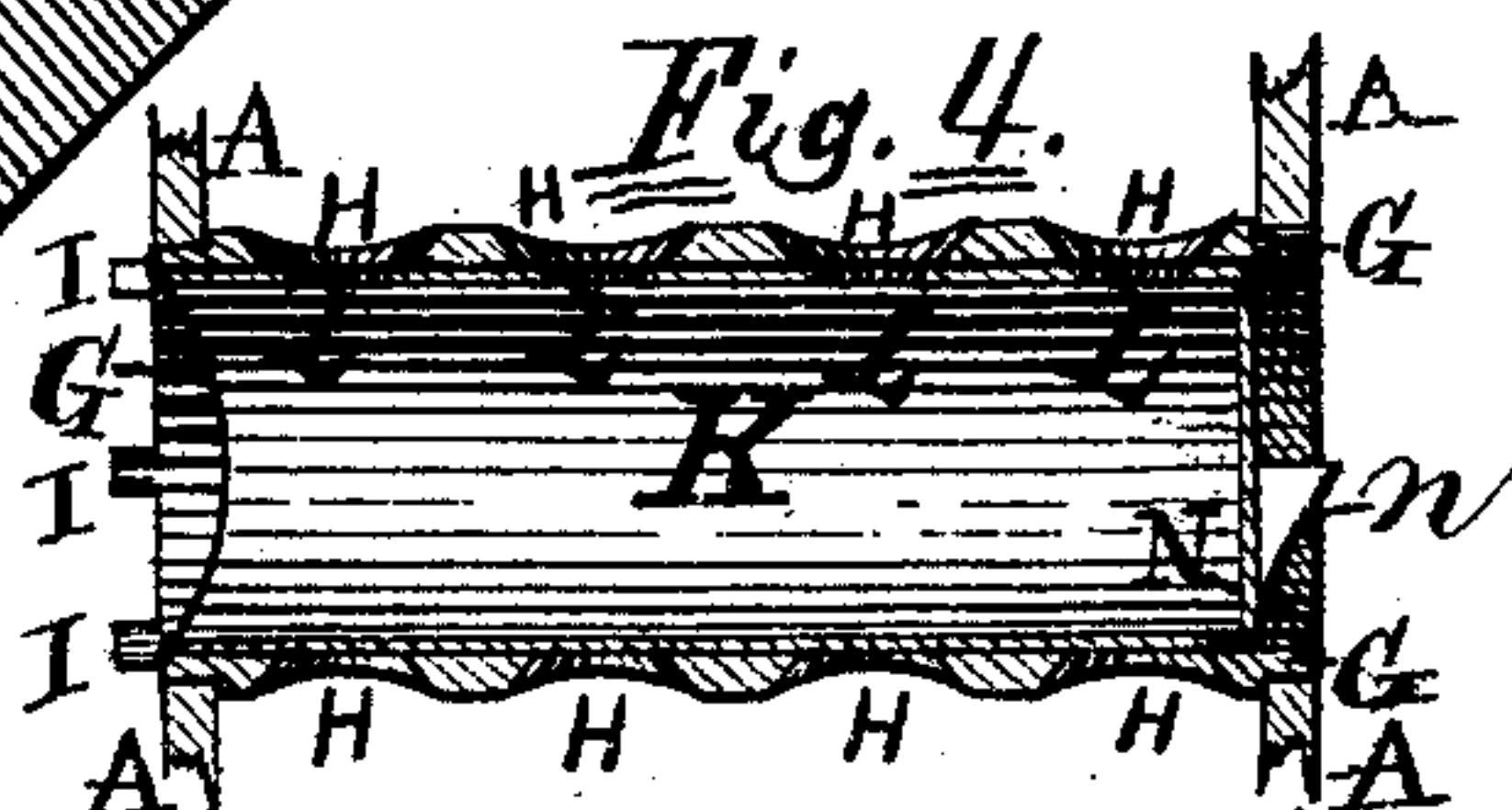
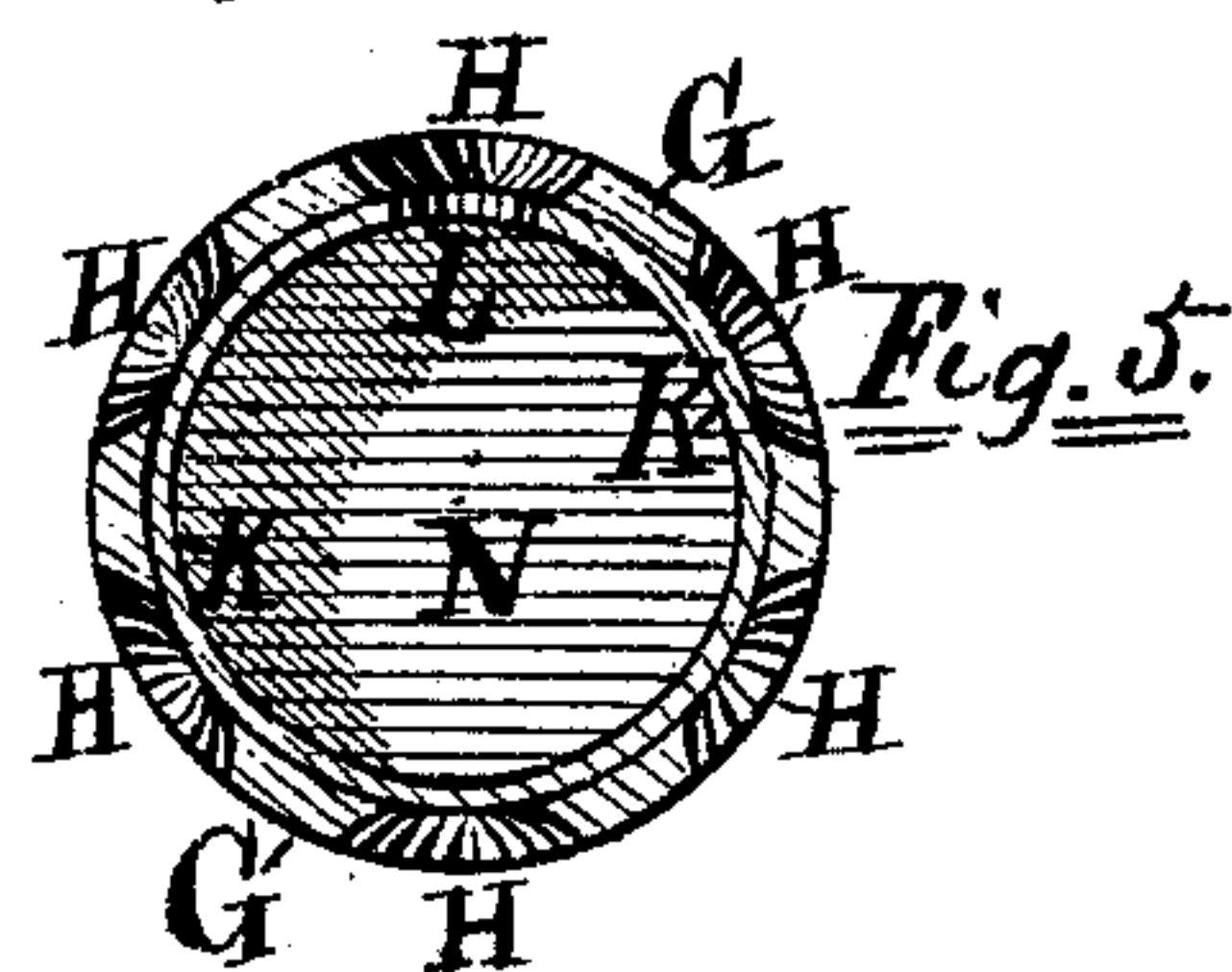
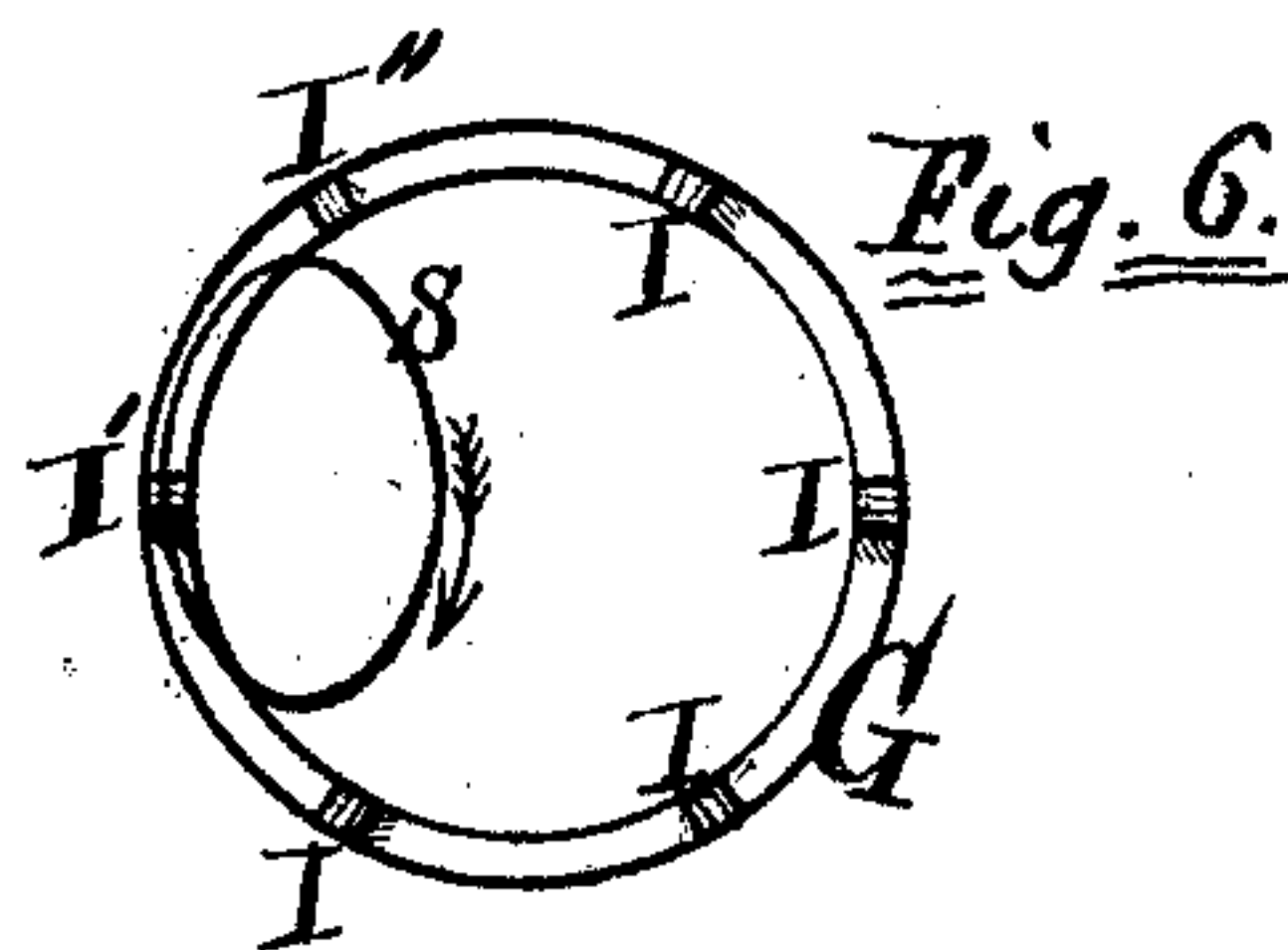
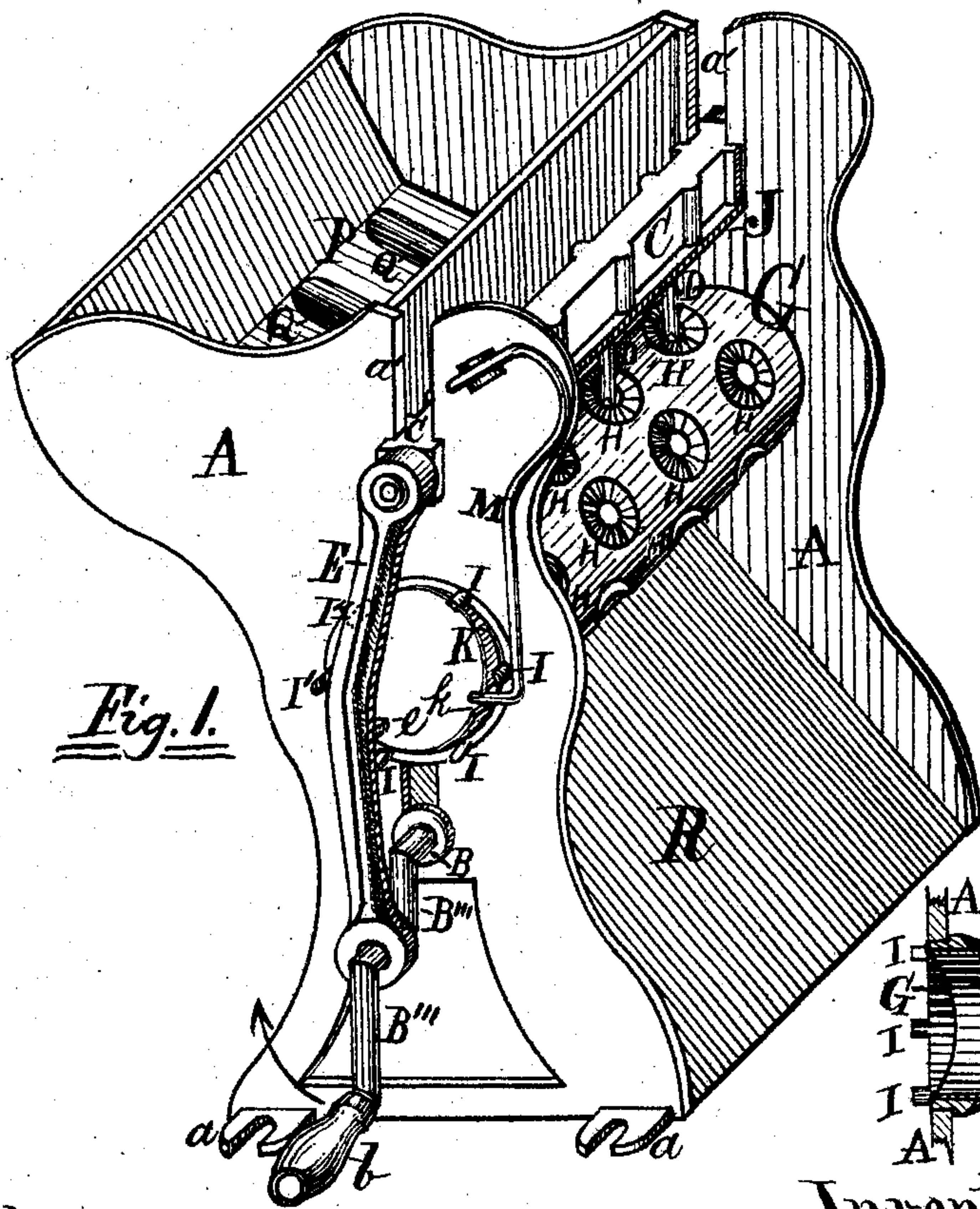
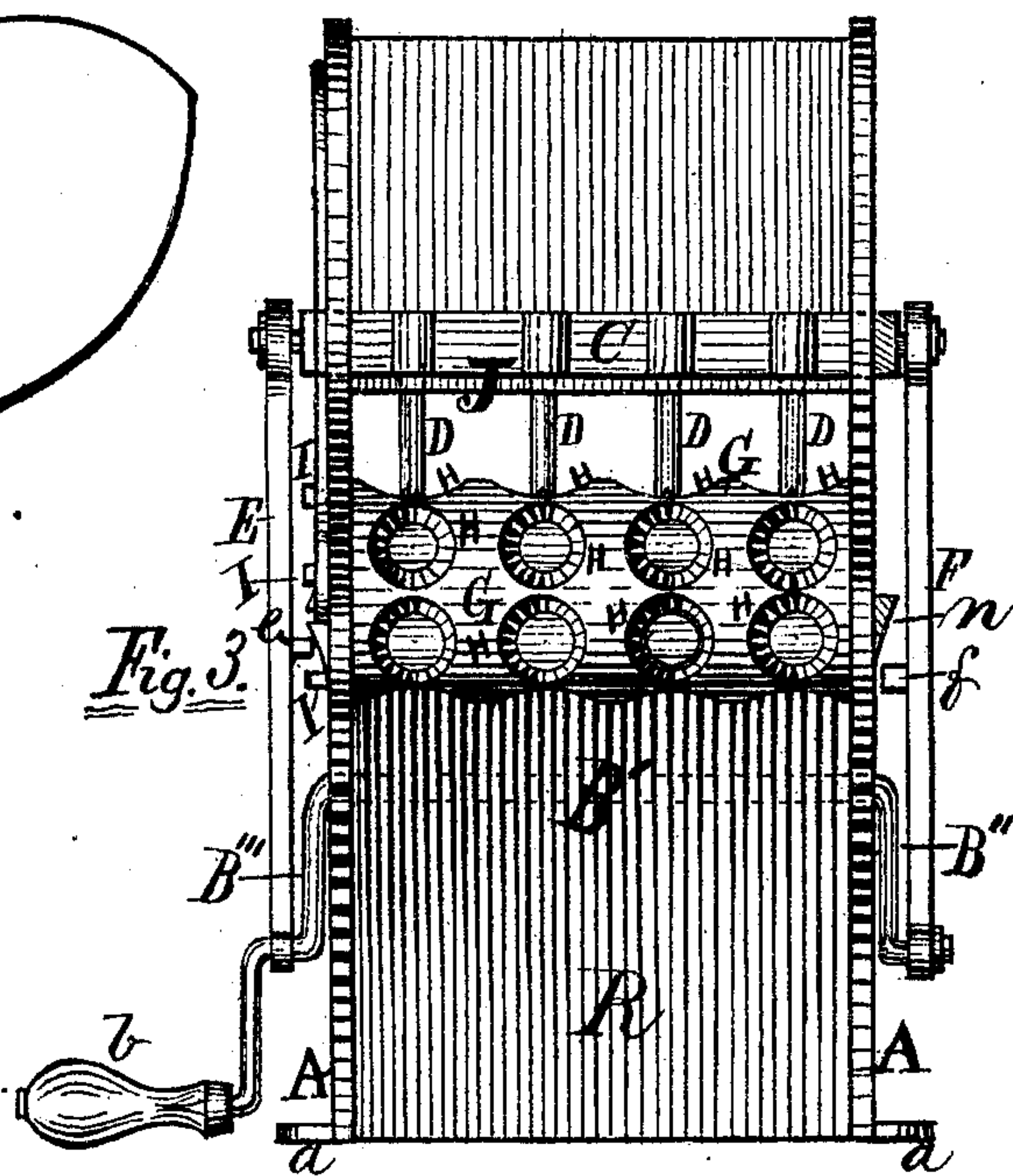
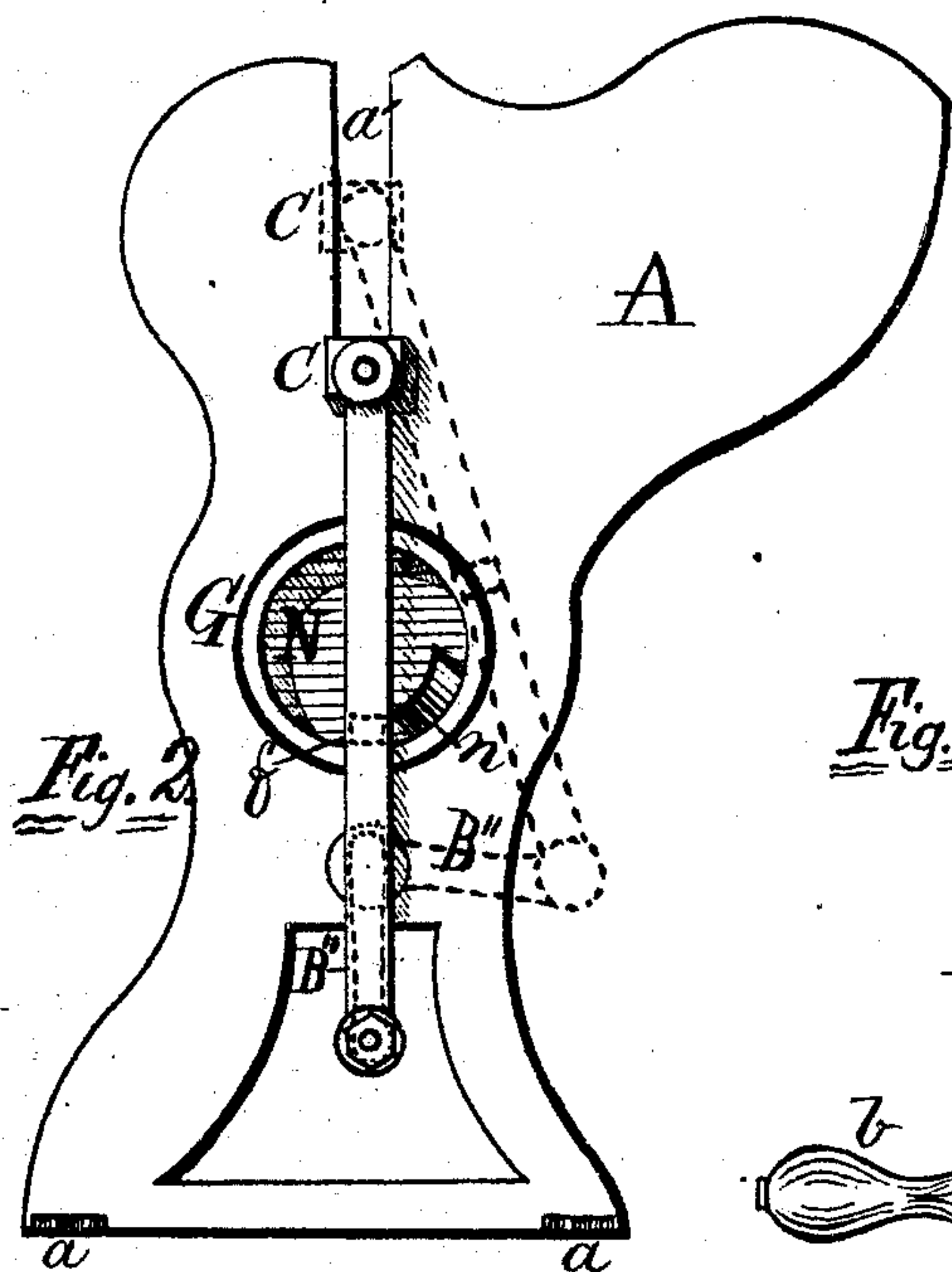


# Abner M. Comstock. — Cherry-Stoner.

No. 121,592.

Patented Dec. 5, 1871.



Witnesses:  
J. V. Paugborn,  
J. J. Fumicliiff.

Inventor,  
Abner M. Comstock,  
by W. B. Richards, his Atty.



# UNITED STATES PATENT OFFICE.

ABNER M. COMSTOCK, OF GALESBURG, ILLINOIS, ASSIGNOR TO AGNES A. COMSTOCK, OF SAME PLACE.

## IMPROVEMENT IN CHERRY-STONERS.

Specification forming part of Letters Patent No. 121,592, dated December 5, 1871.

*To all whom it may concern:*

Be it known that I, ABNER M. COMSTOCK, of Galesburg, in the county of Knox and State of Illinois, have invented certain Improvements in Cherry-Stoners, of which the following is a specification:

The nature of my invention relates to that class of cherry-stoners in which the cherry is held in a suitably-shaped recess while a pronged fork is driven through it for the purpose of extracting the seed or pit; and the invention consists: First, in an arrangement of devices for transmitting an intermittent rotary motion to the cylinder having recesses for holding the cherries from a continuous rotary motion of the operating crank, at the same time giving a reciprocating motion to the head carrying the seeding or stoning-forks. Secondly, it consists in an arrangement of devices for transmitting a longitudinal reciprocating motion to a cylinder inside of the recessed carrying-cylinder from the aforesaid continuous rotary motion of the operating crank, for the purpose of knocking the seeds off of the forks. Thirdly, it consists in the general combination of the frame, operating crank, and shaft, carrier, seed-retainer, pitmen, plate for stripping the seeded fruit from the forks, forks and carrier-head, and grooved feeding-chute, all as hereinafter fully described.

Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a side elevation, showing the distant side of Fig. 1. Fig. 3 is an elevation of the right-hand side of Fig. 1. Fig. 4 is a longitudinal vertical sectional view of the carrier-cylinder. Fig. 5 is a vertical transverse sectional view of the carrier-cylinder. Fig. 6 is a diagram, showing the track of the lug which transmits motion to the carrier-cylinder from the operating-crank.

A A are the side pieces or frame of the machine, and are provided with feet *a a a a*, through which bolts may pass for the purpose of securing them to a table or stand. B is a shaft, shown by dotted lines B' at Fig. 3, and having bearings in the side pieces A. B'' is a crank on one end of the shaft B, and B''' is a crank on the other end, provided with a handle, *b*. C is a bar or head extending across between the side pieces A A, its ends resting in slots *a' a'* in said side pieces A. D D D D are the stoning-forks, attached at their upper ends to and extending

downward from the head C. The lower ends of the forks or stoners D are split and pointed, the points diverging from the center, as usually constructed in this class of stoners. E is a pitman connecting the crank B''' with one end of the head C. F is a pitman connecting the other end of the head C with the crank B''. *e* is a lug on the pitman E. *f* is a lug on the pitman F. G is a hollow cylinder, having bearings at its ends in the side frame-pieces A A. H represent conical-shaped recesses, arranged in series longitudinally on the cylinder G. I I I I I are lugs projecting from the end of the cylinder G. J is a plate extending from one of the side pieces A to the other, and is pierced with holes, through which the forks D pass. K is a cylinder fitting snugly inside of the cylinder G. One side of the cylinder K is projected slightly beyond the cylinder G and has a notch, *k*, cut therein, as shown at Fig. 1. L L L L is a series of holes cut along the upper side of the cylinder K, corresponding with each longitudinal series of recesses H H H H in the cylinder G. M is a spring, secured at its upper end to one of the plates A, and its lower end engaging in the notch *k* with the cylinder K. N is a head in the end of the cylinder K next to the crank B''. *n* is a cam, projecting, as shown at Figs. 2, 3, and 4, from the side of the head N. P is an inclined plate, with a series of grooves, Q Q Q Q, leading to and corresponding with the series of recesses H H H H, which are at the upper side of the cylinder G. R is an apron, extending from near the front lower side of cylinder G to the lower rear side of machine, as shown at Fig. 1.

The operation of my invention is as follows: The cherries are dropped onto the plate P and roll down the grooves Q to the series of recesses H, which are uppermost, where they are held to be operated on, as hereinafter described. The crank B, being turned in the direction shown by arrow at Fig. 1, will, by means of pitmen E and F, transmit a lateral reciprocating movement to the head C in a vertical direction, thus operating the forks D. At the diagram, Fig. 6, the line S shows the track of the lug *e* on the pitman E when the crank B''' is turned, and it will be seen, by an inspection of Figs. 1 and 2, that the lug *e* will engage with the lug I' on the cylinder G and carry it up to the position of the lug I'', shown by dotted lines at Fig. 1, thus imparting an in-



termittent rotary motion to the cylinder G from the constant rotary motion of the crank B''', and thus bringing each series of recesses H H H H in turn for the reception of the descending forks D. At the moment that the pitmen E and F commence moving upward and raising the forks D, the lug *f* on the pitman F will engage with the cam *n*, driving the inner cylinder K toward the crank B''' and knocking the pits or seeds from the ends of the forks, when they will drop through the holes L to the interior of the cylinder K, and by the jarring motion be carried to the open end thereof and discharged. The fruit adhering to the forks D will be carried upward to the plate J, which will strip it therefrom and allow it to drop back onto the cylinder G, which, in revolving, will carry it over and allow it to drop on the apron R, from whence it may be discharged into the receiver. The spring M, engaging with the notch *k* in the cylinder K, will prevent the said cylinder from rotating at the same time that it will throw it back to position after it has been thrown toward the crank B''' by the lug *f* and cam *n*. It will be seen from Fig. 1, also, that the hook on the lower end of the spring M will engage with one of the lugs I and prevent the cylinder G rotating too far at once. The re-

ciprocating motion of the cylinder K will throw the hook on spring M free from the lugs I and allow the cylinder G to rotate at the proper time.

I claim—

1. The shaft B with cranks B'' and B''', the pitman E, and lug *e*, the cylinder G, constructed as described, and the lugs I I I I I I, when arranged to operate substantially as described, and for the purpose set forth.

2. The cylinder K, when combined and arranged to operate with the cylinder G, shaft B, crank B'', cam *n*, lug *f*, and spring M, substantially as described, and for the purpose specified.

3. The cylinder K, cylinder G, and forks D, when arranged to operate substantially as described, and for the purpose specified.

4. The combination of the frame A A, grooved plate P, apron R, cylinders K and G, head C, forks D, plate J, pitmen E F, shaft B, cranks B'' B''', and spring M, when arranged to operate substantially as described, and for the purpose specified.

ABNER M. COMSTOCK.

Witnesses:

J. B. TALBOT,  
M. MILLER.

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