R. W. Van Peyma.

Hulling Mach.

No. 52,774. Patented Feb. 20, 1866.

Fig. 2.

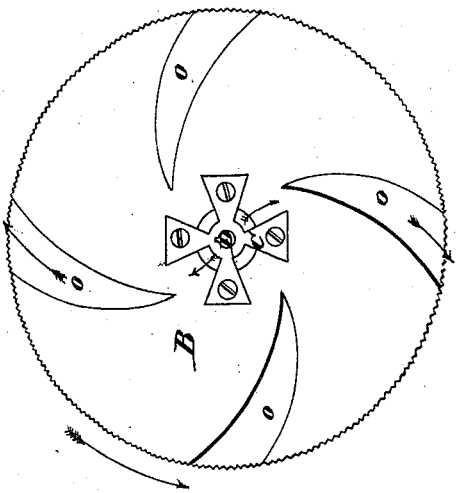
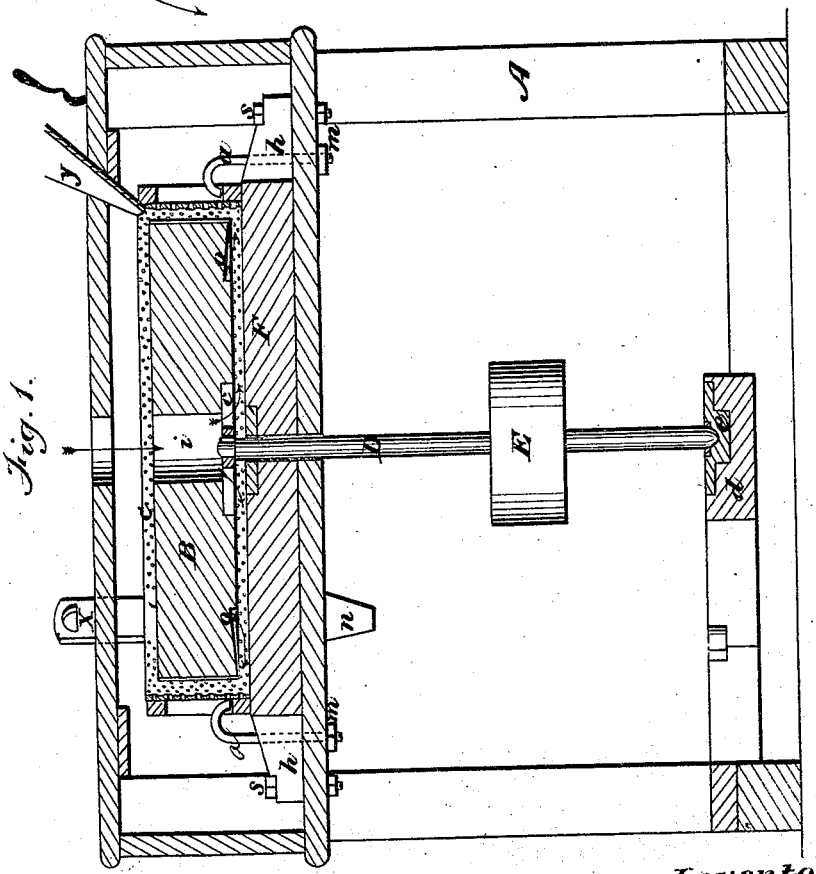


Fig. 3.

Fig. 1.



Inventor
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by his attorney
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UNITED STATES PATENT OFFICE.

R. W. VAN PEYMA, OF LANCASTER, NEW YORK.

IMPROVEMENT IN GRAIN-HULLERS.

Specification forming part of Letters Patent No. **52,774**, dated February 20, 1866.

To all whom it may concern:

Be it known that I, R. W. VAN PEYMA, of the town of Lancaster, county of Erie, and State of New York, have invented a new and Improved Hulling-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure I is a longitudinal vertical section taken from the center. Fig. II is a plan of the under side of the stone, showing the grooves. Fig. III is a view showing the periphery of the stone with its corrugations.

The nature of my invention consists in providing a machine by which barley and other grain may be pearled without fracture or injury to the grain, the operation of which is performed in the most rapid and perfect manner, and by which a saving of at least two hundred pounds in every one hundred bushels is effected over the old or ordinary methods of pearling grain.

It has long been the great desideratum of inventors and those engaged in hulling or pearling grain to overcome the difficulty above stated, the loss by fracture and other imperfect means heretofore employed in the operation being so great that but few persons have been willing to invest in this department of manufacture in consequence of such a large per cent. of loss by fracture and otherwise.

By my invention I am able to obviate all the difficulties encountered by the old methods.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a rectangular frame, made of either wood or metal. B is the stone, which I usually make about five feet in diameter and about fourteen inches thick, with the periphery corrugated at right angles to the plane of the stone, the purpose of which will be more fully explained.

On the under side of the stone are four grooves, commencing wide at the periphery, running on a curve to near the center or eye of the stone, where they terminate. The objects of said grooves are to create a blast, or give motion to the air as it comes through the eye of the stone at its center in the direction of the arrows, as seen at *i*. These grooves are cut deep on one side and taper out at the other, the deep side of said grooves running or being in the rear when the stone is in motion, as seen at *o o*, Fig. I.

C is a curb, made of sheet metal, perforated from the outside, the indentations of which form a series of conical corrugations on the inside. Said curb is secured to the bed-plate, which extends across from side to side of the main frame, by means of hook-bolts *a a*, which pass down through brackets *h h*, also the bed-plate, and secured thereto by nuts *n n*. The object of these hook-bolts, which gripe the lower flange of the curb, is that the curb may be removed and made of less diameter as the stone wears and becomes of less diameter, and in this manner the annular space may be kept of uniform size.

D is the spindle or shaft on which the stone is secured and balanced by any common or well-known means.

E is a band wheel or pulley, from which the stone receives its motion from any of the well-known powers.

e is the step on which the spindle rests, it being fimly secured to the bridge-tree *d*.

Y is the eduction-pipe or hopper through which the grain passes into the annular space between the periphery of the stone and the inside of the curb, said annular space being about one-eighth of an inch between the periphery of the stone and inside of the curb, or of sufficient capacity for about one-half bushel of grain.

X is a gate through which the grain passes, after having been pearled, into the eduction-spout *n*.

In the operation of my machine it has been found by experience that about two hundred turns of the stone per minute, with four grooves, as above described, give a sufficient blast, together with the centrifugal force of the stone, to keep the grain evenly spread throughout the annular space, also preventing the grain from falling at once to the bed-plate.

As before stated, the grain is fed into the annular space while the stone is in motion, where it remains a few minutes, during which time, by means of the action of the periphery of the stone with its corrugations and the conical corrugations on the inside of the curb, the hull or shell of the grain is worn off, when the gate is raised and the grain discharged

through the spout *n* into any convenient receptacle without fracture and pearled in the most perfect manner.

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

1. A stone with the periphery corrugated at right angles with the plane of the stone and grooves *o o*, for the purposes substantially as set forth.

2. The stone, as described, in combination with the curb C and hook-bolts *a a*, substantially as and for the purposes described.

R. W. VAN PEYMA.

Witnesses:
WM. H. GRIMES,
JOHN BELL.