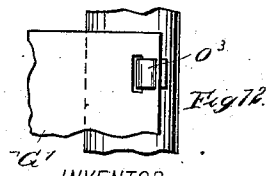
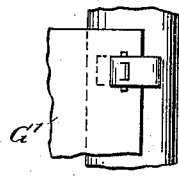
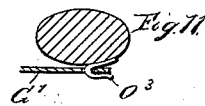
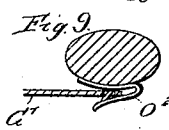
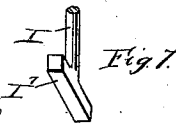
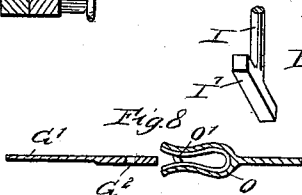
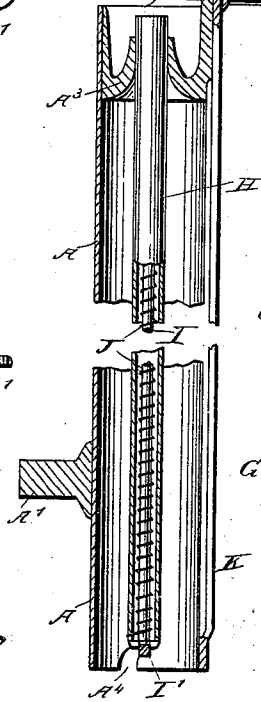
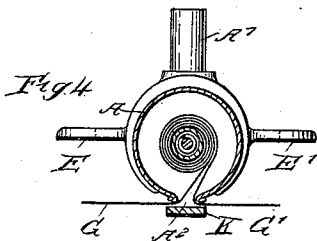
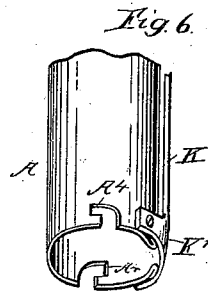
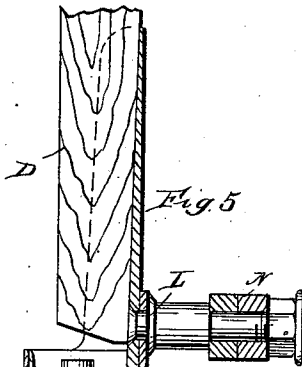
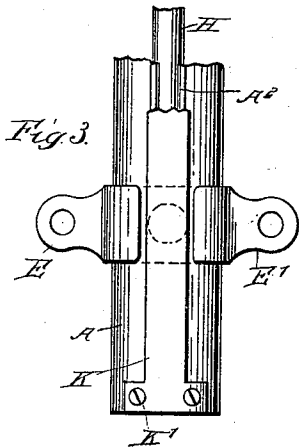
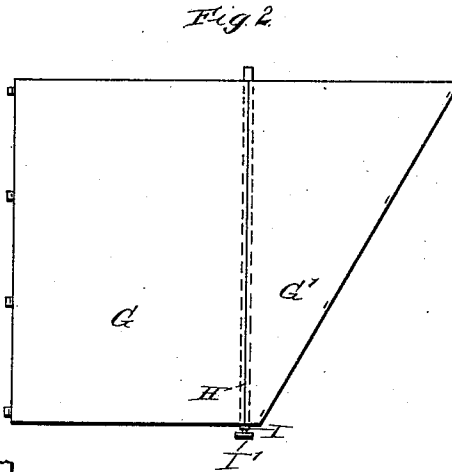
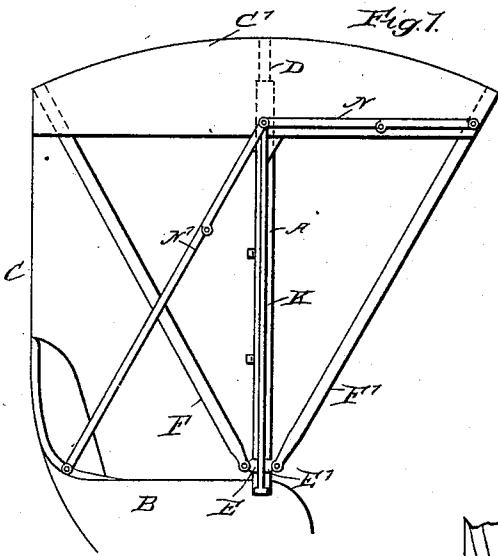


(No Model.)

F. LANE.  
VEHICLE CURTAIN.

No. 550,512.

Patented Nov. 26, 1895.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK LANE, OF NEWARK, OHIO.

## VEHICLE-CURTAIN.

SPECIFICATION forming part of Letters Patent No. 550,512, dated November 26, 1895.

Application filed May 9, 1895. Serial No. 548,747. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK LANE, of Newark, in the county of Licking and State of Ohio, have invented a new and Improved Vehicle-Curtain, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved vehicle-curtain for buggies, phaetons, and similar top-carriages and arranged in such a manner that it can be easily and quickly operated to open or close the sides of the vehicle.

The invention consists, principally, of a tubular casing or socket and a spring-pressed roller journaled in the said socket and on which the curtain is attached.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied on a buggy. Fig. 2 is a side elevation of the curtain. Fig. 3 is an enlarged side elevation of the lower end of the tubular casing and roller. Fig. 4 is a sectional plan view of the same. Fig. 5 is an enlarged cross-section of the tubular casing and roller journaled therein. Fig. 6 is a perspective view of the lower end of the casing. Fig. 7 is a transverse view of the lower end of the spring-rod for the roller. Fig. 8 is a sectional plan view of a fastening device for the curtain. Fig. 9 is a similar view of a modified form of fastening device. Fig. 10 is a side elevation of another modified form of fastening device, and Fig. 12 is a side elevation of the same.

The improved tubular casing or socket A is provided at its lower end with a pivot A', extending transversely and journaled and attached to the side of the seat B of the vehicle C, as is indicated in Fig. 1. On the upper end of the casing A is attached the usual transverse bow D for supporting the top C' of the vehicle. On the lower end of the casing A are brazed or otherwise fastened eyes E and E', on which are pivoted the bows or bow-sockets F and F', extending in oblique directions to

support the rear and front ends of the vehicle-top C' in the usual manner.

In the side of the casing A is arranged a slot A<sup>2</sup>, through which is adapted to pass the curtain G G', of which the part G is adapted to pass rearwardly and the part G' is adapted to extend forwardly, so that when the curtain is finally extended, as indicated in Fig. 2, the side of the vehicle C is closed.

The curtain G G' is rigidly connected along the line indicated in Fig. 2 with a roller H, arranged within the casing A, and journaled at its upper end in the bearing A<sup>3</sup>, secured in the casing A, and provided with an extension to which the bow D is fastened. (See Fig. 5.) The lower end of the roller H, which is made hollow, is mounted to turn on a rod I, extending into the hollow roller H and adapted to engage slots A<sup>4</sup>, formed in the lower end of the casing A. (See Figs. 6 and 7.) Thus the rod I is supported from the casing A, and it forms a bearing for the roller H, and on the said rod is coiled a spring J, fastened at one end to the roller H and at the other end to the casing A. The tension of the spring J can be increased or diminished at any time by the operator disconnecting the bar I from the casing A and turning the rod I either forward or backward until the desired tension for the spring is obtained. Now it will be seen that as the curtain G G' is attached along the line indicated in Fig. 2 to the said roller H the latter will wind up the said curtain within the casing A, and when a pull is exerted on the outer ends of the said curtain the roller H is rotated and the curtain is unwound to permit of fastening the outer ends thereof to the sides of the vehicle C.

Over the slot A<sup>2</sup> in the casing A extends a bar or plate K, secured at its lower end by screws K' to the casing A, as shown in Figs. 3 and 5, and the upper end of the said plate is riveted to the extension of the bearing A<sup>3</sup> by a bolt L, forming the pivot for the joints N and N'. Suitable fastening devices O are attached to the bow-socket in front and to the rear quarters of the vehicle to secure the outer ends of the curtain G G' in position when drawn out to close the side of the vehicle. As shown in Fig. 8, this fastening device may be in the shape of a fork O', having a projection or lug O', adapted to engage a slot or

opening G<sup>2</sup> in the curtain end. As illustrated in Figs. 9 and 10, a fork O<sup>2</sup> is similarly constructed and is directly attached to the bow-socket by one of its arms. As shown in Figs. 11 and 12, the fastening is in the form of a hook attached to the bow-socket and engaging an opening in the curtain. Any suitable fastening means, however, may be employed.

It will be seen that by the arrangement described the force of the spring J normally holds the curtain G G' wound up on the roller H within the casing A and with the ends of the curtain extending to the sides of the plate K. Now when it is desired to close the sides of the vehicle the operator pulls on the projecting ends of the curtain, so as to draw the curtain out of the slot A<sup>2</sup> to close the sides of the vehicle, the outer ends being finally attached to the bow-socket at the front and to the rear quarter by engaging the said ends with the fastening device O, O<sup>2</sup>, or O<sup>3</sup>.

In drawing the curtain G G' out of the casing A the roller H is turned to wind up the spring J, and whenever it is desired to open the sides of the vehicle the curtain ends are detached from the fastenings to permit the roller H to revolve by the action of the spring J and again wind up the curtain, as indicated in Fig. 4.

It will be seen that by the arrangement described the curtain is normally inclosed within the casing A, and any dirt on the curtain passing into the casing A can readily drop out of the latter at the lower open end thereof. As this end of the casing A extends a suitable distance below the top edge of the side board of the seat B, it permits of fastening the lower end of the curtain on the sides of the seat, so as to prevent rain from passing to the inside of the vehicle.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A vehicle curtain, comprising a tubular bow socket formed with a slot lengthwise thereof, a spring-operated roller journaled to the said bow socket, and a curtain attached to said bow socket lengthwise of said bow socket, substantially as shown and described.

2. In a vehicle curtain, the combination with the vehicle seat, of a bow socket, a pivot projecting from said bow socket near the lower end thereof, to connect said bow socket to the seat, and a spring-operated roller journaled to the said bow socket and on which the curtain is attached, substantially as described.

3. A vehicle curtain comprising a tubular bow socket open at the bottom, a bearing secured in the upper end of the said bow socket, a rod adapted to engage slots in the lower end

of the said bow socket, a roller journaled at its upper end in the said bearing and at its lower end on the said rod, and a spring secured with one end to the rod or to the bow socket and with its other end to the roller, substantially as shown and described.

4. A vehicle curtain, comprising a tubular bow socket, a bearing secured in the upper end of the said bow socket, a rod adapted to engage slots in the lower end of the said bow socket, a roller journaled at its upper end in the said bearing and at its lower end on the said rod, a spring secured with one end to the rod of the bow socket, and with its other end to the roller, and a curtain or curtains attached to the said roller in such a manner as to be wound up and drawn to the bow socket, by means of the roller, substantially as shown and described.

5. A vehicle curtain, provided with a tubular casing formed in its side with a slot for the passage of the curtain, and a plate secured to the said tubular casing at its lower and upper ends, the said plate extending in front of the said slot, substantially as shown and described.

6. In a vehicle curtain, a tubular casing provided at its lower portion with a transverse pivot and having a longitudinally extending slot, a bearing in the upper end of the casing and capable of having a bow attached thereto, a tube extending longitudinally within the casing and journaled at its upper end by means of the bearing, two curtains secured to the tube and capable of rolling within the casing, a rod extending longitudinally through the tube and having its lower end formed with a transverse bar, the ends of which are secured to the lower extremity of the casing, and a spring embracing the rod and within the tube, substantially as described.

7. In a vehicle curtain, a tubular casing provided with a longitudinally extending slot and with an open lower end, a pivot secured to the lower portion of the tube, a bearing at the upper end of the tube and capable of having a bow attached thereto, a bolt secured to the bearing and extended to form a pivot for parts of the vehicle top, a tube carried by the bearing and within the casing, a curtain attached to the tube and capable of rolling within the casing a rod contained within the tube and having at its lower end a transverse bar secured to the lower portion of the casing, and a spring within the tube and embracing the rod, substantially as described.

FRANK LANE.

Witnesses:

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