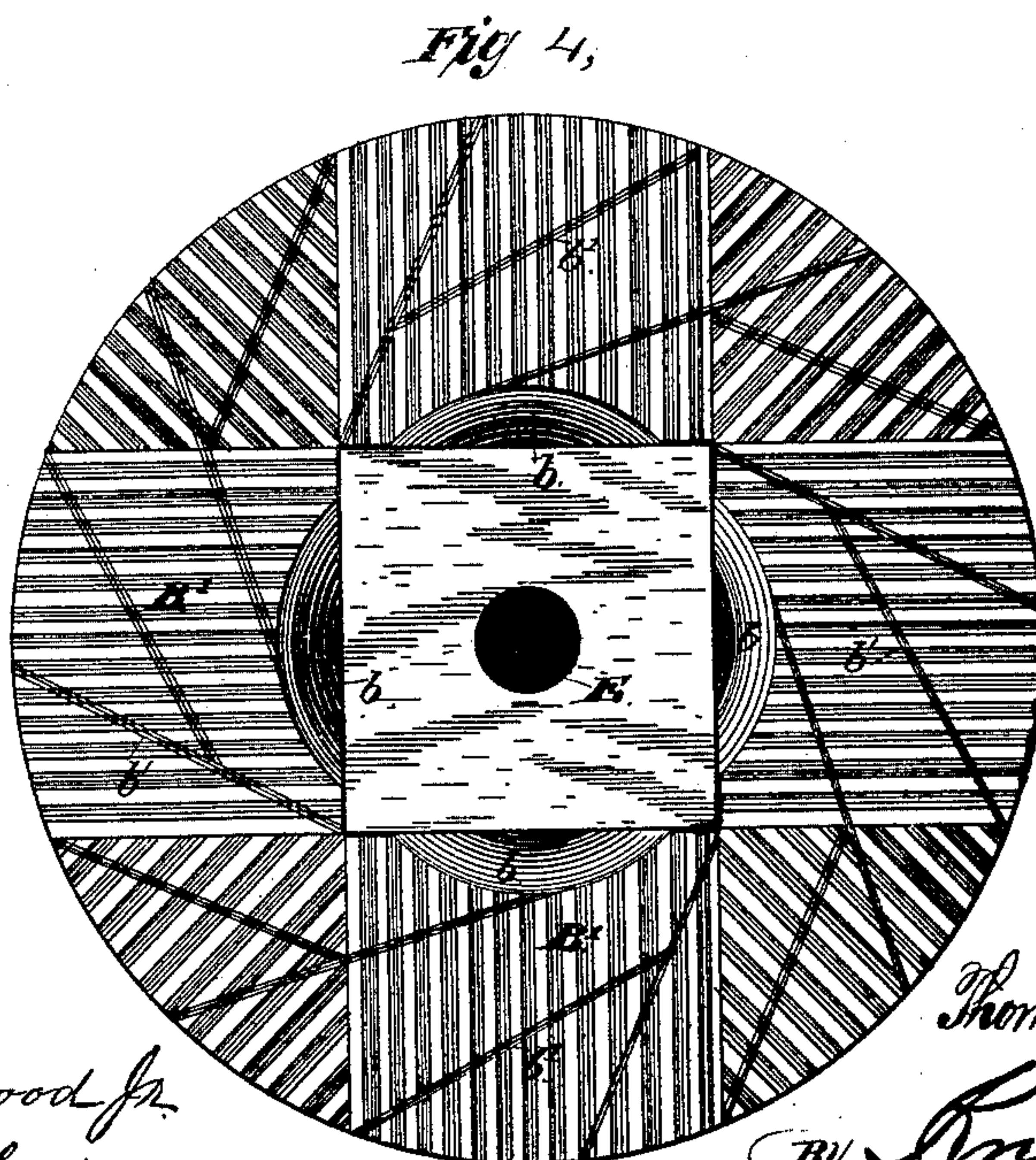
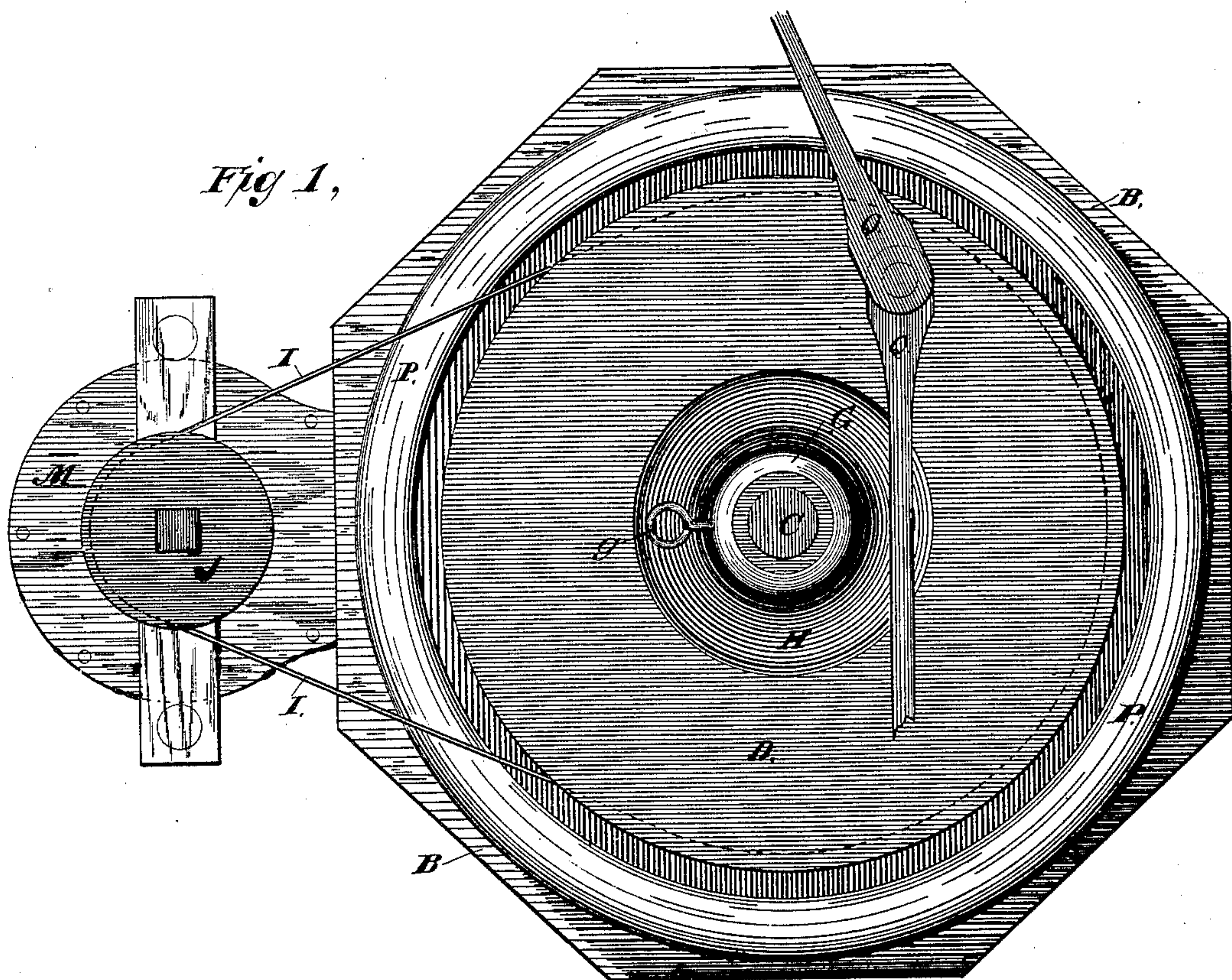


T. M. GREEN.  
Rice-Hulling Mill.  
No. 223,339. Patented Jan. 6, 1880.



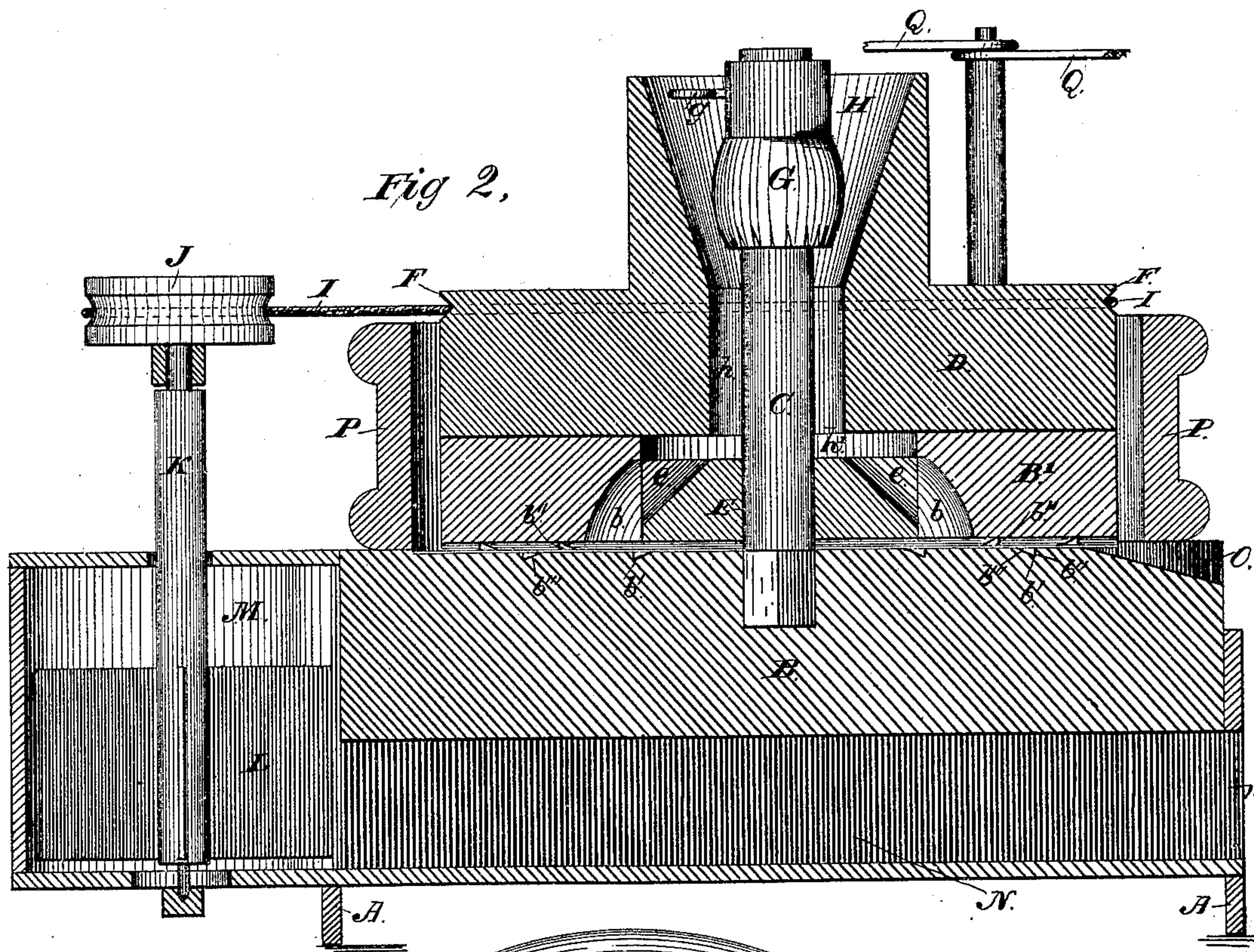
Attest:  
Geo. P. Smallwood Jr.  
Walter Allen

Inventor:  
Thomas M. Green.

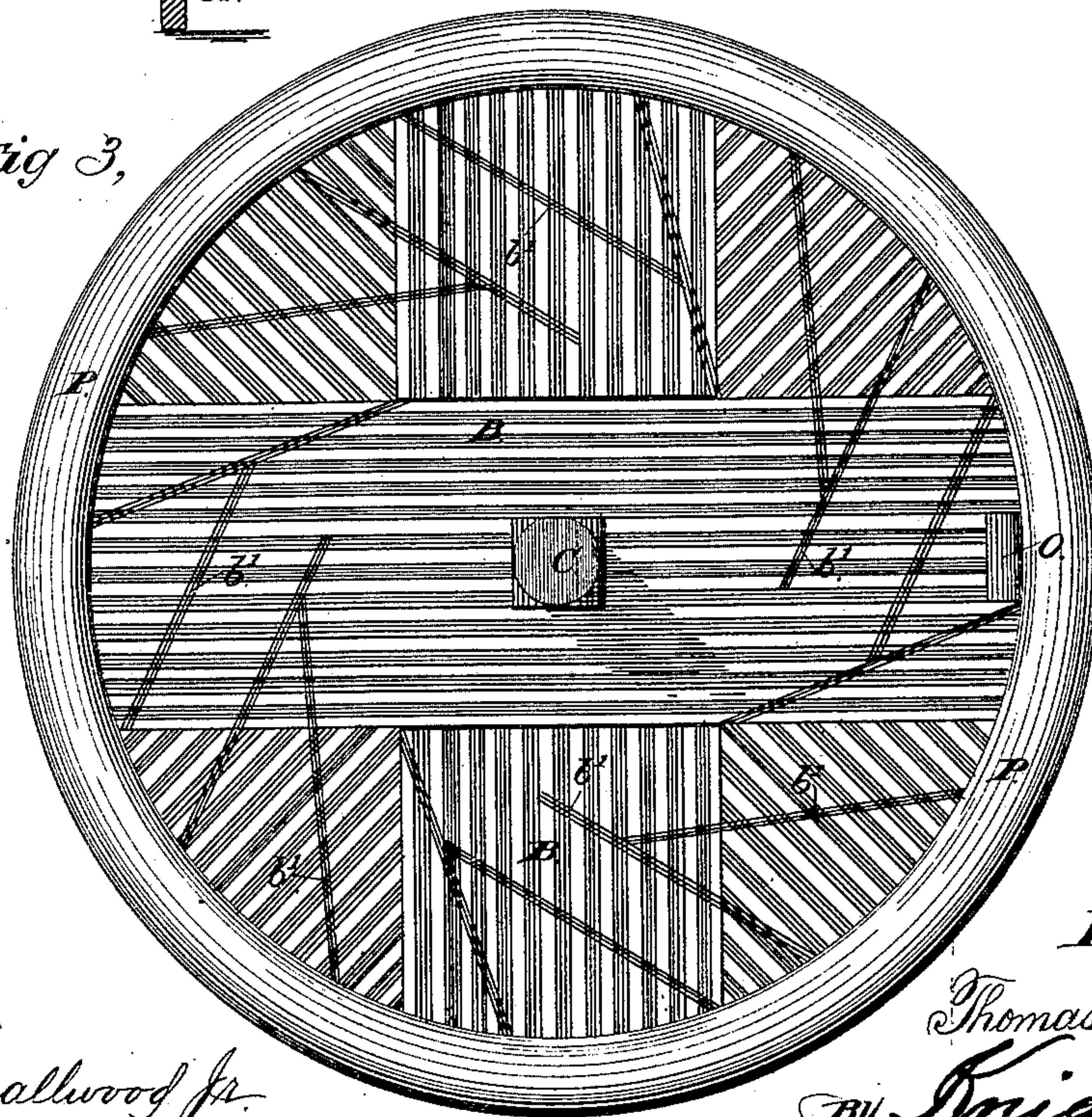
By *Knight Bros*  
Attys



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*Fig 3,*



*Attest.*  
Geo. T. Smallwood Jr.  
Walter Allen

*Inventor:*  
Thomas M. Green.  
By *Knight Bros*  
Attys



# UNITED STATES PATENT OFFICE.

THOMAS M. GREEN, OF MILLEDGEVILLE, GEORGIA.

## RICE-HULLING MILL.

SPECIFICATION forming part of Letters Patent No. 223,339, dated January 6, 1880.

Application filed August 18, 1879.

*To all whom it may concern :*

Be it known that I, THOMAS M. GREEN, of Milledgeville, in the county of Baldwin and State of Georgia, have invented new and useful Improvements in Rice-Mills, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My improvement relates to those hulling-mills whose opposing disks are constructed of wood.

The novelty is in the provision of hulling-surfaces formed of yellow pine instead of other wood, set with the grain on edge in nearly radial position in such a manner that the softer portions of the wood, wearing away in use, will leave a roughened surface, such as is adapted to operate to the best advantage in the loosening and separation of the hulls without injury to the grain, the soft portion of the pine, when on edge, wearing away much faster than the hard, always insuring a rough surface, and the ridges and depressions being of the proper depth and distance to thoroughly clean the rice with only one passage through the mill.

In the accompanying drawings, Figure 1 is a plan of rice-mill illustrating my invention. Fig. 2 is a vertical section of the same. Fig. 3 is a plan of the bed with the runner removed. Fig. 4 is an under-side view of the runner.

A A represent parts of a suitable frame, on which is rigidly mounted a hulling-bed, B, consisting of plates or slabs of yellow pine set on edge, with the grain as nearly as possible radial to the said bed, in the center of which rises a post or standard, C, forming the axis of the runner D. Obliquely across the grain of the wood are grooves  $b'$ , having vertical sides  $b''$  and inclined sides  $b'''$ .

The face B of the runner is formed, similarly to the bed, of blocks of yellow pine, with the grain on edge and radial, or nearly so, to the runner, with grooves  $b'$ , apertures  $b b b b$  for the passage of the grain, and a bearing-block, E, constructed with inclined apertures  $e e e e$ , for conducting the grain from the eye  $h$  and chamber  $h'$  to the apertures  $b b b b$ , and through the latter apertures to the rubbing-

surfaces at points intermediate of the post and periphery of the runner.

The eye of the runner fits over the post or standard C, so that said runner is adapted to rotate concentrically on the bed B.

G is an adjustable gage, having notches or grooves  $g'$  on its lower edge for assisting the passage of the grain, and held by a set-screw,  $g$ , and set up or down on the standard C, as may be required, to regulate the flow through the hopper H, which projects upward through the runner D, surmounting its eye  $h$ .

The exterior of the runner D is grooved, as shown at F, for the reception of a belt, I, passing around a pulley, J, on the vertical shaft K, which carries a fan, L, surrounded by a suitable casing, M, and delivering a blast of air through a flume, N, running horizontally beneath the stone and coming out at  $n$ , directly beneath the spout O, by which the rice is delivered from the grinding-bed B.

P represents a suitable curb surmounting the bed B and surrounding the runner D.

In operation rice is fed through the hopper H at a speed regulated by the gage G. A rapid rotary movement is imparted to the runner by means of the draw-rods Q Q by two hands, standing one on each side of the mill; or, if the mill is to be operated by power, a belt is applied to the hopper, the exterior of which is formed, as shown, to constitute a pulley for this purpose. The rotation of the runner is communicated with increased velocity through the pulley J to the shaft K and fan L, causing a blast of air, which is delivered beneath the spout O, as before described, so as to carry away all refuse matter from the rice as it passes out of the mill.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

A hulling-mill having the rubbing-surfaces of its opposing disks constructed of a wood composed of alternate layers of hard and soft material set in blocks, having the grain of the wood on edge and in lines substantially radial to the eye, as described, and for the purpose set forth.

THOMAS M. GREEN.

Witnesses:

T. T. WINDSOR,  
C. G. WILSON.