

J. & S. W. BUDD.
Pea-Sheller.

No. 220,800.

Patented Oct. 21, 1879.

Fig 1.

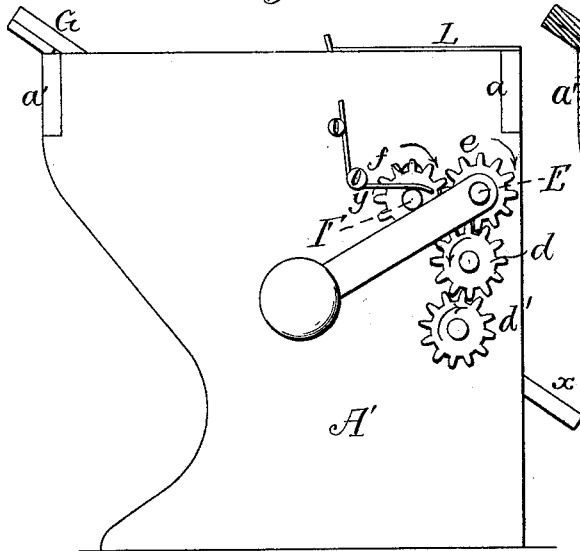


Fig 2.

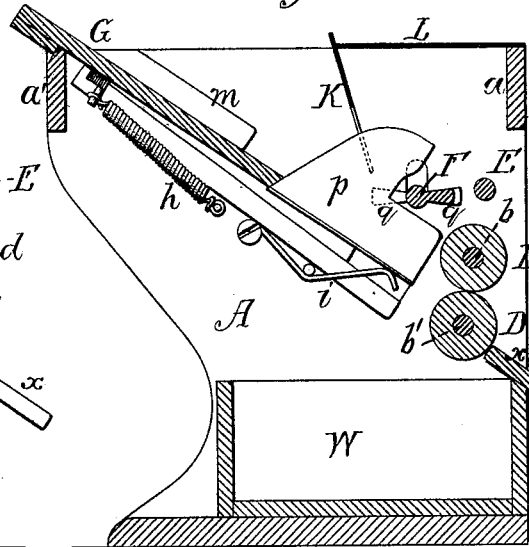


Fig 3.

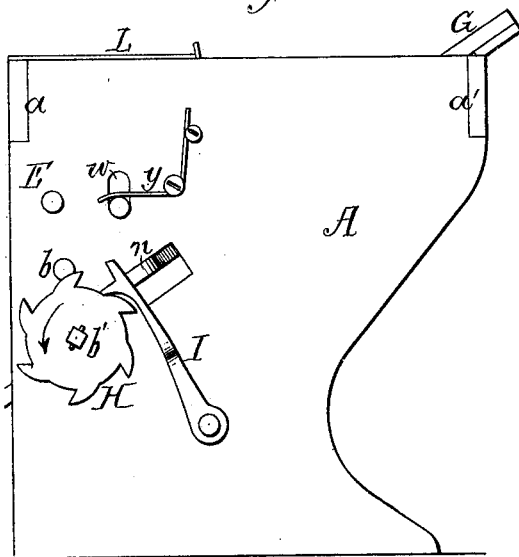
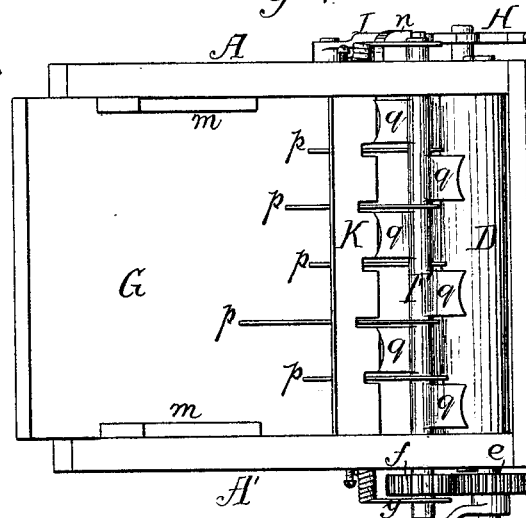


Fig 4.



Witnesses
Henry Howson Jr.
Harry Smith

Inventors
John Budd
and
Samuel W. Budd
By their Attorneys
Howson & Son

UNITED STATES PATENT OFFICE.

JOHN BUDD AND SAMUEL W. BUDD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PEA-SHELLERS.

Specification forming part of Letters Patent No. **220,800**, dated October 21, 1879; application filed August 22, 1879.

To all whom it may concern:

Be it known that we, JOHN BUDD and SAMUEL W. BUDD, both of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Pea-Shellers, of which the following is a specification.

Our invention relates to improvements in the pea-shelling machine for which Letters Patent No. 213,168 were granted to John Budd March 11, 1879, and the object of our invention is to simplify the said patented machine and to render it more effective. This object we attain in the manner which we will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of our improved pea-shelling machine; Fig. 2, a vertical section of the same; Fig. 3, a side view the reverse of that shown in Fig. 1, and Fig. 4 a plan view.

The opposite sides A A' of a box or frame are connected together by a base, B, and suitable cross-pieces a a'.

The shafts b b' of two rollers, D D', clothed with rubber, have their bearings in plates secured to the side pieces A A' of the box, and these two shafts are geared together by wheels d d', as shown in Fig. 1, the upper wheel, d, being geared into a wheel, e, on the driving-shaft E, which gears into a wheel, f, on the shaft F.

An inclined chute, G, bears on the cross-piece a', and is connected to the side pieces of the box by spiral springs h, which have a tendency to force the chute downward to an extent permitted by the cross-piece a' or other appropriate stop. Springs i, also secured to the sides of the box, bear against the under side of the chute near the lower end of the same, and tend to force it upward to an extent permitted by strips m on the sides of the box.

On the shaft b' of the lower roller is a ratchet-wheel, H, Fig. 3, the teeth of which are arranged to strike against an arm, I, pivoted to the outside of the box, and against this arm bears a projection, n, on one edge of the chute, the said projection passing through a slot in the side of the box, so that as the ratchet-wheel rotates in the direction of the arrow the chute will be reciprocated, its downward movement being sudden and with an abrupt jerk, owing

to the shape of the teeth of the ratchet-wheel and to the springs h.

A number of thin plates, p—five in the present instance—project from the face of the chute, these plates being continued to different distances from the lower end of the chute. Plates thus arranged are adopted for the reason that they have a tendency to turn endwise the pods which are jerked down the chute, and induce them to pass longitudinally between the plates.

On the shaft F are a number of blades, q—six in the present instance—to correspond with the six channels formed on the chute by the five plates and sides of the box, the blades, as they revolve, passing through the channels, but free from contact with the plates.

I prefer to make the blades concave at the ends, and to so arrange them on the shaft that three shall project from one side and three from the opposite side, in the order shown in Fig. 4, so that three blades shall act on three pods in three channels at one time, and the other three blades on three pods in different channels at another time.

Some of the plates p may extend over the shaft F, as shown in Fig. 2.

The top of the box is partly closed by a plate, L, and from the front edge of this plate extends a partition, K, the lower side of which is far enough from the chute to permit the pods to pass beneath it, the partition being slotted to receive the plates p.

The hopper is bounded longitudinally by the chute G and partition K, and transversely by the sides A A' of the box, the only outlet from the hopper being through the channels formed by the plates p between the lower edge of the partition K and the chute.

On turning the driving-shaft E, so that the several rotating parts will move in the direction pointed out by the arrows, the pods placed in the hopper will be tossed about by the action of the chute, the tendency of which action in conjunction with the plates p will be to direct the pods endwise through the channels formed by the said plates. In their course through these channels the pods will be struck and moved forward by the blades q of the shaft F, and in passing from the chute the pods will be seized by and between the rollers D D', and

will be forced open thereby, the pease falling into the box W, while the shells will pass from the rollers down the inclined plane x into any suitable receptacle.

It is preferable to combine the chute with springs, so that it will yield to a limited extent to the action of the blades, and the shaft F may also be made to yield vertically by making vertical slots w in the opposite bearing-plates and causing springs y to bear on the shaft.

We claim as our invention—

1. The combination, in a pea-sheller, of the reciprocating chute G and its plates p with the shaft F and its blades and the rollers D D', all substantially as set forth.

2. The combination of the reciprocating chute G, the strips m , and springs i , all substantially as set forth.

3. The combination of the reciprocating chute G and its plates with the slotted partition K, as specified.

4. The combination of the reciprocating chute with plates p , continued to different extents from the end of the chute, as and for the purpose set forth.

5. The combination of the chute G, having plates p , with the yielding shaft F, having blades q , as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN BUDD.

SAMUEL W. BUDD.

Witnesses:

ALEXANDER PATTERSON,

HARRY SMITH.