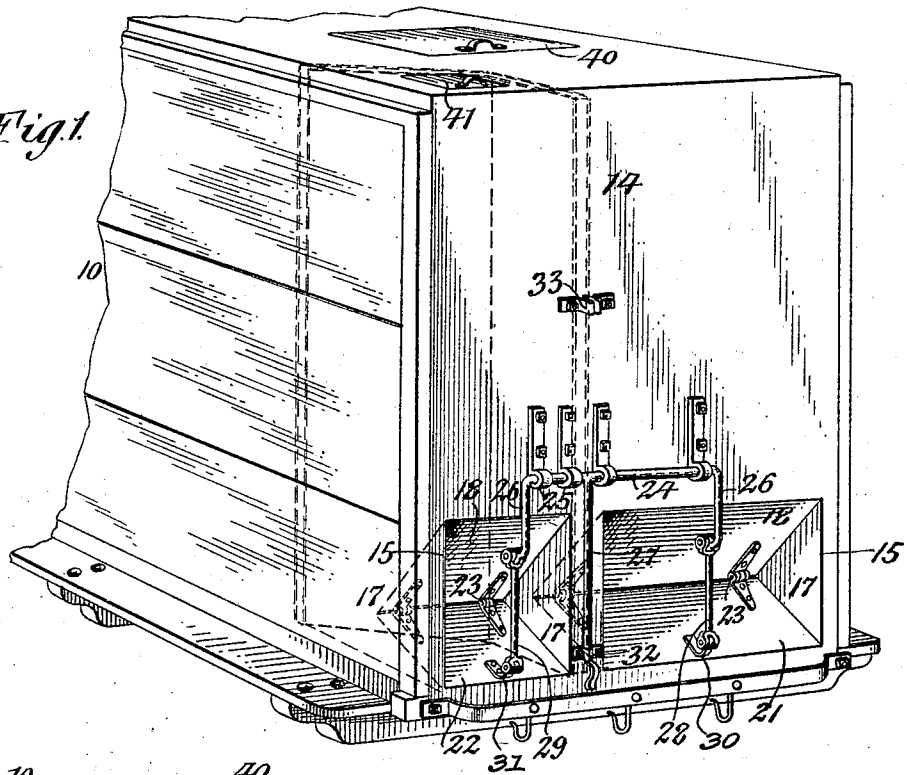
May 1, 1923. 1,453,402

F. MEYER

CLOSURE FOR STORAGE COMPARTMENTS

Filed June 15, 1920 2 Sheets-Sheet 1

Fig. 1.



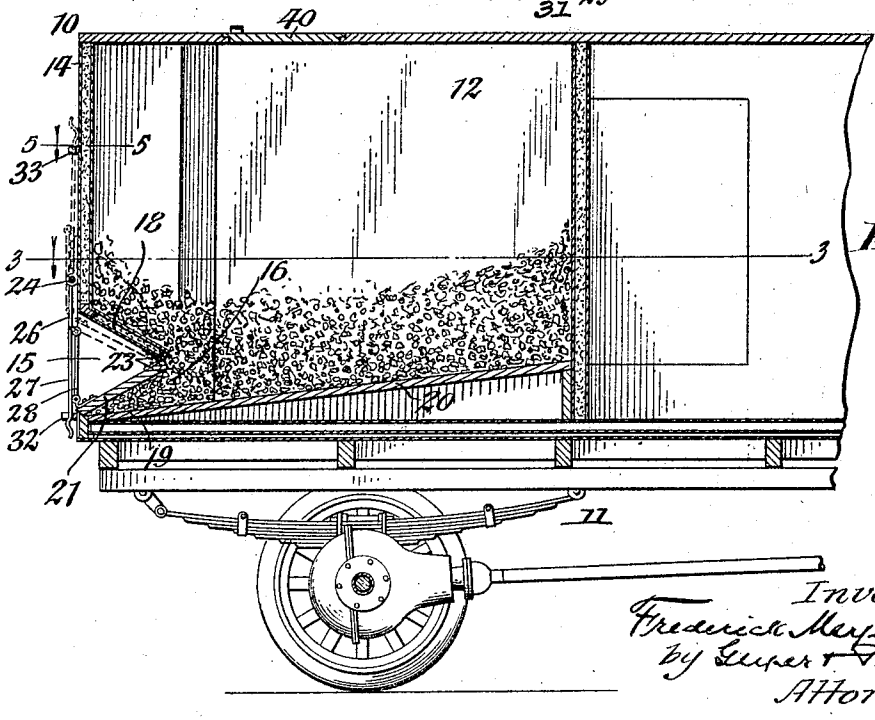


Fig. 2.

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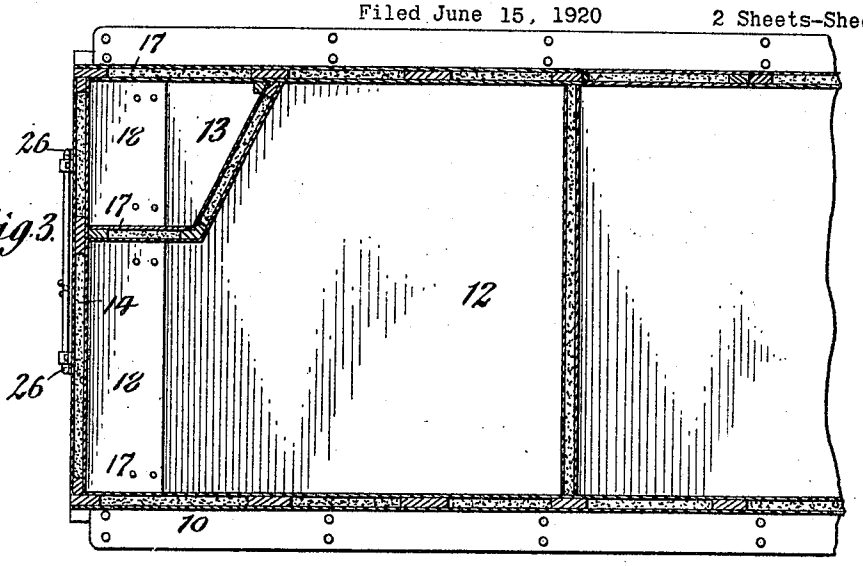
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CLOSURE FOR STORAGE COMPARTMENTS

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Fig. 3.



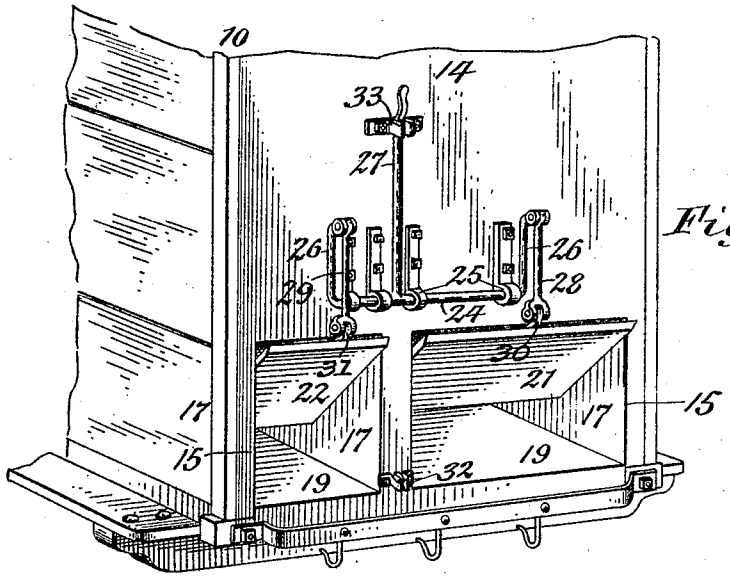
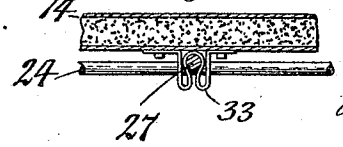


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

FREDERICK MEYER, OF BUFFALO, NEW YORK.

CLOSURE FOR STORAGE COMPARTMENTS.

Application filed June 15, 1920. Serial No. 389,111.

To all whom it may concern:

Be it known that I, FREDERICK MEYER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Closures for Storage Compartments, of which the following is a specification.

This invention relates more particularly to a closure for controlling the discharge of ice and salt from the storage compartments of vehicles employed for transporting and delivering ice cream from the factory to the customers, in which trade it is customary for the attendant to pack the ice cream tubs, packages or containers with ice and salt preparatory to delivering the same to the customer, although the invention may also be employed to advantage elsewhere.

It is the object of this invention to provide means for controlling the discharge of materials of this character from a storage compartment which are simple in construction and easily operable and which will permit of securely closing the outlet of the compartments and also prevent overflowing and scattering of the materials on the floor or street when opening the compartments, thereby not only avoiding waste but also eliminating the sloppy floors and streets incident to the methods heretofore employed for delivering goods of this character.

In the accompanying drawings:

Figure 1 is a perspective view of the rear part of an ice cream delivery wagon equipped with my invention and showing the storage compartments of the same closed. Figure 2 is a vertical longitudinal section of the same. Figure 3 is a horizontal section taken on line 3—3, Fig. 2. Figure 4 is a perspective view similar to Fig. 1, but showing the compartment opened. Figure 5 is a fragmentary horizontal section, on an enlarged scale, on line 5—5, Fig. 2.

Similar characters of reference indicate corresponding parts throughout the several views.

In the particular installation of my invention shown in the drawings, the body 10 of the vehicle is mounted on the chassis 11 of an automobile, although the same may be otherwise mounted, and in this case the body is provided with a comparatively large storage compartment 12 for ice and a smaller storage compartment 13 for salt, these compartments having their upright rear walls or sides 14 transversely in line with each other. In rear of the lowermost parts of these storage compartments are arranged delivery chambers 15, 15, each of which has its rear end open while its front end communicates with the lower rear part of its respective storage compartment by an outlet opening 16. The opposite longitudinal walls 17 of each delivery chamber are upright, the top 18 of each delivery chamber preferably inclines from its rear or outer end forwardly and downwardly to the upper end of the respective outlet opening, and the bottom 19 of each delivery chamber is preferably a rearward continuation of the bottom 20 of the companion storage compartment and both of these bottoms incline from their front ends downwardly toward their rear ends, as clearly shown in Fig. 2. The ice and salt are preferably introduced into the large and small compartments through openings in the tops thereof which openings are normally closed by covers 40, 41, as shown in Fig. 1.

The outlet openings of the ice and salt storage compartments are controlled by vertically swinging lids or doors 21, 22 each of which is arranged between the upright walls of the respective chamber. Each of these lids is pivoted at its inner end by hinges 23 to the top of the respective chamber adjacent to the upper end of the outlet opening which connects the same with the companion storage compartment and in the normal closed position of the lid the same inclines from its inner end downwardly toward its outer end and engages with its outer end with the bottom of the respective delivery chamber adjacent to the outer end thereof.

When each lid is closed and the vehicle is in motion, the contents of the storage compartment flows through the outlet opening thereof into the delivery chamber until the latter is filled, when the further flow of material ceases. When the vehicle is not in motion the material will flow only partway from the outlet opening into the bottom of the delivery chamber. In either case the material remains lying on the bottom of the delivery chamber upon raising the lid, which permits the attendant to remove the material by a scoop or shovel, as required, with less liability of spilling and also with less liability overflowing at the outer end of the cham-

ber and scattering the material and producing a sloppy condition on the floor or ground beneath, as has been the case heretofore.

Furthermore, as only a small quantity of the material escapes at a time from the storage compartment into the delivery chamber, it is possible to always close the lid without hindrance and thus avoid wasting of material by leakage.

Various means may be employed for actuating the lids so as to open or close the same, those shown in the drawings being satisfactory and constructed as follows:

24 represents a horizontal rock shaft which is journaled transversely in bearings 25 on the rear walls of the compartments above the delivery chambers and provided at its opposite ends with rock arms 26 and between its ends with a hand lever 27 which projects in the same direction from the shaft as the rock arms. The rock arms are connected, respectively, by links 28, 29 with ears 30, 31, on the outer ends of the lids. Upon swinging the hand lever and arms downwardly, the lids are closed and upon turning the same upwardly the lids will be opened. For the purpose of retaining the lids either in their open or shut position, the rear wall of the compartments is provided above and below the delivery chambers with spring catches or clasps 32, 33, with which the hand lever is adapted to engage in either of these positions and to be retained thereby. The relative arrangement of the rock shaft, rock arms and links is preferably such that when the lids are closed and the hand lever engages the lower clasp, then the pivotal connection between the rock arms and the links is arranged inwardly from a line extending from the axis of the shaft to the pivotal connection between the links and the lids, as shown in Fig. 2, which causes any outward pressure of the material against the lids to increase the tightening effect of the links and rock arms and thus ensure against accidental opening of the lids and waste of material.

I claim as my invention:

1. A storage compartment having an outlet opening, a bottom extending inwardly from the lower end of said outlet opening, an upright outer wall above said outlet opening, and an inclined wall which slopes from the lower end of said outer wall downwardly and inwardly to the upper end of said outlet opening, a delivery chamber communicating at its inner end with said compartment through said outlet opening and having upright longitudinal walls and a bottom extending outwardly from the lower end of said outlet opening, and a lid controlling said outlet opening and normally inclining from its inner end downwardly toward its outer end and pivoted at its inner end to said inclined wall at the upper end of said outlet opening and adapted to engage its front end with the bottom of said delivery chamber.

2. A storage compartment having an outlet opening, a delivery chamber which communicates at its inner end with the storage compartment by means of said outlet opening, said storage compartment and delivery chamber having bottoms which are arranged continuously, a lid pivotally supported at its inner end adjacent to the upper end of said outlet opening and adapted to engage its outer end with the bottom of said chamber adjacent to the outer end of the same, and means for actuating said lid including a rock shaft journaled above said delivery chamber, a toggle rock arm arranged on said shaft in front of said chamber, a toggle link connecting said rock arm and lid, and an operating lever arranged on said shaft on one side of said chamber and projecting from said shaft in the same direction as said toggle arm.

3. A storage compartment having an outlet opening, a delivery chamber which communicates at its inner end with the storage compartment by means of said outlet opening, said storage compartment and delivery chamber having bottoms which are arranged continuously, a lid pivotally supported at its inner end adjacent to the upper end of said outlet opening and adapted to engage its outer end with the bottom of said chamber adjacent to the outer end of the same, and means for actuating said lid including a rock shaft journaled above said delivery chamber, a toggle rock arm arranged on said shaft in front of said chamber, a toggle link connecting said rock arm and lid, an operating lever arranged on said shaft on one side of said chamber and projecting from said shaft in the same direction as said toggle arm, and catches for holding said lever either in an upwardly or in a downwardly projecting position for holding said lid open or closed.

FREDERICK MEYER.