

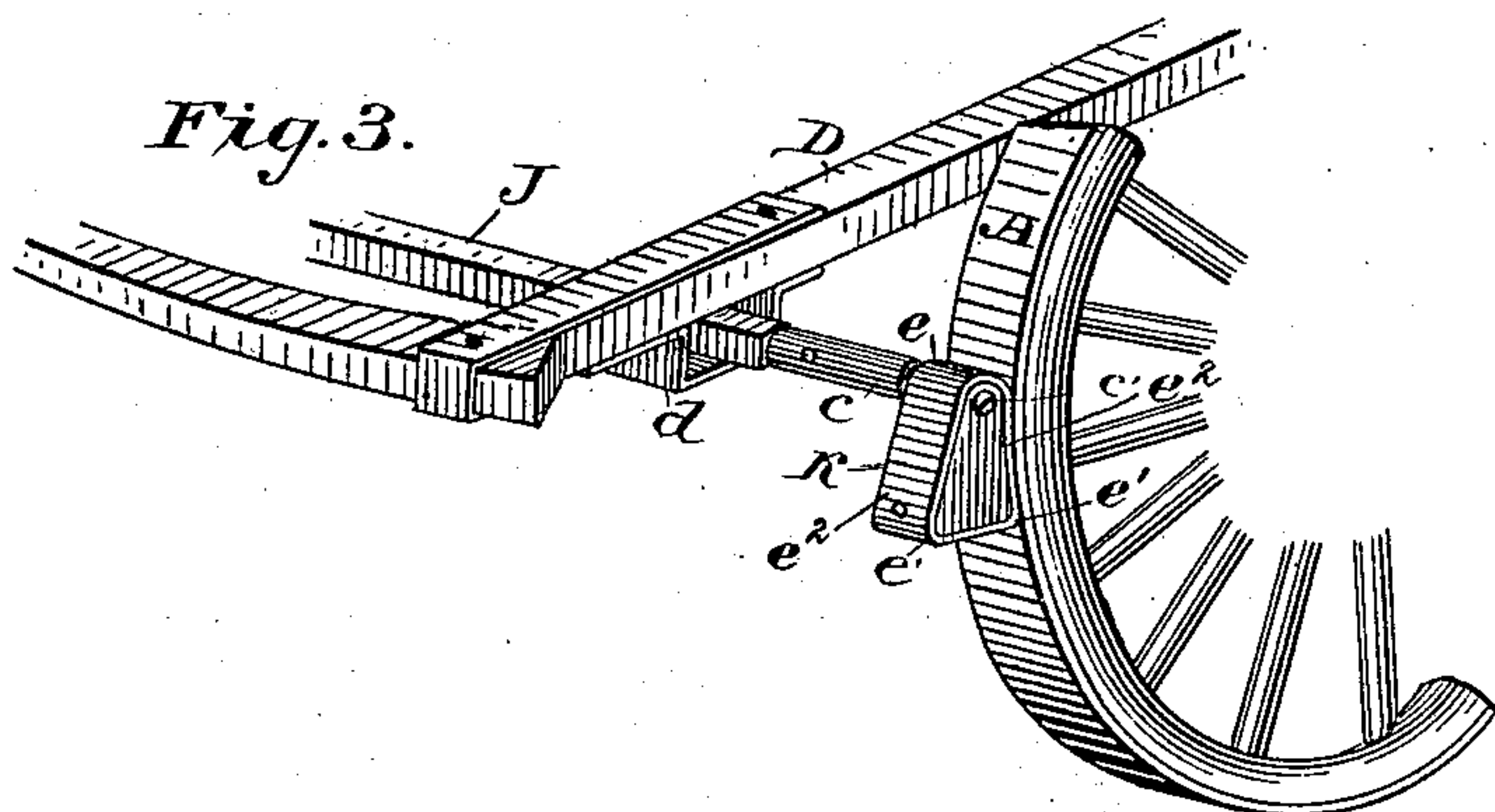
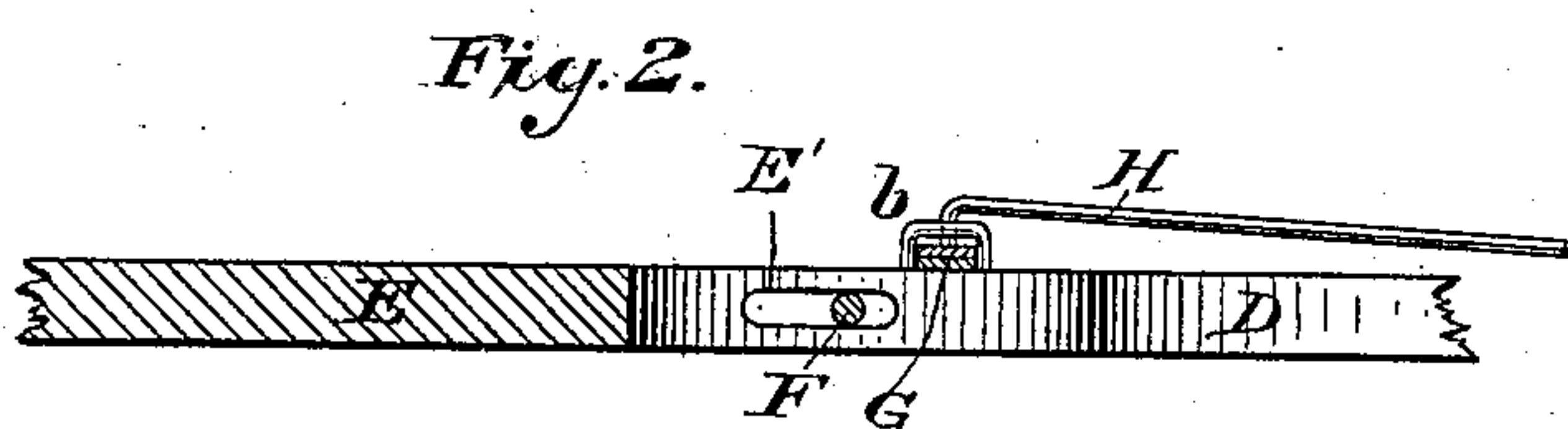
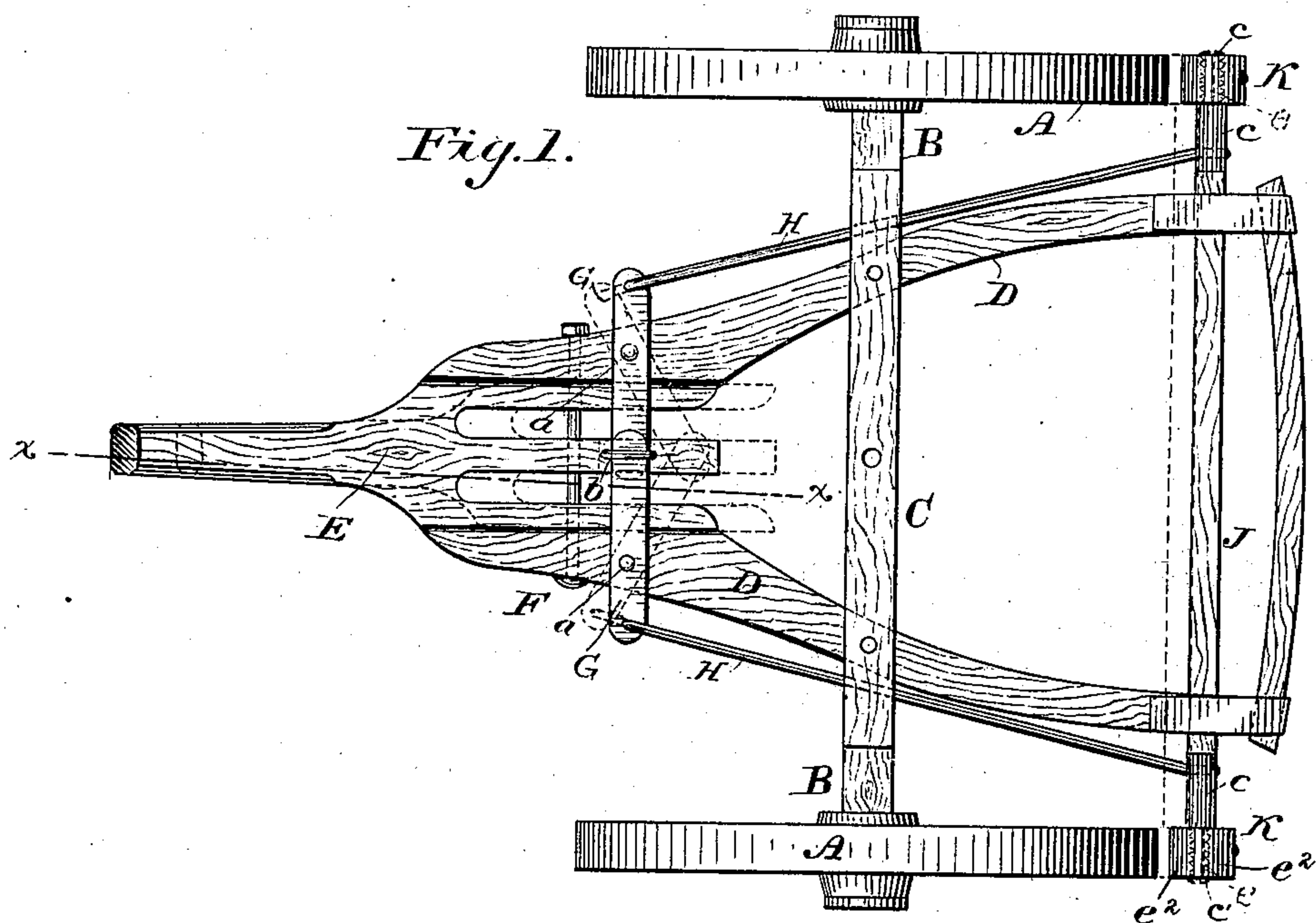
(No Model.)

G. P. CARD.

WAGON BRAKE.

No. 322,788.

Patented July 21, 1885.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE P. CARD, OF OLEAN, NEW YORK, ASSIGNOR OF ONE-FOURTH TO
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WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 322,788, dated July 21, 1885.

Application filed April 30, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. CARD, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Wagon-Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a top view of the front part of my improved wagon running-gear, showing by the aid of full and dotted lines the brakes in two positions. Fig. 2 is a detail in longitudinal section, taken vertically through Fig. 1 in the plane indicated by dotted lines *x x*. Fig. 3 is a perspective detail of one of the brake-shoes and a portion of one of the wheels.

My invention relates to automatic wagon-brakes which are so constructed that the weight of the wagon and the load therein when descending a hill will cause the brake-shoes to bear against the peripheries of the wheels and hold back the wagon. My improvement on this class of automatic wagon-brakes consists, mainly, in combining with a draft pole or tongue which is endwise movable in the hounds of compound levers having their fulcrum on the hounds and connected by spring-rods to a longitudinally-movable transverse shaft bearing on its ends pivoted brake-shoes, constructed and adapted for use as will be fully understood from the following description when taken in connection with the annexed drawings.

I have represented in the annexed drawings the front portion of the running-gear of a heavy-draft wagon. A A are the wheels of this part; B, the axle thereof, and C the bolster. Between the bolster the hounds D D are secured in the usual well-known manner.

Between the front parallel edges of the contracted ends of the hounds D D is pivoted the draft tongue or pole E by means of a horizontal transverse bolt, F. This bolt is rigidly secured at its ends to the hounds, but passes through the slots E' in the ends of the pole, so that the said pole will have backward or forward motion to the extent of the said slot, as occasion requires. In rear of this bolt, and in close proximity thereto, are two levers, G G, which have their fulcrum at *a a* on the hounds. The ends of the longest arms of these levers

are crossed, and play freely beneath a strong staple, *b*, fixed to the inner tang of the draft-pole E, in rear of the fulcrum or pivot-bolt F. The shortest arms of said levers have pivotally attached to them the front ends of two spring-connecting rods, H H, which extend rearward over the axle B, and are connected by the female re-enforced ends *c c* of a horizontal transverse brake-bar, J. This shaft is preferably square in cross-section, and it passes through stirrup-loops *d d*, rigidly fixed to the lower sides of the hounds, posterior to the axle B. These stirrups *d d* are oblong longitudinally for the purpose of allowing the brake-bar J to be moved bodily forward and backward.

On the extremities of the brake-bar ferrules *c c* journals *c'* are formed, on which are eccentrically pivoted the brake-shoes K K, whereby they are free to oscillate, and will on this account act most effectively, but swing clear when not thrust against the wheel. These shoes are constructed with rounded ends *e e* and flaring curved edges *e' e'*, which are preferably shod with metal strips *e*, as shown in the drawings. It will be observed that these shoes are generally triangular in shape, and are hung on the brake-bar by their upper ends, so as to secure the greatest efficiency in operating. The journals *c'* are removable and adjustable—that is to say, I desire to make them screw-threaded with slotted or nut heads on their outer ends, by which means the shoes can be removed and replaced at pleasure.

It will be seen that the brake-shoes K K are so constructed and applied on the outer ends of the brake-bar that they are free to vibrate forward and backward, so that when the wagon is backing these shoes will roll freely up out of the way of the wheels, leaving them free to turn.

It will also be observed from the foregoing that when the draft-tongue is in the position indicated in full lines, Fig. 1, the brake-shoes are free from the wheels A A, and that when the draft-tongue is in the position indicated in dotted lines, the same figures, the brake-shoes will closely hug the wheels, and by their friction against the peripheries thereof retard the speed of the wagon.

I am aware that it is not new to control the

brake by means of the pole or tongue of the vehicle; also, that pivoted brake-shoes are not new.

Having described my invention, I claim—

5 In a wagon-brake, the axle B, bolster C, hounds D D, provided with the stirrups *d d*, and having the transverse bolt F rigidly secured thereto, in combination with the pole E, having the slot E' and staple *b*, the brake-le-
10 vers G G, pivoted to the hounds D D, with

their inner ends passing through the staple *b* and pivoted at their outer ends to the spring-rods H H, the rods H H, brake-bar J, and brake-shoes K K, pivoted thereto, as set forth.

In testimony whereof I affix my signature in 15 presence of two witnesses.

GEORGE P. CARD.

Witnesses:

CHARLES OERTERHOUDT,
HENRY C. MOYEN.