

(Model.)

G. W. KNAPP.

CHERRY SEEDER.

No. 269,066.

Patented Dec. 12, 1882.

Fig. 1.

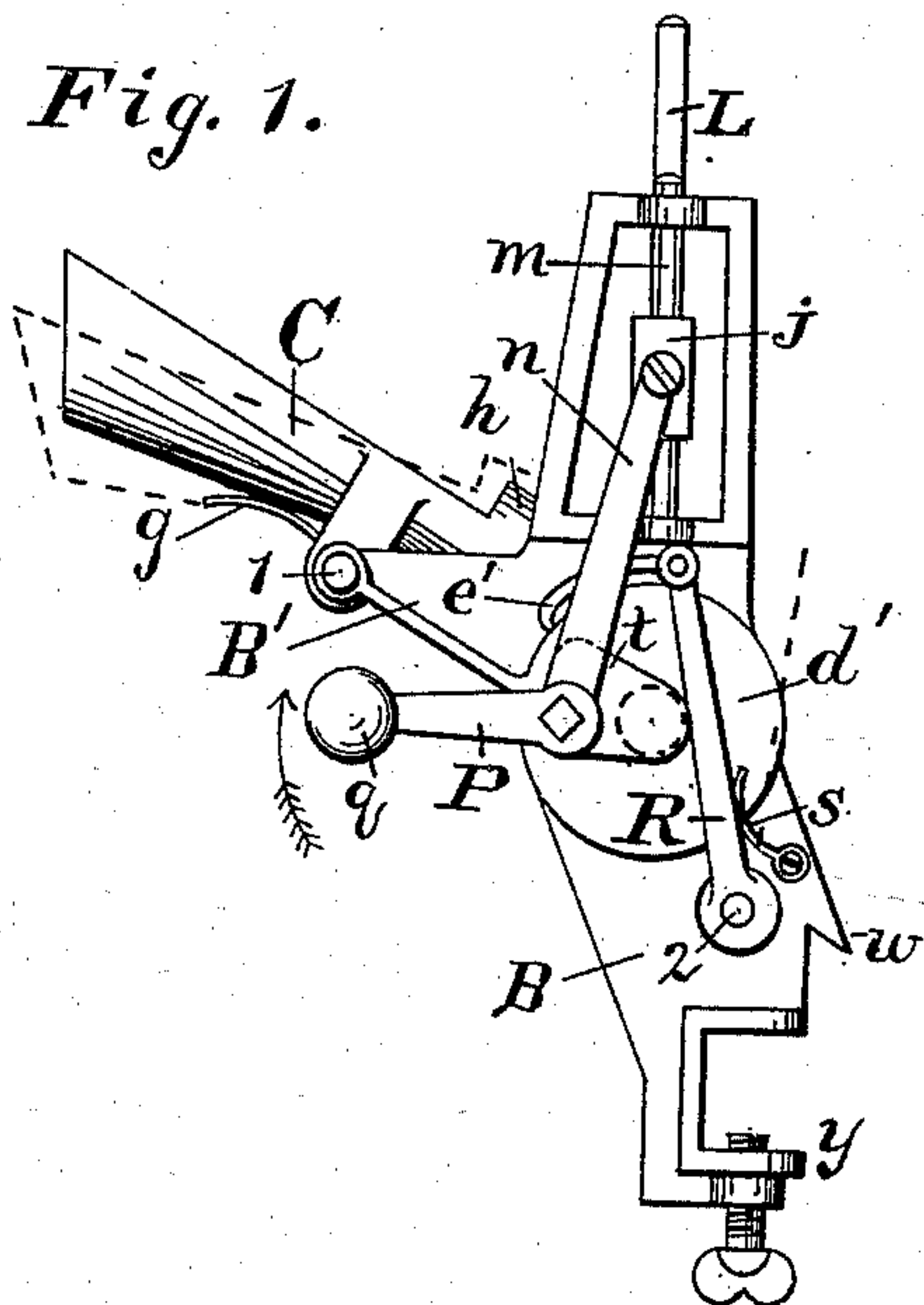


Fig. 3.

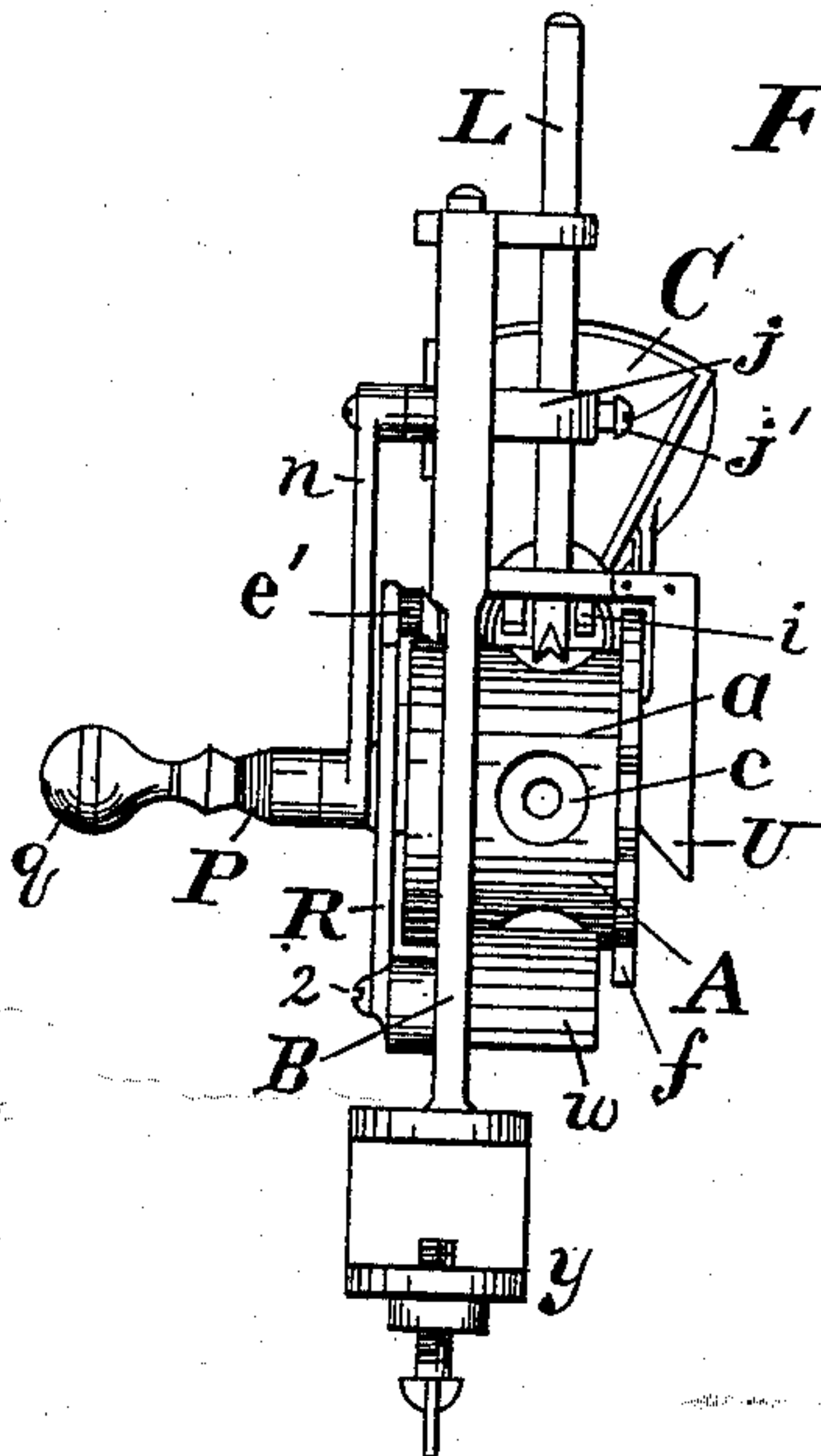


Fig. 5.

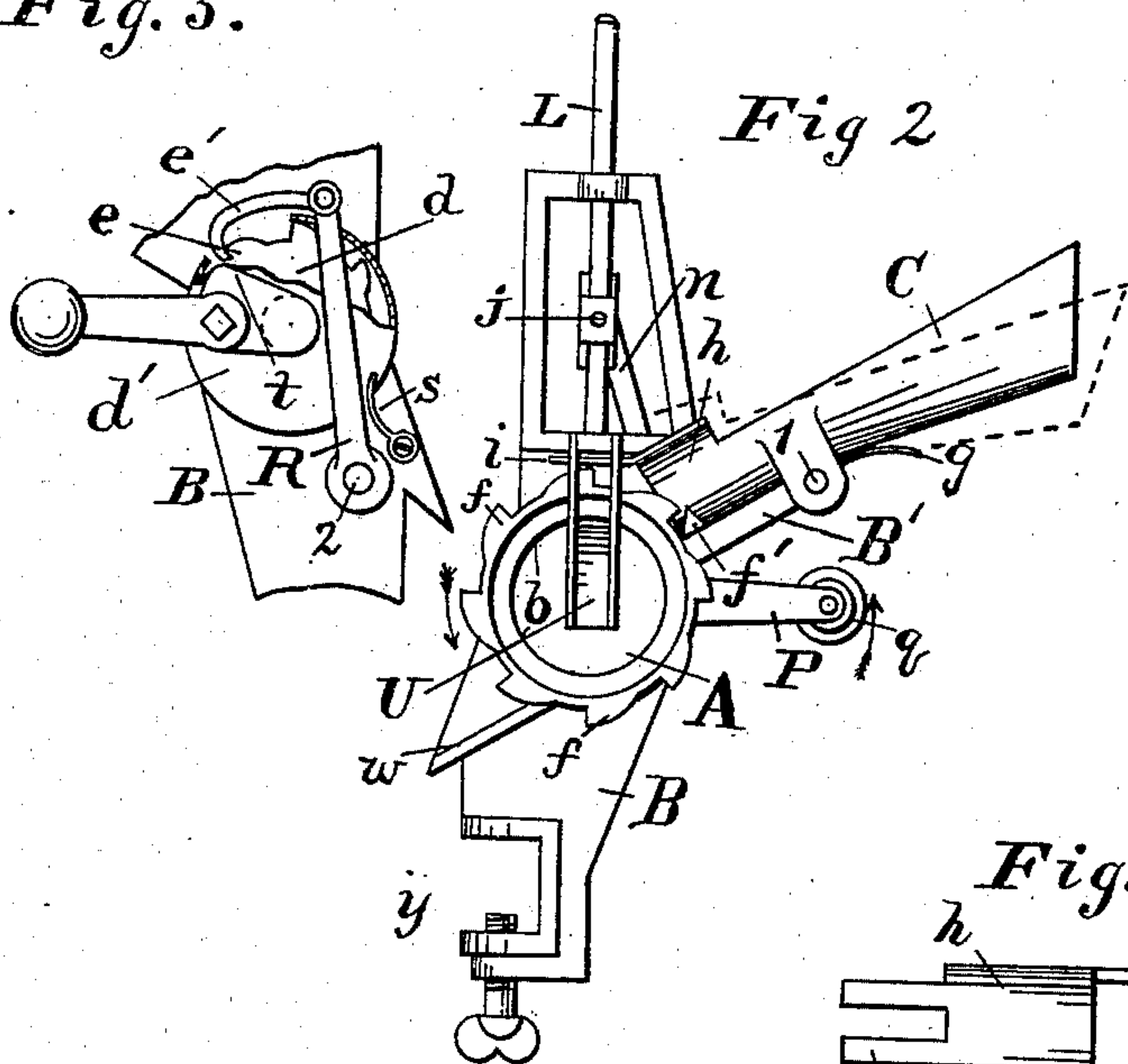


Fig. 2

Fig. 4

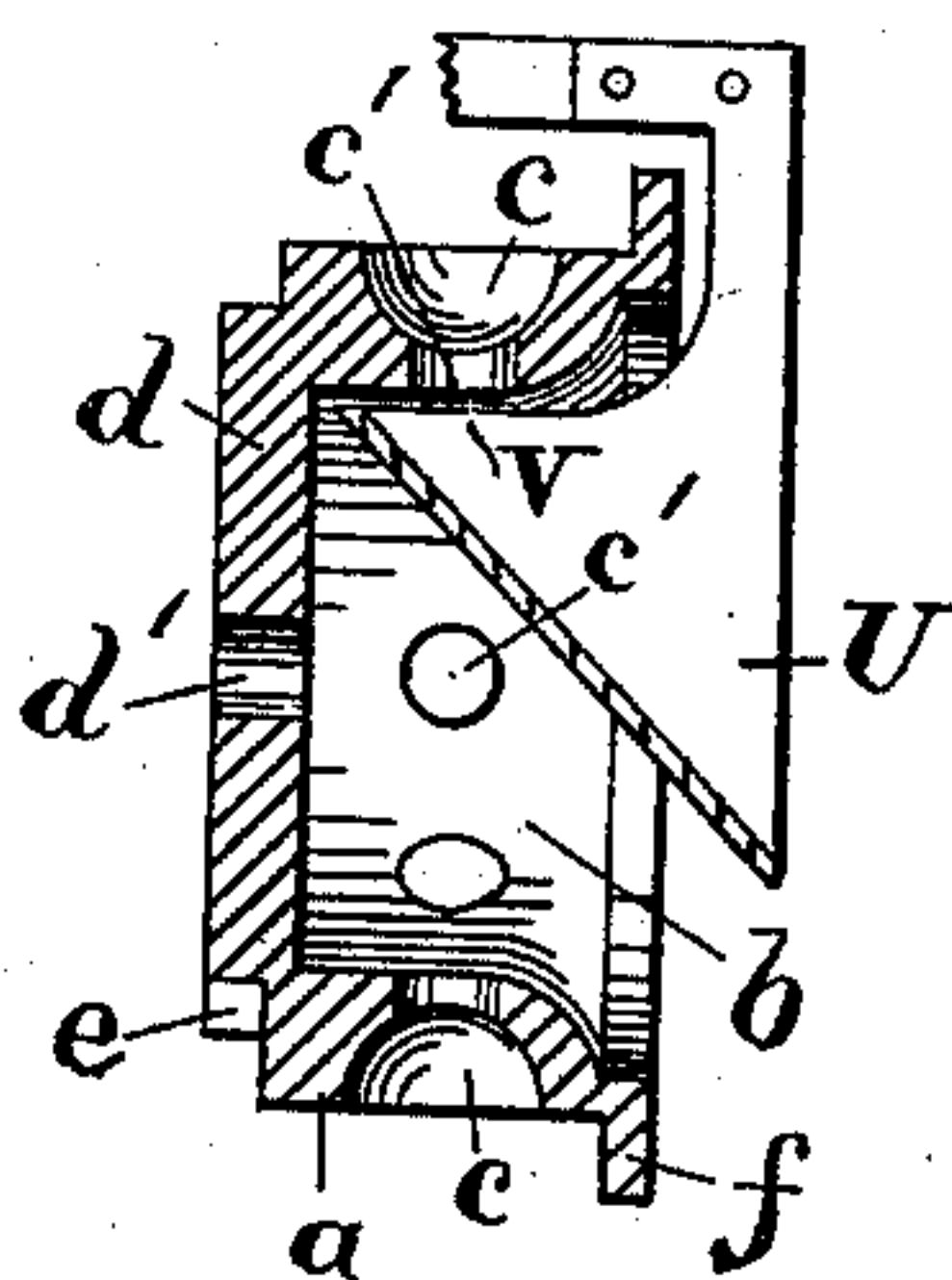
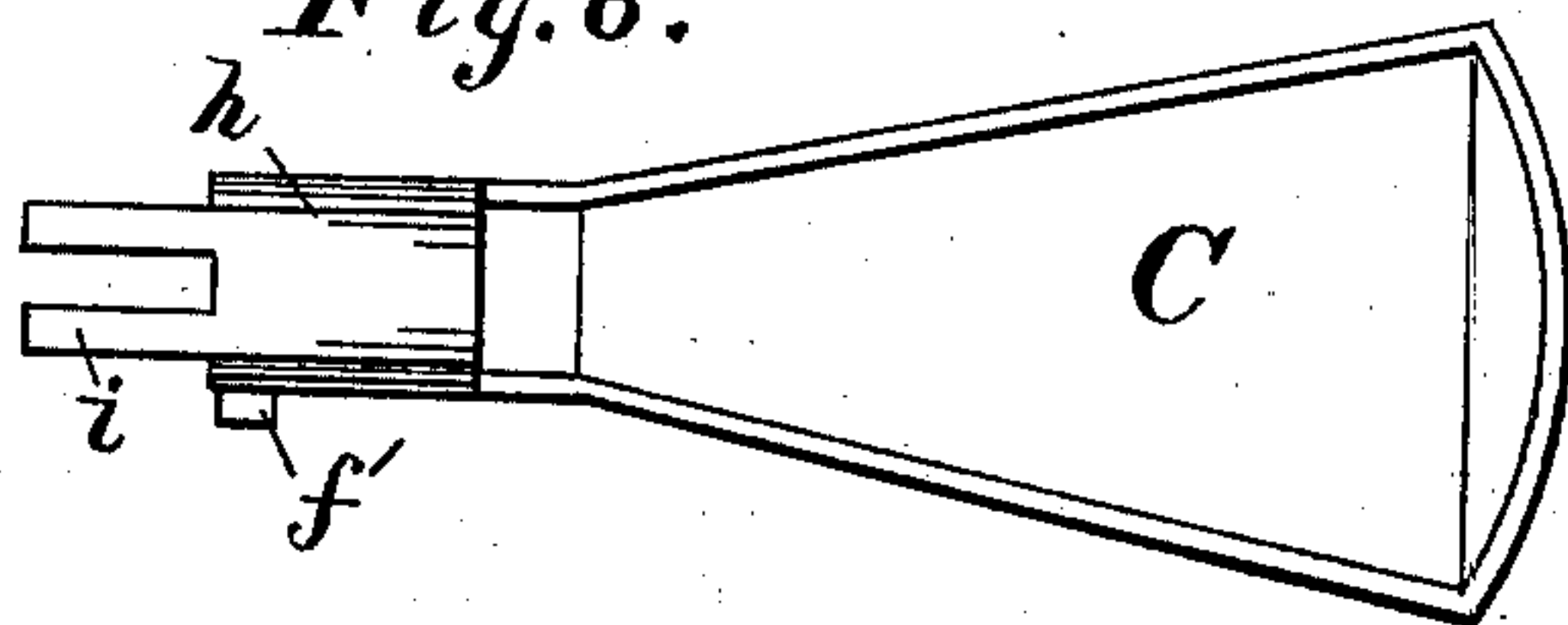


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE W. KNAPP, OF BALTIMORE, MARYLAND.

CHERRY-SEEDER.

SPECIFICATION forming part of Letters Patent No. 269,066, dated December 12, 1882.

Application filed August 31, 1882. (Model.)

To all whom it may concern:

Be it known that I, GEORGE W. KNAPP, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Cherry-Seeders, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a cherry-seeder which will be described and then specifically claimed.

In the drawings hereto annexed, Figure 1 is a view of one side of the machine. Fig. 2 is a view of the opposite side. Fig. 3 is a view of the side from which the seeded cherries are discharged. Fig. 4 shows a diametrical section of the cylinder and the seed-remover. Fig. 5 is a view showing the rear wall of the cylinder inclosed in the case. Fig. 6 is a top or plan view of the oscillating feed-trough.

The letter A designates a cylinder having a circular face, *a*, outside and a circular face, *b*, inside. Sockets *c* for the cherries are formed on the outside face, and each socket has a hole, *c'*, through the bottom to the inside for the passage of the seed. One end of the cylinder has a wall, *d*, with a central hole, *d'*, for attachment to a crank-shaft. Around the rim of the wall *d* are ratchet-teeth *e*, with which the pawl *e'* engages, and by which an intermittent rotary movement is given to the cylinder. This wall and the ratchet-teeth *e* are inclosed by the case *d'*, which is integral with the standard B. A slot is formed in the top of the case to give the pawl access to the teeth. The outer rim of the cylinder has ratchet-teeth *f*, which serve, as hereinafter explained, to give movement to the feed-trough. An arm, B', projects to the rearward from the standard, and the feed-trough C is pivoted to the arm, as denoted by 1. This permits an oscillating movement in a vertical plane. A spring, *g*, secured to the arm or to the pivot-bolt, bears against or is in contact with the feed-trough, and serves to keep the lower and discharge end down or in contact with the cylinder. The feed-trough tapers toward the discharge end, and at that end is provided with a tube, *h*, through which the cherries must pass one after the other. The extremity of the tube is provided with a depressor, *i*, to press and hold a cherry into the socket *c*. As this depressor has vertical

movement and is kept down by the vertical spring *g*, it first presses the cherry into the socket, and then holds it there until the punch has pushed the seed out and is withdrawn from the cherry, thus in the second place serving as a stripper, for without it the cherry would adhere to the punch. By this means the cherry for the time being is kept in the socket. In the drawings the depressor consists of two fingers separated by a slot, in which the punch moves. The depressor may, however, be of different shape, the two fingers not being essential; and, moreover, the depressor may be independent of the feed-trough—that is, it may be constructed to receive its upward movement from the feed-trough and its downward movement from a spring.

At one side of the discharge end of the feed-trough is a laterally-projecting lug, *f'*, which bears against the ratchet-teeth *f* of the cylinder as the latter rotates. Thus upon the tooth *f* of the cylinder coming in contact with the lug *f'* the effect is to raise the discharge end of the feed-trough as high as the depth of the tooth, and immediately upon the tooth passing the lug the spring *g* serves to bring the discharge end down again. When thus down the end of the tube is in close contact with the cylinder and immediately over one of the sockets. As the cherries must pass through the tube one after the other, it will be seen that only one cherry can enter one socket. The tube end of the feed-trough is then raised by the operation of the tooth *f* on the lug, and the socket containing a cherry moves forward under the punch, the spring-depressor *i* then keeping the cherry in the socket until the seed is punched out and the punch is withdrawn.

The punch L moves in laterally-projecting bearings *k* *k'* on the standard. A collar, *j*, grasps the punch, and is made fast by a set-screw, *j'*. The collar is perforated at one side to slide freely up and down a vertical guide-rod, *m*. A pitman-rod, *n*, connects the said collar with the crank-lever P on the shaft to which the cylinder is attached, and thereby a reciprocating movement is given to the punch. At the end of the crank-lever a handle, *q*, is attached, by grasping which the crank may be turned.

The pawl *e'*, which rotates the cylinder, is

mounted at the upper end of an arm, R, whose lower end is pivoted, as shown at 2, to the standard. The upper end of this arm has a vibrating movement, as indicated by broken lines in Fig. 1, and thereby carries the pawl back and forth. A spring, s, throws the arm back to cause the pawl to engage with another ratchet-tooth, while a cam, t, formed on the crank-lever, at each revolution forces the arm forward and causes the intermittent rotary movement of the cylinder.

When a seed is punched through the bottom of the socket it has a tendency to cling to the hole at the inside face of the cylinder. A seed-remover, U, is therefore provided. The seed-remover consists of an inclined chute whose upper end, V, is close to but not in contact with the inside face, b, of the cylinder, and the said chute is held rigidly to its position. As this inside face is circular, all parts of it, when turned, will be in the same close position to the end V of the chute. The latter will therefore scrape any adhering seeds, and thereby the seed which would otherwise cling is removed. The seed-remover, therefore, is both a scraper and a chute. It is suspended from the bearing K, to which it is rigidly secured. As no part of it is in actual contact with the cylinder, there is no friction, and the machine may run easily and smoothly.

Immediately below the outside face of the cylinder is an inclined slide, w, upon which the seeded cherry drops. This inclined slide is integral with the standard and projects laterally therefrom below the cylinder. It will thus be seen that the single standard B is provided with a case, d', which incloses the ratchet of the cylinder, and a laterally-projecting inclined chute, w, all said parts constituting one casting, whereby stability results for the machine, with great economy in the cost of manufacture.

The machine may be supported on a stand, or, as in the drawings, may have a clamp, y, by which to attach it to a bench or table.

Cherry-seeders have heretofore been made

embodying a rotary cylinder with sockets, a fixed or immovable feed-trough, a punch, and a movable stripper. I am also aware that an oscillating feed-trough has heretofore been employed in pea-hullers; but mine has construction differing from these. Its oscillation is for a different purpose, and a different result follows its oscillation.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a cherry-seeder, a feed-trough pivoted to oscillate in a vertical plane, and provided with a tube at its discharge end, as set forth.

2. In a cherry-seeder, a feed-trough pivoted to oscillate in a vertical plane, and provided with a cherry-depressor at its discharge end, as set forth.

3. In a cherry-seeder, the combination of a feed-trough pivoted to oscillate in a vertical plane, and provided at its discharge end with a cherry-depressor, and a cylinder adapted to rotate and provided with sockets for the cherries, as set forth.

4. In a cherry-seeder, the combination of a cylinder having cherry-sockets and provided with ratchet-teeth e, with a supporting-case, d', for the cylinder, having a slot, a punch, a crank-shaft, a pitman-rod connecting the punch and crank-shaft, a pivoted arm carrying a pawl, e', which moves in the aforesaid slot, and a cam adapted to give movement to the said arm, as set forth.

5. In a cherry-seeder, a single standard provided with a slotted case, d', to inclose the end of a cylinder, and also provided with a laterally-projected inclined chute, w, all integral, as set forth.

In testimony whereof I affix my signature, in presence of two witnesses, this 30th day of August, 1882.

GEORGE W. KNAPP.

Witnesses:

JOHN E. MORRIS,
JNO. T. MADDOX.