To all whom it may concern:

Be it known that we, ANGEL VELO Y FIGUERA and PRÓSPERO LASAGA Y VILLAVICIO, both citizens of the Republic of Cuba, and residents of Habana, Cuba, have invented new and useful Improvements in Driveways for Automobiles, of which the following is a specification.

This invention relates to improvements in driveways for automobiles or other vehicles.

In order to facilitate the entry of automobiles or other vehicles into garages or similar buildings, the sidewalk adjacent the entrance door of the building is constructed as an inclined plane rising from the level of the street to the level of the threshold of the building, which is usually at a level with the sidewalk. This partial interruption of the sidewalk in front of the entrance doors to these buildings causes a good deal of inconvenience to pedestrians, and may lead to accidents, especially at night. The provision of short permanently located skids leading from the sidewalk to the street proves even more of an inconvenience, as they not only project into, and obstruct part of the driveway, but are likely to cause accidents to pedestrians as well as to draft animals or to drivers of self-propelled vehicles.

An object of the present invention is to eliminate these disadvantages by combining a portion of sidewalk adjacent the entrance door of a garage or similar building, skids which ordinarily are inserted into the sidewalk, so as to form a level surface with the same, which may be moved in a position in which they facilitate the ascension of a vehicle upon the sidewalk, and which, after use, or at night, may be returned again into non-operative position flush with the level of the walk.

Another object of the invention is to provide skids of this character on pivotal supports, about which they may be swung from a position level with the sidewalk to a sloping position facilitating the approach of a vehicle on the sidewalk.

With these and other objects in view, an embodiment of the invention is described in the following specification and is illustrated in the accompanying drawing, wherein—

Figure 1 is a top plan view of an embodiment of the invention showing the skids in non-operative position;

Fig. 2 is a front edge view of the same combination of sidewalk and removable skids;

Fig. 3 shows, on a larger scale a sectional view, taken on line A—B of Fig. 1, through the frame for the skids and through a removable member for retaining a pivot pin in place;

Fig. 4 is a similar sectional view, taken on line C—D of Fig. 1, through the skid in non-operative position and showing, in dotted lines, the skid in a position in which the vehicle may approach the walk;

Fig. 5 is also, on a larger scale, a sectional view, taken on line E—F of Fig. 1 through the frame for the skid and through the skid, in non-operative position, and

Fig. 6 is a top plan view of the combined sidewalk and skids showing the skids in extended or operative position.

As may be seen from Fig. 1, the sidewalk is provided adjacent its curb edge with a pair of rectangular frames or plates 1, spaced from each other, in opposition to the entrance door, conventionally indicated at 17, a distance large enough to correspond with the average gage or distance between the wheels of a vehicle measured along the axis of the same.

These frames or plates consist of a base portion 2 forming a recess, partly surrounded by side flanges 5 and 6 and a rear flange 7 respectively, the side flanges terminating with the front margin of the recessed plate 1 in the curb edge of the sidewalk or approach 19 to the door 18. The rear flange 7 has a concave fillet, which leads to the plane of the recessed portion 2 in the frame 95. The skid member 9 has at its rear end a fillet 8 corresponding in its radius to the fillet which leads from the flange 7 to the plane of the recessed portion 2, to facilitate the swinging movement of the skid to closing position (shown in full lines in Fig. 4), to retain support of the entire lower surface of the skid when in this position, and to facilitate the ascent of the vehicle on the skid when the skid is extended (dotted lines in Fig. 4). The upper surface of the skid, ordinarily at one level with the plane of the sidewalk, may be provided with suitable diagonal intersecting corrugations 10 to prevent pedestrians from slipping on these sur-
faces, an accident which may readily occur if these skids should be made of metal and should have been worn very smooth by long continued use. The skids 9 are provided near their front edges with lateral pivot pins 11 and 12 adapted for insertion in suitable openings 13 and 14 in the front portion of the lateral flanges 5 and 6 of the frame plate 1.

To facilitate the attachment or removal of the skids whenever the exchange or repair of one of these elements should be necessary, one of these lateral flanges (in Figs. 1 and 6 the flange 5) is provided with a cut-out portion in which may be secured a holding member 15 by means of the screws 16 and 17. This member covers the opening 13 for the pivot pin 11; and as these pivots fit admirably loosely in the corresponding sockets 13 and 14, it is obvious that upon withdrawal of the screws 16 and 17 and of the holding member 15, the respective skid may be slightly tilted about its longitudinal axis, and the pivot pin 12 can be withdrawn from the corresponding socket 14; another skid can be inserted in the same way, or the same skid may be reinserted and locked against removal by reinsertion and attachment of the holding member 15.

The bottom of the recessed portion 2 is advisedly provided with grooves 3 and 4, into which ribs 3' and 4' on the under surface of the pivot plate 9 enter when the plate is in operative position within the frame 1. These projections on the under surface of the driveway plate 9 will serve for stabilizing the plate against vibration, and they will also contribute in maintaining the plates 9 in proper alignment, as this alignment is not absolutely assured by the use of the pivots, which naturally are somewhat loose in their sockets.

The operation of the device obviously is very simple. After a recess has been cut into the sidewalk, suitable for permanently receiving the frame 1, which has at its front or curb end an enlarged portion in which the pivotal supports of the skids are mounted, the skids are placed within said frame and the holding member 15 is then fastened down to prevent accidental withdrawal of the skids. When in operative position, each skid rests snugly within the recess 2 of the frame 1, owing to the engagement of the fillet at the flange by the fillet 8, and owing to the engagement of the ribs 3', 4' with the longitudinal grooves 3, 4 in the bottom of the recessed portion 2. When it is desired to drive a vehicle into the building, the skids are swung by the skid mounts and swung on the door skid 9 into the position shown in dotted lines in Fig. 4. The combined skids 9 and recess 2, continued by the upper surface of the sidewalk, will then form a slightly sloping approach which the vehicle can readily ascend, the more so as all portions leading from one plane to the next higher plane have rounded edge portions. After the entry of the vehicle in the building, the driver again swings the skids 9 into inoperative position and thereby restores all portions of the sidewalk to their prior plane, avoiding the dangers which otherwise would be due to the provision of permanent skids, permanent inclined planes, or recesses in the walk.

We claim:

1. In permanent connection with a sidewalk, the combination of a recessed frame permanently inserted into the body of the sidewalk and having one edge flush with the curb edge of the sidewalk, and a skid pivotally mounted in said frame and normally located in the recess thereof to present a surface on a level with the surface of the walk, said skid being adapted to be turned about its pivot into a position sloping downwardly with respect to said frame and walk.

2. In permanent connection with a sidewalk, the combination of a frame having circumferential flanges on two lateral edges and on a rear edge, the front edge of the frame being flush with the curb edge of the sidewalk, a plate pivotally mounted on said frame and confined, when in operative position, by the said edges, the front edge of the pivot plate, when in operative position, being flush with the curb edge of the sidewalk, the pivot of said plate being adjacent to said front edge.

3. In permanent connection with a sidewalk, the combination of a recessed frame inserted into the sidewalk, said frame having flanges the top surface of which is on the same level as the sidewalk, and a plate pivotally mounted in the recess and having, when in operative position, its upper surface on a level with the top surface of said flanges, said plate being pivoted near the curb edge to the frame and being adapted to be turned about its pivot to extend from the front edge of said frame forwardly.

4. In permanent connection with a sidewalk, a recessed frame inserted in the sidewalk to bring portions thereof in one plane with the plane of the sidewalk and having its front edge in alignment with the curb edge of the walk, one of said portions having a cut-out terminating in the front edge of the frame, pivotal sockets in several of said portions, a plate having projecting pivot pins removably inserted into said sockets, and a holding member detachably connected to the cut-out portion.

5. In permanent connection with a sidewalk, a frame plate having a recessed bottom and circumferential flanges on three sides projecting from said bottom, one of said flanges being joined to said bottom by a concave fillet, a pivotal skid normally mounted in the recess of said frame, one edge of
said skid being rounded to correspond to the curvature of the fillet with which it is in engagement when said plate is in normal position, the bottom being provided with grooves and the skid being provided with ribs on the lower surface adapted for registration with said grooves when the skid is in normal position.

In testimony whereof we affix our signatures in the presence of two witnesses.

ANGEL VELO.

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Witnesses:

JOSEPH A. SPRINGER,

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."