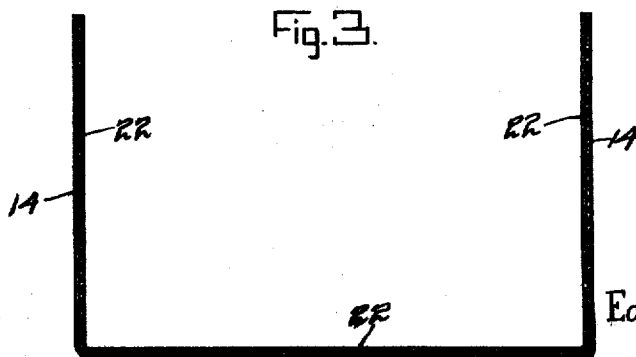
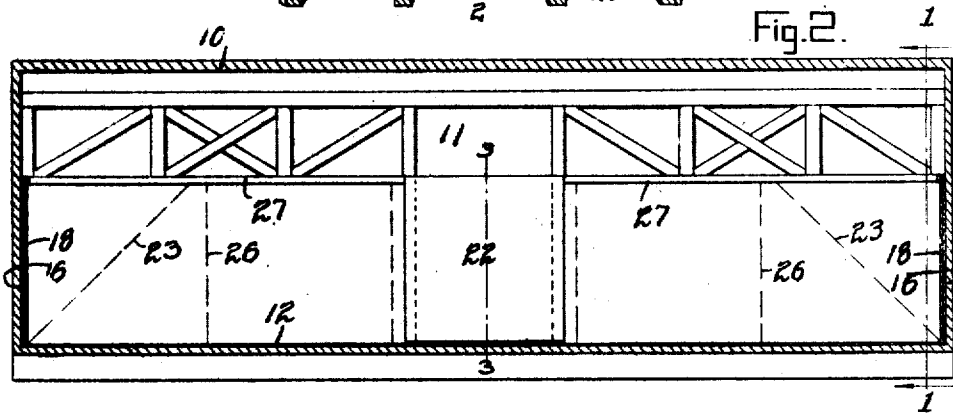
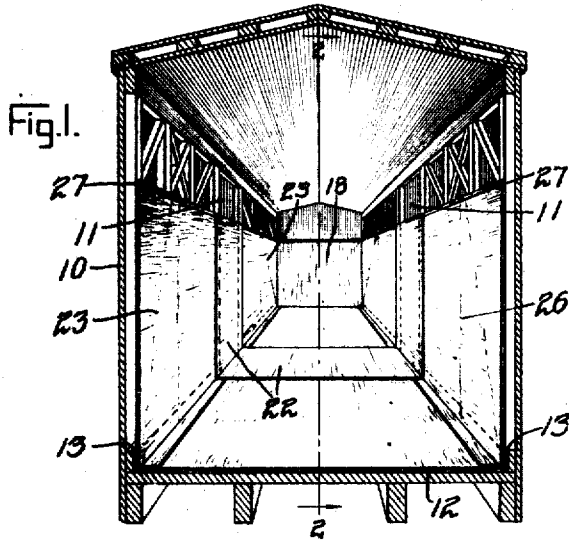


E. C. UNSER.
 LINING FOR TRACTION VEHICLES.
 APPLICATION FILED JUNE 8, 1921.

1,419,085.

Patented June 6, 1922.
 2 SHEETS—SHEET 1.



Inventor
 Edward C. Unser.

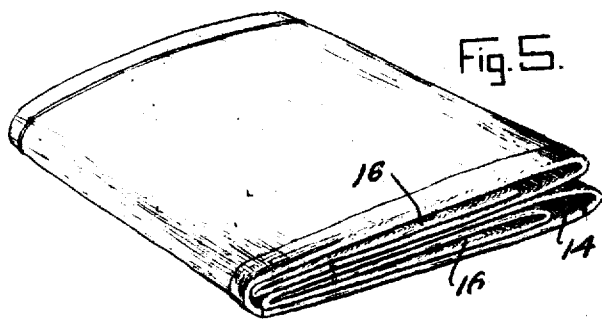
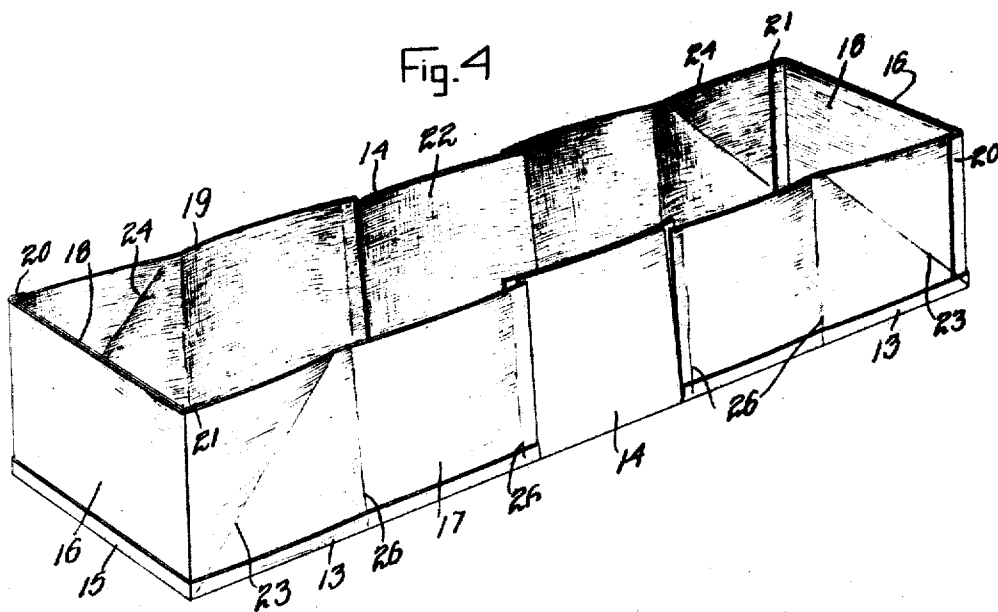
By

E. W. Bradford
 Attorney

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334

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UNITED STATES PATENT OFFICE.

EDWARD CLEMENT UNSER, OF RIVER EDGE, NEW JERSEY.

LINING FOR TRACTION VEHICLES.

1,419,085

Specification of Letters Patent. Patented June 6, 1922.

Application filed June 8, 1921. Serial No. 476,039.

To all whom it may concern:

Be it known that I, EDWARD C. UNSER, a citizen of the United States, residing at River Edge, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Linings for Traction Vehicles, of which the following is a specification.

My said invention relates to an improved inner lining for cars used in shipping grain or other fluent material and it is an object of the invention to provide a lining which shall prevent loss of material by leakage through the sides, ends or bottom of the car.

Other objects of the invention are to provide such a lining which shall be made of cheap materials, which may be applied to a car with a minimum expense and which when so applied shall effectively prevent leakage of material, forming as it does, substantially a bag closed on all sides, the top only being open.

Another object of the invention is to provide such a bag which may be folded into a small compact bundle for storage or transportation.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts.

Figure 1 is a vertical section on line 1—1 of Figure 2 showing a freight car with my improved lining in place.

Figure 2 is a longitudinal section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 shows my improved lining in open position, and

Figure 5 shows the same folded for transportation or storage.

In the drawings reference character 10 indicates a freight car of any desirable or conventional type having side doors 11 as usual. My improved lining comprises a bottom part 12 which is upturned at the sides to form a lower edge reinforcement at 13—13 and which also has extensions forming the inner layer 14 of each of a pair of door closures or flaps positioned opposite the car doors. The bottom is also turned up at the ends to form lower edge reinforcements 15. The end portions of the lining each comprise an outer layer 16 extending down inside the fold 15 and having a lateral extension 17 fitting at its lower end within the fold 13

and forming a side member of the device. An inner layer 18 at each end of the car lining has a similar side extension 19 and the corners are reinforced by bending the end of member 16 as at 20 and the end of member 18 as at 21 and securing them in place. The door flaps 14 are reinforced by an inner layer 22 permanently secured thereto and having projecting edges to close the joints between the flaps 14 and side members 17 and 19.

As indicated in Figures 4 and 5 the ends of the lining are adapted to fold down against the bottom, the side portions 17 and 19 collapsing along diagonal lines 23 and 24 and also folding down against the bottom. The door closures then fold down against the bottom with the side members, the respective sections folding over each other as shown in Figure 5 along lines 26 extending across the sides and bottom. In use the folded device shown in Figure 5 will be placed inside a car and unfolded and the upper edges of the end and the side members will be secured in place as by lathing 27 which need be only heavy enough to keep the edges in position. The fastening means also should be only enough to hold the lathing in place, so that the lining can be removed readily and without damage. One of the door closures 14 may then be closed in the position shown in Figure 4 and fastened by tacks or lathing, if desired, against the door boards which are set across the doorways in the usual manner, this making a solid imperforate inside wall regardless of the position of the car door. The other door closure may remain on the floor while the ends of the car are being filled and afterward may be unrolled or unfolded as the level of the load rises so as to move into the fully closed position step by step, successive door boards being set up against the doorway and the door closure being placed against the boards as the load rises and fastened there, if desired.

The parts are preferably connected solely by glue or cement, though other means may be employed. The door closures in certain cases may also be cemented in place as the car is filled to close the vertical seams between them and the side pieces. The entire device may be made at a low cost and is easily and quickly installed by unskilled labor. The lining when in place will not hinder loading or unloading as the door

flaps or openings are just as large as the doorway and allow full use of the doors. In case the car is shorter than the lining, it is a simple matter to form a tuck or fold transversely of the whole to make it fit the car.

Various changes may be made in my device without departing from the spirit of the invention. While I prefer paper as the material for the entire device, I may use canvas or other cloth, or paper with a backing of cloth or any other suitable material, but preferably stiff, foldable material that will hold a crease whereby storage and transportation are made easier, and it is also made a comparatively easy matter to take down a lining in one car and apply it to another. The package shown in Figure 5 may again be folded in either direction so as to be one quarter of the size there shown or it may be rolled up so as to make a roll ten inches wide. The rolled form of package is preferred as it takes up little space and does away with the necessity of additional creases. The arrangement of parts may be varied as by arranging the inner and outer overlapping edges of the parts in reverse order, by altering the relative dimensions, by providing fastening means to hold the door flaps shut, etc. Therefore I do not limit myself to the exact structure shown and described but only as indicated in the appended claims.

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

1. A car lining for grain cars and the like comprising a bottom, sides and ends of foldable material, there being continuous transverse fold lines running across the bottom and sides and dividing the same into foldable sections, and diagonal fold lines in the end sections of the sides, whereby the ends of the lining may fold down against the bottom, the sides also folding down upon the bottom, and the whole being then folded endwise, substantially as set forth.

2. A car lining for grain cars and the like comprising a bottom extending the length of the car, ends connected thereto and sides connected to the ends and bottom, said sides comprising door flaps connected to the bottom only, substantially as set forth.

3. A car lining for grain cars and the like comprising a bottom extending the length of the car, ends connected thereto and sides connected to the ends and bottom, said sides comprising door flaps connected to the bottom only, said door flaps matching the adjoining edges of the side members, substantially as set forth.

4. A car lining for grain cars and the like comprising a bottom extending the length of the car, ends connected thereto and sides connected to the ends and bottom, said sides comprising door flaps connected to the bottom only, and a reinforcing layer extending across the bottom and the door flaps and overlapping the adjoining edges of the side members, substantially as set forth.

5. A car lining of paper or the like having a bottom, sides and ends permanently attached to each other by overlapping edges, such edges being overlapped at the corners of the lining to produce a double thickness of material and so reinforce the corners, substantially as set forth.

6. A car lining comprising a foldable paper receptacle adapted to fit inside a car, substantially as set forth.

7. A car lining comprising a foldable receptacle adapted to fit inside a car, said receptacle having door flaps opposite the doors of the car, substantially as set forth.

8. A car lining comprising a foldable receptacle adapted to fit inside a car, said receptacle having door flaps opposite the doors of the car and fast at their lower ends, substantially as set forth.

9. A car lining comprising a foldable receptacle adapted to fit inside a car, the corners and edges formed by the meeting of the ends, sides and bottom being reinforced, substantially as set forth.

10. A car lining comprising a foldable receptacle adapted to fit inside a car, the sides, ends and bottom portions overlapping at the corners and lower edges to reinforce said corners and edges, substantially as set forth.

11. A car lining comprising a foldable receptacle adapted to fit inside a car, the lower edges of the receptacle being reinforced, substantially as set forth.

12. A car lining comprising a foldable receptacle adapted to fit inside a car, the bottom portion overlapping the sides and ends to reinforce the bottom edges of the receptacle, substantially as set forth.

13. A collapsible receptacle adapted to fit closely inside a vehicle body and having permanent fold lines, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at River Edge, New Jersey this 3rd day of June, A. D. nineteen hundred and twenty-one.

EDWARD CLEMENT UNSER. [L. S.]

Witnesses:

FRANCIS P. BURNS,
ELMER T. SCUDDER.