

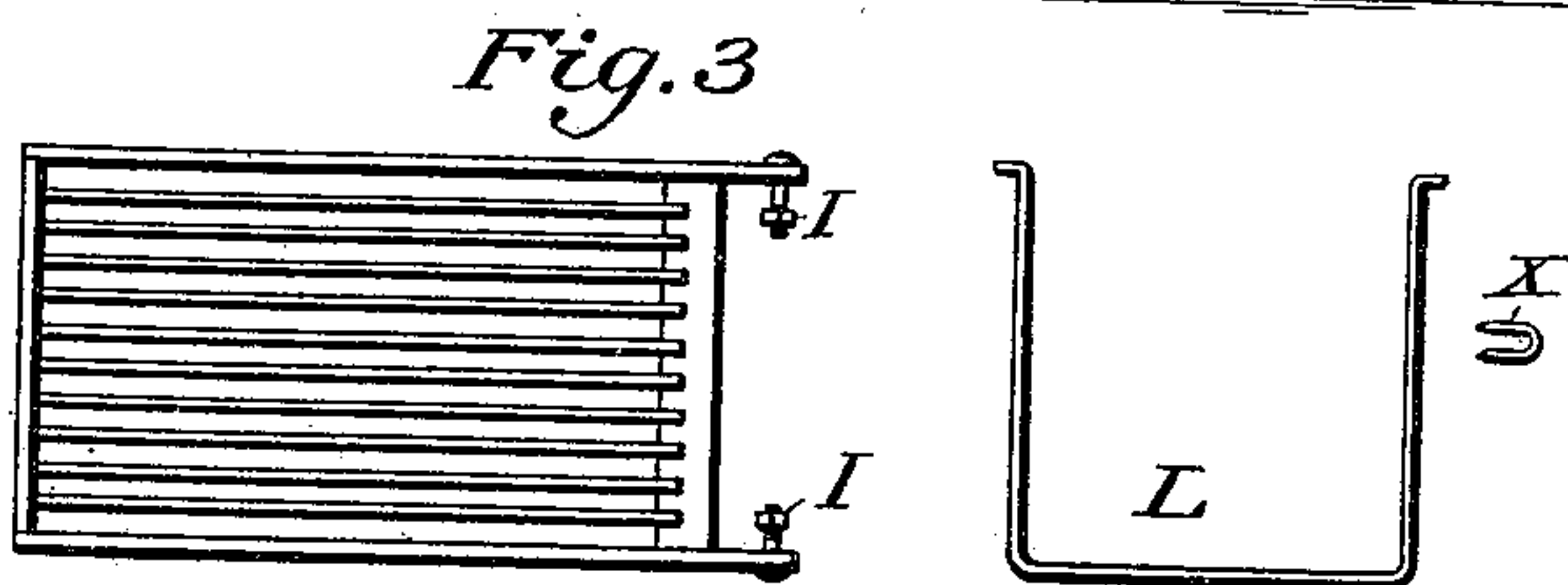
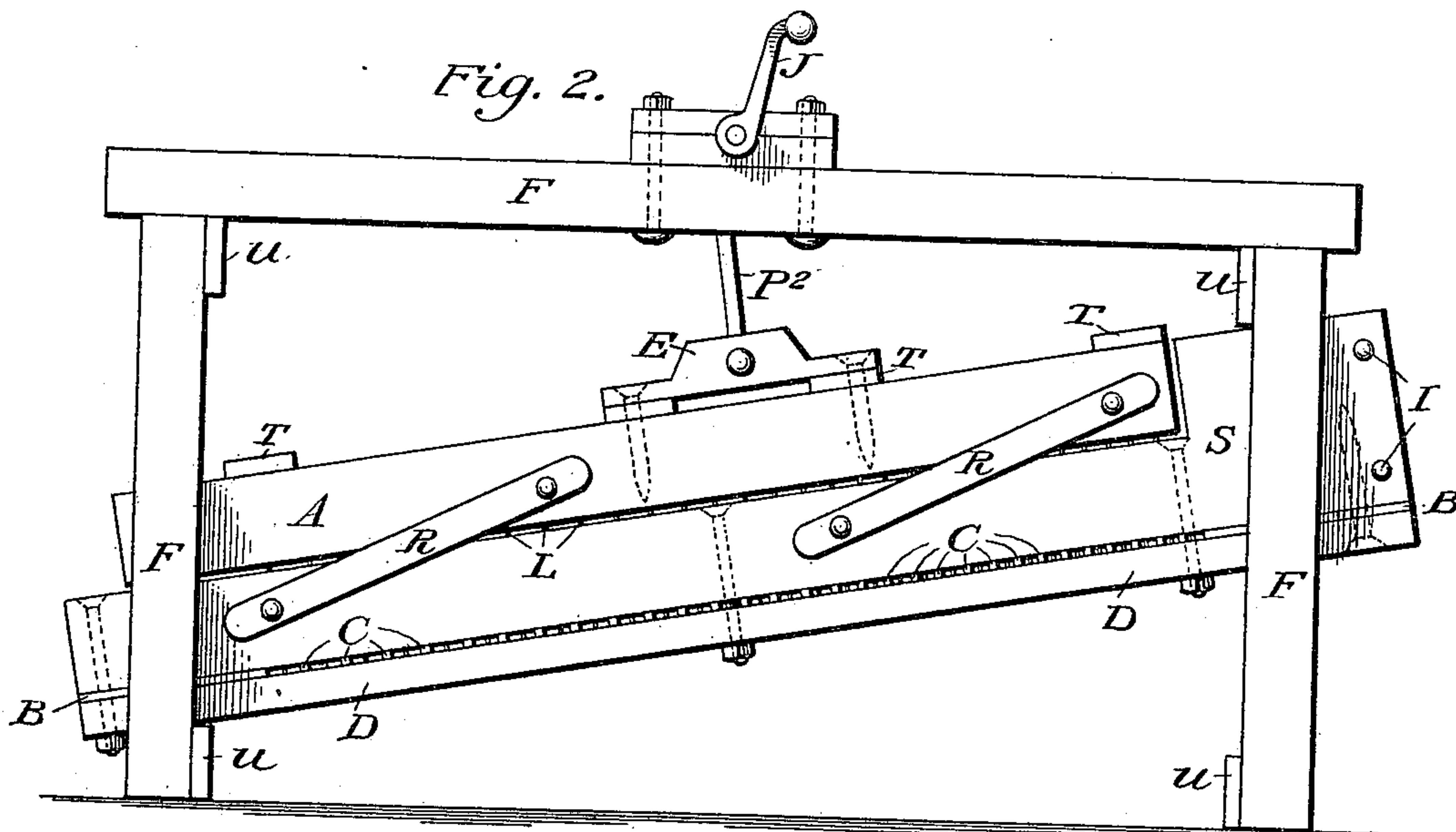
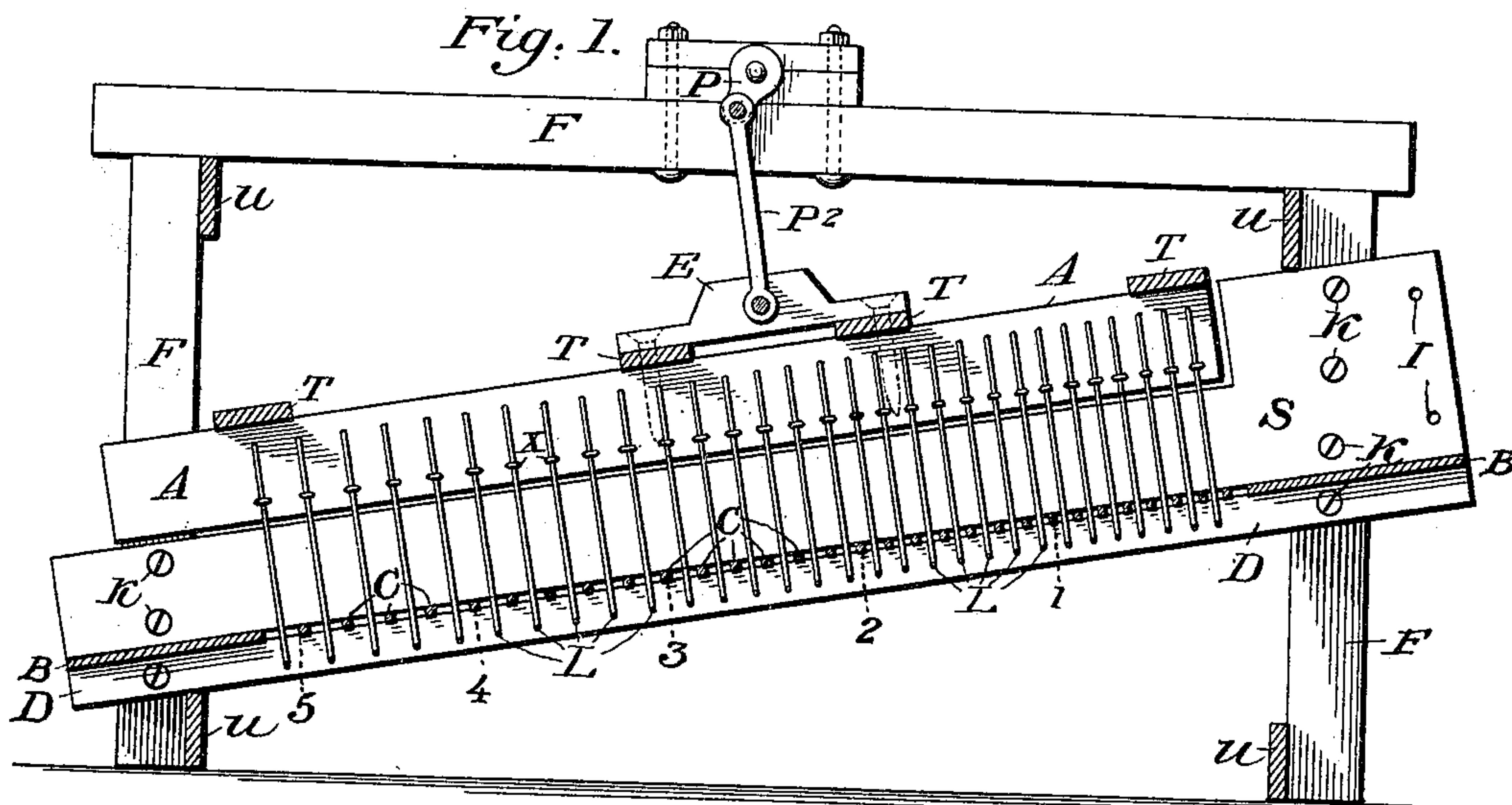
No. 621,281.

Patented Mar. 14, 1899.

R. POWELL.
FRUIT GRADER.

(Application filed June 24, 1898.)

(No Model.)



Witnesses.

J. H. Cochran
J. Guthrie

Inventor.

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UNITED STATES PATENT OFFICE.

ROBERT POWELL, OF MYRTLE CREEK, OREGON.

FRUIT-GRADER.

SPECIFICATION forming part of Letters Patent No. 621,281, dated March 14, 1899.

Application filed June 24, 1898. Serial No. 684,440. (No model.)

To all whom it may concern:

Be it known that I, ROBERT POWELL, a citizen of the United States, residing at Myrtle Creek, in the county of Douglas and State of Oregon, have invented a new and useful Fruit-Grading Machine, of which the following is a specification.

My invention relates to improvements in fruit-grading machines in which are employed iron-wire loops operating through an open-slatted bottom of an incline chute and having a curved vertical movement.

The object of my machine is to provide a movement, in conjunction with the wire loops and the slatted-bottom chute, that will grade fruit without mashing or bruising.

The following is a brief description of the figures of the drawings.

Figures 1, 2, and 3 designate the three different views of the drawings. Fig. 1 is a vertical section of the grader as it appears cut in two and showing the graduated slatted bottom C C of box S, the wire loops L, the slats C C, and spaces or slats thereof. Fig. 2 is a section of drawing, outside side view, showing oscillating frame T and the pivoted oblique bars or oscillating arms R R, connected to side board S of chute or box. Fig. 3 is a top view of hopper or fruit-box which is connected to side boards S at I I by means of bolts.

The letters refer to the different parts of the drawings in detail, all substantially as shown.

I attain this object of my invention by the mechanism illustrated in the accompanying drawings, in which—

Fig. 1 is a vertical section of the entire separating-machine, inside view, as it appears cut in two.

The letters F F F and U U U U constitute the half-framework of the machine.

S is the side board of the chute and is held to frame by means of screws at letters K.

B B is the bottom of chute at ends and is held in place by means of bottom rail D, as in section, Fig. 2, outside view.

C C are the slots, which form the open-slatted bottom of chute and are placed at the proper distance apart to make the several

grades, as is designated by darts, larger grade passing over the end. These slats are held in position by the bottom rail D, which is bolted to side boards S, which forms a clamp.

A and letters T T T T constitute the swing-frame, to which the wire loops L and head-block E are secured. X is a staple driven across side of loop L into frame A, which holds the loops in position. Swing-frame has a vertical circular movement, which is accomplished by means of the crank P and the oscillating arms R R. Crank P is connected with head-block E with pitman P², which holds swing-frame in position vertically and secures the vertical movement. The oscillating arms are held in position obliquely by means of wrist-pins Z, which gives the circular movement, thereby causing the loops L to move back near slats C when down and out of the drop of the fruit and back to center of space when up. The vertical movement lifts the fruit out of the spaces, causing it to roll into the next space below, and so on down the chute.

Fig. 3 is the top view of slatted-bottom box which is bolted to side boards S at upper end at I I to receive the fruit to be graded.

When the crank J is moved around, the swing-frame A rises and lowers, lifting the fruit out of the spaces when up, causing the fruit to roll down, and allowing it to drop through when down, thereby grading the fruit into uniform sizes.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a fruit-grading machine, the combination with the inclined box or chute, having the graduated slots or openings in the bottom thereof, of the oscillating frame connected to the box or chute by the pivoted oblique bars and carrying the wire loops which work in and through the slots or openings in the bottom of the box or chute, and means for oscillating the frame, all substantially as described and shown.

ROBERT POWELL.

Witnesses:

H. DYER,
N. SELIG.