No. 841,269. PATENTED JAN. 15, 1907.

H. B. PITNER.

DOOR HANGER.

APPLICATION FILED OCT. 12, 1906.

FIG. 4

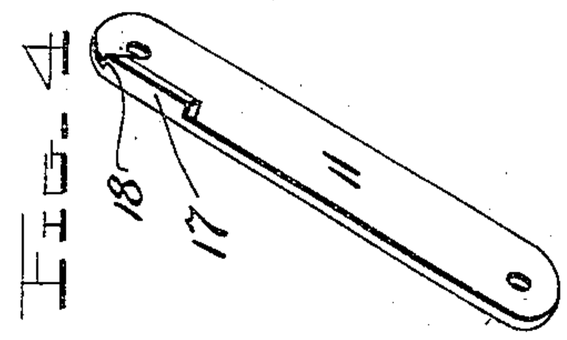


FIG. 5

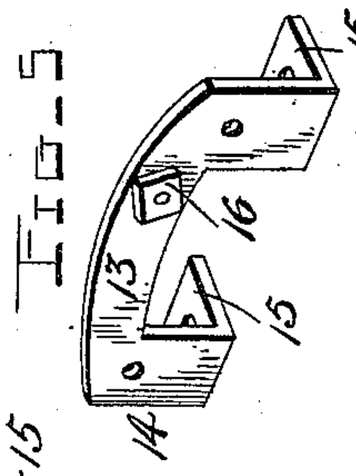


FIG. 3

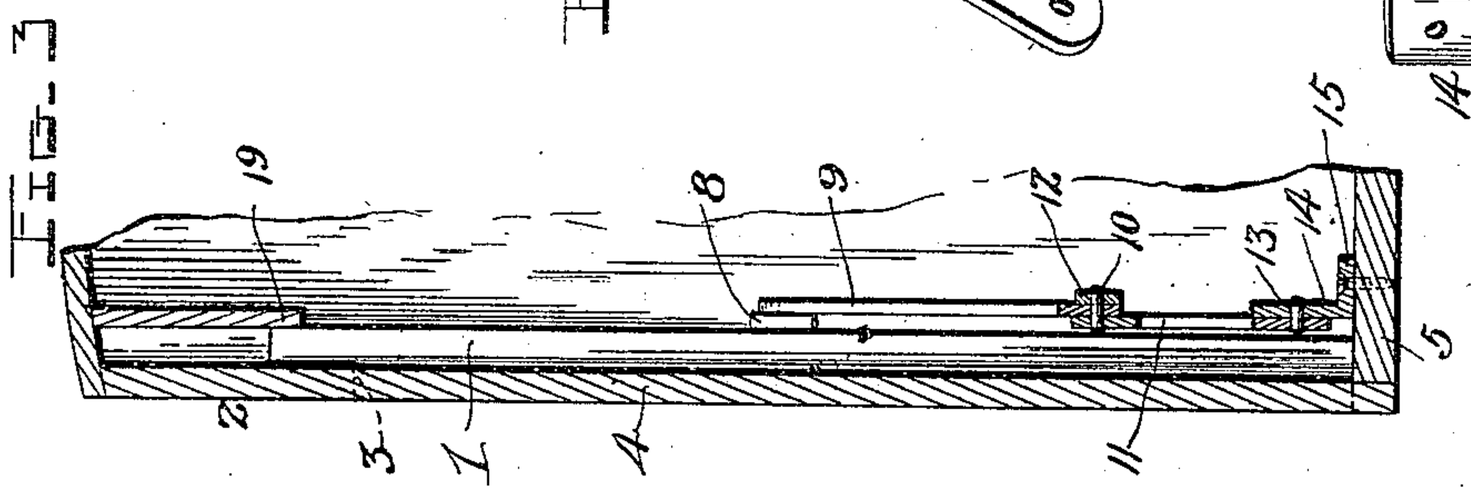


FIG. 1

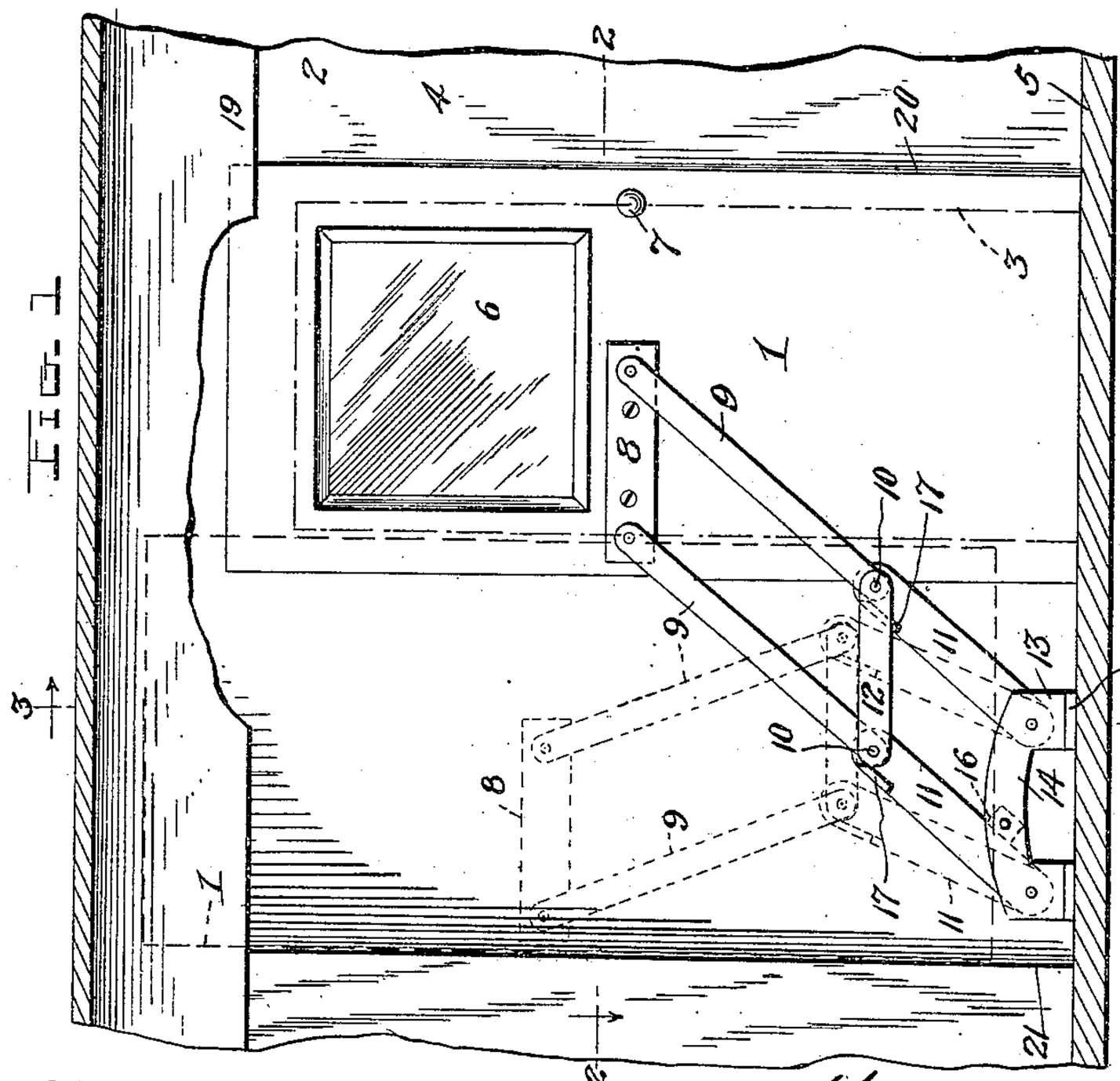
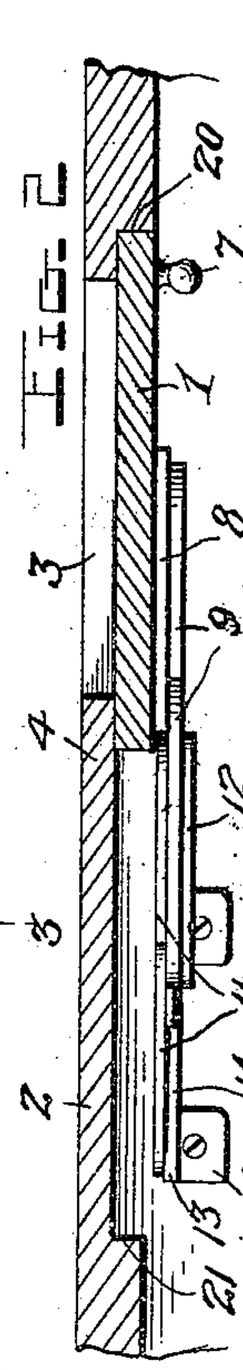


FIG. 2



Witnesses
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UNITED STATES PATENT OFFICE.

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DOOR-HANGER.

No. 841,269. Specification of Letters Patent. Patented Jan. 15, 1907.

Application filed October 12, 1906. Serial No. 338,639.

To all whom it may concern:

Be it known that I, HENRY B. PITNER, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in hangers for doors, and particularly doors for milk-wagons, railway-cars, and the like.

The object of the invention is to provide a simple, strong, and durable means for mounting the door so that it may be readily swung to either its closed or open position.

Further objects and advantages of the invention, as well as the structural features by means of which these objects are attained, will be made clear by an examination of the following specification, taken in connection with the accompanying drawings, in which—

Figure 1 is a view of the inside of a milk-wagon, showing my improved means for hanging the door. Fig. 2 is a horizontal section taken on the plane indicated by the line 2 2 in Fig. 1. Fig. 3 is a vertical transverse section taken on the plane indicated by the line 3 3 in Fig. 1. Fig. 4 is a perspective view of one of the lower links, showing the stop projection thereon; and Fig. 5 is a perspective view of the base plate or bracket.

In the present embodiment of my invention it is shown applied to the door 1 of the body 2 of a milk-wagon, car, or the like. The door 1 is adapted to close the door-opening 3 in the side wall 4 of the wagon-body, and when in its closed position, as shown in full lines in Fig. 1, it rests upon the floor 5 of the wagon. The door may be of any desired form and construction, but as illustrated it has in its upper portion a glass-covered opening 6 and upon its inner side a handle or knob 7.

Secured by screws or the like upon the inner side of the door 1 is an attaching-plate 8, to which are pivoted the upper ends of a pair of parallel links 9. The lower ends of the links 9 are pivoted by rivets or the like 10 to the upper ends of a second pair of parallel links 11 and also to the ends of a connecting and spacing bar 12. The lower pair of links 11 have their lower ends pivoted upon the substantially U-shaped upright portion 13 of the base-plate or bracket 14. The latter has right-angularly-bent feet 15, which are secured by screws or the like upon the car-floor 5, so that the U-shaped portion 13 is supported in an upright position. Secured upon one face of the portion 13 is a stop-block 16, adapted to be engaged by one edge of one of the lower links 11 to limit the downward swinging movement of the latter, as will be readily understood upon reference to Fig. 1. Formed upon each of the lower links 11, adjacent to the upper ends, are stop projections 17, the beveled upper edges 18 of which are adapted to be engaged by the edges of the upper links 9 to limit the swinging movement of the latter with respect to the links 11. The two stops 17 are so arranged that both of the links 9 engage them at the same time.

When the door 1 is in its closed position, as shown in Fig. 1, it rests upon the door-sill, and one of links 11 engages the stop 16, and when the door is pushed laterally the upper links 9 will be swung upwardly with respect to the lower links 11 until the former engage the stops 17. As the door is pushed laterally the links 19 elevate it, and the continued movement of the door after the links 9 engage the stops 17 causes the links 11 to be swung upwardly, as shown in dotted lines in Fig. 1. The door is guided in its sliding or swinging movement by a guide 19, arranged upon the upper portion of the side wall 2 and engaged with the upper end of the door. When the door is in its closed position, it engages a stop-shoulder 20 upon one side of the door-opening 3 and when it is in its opened position engages a similar stop-shoulder 21, as will be readily seen upon reference to Figs. 1 and 2. When the door is swung from its opened to its closed position, the links 11 swing downwardly until one of them engages the stop-block 16 of the base-plate 14, and the links 9 then swing upon their pivots 10 until the door is lowered to its full-lined position, as shown in Fig. 1. When this improved door is used in a milk-wagon, it will be noted that snow, ice, mud, or the like which accumulate on the floor of the wagon and the door-sill will not interfere with its operation and that there will be no danger of the door freezing on the sill. As soon as the door starts to open it is elevated from the floor and door-sill.

While I have shown and described the preferred embodiment of my invention, it will be understood that I do not wish to limit it to the precise construction herein set forth.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a frame having an opening and a door for closing said opening, of upper and lower pairs of links pivotally connected, the links of the upper pair being pivoted to said door and the links of the lower pair to said frame, and a spacing-bar uniting the pivotally-connected ends of said links.

2. The combination with a frame having an opening and a door for closing said opening, of upper and lower pairs of links pivotally connected, the links of the upper pair being pivoted to said door and the links of the lower pair to said frame, a spacing-bar uniting the pivotally-connected ends of the said links and a stop for limiting the swinging movement of the links of the lower pair.

3. The combination with a frame having an opening and a door for closing said opening, of upper and lower pairs of links pivotally connected, the links of the upper pair being pivoted to said door and the links of the lower pair to said frame, a spacing-bar uniting the pivotally-connected ends of the said links, and a stop for limiting the swinging movement of the links of the upper pair with respect to the links of the lower pair.

4. The combination with a frame having an opening and a door for closing said opening, of an attaching-plate upon said door, a base-plate upon said frame, lower links pivoted to said base-plate, upper links pivoted to said attaching-plate, pivots connecting the upper and lower links, a spacing-bar connecting the last-mentioned pivots, a stop upon said base-plate to limit the swinging movement of said lower links, and stops upon said lower links for limiting the swinging movement of the upper links, substantially as shown and described.

5. The combination with a frame having an opening and a door for closing said opening, of upper and lower links pivotally connected, the upper link being pivoted to said door and the lower link to said frame, a stop for limiting the swinging movement of the lower link and a stop upon the lower link for limiting the swinging movement of the upper link with respect to the latter.

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

HENRY B. PITNER.

Witnesses:

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R. E. SCHRADER.