D. F. BREED.

Carriage-Brake.

No. 15,217. Patented July 1, 1856.

Fig: 1.

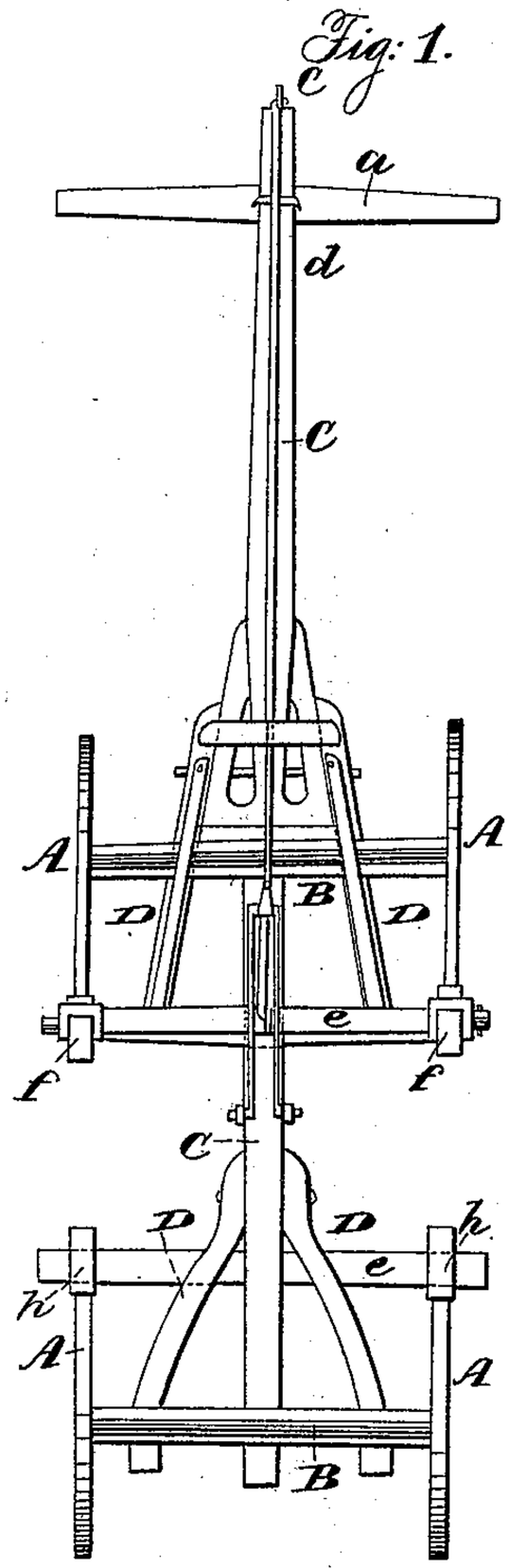


Fig: 2.

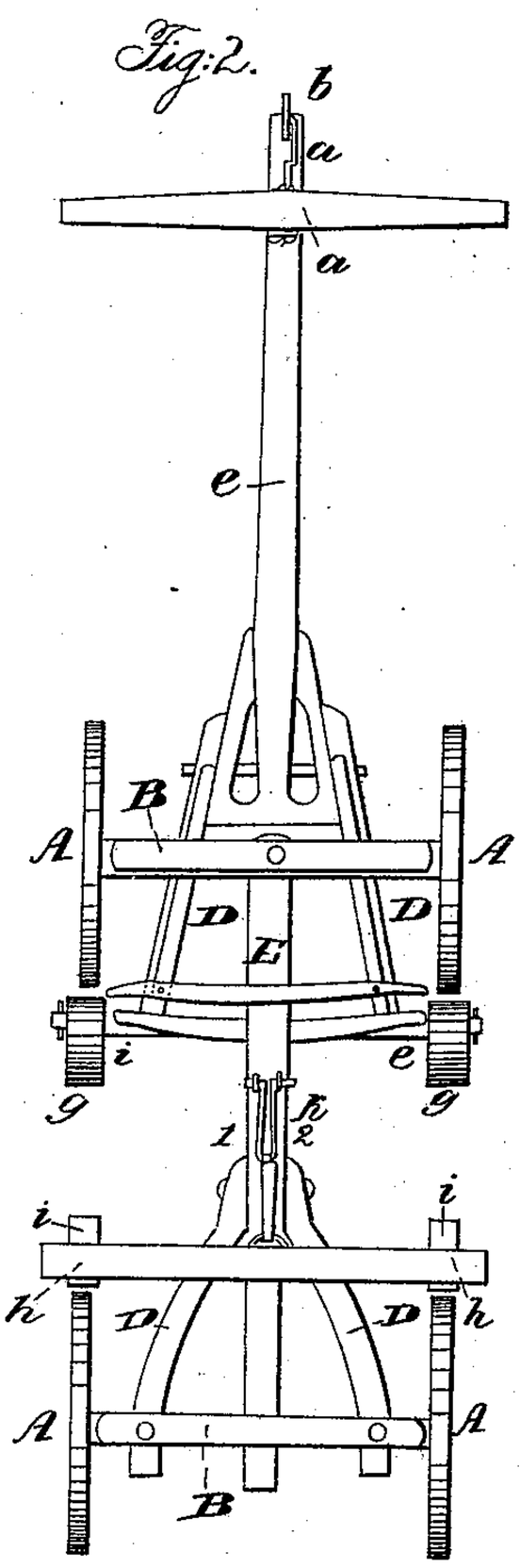


Fig: 4.

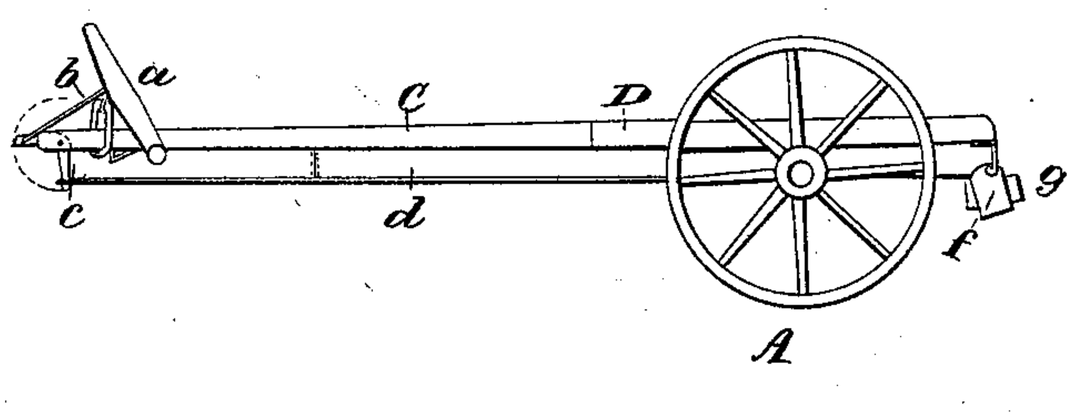
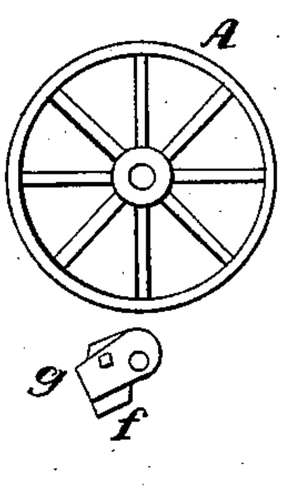


Fig: 3.



Inventor
D. F. Breed

UNITED STATES PATENT OFFICE.

D. FRANKLIN BREED, OF FULTON, NEW YORK.

BRAKE FOR WAGONS.

Specification of Letters Patent No. 15,217, dated July 1, 1856.

To all whom it may concern:

Be it known that I, D. F. BREED, of the town of Fulton, Oswego county, and State of New York, have invented a new and Improved Mode of Brakes for Wagons; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 is a bottom view. Fig. 2 is a top view. Fig. 3 is a detached view through the eccentric block and the front wheel. Fig. 4, is a side view of the rectangular lever, the connecting rod, the eccentric block and pad, with the guide pole, and hounds, and connecting rod of the revolving block, also the yoke.

The nature of my invention consists in the combination of a rectangular lever, at the end of the pole with the revolving eccentric block, and pad, for throwing the brake a distance from the wheel just equal to the distance the neck yoke passes, at the same time having a lever power of any required amount.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the construction of my brake I use any of the known materials used for such purposes.

In Fig. 1: letter A, the wheels; B, the axles; C, the guide pole; D, the hounds; E, the reach; *a*, the yoke; *c*, the rectangular lever at the end of the pole; *d*, the connecting rod; E, the cross piece extending the width of the wheels, and having a round tenon on each end; *f*, the eccentric block; *g*, the rubber let into, and passing through the eccentric blocks.

Fig. 2: *a*, the yoke *b*, the short connecting rod extending from the yoke to the rectangular lever; *e*, the brake, or crosspiece; *f*, the eccentric blocks; *g*, the rubber let into the same.

In Fig. 3: A, the wheel detached; *f*, the eccentric block; *g*, the rubber turned off from the wheel, as in backing.

In Fig. 4: *a*, the yoke; *b*, the short connecting rod; *c*, the rectangular lever; *f*, the eccentric blocks; *g*, the rubber let into the blocks; C, the guide pole; D, the hounds; A, the wheels; *d*, the connecting rod.

In the operation of my invention the horses are attached to the yoke *a*, which is attached to the rectangular lever at the end of the pole, and which stands parallel with said pole, and the lower end is at right angles to the pole to which the connecting rod is attached, and which extends to the brake, which is fastened to the sway bar by two hinges. The revolving eccentric blocks *f* and rubbers *g*, are hung on the round tenons of the brake, or cross bar, and cause the brake by means of its own weight to fall clear of the wheels and to maintain itself in this position.

In descending a hill, as the wagon presses on the team, the yoke *a* is drawn back, which changes the position of lever *c*, bringing its fulcrum in a line with the brake or bearing point of the connecting rod *d* with lever *c*, when the brake is drawn up to the wheels, and also bringing its fulcrum in a line with the neck yoke when the brake swings back from the wheels. By means of this rectangular lever I am enabled to gain a progressive power; when the team first operates it is not in my favor but as the power is continually applied it is increased to an infinity in my behalf, for as the lever *c* changes, I gain power progressively, and am able to move my brake to the same distance I move the neck yoke.

My revolving eccentric blocks are so arranged that they fall entirely clear of the wheels when the brake is not in use, and in backing up by the team, when the wheel touches them they move backward, and out of the way.

It will be seen by the dotted lines Fig. 4, how the rectangular lever *c*, moves, and what is meant by the progressive power of the lever in braking or locking the wheels, and that I gain a power in the application of my brake that cannot be gained by means of the simple lever, for the purpose of locking the wheels.

Having thus fully described the construction, and operation of my invention, I would state that I am aware that a self relieving brake in backing is not new; nor is it new to

so arrange the gearing that a progressively increasing power is applied in the application of the brake to the wheels. I therefore do not claim to be the first to apply such arrangement of parts, as will effect either of those objects; but

What I do claim as new, is—

The combination and arrangement of the revolving blocks *f*, rubbers *g*, connecting rods *b*, and *d*, crank lever *c*, and neck yoke *a*, for the purposes described.

D. FRANKLIN BREED.

Witnesses:
C. L. FISH,
S. CROMBIE.