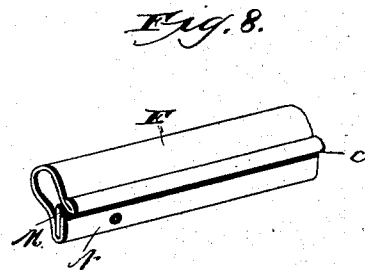
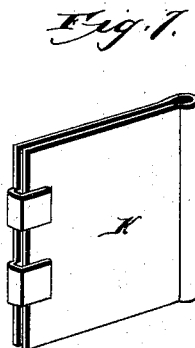
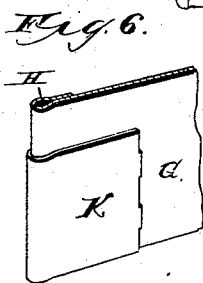
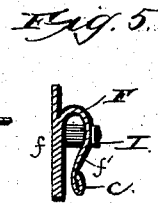
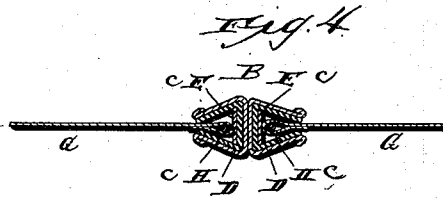
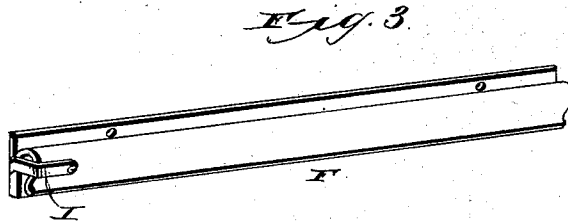
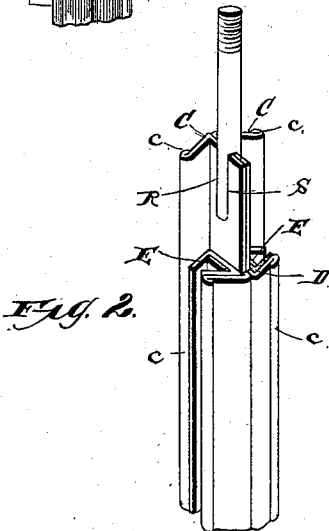
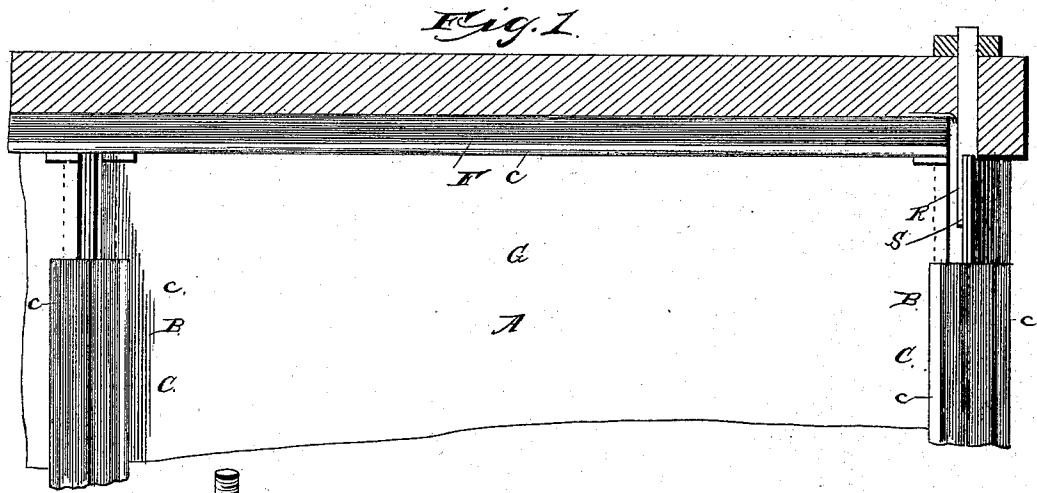


(No Model.)

F. A. BRANDENBURG.
FASTENING DEVICE FOR CARRIAGE CURTAINS.

No. 416,664.

Patented Dec. 3, 1889.



Witnesses

Geo. J. Hooper
W. L. Day

Inventor

Fowler A. Brandenburg

By *his* Attorneys

Chas. A. Slocum

UNITED STATES PATENT OFFICE.

FOWLER A. BRANDENBURG, OF VANDALIA, OHIO.

FASTENING DEVICE FOR CARRIAGE-CURTAINS.

SPECIFICATION forming part of Letters Patent No. 416,664, dated December 3, 1889.

Application filed May 7, 1889. Serial No. 309,911. (No model.)

To all whom it may concern:

Be it known that I, FOWLER A. BRANDENBURG, a citizen of the United States, residing at Vandalia, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Fastening Devices for Carriage-Curtains, of which the following is a specification.

The invention relates to improvements in fastening devices for carriage-curtains, which consists in a certain novel construction and combination of devices, fully described hereinafter in connection with the accompanying drawings, and specifically pointed out in the appended claims.

In the drawings, Figure 1 is a view of a portion of a carriage-top, showing the improved fastening devices applied thereto in the operative position. Fig. 2 is a detail view of one of the bows. Fig. 3 is a similar view of the upper clip. Fig. 4 is a transverse sectional view of one of the bows with the edge of the curtain engaged therein. Fig. 5 is a transverse sectional view of upper clip. Fig. 6 is a view of a portion of the curtain disengaged from the clip and having a wear-plate attached thereto. Fig. 7 is a detail view of the wear-plate. Fig. 8 shows a modified form of upper clip.

Referring by letter to the drawings, A designates the top of a vehicle having the bows B B, which consist of spring-metal fastening-clips C C, secured together in pairs, back to back, and adapted to receive and engage the edges of the curtain. Those bows which have the curtain on one side only, as the front bows, consist of a single clip, as will be understood.

The clips consist of a back *c'* and converging sides *c''*, the outer or free edges of which are rolled, as seen at *c*, to prevent marring the curtain, and rubber lining-strips D D are arranged in the clips, which cover the convergent sides of the clips and project slightly beyond their outer or rolled edges. These lining-strips are held in place by retaining-bars E E, which extend longitudinally through the clips close to the inner sides thereof, and thereby hold the lining in contact with the said inner sides. The retaining-bars are held in place by the convergent sides of the clips.

F F designate the upper clips, which are

secured in horizontal positions to the frame of the carriage-top above the upper edges of the curtain, and consist of a back plate *f* and a curved front portion *f'*, forming, with the back plate *f*, a groove.

The curtains G are doubled at their upper and side edges, and in the doubled portions are arranged cords H H, which thereby thicken the edges of the curtain. These corded or thickened edges are arranged in the clips by inserting the former at the ends of the latter, and a swinging catch or hook I is pivoted to the end of the upper clip to close over the end thereof and prevent the thickened edge of the curtain from slipping accidentally out of place.

The inner sides of the side clips terminate at their upper ends a short distance below the upper clips, to give space to engage the side edges of the curtain in the clips C C after the upper edge of the same is engaged in the clip F; but to remove the side edges of the curtain from the clips C C it is simply necessary to grasp the lower corner of the former below the lower end of the clip and pull it upward and inward.

From the above it will be understood that the object in using the rubber lining in the clips is to prevent the accidental displacement of the side edges of the curtain and at the same time enable the said edges to be removed without drawing them up to the upper ends of the clips in the reverse manner to that in which they are inserted.

The clips may be used without the rubber lining; but in this case the edges must be disengaged therefrom by drawing them upward, whereas when the said lining is employed, though the edge of the curtain cannot be drawn horizontally out of the clips, it can be removed when pulled in the manner described.

I am aware that clips for securing the upper thickened edges of carriage-curtains have heretofore been used, and also that the side edges of the said curtains have been engaged under flat plates and the like to hold them in position, and I therefore do not claim this construction broadly.

K K represent wear-plates, which are secured to the corners of the curtains, to facilitate their insertion in the clips and prevent curling or injuring the same.

In Fig. 8 of the drawings is illustrated a modified form of the upper clip, which is bent upward at its lower edge to form a flange N, and a rubber strip M is engaged under the said flange and projects across the mouth of the clip, so as to bear against the curtain, which is engaged therein. When this clip is employed, the thickened edge of the curtain is inserted at the end, as before described; but it may be removed by drawing the curtain downward forcibly, as the force thus applied bends the said strips downward and opens the mouth of the clip sufficiently to allow the thickened edge of the curtain to escape. This modified form of upper clip is preferably used in combination with side clips which are not provided with the rubber lining hereinbefore described, so that the curtain may be detached without drawing it up to the upper ends of the side clips.

Rolls or screw-threaded rods R, split at their inner ends, as at S, are arranged upon the ends of the side bows, which, as stated, are composed of spring-clips arranged in pairs, back to back. The adjacent backs of said clips are straddled by the said split bolts, as will be seen in Fig. 2, and said bolts thus serve the double purpose of connecting the ends of the clips and forming means for their attachment to the vehicle body and top.

Having thus described the invention, I claim—

1. The horizontal upper clips composed of a back plate *f* and a curved front portion *f'*, and the vertical side clips constructed of spring metal and consisting of a back *c'* and converging sides *c''*, terminating a short distance below the upper clips, combined with the curtain provided with corded or beaded edges engaging the said clips, substantially as specified.

2. The horizontal upper clips secured to a carriage-top, and the vertical side clips terminating at their upper ends a short distance below the upper clips, in combination, with the curtains provided with corded or beaded edges engaging the said clips, and the swing-

ing catches or hooks pivoted to the clips and closing the open ends thereof, substantially as specified.

3. The combination, with a carriage-top, of the horizontal upper clips F F, secured thereto, the vertical side clips secured to the top and terminating below the upper clips, the curtains provided with corded or beaded edges engaging the said clips, and the wear-plates K K, secured to the curtains near their corners, substantially as and for the purpose specified.

4. The combination of the clips, the rubber lining-strips arranged in the clips and projecting outward beyond the edges of its sides, and the retaining-bars arranged in the clips to hold the said lining-strips in place, with the curtain provided with thickened or corded edges fitting in the said clips, substantially as specified.

5. The combination, with a carriage-top, of the side bows comprising the spring-metal clips arranged in pairs, back to back, and provided with rubber linings, the upper clip arranged horizontally above the upper ends of the side clips, and the curtain provided with thickened or corded edges fitting in the said clips, substantially as specified.

6. The combination, with the clips having converging sides, of the rubber lining-strips placed in the said clips, and the retaining-plates inserted between and held by the converging sides thereof, substantially as specified.

7. The side bars consisting of the metallic spring-clips arranged in pairs, back to back, in combination with the split bolts arranged at the ends of and connecting the adjacent backs of said spring-clips, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FOWLER A. BRANDENBURG.

Witnesses:

E. C. BEAVER,

K. FITZPATRICK.