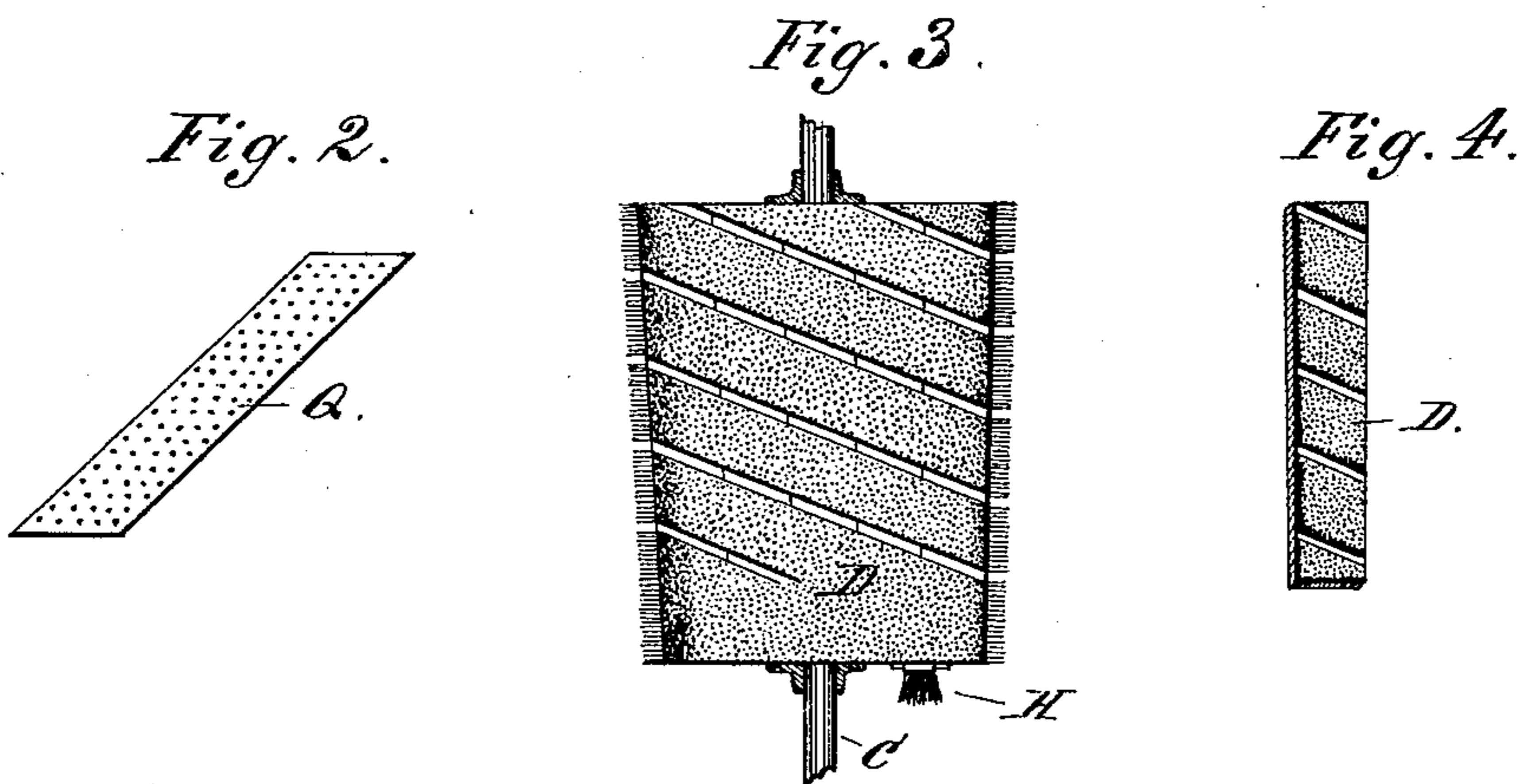
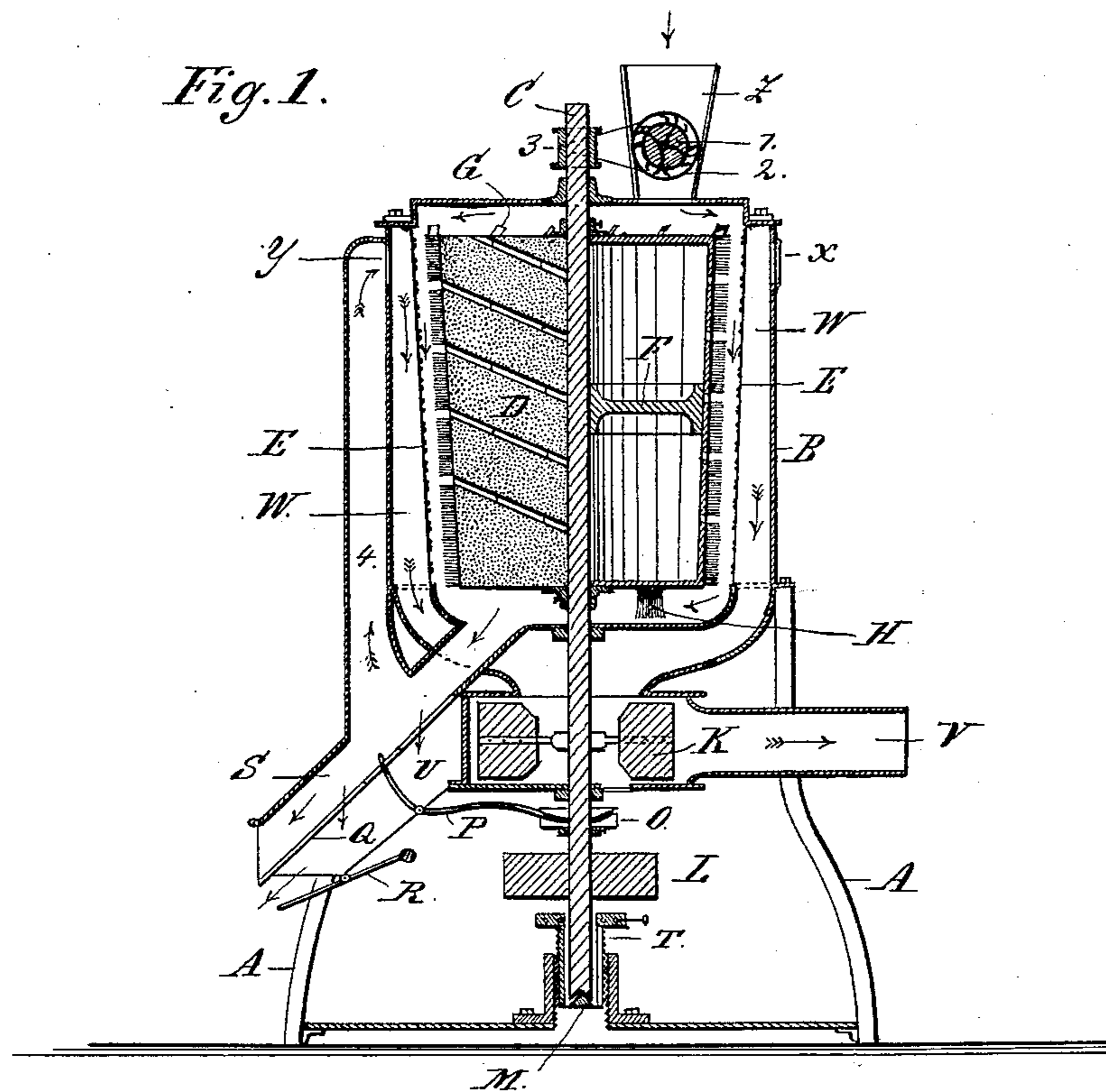


J. H. McCORMICK.
COTTON SEED DELINTING MACHINE.

No. 481,416.

Patented Aug. 23, 1892.



WITNESSES:
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Perry D. Parker.

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Fig. 5.

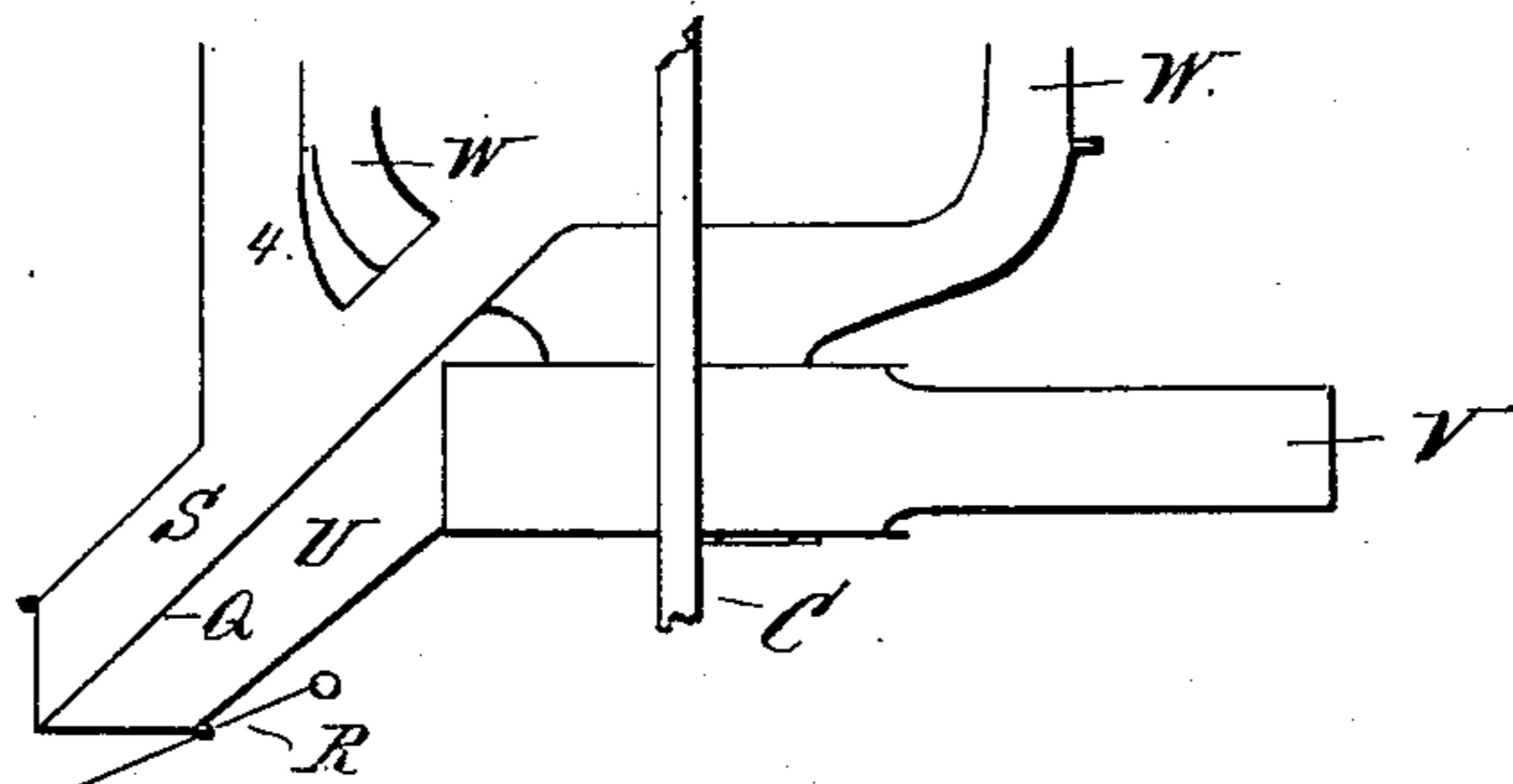


Fig. 6.

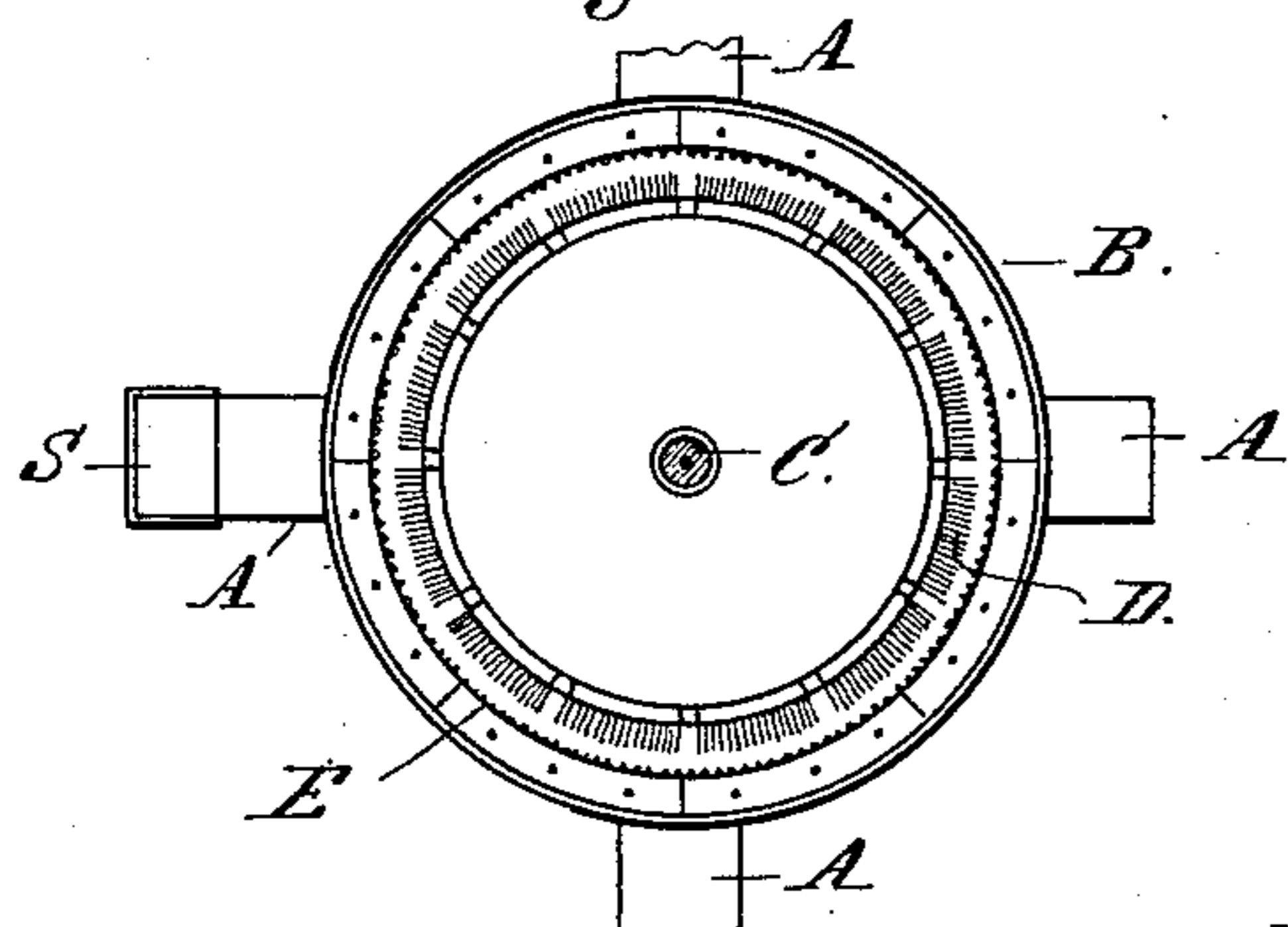


Fig. 7.

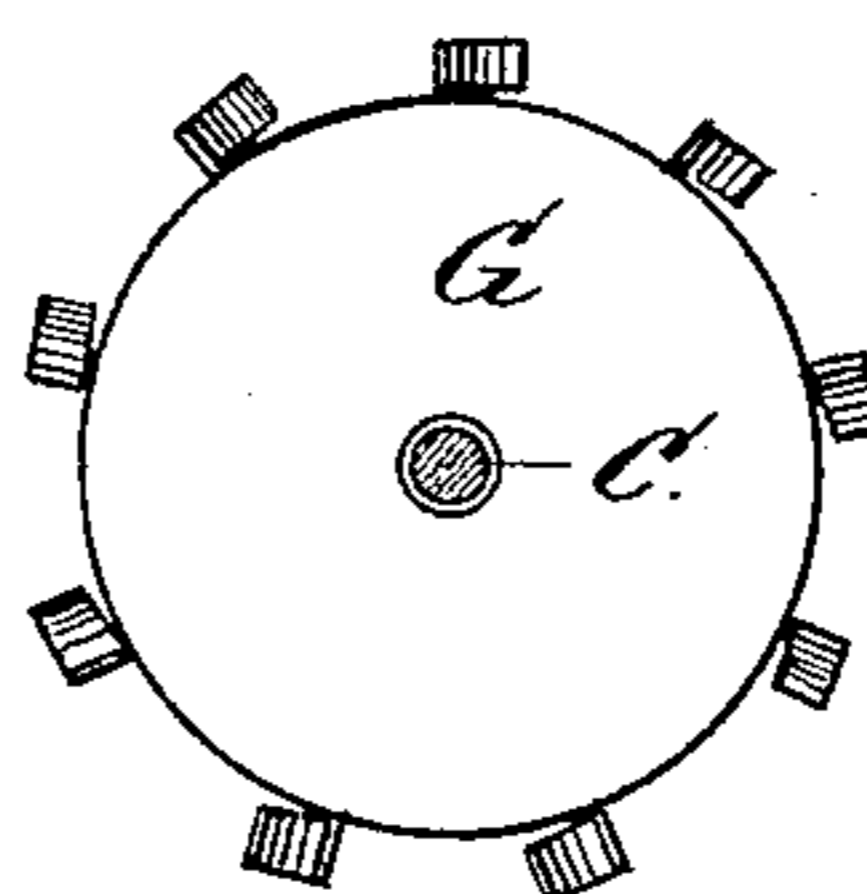


Fig. 8.

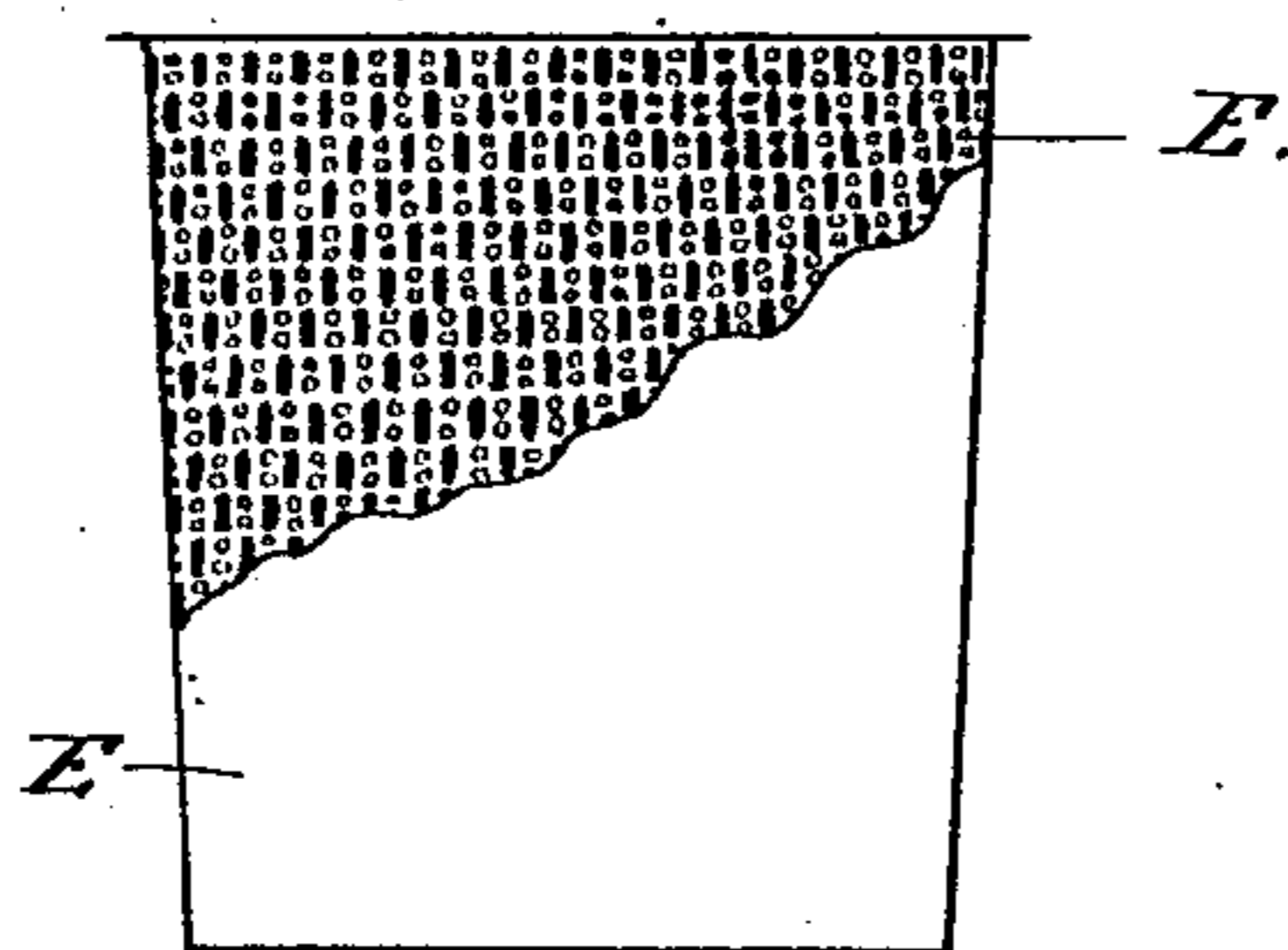
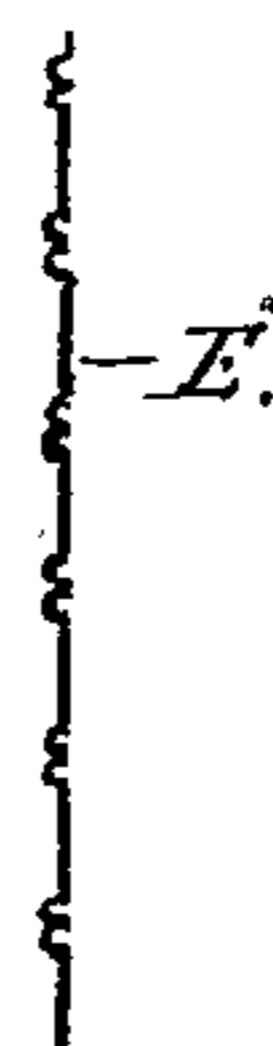


Fig. 9.



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UNITED STATES PATENT OFFICE.

JOHN HOWARD McCORMICK, OF NEW ORLEANS, LOUISIANA.

COTTON-SEED-DELINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 481,416, dated August 23, 1892.

Application filed October 16, 1891. Serial No. 408,948. (No model.)

To all whom it may concern:

Be it known that I, JOHN HOWARD McCORMICK, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Cotton-Seed-Delinting Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in cotton-seed-delinting machines, and the novelty will be fully understood from the following description and claims when taken in connection with the annexed drawings; and the objects of my invention are to remove all lint remaining upon cotton-seed after the ordinary ginning process. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side view of a machine embodying my invention. Fig. 2 is a top view of the shaking-sieve. Fig. 3 is a side view of the brush-cylinder. Fig. 4 is a perspective view of a brush stave or lag. Fig. 5 is a side view of the dust and fan chambers; also, of the dust, seed, and lint discharge outlets. Fig. 6 is a cross-section of the delinter. Fig. 7 is a top view of the metal plate on top of the brush-cylinder, provided with blades for distributing cotton-seed. Fig. 8 is a sectional side view of the perforated and indented casing. Fig. 9 is an edge view of the indented and perforated casing.

Similar letters and figures refer to similar parts throughout the several views.

In the drawings, A A represent legs which support the machine; B, an outer frame, which may be of wood or metal.

C is a shaft, to which is attached a brush-cylinder D, the brushes on said cylinder being of wire and each wire being driven into the wooden stave or lag, thus giving greater strength to the said wire, thus obviating the necessity of a leather backing for the wire brushes as heretofore used.

F are arms of the brush-cylinder.

G is a metal plate which forms the top of the brush-cylinder and upon which seed from hopper Z fall, said plate being provided with metal blades, as shown in Fig. 8, and which

throw the seed between cylinder D and its perforated and indented casing E and forms a draft downward between the brush and casing. Cylinder D is also provided with a brush H, which prevents accumulation of seed at the bottom of the cylinder and forces the same downward through chute S. (Shown in Fig. 1.)

L is a driving-pulley.

M is a step in which the shaft C rests.

O is a grooved cam on the shaft, to which cam one end of an agitator P is attached, while the opposite end of said agitator is attached to an inclined sieve Q, and as the shaft C is rotated a vibratory movement is given to the perforated shaker Q by means of the agitator P and grooved cam O, thus enabling all dust in the cleaned seed as they descend through the chute S to fall into a chute U, where it remains until a sufficient quantity is collected to be discharged by its own gravity through a trap-door R, which is caused to open by the weight of the accumulated dust. The step M is provided with a threaded exterior surface, which is indicated by T and which enables the shaft C to be raised or lowered by simply screwing the top in one direction or another.

V is a discharge-outlet for the lint.

W is a lint-chamber.

X is an air-inlet provided with a door not shown.

Y is an opening in return-lint chamber 4 and through which all lint that may descend to its lower opening will be driven by the blast from a fan K in the direction indicated by arrows in chamber 4, and thence through Y back into chamber W, where it is drawn into the fan-chamber, then discharged through the chute V. The hopper Z is provided with a cylinder or roller 1, studded in such a manner as to discharge upon G and at same time prevent all choking of seed in the throat of the hopper, said cylinder or roller 1 is provided with a pulley 2, over which a belt passes and engages a pulley 3 on shaft C.

In practice the machine is put in motion by passing a belt over the driving-pulley L, the belt being connected to an engine or other motor not shown. The shaft C as it rotates also rotates pulley 3 and the cylinder or roller 1 within the hopper, and the cotton-seed are

fed from the hopper upon the plate G, the blades on the periphery thereof throwing the cotton-seed between the brush-cylinder D, which is being rotated by the shaft and the stationary perforated and indented metal casing E. As the seed descend the ends of the bristles of the brush-cylinder D, which is being rapidly rotated, come in contact with the lint upon the seed and remove the same by impinging the seed against indentations of metal casing, and as the lint is removed the current of air caused by the rotation of the cylinder D drives the lint through the perforated openings into the chamber W, and the fan K draws the lint out of the chamber W and blows it out through chute V, while the seed descend through chute S, the bottom of said chute being perforated and made to vibrate by means of agitator P, which receives its motion from shaft C. The brush being spiral in shape enables the seed to descend, prevents all choking, and gives a large increase in the capacity of the machine. The end of the shaft C, resting in the movable step, is concave, and revolves on a metal point which forms part of the step.

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

1. In a cotton-seed delinter, the combination, with the frame B, of the indented and perforated casing arranged thereon and forming a lint-chamber, the brush-cylinder arranged within the indented casing, the vertically-adjustable shaft secured to said brush-cylinder, the fan-casing below the brush-cylinder, the fan arranged therein and secured to said shaft, the chute leading from the interior of the perforated casing and having a perforated shaker in its bottom, the dust-re-

ceiving chute below said shaker, the cam on the shaft, and an agitator for engaging the cam on the shaft for operating the shaker, substantially as specified.

2. In a cotton-seed delinter, the combination of the casing, the vertical shaft therein, the vertically-adjustable bearing for said shaft, the brush-cylinder secured to the shaft and provided with a spiral brush on the periphery, a brush on the bottom of the cylinder, the casing having a return-inlet for lint and a discharge-outlet for seed, a sieve arranged in the seed discharge or outlet, and an agitator for said sieve connected with the shaft, substantially as specified.

3. A cotton-seed delinter having the following instrumentalities in combination: a lint-chamber arranged upon a suitable frame, a fan-casing arranged below the lint-chamber and in communication therewith, a lint-discharge leading from said casing, a perforated casing arranged in the lint-chamber, a vertically-adjustable shaft passing through the respective chambers, the brush-cylinder secured to the shaft, a brush secured to the under side of the brush-cylinder, a fan also secured to said shaft, a grooved cam secured to the shaft below the fan-casing, a sieve arranged on the seed-discharge, a dust-chamber beneath the sieve, and an agitator connecting the sieve with the cam on the vertical shaft, all adapted to operate substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HOWARD McCORMICK.

Witnesses:

R. M. FRANK,
PERCY D. PARKS.