J. JOHNSON.

Peanut Huller.

No. 113,889. Patented Apr. 18, 1871.

Fig. 2.

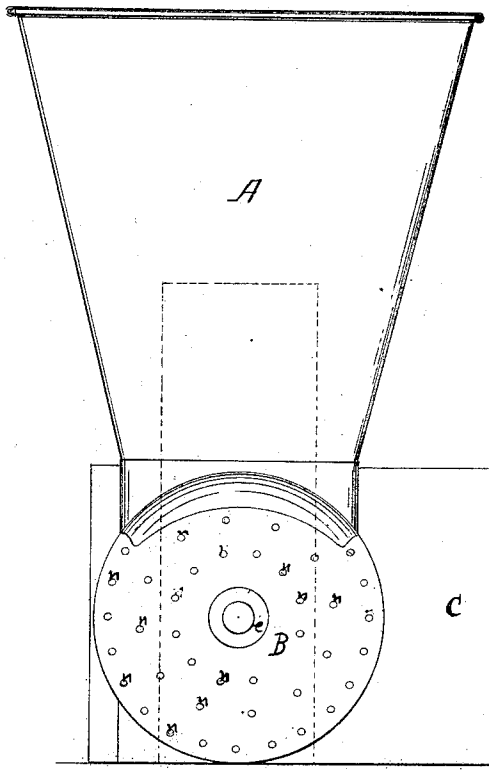


Fig. 1.

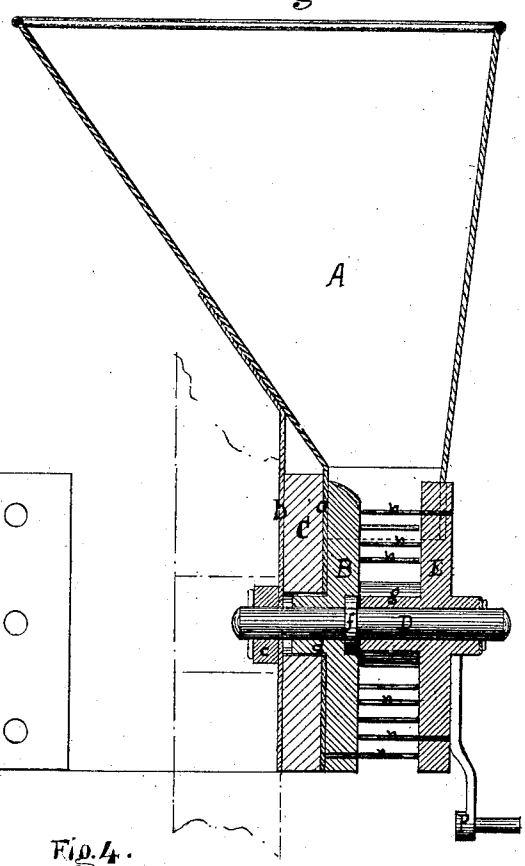


Fig. 3.

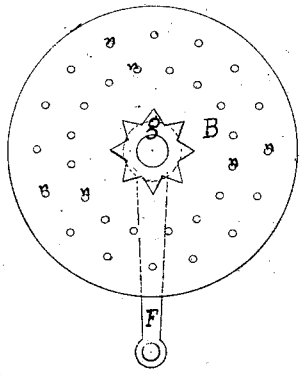
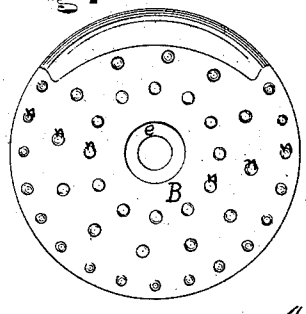


Fig. 4.



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JOSEE JOHNSON, OF NEW YORK, N. Y.

Letters Patent No. 113,889, dated April 18, 1871.

IMPROVEMENT IN PEANUT-HULLERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEE JOHNSON, of New York, in the county of New York and in the State of New York, have invented a certain new and useful "Improvement in Peanut-Hullers;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in constructing a peanut-sheller with a hopper properly adjusted to two circular disks, which, with the circular rows of pins whose common center is the center of the disks, constitute the hulling apparatus. One of the disks is stationary, and is represented in the accompanying drawing as having three circular rows of pins; but the number of rows of pins may be increased, as desired.

The other disk has a rotary motion given to it by a hand-crank, and this disk has two circular rows of pins and a fluted hub or projection of the revolving disk at its center, which assists in hulling, and also in bracing the two disks. The revolving disk is set on a shaft with the pin-rows so facing the stationary disk that there will be five annular chambers or spaces between the rows of pins on the two disks. The ends of the pins of each disk are square, so as to run as near to the other disk, without touching, as possible. The outer row of pins on the stationary disk incloses or is outside of the outer row of pins on the rotary disk. The number of rows of pins on the revolving disk may be increased as desired, and it may be driven by steam as well as by hand-power.

The other parts of the sheller will be, with above-mentioned features of the invention, more fully hereinafter described, to enable others skilled in the art to make and use my invention.

In the drawing—

Figure 1 is a transverse vertical section of my invention as a whole and ready for use;

Figure 2 is a front elevation with the revolving disk removed;

Figure 3 is a reverse plan view of the revolving disk, showing the circular arrangement of the pins and the fluted hub; and

Figure 4 is a plan view of the stationary disk with pins of an enlarged size.

A is the hopper, made of stout sheet-iron or other suitable material.

The back plate *a* of the hopper is extended down so as to be secured between the stationary disk B and frame C.

A brace, *b*, to further secure the hopper, is secured to the back plate of the hopper and extends down on the rear side of frame C, and is held firmly thereto by the nut *c* and the ordinary nails or screws.

The frame C may be so constructed that the sheller can be secured in any convenient position, like the common coffee-mill. The disk B is made of iron and has a hub or projection, *d*, which fits into the frame C and gives additional firmness to the stationary disk B.

In the center of the face of disk B there is a recess, *e*, to receive the collar *f* on the shaft D. Disk B is held by this collar *f* and braced firmly against plate *a* of the hopper and frame C by turning home the nut *c* on the shaft D. This stationary disk B has, as shown in fig. 2, three rows of pins or spikes, *n*. They are made of steel, and may be removed and replaced, as necessity demands. The outer row of pins on this disk B is closer together than the pins of the inner row; and that side of this row next to the hopper is discontinued the width of the mouth of the hopper, as shown in fig. 2.

The outer row of pins on the disk B has the spaces between its pins determined by the size of peanut to be shelled. In fig. 2 the rows of pins are formed of pins of the size, and the spaces between the pins are of the width, adapted to the hulling of the larger-sized peanuts, and in fig. 4 the rows are shown constructed of larger pins, by that means diminishing the width of the spaces between the pins, and adapting the disk to the hulling of the smaller-sized peanuts.

The stationary disk shown in fig. 4, constructed with larger-sized pins, and adapted for hulling the smaller-sized peanuts, is to be a supernumerary disk, to accompany the huller and to replace the disk B, shown in fig. 2, when it is desired to shell a smaller-sized nut. The inner rows of the disk B, shown in figs. 2 and 4, have not their pins placed so near together as the outer row.

The revolving disk E is made of iron, and has a hub or projection, *g*, at its center, with a fluted or tooth-like surface, which serves as an inner row of pins. (See fig. 3.) This hub *g* is slightly longer than the pins, and serves to brace the disk E on the shaft D, and to maintain the disk E parallel with the disk B. (See fig. 1.) There are two rows of pins on this revolving disk E, and they are of the size shown in fig. 2, of like form and material, and when broken or bent may be removed and replaced as the pins on the disk B are. This revolving disk E is secured on the shaft D by a pin or other suitable way.

On small hullers the hand-crank F may be used as shown in the drawing, and on large-sized hullers steam-power may be used.

The pins *n* may be adapted to the quantity of nuts to be hulled by increasing their length, and to strengthen and stiffen the pins; and to more effectually prevent the hulls from getting between the ends of the pins and the disks, I may find it convenient to furnish a shallow groove on the face of each disk to receive the outer ends of the pins. I do not confine myself to the shape of the pins; they may be as angular or round as desired.

When it is desired to increase the number of rows of

pins, the number of rows must be increased together on both disks, and the relative distance between each row and the pins of each row must be preserved.

The great advantage of my huller will be seen in the fact that the ends of pins are concealed or covered so that they may not crush the nuts; or if the ends of the pins are not as close as possible to the disks, or in grooves, the outer ends of the pins must be as far from the surface of the disks as the space between the pins of the row.

The annular chambers or spaces between the rows of pins formed between the rows of pins of the two disks when placed in position are to be of the same width as the width between the pins of the outer row on the stationary disk.

The pea of the peanut can readily get through the spaces between the pins or into the annular chambers, but the hull or shell of the peanut cannot, until broken and torn from the pea.

The outer row of pins of the stationary disk, besides serving as a guard to prevent the escape of the peas until they are hulled, presents a grinding face to assist in hulling, and, by reason of the many openings between the pins through which the hulled peas may escape, also provides a most perfect means for the copious and rapid flow or delivery of hulled peas and broken hulls, and thus avoids the unnecessary scouring or rubbing and accompanying danger of mashing the peas, which would result if the peas were not thrown from the grinding or hulling apparatus as soon as they are freed from their hulls.

Having constructed the huller as above set forth, the peanuts are fed into the hopper A, and the hand-crank F is revolved, carrying with it the revolving disk E about the shaft D. The pins *n* of disk E carry what peanuts may have fallen between them against the pins *n* of the stationary disk B, and the hulls or shells are broken or crushed, and the peas are set free and drop through the spaces of outer row on the disk B. The disk B shown in fig. 2 is used when the larger-sized peanuts are hulled, and is removed, and the disk B, shown in fig. 4, substituted therefor when the smaller-sized peanuts are to be hulled.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the rotary and stationary disks B and E, each provided with pins *n*, and the latter with corrugated hub *g*, with the hopper A, constructed and operating substantially as described and for the purposes described.

In testimony that I claim the above-described certain new and useful "improvement in peanut-hullers" I have hereunto signed my name this 28th day of March, 1871.

JOSEE JOHNSON.

Witnesses:

T. G. CLAYTON,

V. C. CLAYTON.