

**No. 685,125.**

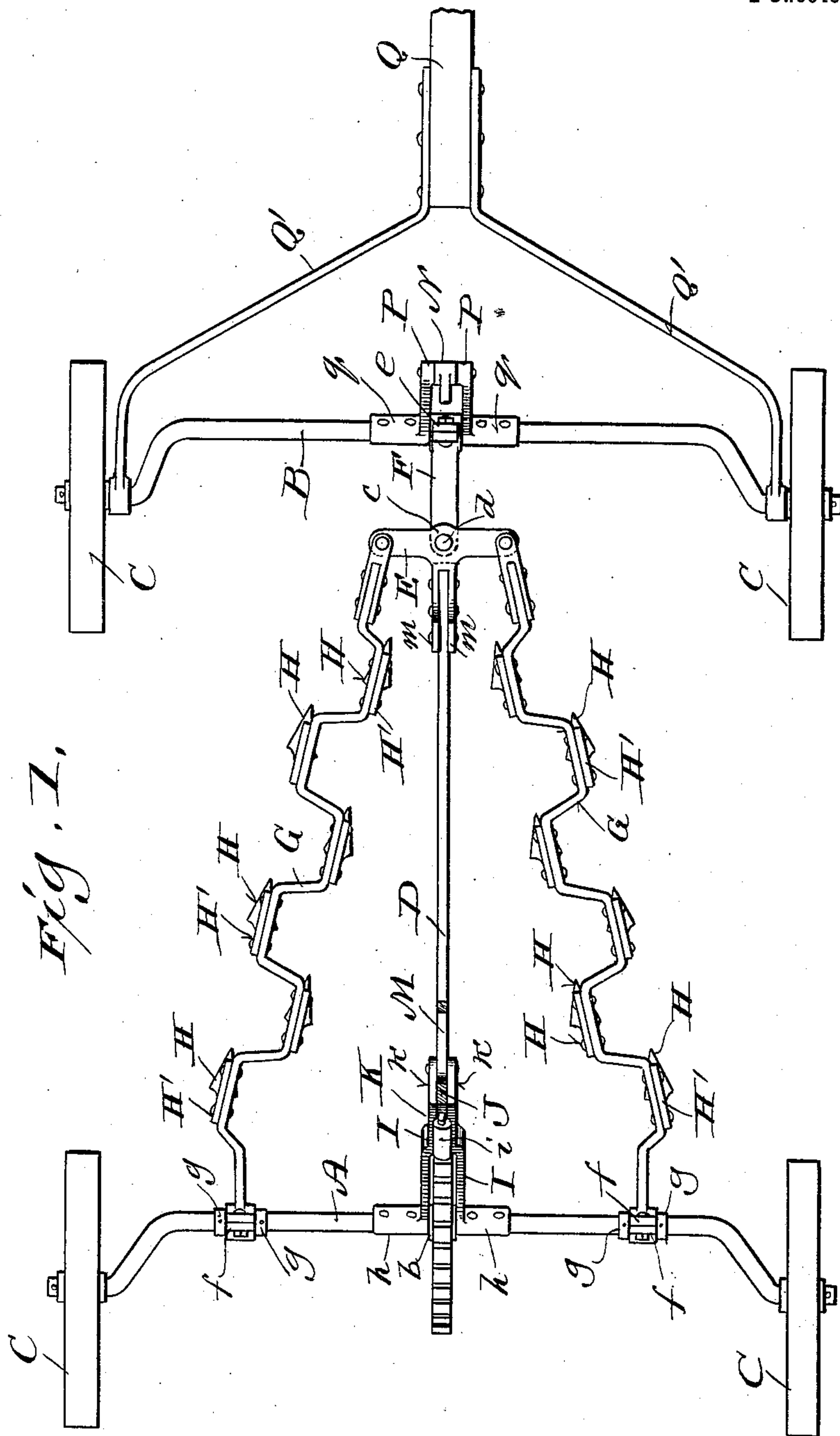
**Patented Oct. 22, 1901.**

**J. FISCHER.**  
**CULTIVATOR.**

(Application filed Aug. 10, 1901.)

(No Model.)

**2 Sheets—Sheet 1.**



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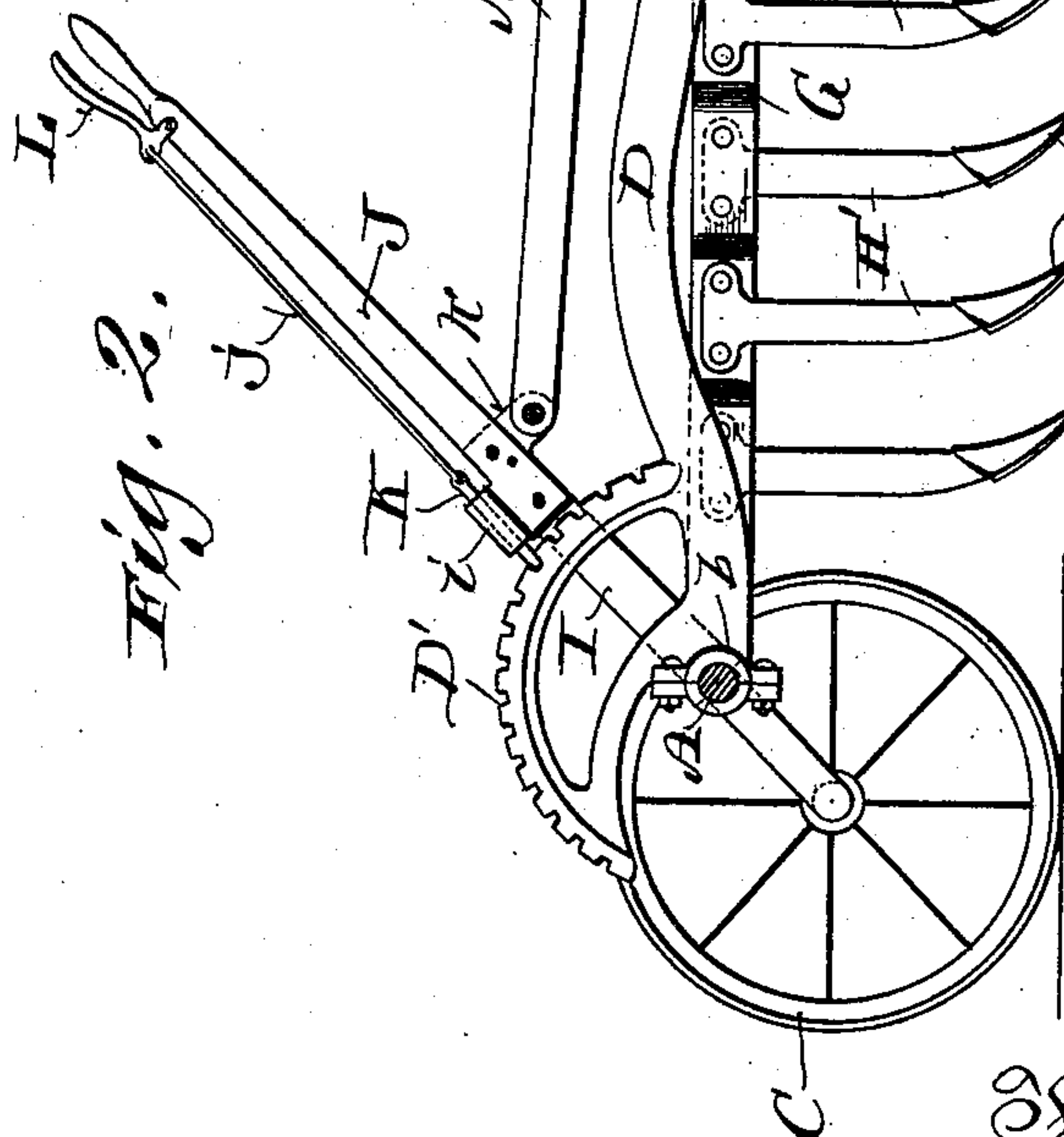
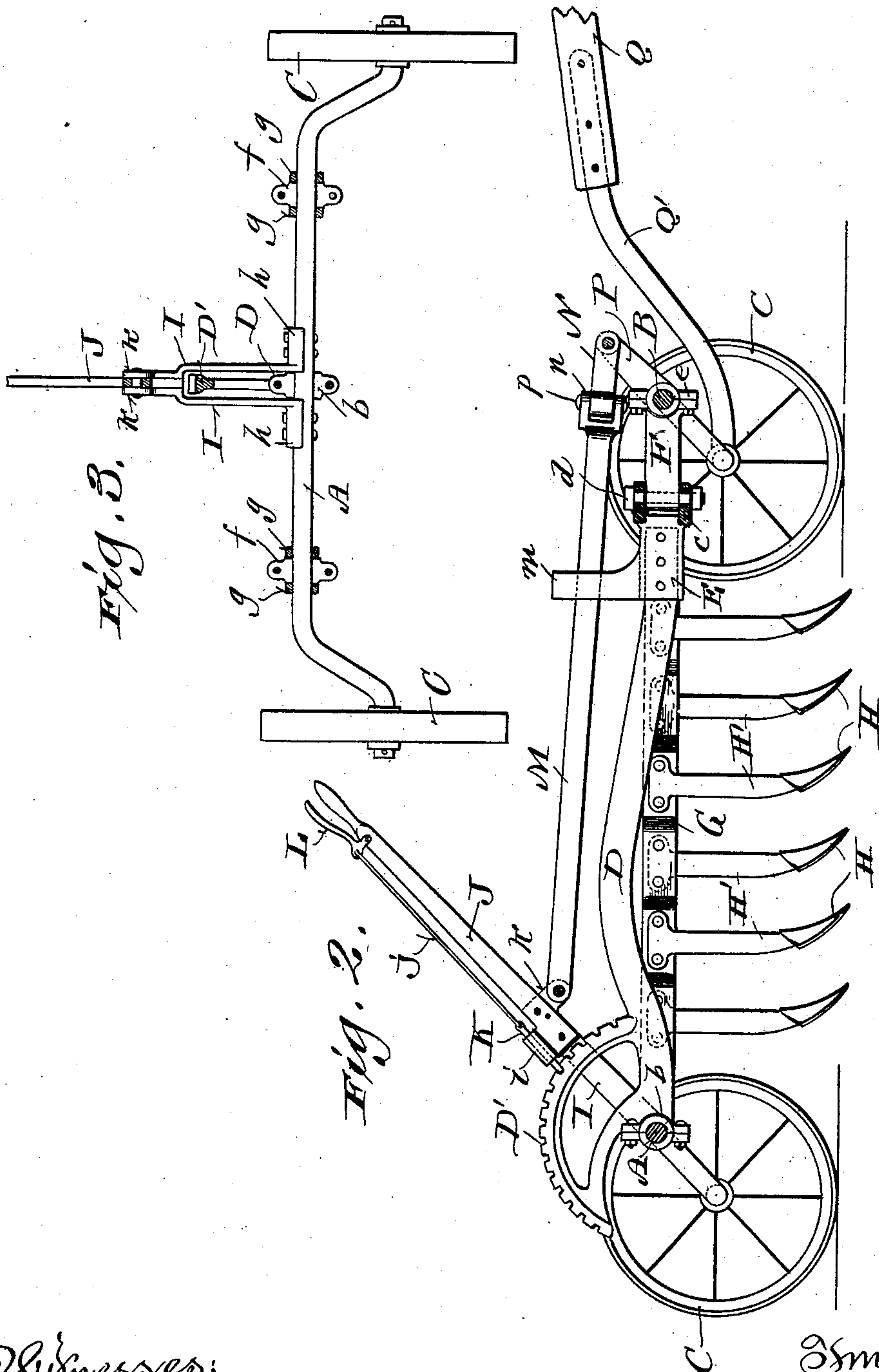
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(No Model.)

**2 Sheets—Sheet 2.**



Witnesses:  
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 Attorney



# UNITED STATES PATENT OFFICE.

JOHN FISCHER, OF OCONOMOWOC, WISCONSIN.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 685,125, dated October 22, 1901.

Application filed August 10, 1901. Serial No. 71,594. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN FISCHER, a citizen of the United States, and a resident of Oconomowoc, in the county of Waukesha and State of Wisconsin, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide simple economical four-wheel gang-cultivators, each organized to be readily turned and to have all the shovels thereof readily adjustable at the same time in a vertical direction clear of adjacent surface or to a variable depth below the same, said invention consisting in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed. Figure 1 of the drawings represents a plan view of a four-wheel gang-cultivator in accordance with my invention, partly broken and in horizontal section; Fig. 2, a vertical longitudinal section of the same; and Fig. 3, an elevation of the rear portion of said cultivator, partly in section, looking back.

Referring by letter to the drawings, A indicates the rear and B the front axle for the wheels C of the cultivator, these axles being cranked at their ends. The rear axle is loose in a split bearing *b* at the rear end of a center reach D, having a segmental rack D' integral or otherwise rigid therewith over said axle, and a cross-head E, fast to the forward end of the reach, has a vertical central clevis *c*, connected by a pivot-pin *d* with an arm F, having the other end thereof in the form of a split bearing *e*, in which the front axle is mounted. In pin-and-clevis union with the cross-head arms are rearwardly-divergent zigzag bars G, having split bearings *f* on the rear axle between collars *g* of the same, and the shanks H' of a series of shovels H are bolted or otherwise rigidly secured to each bar at intervals of its length to be alternately on different parallel lines.

Fast on the rear axle are lateral branches *h* of standards I, between which a lever J is bolted, and guided in a lug *i* of the lever is a latch K, engageable with rack D', this latch being connected by a link-rod *j* with a handle L, pivoted to the upper outer portion of said

lever. A link-bar M has its rear end in pivotal connection with ears *k* of standards I between the same and is guided between upwardly-projecting branches *m* of cross-head E, its forward end being a clevis *n*, connected by a vertical pin *p* with a shackle N in pivotal union with cranks P, having lateral branches *q* fast on the front axle, this axle being loose in the eye branches Q' of the draft-pole Q of the cultivator.

From the foregoing it will be readily understood that the cranked front and rear axles are adjustable by movement of lever J to regulate the depth of all the shovels H in the ground or to lift them clear of the surface, the adjustments being maintained by the engagement of latch K with the rack D' adjacent thereto. It will also be readily understood that the front truck of the cultivator can be swung very short in either direction without cramping, and consequently the whole machine can be readily turned in comparatively little space.

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

1. A wheel-cultivator comprising cranked rear and front axles, a center reach loose at one end on the rear axle and having its other end in pivotal cross-head union with an arm loose on the front axle, rearwardly-diverging zigzag bars in union with the reach cross-head and loose on said rear axle, shovels having shanks rigidly connected to each bar at intervals longitudinally of the same to be alternately on different parallel lines, a lever in rigid connection with the aforesaid rear axle, a lever-latch engageable with a segmental rack portion of said reach, cranks fast on said front axle, a link-bar in pivotal connection with said lever, and a shackle having its ends in pivotal union with the link-bar and cranks, the joint between said link-bar and shackle being such as not to interfere with swing of the front truck of the machine in either direction.

2. A wheel-cultivator comprising cranked rear and front axles, a center reach loose at one end on the rear axle and having its other end in the form of a cross-head provided with upwardly-extending branches, an arm loose on the front axle and in pivotal connection

with the cross-head, rearwardly-diverging zigzag bars in union with the arms of said cross-head and loose on said rear axle, shovels having shanks rigidly connected to each  
5 bar longitudinally of the same to be alternately on different parallel lines, a lever in rigid connection with the aforesaid rear axle, a lever-latch engageable with a segmental rack portion of said reach, cranks fast on  
10 said front axle, a link-bar in pivotal connection with said lever guided between the cross-head branches, and a shackle having its ends in pivotal union with the link-bar and cranks, the joint between said link-bar and shackle  
15 being such as not to interfere with swing of the front truck of the machine in either direction.

3. A wheel-cultivator having cranked rear and front axles, a reach and arm in pivotal union loose on the axles, cranks fast on the  
20 front axle, a lever rigid with the rear axle, a lever-latch engageable with a segmental rack on the reach, and shovel-bars arranged to raise or lower coincident with the adjustment of said axles. 25

In testimony that I claim the foregoing I have hereunto set my hand, at Oconomowoc, in the county of Waukesha and State of Wisconsin, in the presence of two witnesses.

JOHN FISCHER.

Witnesses:

E. F. GRAY,  
OTTO CLITERS.