

F Wilhelm Shultz Wagon Brake

116505

PATENTED JUN 27 1871

fig: 1.

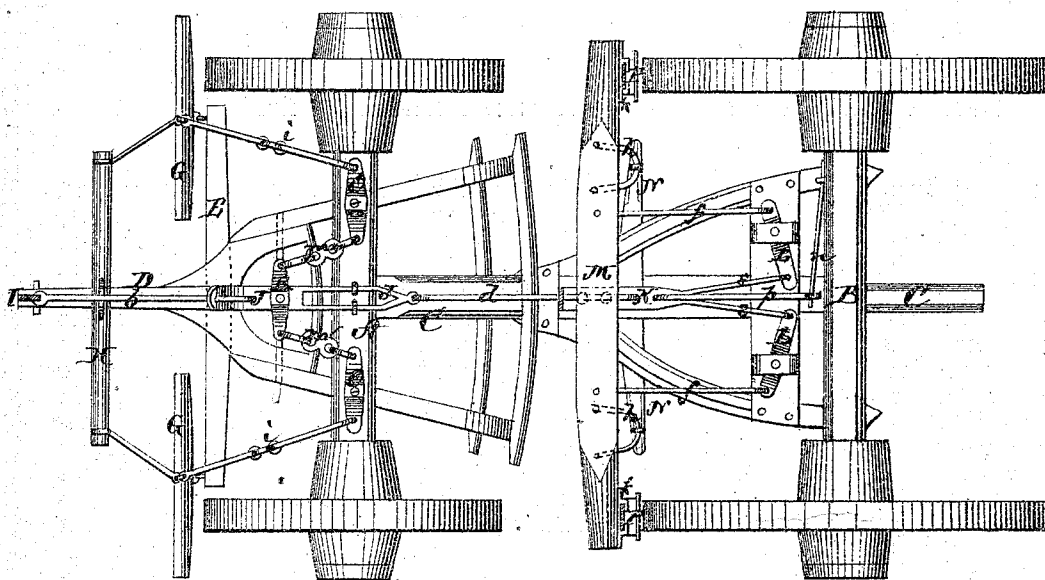


fig: 2.

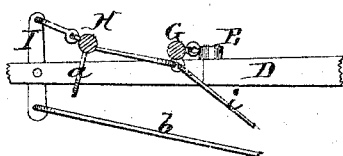


Fig: 3

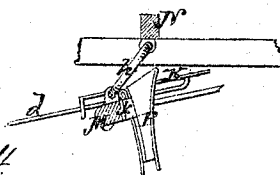
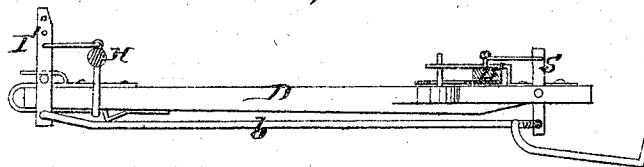


fig. 4.



Witnesses.

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per
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Attys

UNITED STATES PATENT OFFICE.

F. WILHELM SCHULTZ, OF MOUNT PLEASANT, IOWA.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 116,505, dated June 27, 1871.

To all whom it may concern:

Be it known that I, F. WILHELM SCHULTZ, of Mount Pleasant, in the county of Henry and in the State of Iowa, have invented certain new and useful Improvements in Wagon-Brakes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a wagon-brake, 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, in which—

Figure 1 is a bottom view of a wagon-frame, showing my brake, and the various devices connected therewith, attached to the same. Figs. 2 and 3 are views of detached portions, and Fig. 4 shows a modification of the devices connected with the tongue of the wagon.

A represents the front axle, and B the rear axle, connected by the perch-pole C. D is the tongue; E, the double-tree; G G, single-trees; and H, the neck-yoke; all constructed in any of the known and usual ways. The neck-yoke H is attached to the tongue D by means of a loop or staple, *a*, which allows it to slide back and forth on the tongue for a short distance. It is connected, by a hook or link, with a lever, I, pivoted in the front end of the tongue. The lower end of this lever is, by a rod, *b*, connected with the yoke J, which slides in guides on the under side of the front axle A. The rear end of the yoke J is, by a rod, *d*, connected with a bar, K, from which rods *e e* connect with levers L L, pivoted in guides on the under side of a cross-bar connecting the rear hounds. The other ends of the levers L L are, by rods *f f*, connected with the brake-block M, which is hung or suspended under the rear hounds, from the lock-bar N, by the loops or rods *h h*. The connection between the rod *d* and bar K is made adjustable by any suitable means, so that it can be changed to suit any length of wagon. When the horses are held or stopped the neck-yoke H slips back on the tongue, and, through the various devices above described, draws the brake-bar M toward the

rear, so that the shoes will bear against the hind wheels. P represents the brake-block or shoe, the back of which is made at an angle to the face, and is held in its place by the guide *k*, which is made so as to fit in grooves or slots in the block; and when the wagon backs the wheel raises the brake-block up and frees itself; but as soon as started forward it will fall into its place. For releasing the brake from the wheels, chains *i i* are attached to the under sides of the whiffletrees G G, said chains being attached to levers O O, pivoted on the under side of the front axle A, and these levers, by other chains, *m m*, connected with a lever, R, on the yoke J. By this means, as soon as the horses start, the brake-bar is moved away from the wheels. The same object may be accomplished by the device shown in Fig. 4, which device I shall probably adopt for permanent use. In this case the lever I' is not pivoted in the front end of the tongue, but the lower end is forked and placed over the tongue, a pin through the same passing through a slotted iron attached to the tongue, so that, by pulling the neck-yoke back, the lever slides a short distance and then turns. The rod *b'*, attached to the forked ends of the lever I', connects with a lever, S, pivoted in the rear end of the tongue, and the upper end of said lever connected with the double-tree E', which is arranged so that it can slide back and forth a short distance upon the tongue. The rod *b* also connects with the yoke J, and, by this arrangement, when the horses pull forward on the double-tree, the brake is released. In either case I may, as an auxiliary, employ a spring, *n*, attached to the front side of the rear axle B, and connected by a hook, P, with the plate K, which will have a tendency to draw the brake-bar away from the wheels.

This brake is applicable to any and every description of four-wheeled vehicles.

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

1. The combination of the lever I', rod *b*, lever S, and sliding double-tree E', substantially as and for the purposes herein set forth.

2. The combination of the single-trees G G, chains *i i* and *m m*, levers O O and R, and yoke J, all substantially as and for the purposes herein set forth.

3. The combination of the lever I or I', rod *b*, yoke J, rod *d*, bar K, rods *e e*, levers L L, rods *f f*, and brake-bar M, all constructed and arranged substantially as and for the purposes herein set forth.

4. The spring *n* and rod *p*, connected with the bar K, and operating substantially as and for the purposes herein set forth.

5. The brake-block P, constructed as described, and sliding up and down in the guide *k* on the

brake-bar, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of April, 1871.

F. WILHELM SCHULTZ. [L. S.]

Witnesses:

JOSEPH W. THACKER,
WILLIAM S. MCCLARAN.