

No. 765,693.

PATENTED JULY 26, 1904.

R. WALL.
VEHICLE CURTAIN.

APPLICATION FILED DEC. 10, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

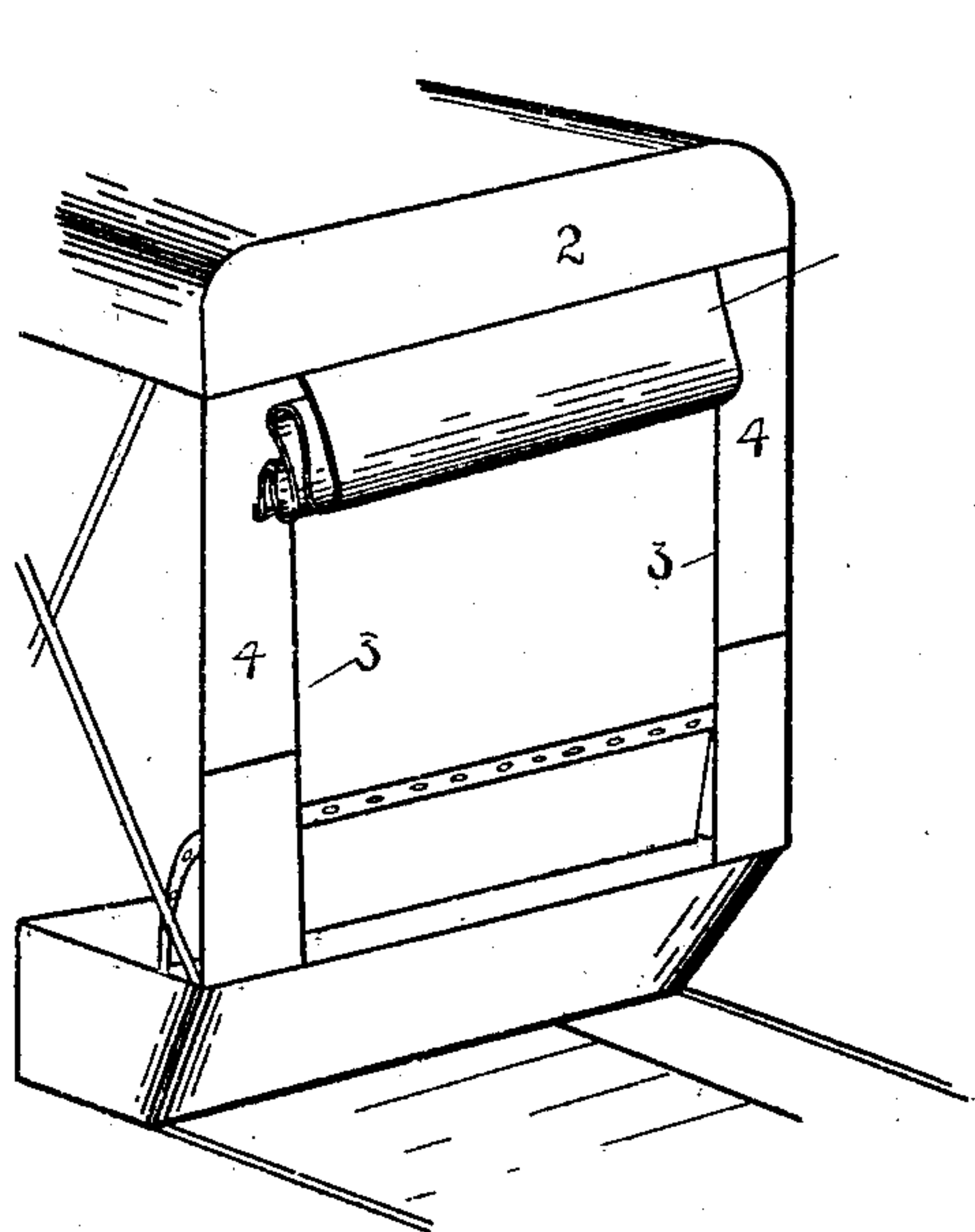


FIG. 1.

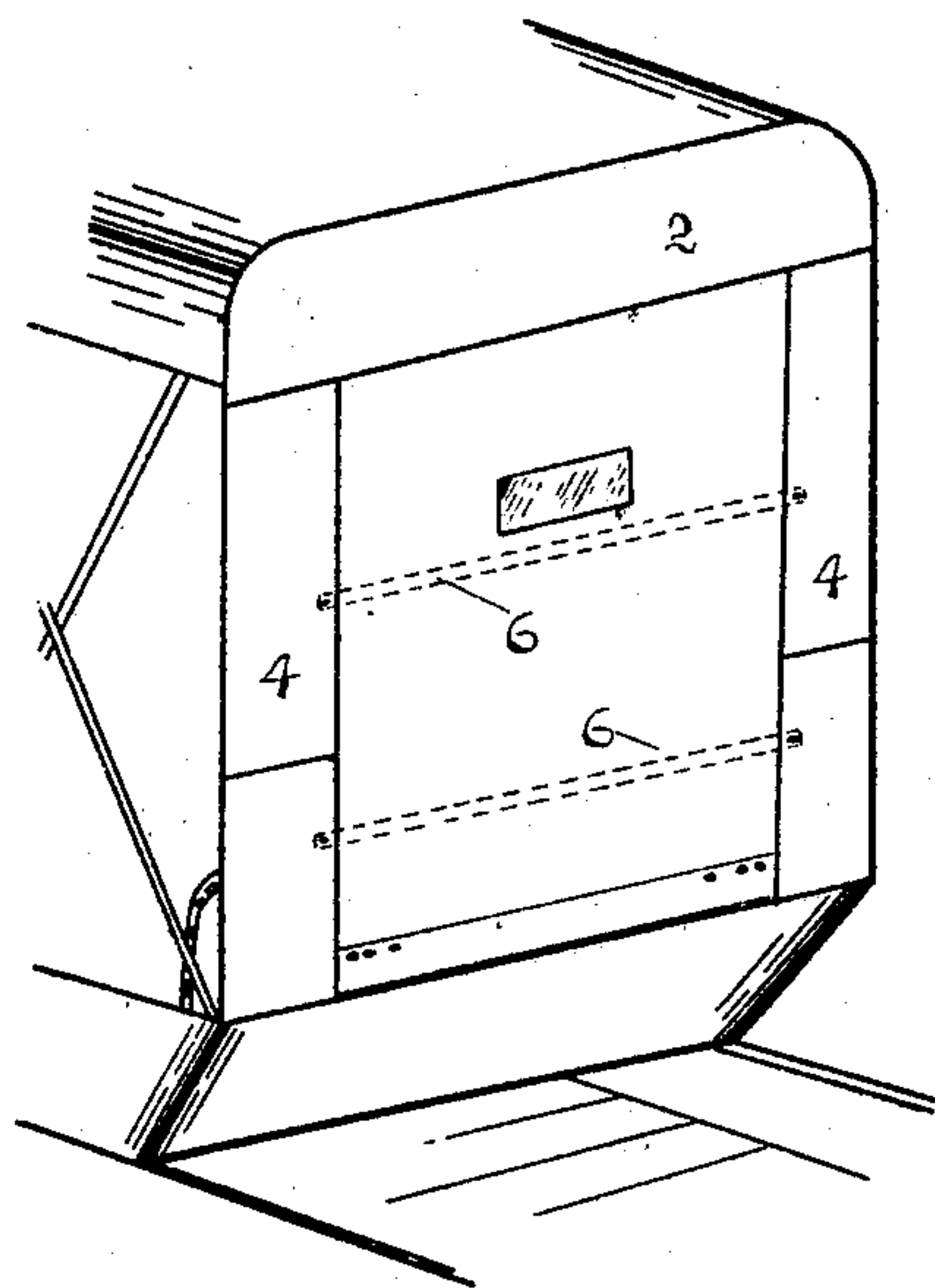


FIG. 2.

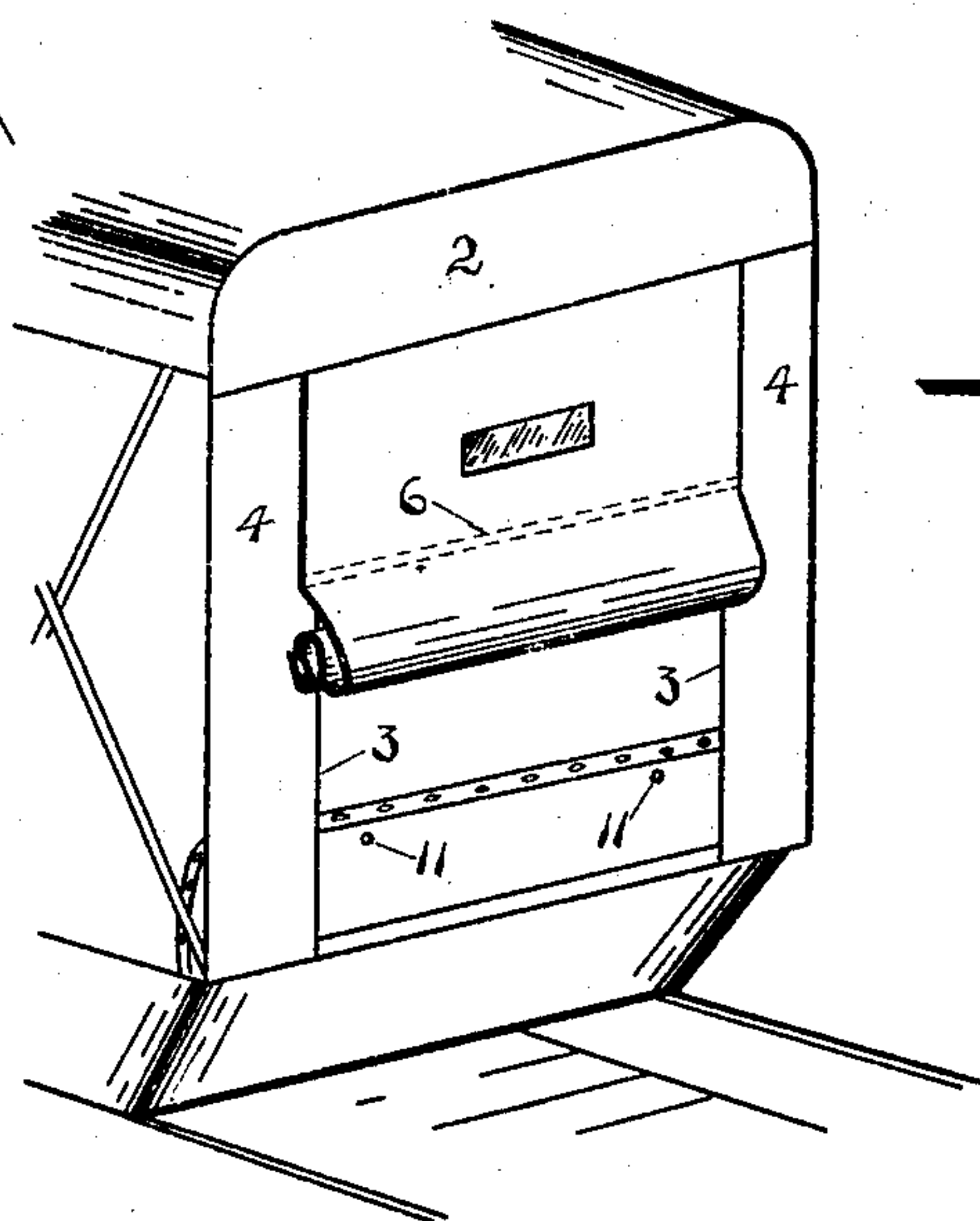


FIG. 3.

WITNESSES:

W. D. Cathcart.

J. L. Lee.

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INVENTOR

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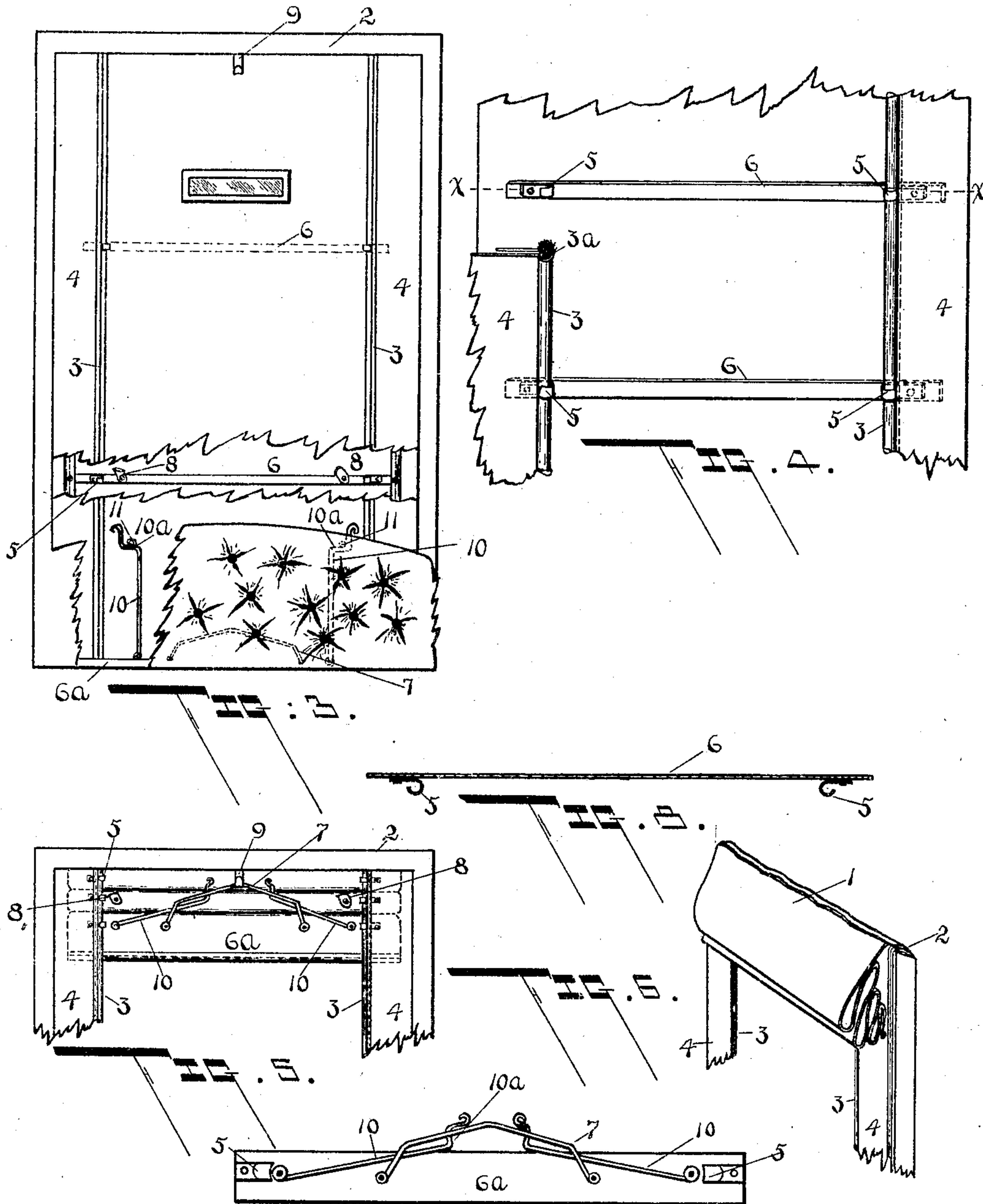
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UNITED STATES PATENT OFFICE.

ROBERT WALL, OF SAGINAW, MICHIGAN.

VEHICLE-CURTAIN.

SPECIFICATION forming part of Letters Patent No. 765,693, dated July 26, 1904.

Application filed December 10, 1903. Serial No. 184,617. (No model.)

To all whom it may concern:

Be it known that I, ROBERT WALL, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Vehicle-Curtains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
 10 pertains to make and use the same.

This invention is a curtain for buggies and other vehicles; and the improvement relates more particularly to means whereby the occupant of the vehicle may raise or lower the
 15 curtain without alighting and to permit the curtain to be raised or lowered without being rolled or pressed, thereby prolonging the life of the curtain.

The invention also embodies devices for preventing the curtain from blowing out or becoming displaced while being raised or lowered and to keep it in place equally well whether it is wholly or partly raised.

With these objects in view, together with certain others which will appear in the specification, the invention consists in the parts and their combinations and the equivalents thereof, as will be more fully set forth in the specification and claims.

30 The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a rear perspective of a buggy-top, showing the curtain raised. Fig. 2 is a similar view showing the curtain lowered.
 35 Fig. 3 is a view of the inside of the curtain, broken away in parts. Fig. 4 is a detail, broken away in parts, of the cross-bars and their guides. Fig. 5 is a detail showing the means for fastening the curtain when raised.
 40 Fig. 6 is a perspective of the looped curtain when viewed from the outside. Fig. 7 is a detail of the lower bar and its fastenings. Fig. 8 is a horizontal section of a bar, taken on the line *xx* of Fig. 4. Fig. 9 is a rear perspective of a buggy-top, showing the curtain
 45 partly raised.

As is clearly shown in the drawings, the device consists in a curtain 1, of any suitable or usual construction, fixed at its top to the ve-

hicle-top 2. At each side of the curtain 1 is 50 a vertical guide 3, which may be formed integral with the side pieces 4. These guides may be in the form of small metal rods, or they may be formed of a braided rope 3^a, (see Fig. 4,) inclosed in the folded edge of the member 55 3, or they may be of any other suitable construction. Vertically slidable on the guides 3 are metal loops 5, which embrace the guides and are mounted upon horizontal cross-bars 6, secured at suitable intervals one above the 60 other upon the curtain 1.

The cross-bars 6 and their metal loops 5 serve the double purpose of keeping the curtain properly stretched and of holding it snug against the side pieces 4 of the vehicle-top, so 65 that the edges of the curtain cannot be blown about by the wind. A similar bar 6^a is provided at the bottom edge of the curtain, and to this bottom bar is attached a suitable yoke 7, by which the lower bar may be lifted. 70 When the lower bar is lifted, it rises until it comes in contact with the next bar above, the intermediate part of the curtain taking the form of a depending loop, as shown in Figs. 1, 6, and 9. When the yoke is raised still 75 farther, the second bar rises until it contacts with the third bar, and that portion of the curtain between the second and third members forms a second depending loop outside the first. Similarly the upper parts of the 80 curtain are looped one above the other until the entire curtain is raised.

In practice I prefer to space the lower bars closer together than the upper bars, so that the lower loops are smaller than the upper 85 ones. Thus the upper loop, which is the largest, will overlap the others and form a protecting covering for them, as shown in Figs. 1 and 6. It will be noticed that each loop hangs freely and is not subjected to bend- 90 ing or crushing action, as would be the case if it were forcibly rolled up, as on a spring-roller.

I prefer when my invention is applied to buggy-backs to attach a pair of leather tabs 95 or ears 8 to the second bar, which is just above the back of the seat, to facilitate raising the curtain and to avoid the necessity of reaching

down back of the seat to take hold of the yoke. At the top of the curtain I provide a hook 9 to engage the yoke, and thus hold the curtain up.

The curtain when lowered is stretched taut 5 by means of hooked braces 10, pivoted to the lower bar 6^a or to the lower edge of the curtain and having a hooked offset or shoulder 10^a, that is held under a suitable peg or button 11 on the back of the buggy-seat, as shown 10 in Fig. 3. When the curtain is raised, these braces are folded down, as shown in Figs. 5 and 7.

While I have shown and described my invention as particularly applicable to the back 15 curtains of buggies, yet it is evident that it is also well adapted for use on delivery-wagons and other vehicles. When my invention is applied to the back or side curtains of a wagon, I attach cords to the lower bar 6^a or 20 to its yoke 7 and pass them over suitable pulleys to the driver's seat, so he may raise the yoke while seated, and thus lift the curtain. Any suitable system of cords or pulleys may be employed for this purpose. Therefore I 25 have not illustrated such a device in the drawings. The bars 6 may be concealed within the outer waterproof layer of the curtain and the inner cloth layer in the case of buggy-curtains, or they may be secured to the inner 30 surface of the single waterproof curtain commonly used for wagons.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

1. In combination with a vehicle-curtain, a 35 pair of vertical guides located one at each side of said curtain; series of vertically-slidable horizontal bars arranged one above the other and secured to said curtain; loops carried by

said bars and slidably engaging said guides; said bars being adapted to successively en- 40 gage each other when raised, to form successively-overlapping loops in the curtain for the purpose set forth.

2. In combination with a vehicle-curtain, a pair of vertical guides located one at each side 45 of said curtain; series of vertically-slidable horizontal bars arranged one above the other and secured to said curtain; loops carried by said bars and slidably engaging said guides; said bars being adapted to successively en- 50 gage each other when raised, to form successively-overlapping loops in the curtain; a yoke secured to the bottom bar of said series; and means for securing said yoke to the vehicle- 55 top.

3. In combination with a vehicle-curtain, a pair of vertical guides located one at each side 60 of said curtain; series of vertically-slidable horizontal bars arranged one above the other and secured to said curtain; loops carried by said bars and slidably engaging said guides; said bars being adapted to successively en- 65 gage each other when raised, to form successively-overlapping loops in the curtain; a yoke secured to the bottom bar of said series; and means for securing said yoke to the vehicle-top; together with means for stretching the curtain when lowered, substantially as described.

In testimony whereof I affix my signature in 70 presence of two witnesses.

ROBERT WALL.

Witnesses:

J. S. SEE,

W. I. CATHCART.