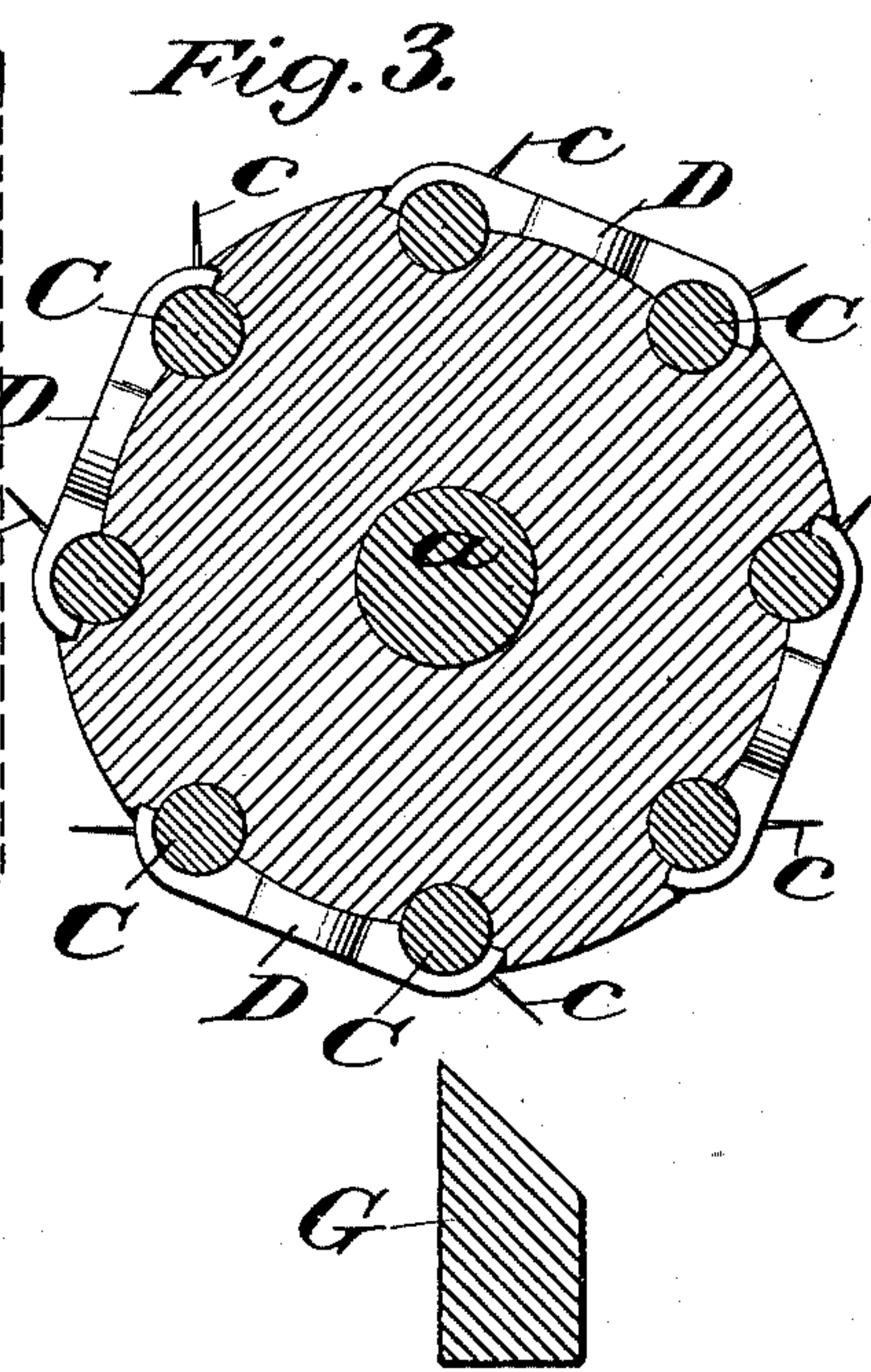
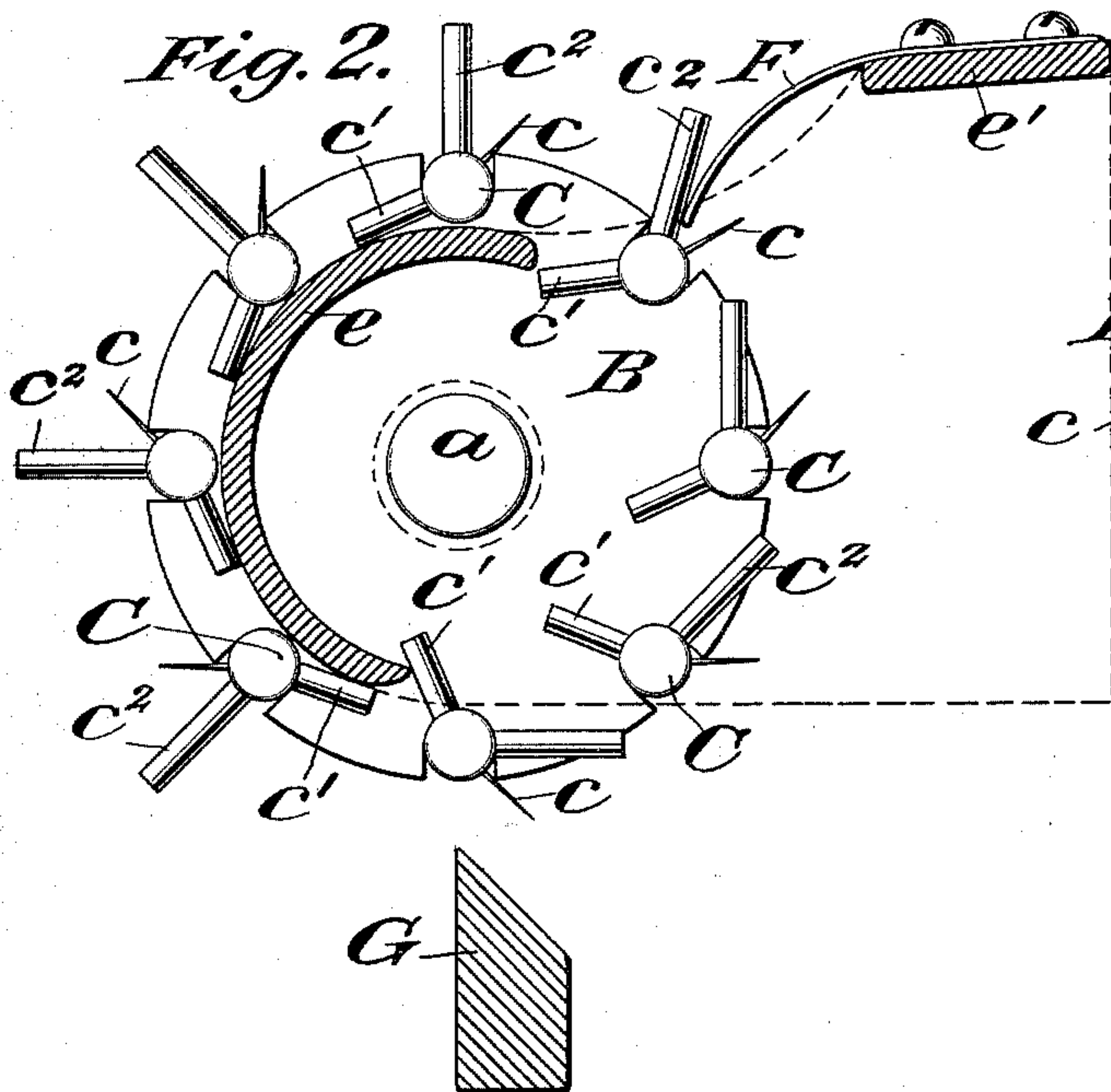
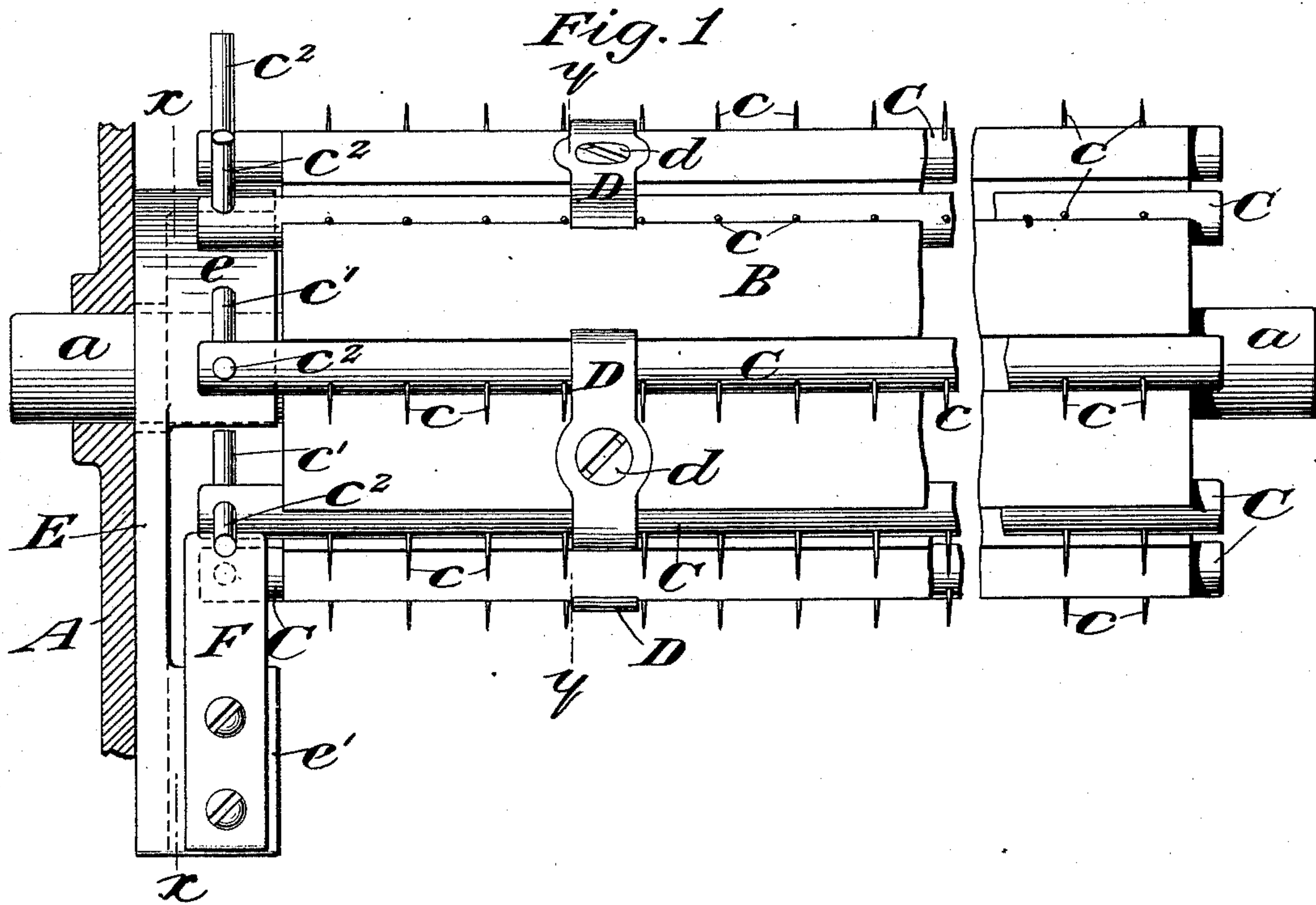


(No Model.)

C. BALL.
COTTON PICKER.

No. 483,707.

Patented Oct. 4, 1892.



Witnesses:-
D. H. Naynor
Fred Haynes

Inventor:-
Charles Ball
by attorneys
Brown & Seward.

UNITED STATES PATENT OFFICE.

CHARLES BALL, OF BROOKLYN, NEW YORK, ASSIGNOR TO BALL & JEWELL,
OF SAME PLACE.

COTTON-PICKER.

SPECIFICATION forming part of Letters Patent No. 483,707, dated October 4, 1892.

Application filed April 7, 1892. Serial No. 428,140. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BALL, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful
5 Improvement in Cotton-Pickers, of which the following is a specification.

My invention consists in an improved roller for cotton-picking machines in which the bars containing the picking-pins are mounted in
10 grooves in the roller and capable of a rocking movement therein.

It further consists in providing mechanism for positively operating the bars, so that the pins thereon may be inclined forwardly when
15 in the position to pick and rearwardly when in position to be operated by the clearing means for removing the cotton from the pins.

A practical embodiment of my invention is represented in the accompanying drawings,
20 in which—

Figure 1 is a top plan view of my improved roller. Fig. 2 is a sectional view on the line $\alpha \alpha$ of Fig. 1, and Fig. 3 is a sectional view on the line $y y$ of Fig. 1.

25 Referring to the drawings, a designates the shaft on which the roller B is secured. The said shaft is suitably mounted in the frame A of the machine. The roller B is preferably made of wood and is provided with a number
30 of longitudinal grooves along its exterior, in which the bars C are mounted. These grooves are shown as of substantially the depth of the diameter of the bars. The bars are secured within the said grooves in position to rock by
35 means of holding devices D. Each of the holding devices preferably consists of an enlarged central portion and two arms projecting therefrom, the said arms having transverse semicircular grooves in their inner faces,
40 which partially surround two adjacent bars C when the holding device is secured in position. I preferably secure the holding device to the roller by means of a screw d , which passes through the enlarged central portion
45 and enters the roller between the rocking bars. There may be as many of these holding devices D as may be required.

Each of the bars C is provided with a row of picking-pins c , arranged at short distances
50 apart thereon. These pins limit the rocking movement of the bar C by abutting against

the sides of the groove as the bar is rocked in either direction. The bars project a short distance beyond the end of the roller and are provided in such projecting portions with
55 fingers $c' c^2$, which project outwardly therefrom at preferably slightly more than right angles from each other.

The means which I employ for operating the fingers $c' c^2$ are as follows: E is a plate, 60 which is immovably secured to the frame A in any suitable manner. It is provided with a cam e , substantially semicircular in cross-section, projecting therefrom, the said cam being concentric with the roller and adapted
65 to operate upon the fingers c' on the bars C. The plate E is further provided with a lug e' , uprising therefrom. A spring F is secured to said lug in position to operate upon the finger c^2 , as will hereinafter appear. 70

G designates any suitable means for removing the cotton from the pins as the roller is rotated.

The operation of my improved roller is as follows: When the roller is rotated, the lower
75 end of the cam e engages the finger c' on the bar C, and as the finger c' is forced down it causes the bar to be rocked and the picking-pins c inclined forwardly in position to pick the cotton. As the roller is further rotated
80 the finger c' runs along on the face of the cam and holds the picking-pins firmly in their forward inclination. In order to greatly facilitate the removal of the cotton from the picking-pins by the clearing means G, I arrange the spring F in a position to engage the
85 finger c^2 of the bar just after the finger c' has left the cam e . This spring forces the finger c^2 backward as the roller is rotated, and this movement rocks the bar, and consequently
90 the pins, backwardly until the pins abut against the side of the groove in the roller. It will thus be seen that as the pins come to the clearing means it only takes a slight push
95 to remove the cotton from the pins.

I would have it understood that I may resort to slight changes in the construction and arrangement of the several parts without departing from the spirit and scope of my invention; but

What I claim is—

1. In a cotton-picker, a roller provided with

longitudinal grooves, rocking bars mounted in said grooves and provided with picking-pins, and a cam and a spring mounted independently of the roller, the cam adapted to
5 rock the bars in one direction and the spring adapted to rock the bars in the opposite direction, substantially as set forth.

2. In a cotton-picker, a roller having a longitudinal groove therein, a rocking bar
10 mounted in said groove and provided with picking-pins, fingers on said bar, and a cam

and spring mounted independently of the roller, said cam engaging one of the fingers and the spring adapted to engage the other finger, whereby the bars, and thereby the pins, 15 are first rocked in one direction and then in the opposite direction as the roller is rotated, substantially as set forth.

CHARLES BALL.

Witnesses:

JOSEPH A. MCKNIGHT,
JAMES H. BIRD.