No. 656,450. Patented Aug. 21, 1900.

G. FISCHER.

BRAKE MECHANISM FOR CARRIAGES.

(Application filed Apr. 4, 1900.)

Fig. 1.

(No Model.)

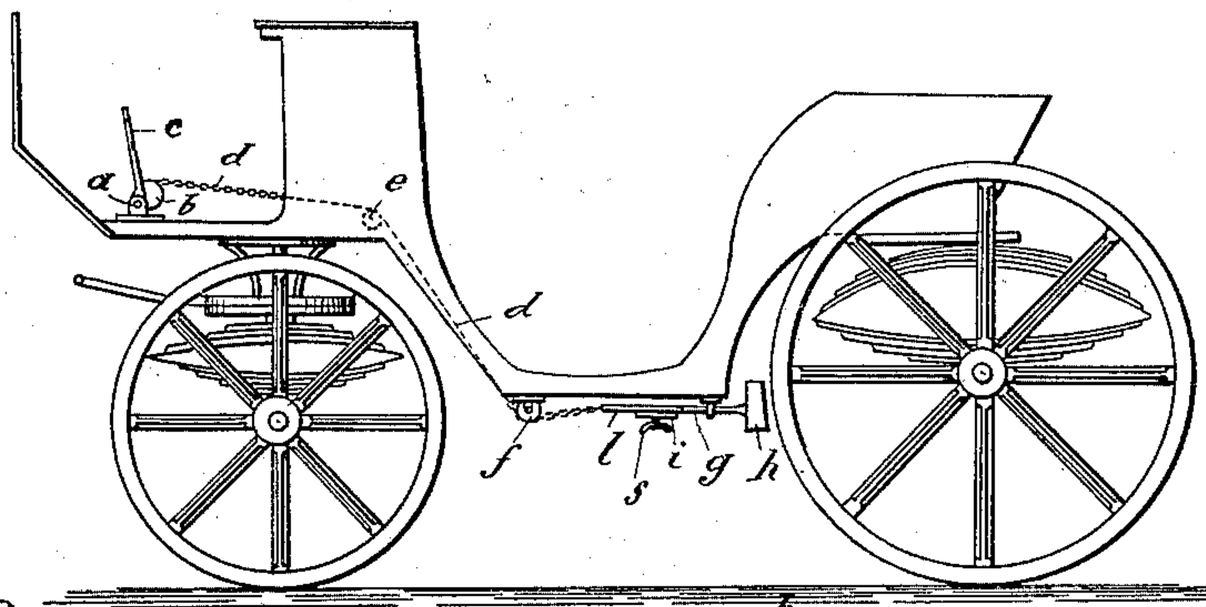


Fig. 2

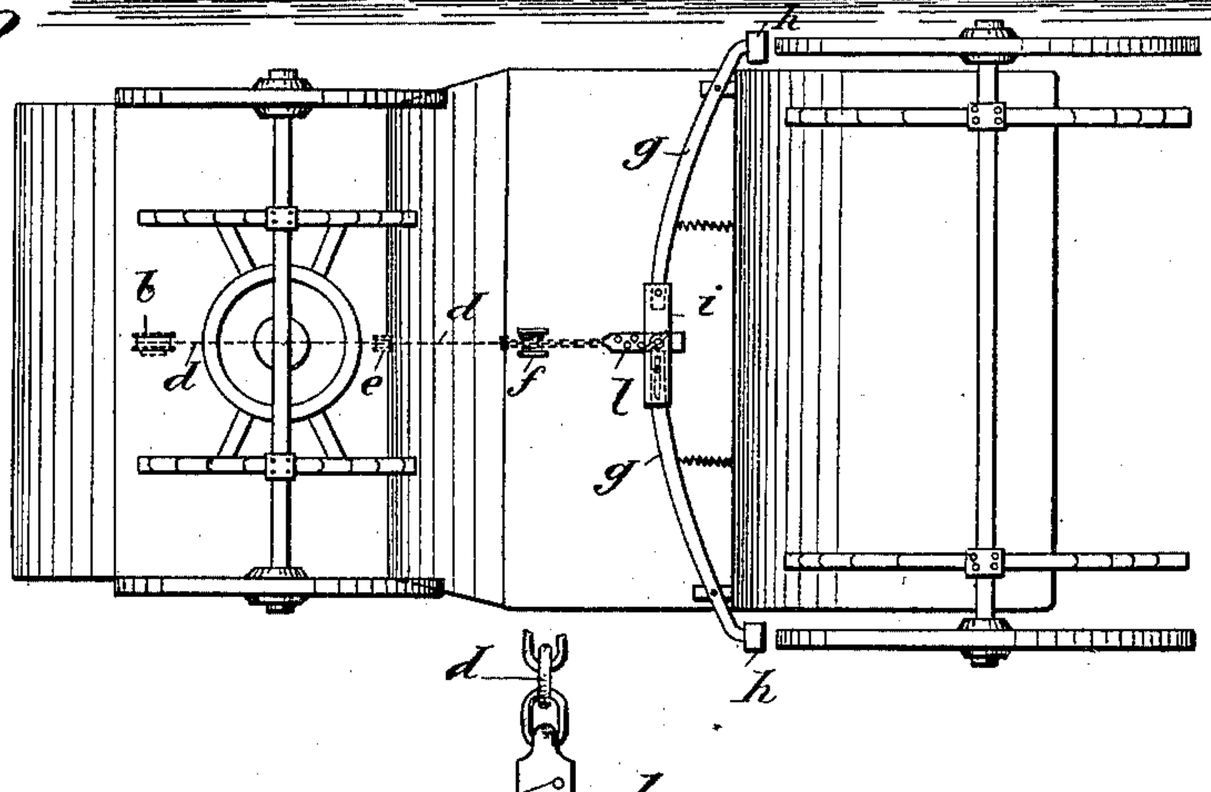


Fig. 5.

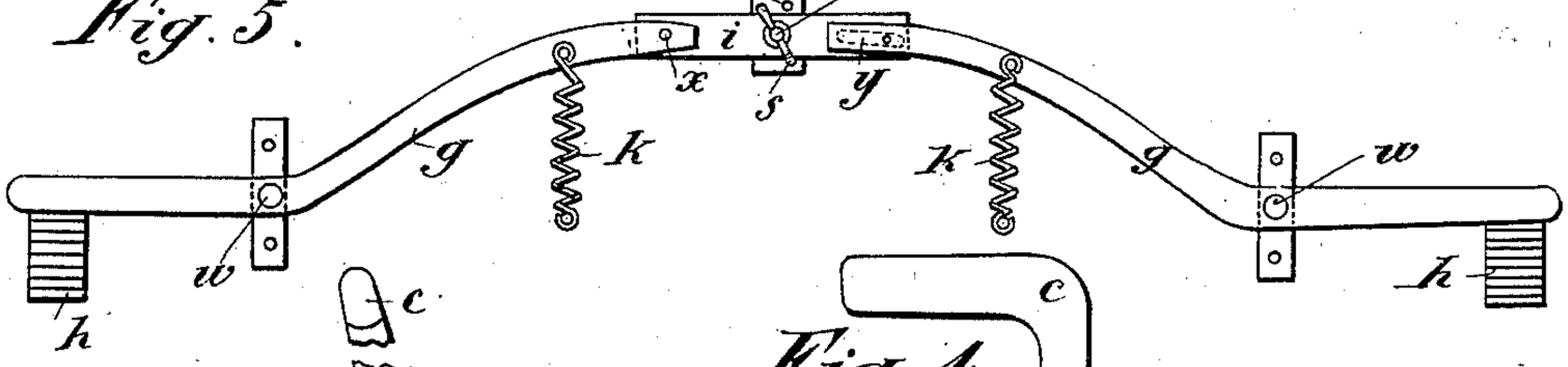


Fig. 3.

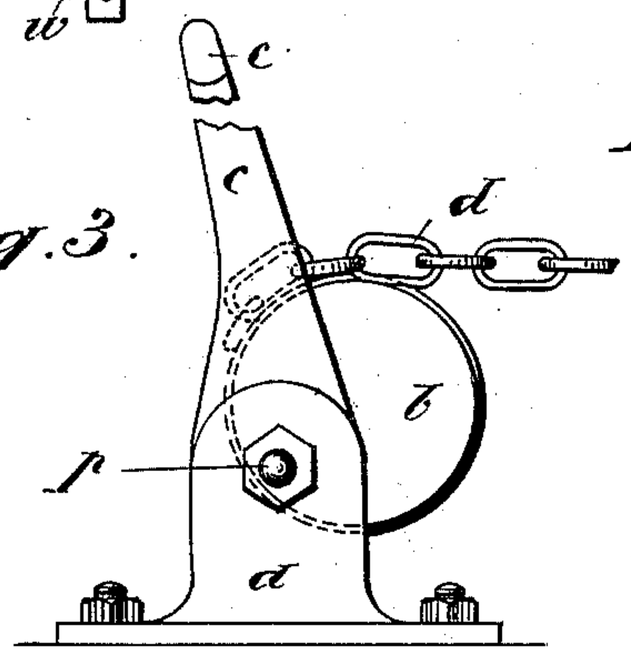
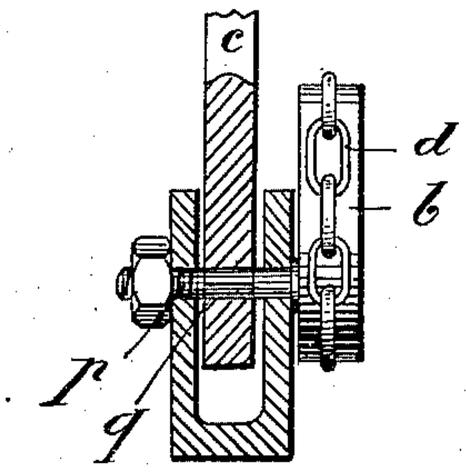


Fig. 4



Witnesses:
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UNITED STATES PATENT OFFICE.

GUSTAV FISCHER, OF SCHÖNEBERG, GERMANY.

BRAKE MECHANISM FOR CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 656,450, dated August 21, 1900.

Application filed April 4, 1900. Serial No. 11,470. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV FISCHER, a subject of the German Emperor, and a resident of Schöneberg, Germany, have invented certain new and useful Improvements in Brake Mechanism for Carriages and other Vehicles, of which the following is a specification.

My present invention relates to brake devices for carriages and other vehicles, the object being to provide an improved device of this kind adapted to be readily operated by a single action or movement executed from the driver's seat; and it consists in the features of construction and novel combination of parts fully described and claimed hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of an ordinary carriage with my improved brake device applied thereto. Fig. 2 is a bottom plan view of said carriage. Fig. 3 is an enlarged side elevation of the operating-lever and connections. Fig. 4 is a front view of same. Fig. 5 is an enlarged detail view of the mechanism detached from the carriage.

On the platform of the carriage is suitably secured a bearing *a*, in which is journaled a revoluble pin *p*, one end of which carries the eccentric chain-wheel *b*. Said pin *p* has a portion which is square in cross-section to receive the correspondingly-apertured lower end of the operating-lever *c*, adapted to be actuated by the foot of the driver. A suitable chain *d* extends around and is secured to the eccentric wheel *b*, said chain passing over guide-pulleys *e* and *f*, suitably arranged on the frame of the carriage. Two brake-levers *g g* are fulcrumed on studs *w w*, secured to the under side of the carriage, the outer ends of said levers *g g* carrying the brake-shoes *h h*, made of leather or other suitable material. One of said levers has at its inner end a circular opening *x'*, while the adjacent end of the other lever is provided with an elongated slot *y*. The inner ends of the levers *g g* are connected by a lever *i* by means of pins engaging said circular opening and said slot, respectively. Two coiled springs *k k*, attached to the carriage-frame and to the levers *g g*, as shown, have a tendency to hold said levers normally in their inoperative position, in which the brake-shoes are not applied on the wheels of the carriage. Said springs serve also to raise the operating-lever *c* when the same has been depressed for applying the brake. The other end of the chain *d* is attached by means of an adjustable plate *l* to the lever *i*, provided with a bolt *r* and a thumb-nut *s*, arranged in such a manner that said plate *l* may be adjusted in accordance with the wear of the shoes *h h*. To this end the plate *e* is provided with holes *t*, one of which is engaged by the bolt *r*.

When it is desired to apply the brake, the driver of the carriage depresses the operating-lever *c* with his foot, whereby a traction is produced on the chain *d*, so that both brake-shoes *h h* are applied on the wheels of the carriage. When the driver releases the lever *c*, the springs *k k* operate to bring the parts back to their normal position.

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

1. In a brake mechanism for carriages and other vehicles, the combination with the frame and wheels of the carriage, of two brake-levers fulcrumed to the under side of the carriage-frame and carrying suitable brake-shoes, a link-bar pivotally connected to the inner ends of the brake-levers, an adjustable plate adjustably secured to said link-bar, a transmission-chain, or equivalent, attached to said adjustable plate and extending under the carriage to the driver's seat, a chain-wheel rotatably mounted near the driver's seat, said chain, or equivalent, extending around and secured to the chain-wheel, a suitable foot-lever adapted to rotate said chain-wheel and arranged within reach of the driver's foot, and means for normally holding the various parts in their inoperative position, substantially as set forth.

2. In the improved brake mechanism as set forth, the combination with the fulcrumed brake-levers *g*, *g*, of a link-bar pivotally connected with the inner ends of said levers, a bolt secured on said lever, a perforated plate the perforations of which are adapted to be engaged by said bolt, a suitable nut screwed

on said bolt to hold the perforated plate in position, a chain, or its equivalent, attached to the perforated plate, means for drawing said chain from the seat of the carriage, and means for normally holding the various parts in their inoperative position, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

GUSTAV FISCHER.

Witnesses:
HENRY HASPER,
WOLDEMAR HAUPT.