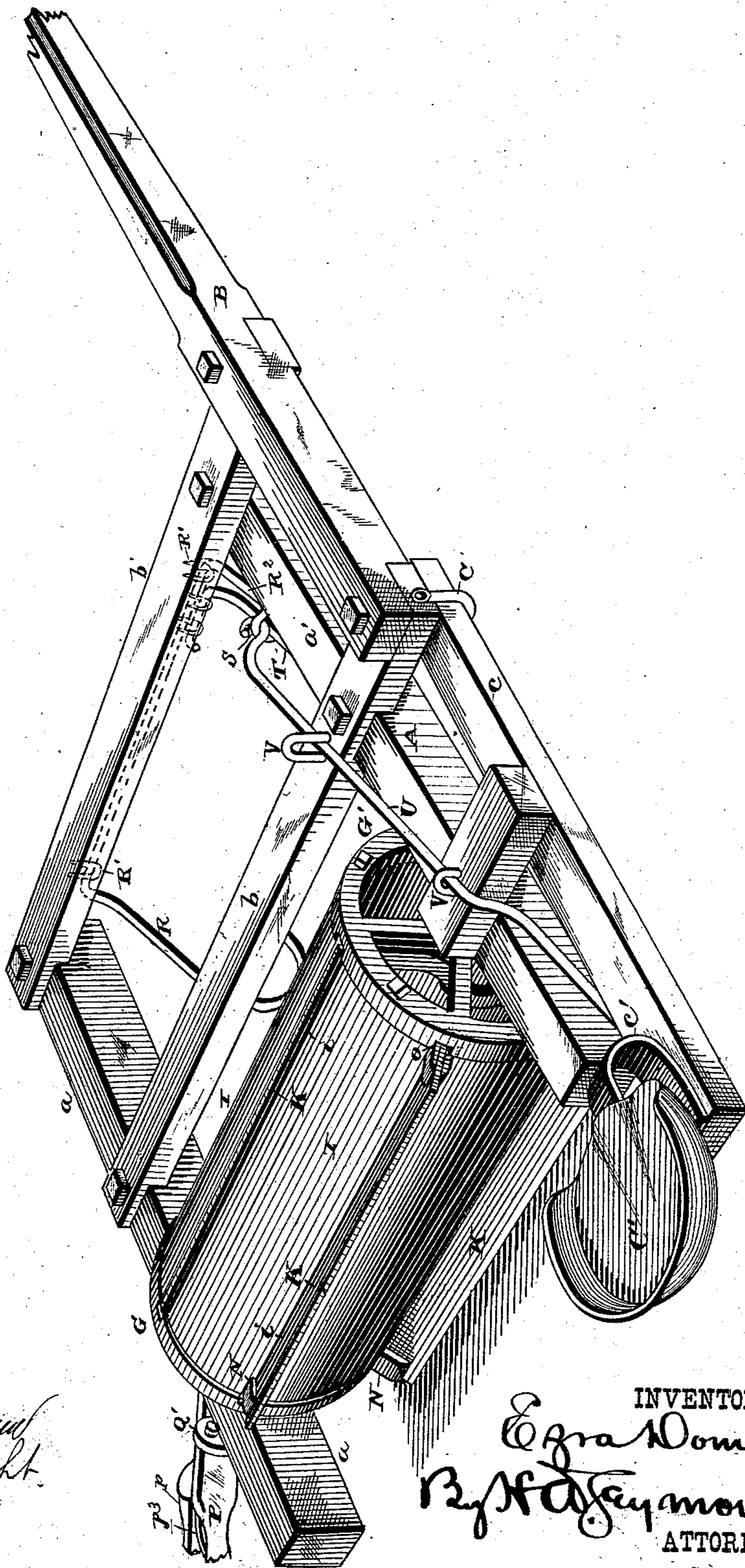


E. DOMINY.
Corn Stalk Cutter.

No. 229,106.

Patented June 22, 1880.

Fig. 1.



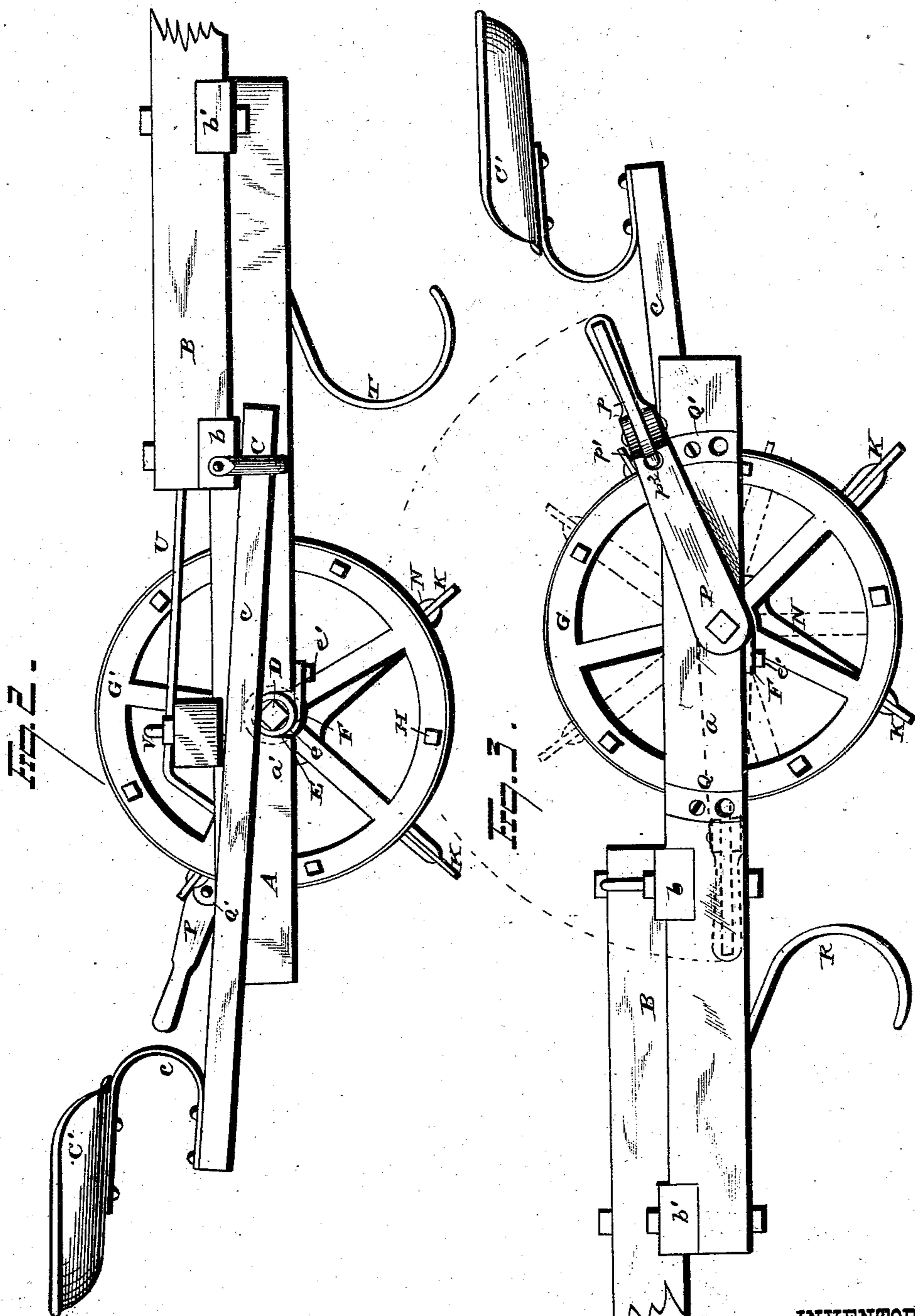
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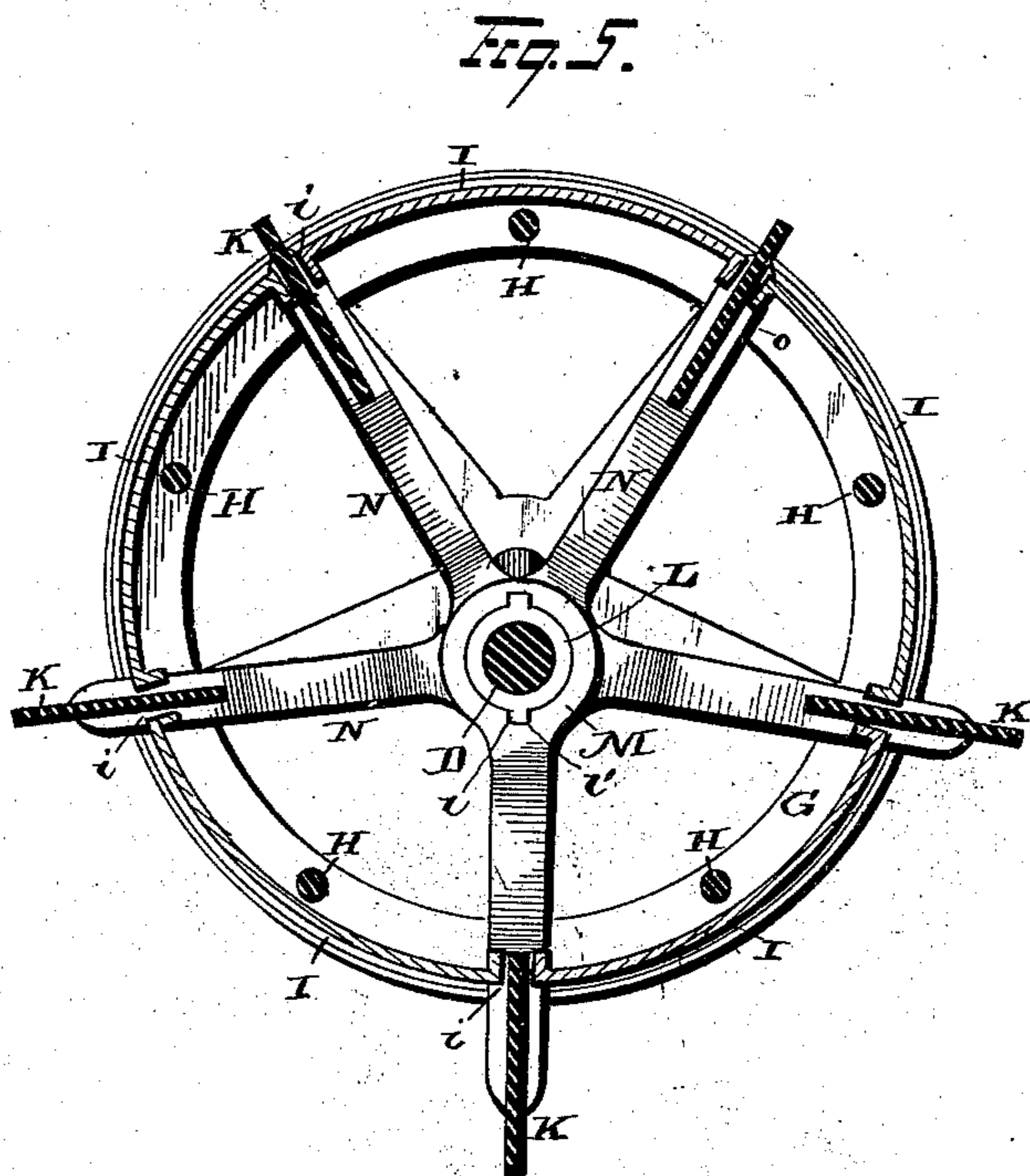
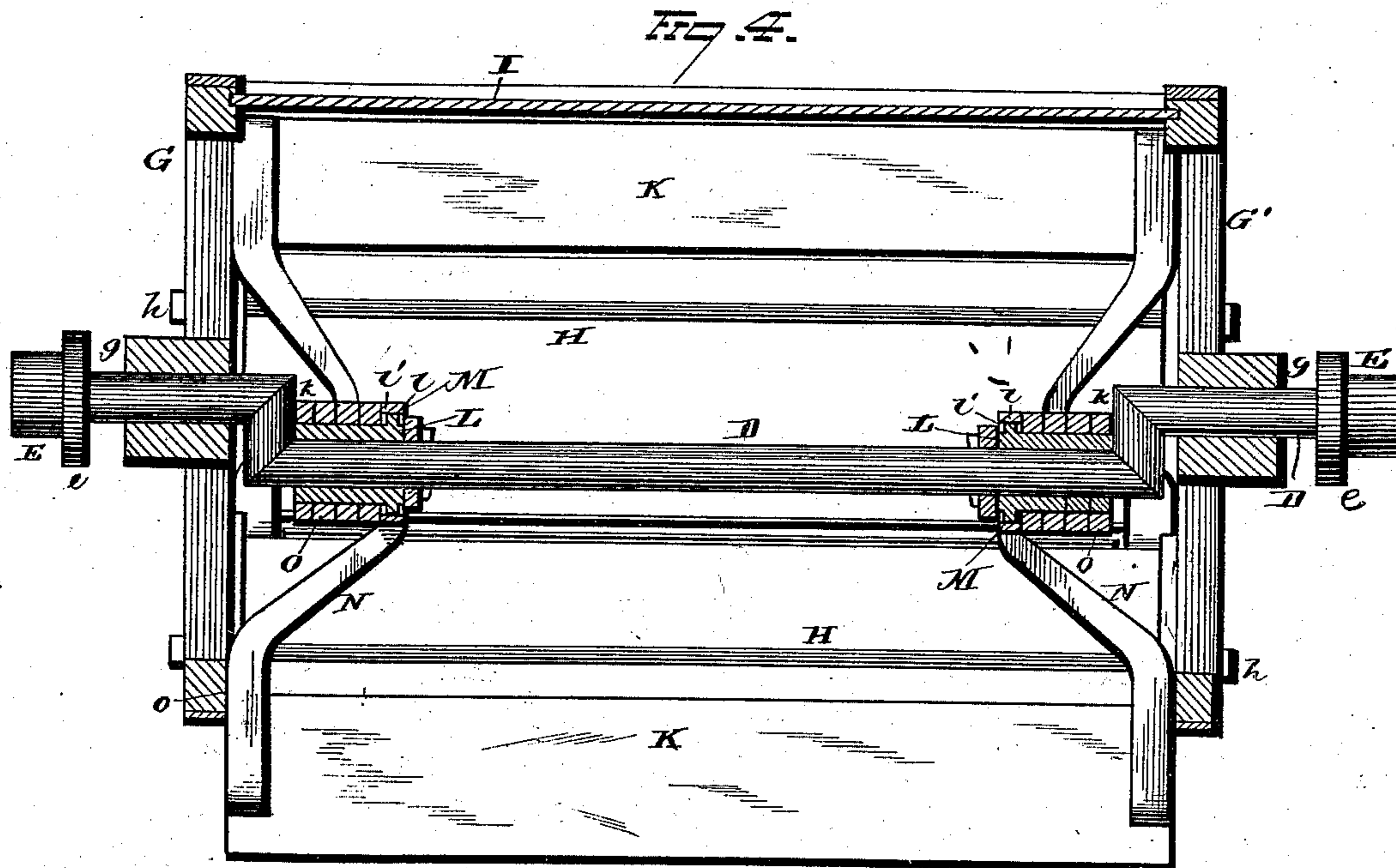
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Patented June 22, 1880.

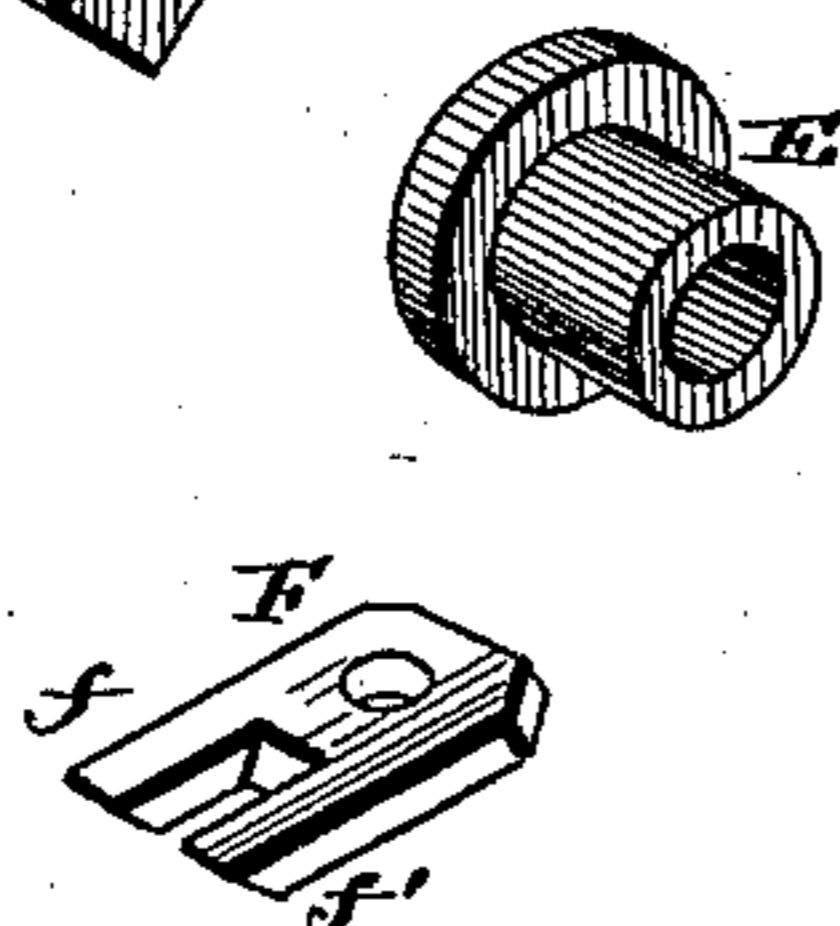
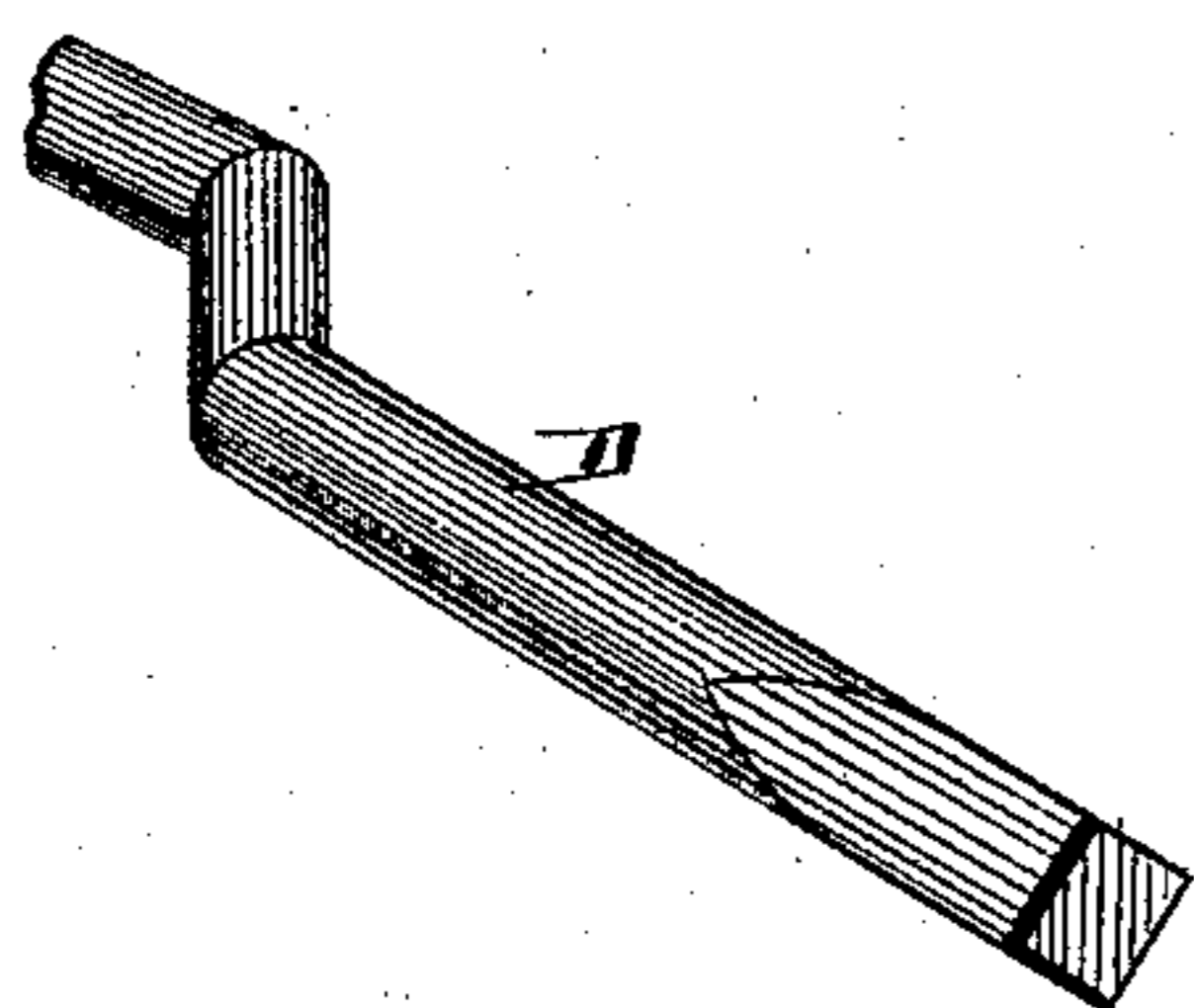
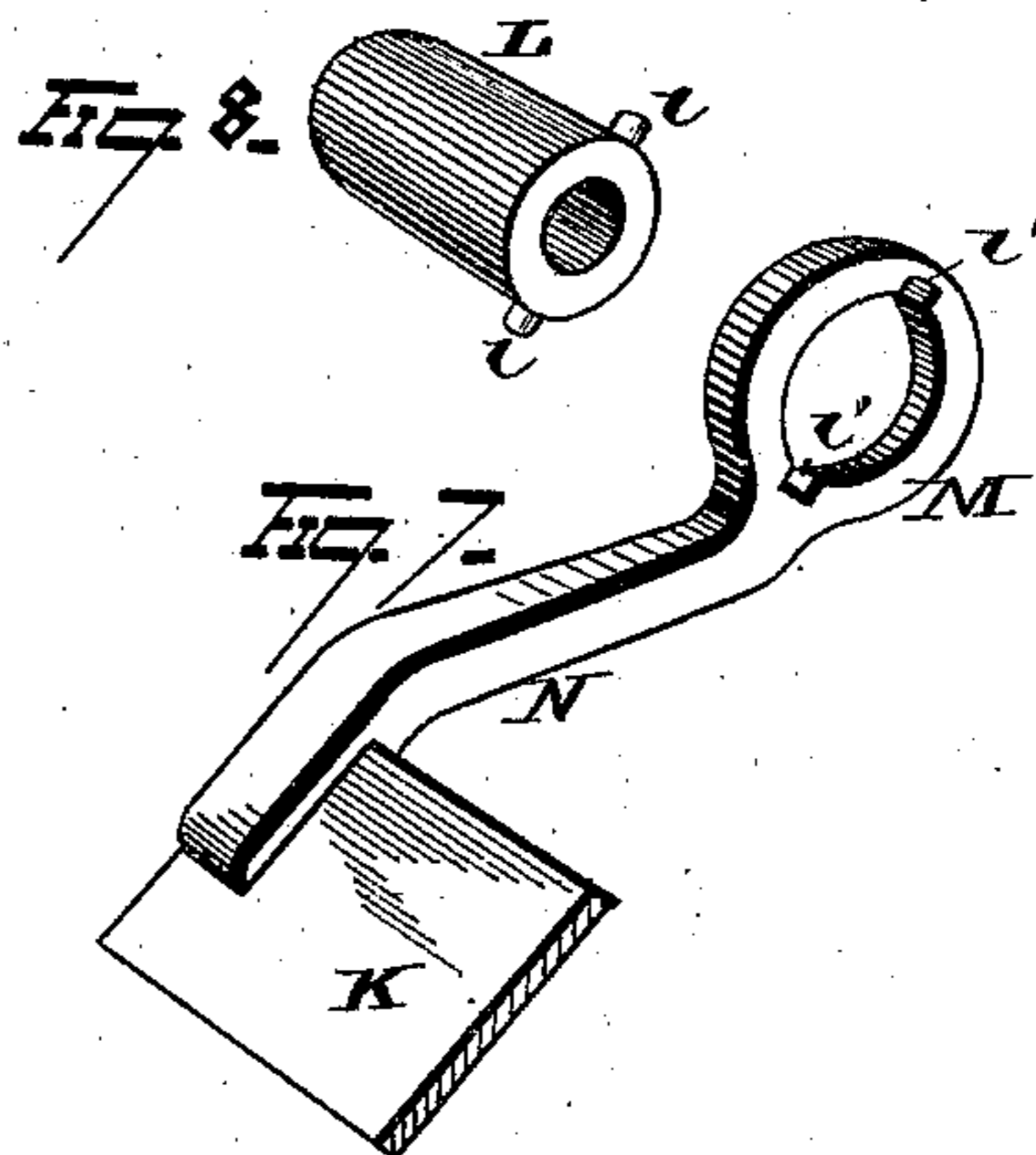
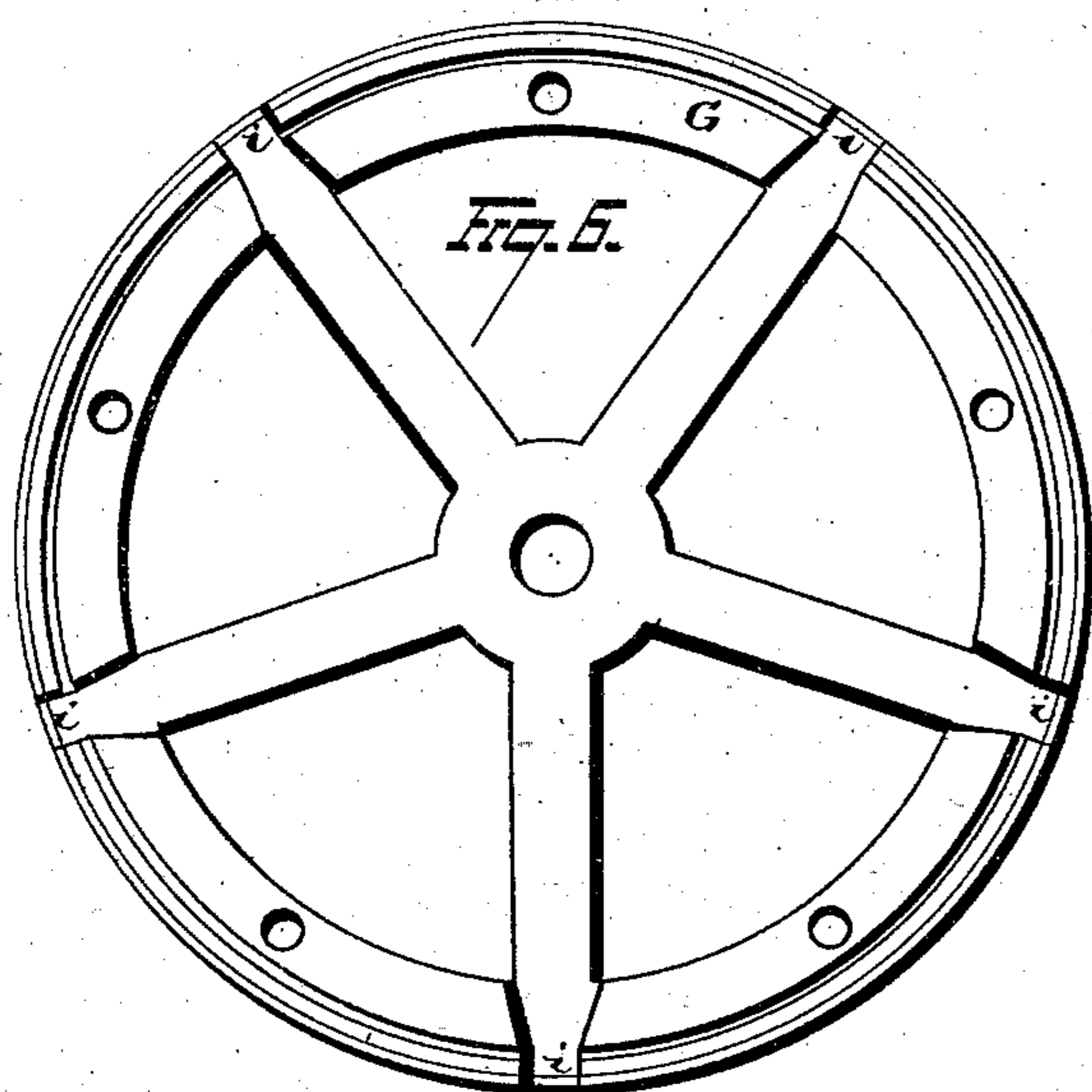
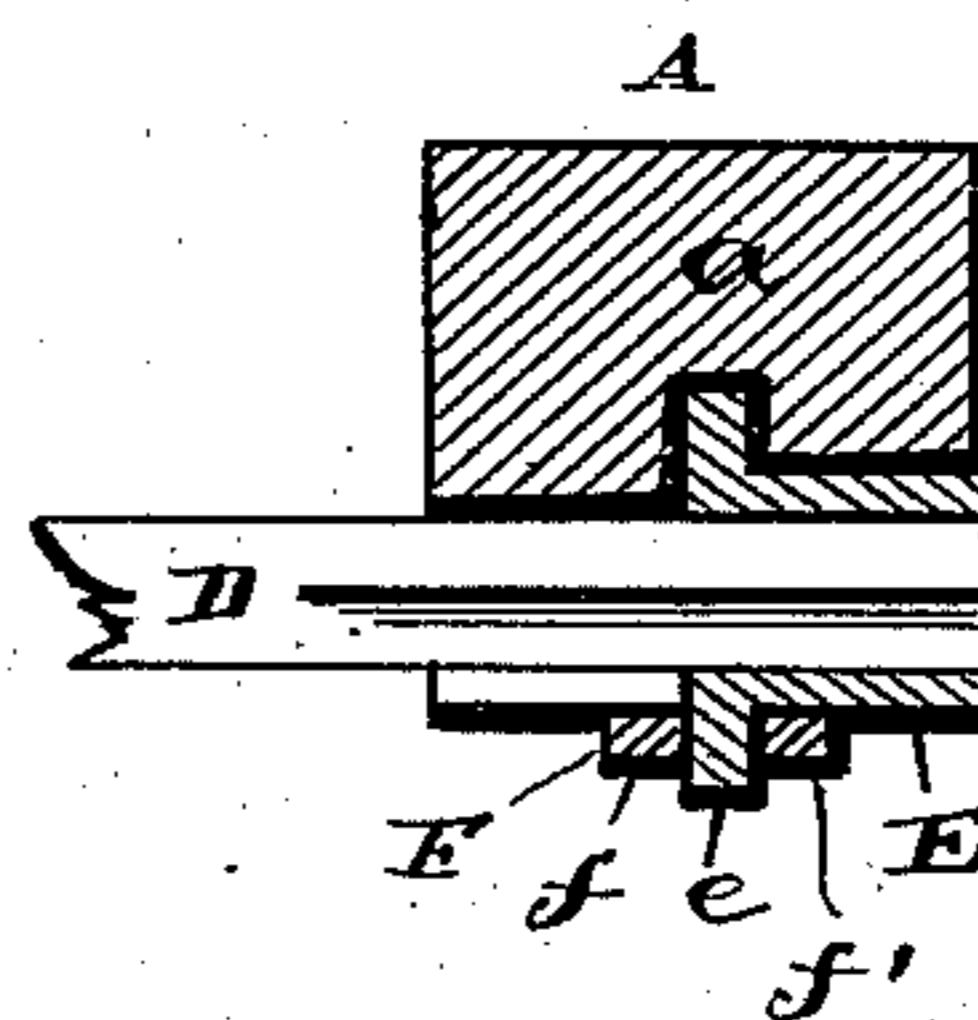


Fig. 9.



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UNITED STATES PATENT OFFICE.

EZRA DOMINY, OF FREEDOM, ILLINOIS.

CORN-STALK CUTTER.

SPECIFICATION forming part of Letters Patent No. 229,106, dated June 22, 1880.

Application filed January 10, 1880.

To all whom it may concern:

Be it known that I, EZRA DOMINY, of Freedom, in the county of La Salle and State of Illinois, have invented certain new and useful
5 Improvements in Corn-Stalk Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in corn-stalk cutters.

My invention consists in the several details
15 in construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view, in perspective, of my improvement in
20 corn-stalk cutters. Figs. 2 and 3 are views, in side elevation, of the same. Fig. 4 is a longitudinal section of the revolving cutter. Fig. 5 is a transverse section of the revolving cutter. Fig. 6 is a detached view of one of the
25 ground or supporting wheels. Fig. 7 is a detached view, in perspective, of the inner arm of the revolving cutter. Fig. 8 is a detached view, in perspective, of the tubular sleeve-bearing. Fig. 9 is a detached view of one of
30 the bearings for the crank-axle.

A represents the frame of the machine, and consists of the side frame-pieces, *a a'*, with their forward ends connected by cross pieces or bars *b b'*, the latter projecting at one side
35 beyond the frame-piece, and having the rear end of the pole B firmly bolted or otherwise secured thereto.

Beneath the outwardly-projecting end of the cross-bar *b* is secured a loop, C, within which
40 is received one end of the seat-supporting bar *c*, the seat C' being secured to the opposite end of the bar *c* by means of suitable bolts passing through the lower end of the seat-spring *c'*.

D represents a crank-axle, to the opposite
45 ends of which are rigidly secured the bearings E, which latter are each furnished with a collar, *e*.

Adjacent to the bearings E are secured the bifurcated plates F by means of bolts *e'*. The
50 arms *f f'* of said plates, bearing against opposite sides of the collar *e* on the bearings, pre-

vent the latter or crank-axle from being displaced.

G G' are the ground or supporting wheels, which are placed on the wheel-axles *g g'*. Wheels
55 G G' may be made of iron or wood, or both iron and wood, of any desired construction, and are connected with each other by tie-rods H, which are formed with screw-threaded ends and secured in place by the nuts *h*. 60

Between the wheels G G' are located the sections I of the roller, said sections being formed of metal or of wood, as desired.

Between each pair of adjacent sections I of the roller is formed an elongated narrow slot
65 or opening, *i*, through which the cutters or knives K are operated eccentrically.

Upon the crank-axle, in close proximity to the arms *k k*, are placed the tubular bearings L, each having projections *l* formed on their
70 outer ends, which fit into corresponding recesses *l'* formed in the outer faces of the bearings *m* on the inner cutter-arms, N, whereby the bearing or tubular boxes are caused to revolve, being carried around the axle by the
75 cutter-arm. The remaining cutter-arms O have their inner ends journaled on the revolving tubular bearings.

This construction and arrangement of parts is of the greatest value and importance, as it
80 insures a renewable bearing for the cutter-arms, thus preventing any appreciable wear of the crank-axle, and, further, prevents any wear of the outer surface of the tubular bearing, thus allowing the parts to operate with
85 little resistance, and further enabling the bearing to be readily lubricated.

The outer ends of the cutter-arms are bent outwardly, and their outer sides fitting in radial grooves *o*, formed on the inner sides of
90 the rims of the wheels, though the arms may be received in slots formed wholly within the sections composing the roller.

To one end of the crank-axle, or to the bearing attached thereto, is rigidly secured one end
95 of an adjusting-lever, P. It may be secured by a key or in any other desired manner. The outer end of lever P is provided with a pivoted catch, *p*, the short end of which is bent, as at *p'*, and extends into the hole *p²* in the lever. A spring, 100
p³, is connected with the catch to force its engaging end *p'* in one direction.

Perforated plates Q Q' are secured to the side piece or frame of the machine by screws or bolts, the plates being located and arranged in such a manner that when the lever P is turned backward and secured by means of its spring-catch to the plate Q' , the crank-axle is then secured in such position that the cutters are forced downwardly into the ground a sufficient distance to completely sever the stalks. The stroke of the cutters may be readily varied by altering the adjustment of the lever P , which operation is readily effected by causing the spring-catch to engage with any one of the holes in the plate Q' .

When it is desired to transport the machine from one field to another, or to any desired point, the actuating-lever P is turned over forward and secured to the plate Q , which has the effect of raising the cranked portion of the axle to its highest position, and thus prevent the cutters from projecting through the slots in the lower portion of the roller, and hence enabling the roller to be drawn from point to point without danger of impairing the edges of the cutters.

While a lever such as shown and described is a practical means of securing the desired adjustment of parts, a wheel may be substituted for the lever and a sector having a perforated rim secured to the frame.

By means of a spring-catch, pawl, or bolt the crank-axle may be secured in any desired adjustment; or a small pinion may be rigidly secured to the end of the crank-shaft and a large pinion or cog-wheel meshing therewith journaled on a separate bearing secured to the frame. By revolving the large pinion the smaller one could be readily turned, and thus impart any desired adjustment to the crank-axle.

To the forward cross-bar of the machine is pivoted the drag-hook R , it being suspended by means of the staples or eyebolts R' , and provided with an arm, R^2 , having an eye or loop, S , formed on its outer or free end. Drag-hook T is also pivoted to the forward cross-bar, the upper portion thereof passing through the loop S in the arm R^2 .

A rod, U , engages at one end with the loop S of arm R^2 , said rod extending rearwardly beneath the driver's seat, and being held against displacement by means of the staples V , or equivalent means. The driver, by depressing the rear end of the bar or rod U , can readily raise the hooks, which is often essential in turning around the machine.

It is evident that many slight changes in the construction and arrangement of the dif-

ferent parts of my machine might be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not limit myself to the exact construction shown and described; but,

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

1. In a corn-stalk cutter, the combination, with a crank-axle having ground-wheels journaled upon opposite ends thereof, of cutter-arms connected at one end with the crank-axle, and provided with cutters on their outer ends, and a lever or equivalent device for adjusting the relative position of the crank, and thus cause the cutters to be actuated eccentrically above or below the ground or supporting wheels without varying the vertical adjustment of the latter, substantially as set forth.

2. In a corn-stalk cutter, the combination, with the crank-axle, of bearings E , provided with collars e , removably secured to the ends of the crank-axle, and bifurcated plates F , the arms f f' of which engage with the opposite sides of the collar e on the bearing and prevent the displacement of the latter, substantially as set forth.

3. In a corn-stalk cutter, the combination, with the crank-axle, of a sleeve or tubular bearing provided with projections on one end, and a cutter-arm provided with corresponding recesses, whereby the cutter-arm may be secured to and turn the tubular bearing, substantially as set forth.

4. In a corn-stalk cutter, the combination, with a crank-axle and ground or supporting wheels journaled on opposite ends of said crank-axle, of cutter-arms connected with and adapted to be actuated eccentrically by the crank-axle and revolving drum or roller, and devices for varying the adjustment of the crank-axle, so that the cutters will project from the lower or upper side of the roller, as desired, substantially as set forth.

5. In a corn-stalk cutter, the combination, with the crank-axle having enlarged and renewable bearings secured to its opposite ends, said bearings provided with collars, of bifurcated plates for retaining said bearings in place, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of December, 1879.

EZRA DOMINY.

Witnesses:

CHARLES OLMSTEAD,
A. H. FULLER.