United States Patent

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[72] Inventors **Henry D. Breen**
Chicago;
Russell M. Loomis, Palos Heights, Ill.

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[73] Assignee **Unarco Industries**
a corporation of Illinois

[54] **LADING FILLER**
13 Claims, 11 Drawing Figs.

[52] **U.S. Cl.** **105/369,** 105/376
[51] **Int. Cl.** **B60p 7/14,** B61d 45/00
[50] **Field of Search** 105/369B, 376, 369S, 369.2

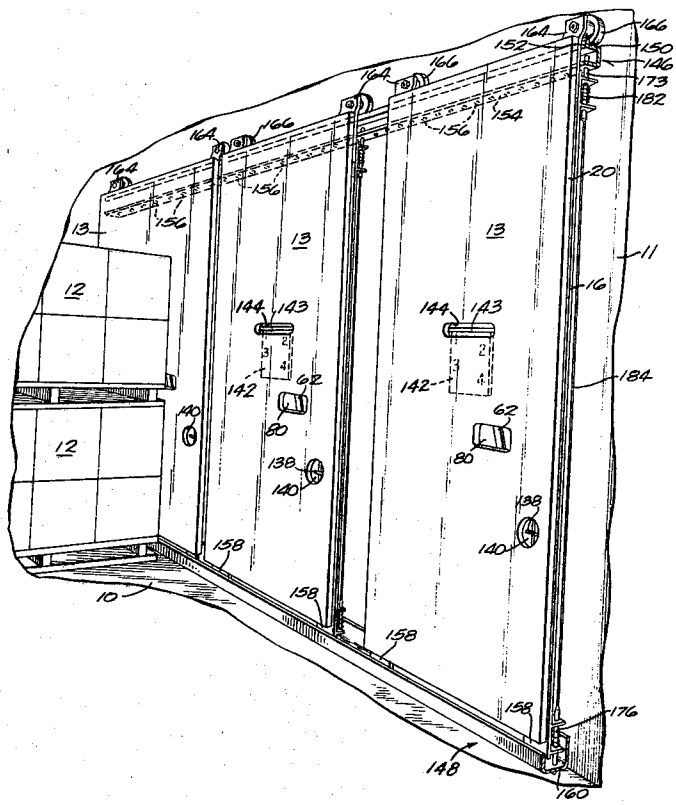
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Primary Examiner—Drayton E. Hoffman
Attorney—Norman Lettvin

ABSTRACT: A lading filler having a frame which is either stationarily mounted on a wall of a railway car or the like or is moveable along a sidewall on elongated tracks. A panel is adjustably mounted on the frame by two sets of moveable crossed arms and each set is connected by a pair of moveable tie bars. A locking arrangement is provided for locking the panel in one of its adjusted positions which includes a member which is moveable by and in the same direction as ends of the crossed arms. Further latching means are provided for locking the panel to the frame and for preventing movement along the sidewall.



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SHEET 1 OF 4

Fig. 1

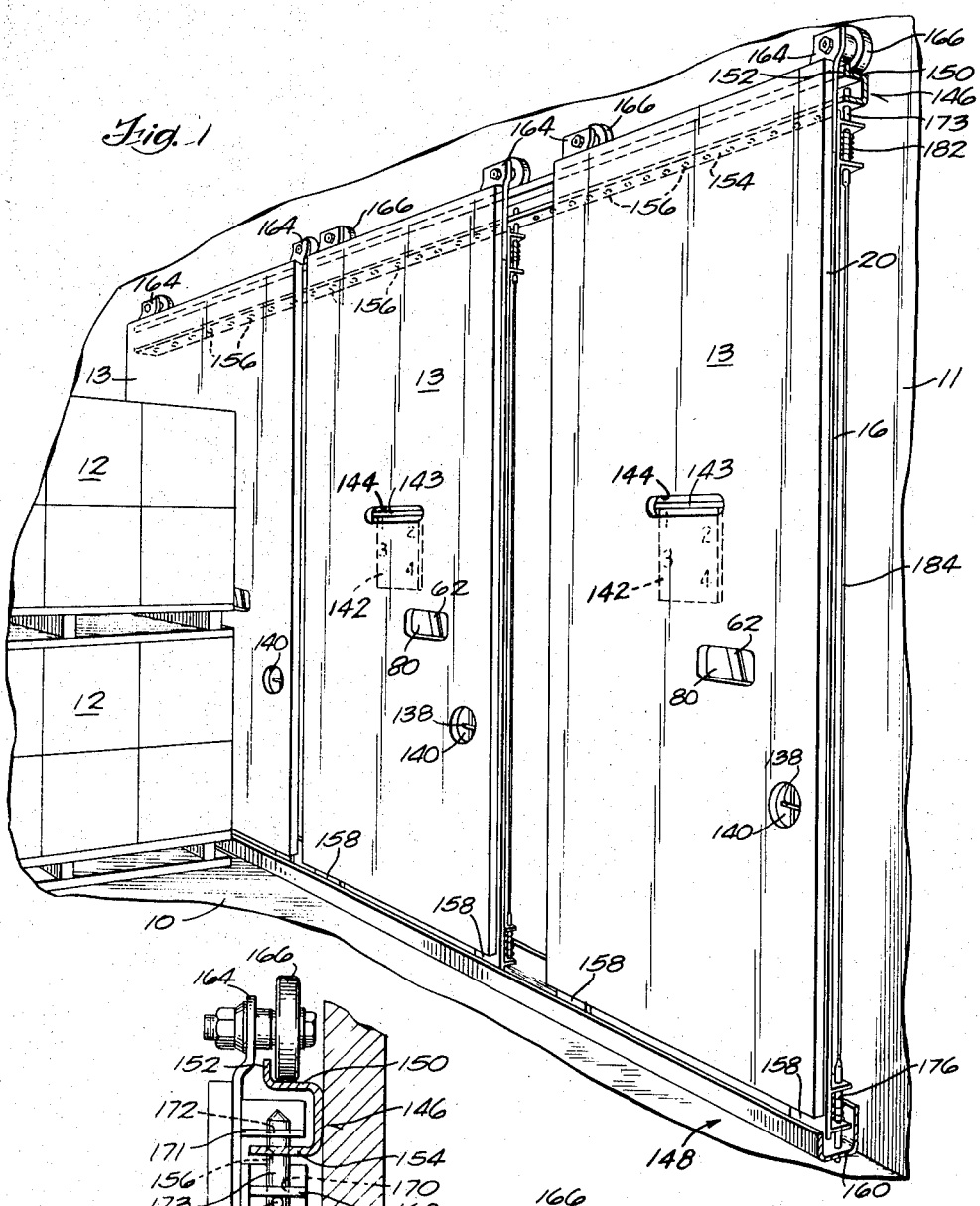


Fig. 3

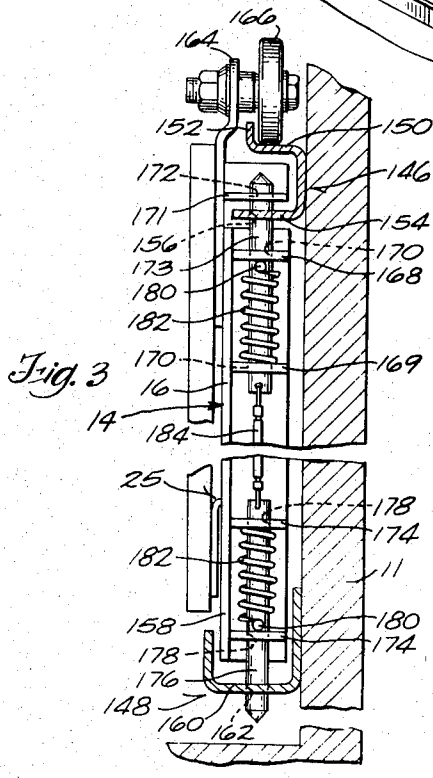
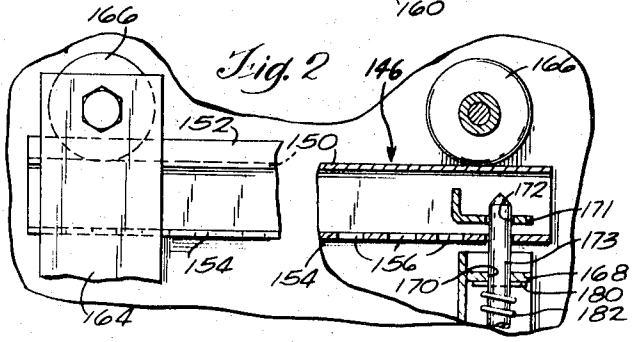
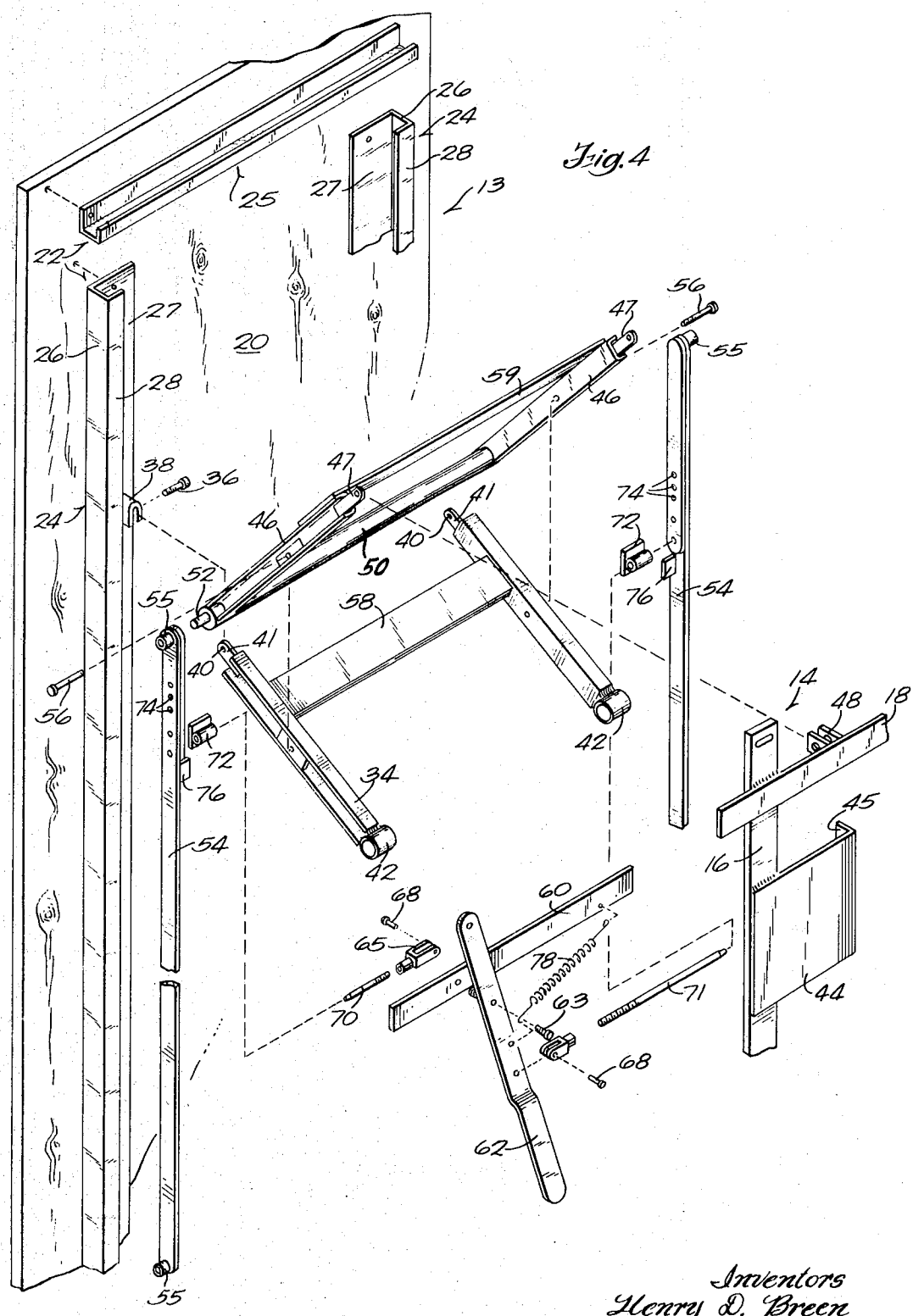


Fig. 2



Inventors
Henry D. Breen
Russell M. Loomis
By Bair, Freeman & Molinare
Attorneys

Fig. 4



Inventors
Henry D. Breen
Russell M. Loomis
By Bair, Freeman & Molinare
Attorneys

Fig. 5

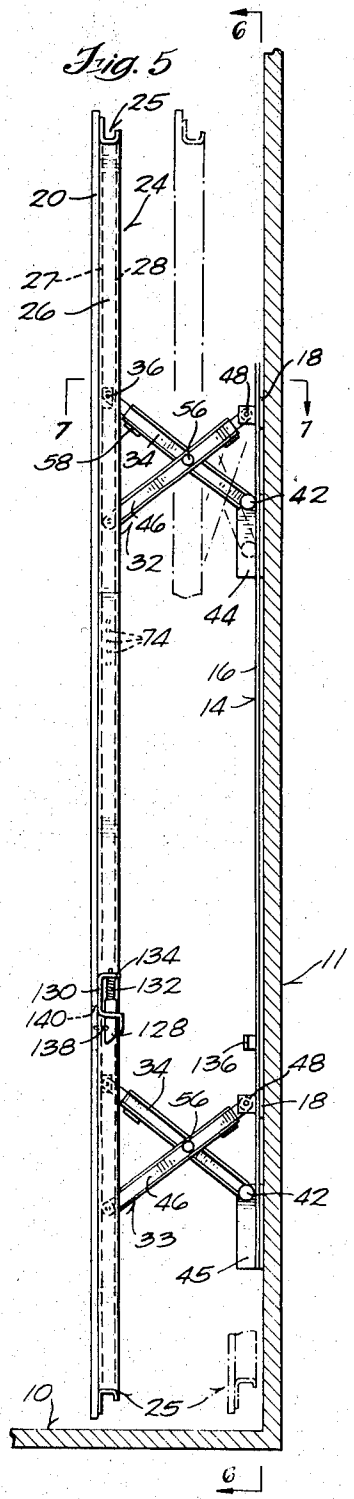
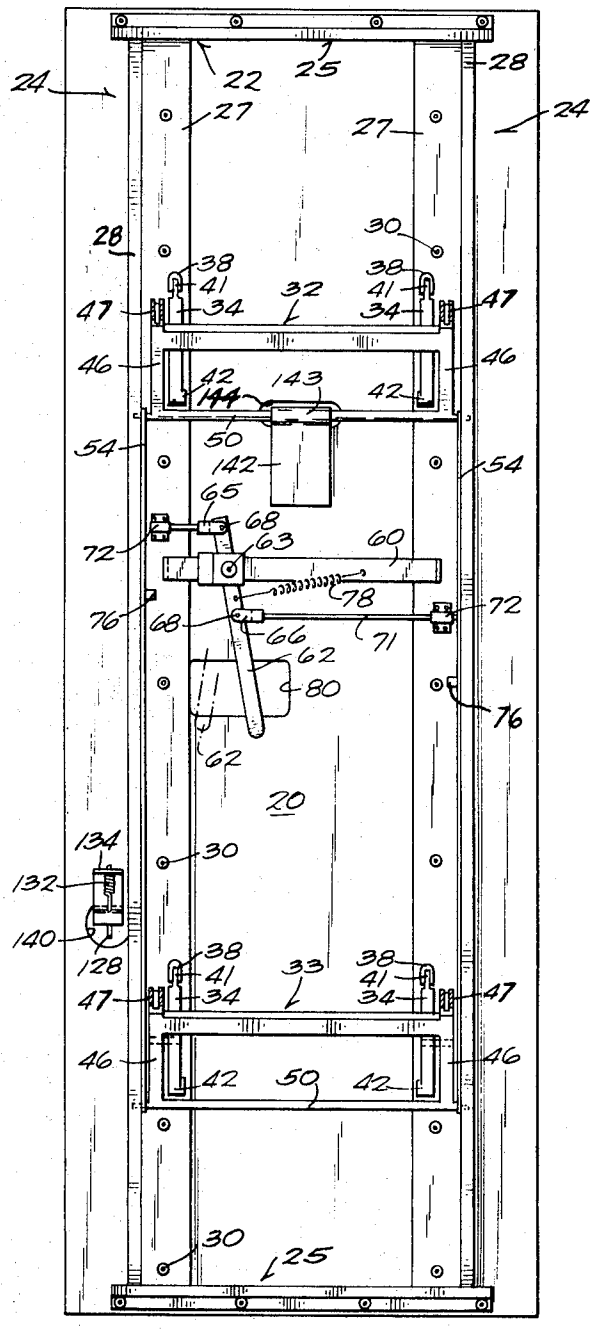


Fig. 6



Inventors
Henry D. Breen
Russell M. Loomis
By Bair, Freeman & Molinare
Attorneys

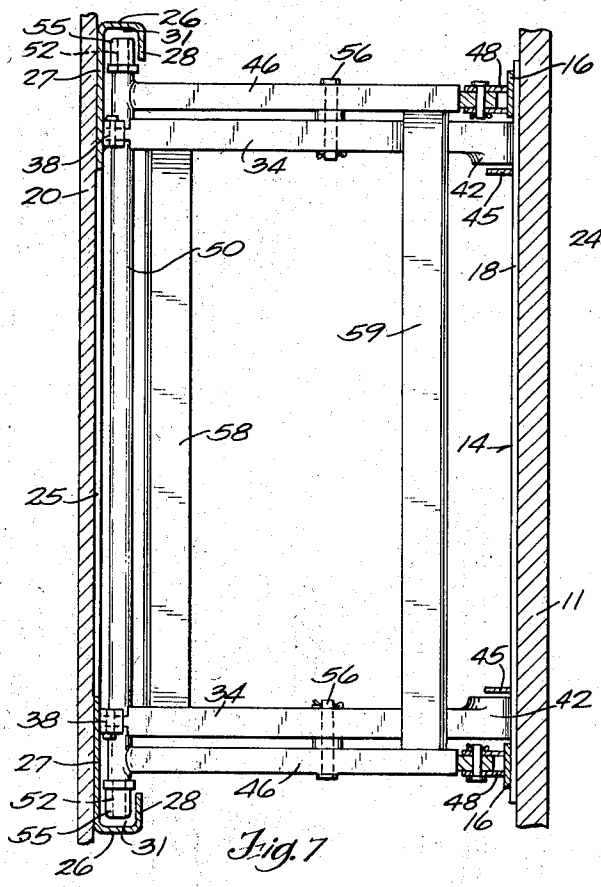
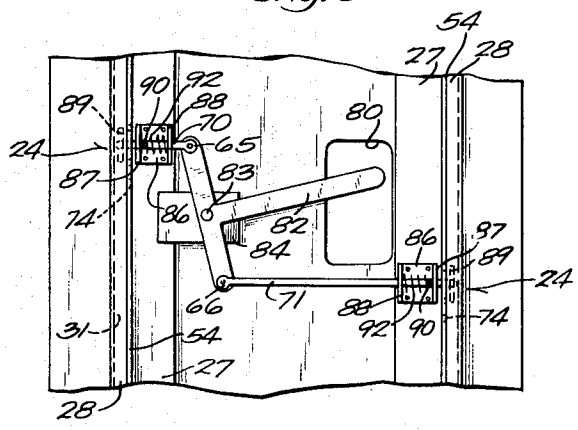


Fig. 7

Fig. 8



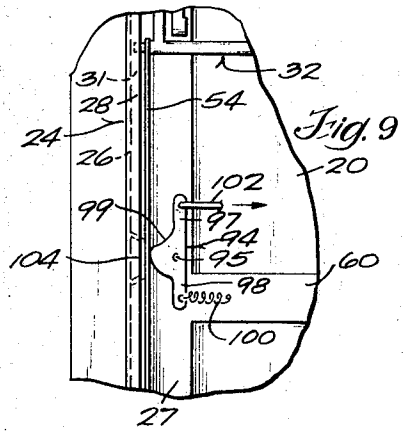


Fig. 9

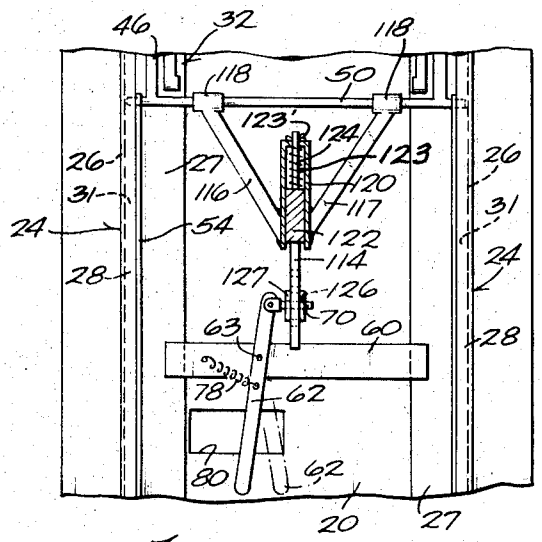
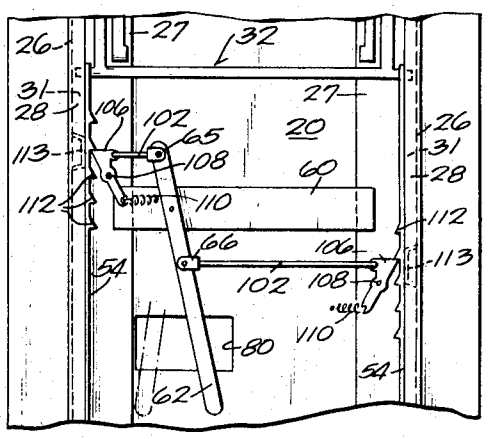


Fig. 11

Fig. 10



Inventors
Henry D. Breen
Russell M. Loomis
By Bair, Freeman & Molinare Attorneys

LADING FILLER

BACKGROUND OF THE INVENTION

This invention relates to lading fillers and, more particularly to adjustable fillers for use in a freight-carrying vehicle.

When shipping various types of goods in packages or cartons, it frequently becomes necessary to confine the goods against lateral or transverse shifting in the shipping car. To prevent such lateral shifting, side or end fillers have been provided which are mounted on crossed scissorslike arms in the car, and are effective to vary the interior width or length of the car so as to confine the cartons or packages and prevent their lateral movement in the car. The crossed arm mounting renders the filler adjustable relative to the car wall so as to accommodate a variety of sizes of cartons or packages. It is further desirable at times, that the fillers be adjusted longitudinally of the car so as to accommodate loads of various lengths. Longitudinal adjustability of the side filler also obviates interference between the side filler and transverse lading divider bulkheads when a divider bulkhead is placed against the load to prevent longitudinal shifting of the cargo during shipment.

A lading filler constructed in accordance with the principles of our invention includes a locking bar which is moveable by and in the same direction as the ends of the crossed arms to be positioned thereby to receive a locking means to lock the panel in one of a plurality of positions, while retaining the rapid and easy adjustment features of a crossed arm mounting. In our filler the arms of each of the sets of crossed arms move in unison parallel to each other and are tied together by a tie bar thereby substantially strengthening the adjustable side filler arrangement. Moreover, the tie bar may itself form the locking bar. The filler is also capable of rapid adjustment longitudinally of the car if desired and may be locked in one of a plurality of longitudinal positions. Also the filler of our invention is laterally stable and simplified over the prior side fillers and is extremely rugged while being easy to operate.

SUMMARY OF THE INVENTION

In a principal aspect, a lading filler constructed in accordance with the principles of our invention, includes a wall frame supported on one of the walls of a freight-carrying vehicle and a vertical panel extending substantially over the height of the wall. The panel is adjustably mounted on the wall frame by crossed arm means including first and second pairs of the arms each of which have ends which are slideably moveable adjacent the wall frame and the panel, respectively. Each of the pair of arms are pivotally connected together and a locking bar is located adjacent the panel and is connected to the arm ends which slide adjacent the panel. The sliding movement of the sliding arm ends moves the locking bar in the same direction and positions the locking bar to receive a locking means carried on the panel to lock the locking bar in one of a plurality of positions to space the panel from the wall by a predetermined distance.

This and other objects, features and advantages of the present invention will be more clearly understood through a consideration of the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

In the course of this description reference will be frequently made to the attached drawings in which;

FIG. **1** is an overall view of the lading filler arrangement of the present invention as installed in a freight-carrying vehicle or car, the filler being longitudinally adjustable;

FIG. **2** is a broken front elevation view of the wall frame of the arrangement shown in FIG. **1** showing the longitudinally adjustable mounting arrangement;

FIG. **3** is a broken side elevation view of the wall frame and mounting arrangement of FIG. **2**;

FIG. **4** is an exploded view of a part of the filler arrangement of my invention;

FIG. **5** is a side elevation view of the filler of my invention showing the wall frame stationarily mounted on a wall of the car;

FIG. **6** is a cross-sectioned rear elevation view of the filler arrangement taken along line **6–6** of FIG. **5** and showing the back of the panel and one embodiment of locking arrangement;

FIG. **7** is a cross-sectioned plan view of the filler arrangement taken along line **7–7** of FIG. **5**;

FIG. **8** is an elevation view of an alternative embodiment of locking arrangement;

FIG. **9** is an elevation view of a friction-type embodiment of locking arrangement;

FIG. **10** is an elevation view of a pawl and ratchet embodiment of locking arrangement; and

FIG. **11** is an elevation view of another embodiment of locking arrangement having a single locking pin and bar.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. **1**, a preferred embodiment of lading filler constructed in accordance with the principles of our invention is shown located in a freight carrying vehicle or car. The car includes a floor **10** and is enclosed by a plurality of vertical sidewalls, sidewall **11** being shown. As is common practice, various packages or articles **12** to be shipped are stowed in the shipping vehicle either directly upon the floor **10** of the vehicle or frequently, as shown in FIG. **1**, the articles or packages are palletized. In either event during the course of shipping, movement of the vehicle tends to cause the articles or packages of cargo to shift laterally and/or longitudinally in the vehicle frequently causing the articles or packages to fall to the floor or strike the walls of the vehicle with sufficient impact to result in damage to the cargo. To prevent such shifting of the cargo, a plurality of lading fillers, generally shown at **13**, are provided which may be adjusted with relation to the sidewall **11** of the vehicle to closely confine the cargo. The side fillers **13** shown in FIG. **1** are longitudinally adjustable so as to be positioned along the length of the vehicle depending upon where the cargo is located in the vehicle. It will be appreciated that under certain conditions, the longitudinal adjustment of the side fillers **13** is unnecessary and the longitudinal positioning structure may be eliminated and the side fillers attached directly to the sidewall, as shown in FIG. **5**. Whether or not the side filler **13** is longitudinally adjustable, the side filler is arranged to be laterally adjustable to accommodate loads of varying widths, the lateral adjusting structure to be described in detail hereinafter.

Referring to FIGS. **4—7**, the side filler **13** includes a generally rectangular wall frame **14** which may be either stationarily mounted upon the sidewall **11** of the vehicle as shown in FIG. **5**, or may be mounted for longitudinal movement as will be described in more detail later. The wall frame **14** includes a pair of vertical flat members **16** spaced from each other and rigidly connected together by upper and lower crossmembers **18** to form a rigid generally rectangular frame. A vertical panel **20**, constructed of suitable sheet material such as plywood or the like, is provided and firmly affixed to the wall side of the panel **20** is a second generally rectangular frame **22** constructed of rigid vertical channel members **24** and horizontal channel members **25**. Each vertical channel member **24** includes a web **26** and a relatively wide flange **27** and narrow flange **28**. The wide flange **27** of each of the vertical channels **24** is affixed to the back face of the panel **20** by suitable means such as bolts **30** or the like. The web **26** and the wide and narrow flanges **27** and **28** of the channels **24** form a guide track **31**, shown in FIG. **7**, and which will be explained in more detail later.

An upper and lower set of crossed arms **32** and **33**, respectively, are provided to adjustably mount the panel **20** with respect to the wall frame **14**. The upper set of crossed arms **32** is identical to the lower set of crossed arms **33**. Therefore, like reference numerals will be employed for like components and

the components and arrangement of the upper set of crossed arms only will be described. Referring particularly to FIG. 4, the crossed arms include a first or inner pair of arms 34 which are pivotally attached at one of their ends by a pin 36 journaled through aligned apertures in an apertured bracket 38 which is fixed to the wide flange 27 of channels 24, as by welding. The pins 36 also pass through an aperture 40 in a tab extension 41 of each of the arms 34. The other ends of the arms 34 carry a tubular knucklelike member 42 having a rounded surface which is adapted to pivotably and slideably contact the flat outwardly facing side of each of tabs 44 and slide in a vertical direction thereon. Tabs 44 are attached to the wall side of vertical members 16. The edges of the outwardly extending tabs 44 are bent outwardly at 45 to strengthen the tabs.

A second or outer pair of arms 46 are each provided at one of their ends with an apertured tab extension 47 which is pivotally pinned to flange tabs 48 which extend outwardly from the horizontal member 18 of the wall frame 14. The other ends of the arms 46 are rigidly connected to each other by a crossbar 50 which terminates in a pair of outwardly extending pins 52. A pair of vertical tie bars 54 are provided extending between the extending pins 52 of the upper set of crossed arms 32 and the outwardly extending pins 52 of the lower set of crossed arms 33. Each end of the tie bars 54 carries a tubular bushing 55 and each of the outwardly extending pins 52 is journaled into the bushings 55. The tubular bushings 55 and pins 52 are, in turn, slideably carried in the guide track 31 of the vertical channels 24 of the panel frame 22, as shown in FIG. 7. Each pair of arms 34 and 46 are pivotally connected to each other intermediate their ends by pins 56. Cross braces 58 and 59 are provided to rigidly connect each of the arms 34 and 46, respectively, together to provide a rigid structure.

The crossed arms 34 and 46 and their pivotal connections and a slideable connection 52 provide a firm structure which resists wobbling and lateral movement of the panel. Thus, if a lateral force is imposed on the panel, the force will be transmitted to the brackets 38 and channel 24 rigidly affixed to the back of the panel, through the arms and pivot pins 56 to the tabs 48 on the wall frame, firmly resisting any lateral movement or twisting of the panel. A force perpendicular to face of the panel will be distributed to the wall frame via bracket 38 and rigid channel 24 and pins 52 through the arms 34 and 46 to the tabs 48 and knucklelike members 42 and tabs 44. Moreover, the forces will tend to be equalized between the upper and lower sets of crossed arms 32 and 33 since they will be transmitted through the rigid channels 24 and tie bars 54, the rigid channels 24 diverting a major portion of such forces from the locking arrangement which will now be described.

One pin and aperture embodiment of locking arrangement for locking the panel 20 in spaced relation to the sidewall is shown in FIGS. 4 and 6. A crossmember 60 is attached to the flanges 27 of vertical channels 24 as by welding. An operating lever 62 is pivotally attached, as by pin 63, intermediate the vertical channels 24, the pin 63 acting as a pivot fulcrum. Connector links 65 and 66, in turn, are pivotally pinned by pins 68 above and below the fulcrum and locking pins 70 and 71 are threaded into each of the connector links 65 and 66, respectively, the locking pins extending horizontally toward each of the tie bars 54. The locking pins 70 and 71 are slideably journaled through tubular guide members 72 attached to each wide flange 27. The tie bars 54 include a series of apertures or holes 74 spaced from each other by a predetermined distance. The location and spacing of the holes 74 determine the various adjusted positions of the panel 20 with respect to the wall frame 14. For example, when the panel is spaced at its maximum distance from the wall frame, as shown in the solid line position in FIG. 5, the panel will be locked in place by the insertion of each of the locking pins 70 and 71 in the lowermost of the tie bar apertures 74 since the tie bars 54 will have been displaced upwardly to their maximum elevation. As the panel 20 is moved nearer the wall frame, as shown in the dot-and-dash line position in FIG. 5, the locking pins 70 and 71 may be inserted in successively higher ones of the apertures 74, if it is desired to lock the panel in one of its successive nearer positions. Tabs 76 are carried on each tie bar 54 and are adapted to engage the tubular guide members 72 as the tie bars 54 move upwardly, thus acting as a stop for establishing the maximum spacing of the panel 20 from the wall frame 14. A spring 78 is attached between the operating lever 62 and the cross member 60 to normally urge the respective locking pins 70 and 71 into their locking position. The end of the handle is disposed adjacent an aperture 80 in the panel to enable the operator to insert his hand from the front of the panel to move the locking pins 70 and 71 out of locking relationship with the tie bar apertures 74.

An alternate embodiment of pin and aperture locking means is shown in FIG. 8. In this embodiment a T-shaped operating lever 82 is provided which is pivotally attached at 83 to a bracket 84 which, in turn, is fixed to one of the flanges 27, as by welding. The locking pins 70 and 71, at their connector links 65 and 66, are pivotally pinned to the ends of the cross arm portion of the T-shaped lever 82 and extend horizontally toward the apertures 74 of the tie bars 54 through C-shaped bracket guides 86 which are fixed to the flanges 27. One of the legs 87 of each of the C-shaped guides is located adjacent the tie bar 54 and the other leg 88 is located toward the connector link. An apertured plate 89 is located in the guide track 31 and each of the legs 87 and 88 and the plate 89 are apertured to receive the locking pins 70 and 71. Each of the locking pins 70 and 71 carries a fixed pin 90 and a spring 92 extends between the leg 88 of the C-shaped guide and the pin 90, urging each locking pin toward its respective tie bar, through one of the bar's apertures 74 and thence through the aperture of the apertured plate 89 to lock the panel in position.

Referring to FIG. 9, a friction-type locking arrangement is shown. The operating lever arrangement is substantially the same as that shown in FIG. 6, however, the locking pins 70 and 71 have been replaced with actuating arms and a friction eccentric performs the locking function. The eccentric 94 is pivotally attached to flange 27 at 95. The eccentric 94 includes a pair of operating arms 97 and 98 extending in opposite directions and an eccentric contact surface 99. One of the operating arms 98 is connected by a spring 100 to the crossmember 60 and the other operating arm 97 is attached to the actuating arm 102 of the operating lever. A wedging surface 104 is provided within the guide track 31 of each of the vertical channels 24, the wedging surface 104 lying closely adjacent one side of the tie bar 54. The eccentric surface 99 is normally urged into frictional contacting engagement with the other side of the tie bar 54 to lock the panel into position by wedging the tie bar 54 between the wedging surface 104 and the surface 99 of the eccentric. To unlock the panel, the operating lever is actuated, as previously described, by pulling the actuating arm 102 in the direction indicated by the arrow in FIG. 9, thus rotating the eccentric surface 99 out of contact with the tie bar 54.

A pawl-and-ratchet locking arrangement is shown in FIG. 10. As previously described with respect to FIG. 9, the operating lever 62 carries a pair of actuating arms 102 each of which are connected at their extreme ends to a pawl 106. The pawl 106 is pivotally mounted at 108 on flange 27 and a spring 110 is connected between the other end of the pawl and either the panel 20 itself or the crossmember 60. The tie bar 54, rather than having spaced apertures as previously described, carries a plurality of ratchet teeth 112 positioned as previously described with respect to the apertures 74. A wedging surface 113 is also preferably provided to prevent distortion of the tie bar 54. The spring 110 normally urges each of the pawls 106 into contact with one of the ratchet teeth 112, locking the panel into position. To unlock the panel, the operating lever 62 is moved to the dotted line position, overcoming the spring pressure and disengaging each pawl 106 from its respective ratchet tooth 112.

In FIG. 11 an embodiment is shown of an arrangement having a single locking bar and pin. A locking bar 114 is suspended from the crossbar 50 of the upper set of crossed

arms 32 by a pair of angled brackets 116 and 117. Each of the angled brackets 116 and 117 carries a tubular member 118 at one end, and the crossbar 50 is journaled through the tubular members. In order to absorb cargo-shifting shocks and reduce the possibility of damage to the locking arrangement during shipment, a shock absorbing arrangement may be provided to insulate the locking bar 114 from the shocks. The shock absorber includes a housing structure 120 which is attached at the ends of the angled brackets 116 and 117 opposite their tubular members 118. The upper end of the locking bar 114 terminates in a pistonlike member 122 within the housing 120 and a pin 123 extends upwardly therefrom through the end of the housing. A pin 123' or other suitable means is provided to prevent the piston from falling from the housing. A spring 124 extends about the pin 123 between the pistonlike member 122 and the end of the housing 120 to absorb the shock and normally urges the piston 122 downwardly, as viewed in FIG. 11. The locking bar 114 carries a plurality of spaced apertures 126 which are adapted to receive the locking pin similar to the apertures 74 previously described. In this embodiment the operating lever 62 is pivotally attached at 63 to the crossmember 60 as before but only the upper locking pin 70 is carried at the end of the lever, the pin extending through an apertured U-shaped guide member 127, which straddles the locking bar 114. The operation of the single locking bar and pin embodiment is substantially identical to the previously described embodiments. It should be noted that the locking bar 114 will move in the same direction and by the same amount as the tie bars 54 when the panel is being positioned since it is attached by angled brackets 116 and 117 to the moveable crossbar 50.

In order to latch the panel 20 adjacent the wall frame 14 when the panel is not in use, a latching arrangement is provided. Referring to FIGS. 5 and 6, a spring loaded plunger 128 is carried by a bracket 130 on the back face of the panel. A spring 132 exerts a downward force on the plunger between the upper leg 134 of the bracket and the plunger 128. The plunger 128 is adapted to engage a bracket 136 fixed to the wall frame 14. To store the side filler, the panel 20 is moved horizontally close to the wall frame 14 to the dot-and-dash line position shown in FIG. 5. The tapered end of the plunger 128 rides upwardly upon the bracket 136 and then snaps downwardly behind the bracket 136, locking the panel against the wall frame 14. An extension 138 for finger manipulation, is carried by the plunger 128 and is aligned with an aperture 140 in the face of the panel to provide for operation of the plunger from the front of the panel. To release the panel from the wall frame, the plunger 128 is lifted upwardly by lifting the extension 138, disengaging the plunger from the bracket 136 and allowing the panel to be moved outwardly away from the wall frame.

In order to provide an indication of the position of the panel with respect to the wall frame, a gauge strip 142 having indicia thereon is suspended from crossbar 50, the crossbar being journaled through a tubular member 143 carried at an end of the strip, and an opening 144 is provided in the panel to enable the operator to view the gauge strip from the front of the panel, as shown in FIG. 6. When the panel 20 is in the stored position against the wall frame, the crossbar 50 and gauge strip 142 will be in their lowermost position exposing appropriate indicia through the opening 144. As the panel is moved away from the wall frame 14, the crossbar 50 rises, raising the gauge strip 142 and progressively exposing different indicia through the opening 144.

The arrangement for moving the side filler longitudinally of the car is shown in FIGS. 1—3. A pair of tracks 146 and 148 are affixed to the sidewall 11 of the car and extend longitudinally thereof. The upper track 146 is generally channel-shaped, the upper flange of which is turned upwardly along its edge to define a guide rail 150 between the the upwardly turned edge 152 and the sidewall 11 for receiving a pair of side filler mounted rollers 166. The lower flange 154 of the upper track 146 includes a plurality of spaced apertures 156 for receiving a latching pin. The lower track is also generally channel-shaped, the open end facing upwardly to receive an extended portion 158 of the vertical members 16 of the wall frame. The web 160 of the lower track 148 also carries a plurality of spaced apertures 162 for receipt of another latching pin.

The wall frame 14 carries a pair of upward extensions 164 which are attached to the wall frame, as by welding, and extend slightly above the top of the panel 20 and a pair of rollers 166 are rotatably mounted thereon. Attached between the top of one of the vertical members 16 of the wall frame and the sidewall 11 are upper and lower plate members 168 and 169 each having an aperture 170 extending between their faces. Also attached to one of the upward extensions 164 is a plate member 171 which extends into the open channel rail 146, the plate member 171 also having an aperture 172. An upwardly extending tapered latching pin 173 extends through the apertures 170 of the plates 168 and 169, upwardly through one of the apertures 156 in the lower flange 154 of track 146 and through the aperture 172 in plate 171. A pair of spaced apertured plates 174 are also fixed to the lower end of the vertical member 16 of the wall frame and a second tapered latching pin 176 extends downwardly through the apertures 178 of the plates 174 and through one of the apertures 162 in lower track 148. Each of the latching pins 173 and 176 carries a pin 180 and a spring 182 extends between the pin 180 of each of the latching pins 173 and 176 and plates 169 and the upper one of plates 174, respectively. The springs 182 urge the upper pin 173 in an upward latching direction through one of the apertures 156 in the upper track 146 and the lower pin 176 in a downward latching direction through one of the spaced apertures 162 in the lower tracks 148. Thus, each of the pins latch the wall frame of the side filler and prevent either longitudinal movement parallel to the sidewall 11 or swinging movement of the bottom of the wall frame away from the sidewall. A flexible chain or cord 184 is attached between the lower end of the upper pin 173 and the upper end of the lower pin 176. To unlatch the side filler for longitudinal movement, the cord 184 need merely be pulled to overcome the spring force of springs 182 resulting in a simultaneous withdrawal of the upper pin 173 and the lower pin 176 from their respective apertures 156 and 162. The cord 184 is preferably located adjacent a side of the panel to allow easy access.

To position the side fillers described above, the operator inserts a finger through aperture 140 and lifts the latch plunger 128 releasing the panel from the bracket 136 to allow movement of the panel away from the wall frame 14. The operator then reaches through aperture 80 and moves the locking arrangement operating lever 62 to the dotted line position as shown in the FIGS. Referring particularly to the embodiment shown in FIGS. 4—6, movement to this position withdraws the latching pins 70 and 71 from the tie bar apertures 74. The operator may then pull the vertical panel 20 forward to its desired spaced position from the sidewall and in close relation to the cargo to be protected while holding the locking lever in the dotted line position, as shown in FIG. 6. As the panel moves forward, arms 34 pivot about their brackets 38 and the knucklelike members 42 of each arm 34 slide upwardly along the guide tabs 44. Simultaneously arms 46 pivot about their brackets 48 and pins 56 and their extended pins 52 and the tie rod bushings 55 move upwardly in the guide track 31 of the vertical channels 24 of the panel frame. It will be noted that the extended pins 52 of each of the crossed arm sets 32 and 33 move upwardly in the same direction and at the same rate since each are connected together by the tie rods 54. The panel is prevented from being extended too far from the wall frame by the tabs 76 on the tie rods 54 which contact the locking pin tubular guide 72 preventing further upward movement of each tie rod 54 and, thus, preventing further outward movement of the panel 20. When the panel has been positioned in its desired spaced relationship from the wall frame 14, the locking arrangement operating lever 62 is released and the spring 78 immediately urges the locking pins 70 and 71

toward their respective tie rod and into the appropriate tie rod aperture **74**, locking the panel into its selected position. The operator at all times is aware of the panel spacing by observing the moveable gauge strip **142** attached to the cross rod **50** which becomes progressively exposed through the panel aperture **144** as the cross rod **50** moves upwardly. The gauge strip **142** is particularly useful where the side fillers are to be prepositioned prior to the loading cargo. To store the side filler, the above described operation is merely reversed.

Although the lading filler of our invention has been described in terms of a sidewall filler, it will be appreciated that the filler may also be arranged on the end walls of the vehicle.

It should also be understood that the embodiments of the present invention which have been described are merely illustrative of a few applications of the principles of the invention. Numerous modifications may be made by those skilled in the art without departing from the true spirit and scope of the invention.

We claim:

1. In a lading filler adapted to be stored in closely spaced relation to a wall of a freight-carrying vehicle and adapted to move to selected positions spaced from and parallel to the stored position under the guidance of at least one pair of pivoted arms, the improvement comprising, in combination: rigid frame means arranged to lie in a plane parallel to and spaced from said wall and adapted to move toward and away from said wall, elongated slideway means attached to said rigid frame means for movement therewith and located between the vertical planes of the frame means and the wall, brace means pivotally attached intermediate the ends of one of said pair of arms and having one end connected at one of said frame means and said wall, an elongated tie bar means pivotally connected between said pair of pivoted arms and located adjacent and substantially parallel to said slideway means and including means cooperating with said slideway means to render said tie bar means moveable only in opposite vertical directions substantially parallel to said slideway means, said pair of arms being in continuous spaced parallel relationship to each other and inclined to the planes of said frame means and said wall and each pivotally connected adjacent one end to said tie bar means and pivoted at their other end adjacent said wall whereby the frame means may move relative to the wall in directions perpendicular to the planes of the frame means and the wall while causing sliding of the tie bar means and pivoting of the spaced arms about their respective pivot axes, locking bar means pivotally attached to at least one of said arms and moveable in the same direction as said one arm end in a direction substantially parallel to said frame means, and locking means carried on said frame means and being moveable to a first position in which said locking means engages said locking bar means in at least one of a plurality of positions to lock the frame means a predetermined distance from the wall and being moveable to a second position to disengage said locking means from said locking bar means.

2. The filler of claim **1** wherein said locking means includes an eccentric surface which frictionally engages said locking bar means when said locking means is in said first position.

3. The filler of claim **1** wherein said locking bar means includes a plurality of ratchet teeth and said locking means includes a pawl which engages said rachet teeth when said locking means is in said first position.

4. The filler of claim **1** wherein said plurality of positions are defined by a plurality of apertures on said locking bar means and said locking means includes a pin which is inserted in a selected one of said apertures when said locking means is in said first position.

5. The filler of claim **4** wherein said slideway means comprises a pair of guide channels, and said locking bar means comprises a single bar located between said channels and substantially parallel thereto.

6. The filler of claim **5** including shock absorbing means mounting said locking bar to said one end of one of said arms which slide adjacent said panel.

7. The filler of claim **1** wherein said locking means includes urging means normally urging said locking means into said first position, and lever means for overcoming said urging means to move said locking means to said second position.

8. The filler of claim **1** wherein said locking bar means are defined by said elongated tie bar means.

9. The filler of claim **1** including: second rigid frame means adjacent said wall, each of said arms being pivotally mounted at their said other ends on said second frame means, track means mounted adjacent said wall, mounting means moveably mounting said second frame means on said track means for longitudinal movement therealong, frame locking means mounted on said second frame means for locking said second frame means to prevent said longitudinal movement thereof, guide means spaced vertically from said track means for guiding said second frame means in said longitudinal movement, said track means and said guide means including a plurality of spaced apertures, said frame locking means including a pair of pins one of which is normally urged into one of the apertures in said track means and the other of which is normally urged into one of the apertures in said guide means, each of said pins preventing said longitudinal movement, and means for simultaneously withdrawing said pins from the apertures.

10. The filler of claim **1** wherein said brace means includes at least one additional brace arm pivotally attached intermediate the ends of one of said pair of arms and having one end pivotally connected to said frame means.

11. The filler of claim **10** wherein the end of said additional brace arm opposite said one end both slides and pivots relative to the wall when said frame means is moved relative to the wall.

12. The filler of claim **10** including stop means on said rigid frame means arranged to engage said tie bar means for limiting the amount of relative movement between said frame means and said wall.

13. The filler of claim **1** comprising first, second, third and forth sets of crossed arms pivotally connected together and each having ends which are slideable closely adjacent and parallel to said frame means and said wall, said first and second sets and said third and fourth sets being connected together respectively, and said tie bar means pivotally connects at least some of the arms of said first and third sets and said second and fourth sets together, respectively.