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I. F. BROWN.

Improvement in Cotton Seed Mills.

No. 122,877.

Patented Jan. 23, 1872.

Fig. 1.

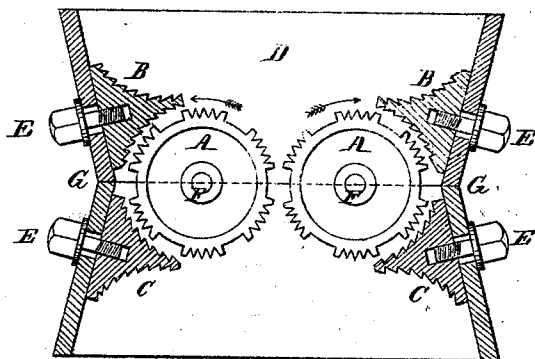
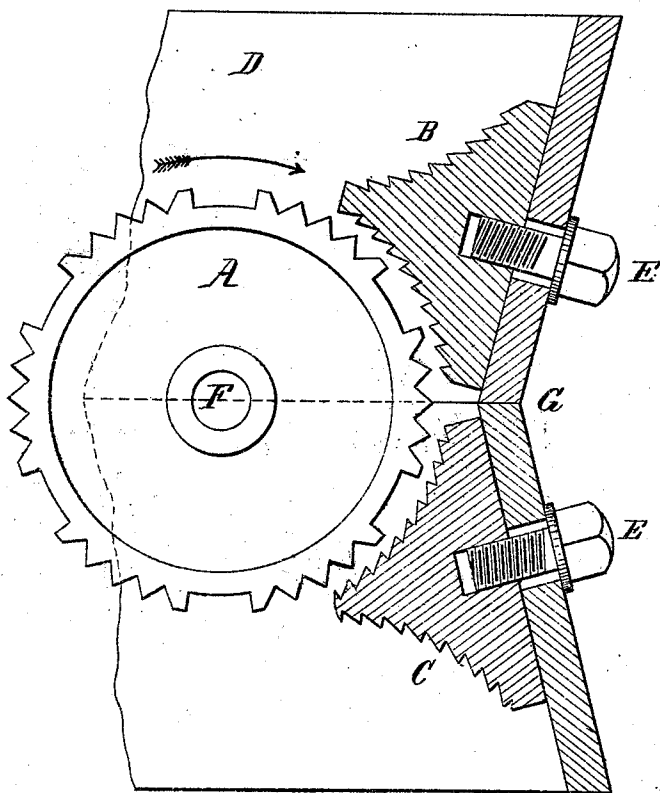


Fig. 2.



WITNESSES.

J. M. Albertson.
A. G. Richards.

INVENTOR.

Israel F. Brown.

UNITED STATES PATENT OFFICE.

ISRAEL F. BROWN, OF NEW LONDON, CONNECTICUT.

IMPROVEMENT IN COTTON-SEED MILLS.

Specification forming part of Letters Patent No. 122,877, dated January 23, 1872.

SPECIFICATION.

I, ISRAEL F. BROWN, of the town and county of New London, State of Connecticut, have invented certain Improvements in Cotton-Seed Mills, of which the following is a specification:

My invention relates to an improved form of the scrapers, or stationary grinding surfaces, which act in connection with rotary grinding cylinders, of the mill for grinding the seed; and consists in so constructing these scrapers that by changing their position in the mill, together with reversing or turning the mill upside down, entire new grinding surfaces are presented, thus doubling the length of the wear of the machine without additional cost in its first construction, the object of the invention being to provide a cheap machine for plantation use—to grind seed for feed, fertilizers, and other purposes.

In the accompanying drawing, Figure 1 is a vertical section of a machine embodying my invention; Fig. 2 is an enlarged view of the same.

D is the frame of the machine, which consists of two hoppers made separate and joined together at G. At the intersection of these suitable journal-boxes are provided for the reception of the shafts F. Upon these shafts are fixed the grinding rollers A, which rollers may be furrowed in any manner preferred. B and C are what I denominate the scrapers, and constitute the principal feature of my invention. They are formed with one flat side, which rests against the side of the hopper D, and with two curved sides each, corresponding to the form of the cylinder A. The surfaces of these sides are furrowed, as shown, but with this difference between the piece B and the piece C, that in the piece B, which is in the upper part of

mill, the furrows run downward, while in the piece C, which is placed in the lower part of the mill, the furrows run upward; so that in both a proper form is presented to the action of the cylinder A.

After the surfaces of the scrapers B and C are worn out, they are taken out by removing the screws E E, and the piece B placed in the position occupied by piece C, and vice versa, so that their relative positions are reversed, and they present new surfaces to the action of the cylinder A. It is now only necessary to turn the mill upside down, and it is again ready for use.

It is this changing of the pieces B and C to present new surfaces, together with the turning of the mill to bring them into proper position, that constitutes my invention. It will be seen that after the mill is turned upside down the direction of the motion of the cylinder must be changed. This presents to the scrapers the sides of the furrows on the surface of cylinders that have not been worn, and thus in a measure the cylinders are renewed.

It is evident that either one or two cylinders may be used, as preferred.

I do not claim any particular form of furrowed surfaces, nor any features of the mill distinct from those above referred to.

What I claim is—

The scrapers B and C, in combination with the frames D D and cylinder A, when constructed and arranged substantially as and for the purpose described.

ISRAEL F. BROWN.

Witnesses:

I. M. ALBERTSON,
N. G. RICHARDS.