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C. J. STUART & G. E. ZIMMER.

AUTOMATIC BRAKE FOR HAND TRUCKS.

APPLICATION FILED MAR. 3, 1904.

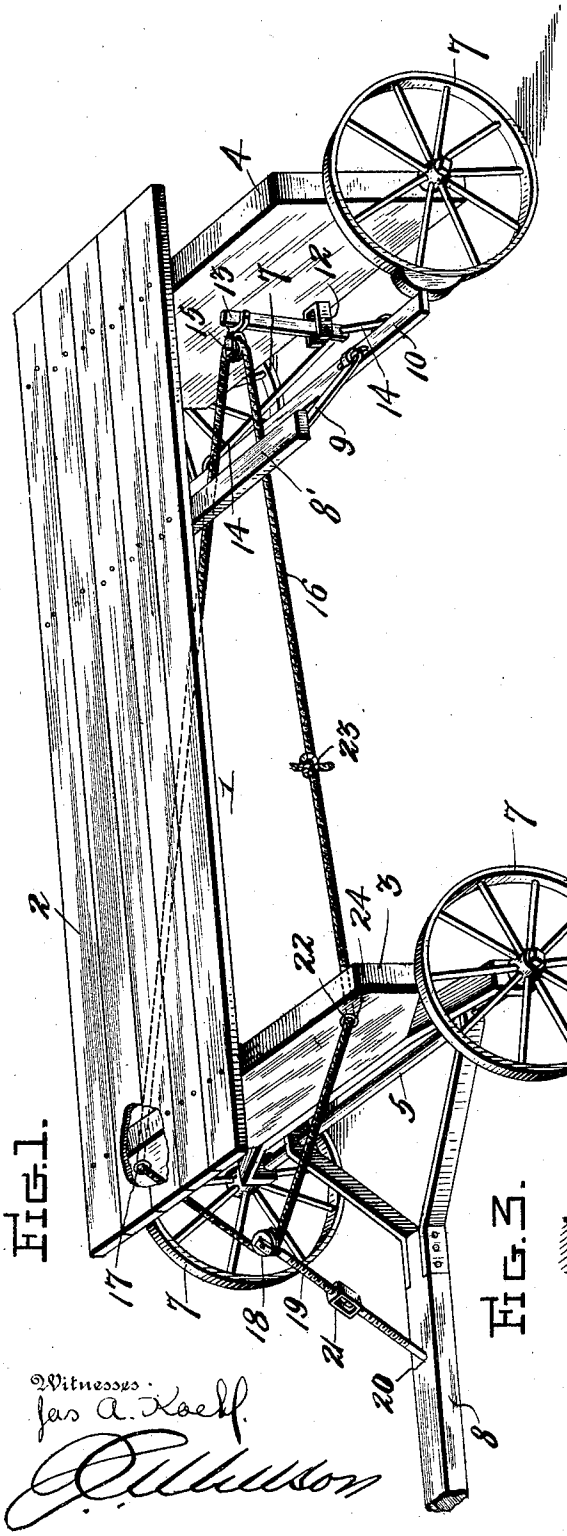


Fig. 1.

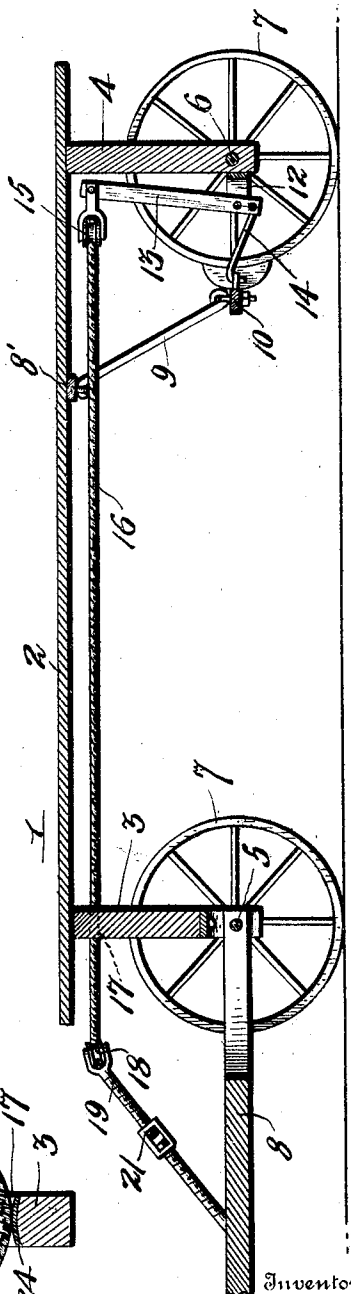


Fig. 2.

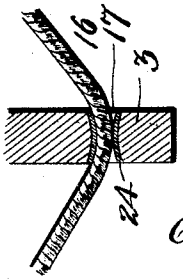


Fig. 3.

Witnesses:
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# UNITED STATES PATENT OFFICE.

CHARLES J. STUART AND GEORGE E. ZIMMER, OF PUYALLUP, WASHINGTON.

## AUTOMATIC BRAKE FOR HAND-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 779,011, dated January 3, 1905.

Application filed March 3, 1904. Serial No. 196,385.

*To all whom it may concern:*

Be it known that we, CHARLES J. STUART and GEORGE E. ZIMMER, citizens of the United States, residing at Puyallup, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Automatic Brakes for Hand-Trucks; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to automatic brakes for hand-trucks.

The object of the invention is to provide means whereby the brakes on vehicles, such as baggage and freight trucks, may be automatically applied when the same are not in use.

A further object is to provide a simple, efficient, and reliable construction and arrangement of parts whereby a brake may be applied to such vehicles as hereinbefore described to prevent the same from rolling or being blown onto car-tracks or into other places of danger.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a hand-truck, showing the application of the invention, parts of the truck being removed to more clearly illustrate the construction of the device. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a fragmentary horizontal sectional view through one end of the front bolster, showing the cable-passage in the same.

Referring more particularly to the drawings, 1 denotes a truck which may be of the well-known or any suitable construction and is here shown as a hand-truck having a flat platform or body 2, supported at its ends by front and rear bolsters 3 and 4, to which are connected the front and rear axles 5 and 6, on which are journaled the supporting-wheels 7. To the front axle is pivotally connected the tongue 8, by which the truck is drawn along. On the under side of the body or platform, near the rear end of the same, is secured a cross-bar 8′, from which is suspended, by means of link-rods 9, the brake-beam 10, on the ends of which are fixed brake-shoes which are adapted to be brought into engagement with the rear wheels. The cross-bar 8′ is arranged at a short distance in advance of the rear wheels, so that when the brake-beam is released from engagement with said wheels it will fall forwardly away from the same, as will be understood.

On the forward side of the rear bolster 4 is secured forwardly-projecting ears or lugs 12, between which are pivoted a vertically-disposed brake-lever 13. The lower short end of the lever is connected by rods 14 to the brake-beam, and to the upper end of the lever is connected a pulley 15. Through the pulley 15 is passed a cable 16, which extends forwardly from said pulley through a hole 17 in the front bolster, then through a pulley 18, which is connected to the upper end of a rod or link 19, the lower end of which is connected to the tongue, as at 20. The rod 19 is preferably in two sections, which are connected by a turnbuckle 21, whereby the length of the rod may be adjusted. After engaging the pulley 18 the cable 16 is passed through a hole 22 in the opposite end of the bolster, and the ends of the cable are then connected together, as at 23, thus forming a continuous cable of such length as to support the tongue 8 in about a horizontal position. The position of the tongue may, however, be regulated by the turnbuckle 21.

The holes 17 and 22 in the front bolster may be provided with wear sleeves or tubes 24, as clearly shown in Fig. 3, to protect the bolster from being worn by the cable 16 in passing through the same.

It will be seen that the tongue being suspended or supported by the cable 16, as herein shown and described, its weight is brought to bear directly on the upper or long end of the lever 13, thereby bringing the brake beam and shoes with considerable force against the wheels and instantly setting them. It will

also be clearly seen and understood that as soon as the tongue is raised to pull or push the truck the weight of the tongue is taken off from the cable 16, which will release the lever 13 and allow the brake-beam to fall forward and instantly release the brake-shoes from the wheels. It will be further observed that as the tongue is turned to the right or left the pulley 18 travels on the forward looped end of the cable 16, so that no matter at what angle the tongue and front axle may be when the tongue is dropped the weight of the same will be applied to automatically set the brake.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A truck having front and rear axles, a lever having its fulcrum connected to the latter, a brake-beam suspended from the platform or body, a connection between the brake-beam and the lever, a tongue, mounted for angular vertical movement, a flexible element connecting the tongue and the lever, to operate the latter when the tongue is lowered, and a guide for said flexible connecting element, substantially as described.

2. A truck having a brake-beam loosely suspended from the same, a brake-lever connected at one end to said brake-beam, a tongue pivotally connected to the forward end of the truck, a pulley adjustably connected to said tongue, and a continuous cable connecting said pulley with a pulley on the opposite end of said brake-lever, whereby upon the dropping of said tongue to an inoperative position said lever will be actuated to set said brake-beam and when said tongue is raised to an operative position said lever will be released to permit the release of said brake-beam, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

CHARLES J. STUART.
GEORGE E. ZIMMER.

Witnesses:
N. TRUEDSON,
ERIC P. TRUEDSON.