

(No Model.)

J. R. H. HINTON.  
STORE SERVICE APPARATUS.

No. 333,302.

Patented Dec. 29, 1885.

Fig. 1.

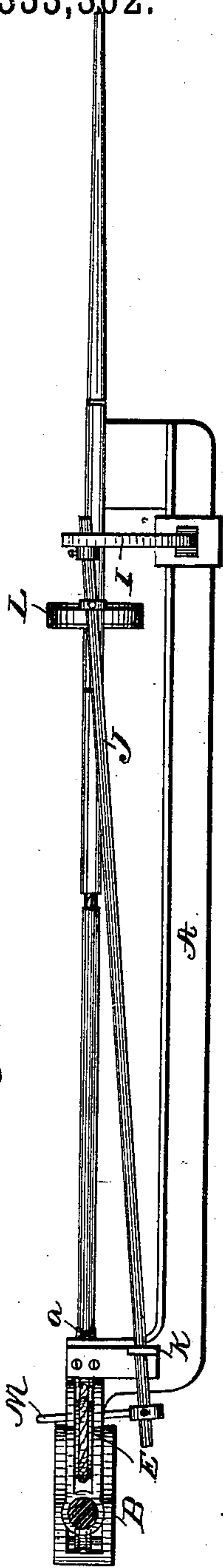
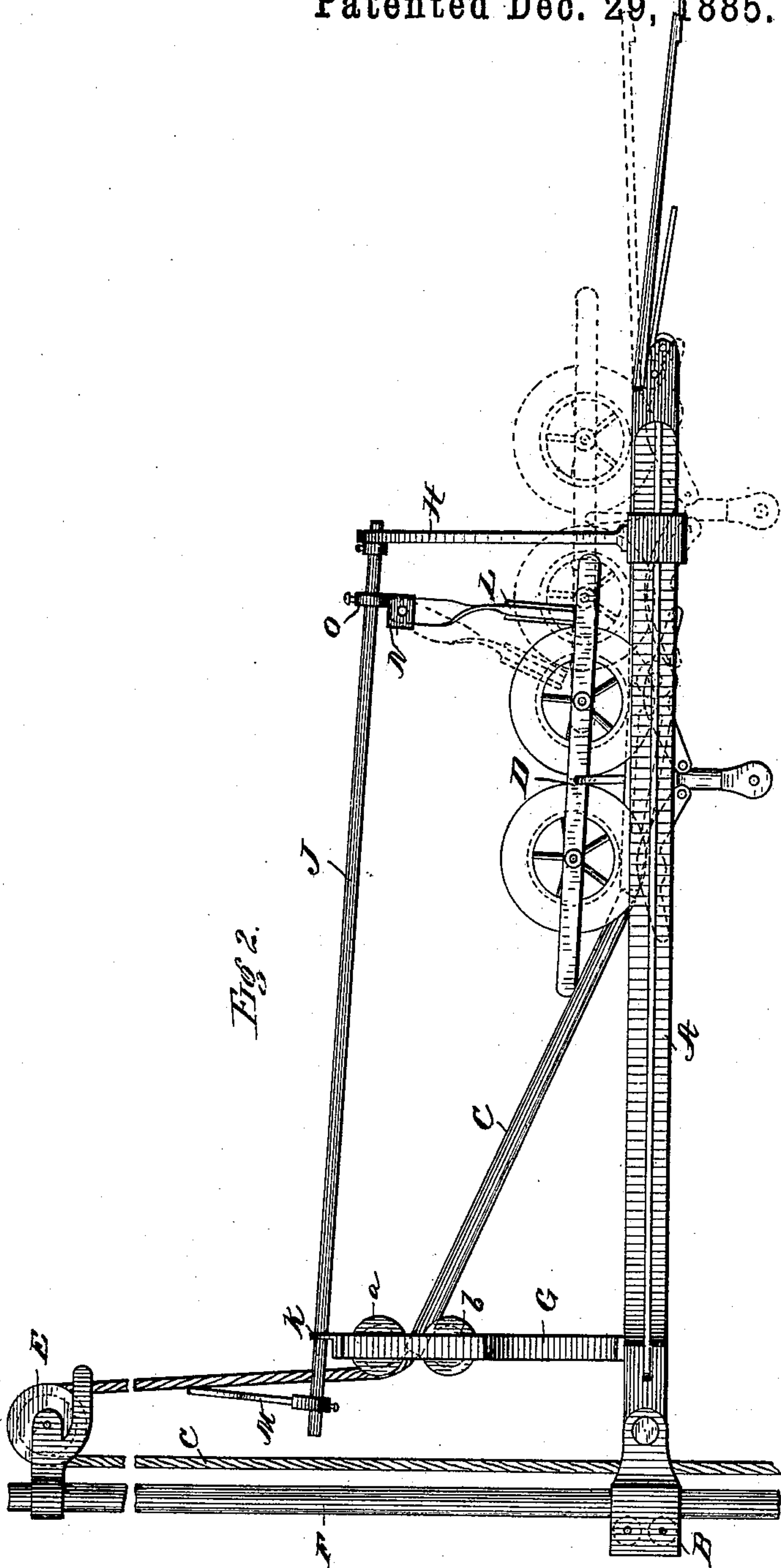


Fig. 2.



WITNESSES.

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Atty



# UNITED STATES PATENT OFFICE.

JOSEPH R. H. HINTON, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE CONTINENTAL STORE SERVICE COMPANY, OF NEW YORK, N. Y.

## STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 333,302, dated December 29, 1885.

Application filed November 12, 1885. Serial No. 182,530. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH R. H. HINTON, a citizen of the United States, residing at Baltimore, Maryland, have invented new and useful Improvements in Store-Service Systems, of which the following is a specification.

My invention relates to certain new and useful improvements in store-service systems, and particularly to that class in which the carriage is received and restored through the medium of a single rope or cord, in contradistinction to what is known as the "double-cord system."

My present invention has for its object to provide a simple and efficient device for confining the car at the vertically-movable end of the track until the latter has reached its proper and full height and then automatically releasing the car, the effect of which operation insures the proper momentum of the car by gravity to reach its destination when sent to the cashier; and with this end in view my invention consists in providing the movable end of the track with a rock-shaft arranged above the trap or receiver, said rock-shaft being provided at its front end with a hinged or swinging gate, and at its rear end with an adjustable or fixed arm or lever adapted to be brought in contact with any suitable operating-stop, whereby the shaft is caused to rock for the purpose of swinging the gate laterally to permit the escape of the carriage when the track or way has been raised to its highest altitude, as will be hereinafter and in detail explained.

In order that those skilled in the art to which my invention appertains to fully understand the same, I will proceed to describe its construction and operation, referring by letters to the accompanying drawings, in which—

Figure 1 is a top or plan view of a receiving and restoring portion of a store-service system embodying my invention, and Fig. 2 is a side elevation of the same.

In the figures illustrating my invention I have avoided many of the details at present in use, for the purpose of avoiding confusion of lines and to render plain the special features of construction forming the gist of my invention.

Similar letters indicate like parts in both figures of the drawings.

A represents the metal casting, to the front end of which the wire way or track is connected, and to the rear end of which is pivotally connected the usual slide, B.

The operating-rope C is connected in the usual manner to adapt it to form a trap or receiver for the carriage D. This rope C passes over a pulley, E, arranged at the proper altitude on the fixed standard F, thence down and between a pair of pulleys, *a b*, mounted in the upper end of a vertical post, G, secured near the rear end of the casting A.

At the front end of the casting A another post, H, is placed, the upper end of which is bent or arched, as shown at I, Fig. 1, so as to provide a bearing immediately over the rail or way for a rock-shaft, J, the rear end of which is journaled at K in the top of the post G. Near the front end of the rock-shaft is secured, as shown, or in any other suitable manner, a swinging or gravity gate, L, and at or near the rear end of the rock-shaft is secured permanently or adjustably an arm or lever, M, adapted to be brought in contact with the under side of the frame or support of the pulley E in such manner that it will cause the shaft J to rock in its bearings, and thus swing the gate L bodily to one side sufficiently to allow the car or carriage D to escape, the weight of the said gate being such as to bring it to its normal position across the path of the carriage whenever the lever or arm M is not in contact with the stop or pulley-casting.

It will be seen by reference to Fig. 2 that the gate L is so hinged at N as to form a ruler-joint connection with a suitable casting, O, by means of which the gate is rigidly connected with the rock-shaft, the purpose of the ruler-joint connection being obviously in order that the gate may swing on its hinge or pivot N under the impact force of the incoming car D, so that the latter may reach the trap or receiver, after which the gate L gravitates to the vertical and normal position across the path of the car to secure the same against escape while the receiving end of the track is being raised to its highest altitude, as previously referred to.

It will readily be seen that by the employment of the rock-shaft and gate the cord C



may be practically used as receiver and restorer, and also as a means for elevating the end of the track, and that by no possibility can the car escape until the track has not only  
5 been elevated to the proper height, but also until the rear end of the trap has been inclined to give the proper momentum to the car when released.

Of course many changes may be made in the  
10 details of construction, having in view economy of construction and adjustability of the several parts, without departing from the spirit of my invention, the gist of which rests in the broad idea of providing what is known in the art as  
15 a one cord or rope system, with a gate adapted to swing upon a hinge or pivot to permit the entrance of the car to the trap and retain it there until the proper time for its releasement by a bodily movement sidewise of said gate.

20 It will of course be understood that although my invention is especially designed for use in a one-cord system, it may be also employed with advantage in the double-cord system.

25 What I therefore claim as new, and desire to secure by Letters Patent, is—

1. In a store-service system, the combination, with the movable end of the track upon or into and from which the carriage is propelled by gravity, of a swinging gate secured to a rock-shaft and adapted to be operated for  
30 the confinement or releasement of the carriage, substantially as hereinbefore set forth.

2. The gate L, connected to the casting O by a ruler-joint connection, as described, whereby it may swing to permit the car to enter the trap and maintain it against release-  
35 ment, substantially as described.

3. The combination of the casting A, posts G H, rock-shaft J, gate L, arm M, rope C, and operating-stop E, substantially as and for the  
40 purpose set forth.

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

JOSEPH R. H. HINTON.

Witnesses:

C. CARROLL GOLDSBOROUGH,  
LEE PURCELL.