

P. P. TAFT.
Corn Sheller.

No. 20,831.

Patented July 6, 1858.

Fig: 1.

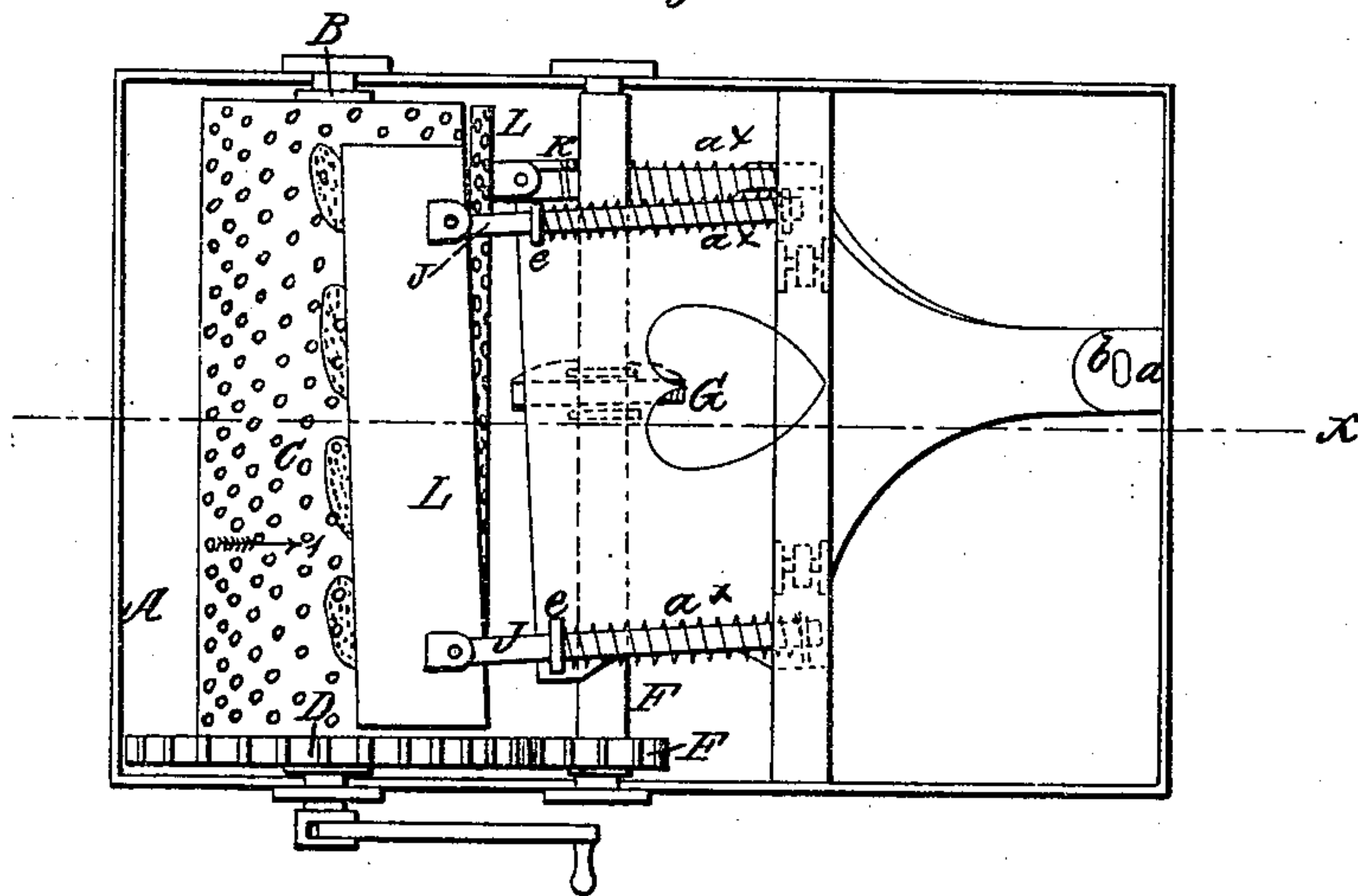


Fig: 2.

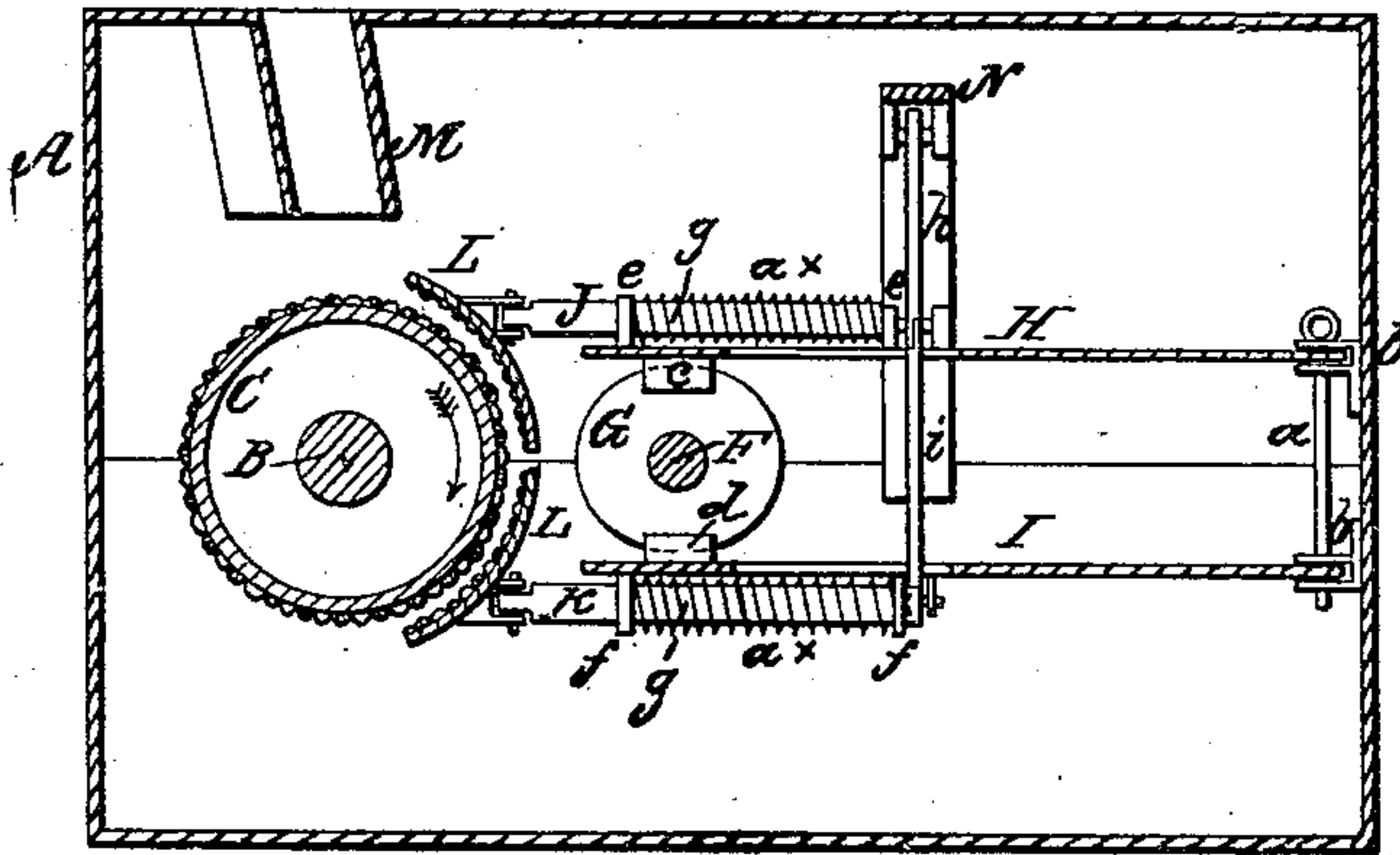
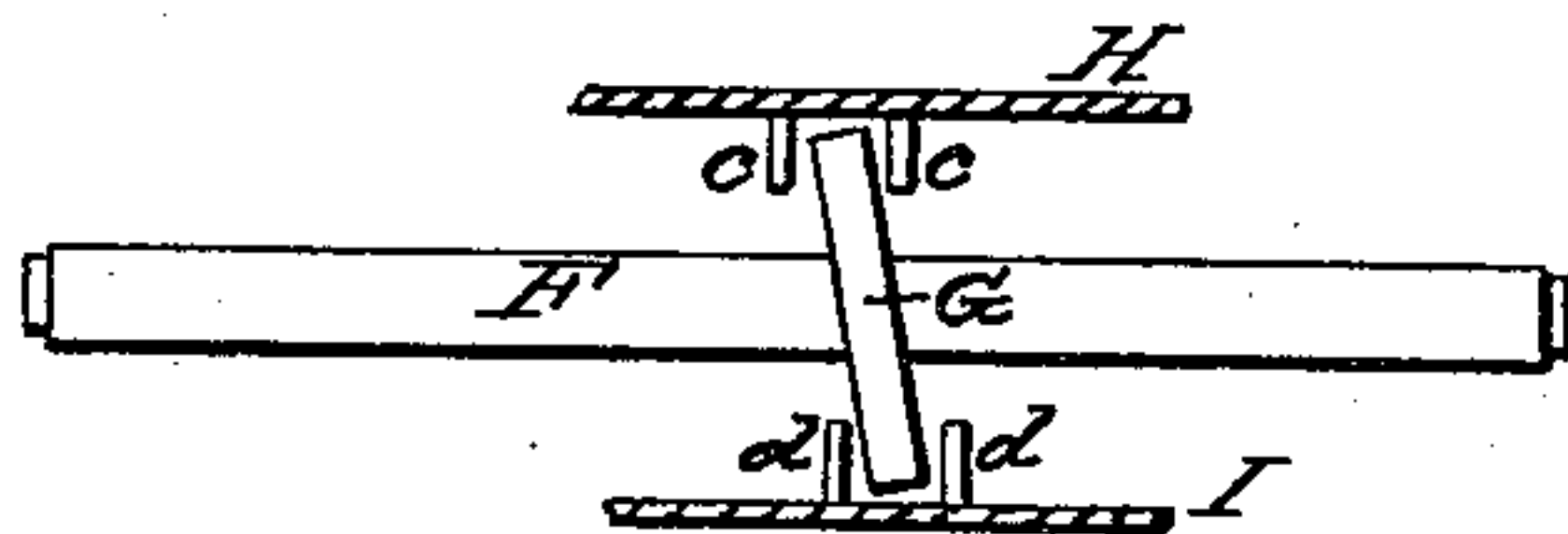


Fig: 3.



UNITED STATES PATENT OFFICE.

P. P. TAFT, OF TAFTSVILE, VERMONT.

CORN-SHELLER.

Specification of Letters Patent No. 20,831, dated July 6, 1858.

To all whom it may concern:

Be it known that I, PASCHAL P. TAFT, of Taftsville, in the county of Windsor and State of Vermont, have invented a new and
5 Improved Machine for Shelling Indian Corn or Maize; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of
10 this specification, in which—

Figure 1, is a plan or top view of my invention the cover or upper part of the case being removed. Fig. 2, is a vertical central section of ditto, taken in the line *x, x*, Fig. 1.
15 Fig. 3, is a detached view of the cam which actuated the concaves.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a rotating toothed or corrugated cylinder, in connection with two reciprocating toothed plates arranged to operate simultaneously in opposite directions as hereinafter described, whereby corn may
20 be more effectually shelled from the ear than by any of the machines hitherto constructed for the purpose with which I am acquainted.

To enable those skilled in the art to fully
30 understand and construct my invention I will proceed to describe it.

A, represents a rectangular box or case through which a shaft B, passes transversely. On this shaft B, and within the
35 box or case A, a cylinder C, is placed, said cylinder having a toothed or corrugated periphery, as shown in Figs. 1 and 2. This cylinder may be of cast iron; the periphery at least, should be of such material and it
40 may be cast with a chill if desired.

On the shaft B, within the case or box A, and adjoining the cylinder C, a toothed wheel D, is placed. This wheel D, gears into a pinion E, which is placed on a shaft
45 F, within the case, said shaft being parallel with the shaft B. On the shaft F, a cam G, is placed, said cam being formed of a wheel placed obliquely on the shaft.

H, I, are two horizontal frames which
50 are placed in the box or case A, one above the other. The outer ends of these frames are secured by a bolt *a*, between plates or lips *b*, which are attached to the inner side of the box or case, see Fig. 2. The frames
55 H, I, are allowed to work freely on said bolt *a*, and to the under side of the upper

frame H, two projections *c, c*, are attached, and to the upper surface of the lower frame I, two corresponding projections *d, d*, are attached. The edge of the cam G, works between these projections as shown clearly in
60 Fig. 3.

To the upper surface of the upper frame H, there are attached eyes or guides *e*, in which rods J, are placed and are allowed to
65 slide freely. To the under side of the lower frame I, similar eyes or guides *f*, are attached, and rods K, are fitted therein. There are two rods J, J, K, K, to each frame and the rods are parallel with each other. Each
70 rod has a spiral spring *a'*, around it, and these springs are fitted between pins *g*, which pass through the rods and between the back guides. To the ends of the rods J, J, K, K, of each frame a concave L, is
75 attached. These concaves are constructed of metal toothed on their face sides, and they are placed directly opposite the cylinder C. The concaves L, are not parallel with the shaft B, but are placed obliquely with it
80 as shown in Fig. 1.

M, is a spout which is fitted in the upper part of the box or case A. This spout is transversely of oblong form and has an oblique position relatively with the cylinder
85 C, corresponding to that of the concaves L.

The frame H, is suspended at its inner end by rods *h*, from a traverse bar N, attached to the case or box and the lower frame I, is suspended at its inner end from
90 the upper frame H, by rods *i, i*.

The operation is as follows:—Motion is given the shaft B, in any proper manner and the ears of corn are fed in a horizontal position down the spout M, between the
95 cylinder C, and concaves L, L, the cylinder rotating in the direction indicated by the arrow 1, and the concaves having a horizontal reciprocating movement, the two concaves moving simultaneously in opposite directions owing to the cam G. The ears of corn pass down obliquely between the cylinder and concaves owing to the oblique position of the concaves L, L, and therefore the action of the concaves upon the ears
105 is in an oblique direction. This favors the shelling operation and in consequence of the opposite movement of the concaves the ears are acted upon in the most effective manner. The grains or kernels near the
110 points of the ear which most generally escape the action of the ordinary corn shellers

are by this invention entirely removed. The springs a^x , allow the concaves L, L, to yield so as to compensate for the varying size of ears.

5 I am aware that a toothed rotating cylinder and concave is an old and well known device and has been used for shelling corn and for various crushing and grinding purposes. I therefore do not claim broadly
10 such device; but,

I claim as new and desire to secure by Letters Patent,

The rotating toothed cylinder C, in combination with two or more reciprocating toothed concaves L, L, moving simultaneously in opposite directions, the parts being arranged within a suitable box, case or framing and operated substantially as and for the purpose set forth. 15

PASCHAL P. TAFT.

Witnesses:

BARNES GILBERT,
JOSHUA BEAN.