(No Model.)

J. F. APPELL.

VEHICLE BRAKE.

No. 506,458. Patented Oct. 10, 1893.

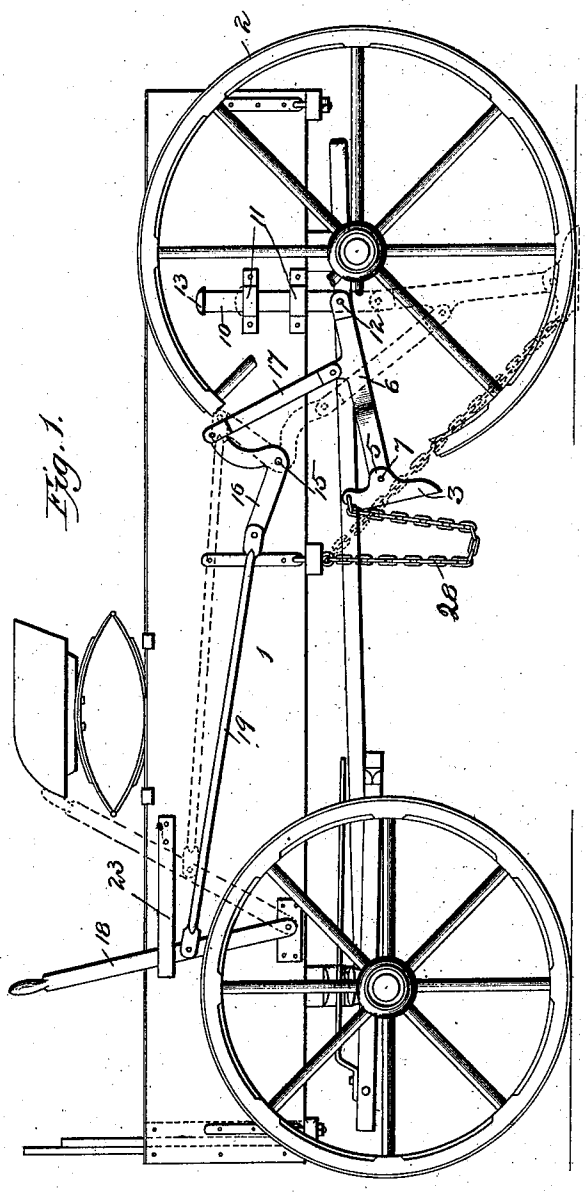

Fig. 1.

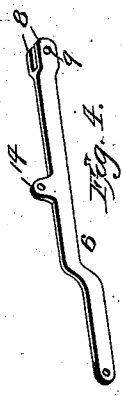

Fig. 4.

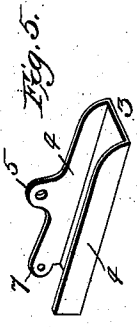

Fig. 5.

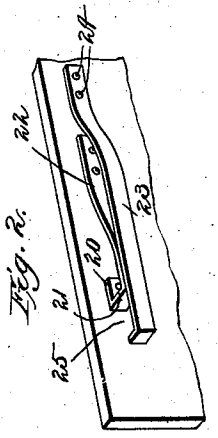

Fig. 2.

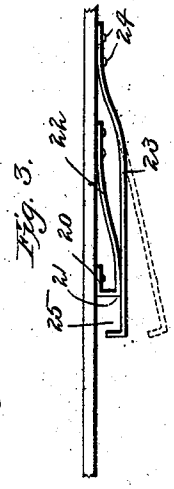

Fig. 3.

Witnesses:
John Enders Jr.
W. J. Lankey.

Inventor.
John F. Appell
by
Higdon & Higdon & Longan
Attys.

UNITED STATES PATENT OFFICE.

JOHN F. APPELL, OF ST. LOUIS, MISSOURI.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 506,458, dated October 10, 1893.

Application filed June 26, 1893. Serial No. 478,820. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. APPELL, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Vehicle-Brakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved vehicle brake, of the class commonly known as a "drag," and it consists in the novel construction, combination and arrangement of parts hereinafter specified and designated in the claims.

The object of my invention is to provide a cheap, simple, and efficient brake of this class, which shall have an improved construction not so liable to breakage during rough usage as heretofore.

In the drawings: Figure 1 is a side elevation of a vehicle with parts broken away, and having my invention applied thereto. Fig. 2 is a detail view in perspective of a portion of the vehicle having my improved lock for the hand-lever applied thereto. Fig. 3 is a plan view of same. Fig. 4 is a detail view in perspective of a swinging lever made use of. Fig. 5 is a detail view in perspective of the drag-shoe.

1 designates the wagon-body and 2 its rear wheels, which may be provided with the ordinary brake-mechanism if desired, in addition to my improved brake. The shoe 3 is preferably constructed of sheet iron or steel with upturned opposite edges 4 and open top and ends. It is provided with an eye 5 which projects upward at a point about midway of the length of one of the upturned edges 4 which is pivotally connected to the lower perforated end of a swinging-lever 6 by means of a bolt or rivet 7 passed through the perforations of this ear and lever. This same upturned edge, at the forward end thereof, is provided with another eye 7 for the attachment of the holding-chain 28. The lever 6 is forked at its upper end so as to form two projecting ears 8 having aligned perforations 9, which are pivotally connected to the lower perforated end of a vertical bar 10 mounted to slide in suitable bearings or brackets 11 upon one side of the wagon-bed or secured to some portion of the running gear closely adjacent the rear axle of the vehicle. A pin or bolt 12 passes through the perforations 9 of the ears 8 and through the perforation in the bar 10, and pivotally connects the said lever to said bar.

The upper portion of the bar 10 above the upper bearing or bracket 11 is provided with a suitable head or projection 13 which comes in contact with said bearing or bracket and limits the downward movement of said bar and said lever.

Projecting from the front edge of the lever 6 at a point some distance from the upper end thereof is an ear 14.

Pivotally connected to or mounted upon the wagon-bed 1 or a portion of the running gear at a point a little in advance of the bar 10, by means of a pin or bolt 15, is a bell-crank lever 16, one end of which is pivotally connected to the ear 13 of the swinging-lever 6 by means of a connecting rod 17. The opposite end of this bell-crank lever is connected to a hand-lever 18, by means of a connecting-rod 19. This hand lever is located adjacent the forward portion of the vehicle, and has its lower end pivoted thereto, so that its free end will project to a position convenient for the driver.

Fixed upon the side of the wagon bed adjacent the hand-lever 18 is a stop 20 therefor, which has a shoulder 21 at its forward end which is engaged by said hand lever to hold the same in a position to elevate the shoe 3 and hold same elevated, while it is provided with an outer surface 22 which inclines rearward and inward.

23 indicates a combined guide and holder for the hand lever, which is in the form of a yielding strip of metal having its rear end fixed to the wagon-bed by means of bolts or screws 24 at a point some distance in the rear of the rear end of the stop 20, so as to project in alignment with said stop and overlap the same.

The forward end of the guide 23 projects forward of the shoulder 21 and has its front end bent inward so as to form a space 25 in which the hand lever is located when the shoe is held elevated.

One end of the chain 8 is fixed to some portion of the wagon or vehicle.

The operation is as follows: The parts being in the position as shown in Fig. 1, the

driver takes hold of the hand-lever 18 and moves its upper end a little outward so as to throw said lever into contact with the adjacent portion of the combined guide and holder 23, which will have the effect of swinging said guide outward, as shown by dotted lines in Fig. 3, and then the driver throws said lever rearward in the space between said guide and the stop 20 thereby moving the bell-crank lever 16, and permitting the shoe 3 and the lever 6 to gravitate downward, which they do, and said shoe is guided into position directly beneath the wheel 2, the bar 10 gravitating downward in its bearings 11 to permit such operation. The chain 28 holds the shoe firmly in this position, and the shoe is thus interposed between the said wheel and the ground, and forms a drag or a drag-brake of a resistence proportioned to the load upon the wheel. The shoe may be returned to normal position, by moving the hand lever 18 forward, pressing the guide 23 outward until said lever passes the stop 20, when said guide pushes said lever inward into the space 25, and automatically retains it in such position.

It is obvious that my improved brake may be applied to vehicles of different kinds.

What I claim is—

1. The improved vehicle brake, constructed with a shoe 3 having an eye 5 at a point about midway of its length, another eye 7 at its forward end, in combination with a lever 6 to the lower portion of which said eye 5 is pivotally connected, said lever having an eye 14 intermediate of its ends, a vertical bar 10 mounted to slide in bearings upon a portion of the vehicle adjacent the rear axle thereof and to the lower end of which the upper end of said lever is pivotally connected, and means for moving said lever to throw said shoe beneath the wheel of said vehicle and disengage same therefrom, substantially as herein specified.

2. The improved vehicle brake, constructed with a vertical bar 10 mounted to slide in bearings 11 upon the vehicle adjacent an axle thereof, a lever 6 carrying a drag shoe at its lower end and pivotally connected to the lower portion of said bar, a bell-crank lever 16 pivotally mounted on the vehicle adjacent said bar, a connecting rod or bar 17 which connects said bell crank lever to said lever 6 at a point adjacent its upper end, a hand lever 18, a connecting rod connecting said hand lever to said bell-crank lever to operate said lever to which said shoe is secured, and a lock for holding said hand-lever, substantially as herein specified.

3. The improved vehicle brake, constructed with a pivoted hand-lever, a stop 20 therefor which has a shoulder 21 at its forward end and fixed to the vehicle adjacent said lever, a combined guide and holder 23 in the form of a yielding strip having its rear end fixed in rear of said stop so as to extend in alignment therewith, and a projection on the front end of this guide forming a space for said hand-lever.

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

JOHN F. APPELL.

Witnesses:
EDWARD EVERETT LONGAN,
JNO. C. HIGDON.