upper section C and a lower section D—and is divided into a number of cross-compartments F, the grain being in operation caused to flow from one end of the machine successively through the several compartments and discharged at the opposite end of the casing, as will be presently described.

I make the lower section D with cross-partitions *d*, having centrally in their upper sides notches *d'* for the shaft E, so that such shaft can fit down in the lower section, and thus occupy an eccentric position within the casing, the arms or beaters of the shaft consequently moving closer to the bottom than to the top of the casing, as will be understood from Figs. 1 and 4. These partitions *d* form between them the compartments F, a hopper G being provided, by which the grain may be fed into the first compartment, and a discharge-opening being provided at *g*, by which the grain may be discharged from the last compartment, such inlet and discharge being controlled by valves or gates G' *g'*, as shown.

The shaft E is provided with arms or beaters *e*, which may be secured, as shown in Fig. 4, by passing a bar through the shaft and securing it centrally, so as to form the opposite arms, or by securing the arms separately, as shown in Fig. 6. These arms or beaters operate as the shaft is turned to throw the rice or other grain up, so that as it is fed in at one end it will accumulate in the first compartment F. When such compartment is filled, it is thence thrown into the next compartment, and so on, the grain thus passing from end to end of the machine and being kept in constant motion from the time it enters until it is discharged, thus effecting the desired hulling or scouring, as may be desired.

Now to prevent the shaft from causing the grain to move concentrically with the shaft in the several compartments, I provide the upper section or portion of the casing with stops H, consisting of cross-ribs extended between partitions *h*, which latter are arranged above the partitions *d*. These stops H are preferably four in number; but the number may be varied, as desired. In operation the stops serve to prevent the simple rotary circulation of the grain and cause it to be stopped at a point above the several compartments, so that it will pass when such compartment is full to the next one toward the discharge end of the machine, it being prevented from passing in the opposite direction because the next compartment toward the infeed will be already filled to overflowing, the passage of the grain toward the discharge end of the machine being thus insured. By making the casing in upper and lower sections access to the interior thereof for any desired purpose may be conveniently had by loosening the fastenings at one side of the top section and turning said section on the hinges arranged at its opposite side.

This machine may be used for both hulling and scouring rice, and to such end the grain may be passed through the machine to hull it, then fanned in any suitable manner, and subsequently passed through the same machine or another similar one, as may be desired, to effect the scouring.

The cross-partitions *h* in the upper portion of the casing operate together with the lower compartments to prevent any portion of the grain from passing too rapidly through the

machine, while the cross-ribs or stops H act together with the parts *h* and *d* in the manner before described.

In scouring, the rice is run in so as to keep the compartments crowded, while in hulling the feed is not so fast. The speed of the machine in scouring is about two-thirds as fast as in hulling—that is to say, if the speed in hulling was about twelve hundred revolutions per minute, that for scouring would be about eight hundred revolutions.

Having thus described my invention, what I claim is—

1. The improved machine for treating grain, consisting of the shaft having arms or beaters, the casing having a lower section D, provided with compartments F, and the upper section C, having stops H, and partitions *h*, all substantially as set forth.

2. The machine, substantially as herein described, consisting of the drum or casing having an inlet and outlet, and having its lower portion divided into compartments and its upper portion provided with partition-plates *h*, dividing it into compartments corresponding with those of the lower portions, and having depending stop-ribs H, extended between the adjacent partitions H, and the shaft having arms or beaters, substantially as set forth.

3. The improved machine herein described, having the lower portion of its casing provided with partitions and the upper portion thereof provided with partitions, and having an inlet at one and an outlet at the other end, whereby the material to be treated may be carried between the upper and lower partitions, the adjacent edges of the upper and lower partitions being separated, whereby to provide an unobstructed passage between them, and the shaft having arms or beaters, all substantially as set forth.

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Witnesses:
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