(No Model.)

J. H. GOODFELLOW.

STORE SERVICE APPARATUS.

No. 582,784. Patented May 18, 1897.

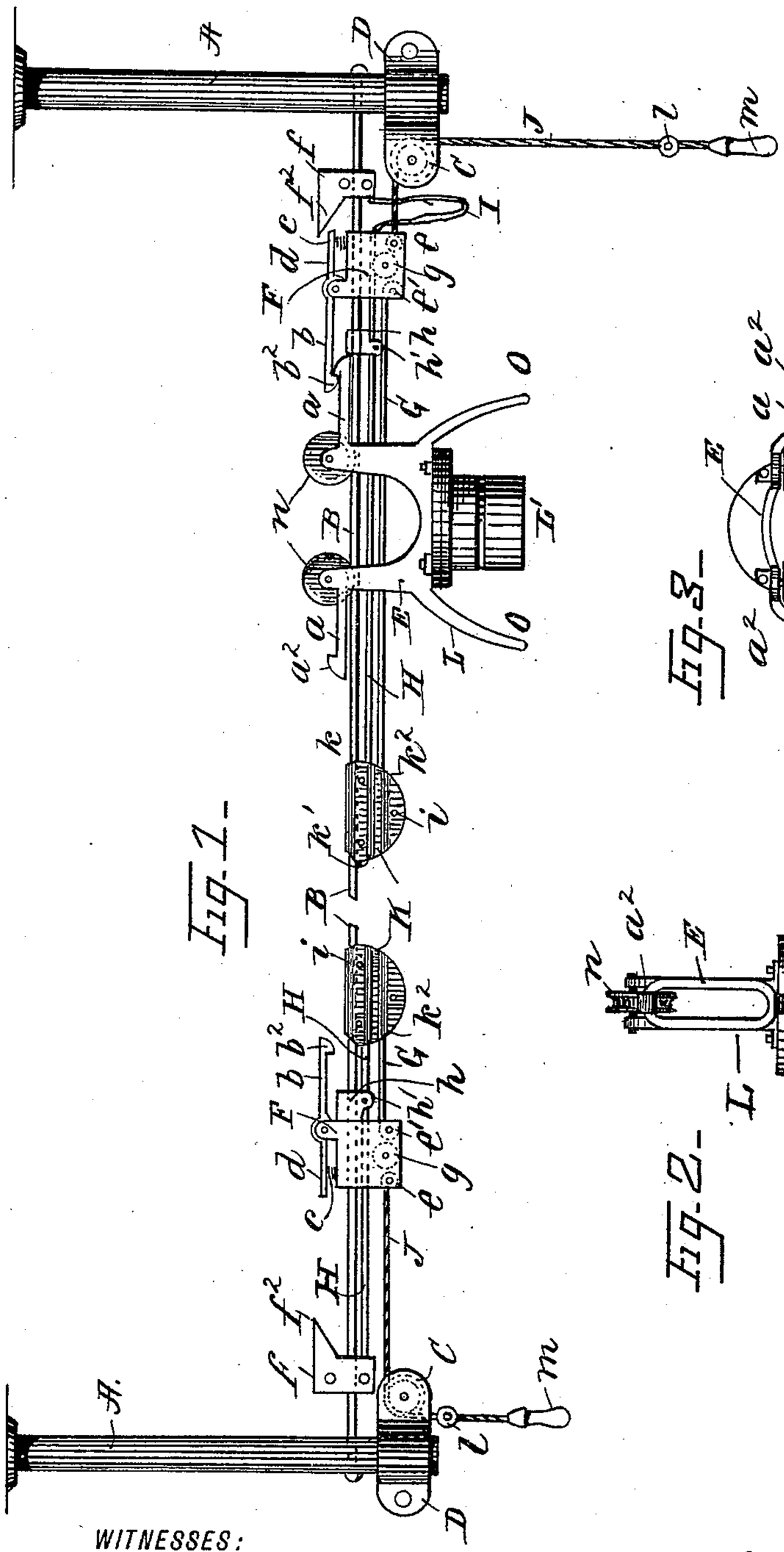

Fig. 1.

Fig. 3.

Fig. 2.

WITNESSES:

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STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 582,784, dated May 18, 1897.

Application filed November 23, 1896. Serial No. 613,150. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GOODFELLOW, a resident of the city of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Store-Service Apparatus, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to store-service apparatus, and has for its object to provide a simple, cheap, and effective method of propulsion for the carrier and to provide a yielding arresting-stop and latch device to meet the resistance of the arriving carrier; and it consists of the novel construction and arrangement of devices combined with the way and a carrier adapted to travel back and forth thereupon between two propelling-blocks freely sliding on said way and having rigid connection with an elastic, the outer ends of which are rigidly connected to the under side of the track and an adjustable trip-block, a traveling latch-block freely sliding on said way between the propelling-block and trip-block, a spring-elastic connected to the track at one end and at its other to the latch-block for retracting the latch-block to meet the driving-block and engage the carrier, an operating-cord and supporting a latch device, and spring-pressed lever engaging the trip-block, all located and arranged upon and beneath the way as hereinafter set forth.

In the drawings, Figure 1 is a side elevation illustrating my invention, the left-hand end showing the normal position of the combined devices and the right-hand end the active position with the carrier about to leave the station; Fig. 2, an end elevation of the carrier, and Fig. 3 a top plan view of the same.

Like letters of reference refer to corresponding parts in the drawings.

A A represent suitable drops or standards, which may hang pendent from the ceiling, wall, or floor, between which a wireway B may be stretched taut.

K represents a suitable clamp device rigidly secured to the way at a suitable distance from the end by screws or rivets *i* and is provided with a series of grooves *k* *k'* k^2 of varied size, the former adapted to fit the dimensions of the wire track, the second to grasp the large propelling-elastic H, and the third and lower one the end of the small retracting-elastic G.

f represents a block adjustable on the way near the standard, its position regulating the power to be expended against the carrier, and it has an upwardly-inclined tripping-finger f^2, adapted to contact the latch-lever to release the carrier. In front of the driving-block, to the lower side of this block, the outer end of the elastic H is secured, which threads freely through the latch-body. Midway of this elastic the driving-block *h* is secured, as at *h'*. Thus the block is kept in its normal position, as shown at the left hand of Fig. 1.

D represents brackets secured to the bottom ends of the drops and have mounted in their forward ends suitable sheave-pulleys C. An operating-cord J leads over this pulley and has its end provided with a suitable handle *m*, and an adjustable stop *l* limits its upward movement. The other end of this cord is rigidly connected to the latch-block at *c*. In front of this fastening and in line therewith one end of the retracting-elastic G is rigidly connected. Its opposite end is secured in the lower groove k^2 of the clamp.

F represents the latch-block, so constructed as to slide freely upon the way between the driving-block *h* and trip-block *f*. Beneath the way within this body is mounted the pulley *g*, over which the elastic H travels, as will hereinafter appear. Pivotally mounted on this body is the latch-arm *b* and extended trip-arm *d*, beneath which is located a suitable spring *c* to keep the latch b^2 in engagement.

L represents the carrier, provided with a suitable frame E, in which the wheels *n* are mounted to ride upon the way, and it has extended above the way two catch-arms *a*, directly in front of the wheels, and each is provided with a catch a^2, adapted to engage the latch of the arm *b* and also the driving-block *h*.

L' is the cash-cup, and *o* *o* are rigid arms extended downward and outward in line with the way.

The operation of the foregoing is as follows: Looking at the right hand of Fig. 1 the operating-cord J has been pulled down, which action draws the latch-block F, driving-block *h*, and carrier E with it by reason of the carrier being connected to the latch b^2. This causes the loop I to be formed between the latch-body and trip-block and creates sufficient power to be stored up in the elastic H beneath the way. Now to pull sufficient to release the car and driving-stop is but to force the arm *d* against the trip f^2. This lifts the latch from the catch on the carrier, which bounds forward on its way. The loop portion I of the propeller H straightens out as it passes freely over the pulley *g*. The retracting-spring G returns the latch-block F to its position in rear of the driving-block *h* and the operating-cord J to its upper position, all as seen in the left hand of Fig. 1. The carrier arriving at the opposite end again latches itself to the member *b*, the shock being received by the propeller H and retracting-spring G. To return the carrier is but to repeat this operation. To increase or diminish the power of the propeller is but to adjust the clip K at a greater or less distance from the station and the stop *l* on the operating-cord to limit the forward movement of the latch-body.

Having thus described my invention, what I claim is—

1. In a store-service apparatus, the combination with a wireway, a carrier adapted thereto, a block and latch pivoted thereto movable on the way, an adjustable trip device and clamp device fixed to the way, and a driving-stop threaded upon the way between the clamp and latch-block, of an elastic propelling device beneath the way having its ends connected to the clamp and trip device respectively and having connection with the driving-stop, substantially as and for the purpose set forth.

2. In a store-service apparatus, the combination with a wireway and a carrier adapted to travel thereon, a block and latch pivoted thereto movable on the way, an adjustable trip device and clamp device fixed to the way, and a driving-stop threaded on the way between the clamp and latch-block, of an elastic propelling device and an elastic retracting device having their ends connected to the clamp, the trip device and the clamp and latch-block respectively and the former also having connection with the driving-stop.

3. In a store-service apparatus, the combination with a wireway and a carrier adapted to travel thereon, a reciprocating block and latch pivoted thereto movable on the way, an adjustable trip device and clamp device fixed to the way, and a driving-stop threaded on the way between the clamp and the latch-block, of an elastic propelling device and an elastic retracting device having their ends connected to the clamp, the trip device and the clamp and the latch-block respectively, the former also having connection with the driving-stop and passing through the latch-block, an operating-cord connected to the latch-block, and a stop on the cord to limit the forward movement of the latch-block.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 21st day of October, A. D. 1896.

JOHN H. GOODFELLOW.

Witnesses:

S. B. DOANE,

A. L. MESSER.