(No Model.) 2 Sheets—Sheet 1.

W. H. SHELFER.

MACHINE FOR BEATING AND CLEANING RICE.

No. 275,426. Patented Apr. 10, 1883.

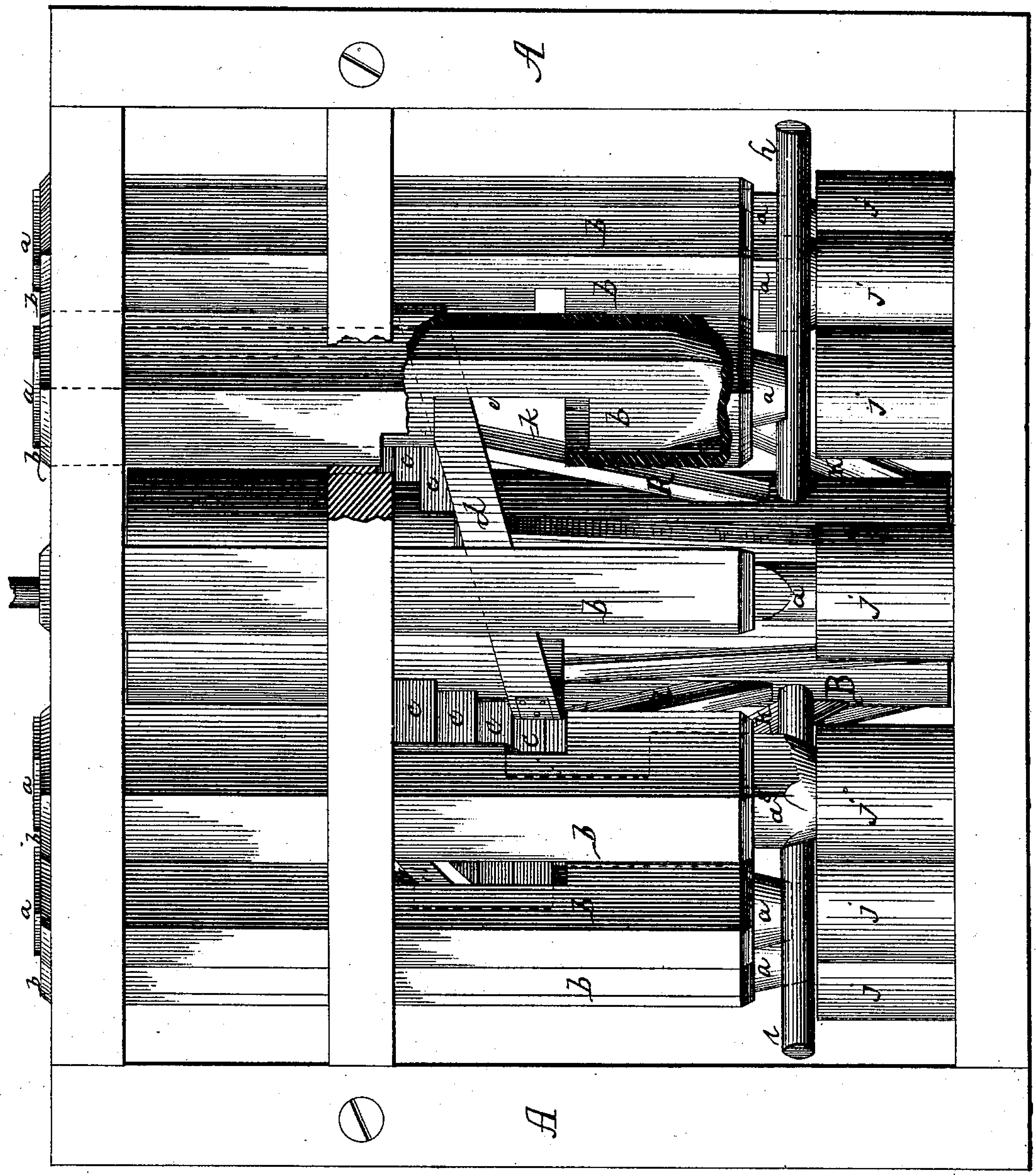

Fig. 1.

Witnesses.

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D. L. Maxwell

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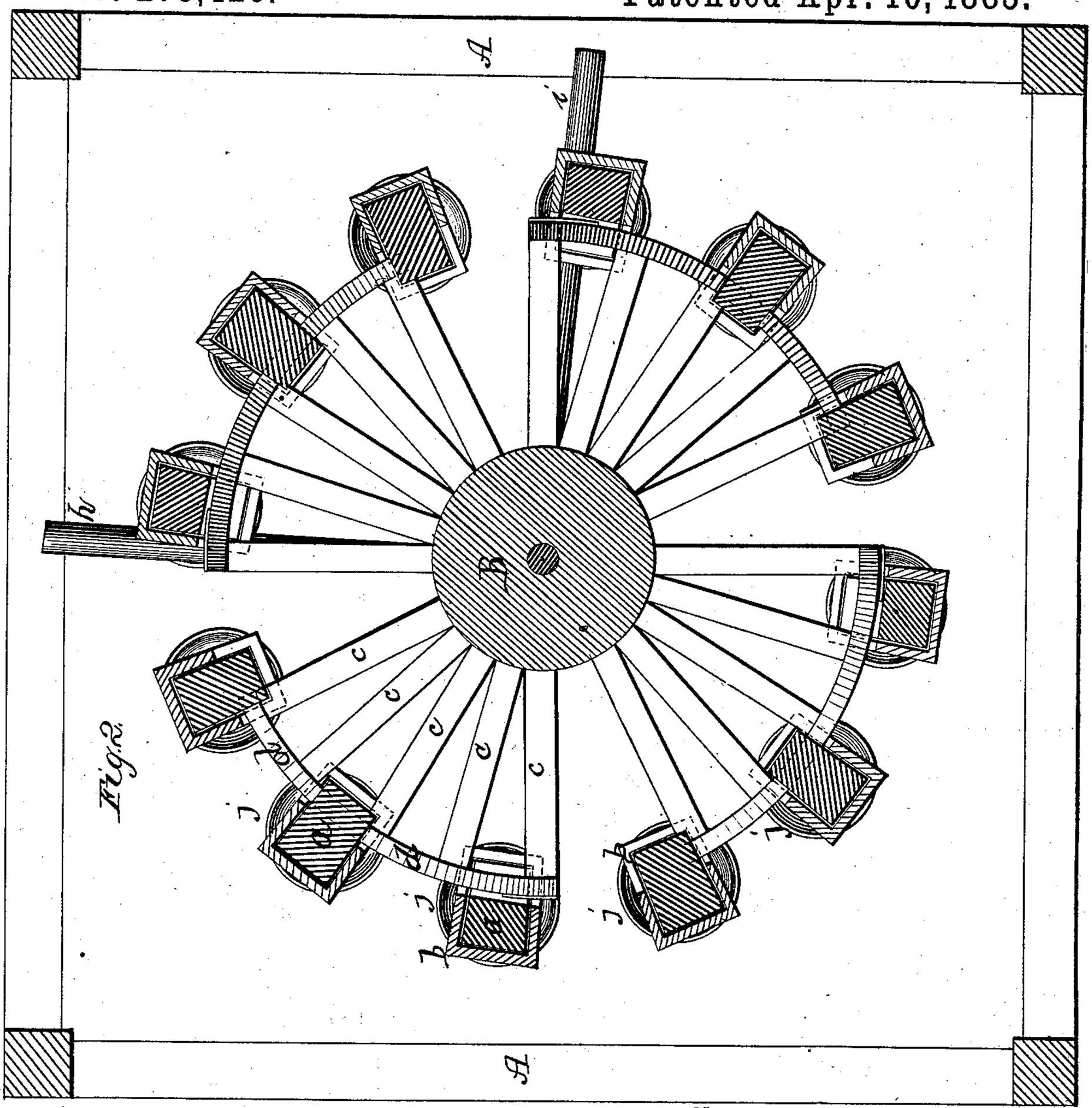

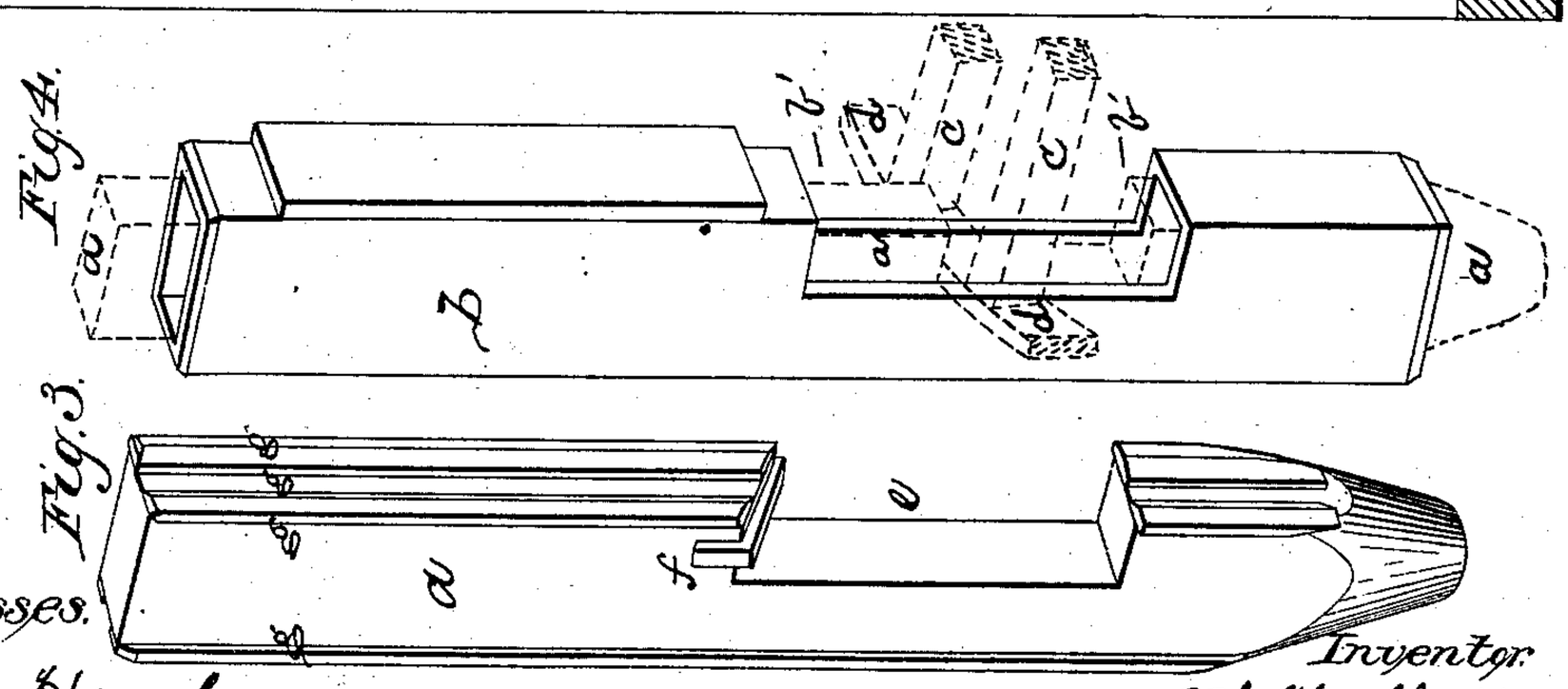

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM H. SHELFER, OF CONCORD, FLORIDA.

MACHINE FOR BEATING AND CLEANING RICE.

SPECIFICATION forming part of Letters Patent No. 275,426, dated April 10, 1883.

Application filed July 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SHELFER, a citizen of the United States, residing at Concord, Gadsden county, and State of Florida, have invented a certain new and useful Rice Beating and Cleaning Machine, of which the following is a specification.

My invention relates to improvements in that class of rice machines in which the pestles are worked by means of inclined planes.

In the accompanying drawings, Figure 1 is a side elevation, a portion being broken away to show the interior construction. Fig. 2 is a sectional plan view of the machine. Fig. 3 is a view in detail of one of the pestles detached, and Fig. 4 is a view in detail of one of the hollow columns and the inclined plane in contact with the pestle.

The same letters refer to the same or corresponding parts throughout the several views.

A represents the frame of the building in which the machine is operated. Any common shed will serve for this purpose.

B is the main shaft, to which are attached the inclined planes *d*, and the lever *h*, and lead-pole *i*. Each inclined plane *d* is constructed in the form of the segment of a circle, as shown, in order to procure the necessary fall for the pestle *a*, and is supported by the arms *c*, which are supported by the braces *k*. In the drawings the main shaft B is shown as adapted for the application of horse-power. To adapt the same for operation by steam-power I remove the lever and lead-pole and attach to the shaft B a drum for the belt. Where water-power is employed the water-wheel is connected with the main shaft B in any suitable manner. The mortars *j* are placed in a circle and the lever and lead-pole pass over the tops of the mortars. The pestles *a* are constructed of conical form at their heads, so as to prevent friction. The jogs *e* form square shoulders *l*, in which are inserted pieces of metal or hard wood *f*, with its grain corresponding with the grain in the inclined planes *d*; and narrow strips *g*, of metal or hard wood, are secured to the corners of the pestles *a*, all of which serve to diminish friction. The pestles *a* work within the hollow columns *b*, which serve to keep them steady. These columns are recessed or cut away at *b'* to allow the inclined planes, as they rotate, to pass within said recesses and engage the pestles, as shown in Fig. 4. By means of the hollow columns *b*, incasing the pestles, said pestles are guided and steadied throughout their length, which results in a much steadier movement throughout their stroke than is the case where they work within short sleeves or collars.

Having thus described my invention, what I claim is—

1. The combination, with shaft B, of the pestles *a*, constructed as described, the segmental inclined planes *d*, arms *c*, and braces *k*, substantially as and for the purpose set forth.

2. The conical-headed pestle *a*, having jog *e*, shoulder *l*, and the strips *f* and *g*, substantially as and for the purpose set forth.

3. The combination, with pestle *a*, constructed as described, of hollow column *b*, having recess, substantially as and for the purpose set forth.

4. The combination, with shaft B, of the arms *c*, segmental inclined planes *d*, conical-headed pestles *a*, and hollow columns *b*, substantially as and for the purpose set forth.

W. H. SHELFER.

Witnesses:
W. W. SHELFER,
V. C. HENDRY.