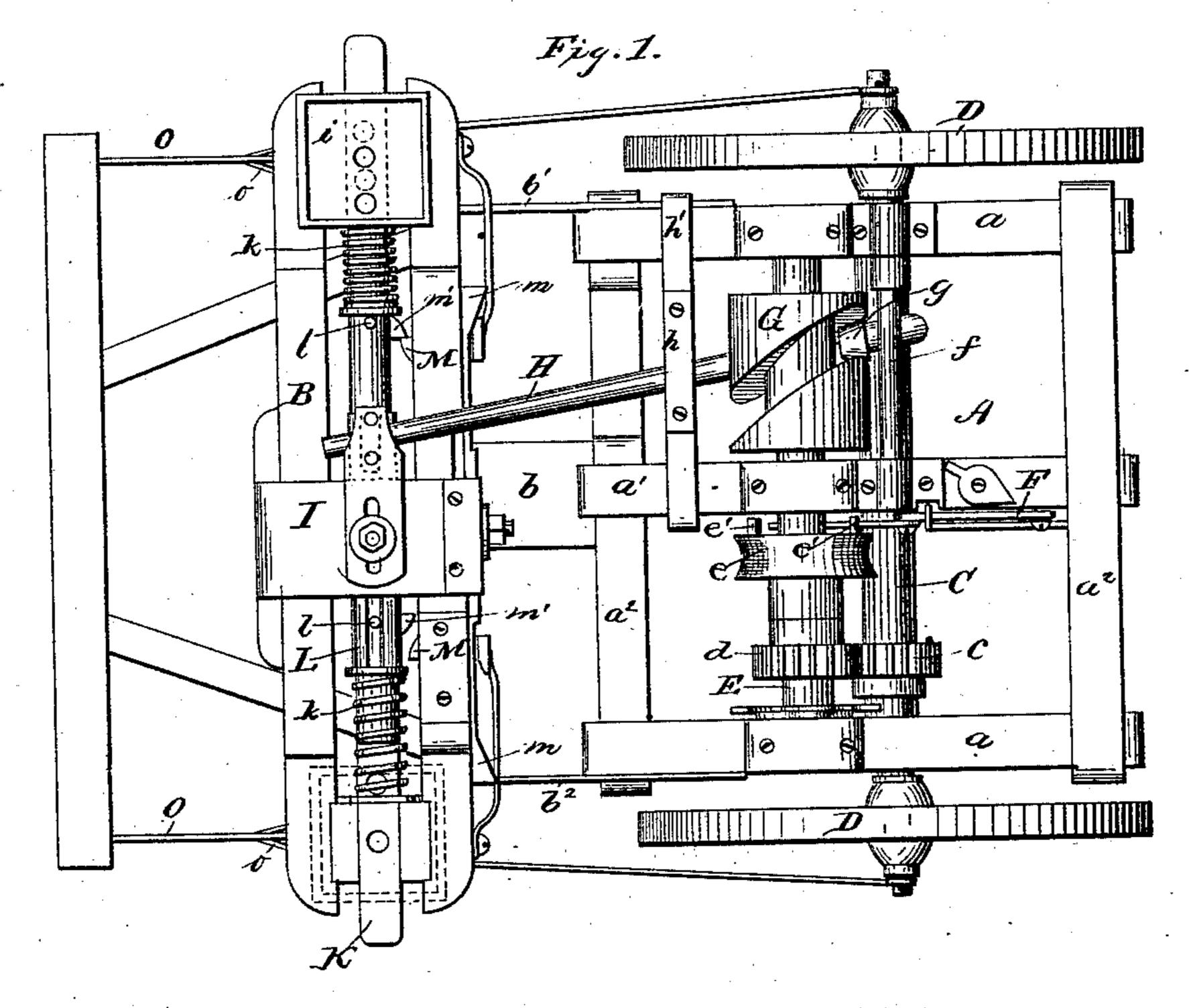
(No Model.)

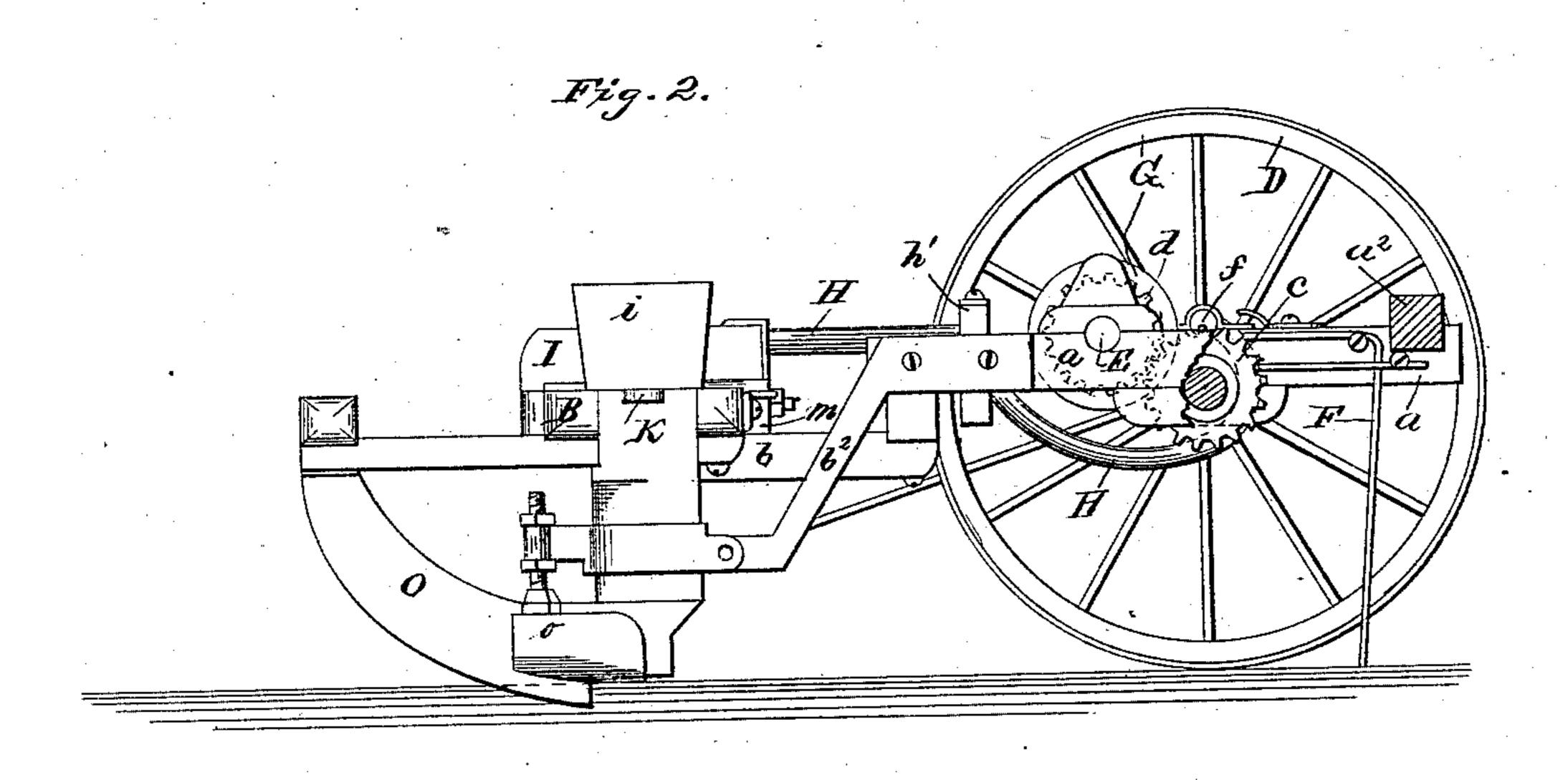
## B. NUNAMACKER.

CORN PLANTER.

No. 307,063.

Patented Oct. 21, 1884.





WITNESSES

Chas. R. Burr

Franklin H. Hough

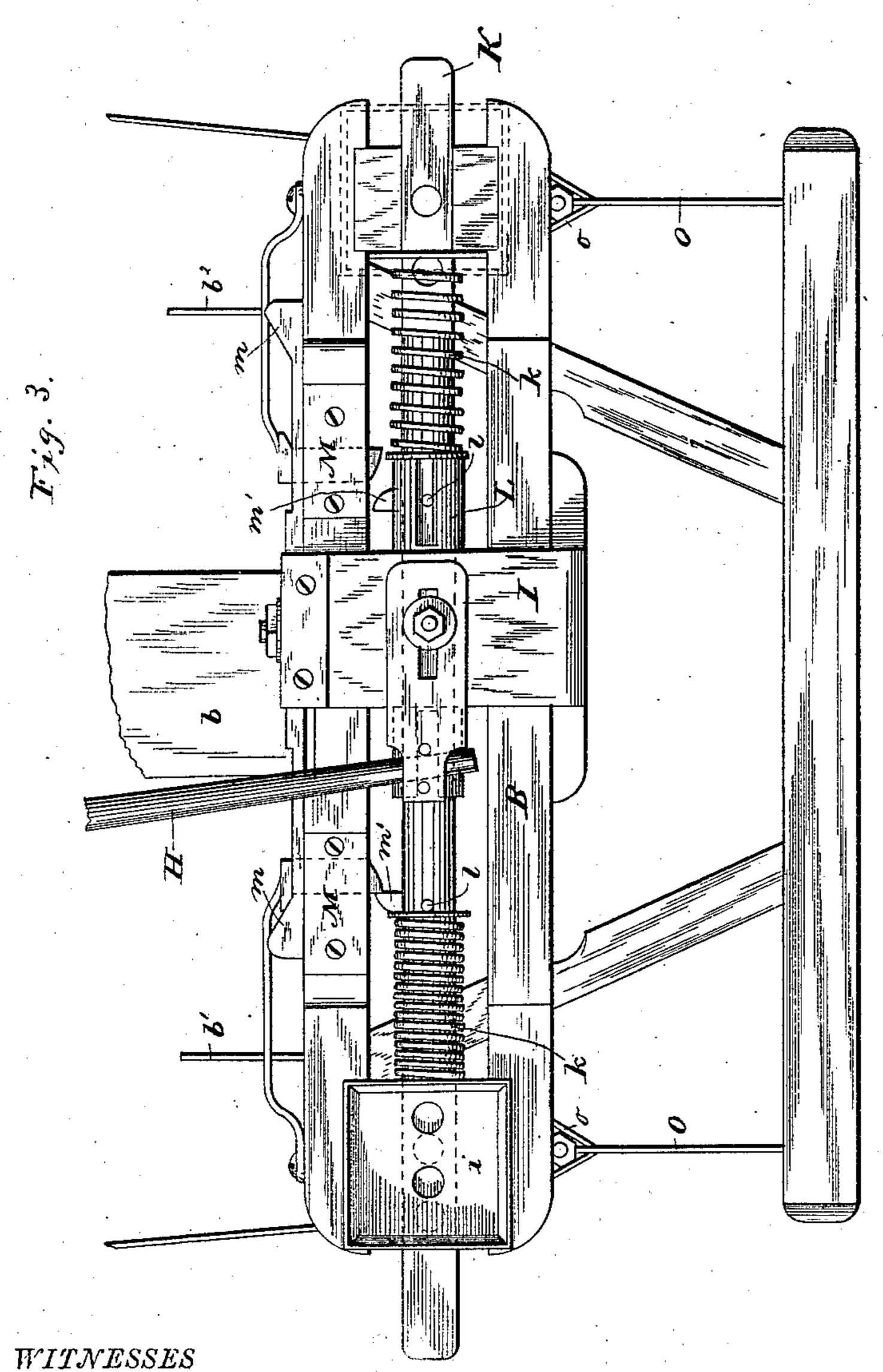
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INVENTOR

By Munamacker

My Stanck While

Attorney

## United States Patent Office.

BY NUNAMACKER, OF DE SOTO, ASSIGNOR TO JOHN R. THOMSON, OF EARLHAM, IOWA.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 307,063, dated October 21, 1884.

Application filed July 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, BY NUNAMACKER, a citizen of the United States, residing at De Soto, in the county of Dallas and State of 5 Iowa, have invented certain new and useful Improvements in Corn-Planters; 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 10 which it appertains to make and use the same.

My invention relates to certain improvements in corn-planters, especially of the seeddropping mechanism which is operated by springs, so that only the amount of seed held 15 by the cups will be dropped at each reciprocation of the sliding valve-bar.

The particular construction and arrangement of the various parts I will now proceed to describe, reference being had to the accom-20 panying drawings, in which—

elevation with one of the wheels removed and portion of the side bar broken away; Fig. 3, a detail showing an enlarged plan view of the 25 seed-dropping mechanism.

Referring to said drawings, similar letters

of reference indicate like parts.

A is the main frame of the machine, consisting of the side bars, a, center bar, a', and 30 cross-bars  $a^2$ .

B is the frame supporting the seed-dropping mechanism, connected to the main frame by the bar b and braces b' and  $b^2$ .

C is the axle, and D the driving-wheels.

E is a shaft mounted in suitable bearings on the side bars, a, and center bar, a'.

c is a gear-wheel on the axle, gearing with the gear-wheel d on the shaft E, and by means

of which said shaft E is rotated.

e is a wheel on the shaft E, with which the check-row device can be connected, and it is provided with two pins, e', on its side and directly opposite each other. These pins engage with the spring-marker F, secured to 45 the side of the center bar, a', the wheel e being so arranged that one of the pins e' strikes

tion of the driving-wheels and causes it to mark the hill just as the seed is dropped.

G is a cam-wheel.

H is a bent lever pivoted to the bar f, and having on its rear end a friction-wheel, g, which engages with the groove in the camwheel and operates the lever. Said lever H is fulcrumed in the slot or bearing h in the 55 bar h', and is connected in any suitable manner with the sliding compression-block I on the frame B and operates said compressionblock, as hereinafter described.

K is the sliding valve-bar, having on either 60 end the ordinary seed-cups, and working in

valves in the hoppers i.

k are suitable springs surrounding the sliding bar K, and, as said springs are alternately compressed and released, operate said sliding 65 valve-bar.

l are pins on the valve-bar, against which Figure 1 is a top plan view; Fig. 2, a side | the inner ends of the springs bear, their outer ends bearing against the seed-hoppers.

> The compression-block slides on the frame 70 B and carries the slotted sleeves L, surrounding the valve-bar, and the wedge-shaped tappets m, which alternately release the springs k from the spring-catches M as the compression-block is reciprocated.

m' are detents on the slide-bar, with which the spring-catches engage and hold or lock the springs after they are compressed.

O are the shoes or runners, provided with additional flanges o.

The operation of my machine is as follows: The compression-block, being operated by the lever, alternately compresses first one spring and then the other, and as the springs are released from the spring-catches the valve-bar 85 is moved very rapidly and allows only the seed in the cup to be deposited. At the same time the seed is dropped the spring-marker is operated and marks the place of deposit.

Having thus fully described my invention, 90 I claim as new and desire to secure by Letters

Patent—

1. In a corn-planter, the frame B, slide-bar the end of the marker F at each half-revolu-, K, having the pins l, detents m', and springs

k, in combination with the compression-block I, provided with the slotted sleeves L and tappets m, the spring-catches M, and lever H, all arranged and operating substantially as shown 5 and described.

2. In a corn-planter, the cam-wheel G, bent lever H, compression-block I, provided with Witnesses:
the slotted sleeves L and tappets m, and the Spring-catches M, in combination with the J. A. LAIRD. lever H, compression-block I, provided with

slide-bar K, provided with the pins l, detents 10 m, and springs k, substantially as and for the purpose shown and described.

In testimony whereof I affix my signature in

presence of two witnesses.

BY NUNAMACKER.