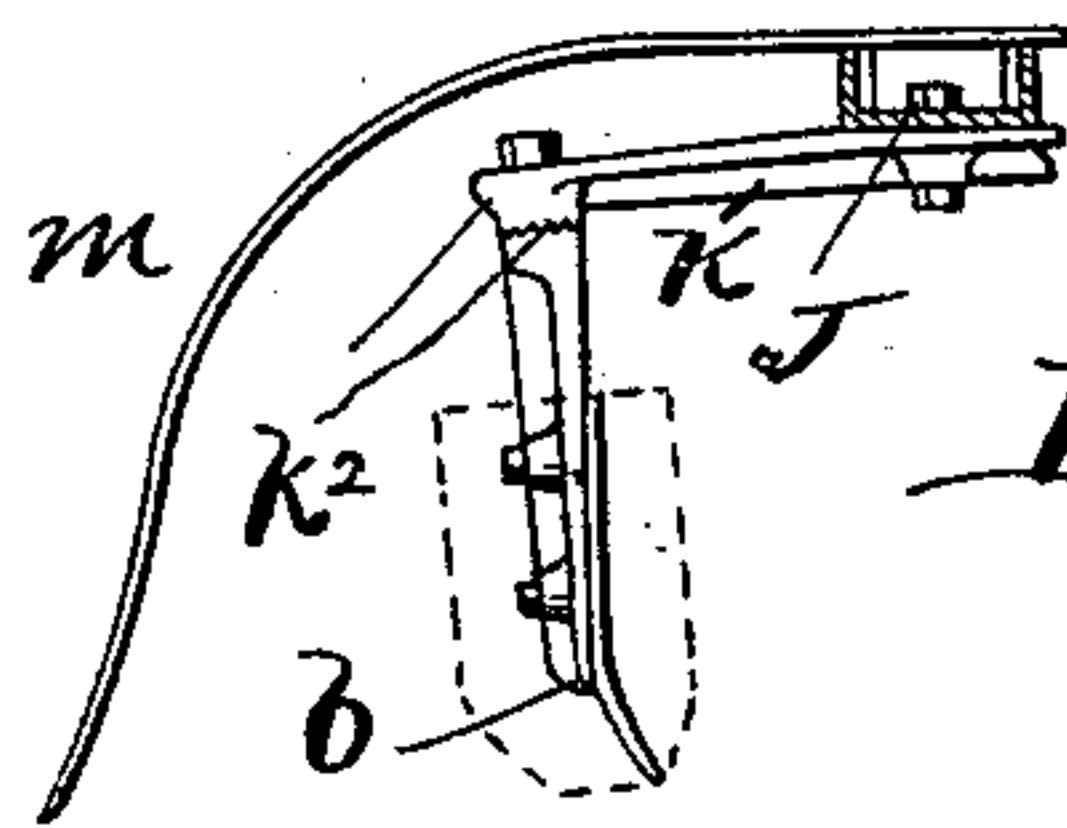
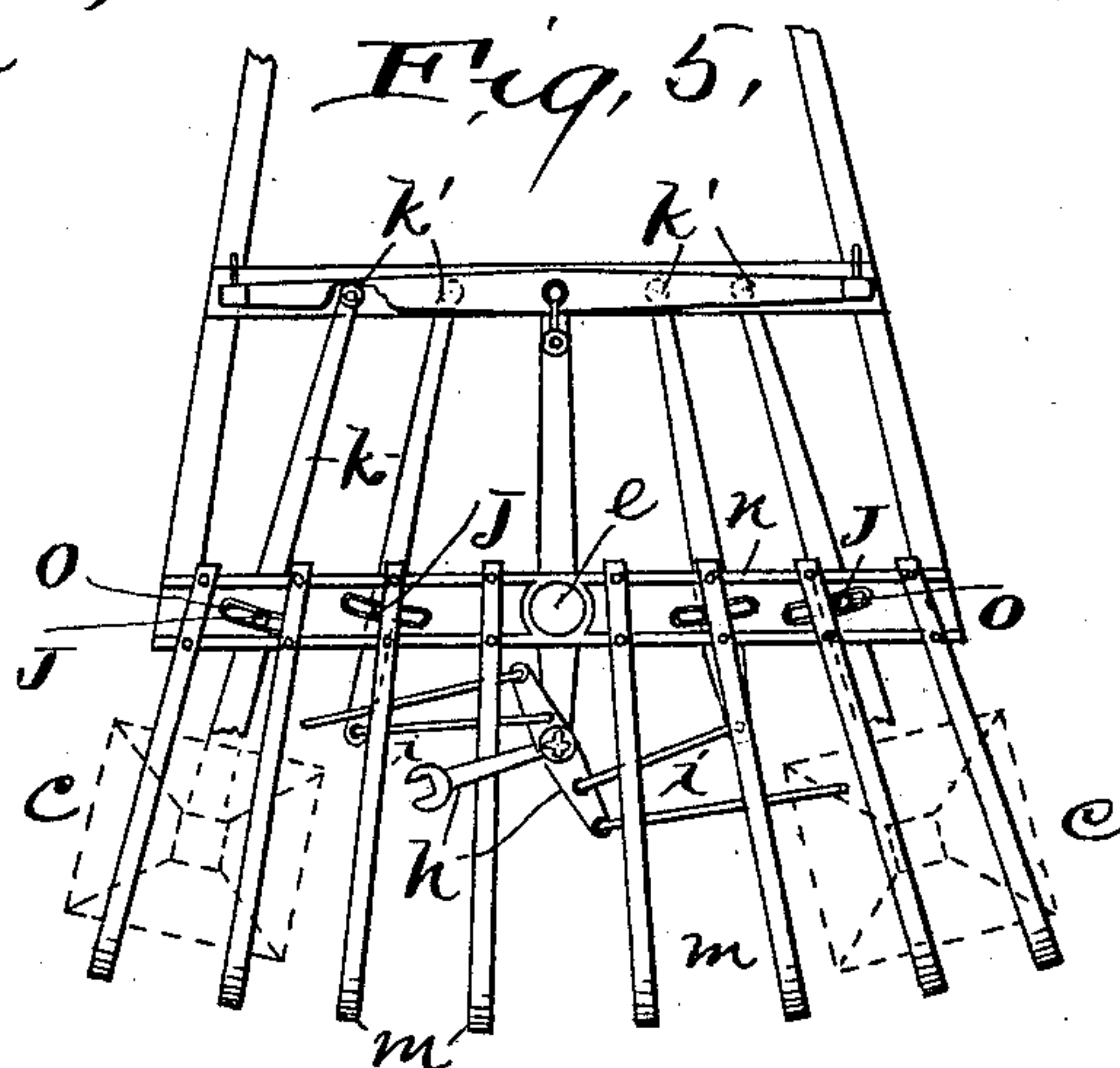
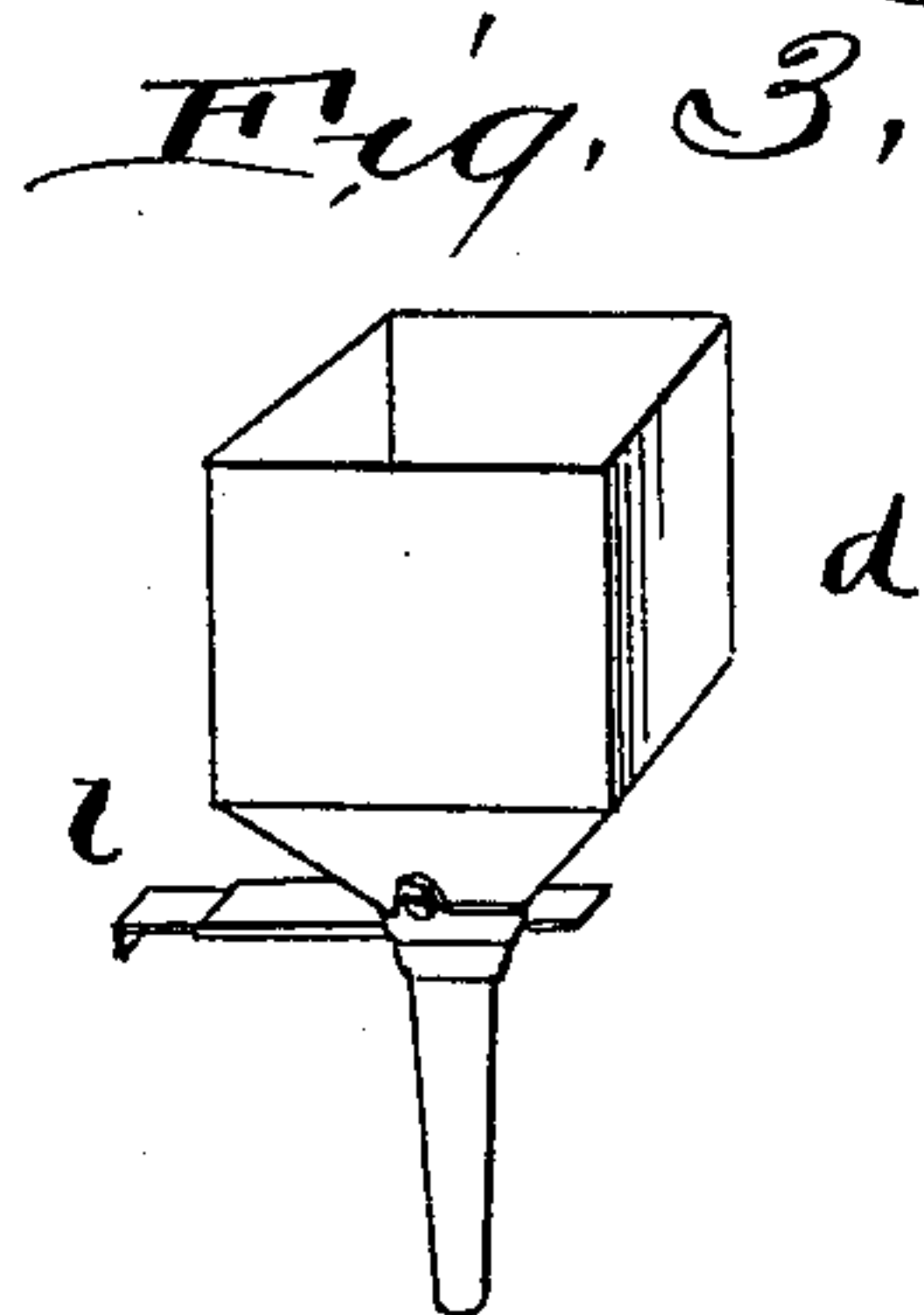
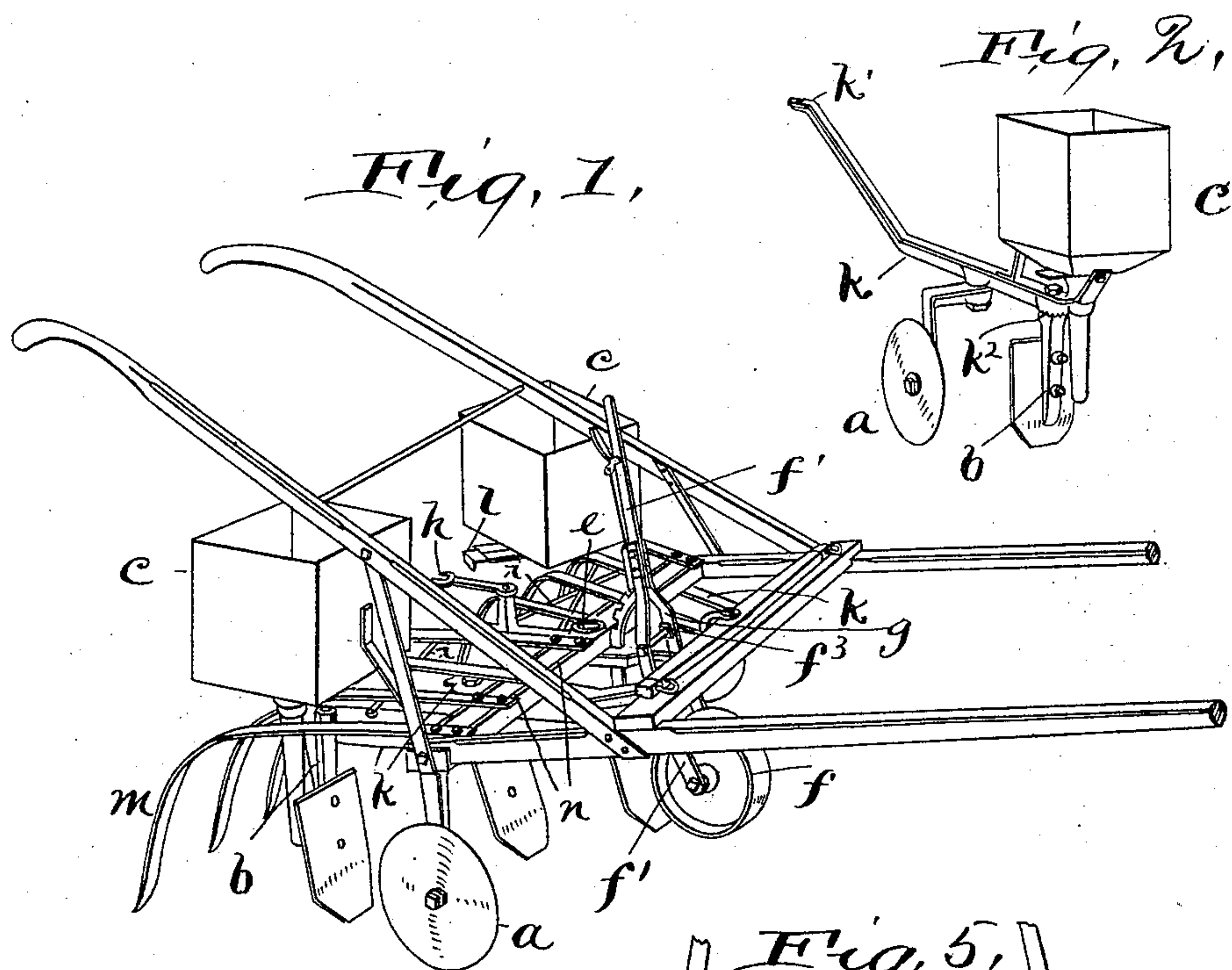


(No Model.)

C. HINMAN.
THILL CULTIVATOR.

No. 601,469.

Patented Mar. 29, 1898.



Witnesses.
E. B. Gilchrist
M. A. Colahan

Inventor:
Curtis Stinson
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UNITED STATES PATENT OFFICE.

CURTIS HINMAN, OF AKRON, OHIO.

THILL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 601,469, dated March 29, 1898.

Application filed July 22, 1896. Serial No. 600,178. (No model.)

To all whom it may concern:

Be it known that I, CURTIS HINMAN, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Thill-Cultivators, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in walking-cultivators having thills for the horse and the guiding-handles for the driver and operator secured rigidly to the main frame; and the novelty of my invention consists in the manner of securing the cultivator teeth or blades to a vertical standard that is pivotally secured at its upper end to a beam or horizontal bar that admits its adjustment thereon. This bar extends forward and is pivoted at its front end to the cross-bar of the thill-frame, while an adjusting-bolt near the center of said cultivator-beam or horizontal bar secures the same to a slotted cross-bar at the rear of the thill-frame, through which the bolt extends to admit the horizontal adjustment or placement of the cultivator-beam, as these cultivator-bars are moved simultaneously by means of link connections with a vibratable lever pivoted to the center of the cultivator-frame. I also provide leveling drag-teeth following at the rear of the cultivator-teeth that press lightly upon and level the loose earth.

In cultivating strawberry-plants I provide rolling cutters that are adjustably secured at each side of the cultivator-frame that will cut off the runners or vines from the main plant. I also provide a fertilizer-distributor with adjustable feed to increase or diminish the quantity distributed. I also provide means of raising and lowering or gaging of the depth of the working of the cultivator-teeth by means of a supporting-wheel and adjusting-lever secured at the front of the frame. I attain these objects by mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my cultivator. Figs. 2, 3, and 4 are detail views; Fig. 5, a top plan view.

Similar letters refer to similar parts throughout the several views.

a represents the rolling cutters secured each side of the main frame.

b is the support of the cultivator-tooth or shovel-standard.

k is the cultivator-beam or horizontal bar, in which the shovel-standard is adjustably pivoted at K^2 in the rear, these bars being pivotally secured to the thill-frame at their front.

o o are adjusting-slots in the cross-bar *n*.

J is the adjusting securing-bolt of the bar *K*, that moves in the slot *o*; *m*, the flexible steel leveling drag-tooth, which is flat and turns outwardly to slide over the ground behind the cultivator; *i i*, the adjusting-links pivoted to the vibratable adjusting-lever *h*, that is pivoted to the center of the cultivator-frame.

f is the supporting-wheel, secured to the lower end of an adjusting-lever *f'*, that is pivoted at f^3 to a ratchet-frame f^2 , secured to the thill-frame.

e is a hole through the standard and centrally-fixed cultivator-beam for the placement of the box *d* when planting potatoes.

c c is the fertilizer-box, that is removably secured to the adjustable cultivator-beam *k*.

The shovel-teeth may be set to any desired angle by means of their securing-bolts, while the shovels may be also moved and adjusted horizontally to place them to any width of row.

The rolling cutters may be removed, also the fertilizer-boxes, when not required.

In operation as the horse draws the cultivator forward it is guided and controlled by the operator without any liability of uprooting the plants and with accuracy, thoroughly pulverizing the soil between the rows, which do not afterward require any hand-cultivating, as the work is perfectly and completely done by the action and novel arrangement of the cultivator-teeth, which are readily adjustable to any rows of plants.

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

In a plant-cultivator the cultivator-tooth and its standard *b*, its beam *k*, that is pivotally secured to the thill-frame at the front, and adjustably secured by means of the bolt *J* in the adjusting-slots *o* of the cross-bar *n*, substantially as shown and described.

CURTIS HINMAN.

Witnesses:

WILSON C. MCGINLEY,
HENRY VADER.