C. GORDON.

SLIDING DOOR.

APPLICATION FILED JAN. 6, 1911.

1,029,888.

Patented June 11, 1912.

2 SHEETS-SHEET 1.

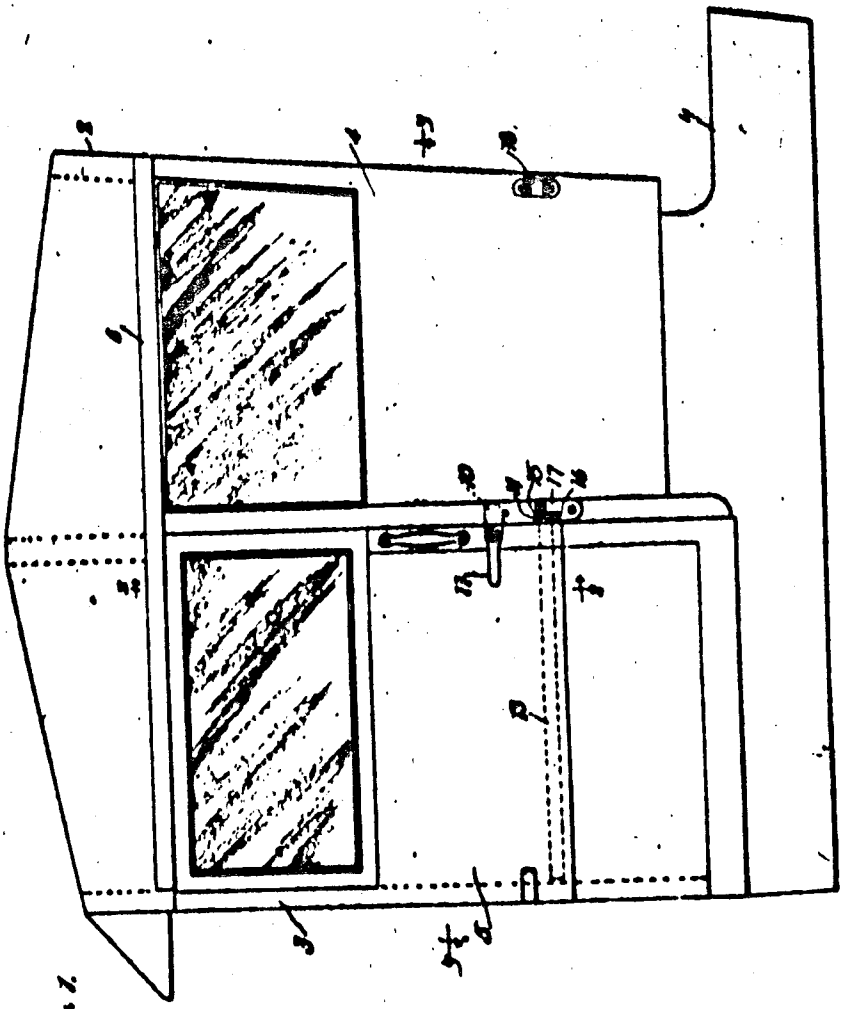

Fig. 1.

Witnesses

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C. GORDON.

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APPLICATION FILED JAN. 3, 1911.

1,029,288.

Patented June 11, 1912.

2 SHEETS—SHEET 2.

Fig. 2.

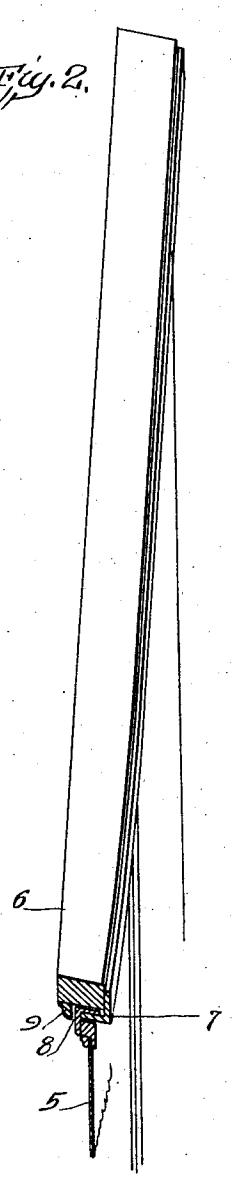

Fig. 3.

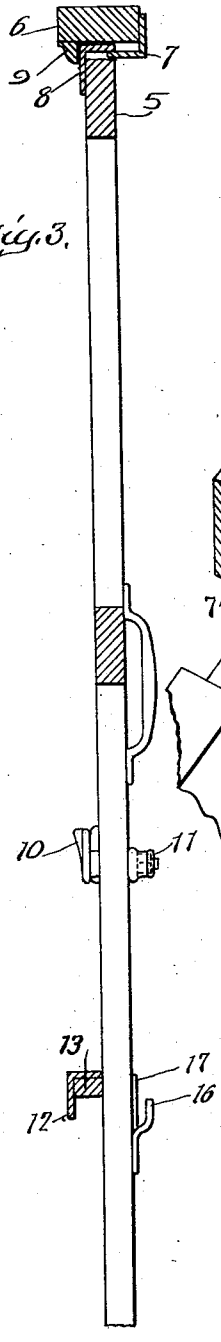

Fig. 4.

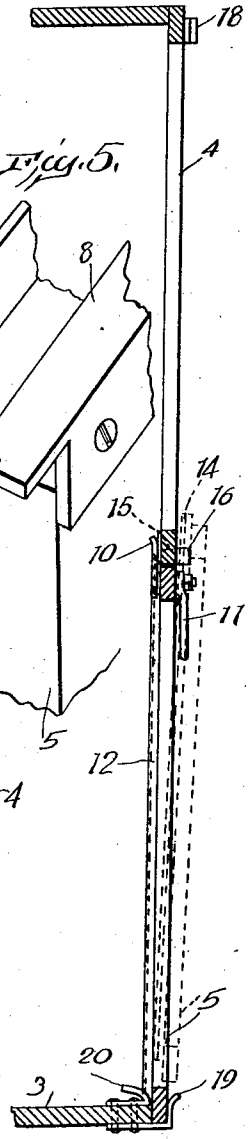

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

CLAY GORDON, OF GREENFIELD, OHIO, ASSIGNOR OF ONE-HALF TO C. R. PATTERSON AND SONS, OF GREENFIELD, OHIO, A COPARTNERSHIP.

SLIDING DOOR.

1,029,288. Specification of Letters Patent. Patented June 11, 1912.

Application filed January 3, 1911. Serial No. 600,487.

To all whom it may concern:

Be it known that I, CLAY GORDON, a citizen of the United States, residing at Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Sliding Doors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to sliding doors, and more particularly to sliding doors for vehicle tops.

The object of the invention is to provide a vehicle top having a sliding door and having tracks and guides so arranged that mud or ice will not accumulate therein and interfere with the movement of the door; further, to provide such a top in which the door will fit snugly within its frame and may be quickly and easily moved into its closed position, and, when in either its open or its closed position will be held firmly in place.

In the accompanying drawings, Figure 1 is a side elevation of a vehicle top embodying my invention; Fig. 2 is a perspective view partially in section of the upper track and its supporting bar; Fig. 3 is a vertical sectional view, taken on the line *x x* of Fig. 1 and looking in the direction of the arrows; Fig. 4 is a horizontal, sectional view, taken on the line *y y* of Fig. 1 and looking in the direction of the arrows; and Fig. 5 is a perspective, detail view of the support for the rear end of the door.

In these drawings I have illustrated one embodiment of my invention and have shown the same as applied to a storm top for vehicles comprising a body portion 1 and a canopy top 2 connected to said body portion by fixed front and side walls 3 and 4, respectively. The forward portions of the side walls, of which but one is shown, are cut away to form doorways. A door 5 is slidably supported and is adapted to fit snugly within the doorway and to tightly close the same. To this end the upper edge of the door is supported from a track which is so arranged as to be concealed from view and closed against the entrance of mud, ice, sleet or any matter which would interfere with the movement of the door. The lower portion of the door is provided with suitable guiding means which controls the lateral movement thereof and is also arranged in such a position as to prevent the accumulation of mud or ice. The construction and arrangement of the doors on both sides of the top are identical and I have, therefore, illustrated and will now describe but one door and its coöperating parts.

In the present form of the invention the top is provided with a projection, such as a bar 6, extending longitudinally thereto and overhanging the doorway and the fixed side portion. A track is supported beneath this overhanging projection and is here shown as comprising an angle iron 7 having one flange secured to the vertical edge of the projection 6 and the other flange extending beneath and spaced some distance from the lower surface of the projection. The door 5 is provided at its upper edge with a supporting device coöperating with the track 7, which, in the present instance, comprises a single supporting member, such as an angle iron 8 having one flange secured to the side of the door 5 near the top thereof and its other flange extending above the upper edge of the door and spaced some distance therefrom. The upper flange of the angle iron 8 is adapted to extend between the lower flange of the angle iron 7 and the supporting projection 6, thereby supporting the door from the track 7 and permitting the same to move longitudinally thereto. A suitable stop is provided to prevent the disengagement of the supporting member 8 and the track 7. In the present instance the stop comprises a strip 9 secured to the under side of the projection 6, extending longitudinally thereto and arranged in such relation to the track 7 as to prevent the separation of the supporting member 8 therefrom. The forward end of the angle iron 7 is curved inward, as shown in Fig. 2, and tends to draw the forward edge of the door into the doorway when the door is moved forwardly. The arrangement of the stop 6 relative to the forward end of the angle iron 7 is such that when the door is in its closed position the supporting member 8 will be firmly held between the lower flange of the track and the stop, thereby holding the door firmly in position and preventing rattling. The arrangement of the stop relatively to the track near the rear edge of the door is such as to permit the rear edge of the door to be moved inward and outward, that is, either into the closed

position, in alinement with the fixed side portion 4, or into a position beyond the outer surface of the fixed side portion which will enable the door to be moved rearward on the outside of said fixed side portion. When the door has been moved to its foremost position and has been drawn into place in the doorway the rear edge of the door is moved inward and secured in its innermost position by means of a suitable fastening device 10 having a handle 11. When locked in this position the door is in alinement with the fixed portion of the top and presents a smooth, harmonious appearance, and further, the door fits within the doorway in such a manner as to effectually shut out the wind. The angle iron 8, which constitutes a supporting member for the door, extends a short distance beyond the rear edge of the door and has its vertical portion cut away, thereby forming a flat projection 21. A slot 22 is formed in the upper part of the fixed portion of the door to receive this flat projection, and, when the door is in its closed position the projection will rest upon the fixed side portion and carry the weight of the rear portion of the door, preventing the same from sagging.

The lower portion of the door has a guide member which coöperates with a part carried by the fixed side portion to maintain the door in proper relation thereto. As here shown this guide member comprises an angle iron 12 secured to a bar 13 extending longitudinally to the door on the inner side thereof. The lower edge of the vertical flange of the angle iron 12 extends below the projection or bar 13 and forms a track or guide. This vertical flange of the angle iron extends a short distance beyond the rear edge of the door, as indicated at 14, and, when the door is in its closed position, is arranged in alinement with a notch 15 formed in the lower edge of the fixed side portion of the top, thus permitting the rear edge of the door to be moved inwardly and outwardly without interference by the track or angle iron 12. A coöperating guide is carried by the fixed side portion of the top and preferably comprises a lip 16 carried by a plate 17 secured to said fixed side portion. This lip is arranged in alinement with the notch 15, and, when the rear edge of the door is moved outwardly, the projecting portion 14 of the angle iron 12 will engage the lip 16 and thus limit the outward movement of said door. As the door is moved rearward the lip will form a guide for the track 12 and coöperate therewith to prevent the outward movement of the door. A socket, such as a clip 18, is secured to the fixed side portion of the top near the rear end thereof to receive the projecting portion 14 of the track 12 and to hold the door snugly against the top to prevent the vibration or rattling thereof. When the door is moved to its closed position the upper edge thereof will be moved into the doorway in the manner above described and the lower edge thereof will engage one of two diverging guide members, 19 and 20, secured to the forward part of the door frame and will thus be drawn into its closed position and maintained snugly in that position.

It will be apparent that the arrangement of the angle iron 7 to form the upper track is such as to effectually prevent the entrance of any foreign matter whatsoever and that the track 12, secured to the lower portion of the door, being an inverted track will not accumulate mud or ice. The lip 16 which forms the coöperating member for the track 12 presents but a small exposed surface for the accumulation of such matter and any matter accumulating therein can be readily dislodged. Further, it will be apparent that the construction and arrangement of the tracks are such that the door may be quickly and easily drawn into position in the doorway and in alinement with the fixed side portion of the top, and, when in this position, the exterior of the top will present a finished and harmonious appearance.

While I have shown and described one embodiment of the invention it will be understood that this form has been chosen for the purpose of illustration only and I, therefore, wish it to be understood that I do not desire to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

1. A vehicle top comprising a fixed side portion and having a doorway arranged in front of said fixed side portion, a track extending longitudinally to said vehicle top near the upper edge of said doorway, a door, a supporting member secured to said door, coöperating with said track and capable of lateral movement relatively thereto to permit the rear edge of said door to enter said doorway, a guide member secured to the inner side of said door and comprising a bar having its rear end extending beyond the rear edge of said door, a notch formed in the forward edge of said fixed side portion to permit the passage of the projecting end of said guide, and a lip secured to said fixed side portion and arranged in alinement with said notch to limit the outward movement of said door and to coöperate with said guide member to maintain said door in its proper position relatively to said top.

2. A vehicle top comprising a fixed side portion and having a doorway in front of said fixed side portion, a longitudinal track

supported by said top above said doorway, a door supported from said track and adapted to be moved transversely to said track into said doorway, a supporting member secured to the upper portion of said door and having a portion extending beyond the rear edge of said door, said fixed side portion having a part to be engaged by said supporting member to support the rear portion of said door when it has been moved into said doorway.

3. A vehicle top comprising a fixed side portion, a doorway arranged in alinement therewith, a projection extending longitudinally to said top and overhanging said fixed side portion and said doorway, an angle iron secured to said projection and having one flange extending beneath the same and spaced therefrom, a door adapted to fit within said doorway, and a supporting member secured to said doorway and adapted to extend between the flange of said angle iron and the supporting projection, said supporting member having a flat portion extending beyond the end of said door and said fixed side portion having a slot to receive said projection.

4. A vehicle top comprising a fixed side portion and having a doorway arranged in front of said side portion, a longitudinal bar overhanging said doorway and said fixed side portion, an angle iron secured to said bar and having one flange extending beneath and spaced away from said bar to form a track, said angle iron having its forward end curved inward, a door adapted to fit within said doorway, a supporting device secured to said door and comprising an angle iron having one flange arranged to engage said track and one end projecting beyond the edge of the door, and a stop to retain said supporting device on said track, said stop being so arranged with relation to said track as to permit the rear edge of said door to move transversely to said track when said door is in its foremost position, the fixed side portion having a part arranged to be engaged by the projecting end of said track and to support the rear edge of said door when it has been moved transversely to said track.

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

CLAY GORDON.

Witnesses:
J. G. WHITAKER,
R. R. KIBLEY.