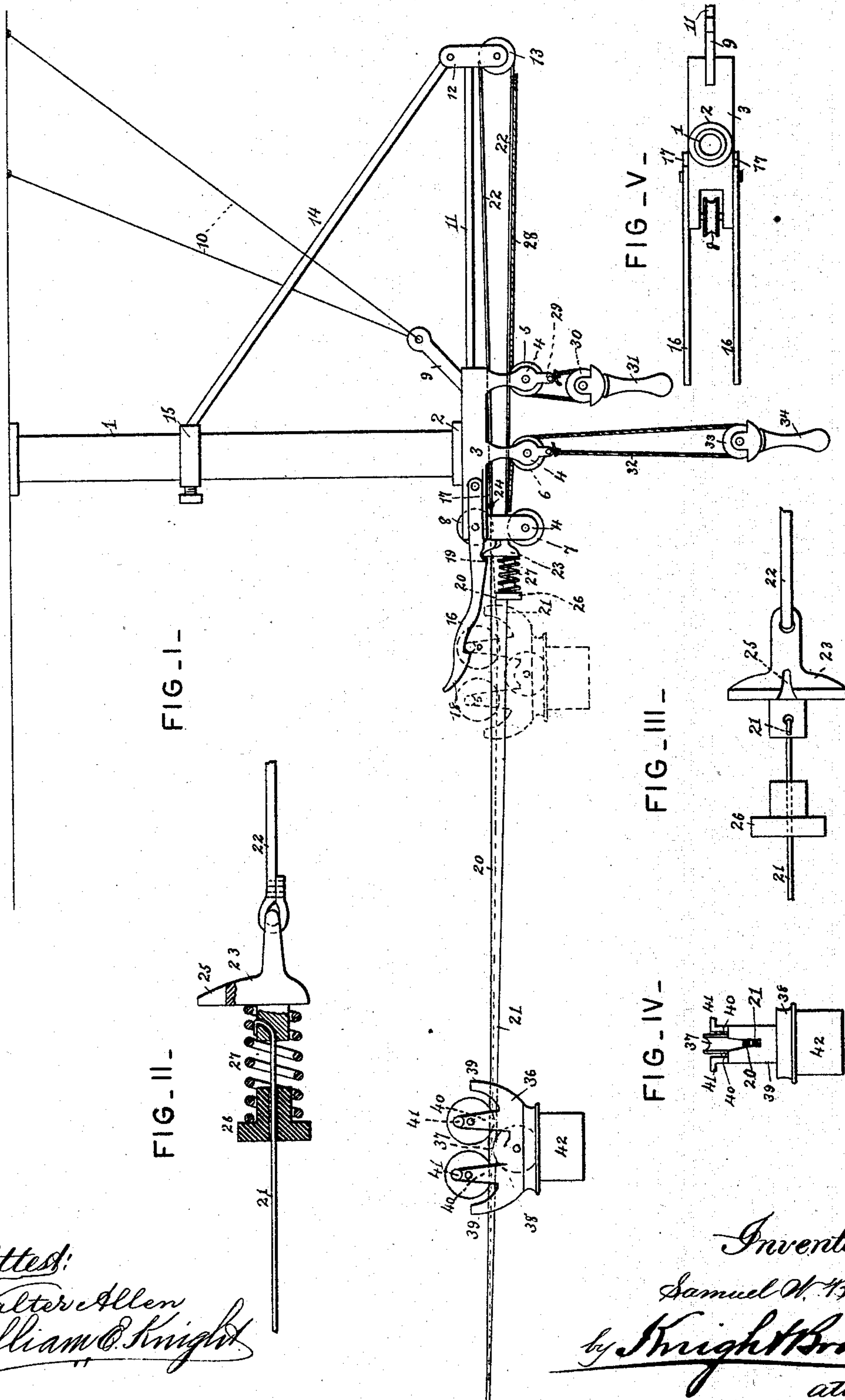


(No Model.)

S. W. BARR.
STORE SERVICE APPARATUS.

No. 413,479.

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UNITED STATES PATENT OFFICE.

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STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 413,479, dated October 22, 1889.

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To all whom it may concern:

Be it known that I, SAMUEL W. BARR, a citizen of the United States, and a resident of Mansfield, in the county of Richland and State of Ohio, have invented new and useful Improvements in Store-Service Apparatus, of which the following is a specification.

The object of my invention is to provide improved means at the station by which the carrier can be impelled from and toward the station.

My invention relates to a store-service apparatus whereby the carrier may be impelled in either direction from each station; and my improvement consists in the construction of parts, as hereinafter described, and pointed out in the claims.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a side elevation of the apparatus at one station, showing my improved construction. Fig. II is a longitudinal vertical section of the bumper. Fig. III is a top view of the bumper-blocks, the spring being omitted. Fig. IV is an end view of the carrier. Fig. V is a top view of a block for supporting the pulleys and the carrier-holding hooks.

1 is a support in the form of gas-pipe rigidly secured to a ceiling or overhead floor of a building.

2 is a block secured to the support, having side pieces 3, formed with hangers or legs 4, for supporting pulleys 5, 6, and 7. A pulley 8 is also journaled to the side pieces over the front pulley 7.

9 is a rear projection or arm on the block, to which stay-wires 10 are connected. Beneath this projection or arm is a rod or pipe 11, secured to the rear end of the block and having at its outer end a bracket 12, supporting a pulley 13. The bracket is further sustained by a brace-rod 14, secured to a collar 15 on the support 1.

To the front end of the block 2 are pivoted hooks 16, supported in normal position by flanges 17, also on the block 2. The hook 16 is formed with a catch 18 at its outer end and with a notch or recess 19 at the middle portion.

Between the front pulleys 7 and 8 the track-wires 20 and 21 are caused to move. These track-wires are secured to a strong connection, as a cord, strap, or chain 22, which runs over the pulley 13, and with the same arrangement at a similar opposite station (not shown) forms a continuous belt. The lower track-wire 21 is secured to a bumper-head 23, and the end of the cord, strap, or chain 22 is also secured to the bumper-head, so that the bumper-head is supported on the wire and cord, strap, or chain.

24 is a small block, preferably of metal, which provides means of connection between the upper track-wire 20 and the other end of the cord, strap, or chain. The bumper-head 23 has a square top formed with a notch 25 for the passage of the upper track-wire. A bumper 26, preferably of rubber, perforated for the passage of the lower track-wire, is slipped on the latter, and is coupled with the bumper-head by means of a coil-spring 27. Thus the bumper-head, bumper, and spring form together a compound bumper.

28 is a pull-cord secured at one end to the strap 22, and at the other end is fastened to a cross-pin 29 on the inner hanger 4. This pull-cord is passed over the pulley 5 and under a pulley 30, journaled in a handle 31. Another pull-cord 32 is also secured to the strap at a suitable distance from the other pull-cord, is passed over the pulley 6, under a pulley 33, journaled in a handle 34, and fastened to a cross-pin 35 in the central hanger 4.

The carrier-frame 36 may be cast integral for three wheels 37 37 and 38, the wheels 37 37 being the upper ones and the wheel 38 the lower one. The carrier-frame is also formed with bumper-ends 39 and with upwardly-extending arms 40, having side projections 41 at their tops.

When the carrier is in normal position at the station, as indicated in dotted lines, the catches on the hooks 16 engage the rear side projections on the carrier, the carrier having been caught by the catches on its last return. The carrier also has some play at the station between the bumper and the catch, so that the hook is raised from the carrier by the bumper-head before the propelling force strikes the carrier. When the operator pulls

on the pull-cord 28, the bumper strikes the carrier and impels it forward with double the speed of the hand, and the pull-cord 32 is taken up. Then by pulling on the pull-cord 5 32 the carrier can be brought back to the station and the cord 28 drawn up. The construction at each station being the same, the operator can send the carrier through and return it from either station.

10 42 is a cash-box secured to the carrier.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A store-service apparatus comprising a 15 hook 16, having a carrier-catch 18 and a bumper-recess 19, two track-wires, connection between the track-wires, and a bumper-head secured to a track-wire, and with which the hook engages, substantially as described.

20 2. The combination of the upper track-wire 20, the lower track-wire 21, the connection 22 between the track-wires, and the bumper-head 23, having bumper 26 and coil-spring 27, substantially as described.

25 3. A store-service apparatus comprising a hook 16, having a carrier-catch 18 and a bumper-recess 19, two track-wires, connection between the track-wires, and bumper-head secured to the track-wire, having a notch 25 30 for the passage of the other track-wire, substantially as described.

4. The combination of the upper track-wire 20, the lower track-wire 21, the connection 22 between the track-wires, and the bumper-head 23, formed with a notch 25 for the pas- 35 sage of the upper wire, bumper 26, and coil-spring 27, substantially as described.

5. A store-service apparatus comprising a 40 hook 16, having a carrier-catch 18 and a bumper-recess 19, two track-wires, connection between the track-wires, a bumper-head 23, secured to a track-wire, having bumper 26 and coil-spring 27, substantially as described.

45 6. The combination of the upper track-wire 20, the lower track-wire 21, the strap 22, con-

nected to the upper track-wire, the bumper-head 23, by which the strap is connected to the lower track-wire, the bumper 26, sliding on the lower track-wire, and the coil-spring 27, connecting the bumper-head and bumper, 50 substantially as described.

7. A store-service apparatus comprising a pair of hooks 16, having carrier-catches 18 and bumper-recesses 19, two track-wires, connection between the track-wires, a bumper-head secured to a track-wire, and a carrier 55 comprising a frame 36, having side arms 40, provided with side projections 41, and bumper ends 39, substantially as described.

8. An apparatus comprising the upper 60 track-wire 20, the lower track-wire 21, the strap connected to the track-wires, the block 2, having side pieces 3 and hangers 4, the hooks 16, having catches 18 and recesses 19, the bumper-head 23, the bumper 26, the coil-spring 65 27, and the carrier 36, having bumper ends 39 and side projections 41, substantially as described.

9. An apparatus comprising the block 2, having side pieces 3 and hangers 4, the rear- 70 wardly-projecting rod 11, the bracket 12, the pulleys 5, 6, and 7, the bracket-pulley 13, the upper track-wire 20, the lower track-wire 21, the connecting-strap 22, the pull-cords 28 and 32, and the bumper-head 23, substantially as 75 described.

10. An apparatus comprising the block 2, having side pieces 3 and hangers 4, the rear- 80 wardly-projecting rod 11, the bracket 12, the pulleys 5, 6, and 7, the bracket-pulley 13, the track-wires 20 and 21, the connecting-strap 22, the pull-cords 28 and 32, the bumper-head 23, and the handles 31 and 34, having pulleys 30 and 33, respectively, substantially as de- scribed.

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Witnesses:

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