Oct. 30, 1934. S. PAUL 1,978,720

FUNERAL CAR

Filed July 25, 1933 4 Sheets-Sheet 1

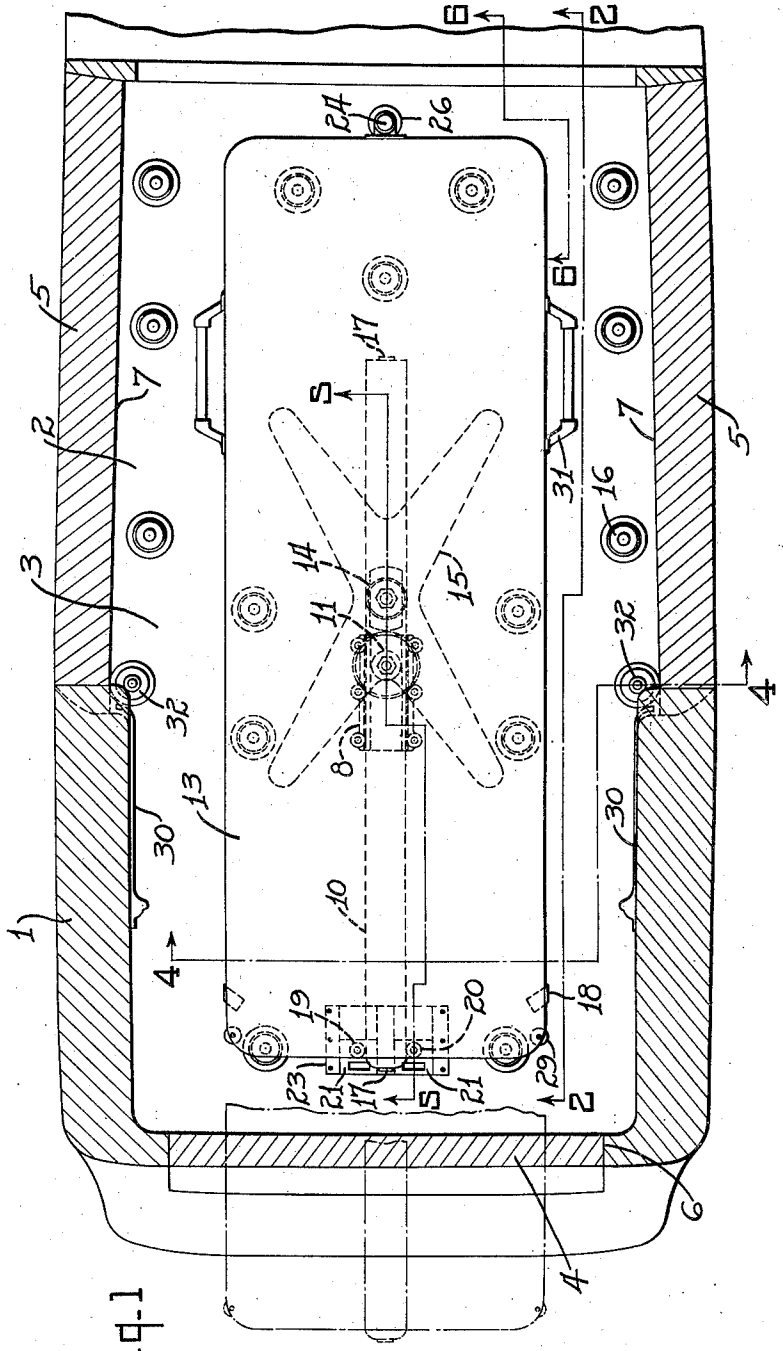

Fig-1

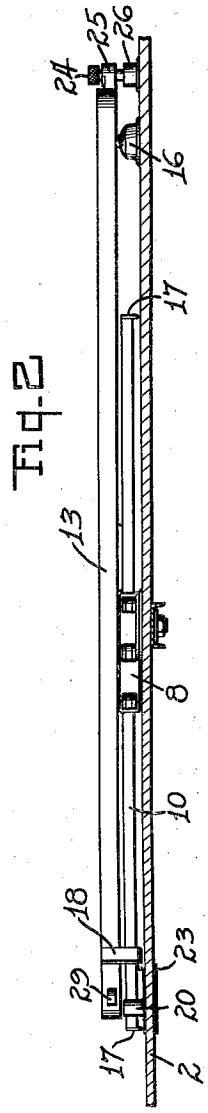

Fig-2

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FUNERAL CAR

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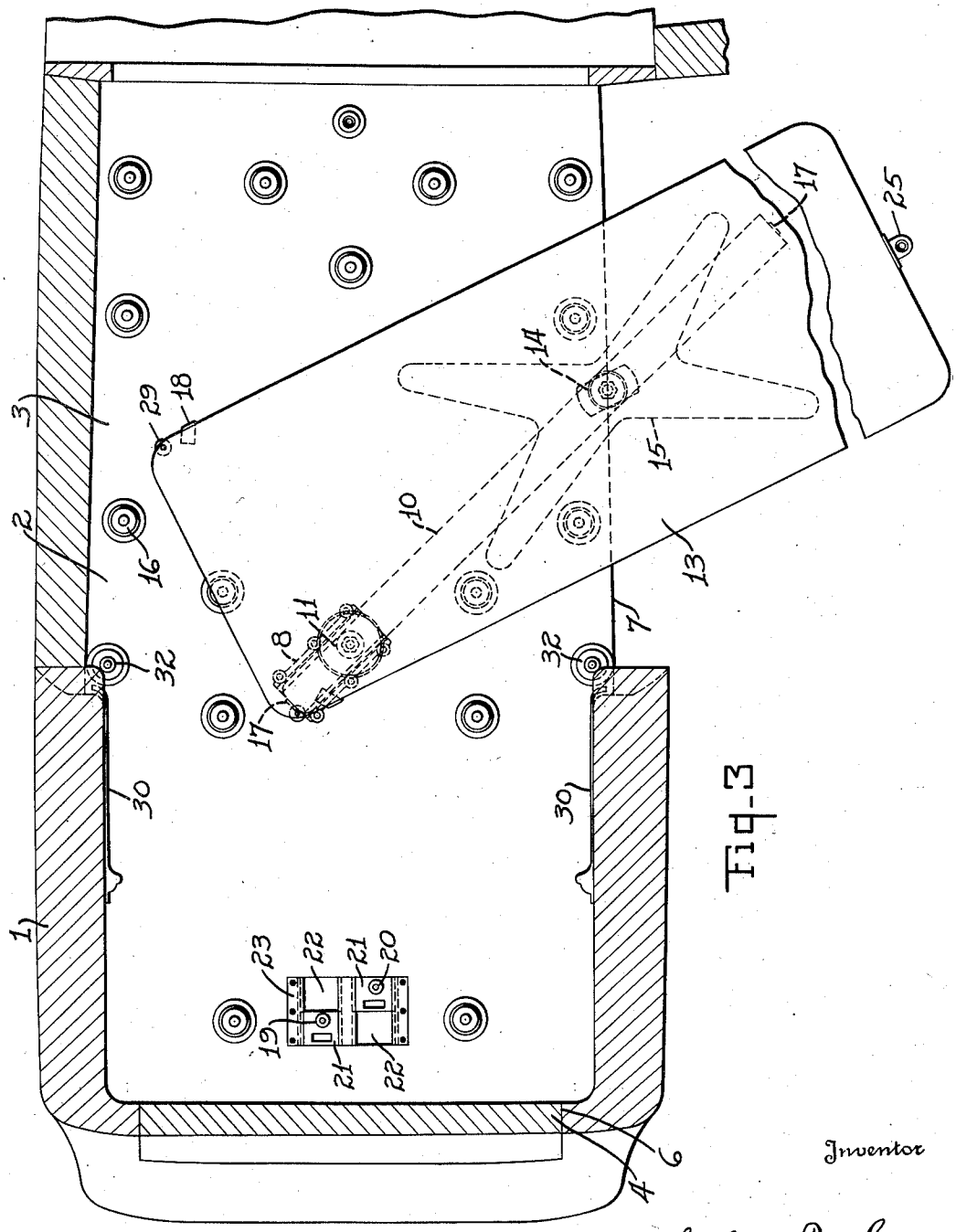

Fig. 3

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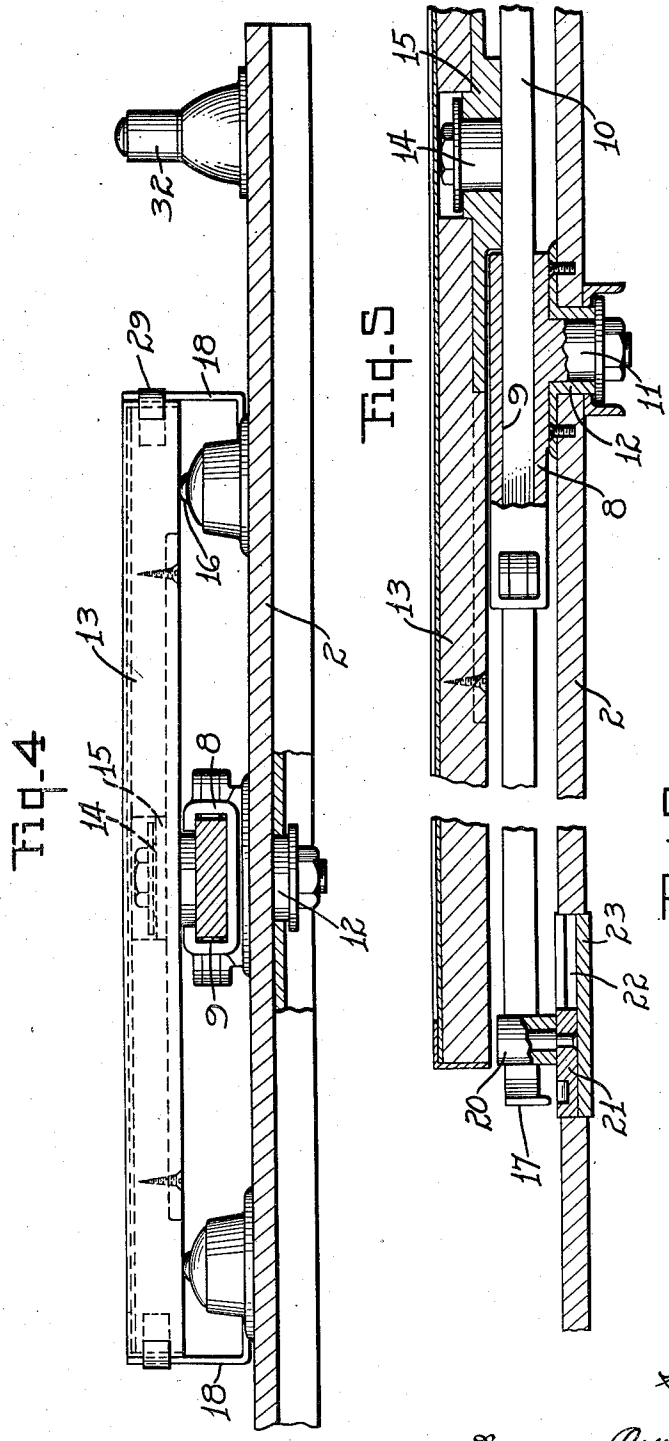

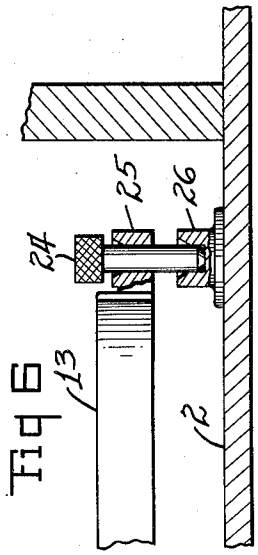

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FUNERAL CAR

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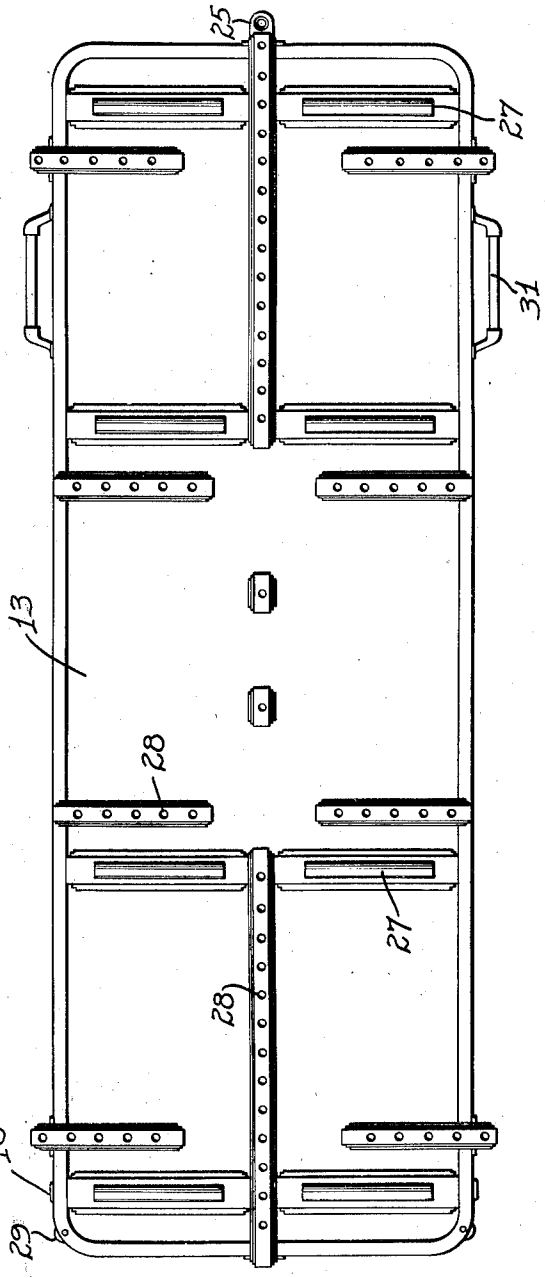

Fig-7

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Patented Oct. 30, 1934 1,978,720

UNITED STATES PATENT OFFICE

1,978,720

FUNERAL CAR

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Application July 25, 1933, Serial No. 682,111

14 Claims. (Cl. 296—16)

This invention relates to funeral cars of the hearse type, and particularly to such cars having provision for introducing caskets into or removing them from the cars through either a rear door or a side door thereof.

The primary object of my invention is the provision, particularly in a hearse, of a casket-supporting table or platform which is adapted to stand within the confines of the receiving compartment of the car lengthwise thereof in a normal transporting position, and is mounted for and capable of easy manipulation to have its end projected a distance through the rear door opening or to be moved bodily forward and transversely swing to project its forward end a distance through either of opposite side door openings to facilitate placing a casket on or removing it from the table at any one of such positions, depending on which is the most convenient or suitable for the particular case in hand.

Further objects and advantages of the invention will be apparent from the following detailed description, and from the accompanying drawings, in which—

Figure 1 is a more or less diagrammatical horizontal section of the casket-receiving portion of a hearse equipped with the invention, and showing in full lines the casket-carrying table secured in normal transporting position, and indicating, in dotted lines, the table partially projected through the rear opening of the hearse; Fig. 2 is a fragmentary vertical section on the line 2, 2 in Fig. 1; Fig. 3 is a view similar to Fig. 1 with the table in position for delivering or receiving a casket through a side opening of the hearse; Fig. 4 is an enlarged fragmentary section on the line 4, 4 in Fig. 1, with parts broken away; Fig. 5 is an enlarged vertical section on the line 5, 5 in Fig. 1, with parts in full; Fig. 6 is an enlarged fragmentary section on the line 6, 6 in Fig. 1, and Fig. 7 is a top plan view of the table showing the casket-supporting rollers and rows of pin-receiving sockets for securing a casket in position thereon.

Referring to the drawings, 1 designates a hearse, 2 the floor of the casket-receiving compartment 3, 4 the rear door, and 5, 5 the side doors, respectively, closing the rear and side openings 6 and 7, 7, through any of which a casket may be delivered or received, depending on which is the most convenient for the case in hand. The openings 7, 7 are disposed at the forward ends of the respective side walls of the compartment 3, and in width preferably extend from the forward end to near or slightly beyond the horizontal center line thereof. The doors 4 and 5 are more or less diagrammatically shown, as the type and mounting of these doors has nothing to do with the invention. By "compartment" as used herein is meant the free casket-receiving space at the rear of the driver's seat, for in some cases the casket-receiving space and driver's seat space are not divided.

A swivel guide 8 is mounted for horizontal swivel movements on or in the floor 2 centrally between the sides of the compartment 3 and near the longitudinal center thereof, or adjacent to the rear edges of the side openings 7, and has a horizontal guideway 9 in which a slide-bar 10 is mounted for longitudinal reciprocatory movements. The guide 8, in the present instance, has a vertical stud 11 projecting from its bottom near its forward end and journaled in a bearing opening 12 provided through the floor, the stud having a nut and washer at its lower end cooperating with the bearing parts to retain the stud therein, as best shown at Fig. 5.

A casket-supporting table 13 is pivotally supported at its center by the slide-bar 10 for horizontal swinging movements relative thereto, the pivotal connection, in the present instance, constituting a stud 14 rising from the bar 10 and journaled in a frame part or spider 15 attached to the under side of the table, a nut and washer being attached to the upper end of the stud and engaging the frame member 15 to prevent withdrawal of one from the other.

The rear arm of the slide-bar 10 extends, in the present instance, to slightly beyond the rear end of the table 13, and the forward arm extends a distance forward of its pivot but not, in its present embodiment, to the forward end of the table. The top of the guide-way 9 of the guide 8 is open to permit the table bearing parts to pass lengthwise therethrough, as shown in Fig. 4, when the slide-bar and attached table have movements lengthwise of the guide opening. When the table is in normal transporting position within the compartment 3, its pivot stud 14 is disposed in advance of the pivot stud 11 of the guide, as shown in Figs. 1 and 5.

The floor 2 of the hearse is provided with a plurality of anti-friction supports 16 for the table, which supports are so distributed that the table is supported at front and rear and at the sides when in transporting position within the hearse, and is also similarly supported when moved through any of the openings to facilitate delivery or reception of a casket. The position of the sup-

ports 16 is such that the table is held in true horizontal position in any position of its movement relative to the hearse.

The slide-bar 10 has a stop 17 at each end for engagement with the respective end of the guide 8 to limit the longitudinal movement of the slide-bar in one direction or the other therethrough. The rear end of the table 13 at each adjacent side edge thereof is provided with a dependent stop finger 18, which coacts with the rear end of the bar 10 to limit the respective lateral swinging movements of the bar relative to the table.

Guide rollers 19 and 20 are mounted on the rear end portion of the floor 2 and are adapted to engage opposite sides of the rear end portion of the slide-bar 10 to cooperate with the swivel guide 8 to prevent the slide-bar from swinging laterally when the bar and table are shifted rearwardly to project them through the rear opening 6 of the hearse. Each of these rollers is also adapted to be shifted longitudinally of the compartment 3 to permit it to be placed in advance of the other, so as to act as a lateral stop for the rear end of the slide-bar 10 when being swung from angular to longitudinal aligned position with respect to the compartment and thus serve as center finding means for the slide-bar. To facilitate shifting, each roller 19 and 20 is carried by a respective slide-plate 21, which is mounted in the respective slide-way 22 of a guide-frame 23 mounted in the floor 2.

The table 13 is rigidly secured in transporting position within the compartment 3 by any suitable manually operated locking means which, in the present instance, comprises a pin 24 adapted to be removably inserted through a socketed ear 25 at the forward end of the table 13 and into a registering socketed member 26 on the floor 2. When the table 13 is in locked position, the rear end of the slide-bar 10 projects between the guide rolls 19 and 20 to assist in holding the movable parts in stationary position in the hearse.

The table 13, as shown in Fig. 7, is provided on its top with a series of rollers 27, which have their axes transverse to the table and their top surfaces projecting above the top surface of the table to provide a rolling support for a casket when moved lengthwise on the table. The table is also provided with several series of sockets 28, some of the series being arranged lengthwise and some transversely of the table, and into which pins may be inserted at the ends and sides of a casket to hold it in position on the table. The arrangement and number of the sockets 28 is such that caskets from the smallest to the largest size may be secured in position on the table. The table 13 at each rear corner is provided with a roller 29 for engagement with the respective side wall of the hearse body to facilitate the guiding movements of the table when swung transversely to permit its movement outward or inward through a side opening 7. The rollers 29 are intended to engage guide plates 30 on the respective side walls. The table 13 is preferably provided on each side near its forward end with a handle 31 to facilitate guiding or controlling the movements of the table through the respective hearse openings.

A guide-roll 32 is mounted within the hearse compartment 3 at the inner rear edge of each side opening 7 for guiding engagement with the edges of the table when being moved into or from delivery or receiving position through an opening.

In the use of my invention, the table 13 may be projected rearwardly through the rear opening 6 if it is desired to receive or deliver a casket at the rear end of the hearse, or the table may be shifted and have its forward end angularly projected through either side opening 7 if it is desired to receive or deliver a casket at either of such sides. To project the table through the rear opening 6, it is merely necessary to pull or push its rear end through such opening, during which movement the slide-bar 10 is prevented from swinging about its axis 11 and is caused to maintain true longitudinal relationship to the hearse by the guiding rolls 19 and 20 between which it passes. The table may be moved rearwardly until stop 17 at the forward end of its slide-bar 10 engages the forward end of the swivel guide 8. When it is desired to project the forward end of the table 13 through an opening 7 in the right side of the hearse, the guide roller 20, which is the one disposed at the same side of the slide-bar to said opening, is shifted forward to the position shown in Fig. 3 for the purpose hereinafter described. The table 13 is then moved forward, after first removing the locking pin 24, a sufficient distance to permit its rear end to elevate past the guide roller 19. This having been done, the operator draws the forward end of the table toward him through the right hand opening 7, which simultaneously causes the table to swing on its pivot 14 relative to the slide-bar 10, and also causes the slide-bar 10 to swing on its guide pivot 11, and during such movement the operator also imparts a forward pull to the table, so as to slide it and the slide-bar 10 forward and laterally with respect to the swivel-guide 8. These combined movements are continued until the table has been angularly shifted with respect to the hearse and its forward end projected a distance through the side opening, as shown in Fig. 3. During this shifting movement, and also the corresponding returning movement of the table to transporting position within the hearse, the inner side edge of the table may have guiding engagement with the guide roller 32 at the inner rear edge of the opening, and the roller 29 at the farther rear corner of the table may have guiding engagement with the side guide strip 30. In returning the table to transporting position within the hearse, a pushing stress is applied both longitudinally and transversely of the forward end of the table, and this causes the rear end of the slide-bar to be shifted rearwardly through the guide 8 and also to swing to the right, and when the bar, during such swinging movement, strikes the inner side of the roller 20, its swinging movement is stopped and the operator knows that the parts are in proper position, except that it is necessary to move the table and bar slightly to the rear to project the rear end of the bar between the two guide rolls 19 and 20 and to enable the locking pin 24 to be placed in locking engagement with the parts 25 and 26.

The control of the table movements is easily accomplished by reason of the sliding engagement of the bar 10 and its guide 8, and the relationship of the swinging axis of the table with respect to the bar and the swinging axis of the bar with respect to the hearse. In other words, by mounting the table pivotally on a slide-bar, the guide of which has horizontal pivotal movements, and by disposing the pivotal connection of the table and bar in advance in the guide pivot, it is possible to swing the forward end of the table through either side opening, and during such movement to impart the desired longitudi-

nal movement thereto, with very little effort on the part of the operator, so that he may easily control the movements of the table irrespective of the size and weight of casket disposed thereon. Furthermore, by disposing the axis of the swivel-guide 8 in substantially the longitudinal center line of the hearse, the forward end of the table may be projected through either side opening, and at the same time have the maximum extent of projection, which is an important item in hearses of this character.

Another advantageous feature of thus mounting the casket-carrying table is that an extra long casket receiving compartment is not required, for, due to the permissible swinging of the casket with respect to the slide-bar and the combined sliding and swinging of the slide-bar with respect to the guide axis 11, very little, if any, forward lengthwise movement of the table relative to the hearse is required. In the present instance, substantially the only movement in this respect which is required is that which is necessary to enable the rear end of the slide-bar to swing laterally past the rearwardly disposed guide-roll 19 or 20.

When the table is projected through either the rear opening or either side opening of the hearse, the downward pressure of such end is resisted by the engaged floor bearings 16, and the upward pressure on the inner end of the table is resisted by the sliding interlocking engagement of the slide-bar with the guide 8, as is apparent.

I wish it understood that my invention is not limited to any specific arrangement or form of the parts, as it is capable of numerous modifications and changes without departing from the spirit of the claims.

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

1. The combination with a vehicle having a compartment with a rear end opening and opposite side openings, and means mounting a table within the compartment for longitudinal sliding and compound swivel movements to permit the table to be projected rearwardly through the rear opening or angularly shifted and projected laterally through either side opening, said means comprising a swivel guide carried by the compartment floor with its axis near the transverse and longitudinal centers of the compartment, and a compound lateral sliding and pivotal connection between the table and guide.

2. In a vehicle of the class described having a compartment with rear and opposite side openings, an elongated table mounted in said compartment to have its rear end projected through the rear opening and to be angularly shifted and have its forward end projected through either side opening, anti-friction means supporting the table in any position of horizontal movement relative to the vehicle, a swivel guide carried by the compartment floor centrally of its sides and substantially centrally of its ends, a slide-bar carried by said guide for horizontal swivel and sliding movements with the latter movement transverse to the guide axis, and pivotal connection between said slide-bar and table bottom substantially central of the table ends and sides permitting and guiding said movements of the table.

3. In a device of the class described, a support, a table mounted for various horizontal movements over said support, guiding connection between the table and support comprising a horizontal shiftable slide member pivoted to the under side of the table and a swivel guide for the slide member mounted on said support, whereby the table may be angularly shifted relative to the support and projected laterally in opposite directions therefrom, and manually controllable center finding means for coaction with and stopping the swinging movements of the slide member when at a predetermined position of its swinging movement in either direction.

4. In a hearse having a casket receiving compartment with rear and side openings, a table mounted in said compartment for various movements therein and adapted to be projected through either one of the rear or side openings, guiding connection between the table and compartment floor including a slide member having pivotal connection with the table bottom and both horizontal sliding and pivotal connection with the floor, whereby the table may be lengthwise projected through the rear opening or angularly projected through the side opening, and means for coacting with and preventing horizontal swinging movements of the slide member when shifted through the rear opening.

5. In a hearse having a casket receiving compartment with rear and side openings, a table mounted in said compartment for various movements therein and adapted to be projected through either the rear or one of the side openings, guiding connection between the table and compartment floor including a slide member having pivotal connection with the table bottom and both horizontal sliding and pivotal connection with the floor, whereby the table may be lengthwise projected through the rear opening or angularly projected through the side opening, means for preventing horizontal swinging movements of the slide member when rearwardly shifted, and also being manually controlled to stop swinging movement of the slide member in a predetermined direction at a predetermined point in such movement when said pivotal connections are in predetermined relation.

6. In a hearse having a casket-receiving compartment with an opening in the forward portion of a side thereof, a swiveled guide carried by the compartment floor with its swivel axis vertically disposed, a slide engaging said guide for swivel movements therewith and sliding movements transversely thereof, and a casket-carrying table disposed above and pivotally connected substantially central of its ends to said slide and adapted to stand lengthwise of said compartment or be angularly shifted and projected through said opening, said swivel axis being substantially within the confines of the table in all positions of movement of the table.

7. In a hearse having a casket-receiving compartment with an opening in each of opposite side walls, a swiveled guide carried by the compartment floor with its swivel axis vertically disposed and near the transverse center of the compartment, a slide engaging said guide for swivel movements therewith and sliding movements transversely thereof, and a casket-receiving table disposed above and pivotally connected substantially centrally of its ends to said slide and adapted to stand lengthwise of said compartment or be angularly shifted and projected through either of said openings, said swivel axis being substantially within the confines of the table in all positions of movement of the table.

8. In a hearse having a casket-receiving compartment with an opening in a side wall thereof and also in its rear wall, the rear edge of the

side opening being near the longitudinal center of the compartment, a swivel guide carried by the compartment floor with its swivel axis in a vertical cross plane adjacent to the rear edge of said side opening, a slide engaging said guide for swivel movements therewith and sliding movements transversely thereof and partially through any of said openings, and a casket-carrying table disposed above and pivotally connected substantially centrally of its ends to said slide and adapted to stand lengthwise of said compartment or be projected either rearwardly through said rear opening or angularly shifted and projected laterally through said side opening.

9. In a hearse having a compartment with a side opening, an elongated table adapted to stand lengthwise within said compartment, and means mounting the table within the compartment to permit angular shifting thereof and the projection of an end through the compartment opening, said means including a member having pivotal connection with the table near its longitudinal center and a compound sliding and pivotal connection with the compartment floor, said latter pivot being disposed adjacent to the center of said compartment and substantially midway between the table ends when the table is in carrying position in the compartment, and said sliding movements being transverse to said latter pivot.

10. In a vehicle having an elongated compartment with opposite side openings in the forward portions of its side walls, an elongated table mounted lengthwise in the compartment and adapted to be angularly shifted to project an end thereof through either side opening, and mounting means for the table permitting such movements and constituting a slide member having separate transverse pivotal connections with the table and compartment floor, the pivotal connection with the floor being disposed a distance forward from the rear end of the compartment and in a vertical cross plane which is intermediate to the table ends when the table is in the compartment.

11. In a vehicle having an elongated compartment with opposite side openings near one end thereof, an elongated table mounted lengthwise in the compartment and adapted to be angularly shifted to project an end thereof through either side opening, a mounting means for the table permitting such movements and constituting a slide member having separate pivotal connection with the table and the compartment floor, both pivots being near the transverse center line of the table when the table is disposed in lengthwise position within the compartment.

12. In a vehicle having an elongated compartment with opposite side openings near one end thereof, an elongated table mounted lengthwise in the compartment and adapted to be angularly shifted to project an end thereof through either side opening, a mounting means for the table permitting such movements and constituting a slide member having separate pivotal connection with the table and the compartment floor, both pivots being near the transverse center line of the table when the table is disposed in lengthwise position within the compartment, and the floor pivot being in a cross plane which is adjacent to the near edges of said openings.

13. In a vehicle having an elongated compartment with a side opening in one end portion and a rear opening in its opposite end, an elongated table mounted lengthwise in the compartment and adapted to be angularly shifted to project an end thereof through said side opening and longitudinally shifted to project an end thereof through said rear opening, and mounting means for the table permitting such movements and constituting a slide member having separate pivotal connection with the table and compartment floor, the floor pivot being adjacent to the rear edge of the side opening and the table pivot being near the center of the table in advance of the floor pivot and shiftable across the floor pivot when the table is projected through the rear opening from normal carrying position within the compartment.

14. In a hearse having a casket-receiving compartment with a side opening in its forward end portion and a rear end opening, an elongated casket-carrying table mounted lengthwise in the compartment and adapted to be angularly shifted to project an end thereof through the side opening and also to be rearwardly shifted to project its rear end through the rear opening, and mounting means for the table permitting such movements and constituting a slide member having separate vertical pivotal connections with the table and the compartment floor, the floor pivot being near the transverse center of the compartment, the table pivot being in advance of the floor pivot when the table is in normal position within the compartment and being at the rear of the floor pivot when the table is projected rearwardly through the rear opening.

SYDNEY PAUL.

CERTIFICATE OF CORRECTION.

Patent No. 1,978,720. October 30, 1934

SYDNEY PAUL.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 4, line 91, claim 12, for "near" read rear; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22nd day of January, A. D. 1934.

Leslie Frazer

(Seal) Acting Commissioner of Patents.