(No Model.) 3 Sheets—Sheet 1.

O. T. SMITH.

VENDING APPARATUS.

No. 465,216. Patented Dec. 15, 1891.

Fig. 1.

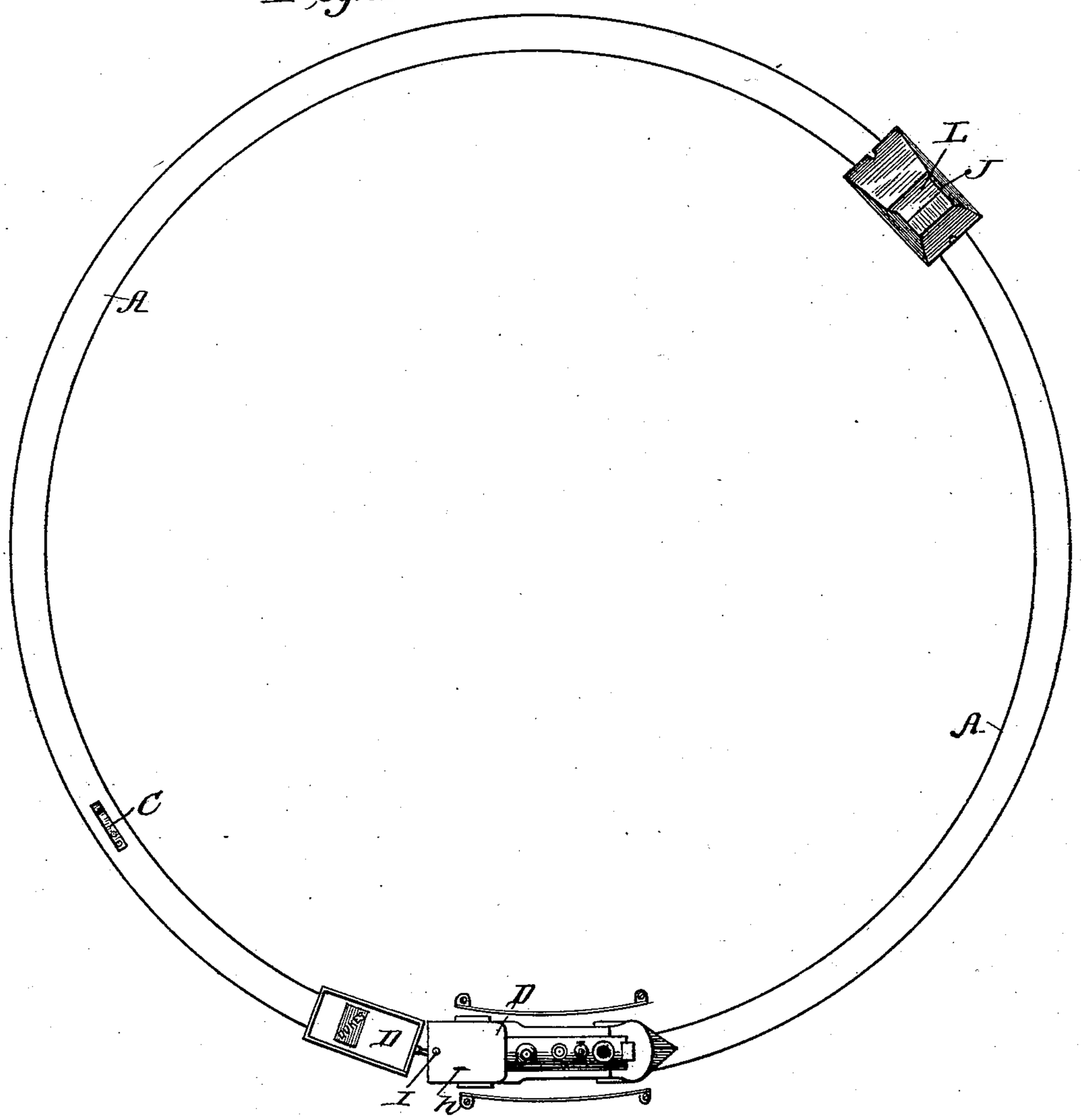

Fig. 7.

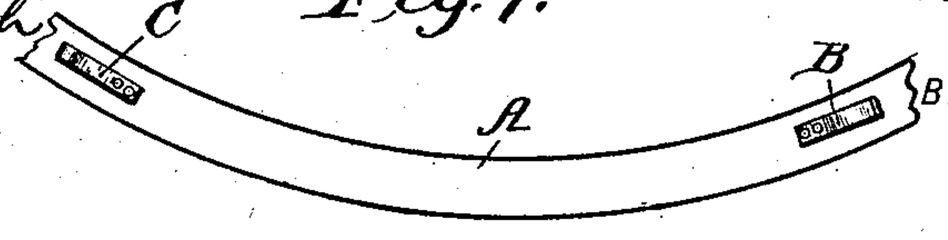

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Fig. 2.

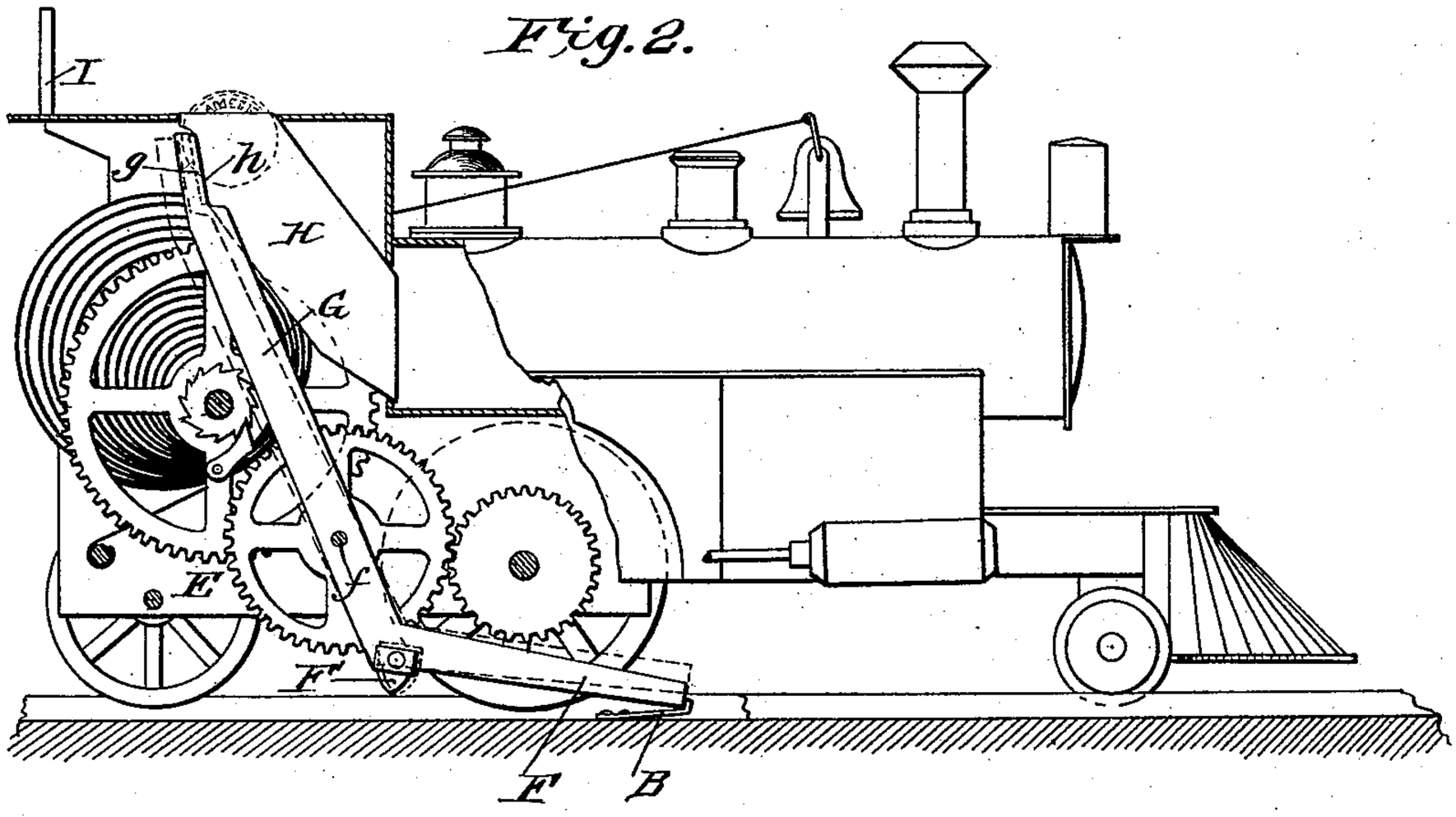
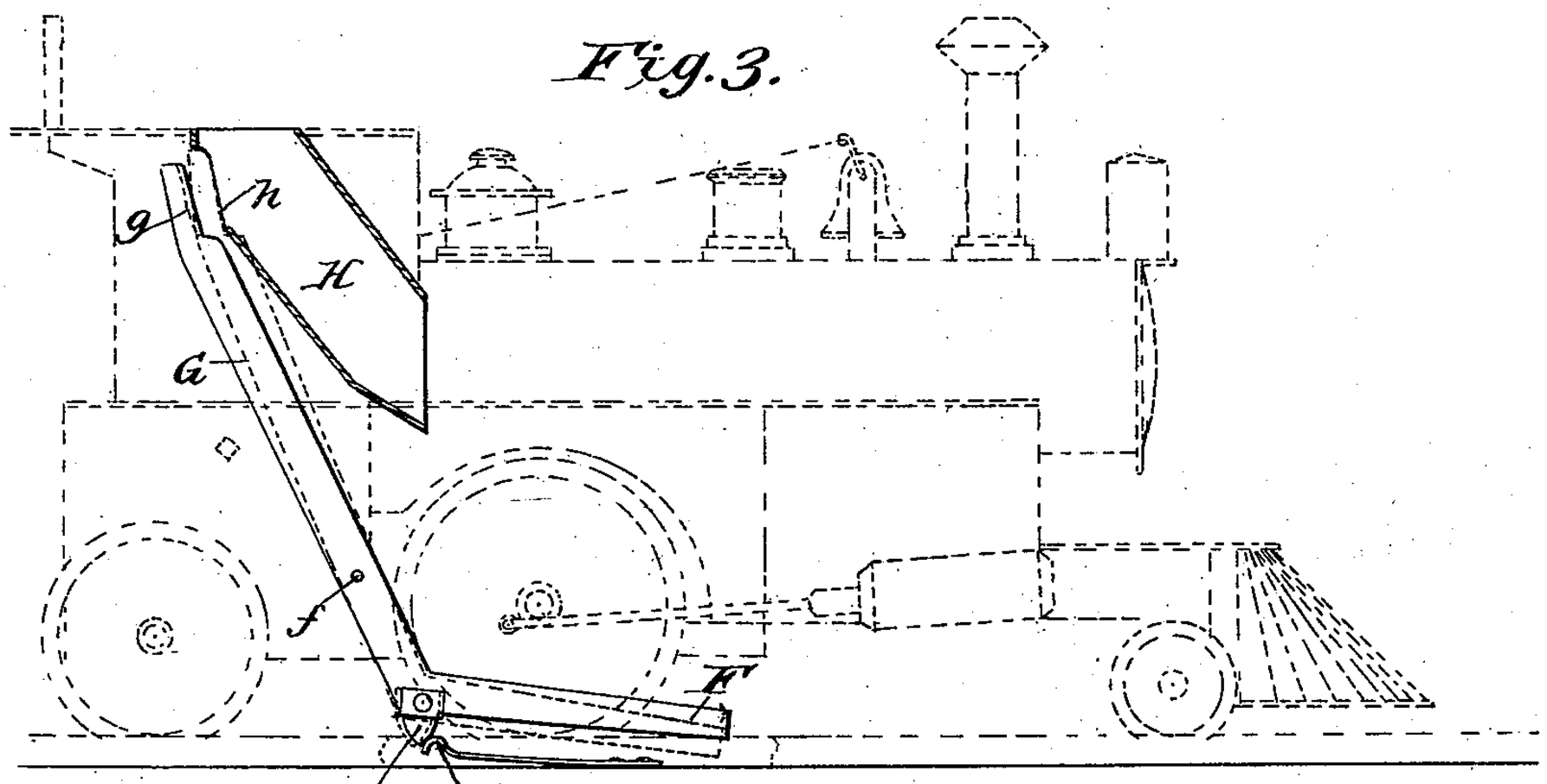


Fig. 3.



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(No Model.) 3 Sheets—Sheet 3

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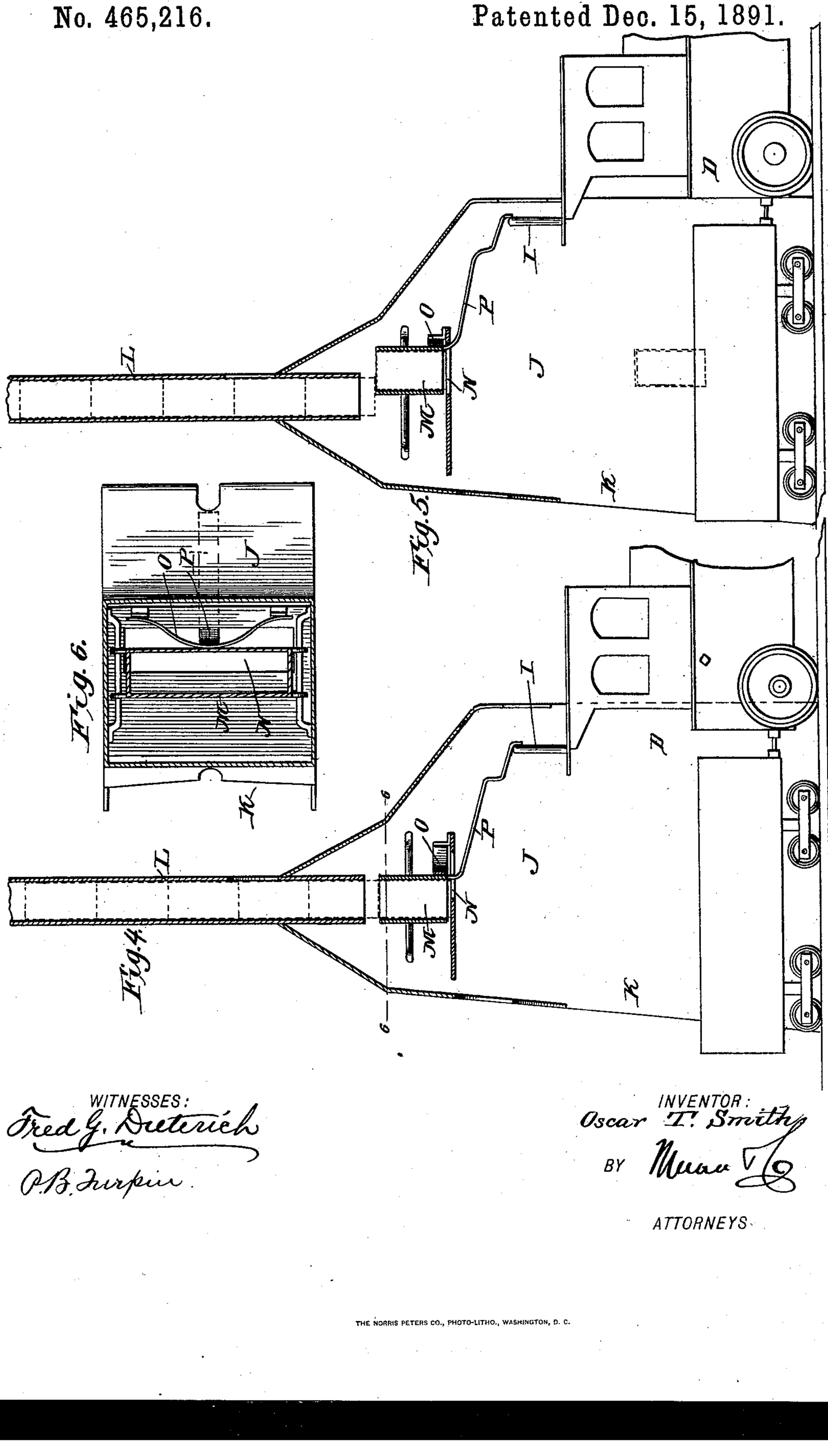

Fig. 5.

Fig. 6.

Fig. 4.

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UNITED STATES PATENT OFFICE.

OSCAR T. SMITH, OF DURHAM, NORTH CAROLINA.

VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 465,216, dated December 15, 1891.

Application filed February 12, 1891. Serial No. 381,247. (No model.)

To all whom it may concern:

Be it known that I, OSCAR T. SMITH, of Durham, in the county of Durham and State of North Carolina, have invented a new and useful Improvement in Vending Apparatus, of which the following is a specification.

My invention is an improved apparatus for automatically vending merchandise, and comprises a way or track, a goods-receiver to run thereon, and a goods-holder arranged in the path of the goods-receiver and having discharge devices arranged to be operated by the receiver to discharge a predetermined quantity or portion of the goods into such receiver.

The invention consists in certain features of construction and novel combinations of parts, as will be described and claimed.

In the drawings, Figure 1 is a top plan view of my improved apparatus. Fig. 2 is a side elevation of the movable goods-receiver, parts being broken away and others shown in section. Fig. 3 is a side view of the coin mechanism, parts of the goods-receiver being shown in dotted lines. Figs. 4 and 5 are vertical longitudinal sections of the goods-holder in connection with the goods-receiver, illustrating the operation of the discharge mechanism by the goods-receiver. Fig. 6 is a cross-section on about line 6 6 of Fig. 4, and Fig. 7 is a detail view of a part of the track.

The apparatus, as shown, comprises a track or way A, which is preferably endless and circular, so that the goods-receiver may return to its starting-point after it has received the desired portion of goods. In this track are arranged a stop device B and a tripping readjusting device C, the latter being arranged in rear of the stop B, as shown, the purpose of both parts B and C being more fully described hereinafter.

The movable goods-receiver D is supported to run on the track or way, and is preferably made in the shape of a locomotive with the attached tender.

In connection with the locomotive I provide motor mechanism for impelling the receiver forward, stop devices for restraining the forward movement of the locomotive, and devices for releasing such stop devices arranged to operate through the aid of a coin. By preference the motor is supported on the locomotive and may be a clock mechanism E, as shown, arranged when properly wound to exert a constant forward tendency upon the drive-wheels of the locomotive. The locomotive also has a lock device F, movable into and out of engagement with the lock device B of the track and preferably made from a plate of metal pivoted at *f* and having an extension G, forming connecting mechanism, arranged at *g* for engagement by the coin when the lock device F is engaged with B. The part *g* projects into or adjacent to an opening *h* in the coin-chute H, so that the inserted nickel or coin will push the part G back and adjust the stop F clear of the stop B, and the locomotive will move forward. As the locomotive makes the circle and again approaches the stop B, just before it reaches such stop B its stop F, by its portion F′, engages the tripping device C, which readjusts the stop F into position to engage stop B, by which the locomotive is again held until another coin is inserted.

The goods-receiver has a pin or projection I, which operates the discharge devices of the goods-holder. This goods-holder J is arranged in the path of the traveling receiver and is provided with a passage or opening at K for the receiver, such receiver passing in operation into such passage and receives the predetermined portion or quantity of goods and then passes out of the holder to deliver the goods to the purchaser.

The goods-holder may be shaped and ornamented to present the appearance of a railroad station.

Manifestly the apparatus may be employed for vending goods of various kinds. The holder shown is adapted for packages of cigarettes or the like, and comprises a chute L, a laterally-movable discharger M, pocketed to receive a package from chute L when in register therewith and movable laterally to adjust such package over a discharge-opening N, through which it drops into the tender of the goods-receiver. A spring O is arranged to hold the pocket M normally in register with the chute L.

The discharger M is provided with a spring-plate P, secured at one end to the discharger and arranged at its opposite end for engage-

ment by the pin or projection I, by which the discharger is moved into position to discharge its contents into the tender; but at the same time the springy character of the plate permits the said pin to escape from its engagement with the plate after it has moved the latter to the desired point.

The operation of the apparatus will be well understood from the foregoing description in connection with the accompanying drawings.

Having thus described my invention, what I claim as new is—

1. An improved vending apparatus comprising a track or way, a traveling goods-receiver arranged to move on said track or way, a goods-holder arranged in the path of said receiver, and stop devices for holding said receiver from forward movement, arranged to be released by the aid of a coin, all substantially as set forth.

2. An improved vending apparatus, substantially as described, comprising a traveling goods-receiver, motor mechanism for moving such receiver, a goods-holder arranged to discharge the goods into the receiver, and devices arranged for operation through the aid of a coin, all substantially as and for the purposes set forth.

3. In an apparatus substantially as described, the combination of an endless track or way, a locomotive provided with a movable stop device arranged to engage a projection in the track and to be released through the aid of a coin, a stop projection arranged on the track or way in position for engagement by the stop device, and a tripping device arranged on the track in position for engagement by the stop device of the locomotive, whereby to readjust such stop device to position to engage the stop device of the track, substantially as set forth.

4. In a vending apparatus substantially as described, the combination of the track or way having a stop, the locomotive having a motor, a stop device supported on the locomotive and movable into and out of engagement with the track-stop, devices operating through the aid of a coin to adjust the stop device of the locomotive out of engagement with that of the track, whereby the insertion of the coin may permit the locomotive to move forward, all substantially as and for the purposes set forth.

5. In an apparatus substantially as described, the combination of an endless track or way, a locomotive to run thereon, a stop device, the locomotive having a stop part movable into and out of engagement with the stop device, devices operating through the aid of a coin to adjust such stop part out of engagement with the stop device, and a tripping device arranged to readjust the stop part of the locomotive to position to engage the stop device of the track, all substantially as and for the purposes set forth.

6. In an improved vending apparatus, substantially as described, a goods-holder provided with a passage for a traveling receiver and with discharge devices adapted to discharge at each operation a predetermined quantity of goods, such discharge devices being arranged for operation by the traveling receiver, motor mechanism for said receiver, and devices arranged to operate through the aid of a coin, whereby on the insertion of a coin the receiver may be automatically moved, substantially as set forth.

7. In an improved vending apparatus, substantially as described, a goods-holder provided with a passage for a traveling receiver and with discharge devices having a spring-plate or portion arranged for engagement by such traveling receiver, such spring-plate being adapted to permit the operative engagement of the traveling receiver and the escape of such receiver, as and for the purposes set forth.

8. In a vending apparatus, the combination of the track or way, a goods-holder having discharge devices and arranged adjacent to the said track or way, the traveling goods-receiver, the motor mechanism for impelling the receiver forward, and intermediate mechanism arranged for operation through the aid of a coin, whereby on the insertion of a coin the receiver may be automatically moved, all substantially as and for the purposes set forth.

9. In an apparatus substantially as described, the combination of a goods-holder having discharge devices, a traveling goods-receiver arranged to operate such discharge devices, and lock devices for said receiver arranged for operation through the aid of a coin, all substantially as and for the purposes set forth.

10. In an apparatus substantially as described, a locomotive having locking devices and a releasing device therefor arranged for operation through the aid of a coin and provided with a coin-receptacle and with a motor, all substantially as and for the purposes set forth.

11. In a vending apparatus, a locomotive provided with a stop device having an extension or portion arranged at one end to be operated by the aid of a coin and at its opposite end to be moved into and out of position to engage a stop projection on the track, all substantially as and for the purposes set forth.

12. The vending apparatus herein described, comprising a traveling goods-receiver having a locomotive and a tender, and a goods-holder arranged in the path of the traveling receiver and having a discharge device arranged to be operated by the receiver and to discharge a predetermined portion of goods into the tender, all substantially as and for the purposes set forth.

13. The improved vending apparatus herein described, consisting of the endless track or way having a stop device and a tripping part,

the traveling goods-receiver having a movable part arranged to engage the said stop device and to be adjusted out of such position by the aid of a coin and to be readjusted to position to engage said stop device by means of the tripping device, and the goods-holder arranged in the path of the traveling receiver and provided with a discharger arranged to be operated by the said receiver, substantially as and for the purposes set forth.

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