

A. F. SEVERANCE.

Corn Sheller.

No. 42,114.

Patented March 29, 1864.

Fig. 3.

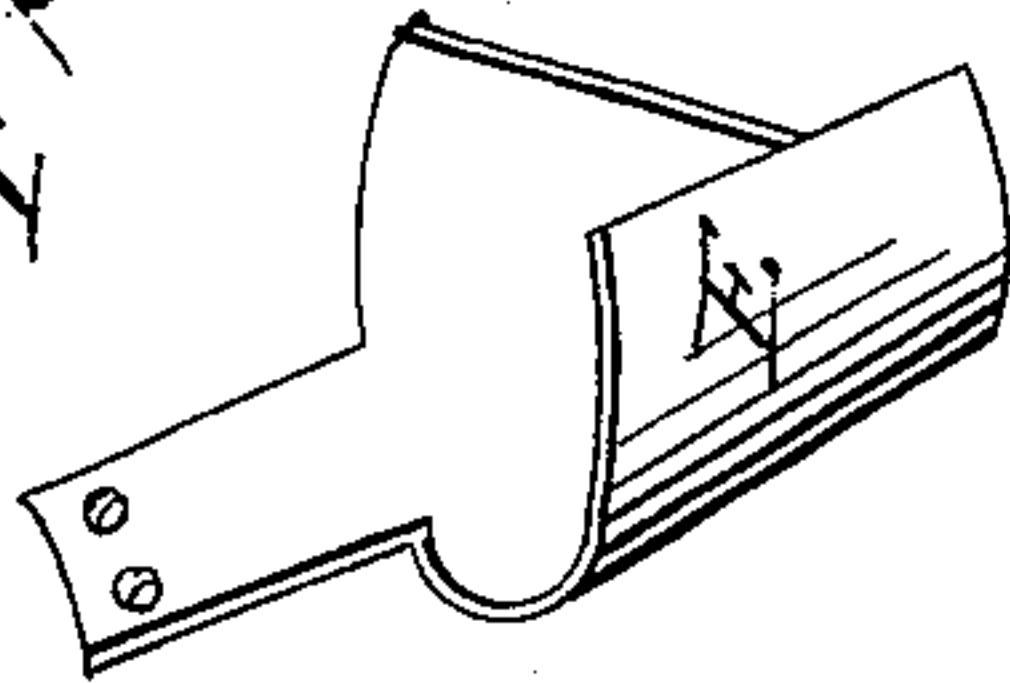


Fig. 2.

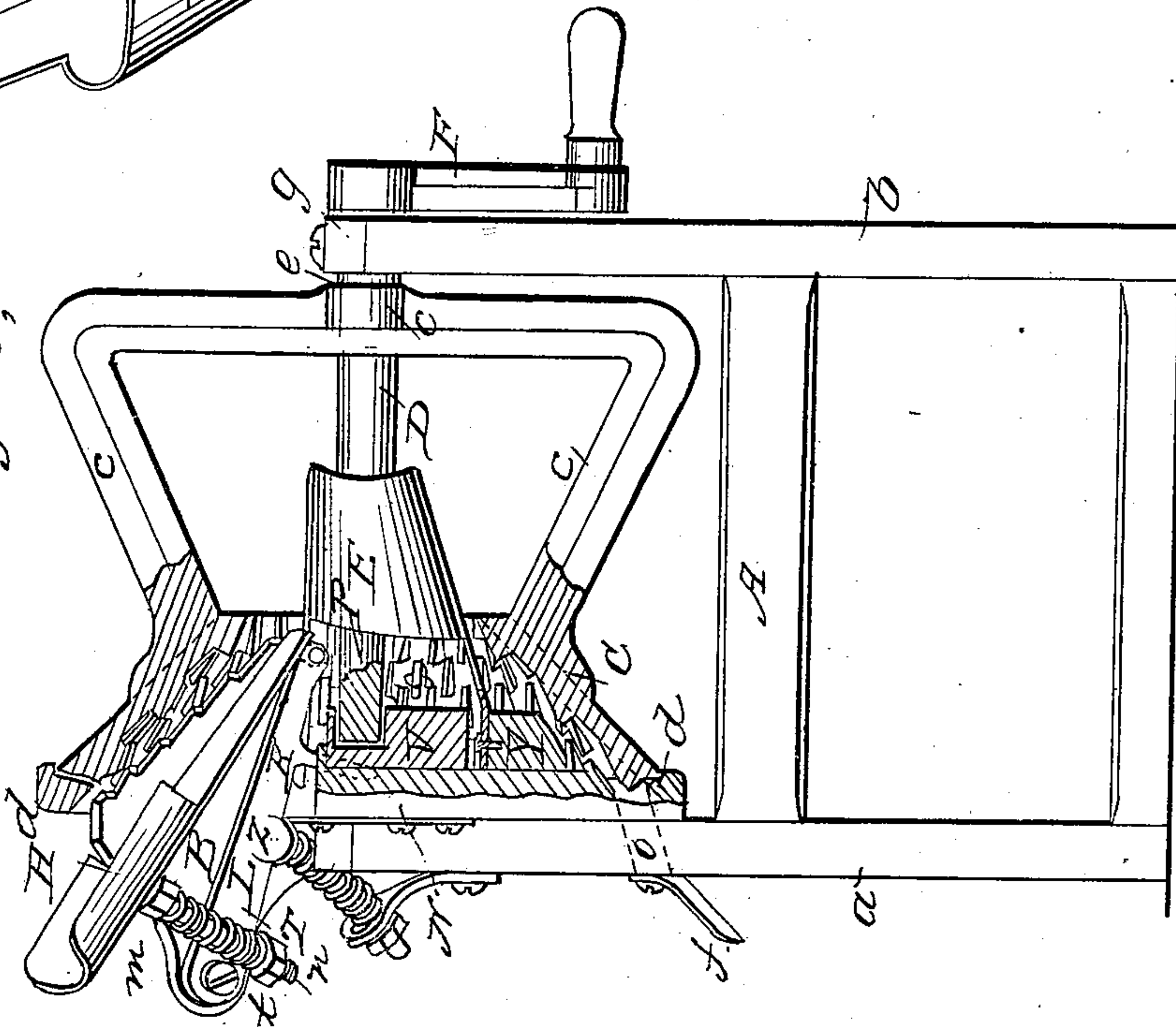
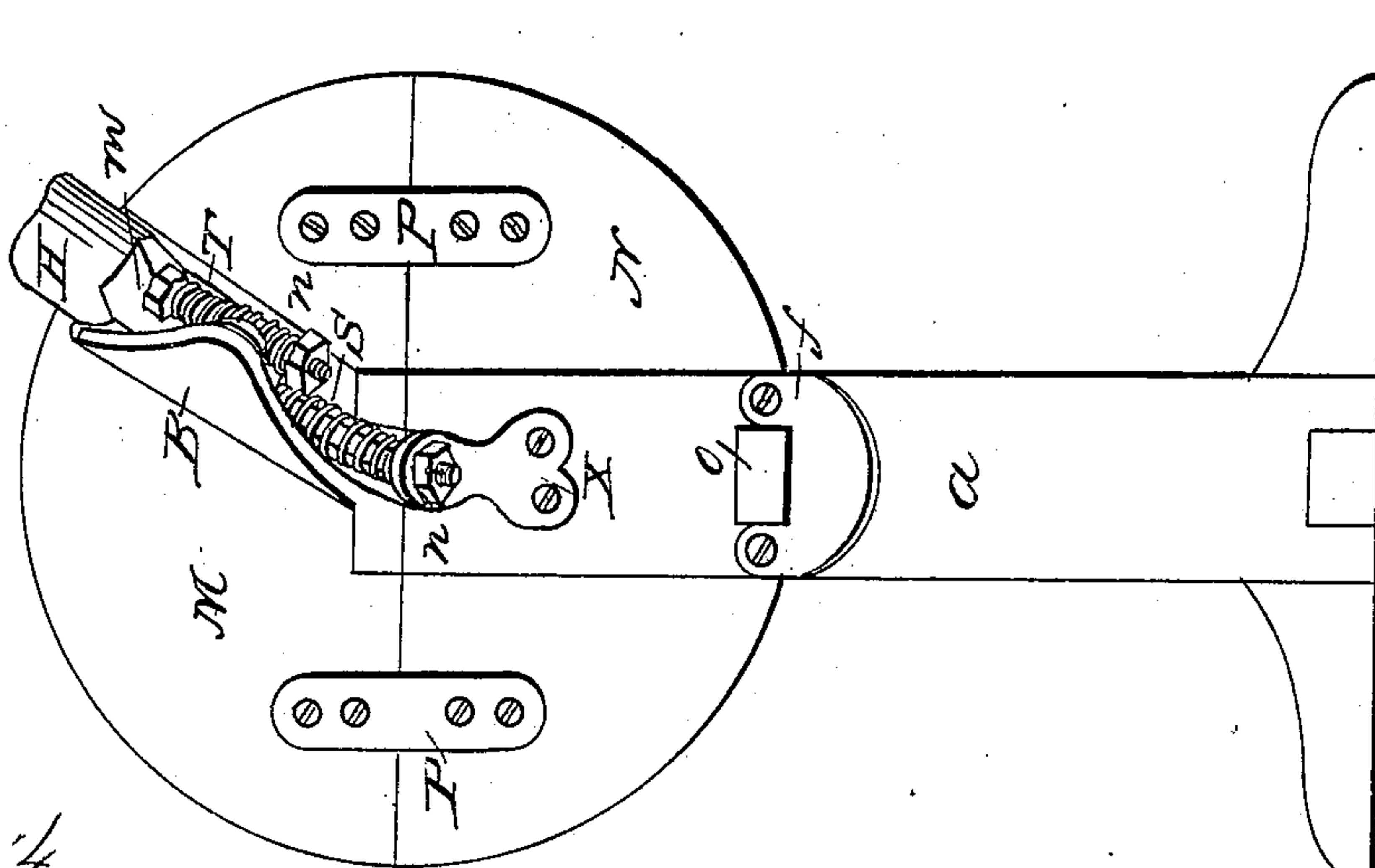


Fig. 1.



Witnesses;

J. E. Badger  
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# UNITED STATES PATENT OFFICE.

ASA F. SEVERANCE, OF CONCORD, NEW HAMPSHIRE.

## IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. 42,114, dated March 29, 1864.

*To all whom it may concern:*

Be it known that I, ASA F. SEVERANCE, of Concord, in the county of Merrimack and State of New Hampshire, have invented a new and useful Improvement in Corn-Shellers; and I do 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 drawings, making a part of this specification, in which—

Figure 1 is an end elevation. Fig. 2 is a vertical sectional view, and Fig. 3 is a detached view of one of the parts.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I first construct a cast-iron hollow truncated cone, with teeth or cogs on the inside of the same, (marked C in Fig. 2,) with cast-iron frame *c c c*, the cast-iron arbor or shaft D, and crank F attached to the same. I then construct a wooden frame, (marked A in Fig. 2,) with the upright posts or bearings, (marked *a* and *b*.) I then place the end of the shaft D (marked *e* in Fig. 2) on top of the post *b*, with or without a metallic box, and then fasten the same in its place by means of a cap, (marked *g* in Fig. 2.) I then fasten the other end of the arbor D (marked P in Fig. 2) on top of the post *a* by means of a bearing firmly fastened to the post *a*, and marked V in Fig. 2. I then construct a cast-iron plate or frame, with its upper edge notched, and marked B in Figs. 1 and 2. This frame I attach firmly to the top of the post *a*, and the said plate B is set obliquely inside of the cylinder C. I then construct a metallic hopper, (marked H in Fig. 2,) and connect, by means of a hinge-joint (marked *j*) to a lever, (marked L,) and then fasten said lever to the right-hand side of the plate B in Fig. 2, by means of a screw or bolt, which forms a pivot for the same. I then fasten an iron rod to the under side of the hopper H, and on the top of said rod I place a nut, (marked *m*.) This nut is adjusted by means of a thread cut on the rod. I then pass the lower end of the iron rod through a shoulder on the lever L, (marked *t* in Fig. 2,) and on the end of the rod I place another adjustable nut, (marked *n*,) and then around said rod, between said shoulder *t* on the lever L and the nut *m*, I place a spiral spring, (marked T in Fig. 2.) Near the middle

of the lever L, I attach another rod to a shoulder (marked *z*) on the same, and pass it through a shoulder firmly attached to the post *a*, and marked *x* in Figs. 1 and 2. On the lower end of the rod and below the shoulder *x*, I place an adjustable nut, (marked *n*,) and then around the rod, between the shoulders *z* and *x*, I place another spiral spring, (marked S in Figs. 1 and 2.) About midway between the shoulder *z* and joint *j* on the lever L, I attach a guide, (marked K.) This guide passes through an opening or slot, (marked *s* in Fig. 2.) This slot is made through the lower edge of the plate B. I now attach to the inside of the post *a* a semicircular cover, (marked N in Figs. 1 and 2,) with a groove on its inner face near the edge. This groove is made to correspond with the large end or rim of the cylinder C, and the large end of the cylinder fits into the groove, as seen in Fig. 2, with the groove marked *d*. At the bottom of the cover N, I cut an opening, (marked O in Figs. 1 and 2,) which also passes through the post *a*, and below this opening and to the post *a*, I attach a metallic spout, (marked *f* in Figs. 1 and 2.) Just above the opening *o*, and on the inside of the cover N, I fasten a bearing or rest, (marked *y* in Fig. 2,) and to the top of this rest I attach a funnel-shaped hopper, (marked E in Figs. 2 and 3.) Finally, I construct another semi-circular cover, (marked M in Fig. 1,) which rests upon and is fastened to the first-mentioned cover, M, by means of two straps or cleats, as seen in Fig. 1. The cover M has a groove on its inner face, near the edge, corresponding with the groove in the lower cover, N. The large end of the cylinder C fits into this groove, as seen in Fig. 2, with the groove marked *d*.

The operation of the machine is as follows: A rotary motion is given to the cylinder C by means of the crank F. The ears of corn are then placed in the hopper H. By means of the adjustable springs attached to the hopper the ears of corn are pressed against the cogs or teeth of the cylinder C. The cogs seizing upon the ears, carry them against the obliquely-set frame B. By keeping up a rotary motion the cob is completely cleaned of the kernels of corn by the teeth or cogs. The kernels of corn falling into the cylinder C are prevented from falling to the ground by rea-



son of the covers M and N and the funnel-shaped hopper E. They are then passed out of the opening O and over the spout *f*. By setting the iron frame B obliquely inside the cylinder C the cob is carried out and over the arbor D and through the hopper E, and falls to the ground.

By means of the lever L and the springs S and T, with the adjustable nuts *m m n*, the pressure on the ears of corn against the inside of the cylinder C is increased or dimin-

ished so as to correspond with the size of the corn to be shelled.

What I claim is—

The combination of the cylinder C, shaft D, plate B, and hoppers H and E, the whole constructed and arranged to operate substantially as and for the purpose set forth.

ASA F. SEVERANCE.

Witnesses:

B. E. BADGER,

W. S. BADGER.