

W. R. FEE.  
Cotton Seed Huller.

No. 108,896.

Fig. 1. Patented Nov. 1, 1870.

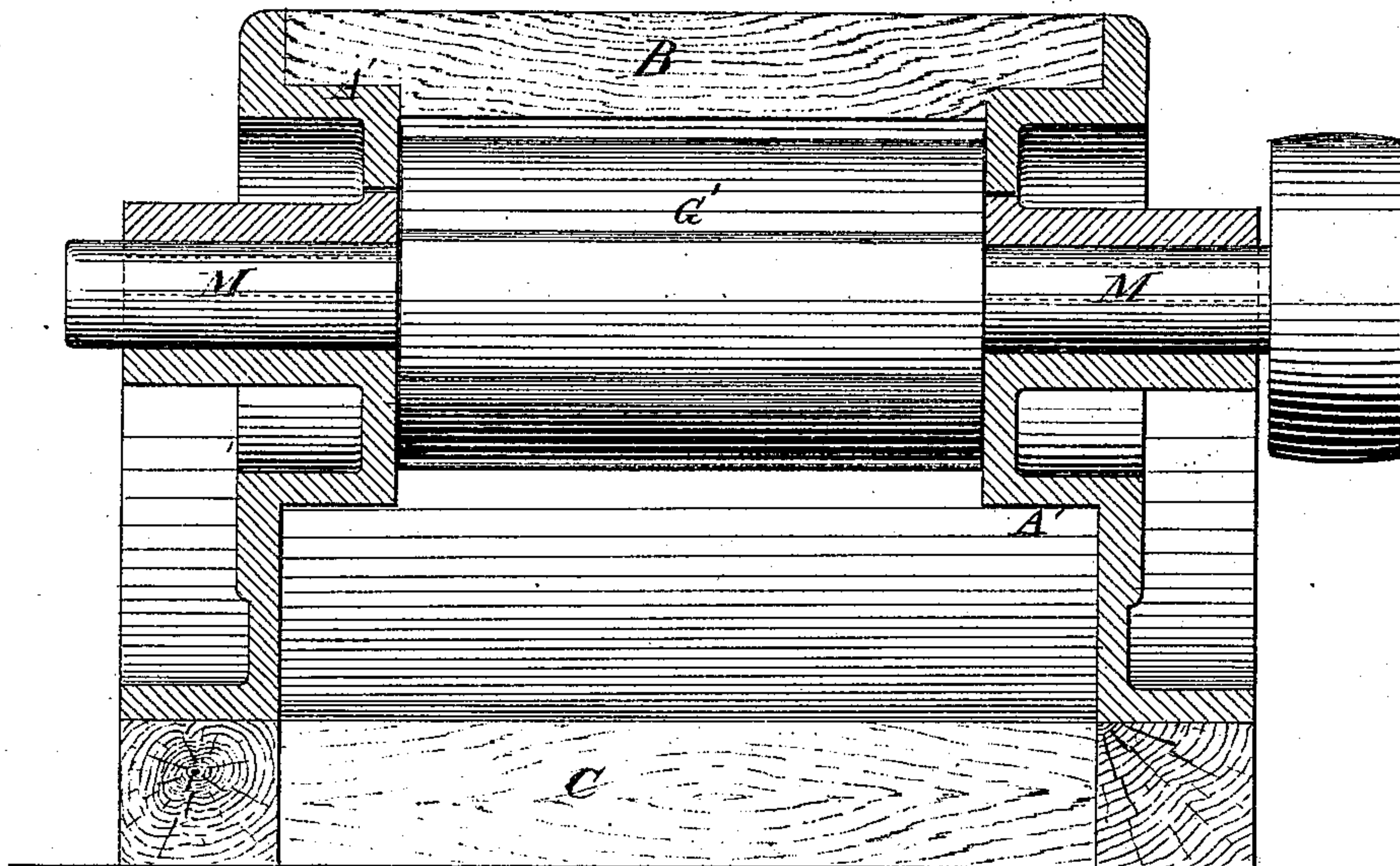


Fig. 2.

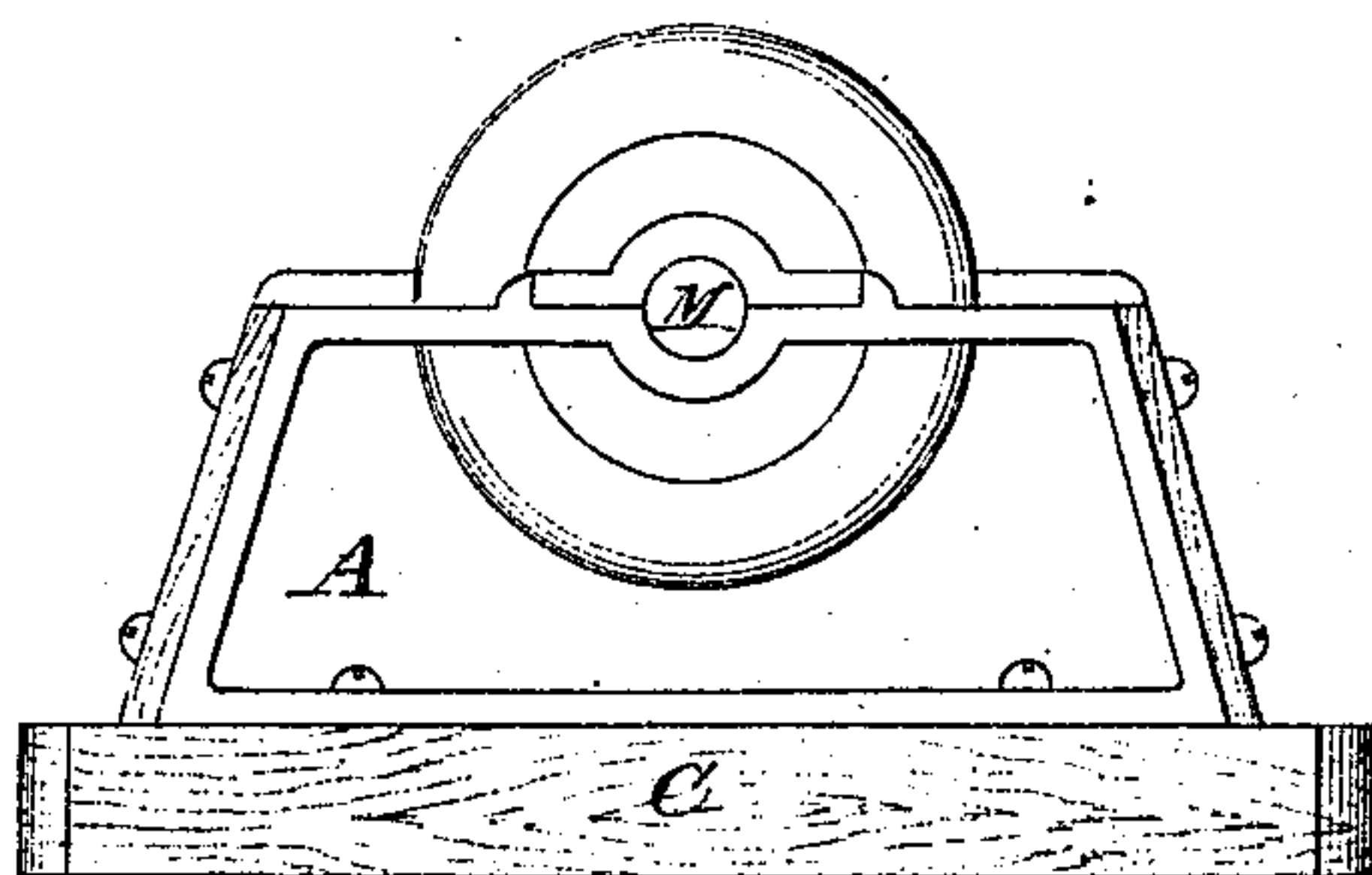


Fig. 3.

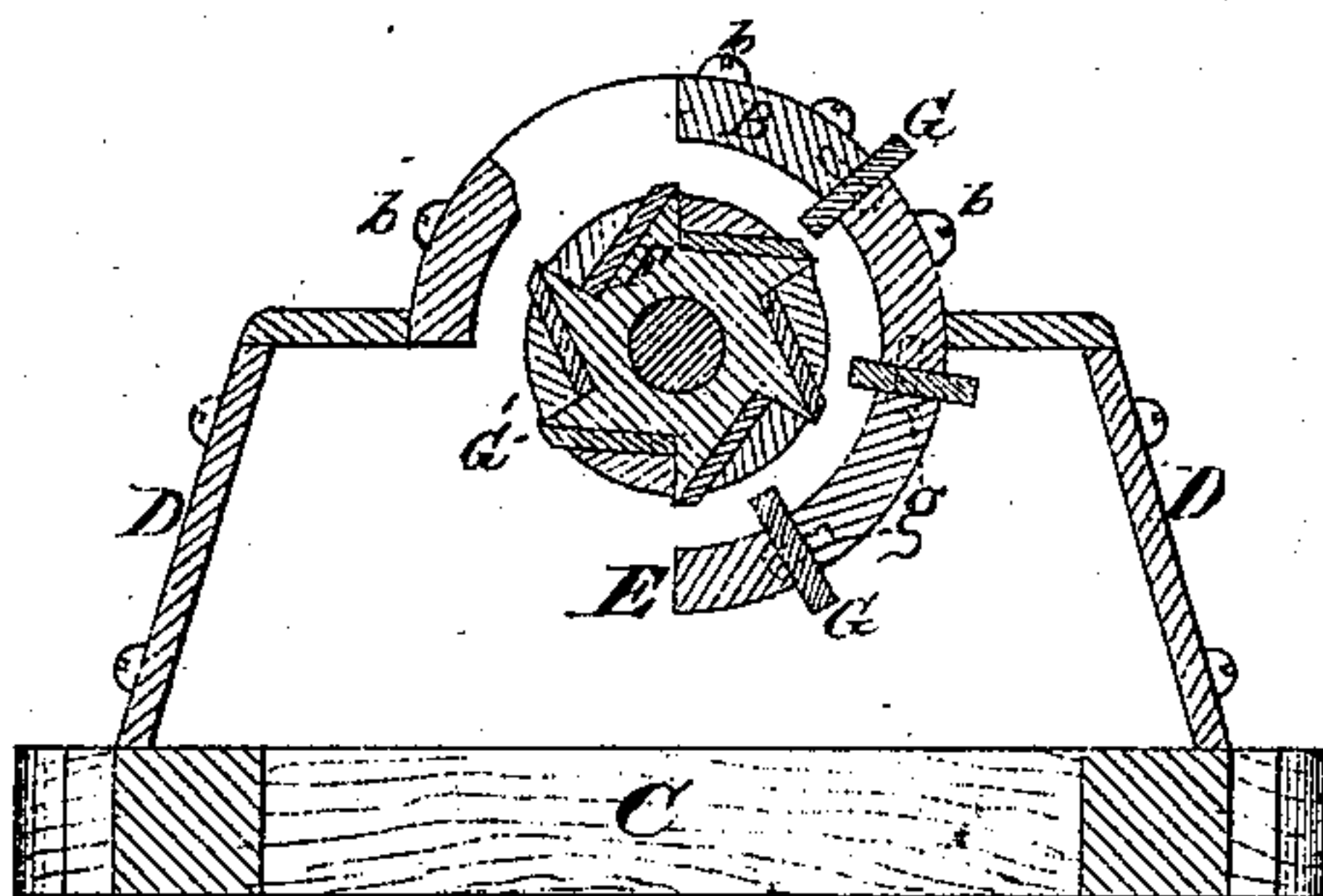


Fig. 4.

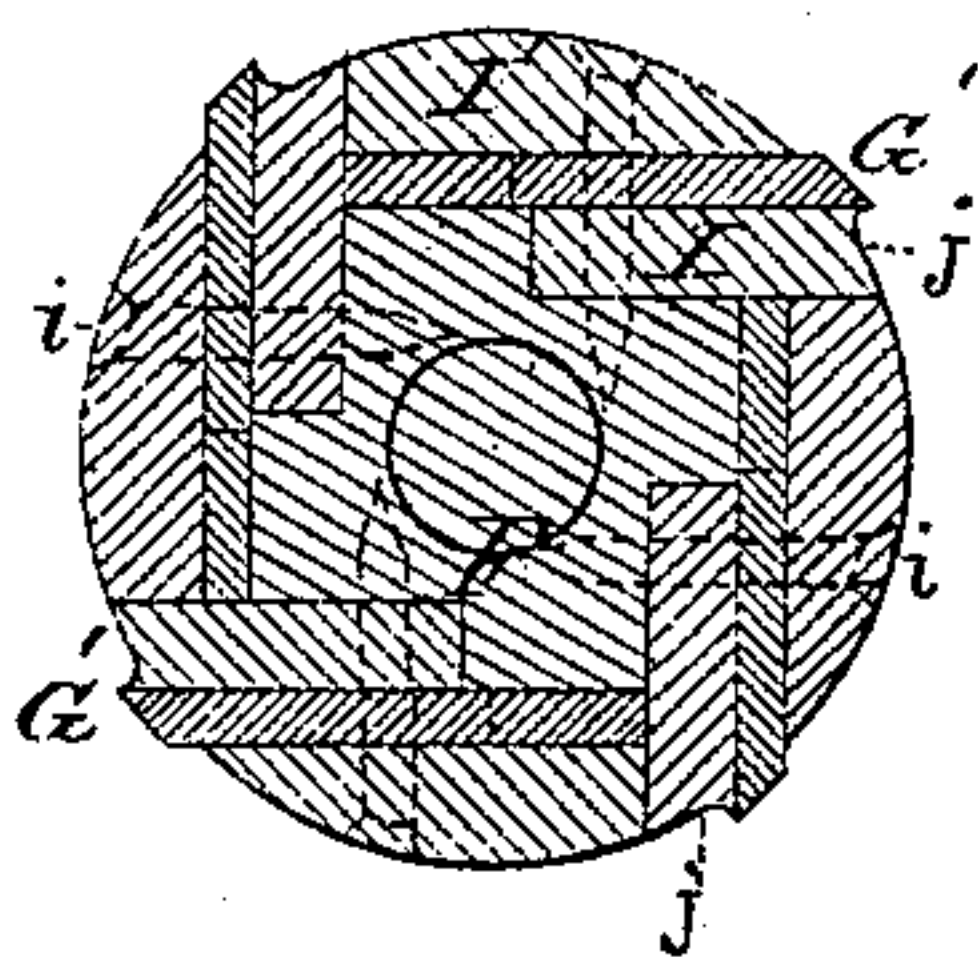


Fig. 5.

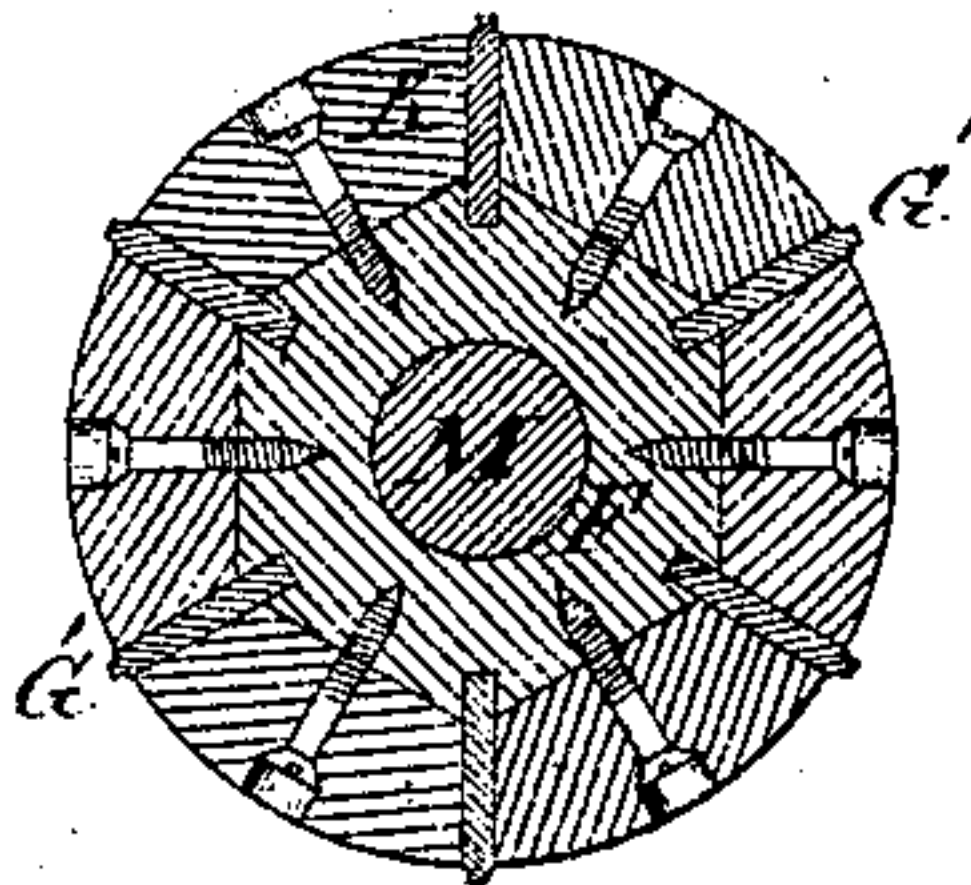


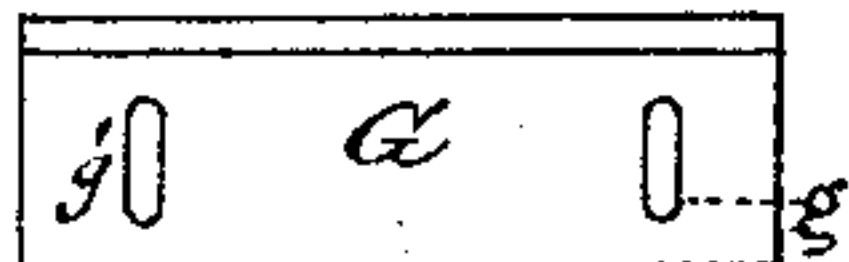
Fig. 6.



Fig. 7.



Fig. 8.



Witnesses:

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# United States Patent Office.

WILLIAM R. FEE, OF CINCINNATI, OHIO.

Letters Patent No. 108,896, dated November 1, 1870.

## IMPROVEMENT IN COTTON-SEED HULLERS.

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

*To whom it may concern:*

Be it known that I, WILLIAM R. FEE, of Cincinnati, Hamilton county, and State of Ohio, have invented a new and useful Improvement in Machines for Hulling Cotton-Seed; and the following is a full and exact description thereof, reference being had to the accompanying drawing and the letters marked thereon.

My invention relates to that class of hullers which employ a horizontal cylinder and concave.

In the accompanying drawing—

Figure 1 is a general view of my improved huller, partly in section.

Figure 2 is a view of the end frame.

Figure 3 is a cross-section of my machine, showing the relative position of the cylinder and concave.

Figures 4 and 5 are cross-sections of cylinders, differing in their construction.

Figure 6 is a cross-section of my knife, showing the peculiar construction of the edge.

Figure 7 shows my knife with its accompanying clamp.

Figure 8, also a knife, showing the slots for its adjustment.

My invention consists—

First, of the housing or end pieces, with peculiar shoulders to receive the segments of the concave; and

Second, of grooves, either in the knife or cylinder, or in the section of the cylinder or the clamps for holding the knives, for preventing the necessity for diminishing the size of the cylinder as the machine wears, from the seed rolling against the knives and thereby being cut.

My machine is so constructed that the housings or end pieces which support the axle or shaft of the horizontal cylinder also support the sections of the concave, and thus the two serve in part also as a frame.

These end pieces or housings are seen at A, and they are provided with shoulders, A', for receiving the sections B, fig. 1, of the concave, which sections also have strong shoulders, B', for fitting the housings.

These sections B are securely fastened to the housings by means of screws b, fig. 3.

By this construction the base-plate C and two side boards, D, complete the frame of the machine.

Between the sections or segments B of the concave are placed adjustable knives, G, fig. 3, which are held in place by small screws, g, and also clamped between the segment.

It will be observed that the concave only extends to the bottom of the cylinder, in order to give a free discharge below, while the cotton-seed is fed in above.

My cylinder, as practically used, is of very peculiar construction, the same being partially hollow, and having clamps or sections for holding the knives in different positions, as may be desired.

It may be made thus:

Suitable disks or rings, F, made of wrought-iron, may be shrunk on the shaft M, figs. 4 and 5, for holding the knives G'.

A clamp, I, is placed under the knife, and another clamp, I', on the outside of the knife.

Both of these clamps, and also the knife, are fastened to the disks or rings F by means of screws i.

The adjustable clamp under the knife has a groove, j, at its outer edge to receive the seeds and hold them for cutting or scalping off the seed. The rounded bottoms of these grooves keep clear of matter that would pack in narrow angles and thus clog the machine. Similar grooves may be made in the edge of the knife, as seen at j, fig. 6.

The knives are made adjustable by means of slots, g', fig. 8, for inserting the screws, and the clamps are adjustable in a similar manner.

The front edge of the clamp under the knives takes the principal wear, and as this edge wears off the clamp may be moved forward, and thus prevent the necessity of reducing the size of the cylinder by turning it down in a lathe.

Instead of disks, above described, a tubular core may be used, extending the whole length of the cylinder.

Having thus described my invention.

I claim—

1. The housing or end piece A, provided with shoulders A', substantially as set forth.

2. The segments B, in combination with the shoulders A' of the housing, substantially as set forth.

3. The knife G', when provided with the grooves j, as herein shown and described.

4. The knife G', in combination with the adjoining grooved and adjustable cylinder section or clamp, when said parts are arranged as herein shown and set forth.

WM. R. FEE.

Witnesses:

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