

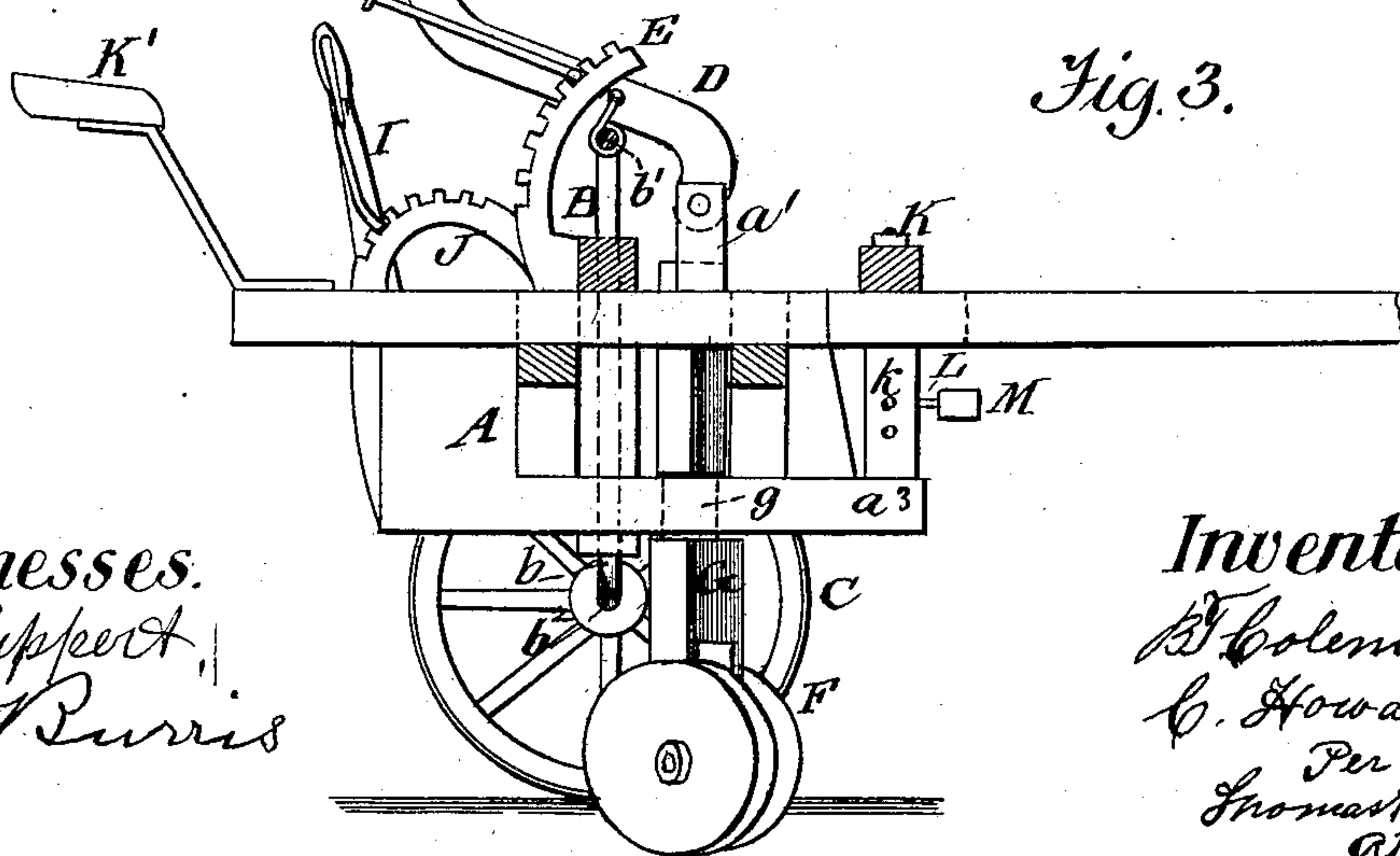
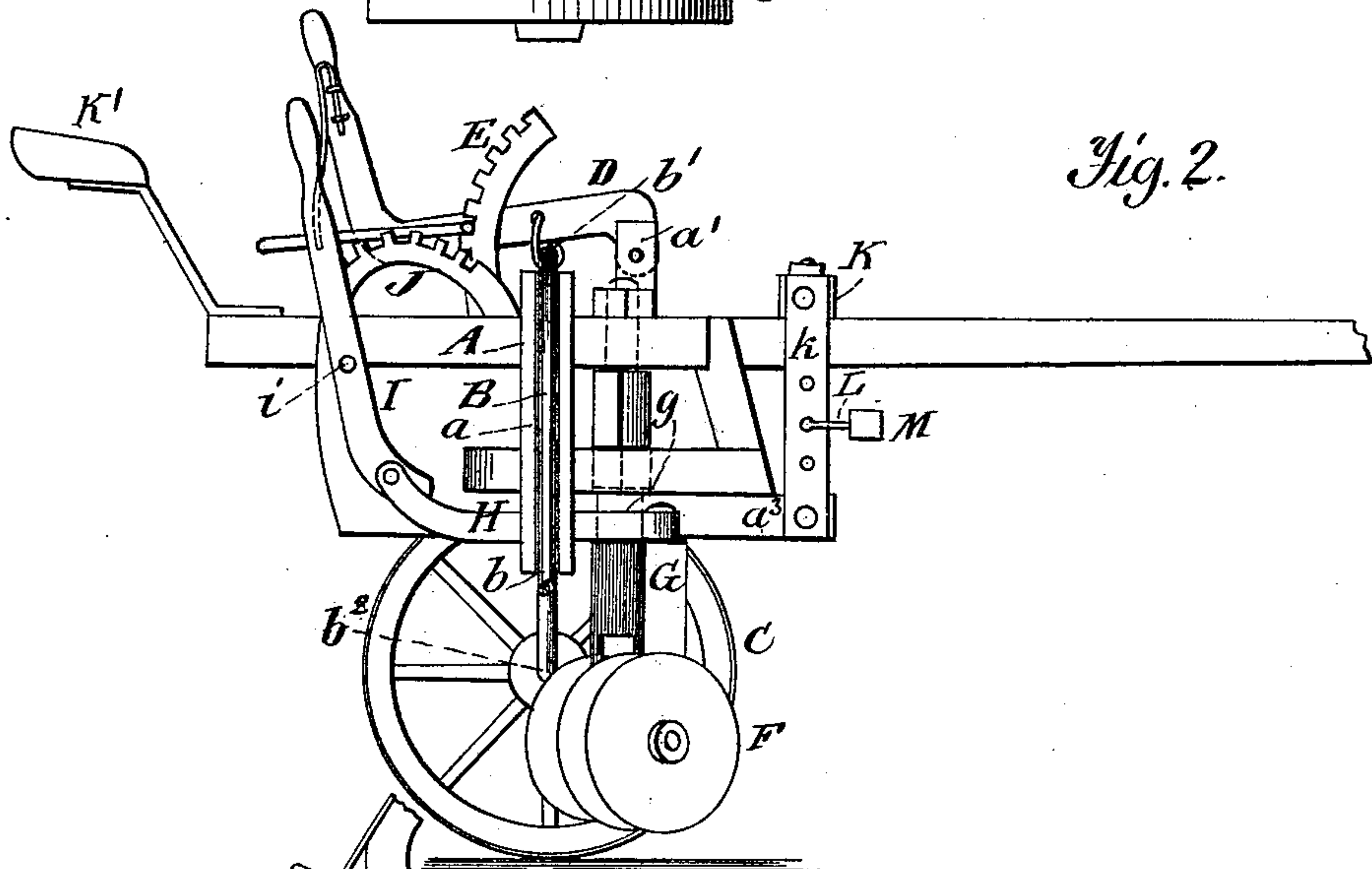
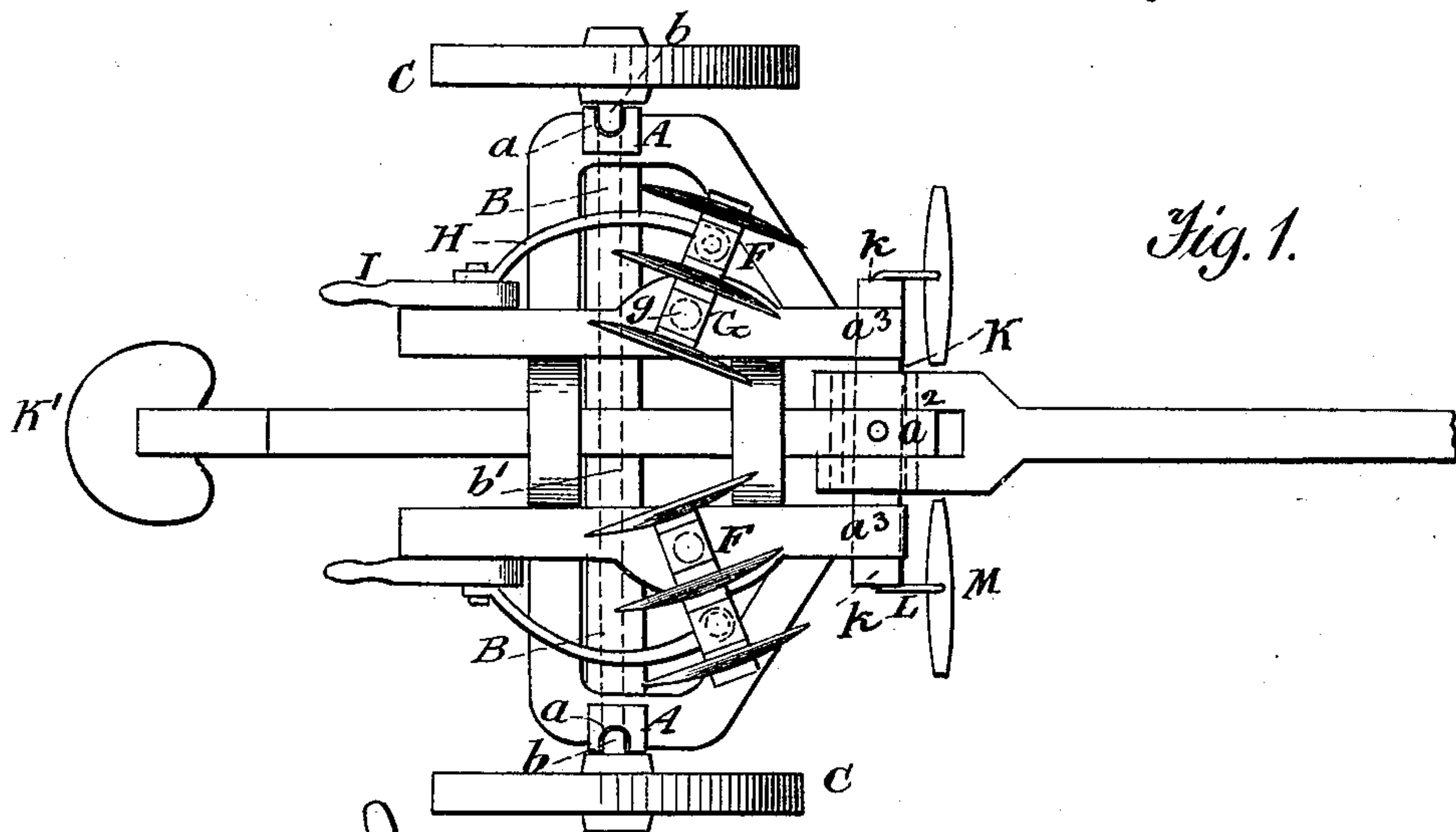
(No Model.)

B. T. COLEMAN & C. HOWARD.

ROTARY CULTIVATOR.

No. 366,928.

Patented July 19, 1887.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

BENJAMIN T. COLEMAN AND CLEM HOWARD, OF HUBBARD, TEXAS.

## ROTARY CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 366,928, dated July 19, 1887.

Application filed May 14, 1887. Serial No. 238,195. (No model.)

*To all whom it may concern:*

Be it known that we, BENJAMIN COLEMAN and CLEM HOWARD, citizens of the United States, residing at Hubbard, in the county of Hill and State of Texas, have invented certain new and useful Improvements in Rotary Cultivators; and we do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The special objects of the invention are to lessen the weight on tongue and the down draft while the power is applied more directly to the plows. By this means we are enabled to make the whole frame very light; also, to provide convenient means of adjusting the altitude of the wheels with respect to the plows, so as to regulate the depth of the latter, and also to hold them out of the ground; also, to obtain suitable means for adjusting the plows at any desirable angle to the line of travel, and to throw greater or less soil to or from the plants, the latter being done by the driver without leaving his seat.

Figure 1 of the drawings is a bottom plan view; Fig. 2, a side elevation, and Fig. 3 a longitudinal vertical section.

In the drawings, A represents the frame, having the vertical grooves  $a a$ , in which work the sides  $b b$  of the axle B. The axle is formed of these sides, the superposed integral cross-piece  $b'$ , and the journals  $b^2 b^2$ , on which turn the ground-wheels C C. The axle part  $b'$  is attached by a flexible or pivoted connection to the lever D, which is front-pivoted to the frame-stud  $a'$ , elbowed, and provided with a spring finger-pawl on one side, so as to work in a rack, E, and hold the wheels at any desired height.

F are the rotary plows, which I preferably use in sets of three, with two sets to a plow-cultivator. Each set has a common axle, which is journaled horizontally in bearings of the standard G, which has a vertical arm,  $g$ ,

swiveled in the frame, and is turned horizontally by the arm H, pivoted thereto and to the lever I. The latter is fulcrumed at  $i$  to the frame A, and like the lever D is brought within reach of the driver as he occupies his seat. This lever I is also provided with a spring-pawl which works in a rack, J, to fasten the plows at any desired angle. Instead of bringing the additional weight of the double and single trees upon the pole, and consequently upon the necks of the horses, we middle-pivot a cross-bar, K, on the projection  $a^2$ , which is made integral with frame A, and connect its ends by downward arms  $k k$  with the frame projection  $a^3$ , the arms  $k$  being made with several holes by which the draft may be placed higher or lower by changing the hooks L, which are on the singletrees M. These arms  $k k$  are end-pivoted to each of the frame projections  $a^3 a^3$ , so as to move with the cross bar or doubletree K.

K' is the usual seat.

Our plows F are solid disks which work parallel at any desired angle, and bring the soil into fine tilth. The cultivator straddles a row of plants, and one set of plows cultivates on each side thereof, as one horse walks also on each side. This enables one man to work up the ground very rapidly and in an admirable manner.

What we claim as new, and desire to protect by Letters Patent, is—

In a rotary cultivator, the combination, with two or more disk-plows on the same axle, of the standard G, having the vertical arm  $g$ , swiveled to turn horizontally, the pivoted arm H, and the hand-lever I, whereby the driver may turn the plows at any angle to the line of direction of the cultivator, as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

BENJ. T. COLEMAN.  
CLEM HOWARD.

Witnesses:

W. B. GANEY,  
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