

No. 843,133.

PATENTED FEB. 5, 1907.

L. COCKERILL.
STORM FRONT FOR VEHICLES.

APPLICATION FILED FEB. 2, 1906.

2 SHEETS—SHEET 1.

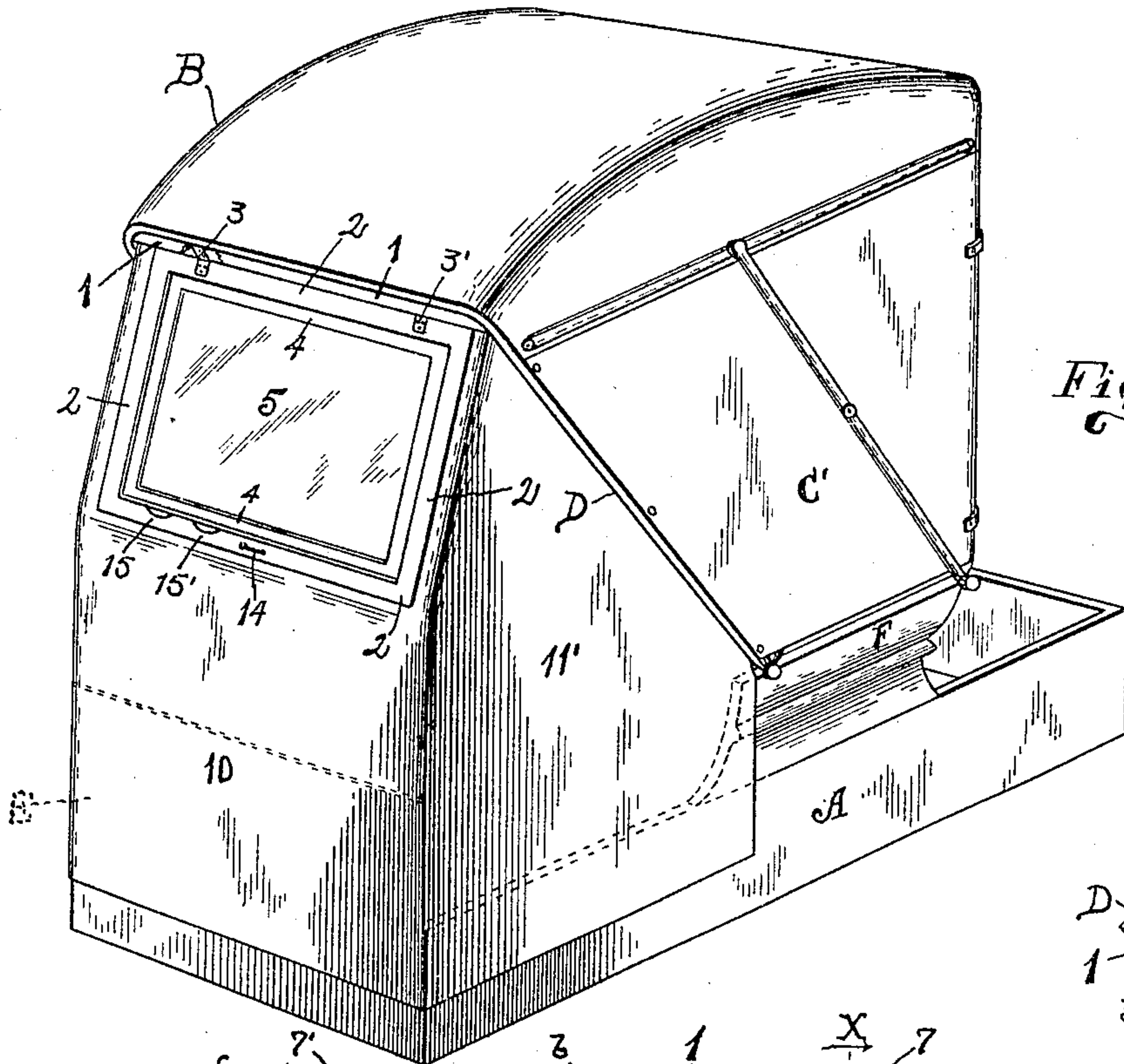


Fig. 1.

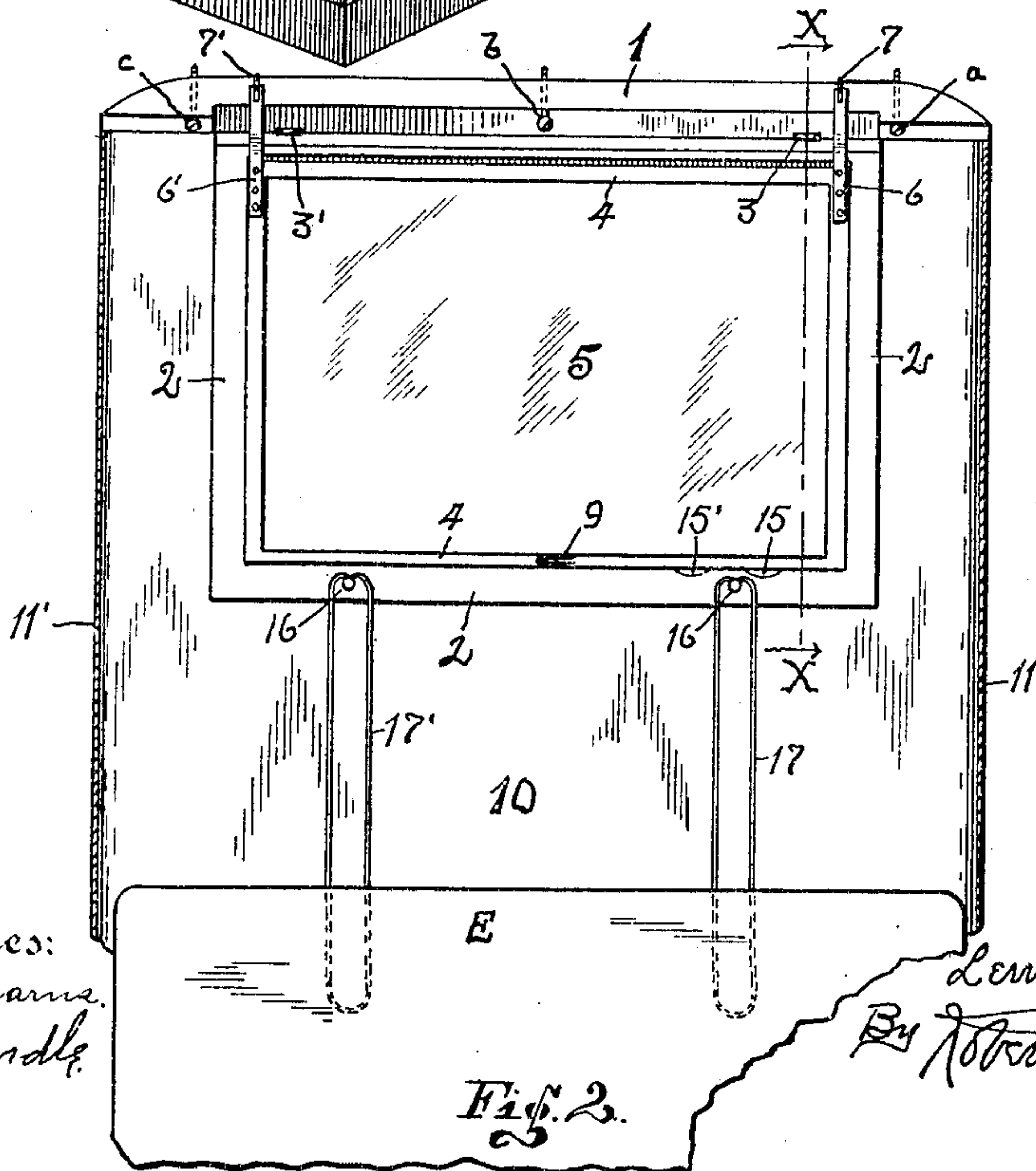


Fig. 2.

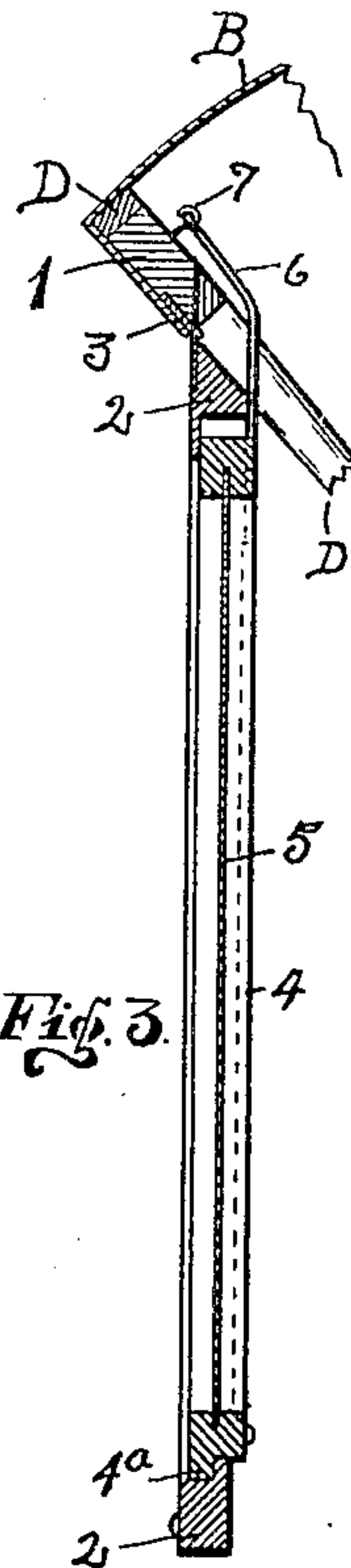


Fig. 3.

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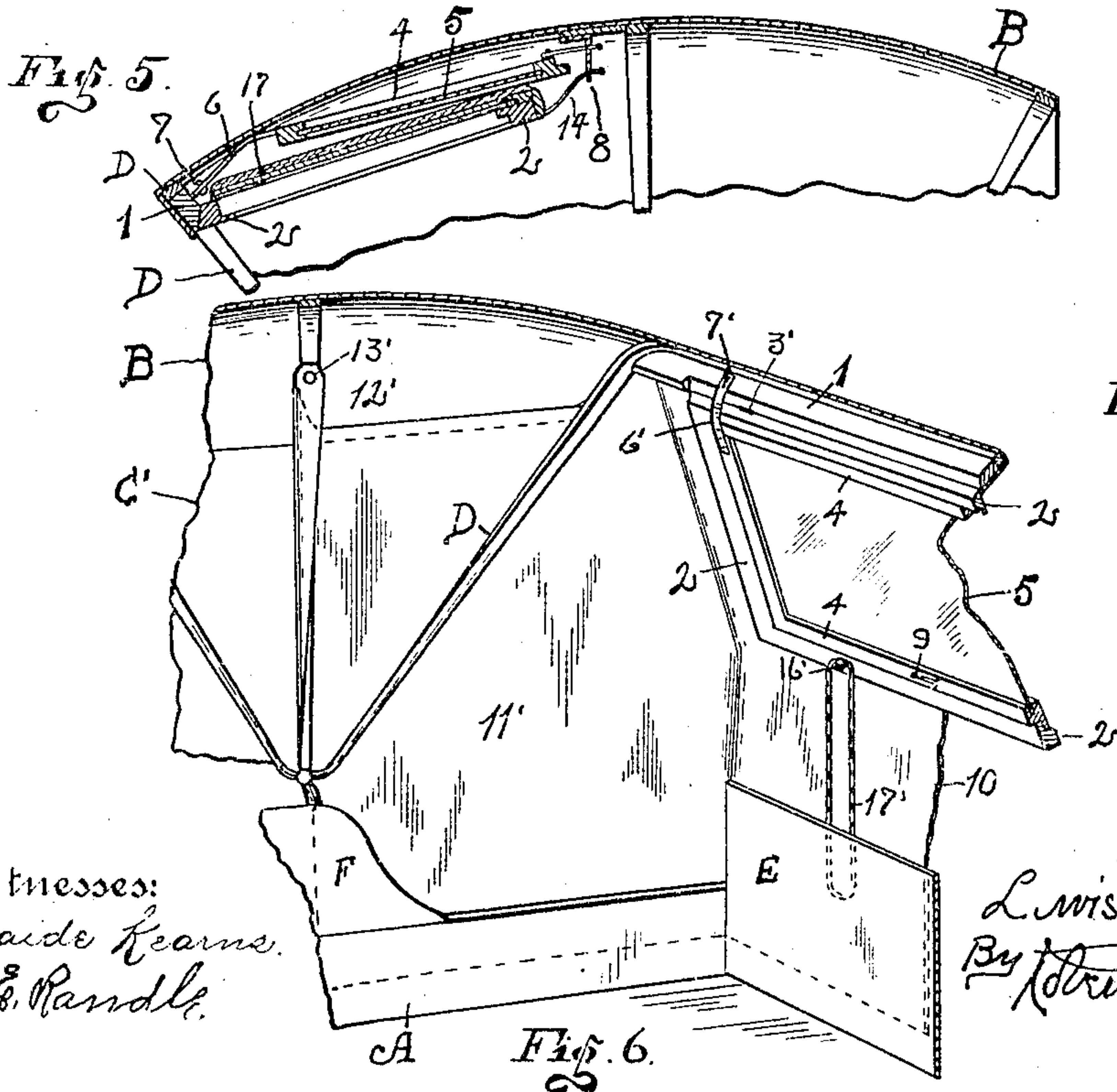
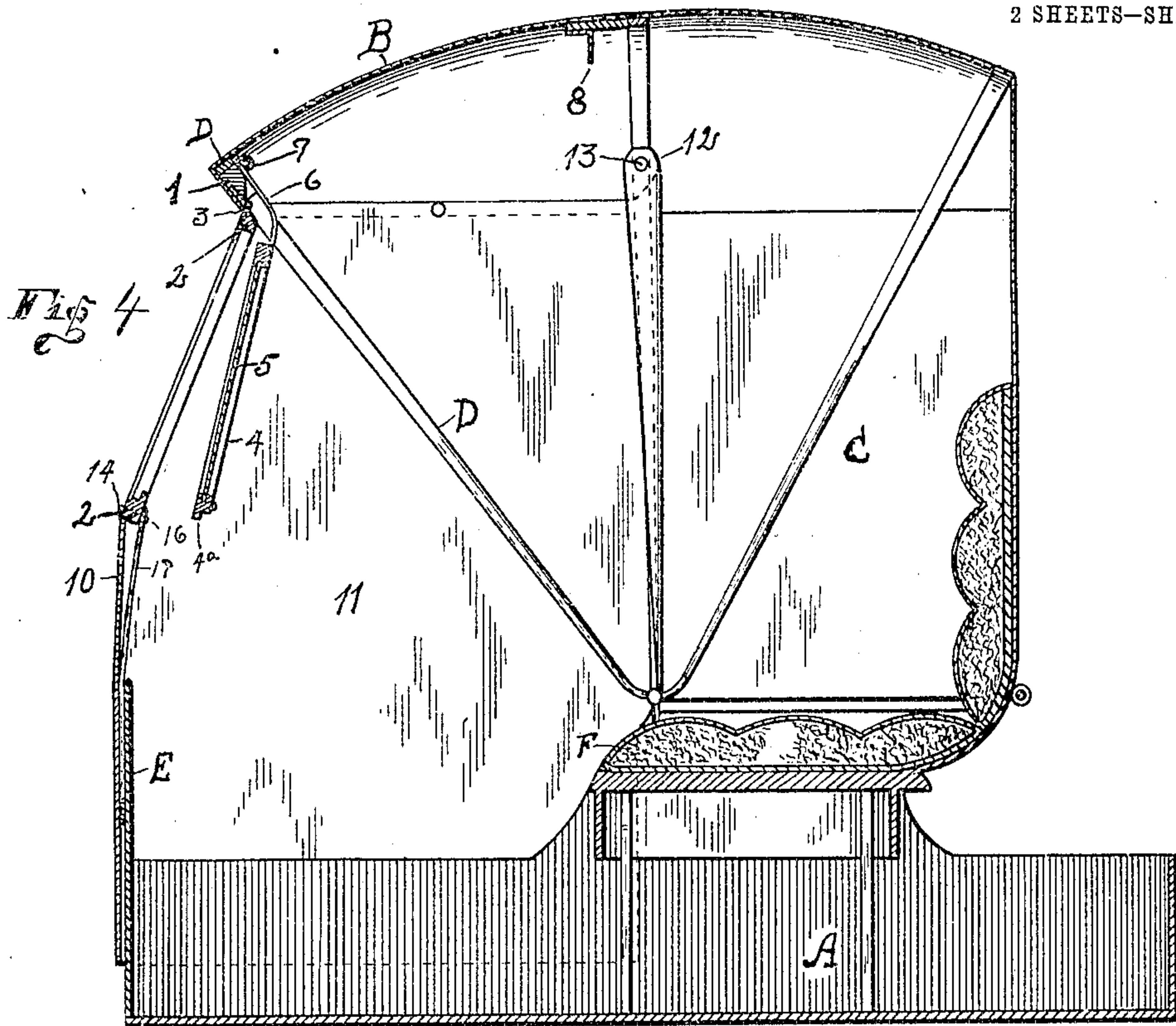
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UNITED STATES PATENT OFFICE.

LEWIS COCKERILL, OF RICHMOND, INDIANA.

STORM-FRONT FOR VEHICLES.

No. 843,133.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 2, 1906. Serial No. 299,078.

To all whom it may concern:

Be it known that I, LEWIS COCKERILL, a citizen of the United States, residing in the city of Richmond, in the county of Wayne and State of Indiana, have invented new and useful Improvements in Storm-Fronts for Vehicles, of which the following is a full and complete specification, being such as will enable others skilled in the art to which it appertains to make and use the same.

This present invention has particular reference to a storm-front especially adapted for buggies, carriages, automobiles, or the like, although it may with particular aptitude be adapted for other vehicles and even for other purposes, as desired.

The object I have in view, broadly stated, is to provide a storm-front for vehicles which will be neat and attractive in appearance, strong and durable in construction, easily operated and controlled, and which can be made and sold at a comparatively low price.

A more particular object is to provide a storm-front for vehicles which is easily attached to a vehicle and when attached need not be removed therefrom, but may be folded up entirely out of the way and when needed may almost instantly be brought into active position.

A further specific object is to provide a storm-front for vehicles which will effectually protect the occupant of the vehicle from the inclemency of the weather and at the same time allowing him the maximum of latitude in driving, and, furthermore, to provide means whereby the front may be partially opened without displacing the entire device or any of its attachments to the vehicle.

Other objects and particular advantages of this invention will suggest themselves in the course of the ensuing specification.

The preferred construction of my invention is shown most clearly in the accompanying two sheets of drawings, in which—

Figure 1 shows a perspective view of my invention complete in open or operative position and as applied to an ordinary buggy. Fig. 2 is an inside front elevation of the most essential features of my invention as looking forward from the inside of the buggy. Fig. 3 is a vertical section of the main parts of my invention as taken on the line X X of Fig. 6 and as taken in the direction of the arrows. Fig. 4 shows a central vertical section of the invention as taken through Figs. 1 and 2,

except that the window is shown as partly open, the other parts being shown in active position. Fig. 5 shows a vertical central section showing the invention closed—that is to say, folded out of operative position. Fig. 6 shows an inside perspective view of a portion of the invention open, and Fig. 7 is a detail face view of the securing-catch.

Similar indices designate and refer to like parts throughout the several views of the drawings.

In the drawings forming part of this specification I have shown my preferred construction; but it should be understood that various changes in the details thereof may be made without departing from the spirit of the invention, which is broadly claimed herein.

In order that my invention may be fully comprehended and its many advantages fully appreciated, I will now take up a detail exposition thereof, in which I will refer to the various parts and the construction and operation as briefly and as compactly as I may.

In order to show the practical application of my invention, the letter A denotes a buggy-bed. The letter B denotes the buggy-top. The letters C and C' denote the two side curtains. The letter D denotes the front bow of the top. The letter E denotes the dash, and the letter F denotes the buggy-seat, all of which parts may be of any ordinary form and construction.

The invention proper contemplates a brow-board 1, secured to the under side of the horizontal portion of the bow D, its upper edge being formed to fit the curvature of the bow, as shown in Fig. 2, the under edge of the brow being formed straight across and beveled from the lower forward edge upward, substantially as shown in Fig. 5. Said brow-board may be secured to the bow D by screws a, b, and c, or otherwise, as desired.

The numeral 2 denotes a window-frame mounted by the hinges 3 and 3' to the lower forward edge of the brow-board, said hinges being let in flush with the material to which they are secured, and they are located on the front faces of the brow-board and the sash, as shown. The upper edge of the sash is beveled from the forward edge downward, as shown, whereby the sash may be turned inward on said hinges.

A rabbet is formed around the inner edge of the frame 2, the sides and the top there-

of opening rearwardly, being formed by a flange which extends in centerward of the frame and from the edge of the outer face thereof, while the bottom rabbet opens outwardly, being formed by a flange which extends in centerward of the frame and from the inner edge thereof, the object of said arrangement being twofold: to provide means for locking the sash in position and to prevent rain or the like from entering the vehicle between the frame and the sash, while at the same time allowing the sash to swing inwardly and upwardly when desired. The numeral 4 denotes the window-sash, in which is permanently secured the window-glass 5. The window-sash is formed to fit in said rabbet of the frame and to be moved slightly up and down parallel therewith to release the tongue 4^a, which tongue is formed on the outer lower edge of the sash to fit into the lower outwardly-facing portion of the rabbet of the frame, as clearly indicated in the drawings.

The numerals 6 6' designate the hangers or hinges for the sash, which are simply metal strips secured vertically to the upper portion of the sash, extending across the upper portion of the frame, and having elongated eyes in their upper ends to receive the closed hooks 7 7', respectively, said hooks being secured in the inner face of the bow 1, thereby providing for the sash to swing inwardly and to be raised sufficiently to allow it to engage in the rabbet of the sash, where it drops into position and is secured by its own weight when so positioned. Secured in the center portion of the inside of the top B is the catch 8, Fig. 7, which is adapted to engage and hold the tongue 9, which latter is pivoted to the center of the inside of the sash 4.

I provide a waterproof curtain composed of one integral piece of material, which is described for convenience as the "front" 10 and the "sides" 11 and 11'. The upper edge of the front 10 should be secured to the upper edge of the frame 2, or it may extend over the brow-board 1, or it may be secured to the lower edge of the frame 2, and the upper edge of the sides 11 and 11' may be detachably secured inside the buggy-top by buttonholes therethrough, which may be placed over buttons therefor, secured at corresponding points inside the top, and the curtains 11 and 11' should also be secured permanently to the side outer edges of the frame where convenient. The rear edges of the curtains 11 and 11' I provide with reinforced strips, which extend above the rear corners of the curtains, forming the tongues 12 and 12', which tongues have buttonholes therethrough to engage over the buttons 13 and 13', respectively. As a protection from rain the curtains 11 and 11' may hang down on the outside of the buggy-bed, or as a protec-

tion from cold they may project inside the buggy-bed.

The numeral 14 denotes a tongue pivoted to the center of the outside of the lower portion of the frame 2, (shown in Fig. 1,) which may be turned when desired to engage in the catch 8, Fig. 7, when the frame is folded, as shown in Fig. 5. Formed in the inside edge of the lower horizontal portion of the frame 2, and located toward the right-hand end thereof, are the two line apertures or notches 15 and 15', as shown in Figs. 1 and 2. Pivoted at one of their extremities to the inner face of the lower portion of the frame 2 by the pivots 16 and 16' are the supports 17 and 17', respectively, (shown most clearly in Fig. 2,) said supports being formed, preferably, each of a single length of comparatively heavy wire, being constructed substantially as shown. Said supports are adapted to hang down when the device is open, extending from the frame 2, and resting against the forward face of the dash E, as shown in Figs. 2, 4, and 6, or adapted to be turned on their pivots 16 and 16' across the inner space of the frame 2 after the sash 4 has been turned back. In the first-named position the said supports are designed to hold the front curtain out full and parallel with the dash, and in the second position they provide means for supporting the curtains when they are folded.

The catch 8 is formed in two parts hinged together, as shown in Fig. 7, one part being secured in the center of the inside of the top B, and the swinging or catch part is adapted to turn up parallel therewith, where it will be out of the way, or it may be turned down on its hinge at right angles to the permanent part, where it provides means for engaging the tongues 9 and 14, substantially as indicated.

Operation: My invention is shown in operative position in Fig. 1, in which it is apparent that a person seated in the vehicle will be securely inclosed, the driving-lines passing out through the apertures 15 and 15'. In the event of more latitude being required for driving or for admitting fresh air to the interior or for other reasons I have only to open the window, which is accomplished by first raising the sash slightly to allow the tongue 4^a to clear the lower flange of the frame and then turn the sash up and back on its hinges and allowing the tongue 9 to engage the catch 8, as in Fig. 5, which will retain the window open without displacing any of the other parts of the invention. Desiring now to entirely dispense with the storm-front, the window is first secured in the top of the vehicle, as just stated. The side curtains 11 and 11' are then released from the top. The supports 17 and 17' are then turned across the space of the frame, and the side curtains and the front curtain are then folded neatly to-

gether over the inner face of the frame 2 and over the supports thereacross, whereby the folded curtains will conform to the size of the frame 2, and the frame 2 is then turned back and up, securing the tongue 14 in the catch 8, which will bring the entire invention to the position shown in Fig. 5 and out of operative position, from which it will be readily accessible.

10 Having now fully shown and described my invention and its proposed operation, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A removable storm-front for vehicles, 15 comprising in combination, a brow-board detachably secured to the front bow of the vehicle-top, a frame hinged at its top to said brow-board, a window-sash hinged at its top to said brow-board and adapted to close the aperture of said frame, the herein-described 20 means for removably connecting said sash to the frame, a window-glass secured in said sash, a curtain secured to the sides and bottom of said frame, means for detachably securing said curtain at its outer edges to inclose the vehicle-front, means for opening 25 and closing the window when the curtain is expanded to close the vehicle-front, means for securing the window in its open position, means for securing the frame and the win- 30 dow back horizontally in the vehicle with the curtain folded in and carried thereby, all substantially as shown and described.

2. A storm-front for vehicles, the combi- 35 nation with the vehicle-top, a brow-board, a window-frame hinged to the brow-board and adapted to swing inward, a window-sash having a glass therein and hinged to the brow-board and adapted to swing into the window-frame, means for retaining the win- 40 dow-sash in the frame, means for swinging the frame and the sash independent of each

other and for securing them horizontally in the top of the vehicle, a curtain secured to the window-frame and adapted to inclose the front portion of the vehicle not inclosed by the frame, means for detachably securing the side portions of the curtain to the inside of the vehicle-top, and a pair of supports pivoted to the lower edge of the frame and adapted to contact with the vehicle-dash to prevent the front from swinging, all substantially as shown and described and for the purposes set forth. 45 50

3. A storm-front for vehicles comprising, 55 in combination, the sides and a front formed of a single piece of waterproof fabric to be folded and having space therein for a window, a brow-board secured across to the top of the front bow of the vehicle, a window-frame inclosing said space in the fabric and hinged to 60 said brow-board, supports pivoted to the lower portion of said frame and adapted to hang out over the vehicle-dash or to be turned back across the frame, means whereby the fabric of the front may be folded across said frame and said supports to be supported thereby, a window suspended from 65 the brow-board and adapted to fit in said frame but operative independent thereof, means for securing the window in an open or closed position independent of the frame, and means for supporting the frame and the fabric in the top of the vehicle together with the window, all substantially as shown and de- 70 75 scribed.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

LEWIS COCKERILL.

Witnesses:

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R. E. RANDLE.