

R. ROBERTS.  
Wagon-Brakes.

No. 135,491.

Patented Feb. 4, 1873.

Fig. 1.

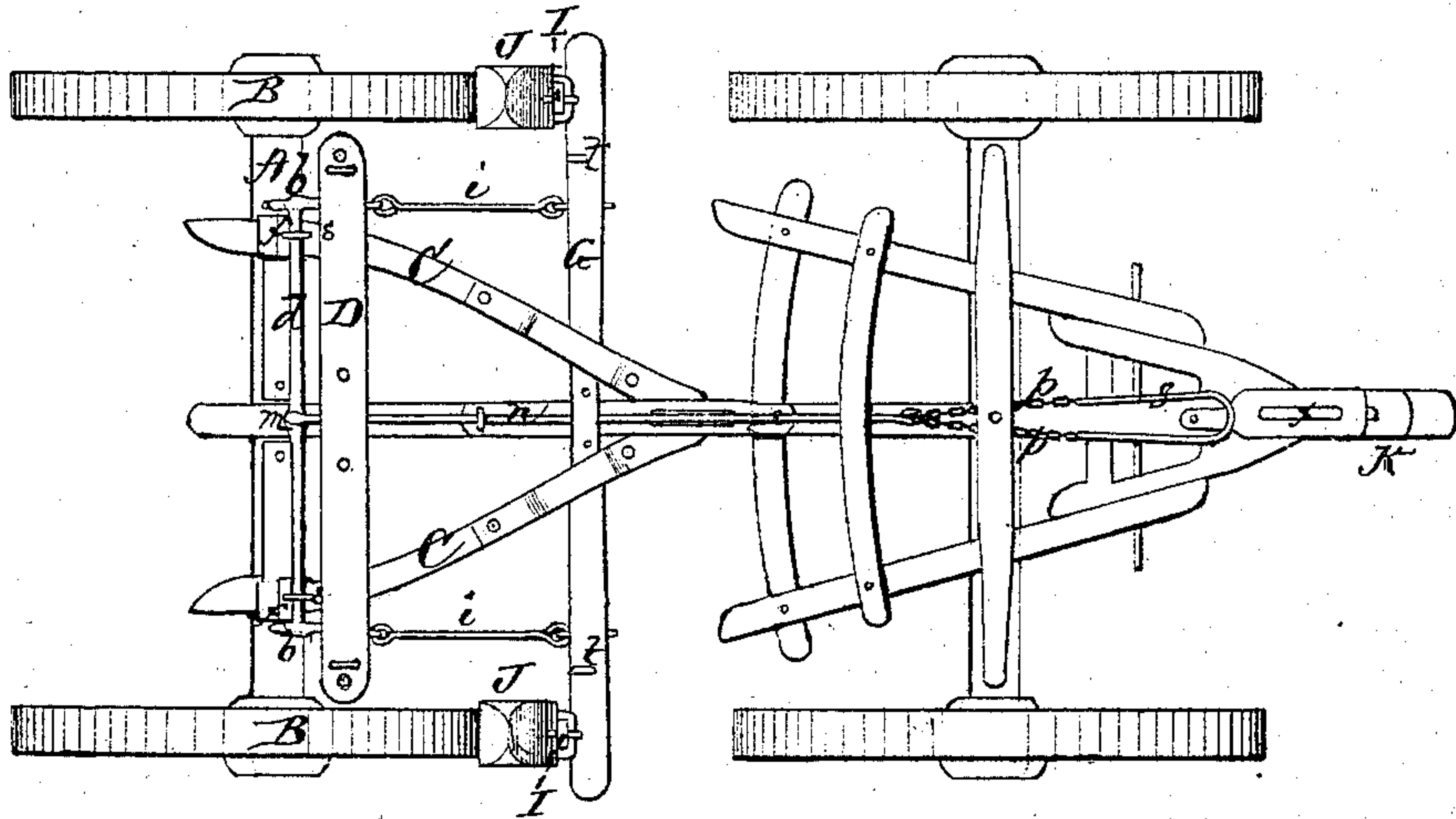


Fig. 2.

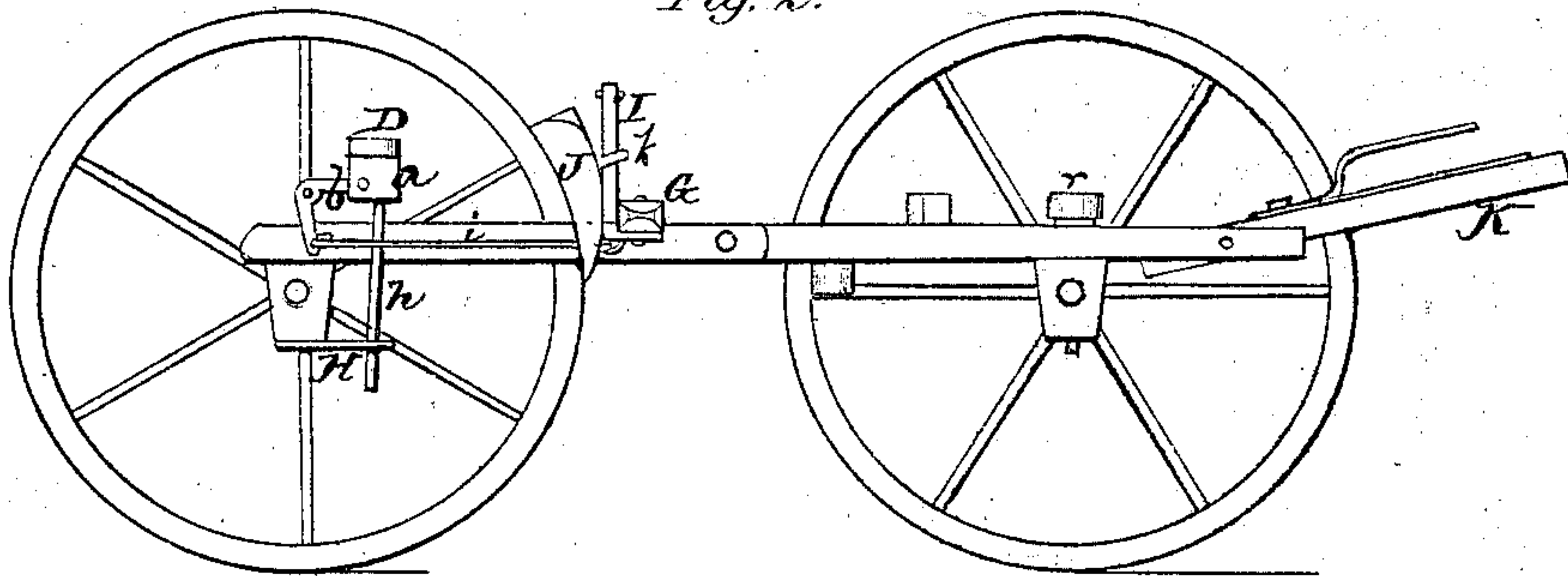
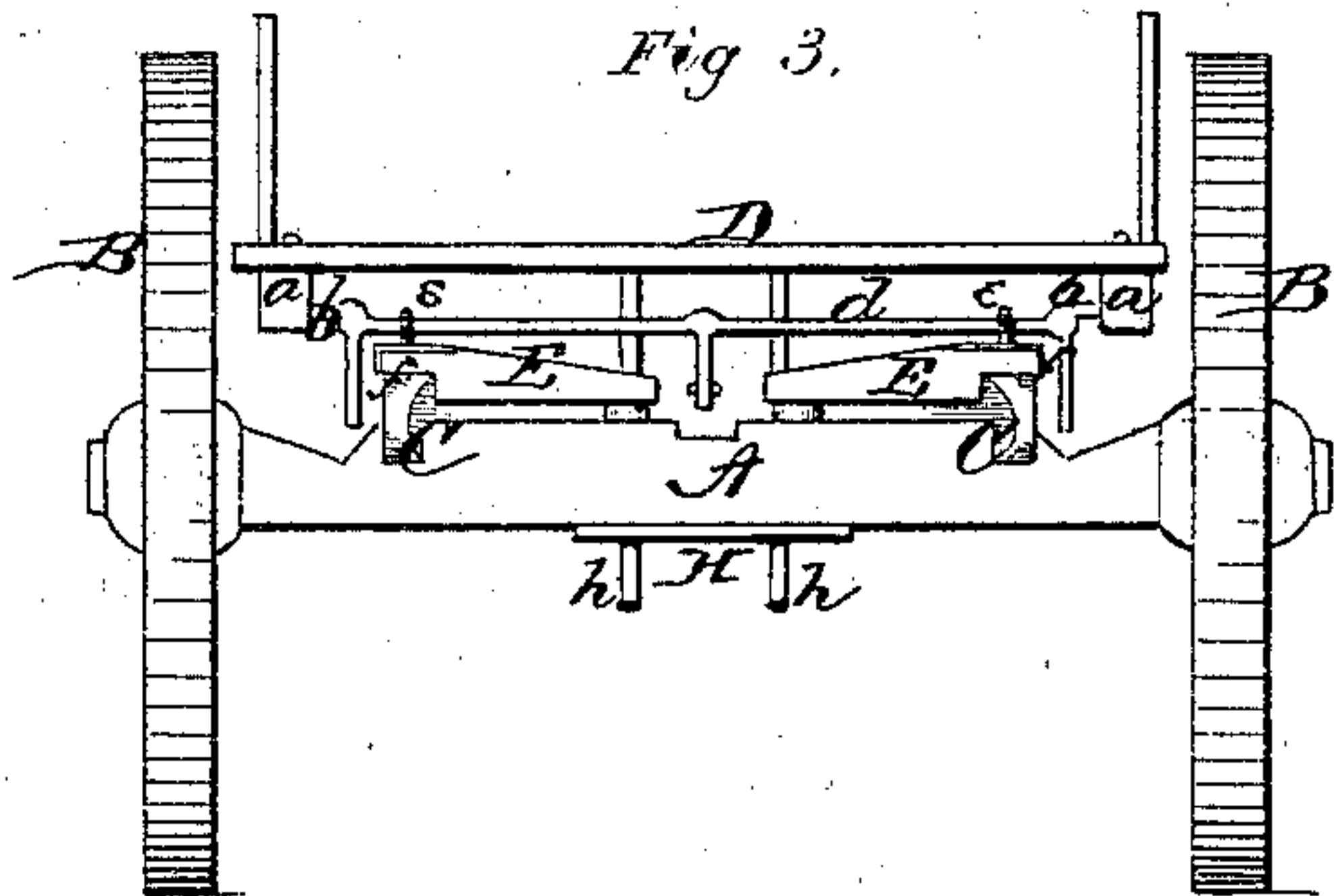


Fig. 3.



Witnesses.

*C. H. Poole*  
*Harry Coleman.*

Inventor,

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*By J. M. C. Perkins.*  
*Atty.*



# UNITED STATES PATENT OFFICE.

ROBERT ROBERTS, OF DUBUQUE, IOWA.

## IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 135,491, dated February 4, 1873.

*To all whom it may concern:*

Be it known that I, ROBERT ROBERTS, of Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Wagon-Brakes; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a wagon-brake, and in the mode of operating the same, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing which forms a part of this specification, and in which—

Figure 1 is a plan view of the running-gear of a wagon with my brake attached. Fig. 2 is a side elevation of the same with a part removed, and Fig. 3 is a rear view.

A represents the hind axle, with wheels B B, hounds C C, and bolster D. My brake is operated by a portion of the load on the hind bolster D, which is made of iron instead of wood, as they are generally made, because it is better adapted for this brake as well as more durable than wood. On the under side of the bolster D, near each end, is bolted or riveted a block, *a*, having a hole through it, into which a crank, *b*, works. The cranks *b b* are welded or keyed on the ends of a shaft or roller, *d*, which works in collars *e e*, fastened by bolts to blocks E fitted to the hounds and axle, as shown in Fig. 3. Over the outer ends of these blocks are metal plates *f*, through which the bolts for the collars *e* pass, and against which the cranks *b* wear. H is a plate of iron bolted on the under side of the axle A, with a hole at each end to allow two iron rods, *h h*, attached to the bolster D to work up and down in, for the purpose of keeping the bolster from tipping backward and forward, and at the same time allow the bolster to work up and down. G represents the brake-bar, which is connected with the cranks *b b* by rods *i i*. At or near each end of the brake-

bar G is a flat iron standard, I, upon which the brake-block J slides up and down by means of one or more collars, *k*, attached to the brake-block, and at the upper end of each standard is a shoulder or other suitable projection to prevent the brake-block from sliding off when backing. To the center of the shaft or roller *d* is welded a crank, *m*, with a hole at the lower end, into which a rod, *n*, is connected. This rod passes forward and connects to the center of a chain, *p*, the ends of which go each side of a roller, *r*, and are hooked to a bent iron piece or rod, *s*. This piece or rod passes under the double-tree, and the pin which fastens the same to the tongue K also passes through or in the bend of said iron piece or rod. There is a slot, *x*, in the tongue K, to allow said pin to slide back and forth with the double-tree. The roller *r* is grooved circumferentially for the chain *p* to roll on when the wagon is turning corners, and it is pivoted between the sand-board and reach by the king-bolt passing down through it.

When the horses draw on the double-tree, the brake-blocks are thrown from the wheels by the connections *s p n* operating through the crank *m* to turn the shaft or roller *d* in its bearings, and this, by the cranks *b b* and rods *i i*, pushes the brake-bar G forward. When the wagon is going down grade the horses slack up on the double-tree, which allows the load on the hind bolster D to turn the shaft or roller *d* to press the brake-blocks against the wheels, thereby retarding or braking the same. When the wagon is backing the blocks J J will slide up on the standards I I, and when the horses pull again the brake-blocks will fall downward again.

On the brake-bar G are two rods, *t t*, to bolt or hook the wagon-box or hay or wood rack to.

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

1. The combination of the bolster D, cranks *b b*, shaft *d*, rods *i i*, and brake-bar G, all constructed and arranged to operate substantially as and for the purposes herein set forth.

2. The perforated plate H attached to the

axle A, in combination with the rods *h h* attached to the bolster D, substantially as and for the purposes herein set forth.

3. In combination with the rocking-shaft *d* connected with the brake-bar G, the crank *m* and connections *n p s* to connect with a sliding double-tree on the slotted tongue K, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of August, 1872.

ROBERT ROBERTS.

Witnesses:

HORACE TUTTLE,  
W. H. MORSE.