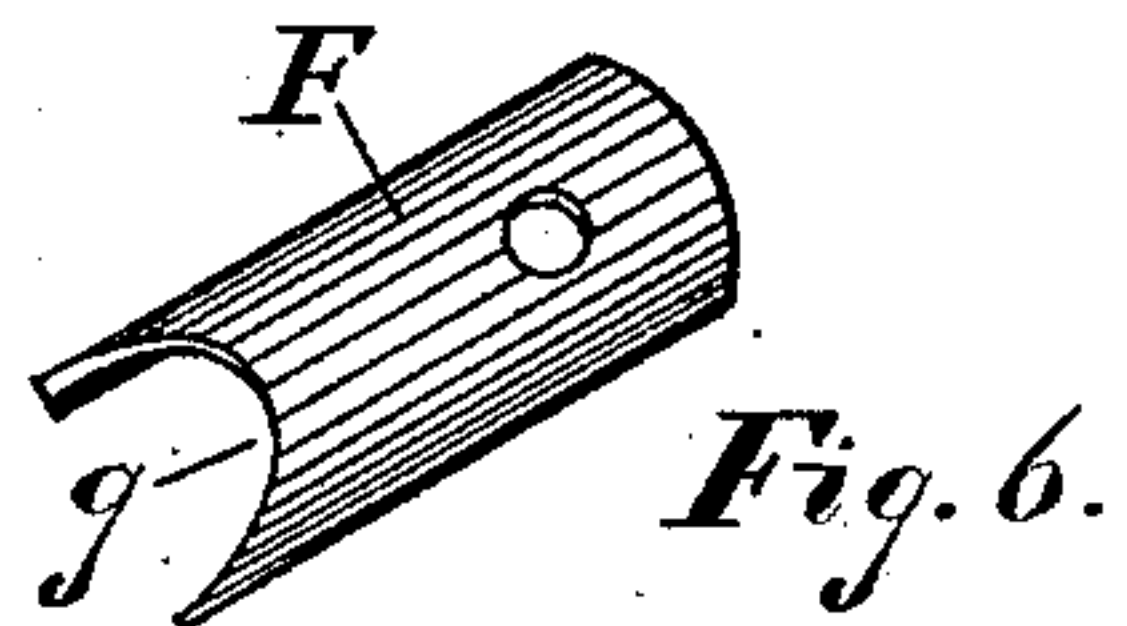
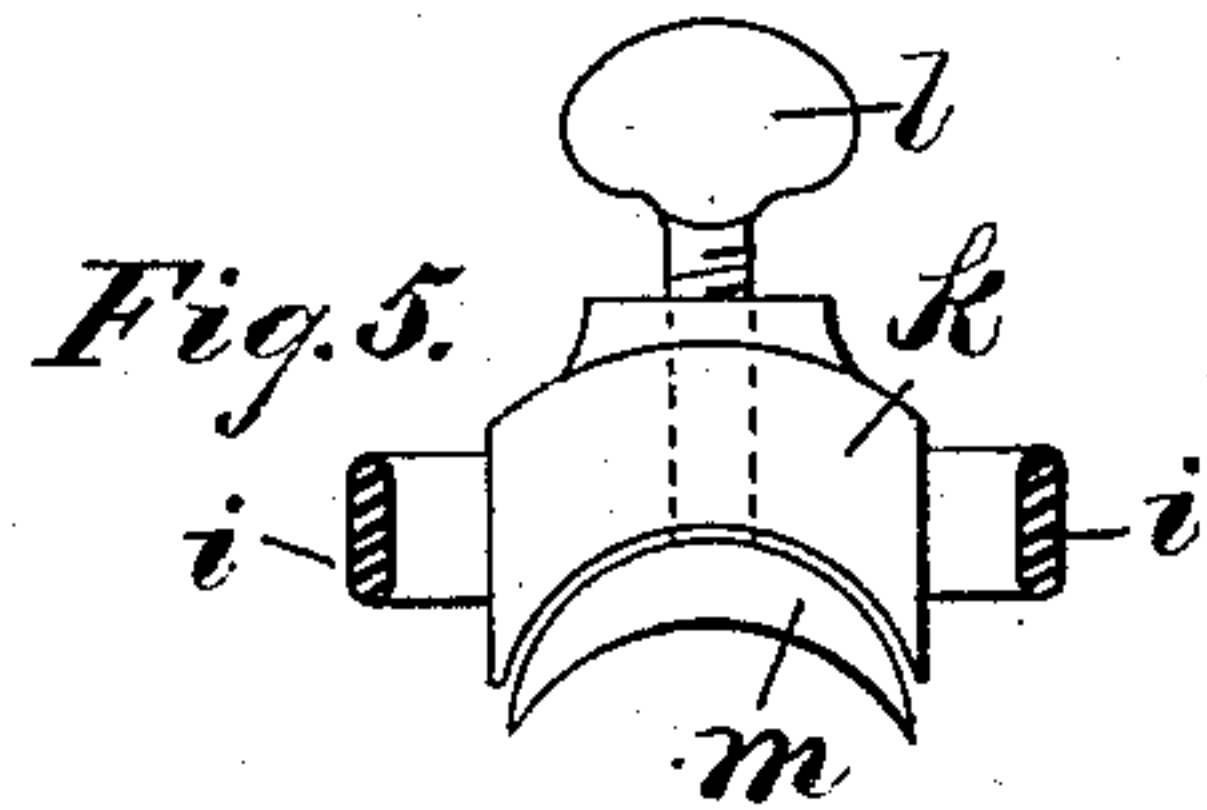
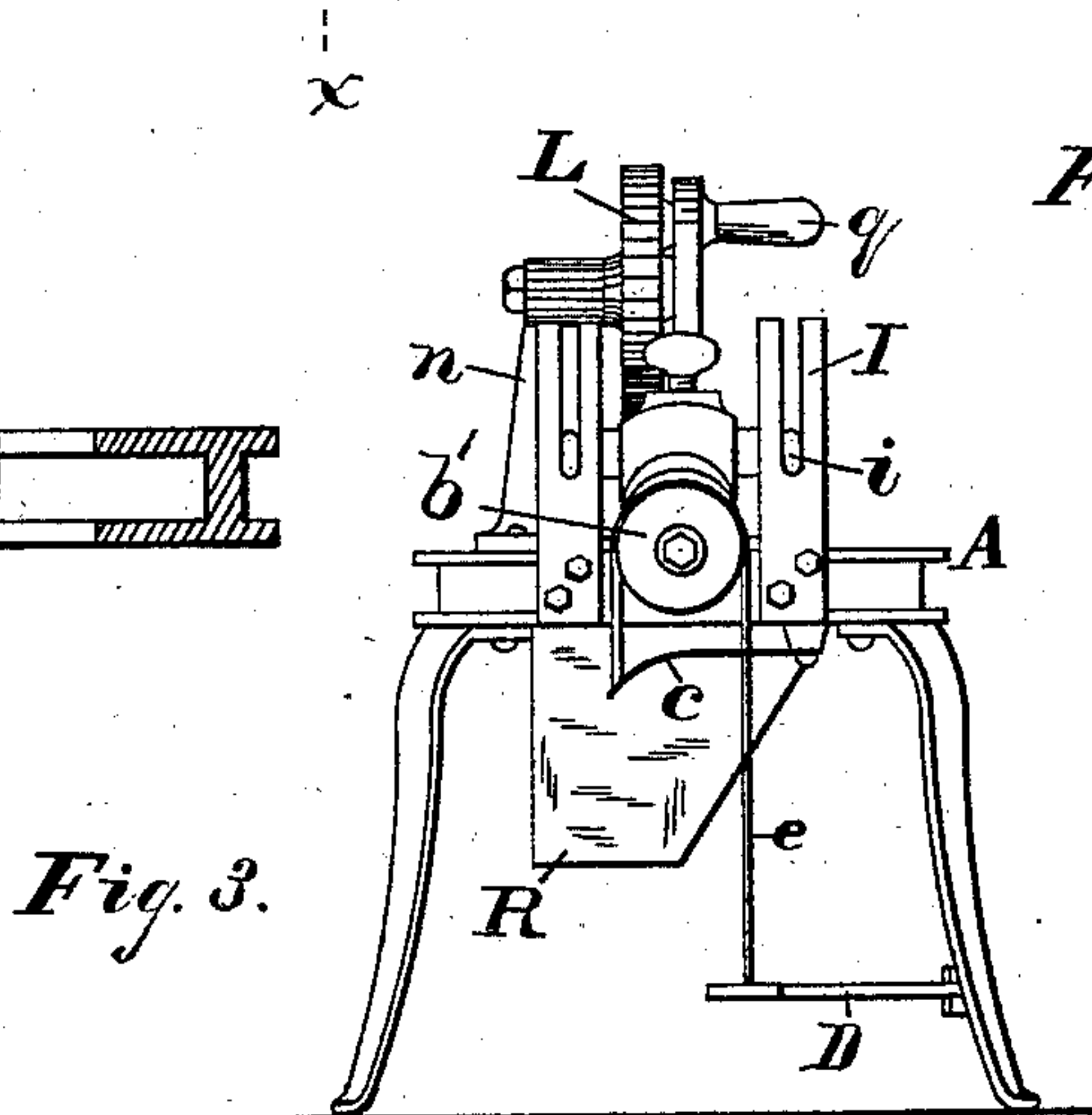
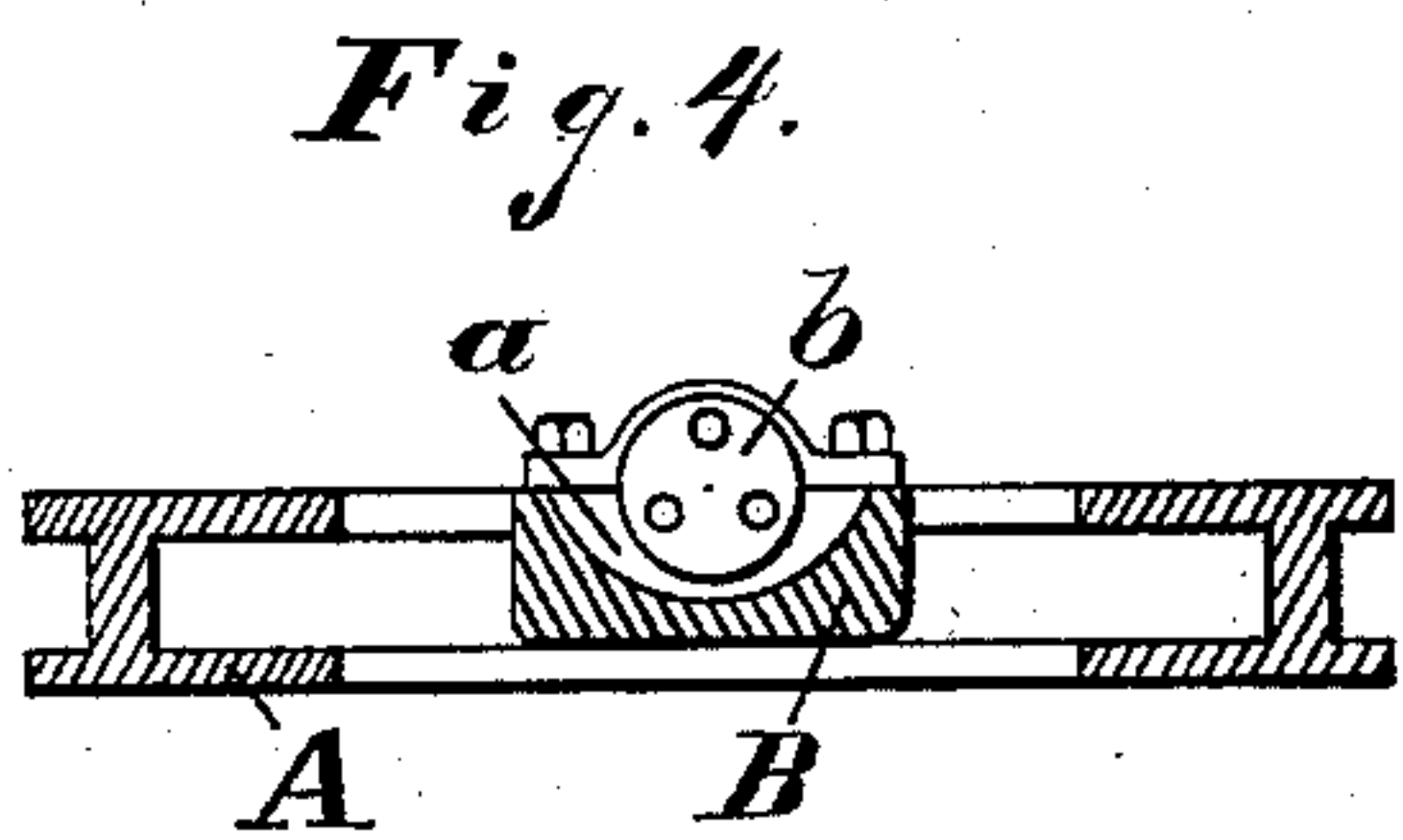
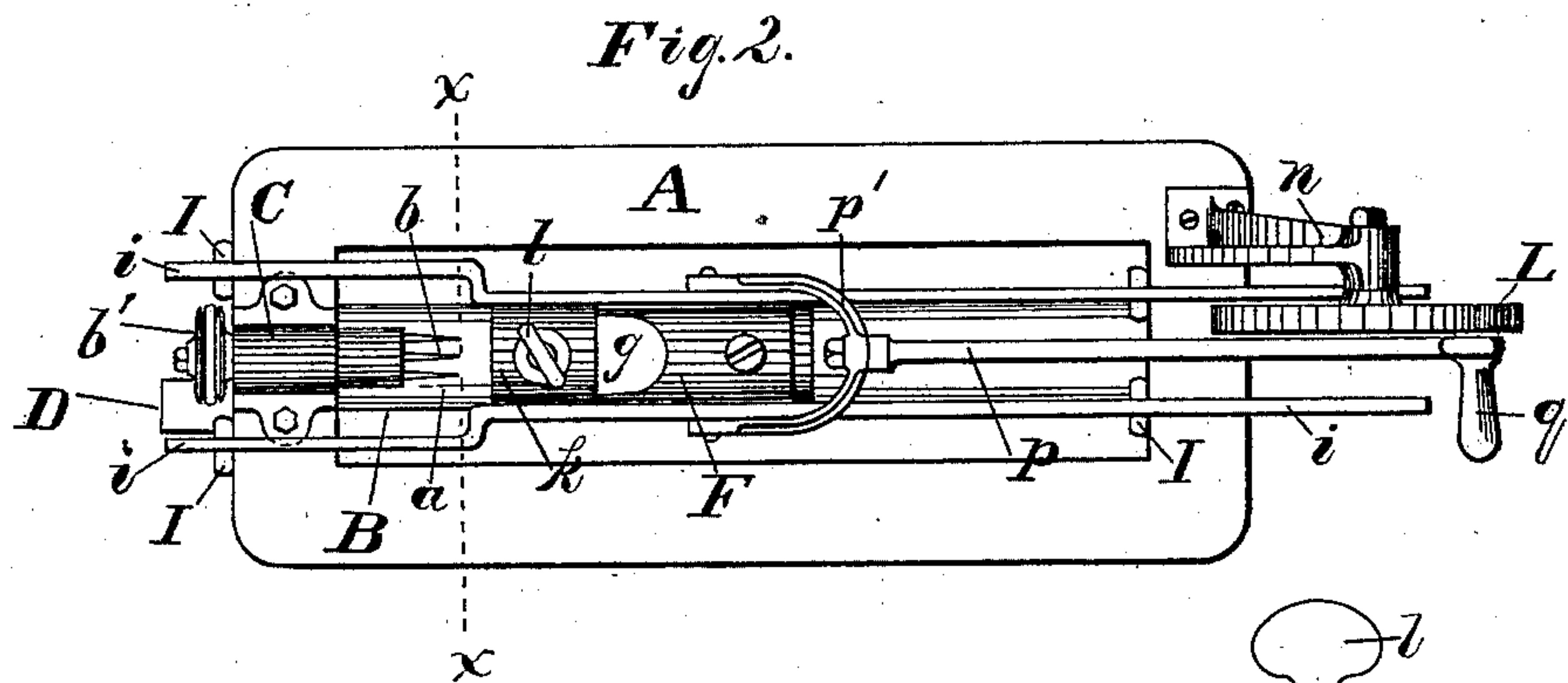
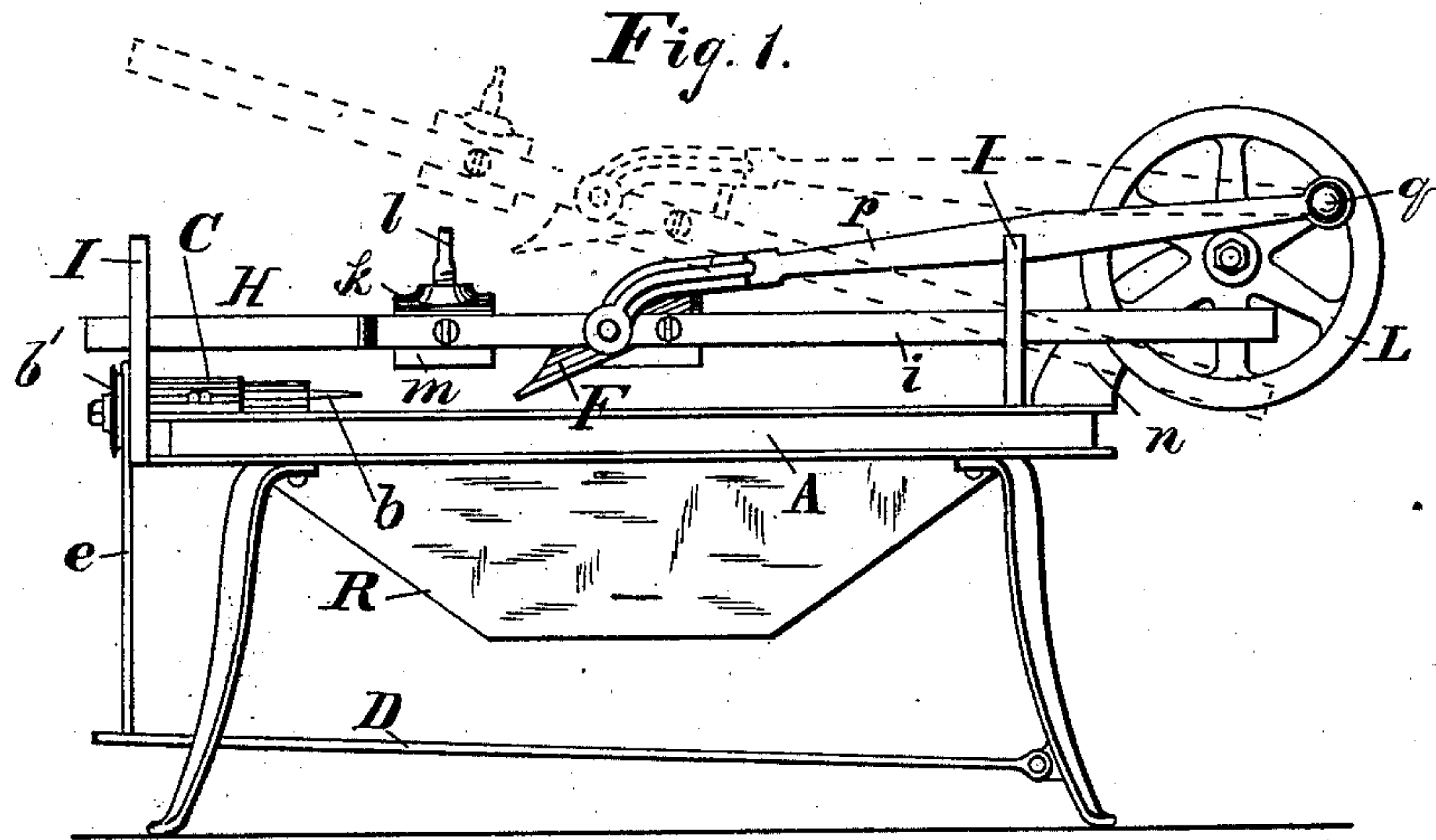


(Model.)

J. A. SMITH.
MACHINE FOR CUTTING GREEN CORN FROM THE COB.
No. 279,833. Patented June 19, 1883.



Witnesses:
A. C. Eader.
John G. Morris.

Inventor:
Jacob A. Smith,
By Chas B. Mann,
Attorney.

UNITED STATES PATENT OFFICE.

JACOB A. SMITH, OF WHITE HALL, ASSIGNOR OF ONE-THIRD TO JAMES C. PHILLIPS, OF BALTIMORE, MARYLAND.

MACHINE FOR CUTTING GREEN CORN FROM THE COB.

SPECIFICATION forming part of Letters Patent No. 279,833, dated June 19, 1883.

Application filed December 15, 1882. (Model.)

To all whom it may concern:

Be it known that I, JACOB A. SMITH, a citizen of the United States of America, residing at White Hall, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Green-Corn Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a machine for cutting green corn from the cob. The construction of the machine will first be described, and the parts and combinations which constitute the invention will then be designated in the claim.

In the drawings hereto annexed, Figure 1 is a side elevation of the machine. Fig. 2 is a top or plan view. Fig. 3 is an end elevation. Fig. 4 is a cross-section of frame and corn-holder on line *x x*, Fig. 2. Fig. 5 is a cross-section of carriage on line *x x*, Fig. 2, showing the cross-head and saddle. Fig. 6 is a view of the knife.

The letter A designates the frame of the machine, and B a corn-holder bar or rest extending lengthwise. The top surface of this bar is hollowed out or concaved, as at *a*, to form a rest to support the ear of corn.

To the cross-bar at one end of the frame is a box, C, which constitutes a bearing for a rock-shaft, at one end of which is a head carrying a fork or spur, *b*, and at the other end a grooved pulley, *b'*. The fork *b* is directly over one end of the concaved rest. At the end of the frame a spring, *c*, is secured, and below the frame is a lever, D, which serves as a treadle, one end of a cord or chain, *e*, being attached to the spring and passing over the pulley, and thence down to the treadle.

Instead of a spring, a weight may be employed and attached to the cord to turn the spur-fork back again to its former position.

By depressing the treadle the cord is drawn, which causes the pulley to make a half-turn, and consequently has the same effect on the fork or spur. Of course the spring has to yield to allow this movement, and upon pressure being removed from the treadle the retraction of the spring turns the pulley back again to its former position. This construction of parts allows of an ear of corn being laid upon

the concaved rest, which will center it with respect to the fork, and then the ear may be shoved endwise to crowd its butt-end on the fork. The kernels on one side of the ear may then be cut, and then by means of the combination of the treadle, rock-shaft, pulley, and cord a half-turn may be given the ear to permit the kernels on the other side to be cut. The spring then turns the rock-shaft to restore the fork to its normal position.

The knife F (see Fig. 6) is a half-round plate shaped similar to a carpenter's gouge, and has its cutting end *g* hollowed or concaved out somewhat like a letter U, thereby adapting it to set astride of the ear. This knife is mounted on a suitable carriage, H, adapted to reciprocate. The carriage consists of two side bars, *i*, connected by a cross-head, *k*, through which in the vertical direction an adjusting-screw, *l*, passes. This screw carries a steel saddle, *m*, hollowed or concaved, to adapt it to fit on or set astride of an ear of corn, and by the means of the screw the saddle may be raised or lowered to allow the cutting-edge of the knife to project below more or less, and thereby give to the knife greater or less depth of cut. This follows in consequence of the saddle resting upon the uncut kernels on the cob, and the extent to which the cutting end of the knife projects below the saddle determines the depth of the cut. The combination of the corn-rest B, with its top surface, *a*, hollowed out, and the saddle, with its hollow or concaved face supported above the top surface, *a*, produces the result of surely centering the ear of corn, so that when the knife is brought over the ear the concaved cutting end *g* will readily fit on the ear.

At each end of the frame are upright forks I, and the side bars, *i*, of the carriage rest and slide in these forks, which serve as guides. As the forks are upright, the carriage may be raised or lowered by rising or falling in the forks, and so the carriage will permit either a large or small ear to be placed under it, as it will reciprocate equally well, whether in a higher or lower plane.

The carriage may be raised at one end, as indicated by broken lines in Fig. 1, and when so raised an ear of corn may be put in position.

A driving or balance wheel, *L*, is mounted on a standard, *n*, at one end of the frame, and a pitman-rod, *p*, is forked at one end, *p'*, and attached to the carriage, while the other end 5 is connected to the crank-pin *q*. This wheel may be driven by hand or other power.

A metal apron or chute, *R*, is secured below the frame. It has three sides, tapering or funnel-shaped, and is open at the bottom and on 10 the fourth side, and the cut corn falls into this apron, and then drops into any receptacle which may be placed below it. By turning the driving-wheel the knife is caused to reciprocate, and two movements of the knife, accompanied 15 by a depression of the treadle between the movements, are sufficient to cut the kernels completely from a cob.

I am aware that corn-cutters have been proposed on the plans described in Letters Patent 20 of Barker, February 16, 1875, and Warfield, September 27, 1881. I deem the machine herein described, however, to possess some advantages over these, as the operation of holding

the ear stationary while the kernels are cut is such that it seldom or never happens that the 25 soft cob is broken.

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

A green-corn cutter having, in combination, 30 a corn-holder rest with its top, *a*, hollowed out, a rock-shaft having at one end a spur and at the other end a pulley, a treadle, a cord having one end attached to the treadle, passed over the pulley, and at the other end a weight 35 or spring, upright forks *I*, a carriage consisting of side bars, *i*, adapted to reciprocate in the forks, and a knife mounted on the carriage, as set forth.

In testimony whereof I affix my signature, in 40 presence of two witnesses, this 9th day of November, 1882.

JACOB A. SMITH.

Witnesses:

JOHN E. MORRIS,
JNO. T. MADDOX.