

T. P. BULLARD.  
 GREEN PEA HULLING MACHINE.  
 APPLICATION FILED JAN. 9, 1919.

1,302,005.

Patented Apr. 29, 1919.

Fig. 1.

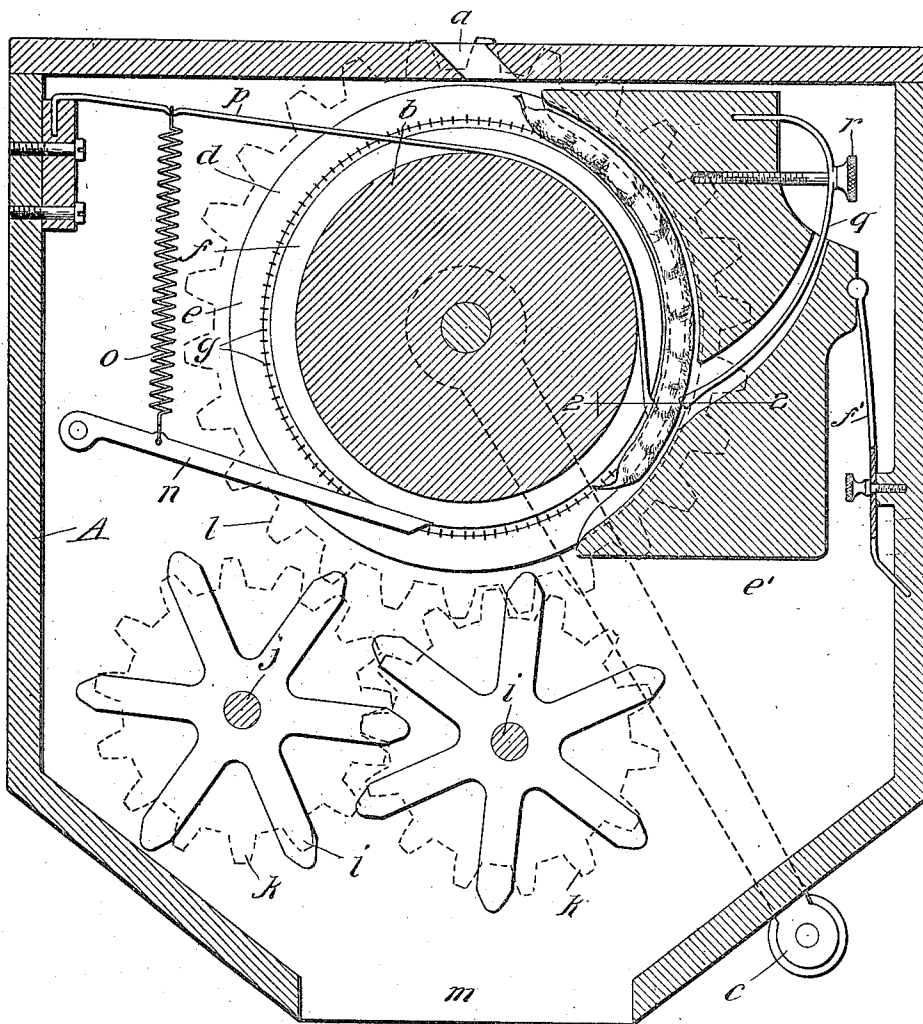
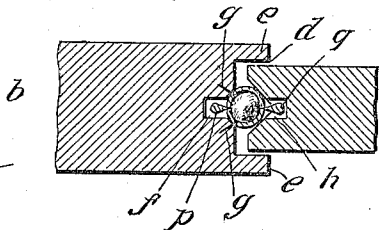


Fig. 2.



WITNESSES:

*F. C. Wilson.*

INVENTOR

*Thomas Perry Bullard*

BY

*Daniel T. Damm*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

THOMAS PERRY BULLARD, OF ROSEBORO, NORTH CAROLINA.

## GREEN-PEA-HULLING MACHINE.

1,302,005.

Specification of Letters Patent.

Patented Apr. 29, 1919.

Continuation in part of application Serial No. 231,314, filed April 29, 1918. This application filed January 9, 1919. Serial No. 270,355.

To all whom it may concern:

Be it known that I, THOMAS P. BULLARD, a citizen of the United States of America, and a resident of Roseboro, county of Sampson, and State of North Carolina, have invented certain new and useful Improvements in Green-Pea-Hulling Machines, of which the following is a full and clear specification.

10 The object of this invention is to provide a simple machine, principally for domestic use, for removing the hulls from green peas without materially, if at all, injuring the peas, as more fully hereinafter set forth.

15 This application is a continuation in part of my co-pending application Serial No. 231,314, filed April 29, 1918, allowed July 18, 1918.

In the drawings—

20 Figure 1 is a vertical sectional view of my machine; and

Fig. 2 is a sectional view taken through the slitting devices on the line 2—2.

Referring to the drawings by reference characters, A designates any suitable casing in the top of which is formed an inclined passage *a*. Within the casing and directly in line with passage *a* is a wheel *b* which is adapted to be driven in any suitable manner, preferably, in small domestic machines, by a hand-crank *c* attached to the shaft of the wheel *b*. The periphery of the wheel is provided with a broad groove *d* which forms two annular flanges *e* and in the bottom of said groove *d* is formed a narrower groove *f* whose edges or corners are beveled off and provided with an annular series of sharp projecting pins *g*.

40 On one side of the wheel, within the casing, is mounted a breast segment *e'* whose face adjacent the wheel is curved to correspond with the periphery of the wheel, this curved face being provided with a V-shaped groove throughout its length, the width of this breast segment block being such that it enters between the flanges *e* of the wheel so as to form between the periphery of the wheel a segmental passage curving correspondingly to the periphery of the wheel, this passage having its upper end substantially coincident with the passage *a*, so that pea-pods may be fed down through the passage-way endwisely one by one and be carried down through said passageway by the rotation of the wheel, the sharpened pins *g* pro-

viding the necessary friction for forcibly carrying the pea-pods around through the passage as the wheel rotates. The breast segment is normally pressed toward the wheel by springs *f'* so as to exert a resilient pressure 60 upon the pods as they are carried downwardly. The pods being green, they are readily bent to conform to the curvature of the wheel. The breast segment is supported by said spring *f'* and is maintained in true 65 working relation to the wheel by having, as above set forth, its curved edge embraced by the annular flanges *e* formed on the wheel.

As the pea-pods are carried downwardly through the passageway, they are centered 70 on the wheel-periphery by the converging or beveled sides of the groove *f* in the wheel and the correspondingly converging sides of groove *h* formed in the curved face of the segment. As the pods descend through this 75 passageway, they are longitudinally slit by suitably arranged knives or cutters, and as the slit peas emerge from the lower end of the throat, the pods are separated from the peas by a suitable device consisting desirably 80 of a pair of intermeshing paddle-wheels *i* affixed to shafts *j* and driven in opposite directions by cog-wheels *k* driven from a main gear *l* affixed to the shaft of the paddle-wheel. From these breaking wheels *i*, the 85 pods and peas fall through an opening *m* in the bottom of the casing, and the pods and peas may be separated by hand or by a suitable apparatus. To insure the slitted pods being detached from the pins *g* of the wheel, 90 I provide scraper-bar *n* whose beveled end is held resiliently in the groove *f* by means of a spring *o*.

For slitting the pea-pods as they pass down through the throat, I may use 95 suitable cutters. In the apparatus illustrated, I employ two slitting-knives *p*, *q*, the former of which is affixed to a suitable part of the frame of the machine and is normally drawn downwardly by means of the afore- 100 said spring *o*, the inner end of this knife being curved to conform to the periphery of the wheel and lying in the bottom of the groove *f*, the extremity of this knife, where the slitting edge is formed, being arranged 105 to extend into the throat so that as the pea-pods pass down through the throat they will be carried past the knife and be thereby longitudinally slitted along one side. The other knife *q* is arranged to slit the pod at 110

the opposite side, and for this purpose it is mounted on the segment and extended through an opening therein so as to extend into the pod-throat at a point approximately opposite the entry-point of the other knife, this knife *q* being made adjustable by means of a thumb-screw *r*.

It will be observed that slitting of the pods without injury to the peas will be greatly facilitated by reason of the fact that the normal pressure against the lines of jointure of the pod-sections tends to bulge the sides of the pods outwardly away from the peas, thereby giving more room for cutting the pods without cutting the peas, and also tending to rip the pods along the lines of jointure where the pods are split when they are opened by hand.

The nature and scope of the invention having been thus indicated and its preferred embodiment having been specifically described, what is claimed as new is:

1. In a green-pea huller, a frame, a wheel-member journaled therein, a breast segment member, means for pressing one member normally toward the other, said segment being provided with a groove which together with the periphery of the wheel forms a curved passageway or throat for the pea-pods, and devices entering said passageway for longitudinally slitting the pods.

2. In a green-pea huller, a rotary member, a stationary member, and means for normally pressing one member toward the other, the juxtaposed faces of these members being shaped so as to provide a throat or passageway following the periphery of the rotary member, and pod-slitting means in said stationary member adapted to slit the pods as they pass through said passageway or throat.

3. In a green-pea huller, a rotary member, a stationary member, and means for normally pressing one member toward the other, the juxtaposed faces of these members being shaped so as to provide a throat or passageway following the periphery of the rotary member, and pod-slitting means in said stationary member adapted to slit the pods as they pass through said passageway or throat, means being provided for normally forcing the slitting devices inwardly toward the pods.

4. In a green-pea huller, a rotary member, a stationary member, and means for normally pressing one member toward the other,

the juxtaposed faces of these members being shaped so as to provide a throat or passageway following the periphery of the rotary member, and pod-slitting means adapted to slit the pods as they pass through said passageway or throat, the slitting devices being arranged at opposite sides of the passageway in said stationary member, so as to slit opposite walls of the pod.

5. In a green-pea huller, a frame, a wheel member journaled therein, a breast segment member, means pressing one member normally toward the other, the face of one member being provided with a guiding-groove to receive the adjacent edge of the other member, both members being provided with additional grooves to form a curved passageway or throat for the pea-pods, and devices entering said passageway for longitudinally slitting the pods.

6. In a green-pea huller, a frame, a wheel member journaled therein, a breast segment member, means for pressing one member normally toward the other, the adjacent faces of said members being shaped to form a passageway or throat between them for the passage of the green pea-pods, a slitting-knife entering said passageway through the breast segment, and another slitting-knife mounted on the frame and extending into said passageway or throat at the opposite side from the other knife.

7. In a green-pea huller, a frame, a wheel journaled therein and provided with an annular groove, a slitting-knife mounted on the frame and extending so as to have its inner end lie in said groove, the extremity of said knife being sharpened and normally extending to a point outside of said groove, a breast segment forming with the wall a throat or passageway into which the cutting extremity of said knife extends.

8. In a green-pea huller, a frame, a pair of cooperating members between which is formed a throat or passage for the passage of the pod, means for pressing one member resiliently toward the other to thus exert pressure on the pod sufficient to bulge the sides of the pod away from the peas, and means for longitudinally slitting the pod-wall while thus distorted or bulged and while passing through said throat or passage.

In testimony whereof I hereunto affix my signature.

THOMAS PERRY BULLARD.