

(No Model.)

J. C. POWERS.
Cotton Seed Huller.

No. 239,840

Patented April 5, 1881.

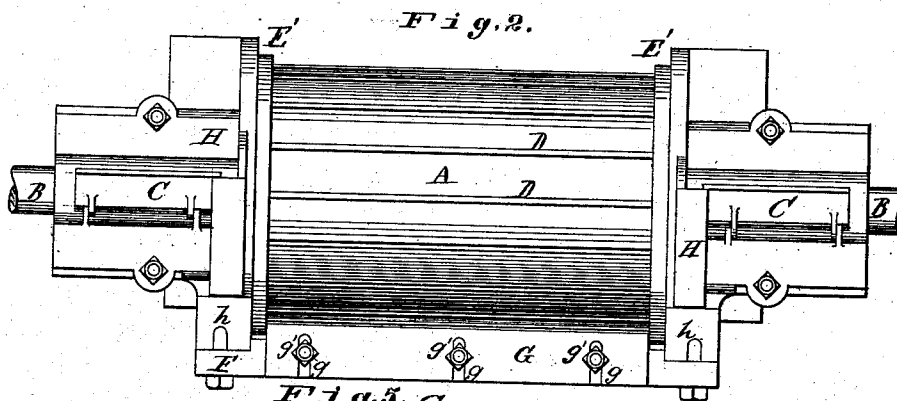
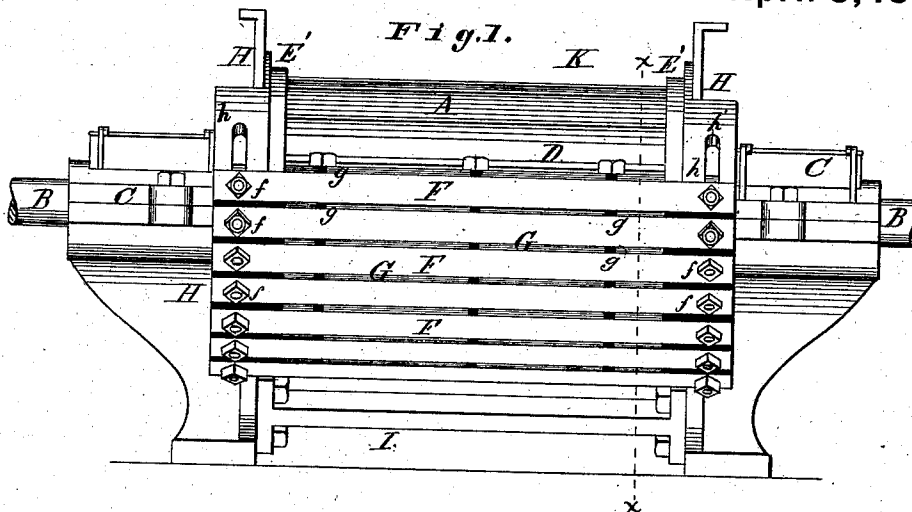


Fig. 3.

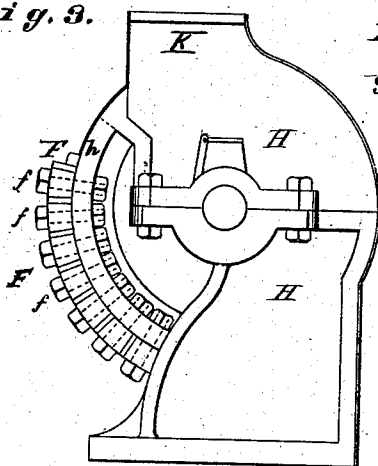


Fig. 5.

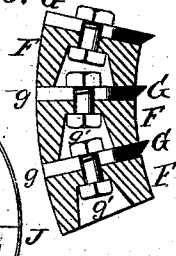


Fig. 4.

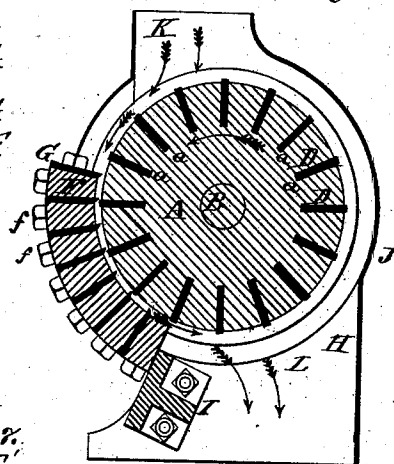


Fig. 6.

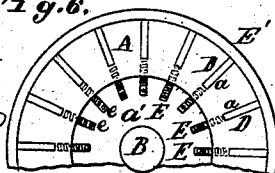
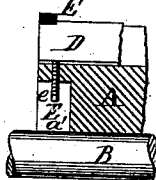


Fig. 7.



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JOHN C. POWERS, OF ST. LOUIS, MISSOURI.

COTTON-SEED HULLER.

SPECIFICATION forming part of Letters Patent No. 239,840, dated April 5, 1881.

Application filed July 21, 1880. (No model.)

To all whom it may concern :

Be it known that I, JOHN C. POWERS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Cotton-Seed Hullers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

In the drawings, Figure 1 is a side view. Fig. 2 is a similar view with the concave removed. Fig. 3 is an end view, showing the manner in which the knives are secured to the concave. Fig. 4 is a section at *x x*, Fig. 1. Fig. 5 is an enlarged detail section of part of the concave, showing the means for attaching and adjusting the knives. Fig. 6 is an end view of part of the cylinder, showing the means for adjusting the knives of the same; and Fig. 7 is a detail section of part of the cylinder and shaft.

A is a rotary cylinder, fixed upon a shaft, B, turning in bearings C. The cylinder is cast solid, with the exception of the axial hole for the shaft B. In the cylinder A are made a number of longitudinal slots, *a*, extending from end to end, or nearly so, and from the periphery a sufficient distance toward the axis to receive the knives D. The ends of the cylinder are chambered at *a'*, leaving an annular projection at each end, in which screw a number of set-screws, E, one screw bearing against the inner edge of each knife at each end of the knife, so as to form bearing for the knives and give means for setting them outward in the cylinder. The screws E have heads or pin-holes *e* within the cavity *a'*, to receive a screw-wrench or pin, by which they are turned. The knives are retained in their slots by bands E' E', surrounding the cylinder at the ends.

Each cylinder-knife consists of a flat bar, of steel, having rectangular corners, constituting the edges of the knife, so that the knife has

four similar edges, which may be used one after another by reversing the blade as the edge in use becomes rounded.

The concave consists of bars F, having knives G bolted to the bars. The bars F are secured to the flanges *h* of the heads H of the huller by bolts *f* passing through the slots *h'* in the ends of the case and through the ends of the bars. The knives G have slots *g* extending transversely from the back toward the edge, and are secured to the bars by bolts *g'*, passing through said slots and through the bars, so that the knives admit of adjustment to and from the cylinder.

In securing the concave to the case one of the bars F is placed next to the brace I which connects the ends. Then the bar is bolted in place, and a knife, G, is bolted to this bar. Another bar and knife are then bolted in position, and so on until the concave is built up.

J is the back casing of the huller, and K the mouth, through which the seed is fed.

The machine may be surmounted by any suitable feed box or hopper, or may be fed by a chute or pipe in connection with the mouth.

The hulled seeds are discharged at L. (See arrows in Fig. 4, which indicate the entrance, course, and exit of the material.)

I claim as my invention—

1. The cylinder A, formed with channels *a* and chambers *a'* in each end thereof, the knives D, inserted in said channels, the bands E', for securing said knives to the cylinders, and the set-screws E, working through the annular projections of the cylinder, as set forth.

2. The concave bars F and screw-bolts *f*, in combination with the heads H, constructed with flanges *h*, formed each with continuous slots *h'*, as set forth.

JOHN C. POWERS.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.