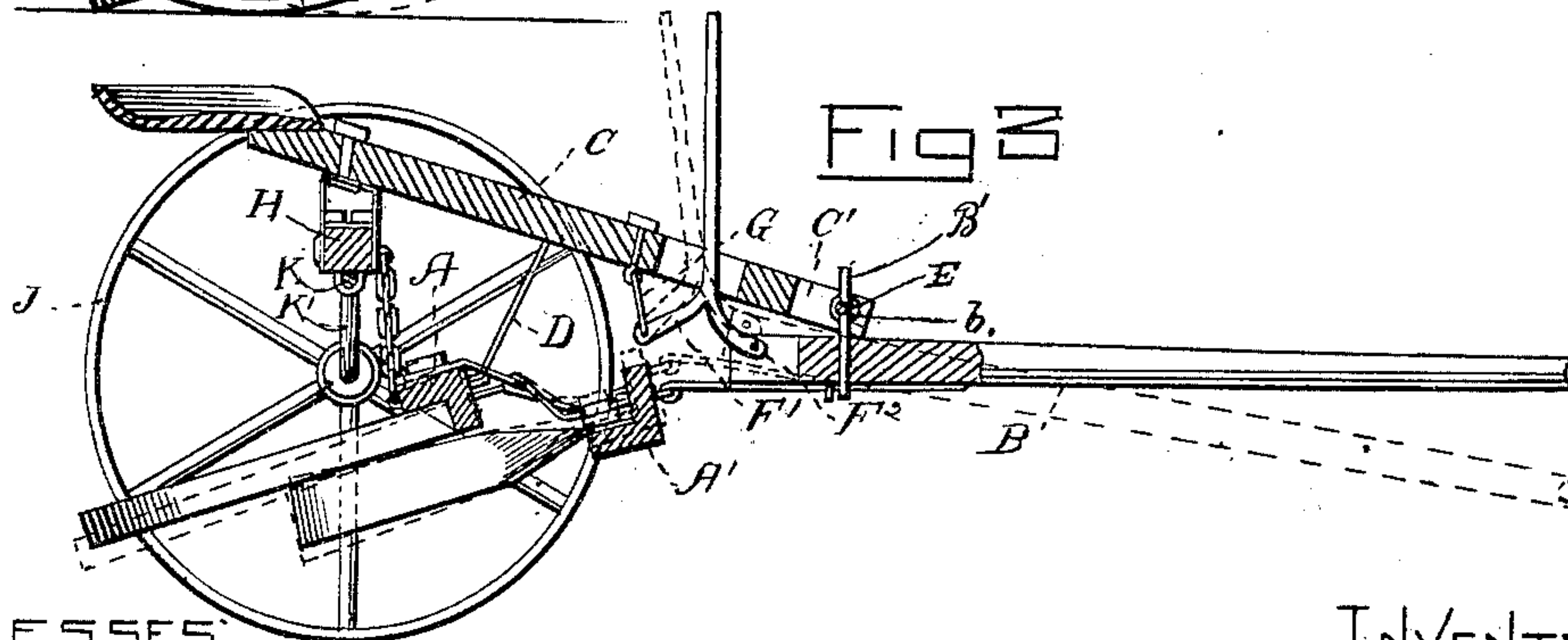
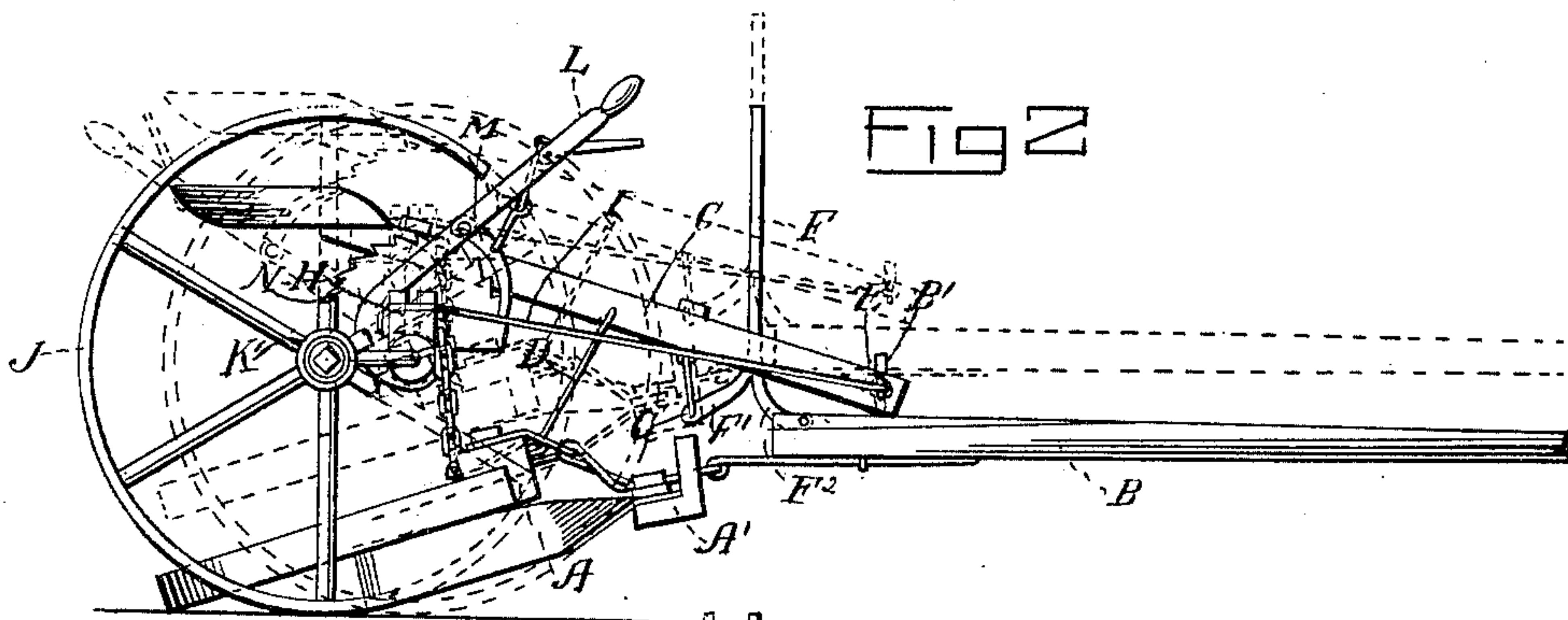
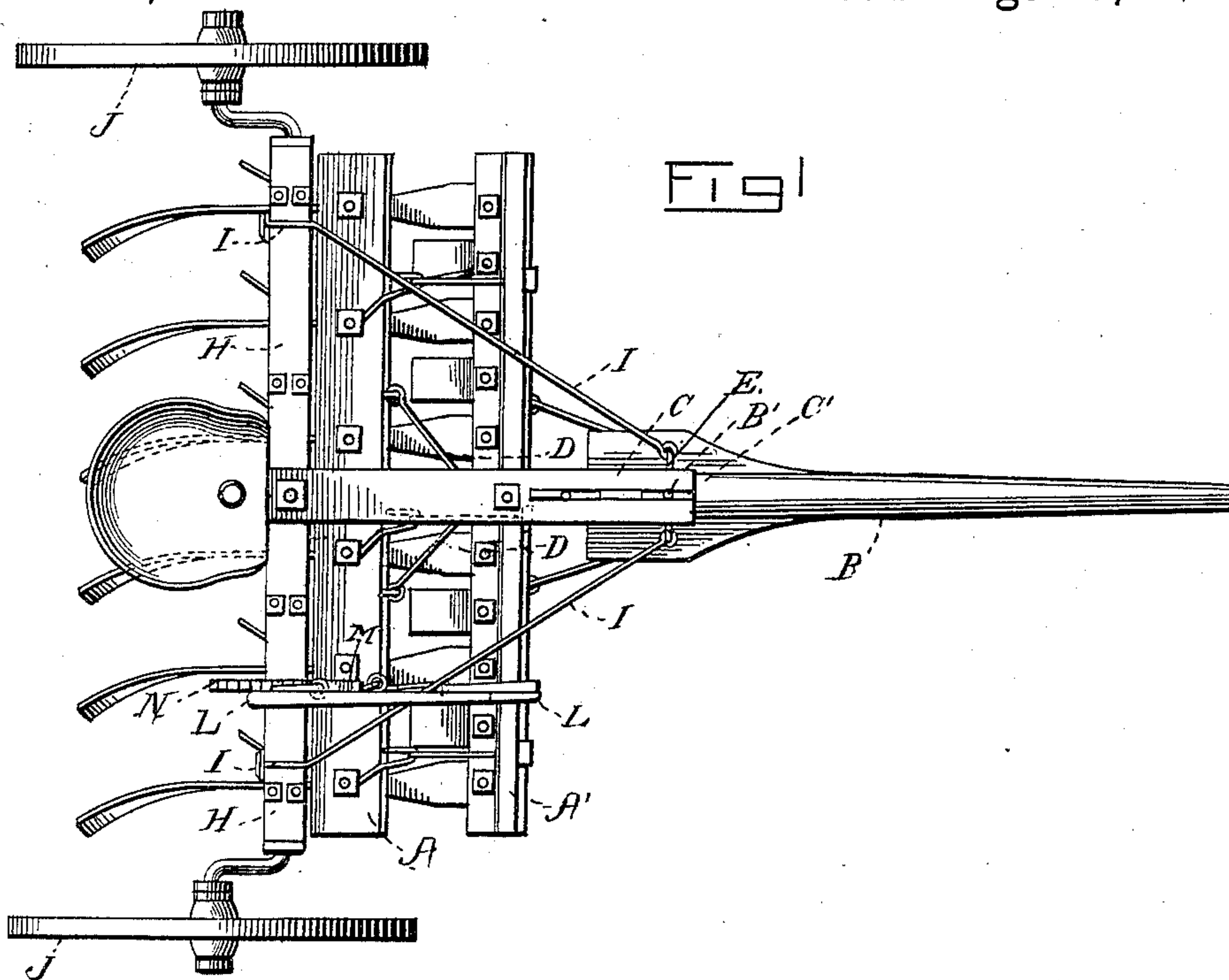


(No Model.)

A. E. MYERS.  
WHEEL HARROW.

No. 324,953.

Patented Aug. 25, 1885.



WITNESSES:

Storris A. Clark,  
P. B. Durpin,

INVENTOR.  
Albert E. Myers  
By R. L. Gacey  
ATTY'S



# UNITED STATES PATENT OFFICE.

ALBERT E. MYERS, OF GARLAND, PENNSYLVANIA.

## WHEEL-HARROW.

SPECIFICATION forming part of Letters Patent No. 324,953, dated August 25, 1885

Application filed December 31, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. MYERS, a citizen of the United States, residing at Garland, in the county of Warren and State of Pennsylvania, have invented certain new and useful Improvements in Wheel-Harrows; and I 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.

This invention relates to harrows, and has for its object to provide a simple and convenient carriage for that class of harrows and clod-crushers represented by the harrow best known to the trade as the "Acme Harrow."

The invention consists in certain novel constructions, hereinafter more fully described and claimed.

In the drawings, Figure 1 is a plan view, Fig. 2 a side elevation, and Fig. 3 a vertical longitudinal section on line *xx*, Fig. 1, of a machine embodying my improvements.

The toothed frames *A A'* are properly connected together and to the tongue *B*. The seat-bar *C* is supported at its forward end on the tongue or pole *B*, and midway its ends on the toothed frame *A*, by means of rods *D D*, or in other proper manner. The bar *C*, it will be noticed particularly in Fig. 3, is pivoted to the tongue, and the latter is extended in rear of such pivot.

I form the pivot by a vertical pin, *B'*, projected upward into or through a slot, *C'*, in bar *C*, and provided with a transverse opening, *b*, through which a rod or pin, *E*, is projected, said pin *E* being also carried through the bar *C*.

A lever, *F*, has its upper end projected in convenient reach of the driver, and its lower end is formed with crank-arms *F' F''*, one of which is suspended by link *G* from the seat-bar *C* and the other is carried to and pivotally connected with the tongue. By means of this lever the relative angle of the tongue and seat-bar may be varied in order to set the tooth-frames, by reason of their connection with the tongue, at a greater or lesser incline, as may be desirable.

The rear end of the seat-bar is supported on and connected with the axle-beam *H*, and brace-rods *I I* have one end connected with the beam *H* near its outer ends, and are carried thence forward and connected at their forward ends with the seat-bar near the front of the latter, giving strength and firmness to the machine.

The wheels *J* are supported on crank-arms *K'*, pivoted to and having their centers of motion on the axle-beam *H*. By adjusting these wheels into the position shown in full lines, Figs. 1 and 2, the tooth-frames are lowered to the ground and the weight of the rider is exerted thereon.

It will also be seen that when the wheels are adjusted to the position shown in dotted lines, Fig. 2, and full lines, Fig. 3, the tooth-frames will be elevated and the weight of the rider will be thrown onto the carriage. By adjusting the wheels to any position intermediate those shown the frames may be set at various angles and the weight of the rider distributed in different proportions between the carriage and the toothed frames.

In order to conveniently adjust the wheels, I prefer to connect them by a shaft, *K*, journaled to the beam *H*. To this shaft I secure a lever, *L*, provided with a pawl or detent, *M*, fitted to engage a rack, *N*, supported on the axle-beam *H*. By this lever, pawl, &c., the wheels may be quickly and conveniently adjusted, and the rack and pawl thus provides for readily securing.

In carrying out my invention it is my purpose to manufacture the axle-beam provided with the crank-wheel supports and with means for adjusting the wheels to and holding them at various angles, the same forming a sulky attachment which is adapted to receive and support harrows of the class before named in substantially the manner described.

Such sulky attachments may be sold separately to the trade and readily applied to a harrow in the manner shown and before described.

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

1. The combination of the tongue or draft-frame, the axle-beam, the wheel-supporting



cranks, the bar supported at one end on the axle-beam and having its other end pivotally connected with the draft-frame, and the tooth-frames, also connected with the draft-frame, and  
5 adjusting-connections between the axle-beam and the wheel-supporting cranks and between bar C and the tooth-frames, substantially as set forth.

2. The combination, with the tongue or draft-  
10 frame, of the carriage comprising the axle-beam, adjustable wheel-supports, and the seat-bar supported at its rear end on the axle-beam and pivotally connected at its forward end to the tongue, adjusting-connections between the  
15 wheel-support and the axle-beam and between the seat-bar and the tongue, and the tooth-frame supported at its forward end by the tongue and at the rear end by the carriage, substantially as set forth.

20 3. The combination of the tongue, the toothed frames, the seat-bar, a link, G, depending from seat-bar, and the lever F, having arm F', pivotally suspended on link G, and arm F<sup>2</sup>,

pivoted to the tongue, substantially as set forth.

4. The combination of the tongue, the seat-  
bar provided with slot C', a pin, B', projected from the tongue into slot C' and provided with an opening, b, and a rod, E, projected trans-  
versely through the seat-bar and opening b of  
30 pin B', substantially as set forth.

5. The combination of the tongue, the toothed frames, the bar C, having a slot, C', a pin, B', projected from the tongue into or through slot C' and provided with an opening, b, a rod, E,  
35 projected through bar C and opening b, the hanger G, depending from the bar C, and the lever F, provided with arm F', pivoted to hanger G, and with arm F<sup>2</sup>, pivoted to the tongue, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT E. MYERS.

Witnesses:

JAMES CABLE,

CHAS. DINSMOOR.