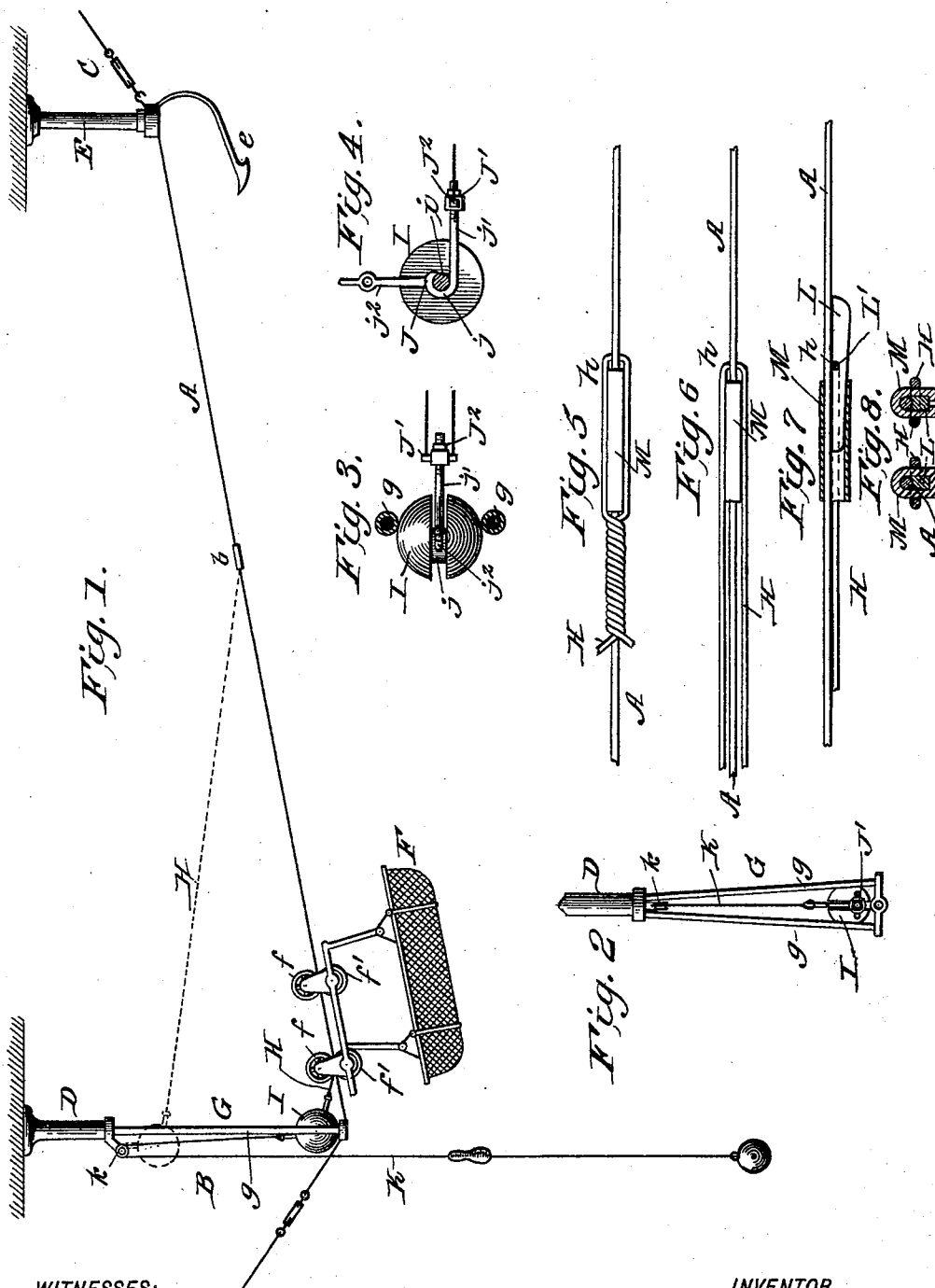


(No Model.)

J. R. POLLOCK.
STORE SERVICE APPARATUS.

No. 506,072.

Patented Oct. 3, 1893.



WITNESSES:

Fred G. Dieterich
P. B. Surpin

INVENTOR

James R. Pollock,
BY Munroe & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES R. POLLOCK, OF MANSFIELD, OHIO.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 506,072, dated October 3, 1893.

Application filed June 14, 1893. Serial No. 477,529. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. POLLOCK, of Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Improvement in Store-Service Apparatus, of which the following is a specification.

My invention is an improvement in store service apparatus and relates particularly to the means for propelling the basket or car, and the invention consists in the novel construction and combination of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a side view of my apparatus. Fig. 2 is a detail view of the ball guide. Figs. 3 and 4 are detail views of the ball and Figs. 5, 6, 7 and 8 are detail views illustrating the connection between the track and operating line.

The track A which may be inclined upward from the station B to the desk station C is extended between hangers D and E the latter having a suitable latch *e* to catch the basket or car F. The hanger D is formed or provided with the converging guide G having opposite separated side rods *g g*. When the track inclines upward from the station to the desk the guide should converge toward its upper end, while if the track be level, the guide should flare toward its upper end and converge toward its lower end as will be better understood from what follows.

The operating line H is connected at one end *h* with the track and at its other end with a ball or block I which slides vertically against the rear side of the guide G. This block I is preferably a round ball and is grooved annularly forming a central stud *i* which forms a bearing for the connection J which is made in the form of a right angle with a hook like projection *j* at the center to engage the bearing *i* and arms *j' j''* to the former of which the operating line is connected while the hand line K connects with the arm *j''*, extends thence up over a guide *k* and down and is suitably weighted to counterbalance the weight of the ball or block. The operating line may be a single wire and may be connected with the track in any suitable manner but it is preferred to make said line double and to connect it with the track by the devices and in the manner shown. In

securing the line to the connection J it is preferred to make them fast to a head block or cross piece J' fitted on the arm *j'* and held by a nut J² which may be adjusted to tighten the line. At the end *h* the line is doubled and passed under the track and seated in the notch L' of a key L which is wedged into a box or loop M embracing the track. This loop M may be closed at its bottom as shown at the left in Fig. 8 or open at the bottom as shown at the right in said figure and it is manifest that the line may by this construction be firmly and securely held to the track at any point and may be conveniently shifted from one point to another along the track as may be desired or necessary. The wire may be twisted above the box loop or left untwisted as desired.

The basket or car which may be of any ordinary construction has upper and lower rollers *f f'* which rest respectively upon the track and below the same and when the basket is moved back to the station the upper roller or rollers *f* rest upon the operating line and depresses the same with its ball or block as shown in Fig. 1. To send the basket to the desk it is only necessary to pull upon the hand line and lift the ball to the top of the guide G. This operation propels the basket positively and directly to the end *h* of the operating line when it will have acquired sufficient impetus to cause it to continue on to the desk. The weight on the hand line will be sufficient to hold the operating cord in its dotted position until the return of the basket so that the operating line not only serves to propel the basket but also as a brake therefor, to ease its passage back to the station. As the ball or block moves upward the converging guide tends to move it back and so return the operating line taut. It is preferred to use the ball and connect it with the lines as described as such construction permits it to roll against the guide and so ease its movement both up and down.

Manifestly if the track be made level instead of inclining as shown the guide should be reversed to converge toward its lower end instead of its upper end, so as to permit the ball to move forward as it ascends instead of being moved back.

Having thus described my invention, what

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

1. In a store service apparatus the combination of a fixed track, a propelling line connected at one end with the track, a ball or block at the other or movable end of said propelling line and a fixed guide arranged for engagement by said ball or block and adapted to take up the slack in the adjustments or movements of the propelling line all substantially as and for the purposes set forth.

2. In a store service apparatus a slack take up guide having side bars or rods whose adjacent sides converge toward one end combined with a propelling line and a block like device connected therewith and engaging said side bars or rods substantially as described and for the purposes set forth.

3. In a store service apparatus the combination of a track an operating line fixed at one end and movable vertically at its other end a block or ball at said end and a converging guide for said ball or block substantially as set forth.

4. In a store service apparatus, the combination with the track, the operating line and the converging guide of the ball or block connected with the operating line and rolling against the guide substantially as set forth.

5. In a store service apparatus the combination of the track a propelling line connected at one end therewith and movable vertically at its other end above the track and a counterbalance weight connected with said movable end of the line whereby when the same is elevated it will be sustained in such position to

act as a brake to the basket or car on the return thereof substantially as set forth.

6. In a store service apparatus, the combination with the track and the operating line of the key having a seat for the operating line and a box or loop embracing the track and into which the key is wedged substantially as set forth.

7. In a store service apparatus, the combination with the operating and hand lines, of the ball or block, having a bearing stud and the double armed connection having a seat for said stud and connected with the operating and hand lines substantially as set forth.

8. The combination with the track inclining upward from one station to another and the guide at one station having the converging side rods of the operating line secured at one end to the track and the ball connected with the other end of the line and arranged to roll against the converging guide rods substantially as set forth.

9. In a store service apparatus the combination of the track the propelling line secured at one end to the track, and movable vertically at its other end a ball or block secured to said movable end and the guide for said ball or block having converging side rods or bars substantially as set forth.

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

JAMES R. POLLOCK.

Witnesses:

SAML. MARRIOTT,
ELLA OSBUN.