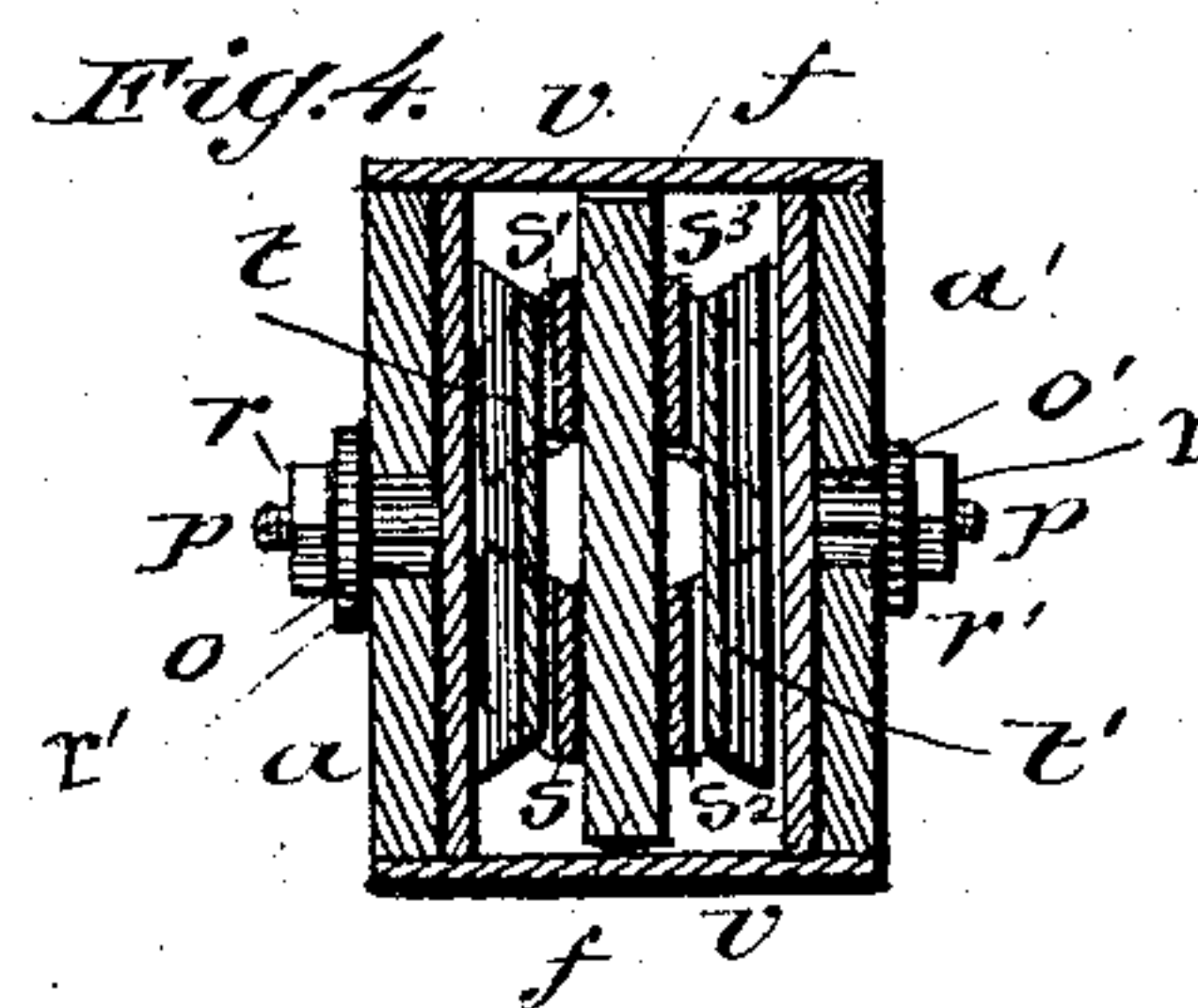
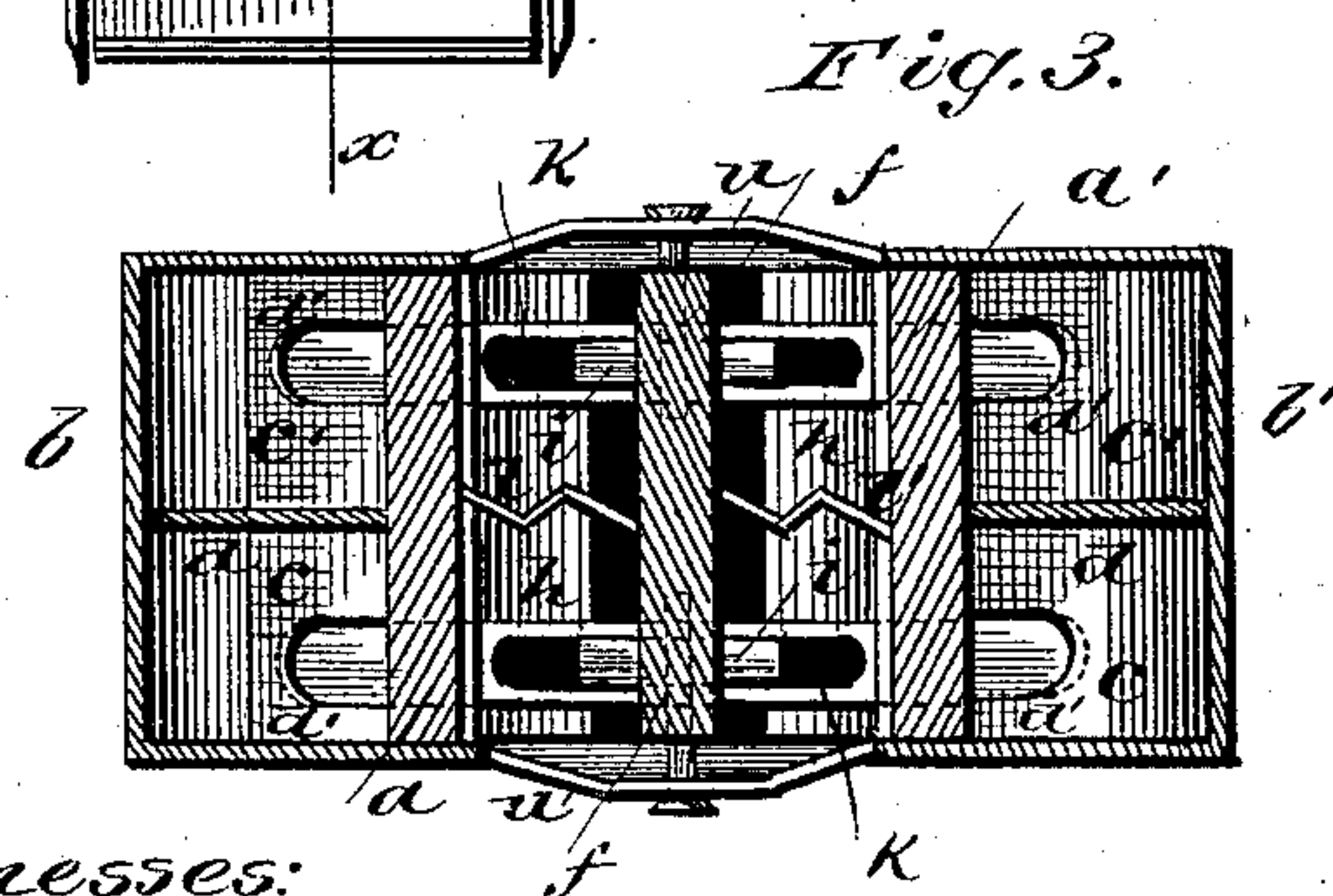
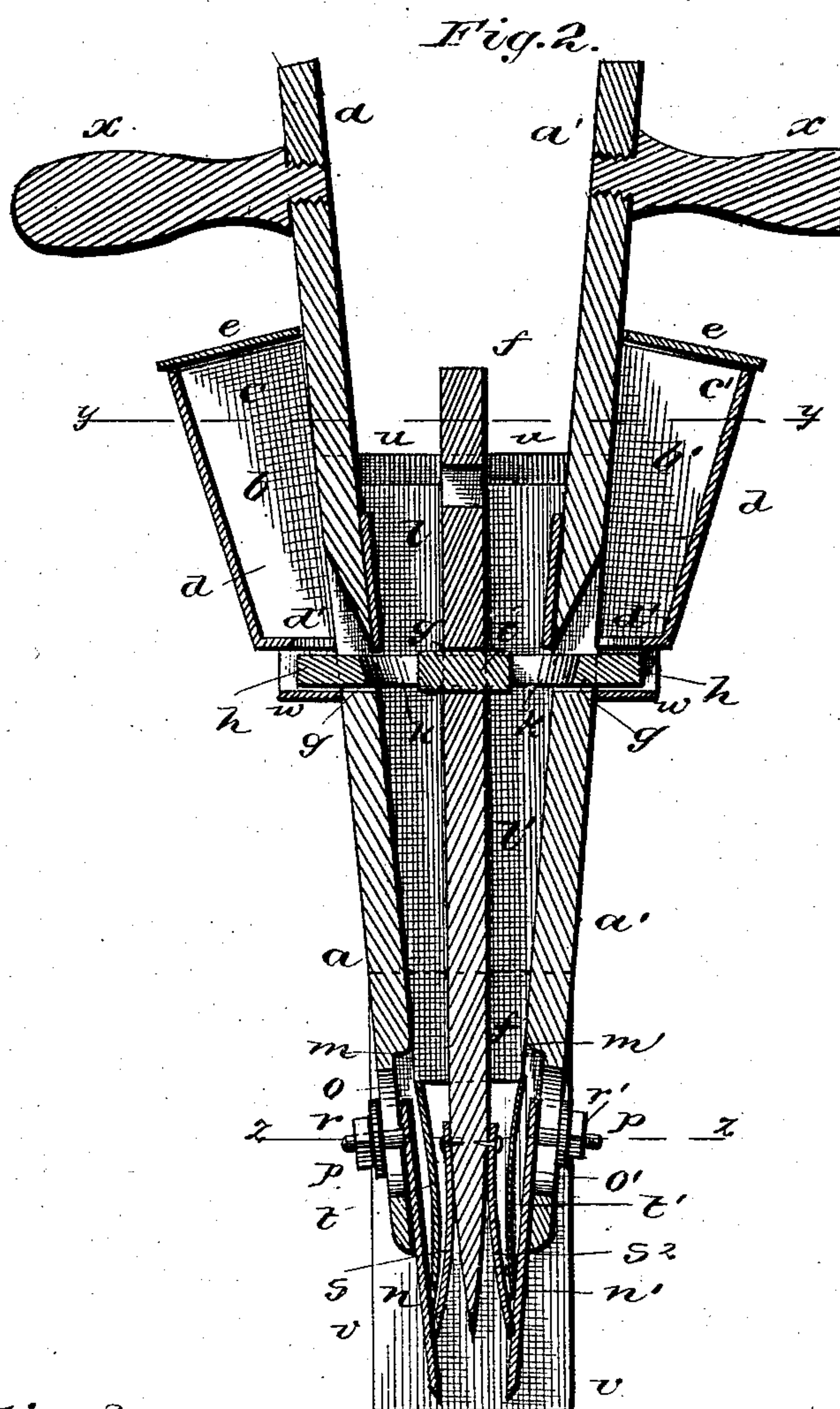
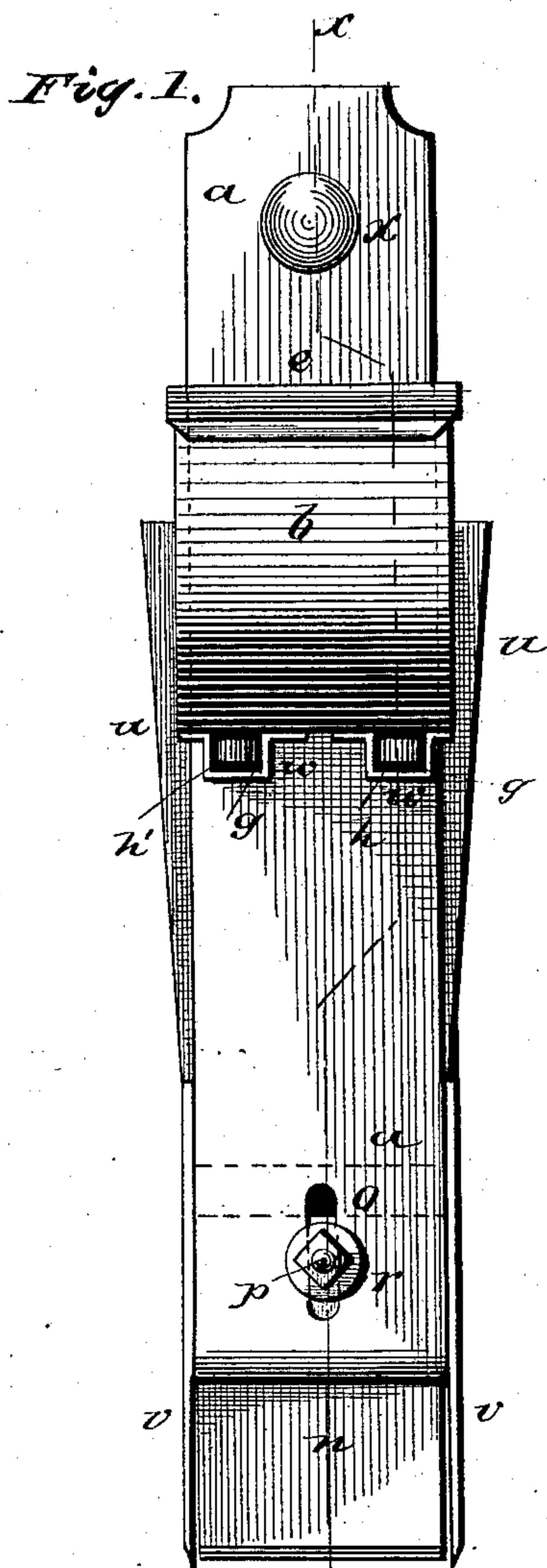


(No Model.)

G. B. CLARK.
HAND SEED PLANTER.

No. 287,626.

Patented Oct. 30, 1883.



Witnesses:
John T. Morrow
E. H. Bates

Inventor:
Geo. B. Clark,
by Anderson & Smith.
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE B. CLARK, OF BETHESDA, OHIO.

HAND SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 287,626, dated October 30, 1883.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, G. B. CLARK, a citizen of the United States, residing at Bethesda, in the county of Belmont and State of Ohio, have
5 invented certain new and useful Improvements in Hand Seed-Planters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front view.
15 Fig. 2 is a vertical sectional view taken through line $x x$, Fig. 1. Fig. 3 is a cross-section through line $y y$, Fig. 2, and Fig. 4 is also a cross-section taken through line $z z$, Fig. 2.

This invention has relation to hand corn-
20 planters; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Referring by letter to the accompanying
25 drawings, $a a'$ are the main wooden blades of the planter, to the outer sides of which, and near their upper ends, are attached the double hoppers $b b'$, each hopper $b b'$ being divided into two compartments, $c c'$, by a vertical par-
30 tition, d , at right angles to the faces of the wooden blades $a a'$. The bottoms of the hoppers are each provided with a discharge-opening, d' , and a sliding cover, e , is provided for each double hopper $b b'$.

35 f designates a central lateral partition of wood, which is shorter than the wooden blades $a a'$, which tapers to a point at its lower end, and extends a short distance below the lower ends of the wooden blades $a a'$, as shown.

40 Immediately beneath the hoppers the blades $a a'$ and partition f are provided with rectangular openings g near each edge, for the reception of the seed-cups $h h'$, which are also made double, so that the two of them will sup-
45 ply the four compartments of the double hoppers. These double seed-cups $h h'$ are made in elongated form, as shown, and are slotted vertically throughout nearly their entire length, the ends of the slots being rounded and slop-
50 ing from above downward, in order to facilitate the passage of the grains of corn from the

cups to the discharge-passages. The seed-cups $h h'$ are secured in the openings g in the central partition, f , by blocks $i i'$, inserted in the slots k , and driven along the slots into the
55 openings g until the ends of said blocks are equal distance on both sides of the partition f . The ends of these blocks $i i'$ form the inner ends or walls of the four seed-cups formed by their insertion into the slots of the double
60 seed-cups $h h'$.

Central flexible partitions, $l l'$, extending at right angles to the wooden partition f , connect the blades $a a'$ with the central lateral
65 wooden partition, f , thereby forming four distinct and separate passages for guiding the corn to the hill. These flexible partitions $l l'$ lead from a point a short distance above the seed-cups down to a point opposite the shoulders $m m'$ on the inner faces of the wood
70 blades $a a'$, said shoulders being formed by cutting away portions of the blades $a a'$ near their lower ends, to form seats for the adjustable metal blades $n n'$. The wooden blades
75 $a a'$ are provided with vertical slots $o o'$, centrally located a short distance below the shoulders $m m'$, through which the threaded studs p of the adjustable metal cutting-blades $n n'$ project, and are secured by nuts and washers
80 $r r'$.

Curved springs $s s' s^2 s^3$ are secured to central wooden partition f —two on each face—at the point where the partition f begins to taper. These springs curve outwardly, and those of each pair converge from their places
85 of fastening toward their point. The object of these springs is to force the metallic cutting-blades outwardly after they have been closed and inserted into the ground, without requiring the operator to push the upper ends
90 of the wooden blades together.

Directly below the flexible partitions $l l'$, and forming continuations of them, are secured to the partition f the flexible oar-shaped
95 guide-pieces $t t'$. They are interposed between the springs $s s'$ and $s^2 s^3$ and the metal cutting-blades, and serve to direct the corn to the corners of the rectangular discharge end of the planter formed by opening the metal
100 blades while in the ground.

The edges of the blades $a a'$ and the partition f form a point above the seed-cups down

to a point opposite the shoulders $m m'$ by flexible material u , as shown.

From the shoulders $m m'$ down the cutting-plates $v v$ are employed, and these are secured to the blades $a a'$ and partition f by screws and upset rivets, and extend down to the cutting-edges of the metal cutting-blades $n n'$. The objects of these side cutting blades or plates $v v$ are to cut grass or other obstructions at the sides of blades $n n'$, and to prevent the dirt from falling in too quickly when the cutting-blades $n n'$ are opened in the ground.

The under faces of the hoppers are provided with guide-loops w for the outer ends of the seed-cups, as shown.

$x x$ designate the handles.

The operation of the planter is quite simple. The hoppers being first filled, it is only necessary to grasp the handles, draw them outwardly until the points of the cutting-blades $n n'$ meet, plunge the point of the planter into the ground, release the draw on the handles, and the springs $s s'$ and $s^2 s^3$ will force the blades $n n'$ outwardly while in the ground, and at the same time will slide the hoppers inwardly on the seed-cups, causing four

four hoppers through the four discharge-passages at four points that will form a rectangular hill of corn when covered by the dirt, which will fall in upon the withdrawal of the planter from the ground. The cutting-blades $n n'$ being made adjustable vertically renders the planter adaptable to planting hills of greater or lesser area, accordingly as the blades $n n'$ are set down or up, as may be desired.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a hand corn-planter, the combination, with the wooden blades $a a'$ and wooden partition f , connected by central flexible partitions, $l l'$, and outer flexible covers, $u u$, and cutting-plates $v v$, of the double hoppers $b b'$, double seed-cups $h h'$, the curved springs $s s'$ and $s^2 s^3$, guide-pieces $t t'$, and the metal cutting-blades $n n'$, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE B. CLARK.

Witnesses:

JOHN J. HESKETT,

JAMES W. COFFLAND.