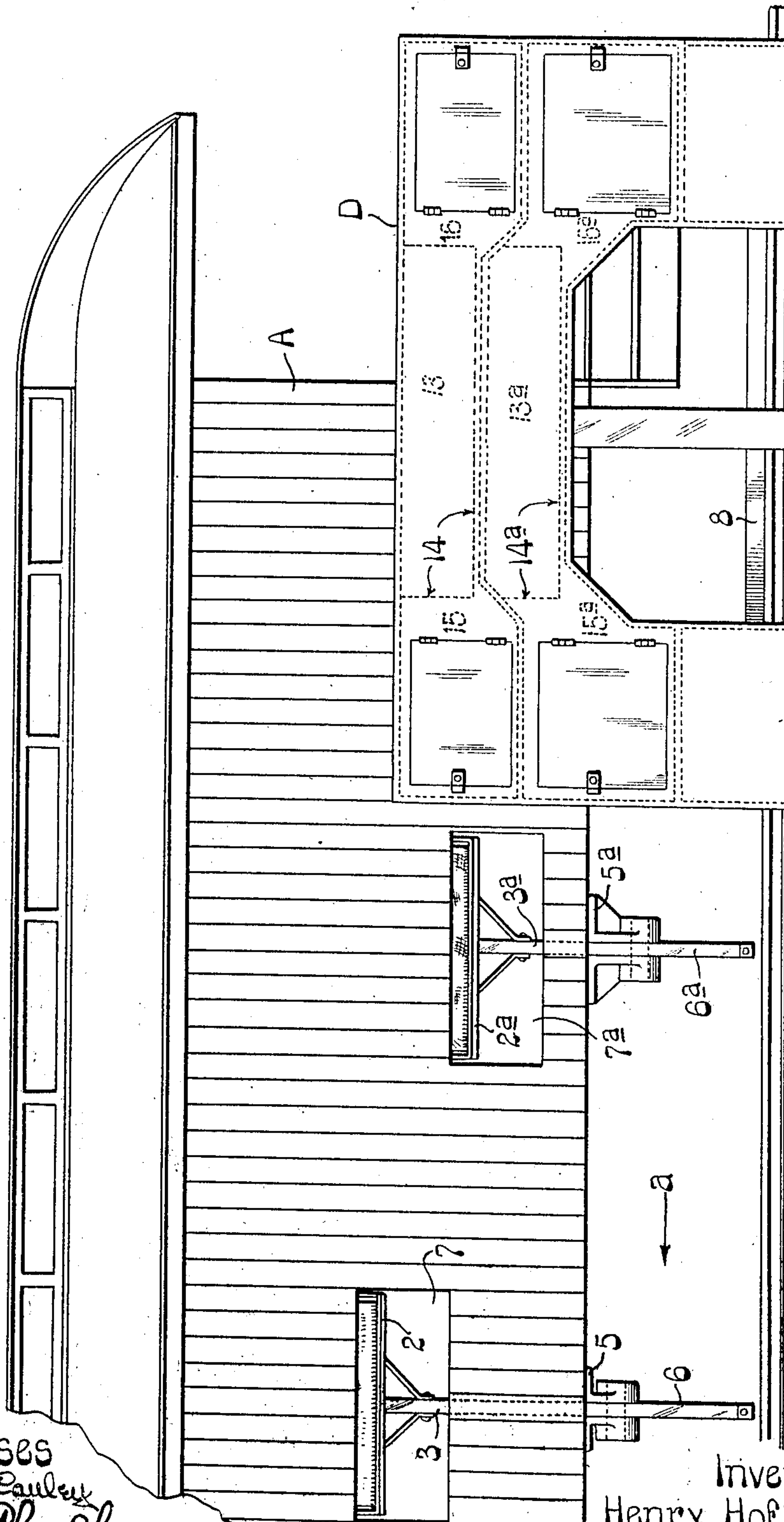


912,678.

H. HOFFMANN.
DELIVERING APPARATUS FOR RAILWAY CARS.
APPLICATION FILED NOV. 6, 1908.

Patented Feb. 16, 1909.
2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig.2.

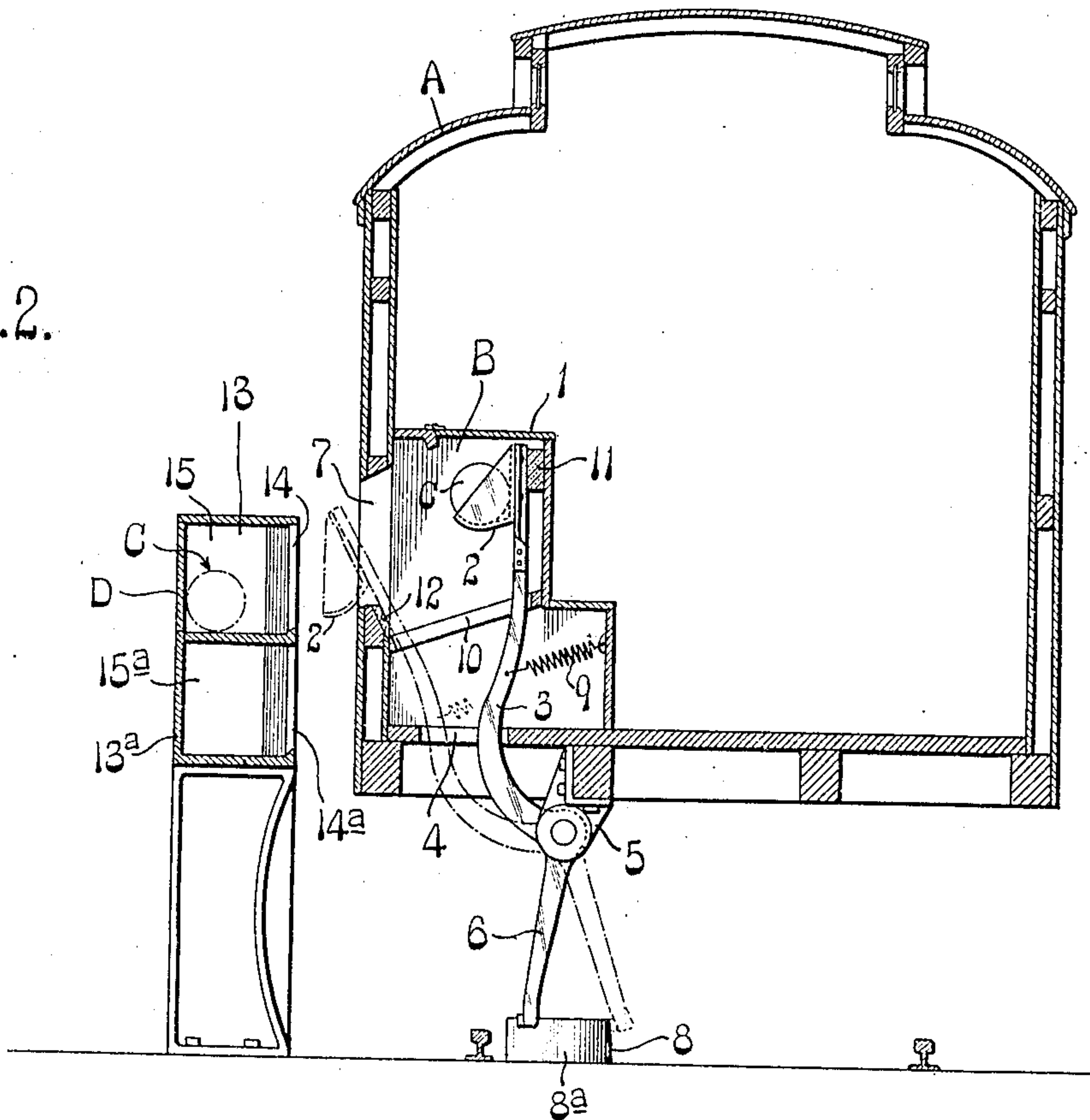
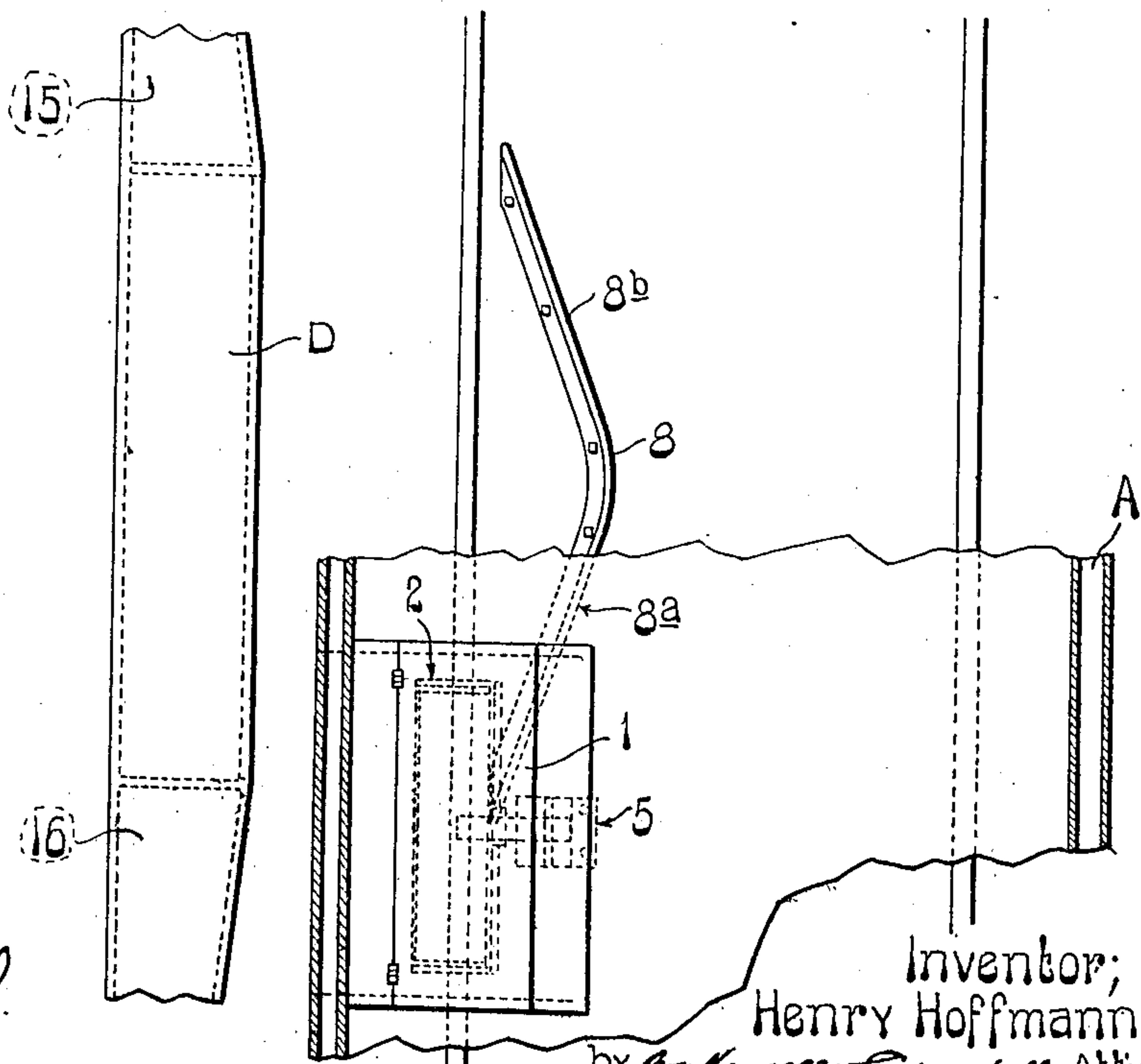


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY HOFFMANN, OF ST. LOUIS, MISSOURI.

DELIVERING APPARATUS FOR RAILWAY-CARS.

No. 912,678.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed November 6, 1908. Serial No. 461,394.

To all whom it may concern:

Be it known that I, HENRY HOFFMANN, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Delivering Apparatus for Railway-Cars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of a portion of a railway car provided with a delivering apparatus constructed in accordance with my invention; Fig. 2 is a vertical sectional view of said car and also the receiving housing located adjacent the track on which the car travels; and Fig. 3 is a top plan view of the receiving housing, one of the compartments inside of the car in which the ejecting device is located, and the member arranged between the rails of the track for automatically operating the ejecting devices.

This invention relates to apparatuses for delivering articles or packages from a railway car while it is in motion.

One object of my invention is to provide an apparatus for the purpose described that is of simple construction and which will deliver a package or article without damaging it or subjecting it to a violent shock or blow.

Another object is to provide an apparatus for the purpose described comprising one or more ejecting devices arranged inside of a car and adapted to hold packages, and means arranged adjacent the track on which the car travels for actuating said ejecting devices when the car reaches a certain point so as to automatically eject the packages which the holders on said ejecting devices contain.

Another object of my invention is to provide a delivering apparatus comprising a receiving housing arranged adjacent a railway track, a movable member arranged inside of the car and adapted to hold a package or article, and means for automatically actuating said member when the car passes the receiving housing so as to eject the package from said member into said housing.

Referring to the drawings which illustrate the preferred form of my invention, A designates a railway car and B designates a compartment inside of said car, one wall of said compartment being provided with a door 1 that can be opened so as to permit a package

or article C to be placed on the ejecting device arranged inside of said compartment. This ejecting device consists of a holder 2 of any preferred shape carried by a lever 3 which passes through a slot 4 in the floor of the compartment and is pivotally connected to a bracket 5 carried by the floor frame of the car, said lever having an extension 6 that is adapted to cooperate with a stationary member arranged between the rails of the track so as to move the lever 2 outwardly and thus eject the package in the holder 2 through an opening 7 in the side wall of the car.

In the construction herein shown the means for moving the lever 3 outwardly consists of a stationary member 8 connected to the track ties adjacent one rail of the track and provided with oppositely inclined faces 8^a and 8^b that are disposed at an angle to said rail, as shown in Fig. 3, the inclined face 8^a operating to move the lever 3 outwardly when the car is traveling in the direction indicated by the arrow *a* in Fig. 1, and the inclined face 8^b operating to move the lever 3 outwardly when the car is traveling in the opposite direction. The means for moving the lever 3 inwardly so as to restore the holder 2 to its normal position and maintain the lower end of the extension 6 in such a position that it will cooperate with the stationary member 8, consists of a spring 9 connected at one end to the lever 3 above its fulcrum and having its opposite end connected to a stationary device inside of the car, such, for example, as one wall of the compartment B, as shown in Fig. 2. The lever 3 travels in a slotted guide 10 arranged inside of the compartment B, and yielding buffers 11 and 12 are provided for limiting the movement of said lever, the buffer 12 acting as a stop against which the lever 3 is forced with a quick or sudden stroke as it moves outwardly, and the buffer 11 acting as a stop with which the upper end of the lever contacts when it is in its normal position.

A receiving housing D is located adjacent the track on which the car A travels for receiving the packages that are ejected from the car. This housing D preferably has a comparatively long central portion 13 provided in its inner wall with an elongated opening 14 so as to permit the package C to enter said housing when the ejecting device is operated. The end portions of the central part 13 of the housing are inclined downwardly,

as shown in dotted lines in Fig. 1, so as to permit the packages that enter said central portion to slide down into a compartment 15 or 16 depending upon the direction in which the car is traveling, said compartments 15 and 16 being located at the opposite ends of the central portion 13 of the housing and communicating therewith. Each of said compartments has a door provided with a lock so that only an authorized person; namely, one who possesses a key to the lock, can obtain access to the compartment so as to remove the packages therefrom. A train that travels in the direction indicated by the arrow *a* in Fig. 1, will eject a package into the compartment 15 of the housing, and a train that is traveling in the opposite direction will eject an article into the compartment 16 of the housing.

The car A can be provided with any desired number of ejecting devices or package holders, and the receiving housing can be provided with a corresponding number of long central portions and communicating compartments located at the ends thereof. The car herein shown is provided with two ejecting devices, and the receiving housing D is provided with two separate and distinct central portions, each of which merges into compartments that are provided with separate key-controlled doors, the parts which constitute this second ejecting device and the portions or compartments of the receiving housing which cooperate therewith, being designated by the same reference characters used in connection with the ejecting device heretofore specifically described with the reference character *a* added thereto. It will, of course, be obvious, however, that the car could be provided with more than two ejecting devices so that different kinds of packages or articles can be delivered from the car, such, for example, as mail-bags, bundles of newspapers or express packages.

Having described the construction of my improved delivering apparatus, I will now describe the operation of same when a car is traveling in the direction indicated by the arrow *a* in Fig. 1.

If it is desired to deliver packages from the car when it passes the station at which the receiving housing D is located, the clerk or operative inside of the car will place the packages in the holders 2 and 2^a before the car reaches said station. When the car reaches the station the lower end of the extension 6 on the lever which carries the holder 2, will strike the inclined portion 8^a of the member 8 arranged between the rails of the track and thus cause said holder to move outwardly; the package in said holder being thrown or ejected into the central portion 13 of the housing D, as shown in dotted lines in Fig. 2, and then sliding down into the compartment 15 when the lever 3 that carries said holder,

comes into engagement with the buffer 12 that limits the outward movement of said lever. After the lower end of the extension 6 passes out of engagement with the inclined face 8^a of the operating member the spring 9 will move the lever 3 inwardly and thus carry the holder 2 back to its normal position. As soon as the lower end of the extension 6^a on lever 3^a comes into engagement with the inclined face 8^a of the operating member 8 the lever 3^a will start to move outwardly and thus eject the package in the holder 2^a into the central portion 13^a of the housing D, said package sliding down into the compartment 15^a and remaining therein until it is removed by the person who has a key that will open the door of said compartment.

The ejecting devices operate in the sequence above referred to when the car is traveling in the direction indicated by the arrow *a* in Fig. 1, and when the car is traveling in the opposite direction the holder 2^a will move outwardly before the holder 2 and the packages in said respective holders will be ejected into the compartments 16^a and 16 of the housing D.

The construction of the housing D could be modified in various ways without departing from the spirit of my invention, and the ejecting devices could also be constructed in various other ways without departing from my broad idea which consists in a movable device arranged inside of a car and adapted to hold a package or article and a stationary member arranged adjacent the track and adapted to operate said movable member when the car travels past the same so as to throw the package out of the car.

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

1. A delivering apparatus for cars, comprising a movable member arranged inside of a car and adapted to receive a package or article, a rigid device connected to said member and having a portion depending through an opening in the floor of the car, and a stationary member arranged adjacent the track on which the car travels and adapted to be engaged by the depending portion of said rigid device so as to positively actuate same when the car reaches a certain point and thus eject the package; substantially as described.

2. A delivering apparatus for cars, comprising a pivotally mounted package holder arranged inside of a car and provided with a rigid depending portion that terminates adjacent one rail of the track on which the car travels, and a stationary member arranged between the track rails and adapted to engage the rigid depending portion of said holder so as to swing same on its pivot and thus eject the package; substantially as described.

3. A delivering apparatus for cars, comprising an ejecting device arranged inside of a car and consisting of a lever provided at its upper end with a holder for receiving a package and having a rigid extension that terminates adjacent the track on which the car travels, a stationary member arranged between the track rails and having an inclined face that said rigid extension comes into contact with when the car is in motion so as to positively move the lever in one direction, and means for returning the lever to its normal position; substantially as described.

4. A delivering apparatus for cars, comprising a receiving housing having a plurality of separate compartments, a plurality of movable package holders arranged inside of a car and having operating devices that extend outside of the car, and a stationary member arranged adjacent the track on which the car travels and cooperating with said operating devices to discharge the packages in said holders into the compartments in said housing; substantially as described.

5. A delivering apparatus for cars, comprising an ejecting device consisting of a lever pivoted to the floor frame of the car and projecting upwardly through a slot in the floor, a holder on the upper end of said lever for receiving a package, a rigid extension on said lever which terminates adjacent the track on which the car travels, a member connected to the ties of the track and provided with an inclined face that said extension comes into contact with when the car is in motion so as to positively move the lever outwardly to eject the package in the holder through an opening in the side wall of the car, and yielding means for returning said lever to its normal position; substantially as described.

6. A delivering apparatus for cars, comprising an ejecting device consisting of a

pivotaly mounted package holder arranged inside of a car and provided with a rigid operating device that extends downwardly through the floor of the car, a stationary member connected to the ties of the track on which the car travels and having an inclined face that is engaged by said rigid operating device to move the holder and thus eject the package therein, and a housing arranged adjacent the track and provided with an elongated opening through which said package passes as it is ejected from said holder, the opening in said housing extending longitudinally of the track; substantially as described.

7. A delivering apparatus for railway cars comprising a closed housing arranged adjacent a railway track and provided with a long opening extending longitudinally of the track and also a door that is adapted to be locked, an ejecting device arranged inside of a compartment in a car and consisting of a pivoted lever provided at its upper end with a holder that is adapted to receive a package, a rigid extension on said lever that terminates adjacent the track on which the car travels, a member connected to the ties of the track and provided with oppositely inclined faces that cooperate with the extension on said lever so as to move the lever laterally and thus eject the package in the holder through an opening in the side wall of the car, and a spring for returning said lever to its normal position; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this fourth day of November 1908.

HENRY HOFFMANN.

Witnesses:

WELLS L. CHURCH,
GEORGE BAKEWELL.