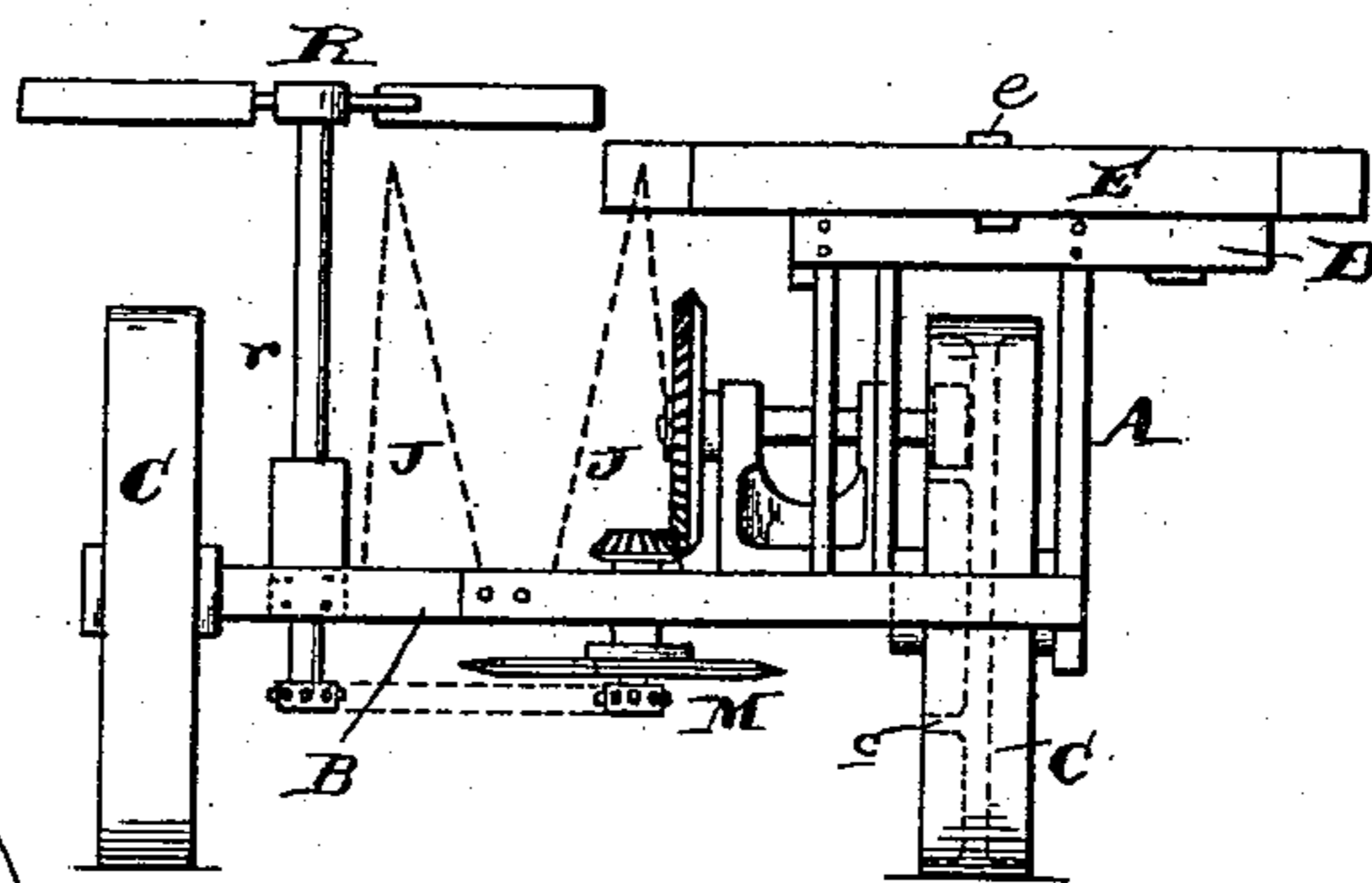
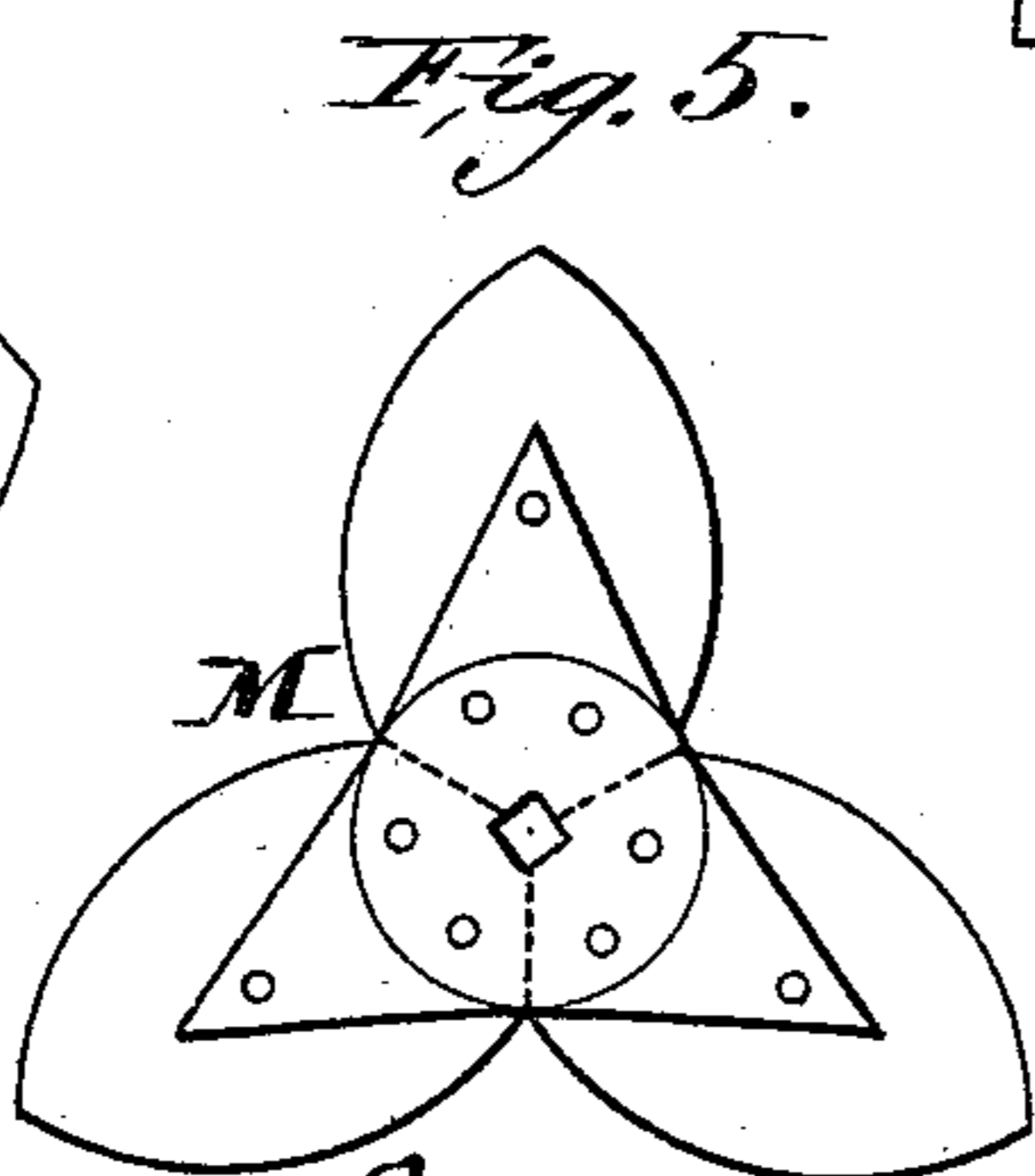
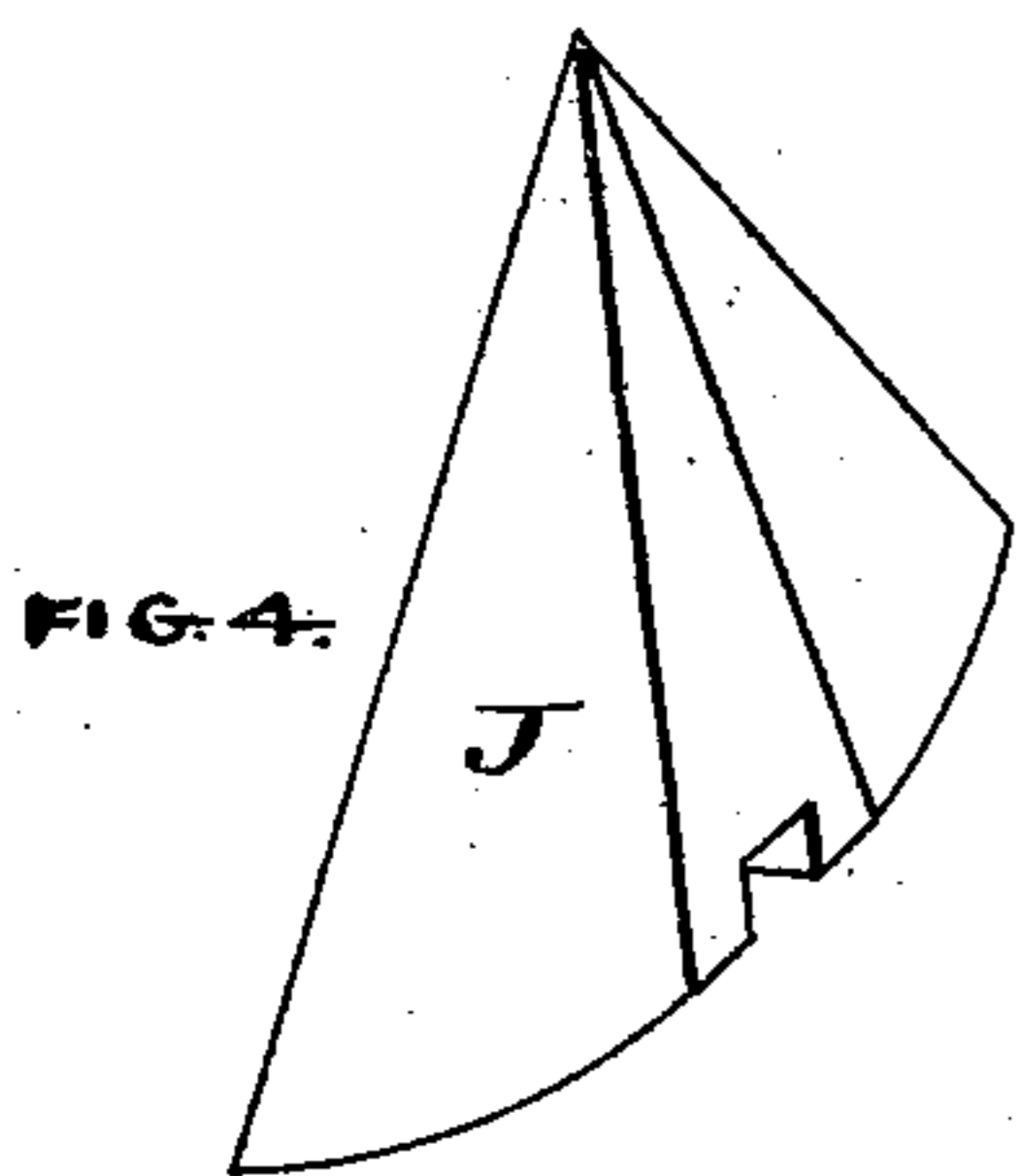
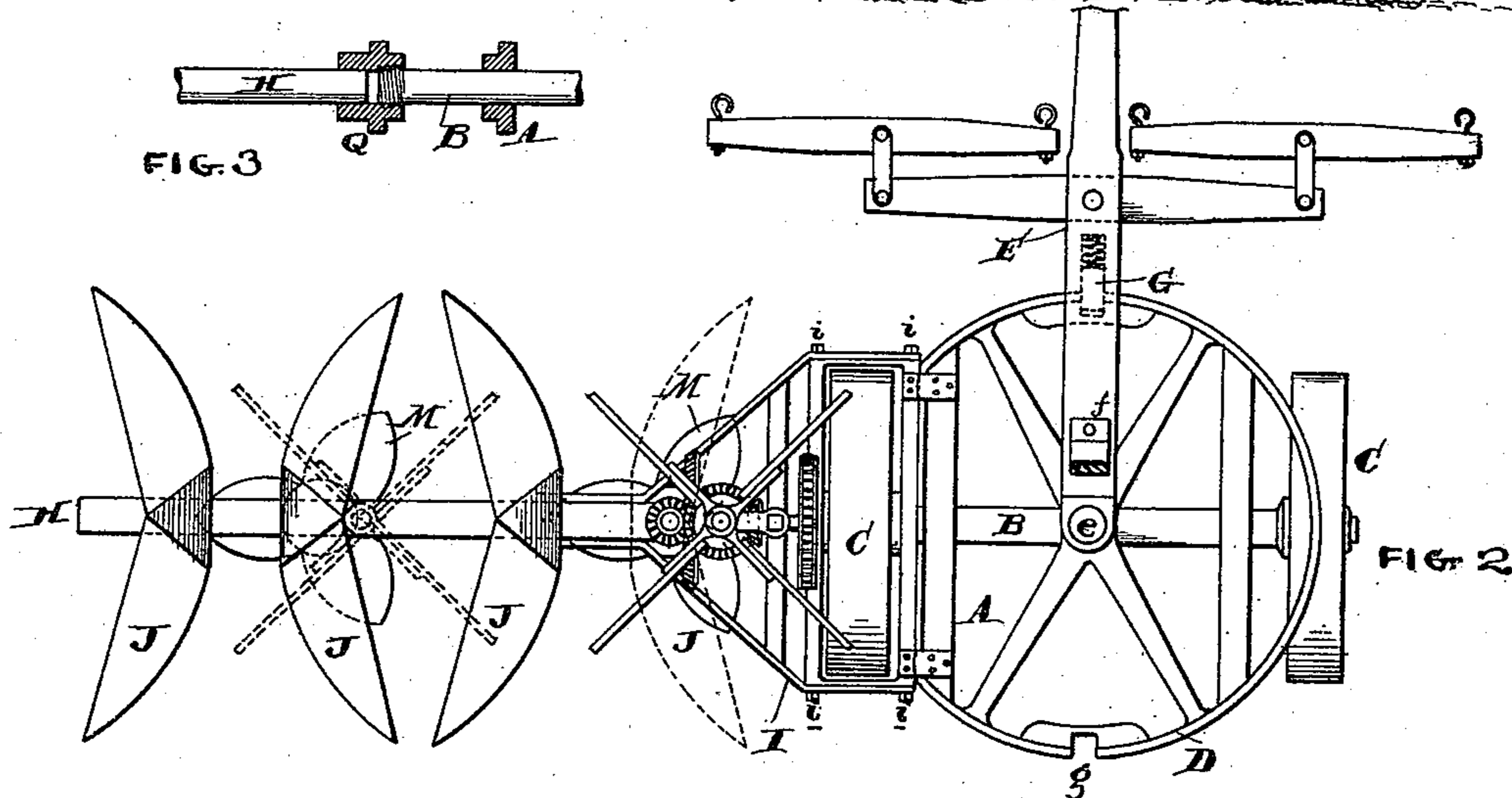
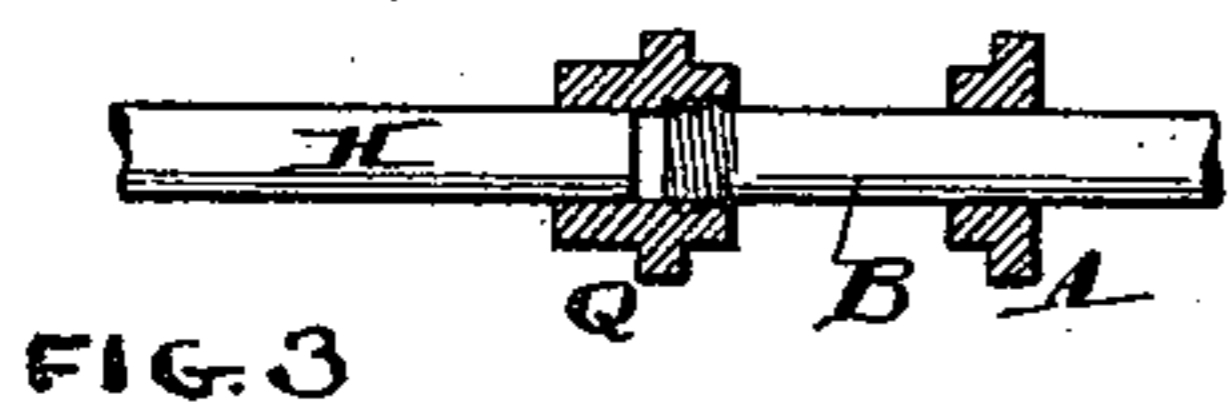
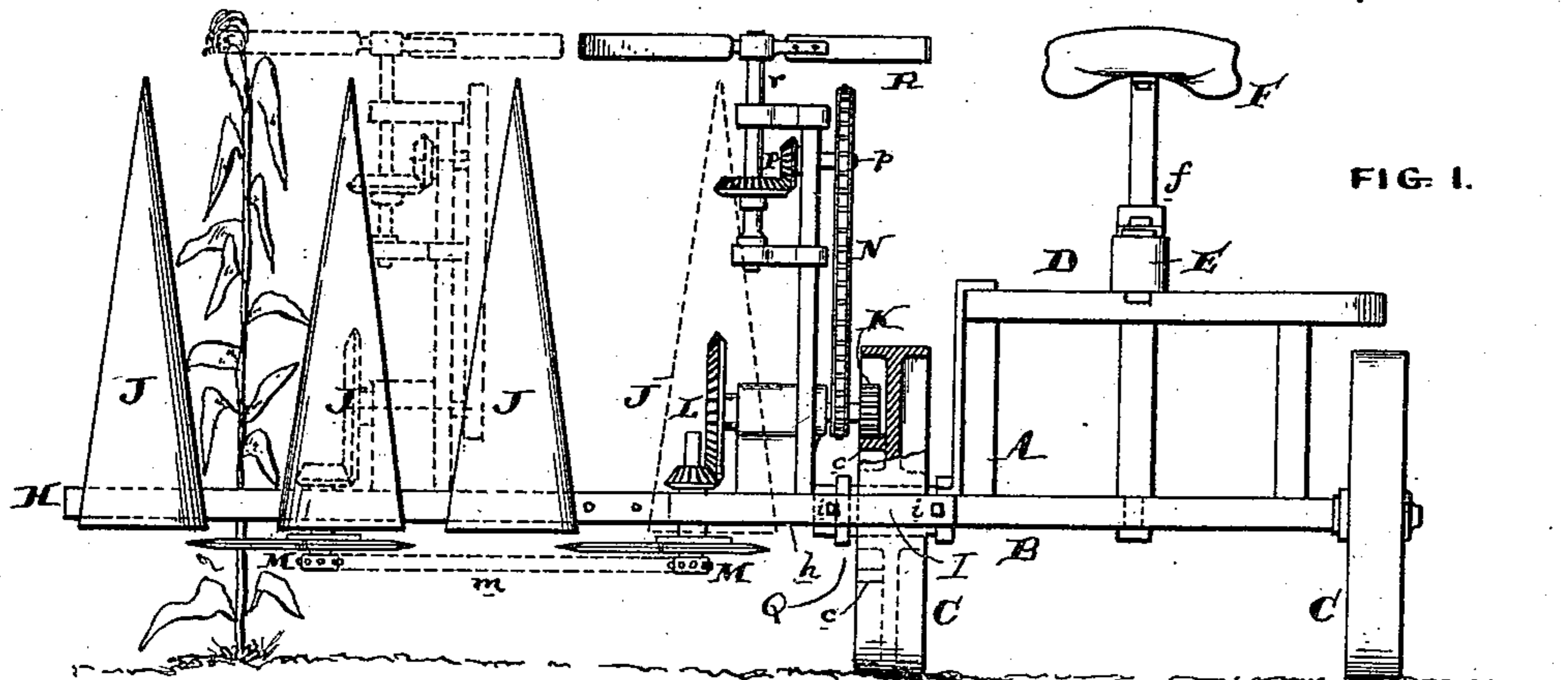


(No Model.)

H. D. HAMMERSLEY.
CORNSTALK CUTTING MACHINE.

No. 438,775.

Patented Oct. 21, 1890.



WITNESSES:

Henry D. Hammersley
S. T. Yerkes.

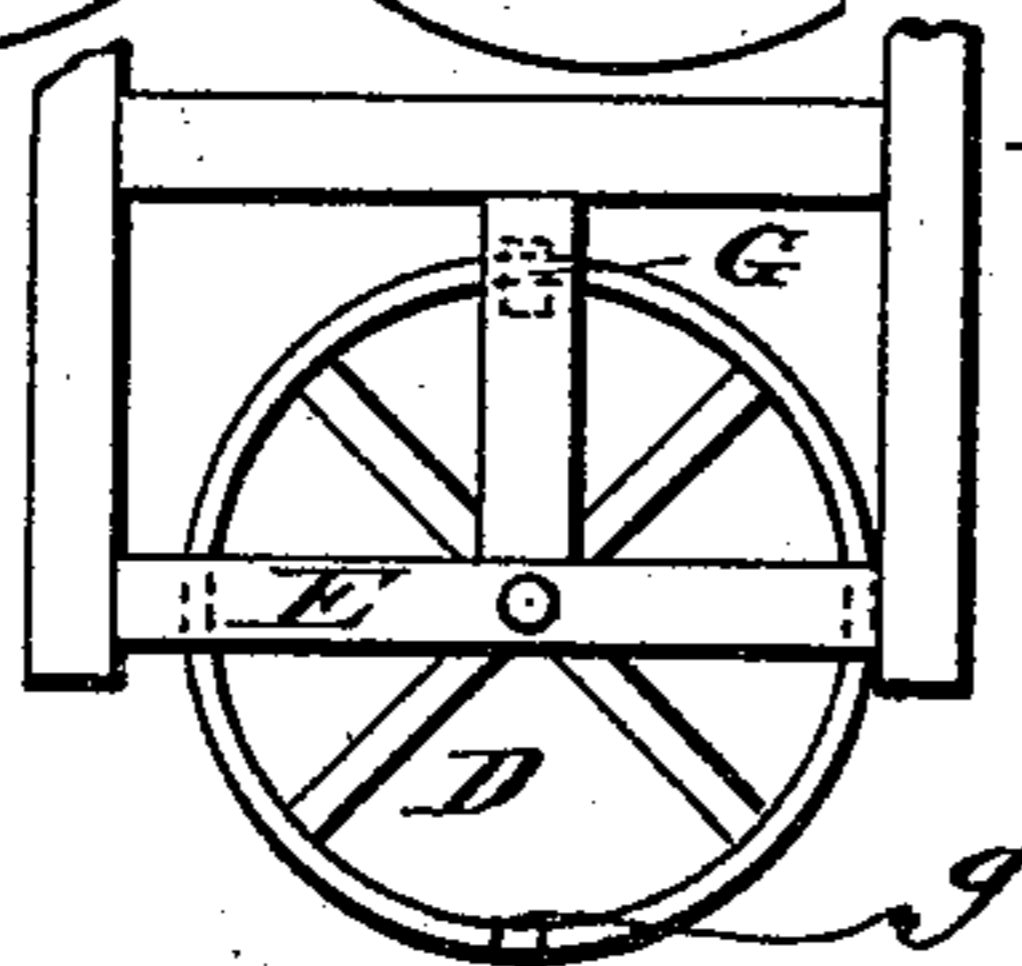


FIG. 7.

INVENTOR:

Harry D. Hammersley
By his atty

[Signature]

UNITED STATES PATENT OFFICE.

HARRY D. HAMMERSLEY, OF PHILADELPHIA, PENNSYLVANIA.

CORNSTALK-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 438,775, dated October 21, 1890.

Application filed May 22, 1889. Serial No. 311,684. (No model.)

To all whom it may concern:

Be it known that I, HARRY D. HAMMERSLEY, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Cornstalk-Cutting Machines, of which the following is a specification.

My invention has reference to cornstalk-cutting machines; and it consists of certain improvements, which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

In carrying out my invention I provide a frame supported on wheels and adapted to convey in the line of one or more lines or rows of cornstalks guides and cutters and, if desired, beaters to simultaneously guide the cornstalks toward a rotating knife and throw the severed stalk backward upon the ground in a line parallel to the row of stalks.

Another portion of my invention is the arrangement of the pole or shafts on a pivot and movable about the machine, so as to allow it to be pulled back and forth without turning it end for end and yet at all times allow the horses to be in front.

Minor details will be set out hereinafter.

In the drawings, Figure 1 is a rear elevation of cornstalk-cutting machine embodying my invention. Fig. 2 is a plan view of same. Fig. 3 is a sectional elevation of the joint between the main shaft and cutter-bar. Fig. 4 is a perspective view of one of the guides removed. Fig. 5 is a plan view of one of the rotary cutters. Fig. 6 is an elevation of a modified form of my machine. Fig. 7 is a plan view of the shaft and guide of the machine shown in Fig. 6.

A is the main frame, and has an axle B, upon which are journaled the supporting-wheels C C. The top of the frame A is made circular at D, and to the center *e* is pivoted the pole or shaft E, which may carry, if desired, the seat F by means of a spring-arm *f*. By this construction the pole and seat may be reversed without turning the machine end for end, a very important feature in this class of machines, because as the rows of corn are being cut down the machine must move laterally always in the same direction. This is apparent when we bear in mind that the body

of the machine must always move over the cut stalks, while the guides and cutters must extend into the standing cornstalks. This necessitates the machine being shifted laterally at the end of each passage across the field, but without being turned end for end.

Projecting laterally from the frame A, preferably on a line with the axle B, is the cutter-bar H, upon which are journaled the rotating cutters M. This cutter-bar is secured to a frame I, which is bolted at *i* to the main frame A of the machine. To further steady the bar its inner end is provided with a sleeve Q, which is screwed partly onto the shaft B, (see Fig. 3,) and thus be held against deflection. This bar H carries two or more guides J, of the shape shown or otherwise, for guiding the standing cornstalk to the cutters. The cutters are arranged under the bar H and the guides project the same on either side, so that the machine may be run in either direction while performing its work. These cutters M are geared together by chains and sprocket-wheels *m* or otherwise, as desired, and the cutter next to the inner drive-wheel C is driven by gears L, pinions K, and spur-wheel *c* on said wheel C. Any other convenient form of power-transmitting gearing may be employed.

Arranged above and just back of one of the guides J is a vertical shaft *r*, carrying a beater R, revolving over the space between the guides J J. This shaft *r* is rotated by gears P, shaft *p*, and chain and sprocket wheels N or any other desirable power devices. The beater R and the cutter M rotate in the same direction and one above and the other below the cutter-bar H. Where there are two cutters M and two sets of guides J, there are also two beaters, as shown.

The machine shown in Figs. 1 and 2 is for cutting two rows of stalks at one time and is of necessity very wide. To enable it to pass through small space on the road, the cutter-bar H and its appendages may be removed by taking out the bolts *i* and withdrawing the bar H from the socket or sleeve Q, which is upon the end of the axle-frame B. The blades M are made as in Fig. 5, so as to get a draw-cut and present a rapid succession of cutting-edges. While this cutter is cutting the stalk

it is held on the lower end by the earth and just above the cutter by the cutter-bar and is easily severed. In this case the wheels C C of the machine straddle a previously-cut row of stalks, the stumps of which stand up and upon each side of which the horses travel.

In place of making the cutter-bar overhang, it may be made as the axle B between the wheels C C, as shown in Fig. 6. In this case the machine straddles the row of cornstalks to be cut down. The gearing for the beater R is somewhat modified and the pole-support D is arranged over the outer wheel C in place of being between the two supporting-wheels. This places the horse in position between a row of cornstalks and a row of stubble or cut stalks. This last type of machine is especially designed as a single-horse machine. The pole in this case is pivoted to the frame A, as in the case of Figs. 1 and 2, and is reversible.

It is evident that the details may be modified in many ways without departing from the spirit of my invention, and hence I do not limit myself to the details thereof.

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

1. In a cornstalk-cutting machine, the combination of a frame supported on wheels, guides carried by the frame and extending forward and backward of a plane through the axles of the wheels and constituting tapering guide-passages for receiving and guiding the cornstalks, a horizontally-rotating cutter arranged below the guides, having its axis arranged at one side of the opening of the guides, a cutter-bar or supporting-frame for said guides and rotating cutter arranged below the guides, and a rotating beater arranged above the cutter-bar and so that its arms revolve in the space formed by the guides.

2. In a cornstalk-cutting machine, the combination of a frame supported on wheels, guides carried by the frame and extending forward and backward of a plane through the axles of the wheels and constituting tapering guide-passages for receiving and guiding the cornstalks, a horizontally-rotating cutter arranged below the guides and having its axis arranged at one side of the opening of the guides, a cutter-bar or supporting-frame for said guides and rotating cutter arranged below the guides, a rotating beater arranged above the cutter-bar and so that its arms revolve in the space formed by the cutters, and a reversible pole or shaft carried by the frame of the machine and adapted to be adjusted for propelling the machine in either direction.

3. In a cornstalk-cutting machine, the combination of a frame supported on wheels, guides carried by the frame and extending forward and backward of a plane through the axles of the wheels and constituting tapering guide-passages for receiving and guiding the cornstalks, a horizontally-rotating cutter ar-

ranged below the guides, having its axis located at one side of the opening of the guides, a cutter-bar or supporting-frame for said guides and rotating cutter arranged below the guides, a horizontally-rotating beater arranged above the cutter-bar and so that its arms revolve in the space formed by the guides, a reversible pole or shaft carried by the frame of the machine and adapted to be adjusted for propelling the machine in either direction, and power mechanism actuated by the wheels for rotating the cutter and beater in one or the other direction, according as to whether the machine is being propelled in one direction or the other.

4. In a cornstalk-cutting machine, the combination of a frame supported on wheels, a laterally-projecting bar extending outward to one side of the machine and substantially on a level with the axle, a double guide forming a flaring passage-way toward either side of the projecting bar and supported upon and above said bar, a horizontally-rotating cutter having a series of blades formed with curved cutting-edges journaled on said bar and adapted to rotate below the guideway formed by the guides and suitable to cut during its rotation in either direction, power mechanism to rotate the cutter in one or the other direction, according as to whether the machine is moved in one or the other direction, and a reversible pole or shaft carried by the frame of the machine.

5. In a cornstalk-cutting machine, the combination of a frame supported on wheels, a laterally-projecting bar extending outward to one side of the machine and substantially on a level with the axle, a double guide forming a flaring passage-way toward either side of the projecting bar and supported upon and above said bar, a horizontally-rotating cutter having a series of blades formed with curved cutting-edges journaled on said bar and adapted to rotate below the guideway formed by the guides and suitable to cut during its rotation in either direction, power mechanism to rotate the cutter in one or the other direction, according as to whether the machine is moved in one or the other direction, a reversible pole or shaft carried by the frame of the machine, a horizontally-rotating beater arranged at considerable distance above the cutter and pivoted to one side of the guides, so that its arms travel across the passage-way formed by the guides, and power mechanism to rotate the beater at a lower speed than the revolving cutter.

6. In a cornstalk-cutting machine, the combination of a frame supported on wheels, a laterally-projecting cutter-bar extending in the line of the axles of the wheels and substantially on a level therewith, one or more vertically-journaled rotating cutters arranged close to the under side of the cutter-bar, and power mechanism to revolve the said cutters from the rotating supporting-wheels.

7. In a cornstalk-cutting machine, the com-

5 bination of a frame supported on wheels, a
laterally-projecting cutter-bar extending in
the line of the axles of the wheels and sub-
stantially on a level with the axle, one or
10 more vertically-journaled rotating cutters ar-
ranged close to the under side of the cutter-
bar, power mechanism to revolve the said cut-
ter-bar from the rotating supporting-wheels,
a horizontally-rotating beater also carried by
15 said cutter-bar, but arranged above the same,
and power mechanism to rotate the beater at
a slower rate of speed than the cutter.

8. In a cornstalk-cutting machine, the com-
bination of a frame supported on wheels, a
15 laterally-projecting and removable cutter-

bar arranged outside of the wheel-base and
rigidly supported in line with the axle of the
supporting-wheels, one or more rotating cut-
ters having vertical axes carried by said cut-
ter-bar, upwardly-extending guides on said 20
cutter-bar arranged above the cutter, and
power mechanism for rotating the cutter, con-
sisting of a sprocket-chain and gearing.

In testimony of which invention I have
hereunto set my hand.

HARRY D. HAMMERSLEY.

Witnesses:

ERNEST HOWARD HUNTER,
S. T. YERKES.