

I. & W. D. MAYFIELD.
Grinding Mill.

No. 110,927.

Patented Jan. 10, 1871.

Fig. 1.

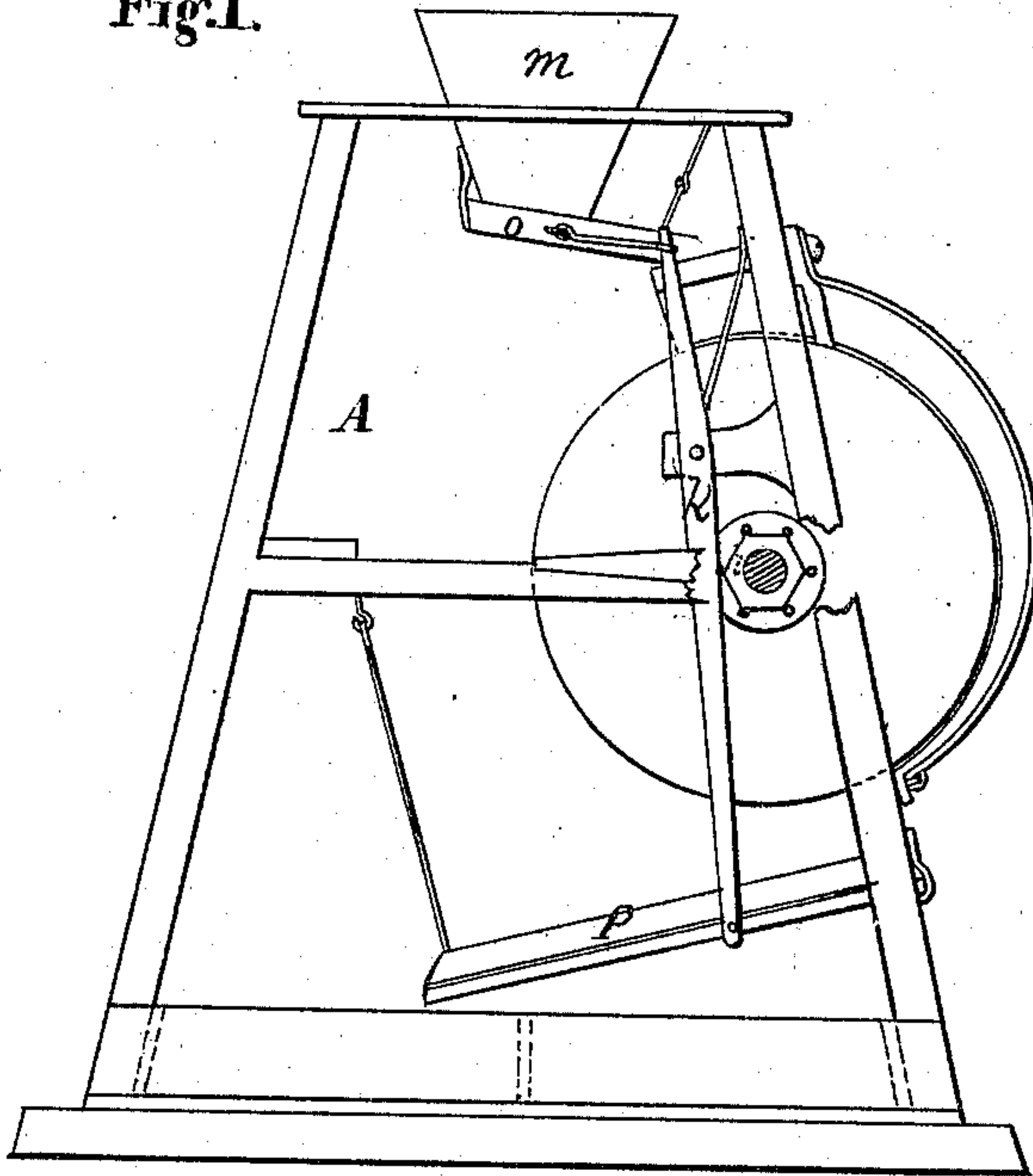


Fig. 3.

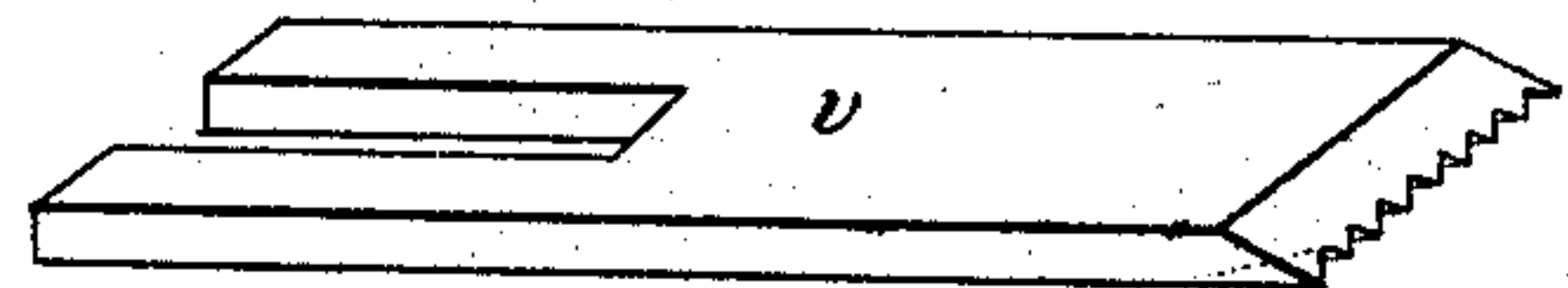
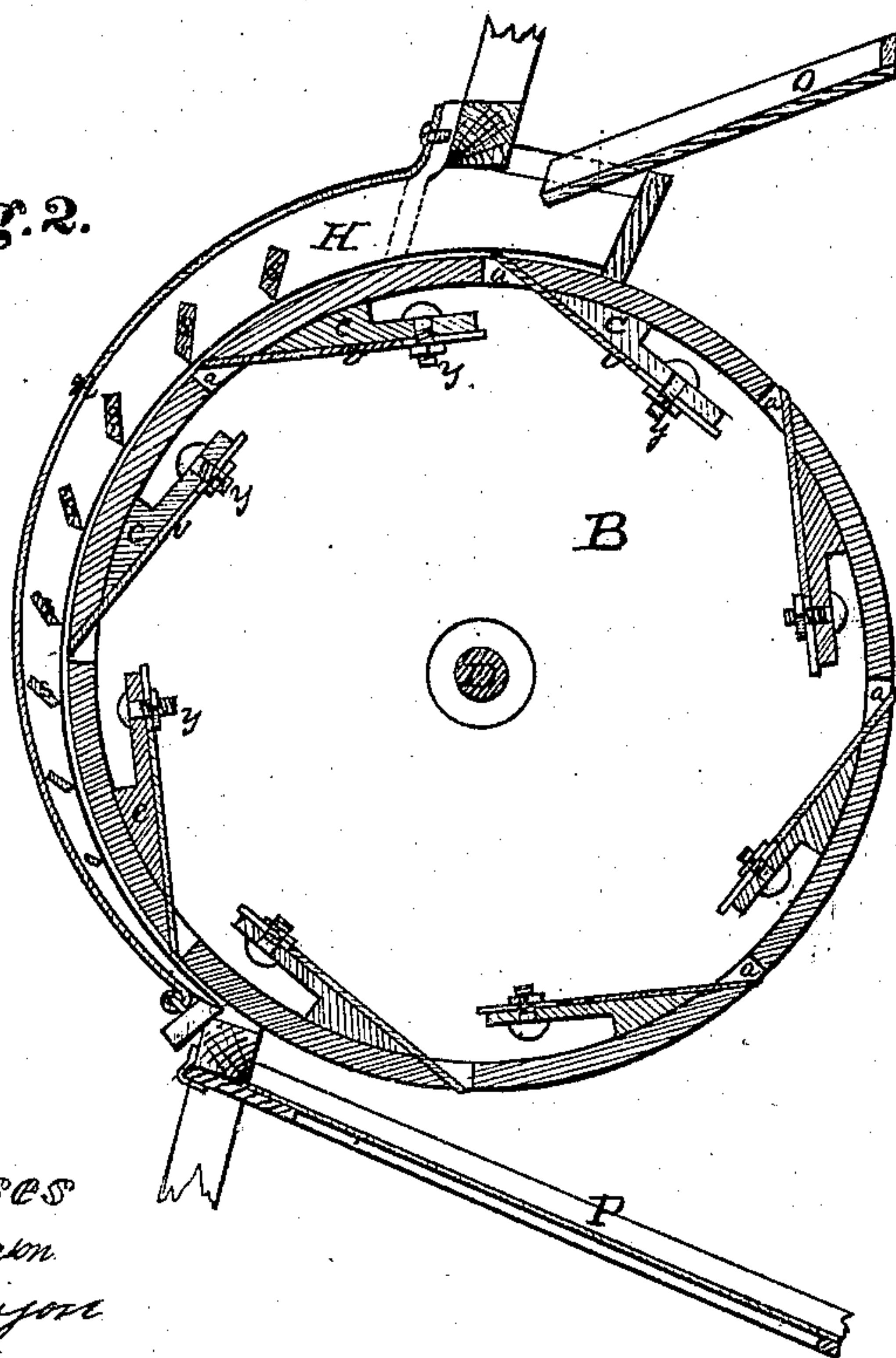


Fig. 2.



Witnesses
Villette Anderson
Charles H. H. H.

Inventor.
J. Mayfield
W. D. Mayfield
Chipman & Son & Co.
Atty.

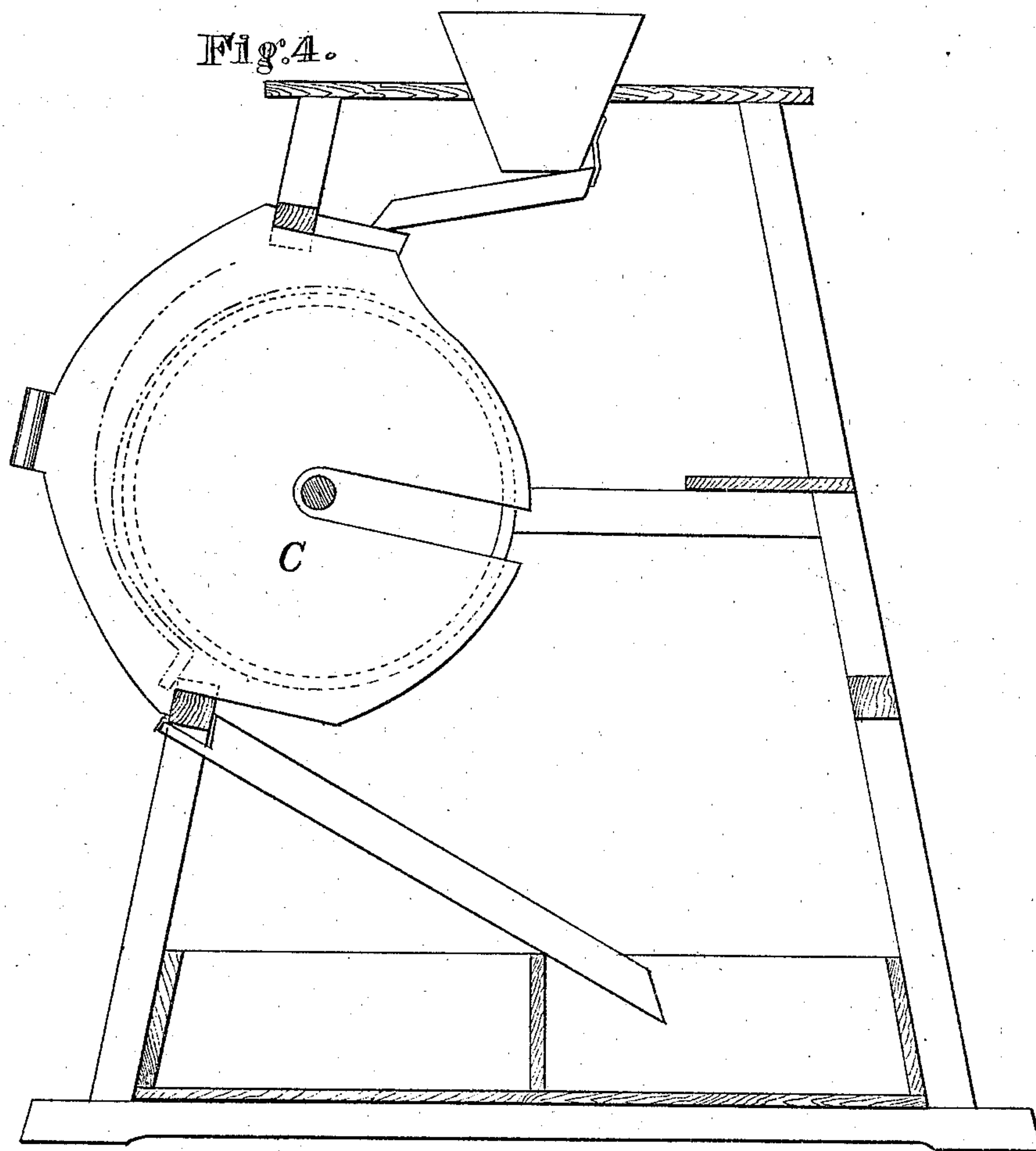
I. & W. D. MAYFIELD.

2 Sheets—Sheet 2.

Grinding Mill.

No. 110,927.

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Witnesses.
Lillie Anderson
Chas. Kenyon

Inventors.
I. Mayfield
W. D. Mayfield
Chipman & Son & Co.
Atty.

United States Patent Office.

ISAAC MAYFIELD AND WILLIAM D. MAYFIELD, OF MAYFIELD,
KENTUCKY.

Letters Patent No. 110,927, dated January 10, 1871.

IMPROVEMENT IN GRINDING-MILLS.

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

To all whom it may concern:

Be it known that we, ISAAC MAYFIELD and WILLIAM D. MAYFIELD, of Mayfield, in the county of Graves and State of Kentucky, have invented a new and valuable Improvement in Grinding-Mills; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of our grinding-mill;

Figure 2 is a sectional view;

Figure 3 is a detail, showing one of the plane-bits for the grinding-wheel; and

Figure 4 is a side view, showing the removable plate C, hereinafter mentioned.

Our invention relates to portable grinding-mills, and consists in the construction and novel arrangement of devices intended to serve as valuable improvements upon such mills, and adapt them for general use among farmers.

A of the drawing represents a pyramidal frame, to the central longitudinal bars of which our grinding-wheel is affixed.

B represents the grinding-wheel, constructed as shown on fig. 2. It is a hollow wheel, with a closed side at one end, and a removable slotted disk, C, at the other, as shown.

The rim of this wheel is constructed with a series of openings, *a*, one side of which is beveled, and the other vertical, as shown.

The letters *c* represent a series of rests or supports, arranged, in relation to the openings *a*, as shown on fig. 2.

Upon each of the rests *c* I attach a removable knife or plane-bit, *v*, held in place and made removable by the screws *y*, which pass respectively through slots in said plane-bits.

One of these plane-bits is shown on fig. 3 of the drawing. It has a toothed or corrugated edge.

Upon the grinding-wheel each alternate plane-bit has a corrugated edge, while the others have smooth sharp edges.

The wheel B is attached to and rotates with the shaft D, in the manner represented.

The letter H represents a casing, extending about half way around the wheel B, and attached firmly to the side of the frame. It consists of two arcs connected together by bars *s*, between which bars and the rim of the wheel the grain is ground.

The letter N represents a circular plate, hinged to the casing H, and adapted to fit closely to said case when desirable.

M represents the receiving-hopper;

O, the suspended conduit to convey the grain to the wheel; and

P, the suspended sieve below the wheel.

The letter K represents a pivoted lever, one end of which is connected with the conduit O, and the other to the sieve P, in the manner shown.

That portion of the shaft D between the left-hand side of the wheel and the frame is made in a polygonal form, as shown at *h* on fig. 1. As the shaft rotates, the shoulders of this portion of the shaft are, respectively, forced against the side of lever K, and thereby produce a constant shaking of the conduit O and the sieve P. The result is, the grain is passed to the grinding-wheel, and, after being ground, is sifted automatically.

We claim as our invention—

1. The decreasing bars S S S S, in combination with the casing H and adjustable knives *v*, attached to the hollow cylinder D, when constructed and arranged as and for the purpose specified.

2. The arrangement of the cams *h* upon the shaft D, the lever K, sieve P, and shoe O, in the manner and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ISAAC MAYFIELD.
W. D. MAYFIELD.

Witnesses:

J. R. HURT,
C. R. DALLAM.