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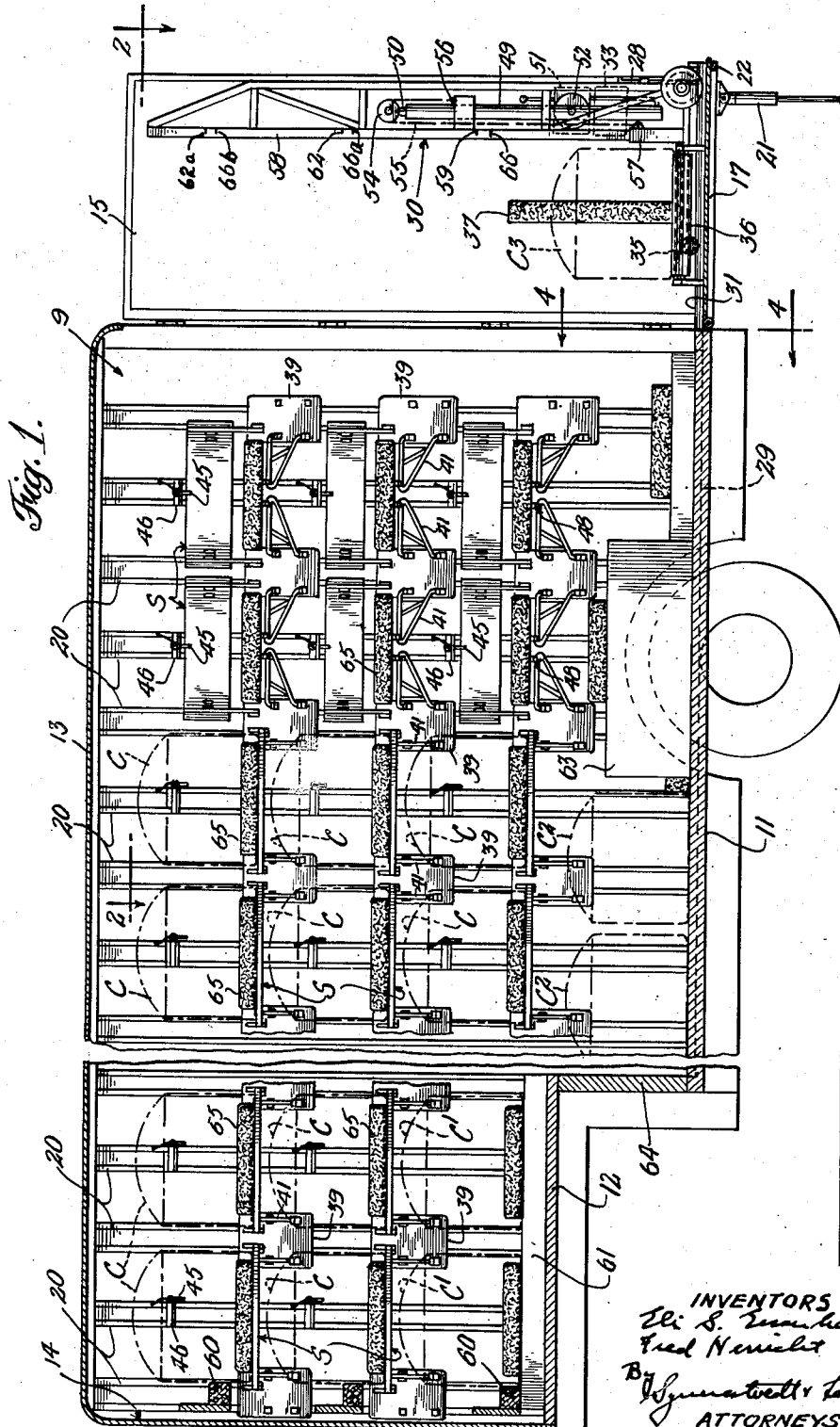
E. S. EISENHARD ET AL

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CASKET VAN

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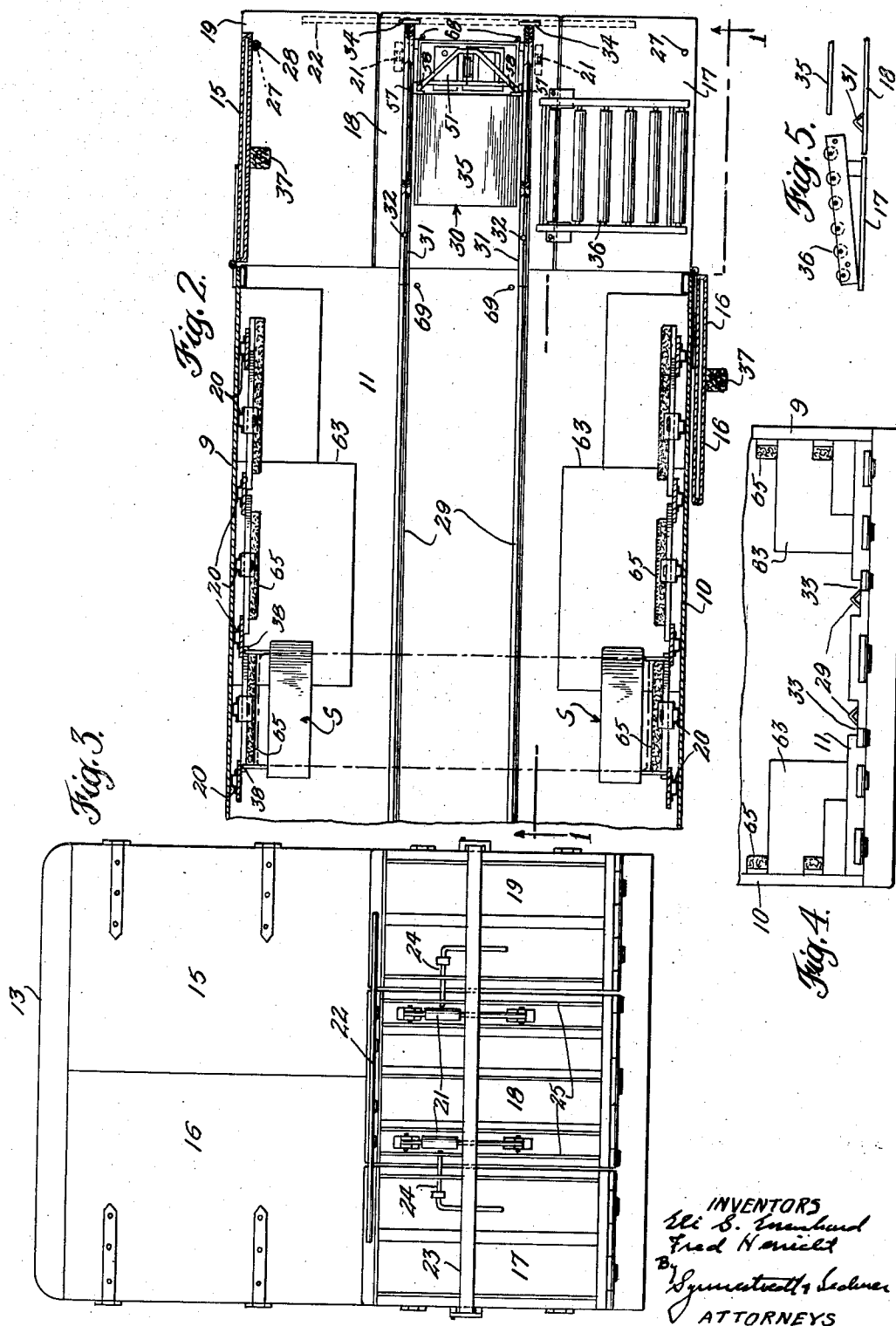
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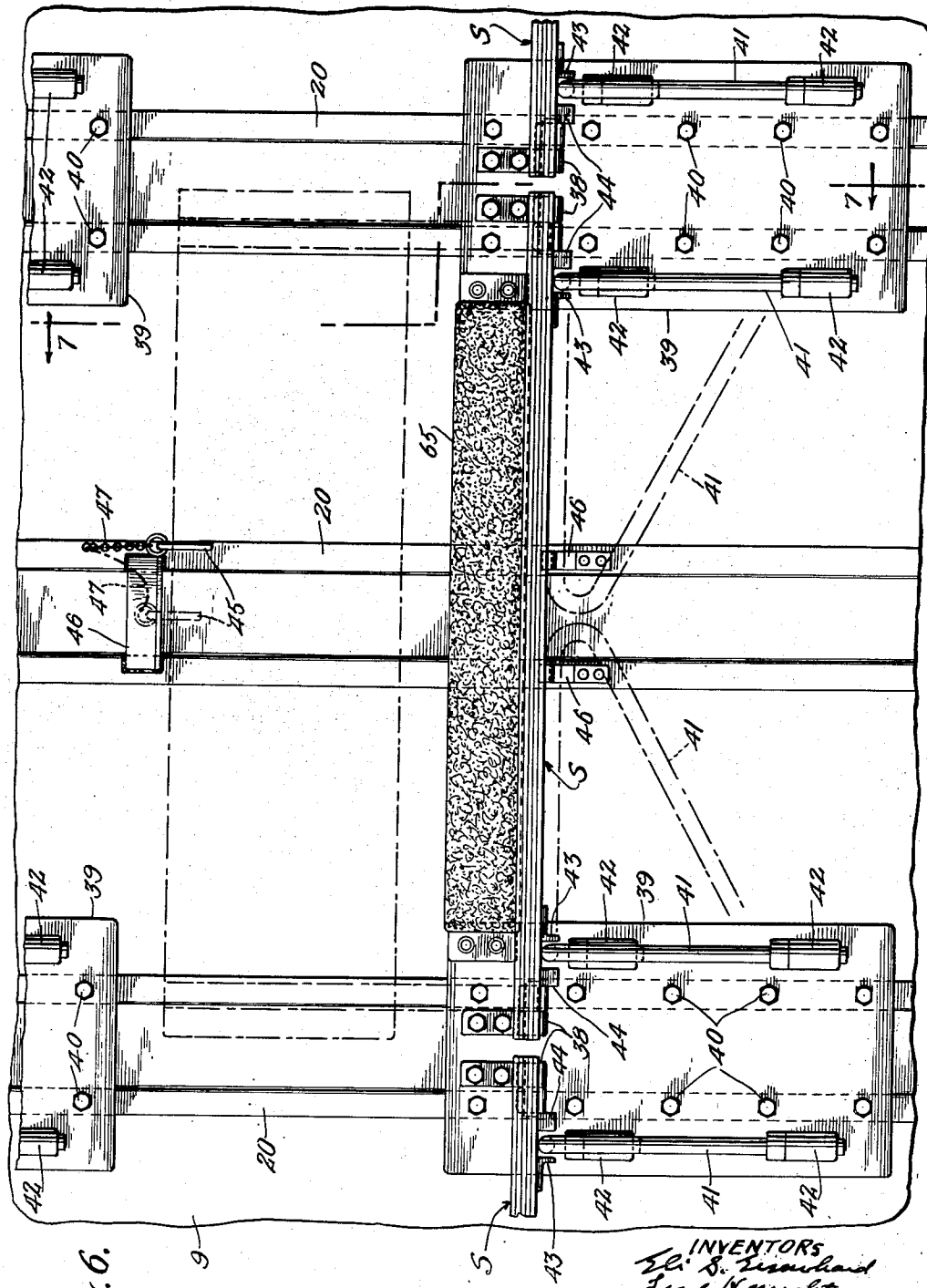


Fig. 6.

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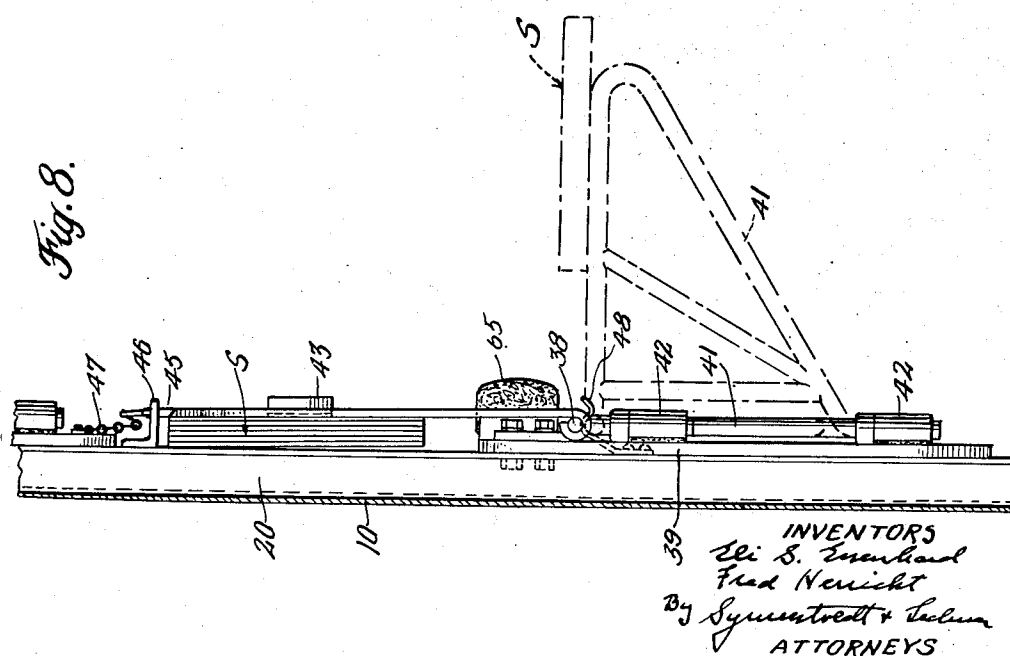
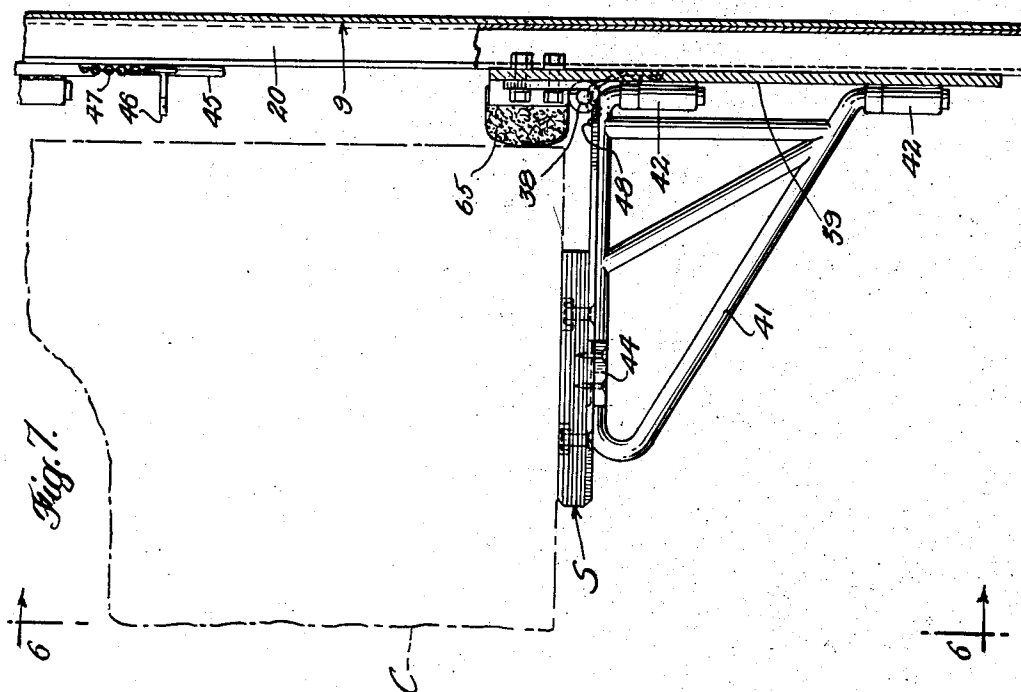
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UNITED STATES PATENT OFFICE

2,685,972

CASKET VAN

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9 Claims. (Cl. 214-75)

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This invention relates to a van for the transportation of caskets and similar articles of generally uniform size and shape and to apparatus for loading and unloading the van.

Heretofore it has generally been found desirable when transporting caskets and particularly when transporting large numbers in a single van to provide a shipping case for each casket in order to prevent damage to the caskets in transit. This means that for each casket a case larger than the casket must be provided thus requiring considerably more space for the shipment of a given number of caskets and also adding considerably to the weight of any particular shipment. When the caskets are to be buried in the cases at funeral services, as is frequently done, the undertaker will require that the casket be shipped in a case but in many instances the case is not used in the burial and in such event the case may be returned to the manufacturer or destroyed. In any event, when the cases are not required for the burial, it will be appreciated that shipment of the caskets in cases adds considerably to the cost of the casket and there has been a long felt need for a means of transportation of uncased caskets without danger of injury to the casket in loading, unloading and in transit.

It is the primary object of our invention to provide a van of such character that uncased caskets can be loaded, transported and unloaded without danger of injury to the caskets, wherein cased and uncased caskets can be loaded indiscriminately for convenience in delivery at different points on a trip, and wherein the loading and unloading apparatus is carried with the van.

It is a further object of our invention to provide a van and loading equipment therefor which will permit loading and unloading of the van by one man.

It is a further object of our invention to provide a van which can be loaded and unloaded from the rear from either side of the van, in which the caskets are individually supported in tiers crosswise of the van and in which any particular casket in a tier can be removed without disturbing the other caskets of the tier.

We have illustrated our invention in preferred form in the accompanying drawings wherein:

Figure 1 is a sectional elevational view of a van constructed in accordance with the invention, a portion of the view being broken out to condense the figure;

Figure 2 is a fragmentary plan view taken substantially on the line 2-2 of Figure 1;

Figure 3 is an end view with the van doors closed and looking toward the left in Figure 1;

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Figure 4 is a fragmentary end view taken substantially on the line 4-4 of Figure 1;

Figure 5 is a detail view of a roller conveyor employed in the invention;

Figure 6 is an enlarged face view of a shelf arrangement employed in the van, the view being taken as indicated by the line 6-6 in Figure 7;

Figure 7 is an enlarged cross section taken on the line 7-7 of Figure 6; and

Figure 8 is a similar cross section at the opposite side of the van, the shelf being shown in its load supporting position in dot and dash lines and in its folded up position against the side of the van in full lines.

The van in general comprises side walls 9 and 10, a main bottom portion or floor 11, an upraised bottom portion 12 at the forward end of the van, a roof or top 13, a front wall 14, rear doors 15 and 16 and a tail gate or loading stage comprised of three hinged sections 17, 18 and 19. The upraised bottom portion 12 at the forward end of the van is provided to accommodate the attachment of a "fifth wheel" to the van to permit attachment of the van to a tractor of the usual type.

The side walls of the van are provided with a plurality of spaced upright frame members 20 from which a plurality of swinging shelves S are supported. The shelves are arranged in opposed tiers and each shelf of a tier is opposed by a shelf of the opposite tier at the same elevation. The opposed shelves of a tier will support opposite ends of a casket and when loaded the van will thus hold a plurality of tiers of independently supported caskets.

Referring particularly to Figures 6, 7 and 8, it will be seen that the swinging shelves S are mounted by means of hinges 38 on supporting plates 39, secured by bolts 40 to alternate side frame members 20. The shelves are so arranged that the vertical distance between shelves is somewhat greater than the height of the caskets to be supported. This is to permit the casket to be raised a sufficient distance above its supporting shelf to allow the casket to be withdrawn from any particular tier without interferences of the adjacent casket or shelves.

When swung downward from the side of the van to casket holding position, the shelves are supported by means of swinging brackets 41, hinged to the supporting plates 39, by hinge connections 42, 42. Suitable guide members 43, 44 are provided on the underside of the shelves to engage the brackets 41 to prevent unintentional displacement of a supporting bracket from the shelf.

In Figure 7 the shelf S and brackets 41 are shown in projecting or casket supporting position. In Figure 8 the shelf S and the brackets 41 are shown in casket supporting position in dot and dash lines and in full lines the shelf is shown swung upwardly against the side of the van and the supporting brackets swung horizontally also against the side of the van. For the sake of convenience we have called the latter the retracted position of the shelves and supports.

In Figure 1 certain of the shelves toward the front of the van are shown in casket supporting position with caskets C shown in place in dot and dash lines. The remaining shelves however are shown swung upwardly on their hinges against the side wall of the van and the supporting brackets 41 are also swung into position against the side wall. In Figure 8 it will be seen that the shelf is held against the wall by means of a holding pin 45 projecting downwardly through an angle bracket 46 secured to the frame member 20. In order to prevent misplacing the pins 45 when they are removed to lower the shelves into casket supporting position, they are retained in association with the brackets 46 as by means of a chain 47 as shown in Figure 7. The brackets 41 are releasably held in position against the van walls by spring clips 42 as clearly shown in Figure 8.

Referring now to the rear of the truck and particularly Figures 1, 2, 3, 4 and 5, it will be observed that the center section 18 of the loading stage is provided with a pair of swinging screw jacks 21 adapted to support the center section when the stage is lowered to horizontal position. When the stage is swung upwardly to closed position, these jacks swing inwardly and lie against the stage as illustrated in Figure 3. The screw jacks 21 are adjustable, within limits, to permit them to be raised and lowered when in supporting position to hold the loading stage in horizontal position regardless of irregularities of the roadway on which the van may be parked.

The center section of the loading stage is also provided with a cross bar 22 which extends well beyond the edges of the center section and which, when the center section is lowered, will support the side sections 17 and 19 in the same horizontal plane as the center section. Each side section is also provided with a locking pin 24, 24 which engages frame members 25, 25 of the center section when the loading stage is in vertical position. The rear of the truck is further provided with a holding bar 23, which may be locked in position holding the center and wing sections of the loading stage in closed position and engaging the swing screw jacks 21 and locking pins 24 to hold them in position when the van is in transit.

When the van is to be loaded or unloaded the holding bar 23 is first removed, the locking pins 24, 24 are moved laterally out of engagement with the frame members of the center section, the center section is lowered and the screw jacks swung to the position of Figure 1 and adjusted to hold the center section of the loading stage in proper alignment with the bottom 11 of the van body. Next the wing sections 17 and 18 of the loading stage are lowered to rest on the extensions of the cross bar 22 and the rear doors are opened. It is to be observed that the loading stage does not necessarily have to be made in three sections. It could be made in one piece if desired but as the stage has to be of heavy

construction in order to support the platform elevator truck 30 hereinafter referred to, it is easier for one man to raise and lower the stage if it is made in three pieces.

In the arrangement illustrated when the rear doors are opened, if the loading is to be made from the rear side, for example, as viewed in Figures 1 and 2, the door 15 is swung to full open position against the side 10 of the vans and the door 15 is swung into alignment with the side of the van as shown in Figure 2. The tail gate sections 17 and 19 are provided with holes 27, adapted to be engaged by sliding bolts 28, carried by the doors to hold the selected door in aligned position.

Extending longitudinally of the van and centrally thereof are spaced rails or guide means 29, 29 which provide a guiding track for the platform elevator truck 30 used in loading the caskets in the van. This track is extended over the center section of the tail gate by means of removable rails 31, 31 secured in place and in alignment with the rails 29, 29 when the loading stage is in loading position by bolts 32, 32. The rails are in the simple form of angle irons positioned with apex up to present a V rail. As seen in Figure 4 the rails 29, 29 are preferably set in grooves 33, 33 in the van floor. It is not necessary that the guide for the elevator truck be in the form of a track for the truck could be mounted on plain rollers and any form of guide be used for the truck.

When loading caskets the elevator truck 30 is run out onto the loading stage against suitable stop means such as stop members 34, 34 secured at the ends of the rails engageable by the wheels of the truck. The loading platform 35 of the elevator truck is then suitably positioned in readiness to receive a casket in the manner indicated in dot and dash lines at C³ in Figure 1.

As an aid in loading caskets onto the platform 35 an inclined roller conveyor 36 is positioned on the tail gate at the loading side.

In order to properly position the casket laterally when loading, cushioned abutment strips 37, for example of sponge rubber, are provided on the doors 15 and 16 and in the case of loading from the rear side as shown in the drawings, the casket being loaded is positioned to abut the strip 37 of the door 15.

It will be understood, of course, that the loading stage does not have to be in the form of a tail gate, as illustrated. It could be mounted to slide beneath the bottom of the van or made detachable to be carried in the van. Whatever form the loading stage may take, however, it is desirable that it be movable to some location or position where it will be out of the way when the van is in transit and for the sake of convenience, in the claims we have referred to such position as the "transit position" of the stage.

It is also to be observed that the loading stage could be an integral part of the floor 11 of the van. In such case the van could be closed at the end and provided with swinging doors in the sides of the van at the rear thereof. Such arrangement would cut down the space available within the van for transportation of caskets but where the normal load is a small one, such arrangement might be desirable.

When loading an empty van the platform of the platform elevator truck 30 is first lowered to its lowermost position as shown in Figure 1. A casket is then slid from the loading dock on to

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the roller conveyor 36 and positioned on the platform of the platform elevator truck until the end of the casket abuts the abutment strip 37 on the door 15.

The platform of the elevator truck is then raised until the upper edge of the brackets 57 registered with the index mark 59 on the upright frame member 58. The truck is then rolled into the van until the casket C¹ reaches the front wall cushioned abutment 60 after which the truck platform is lowered until the casket C¹ is seated on the members 61 provided on the upraised floor portion 12.

The truck is then rolled back out of the van onto the loading stage and the platform is lowered to receive another casket.

The two shelves of first vertical tier at the front of the van having been adjusted to projecting or casket supporting position the casket now on the platform is raised until the bracket 57 registers with the index mark 62 after which the truck is again moved to the front of the van after which the casket is lowered onto the lower shelf as shown at C. Similarly the top casket C of this tier is placed on the top shelf of the tier. During the loading of the forwardmost tier of shelves, the shelves of all other tiers and the supports therefor are folded against the walls of the van to prevent interference with movement of the platform elevator truck 30 and the casket carried by it.

After the forwardmost tier of shelves has been loaded, the shelves and brackets of the next tier to the rear is swung to casket supporting position and loaded and the above procedure is followed tier after tier from the front to rear of the van until the van is fully loaded.

It is to be observed that the caskets in any particular tier do not have to be loaded from bottom to top for the index markings 59, 62 and 62a on the upright frame member 58 of the platform elevator truck 30 are so located that when the upper edge of the bracket 57 registers with any particular index mark, the operator will know that the casket will be elevated to a position slightly above that of the particular shelf of a tier on which it is to be placed and in such position the casket will not strike the supporting shelves above or any casket which may be resting thereon.

In the foregoing it will be obvious that the vertical distance between supporting shelves of any particular tier should be somewhat greater than the height of any casket to be transported. As a practical matter we prefer that the vertical distance between shelves of a particular tier should be sufficient to accommodate cased as well as uncased caskets, for as was pointed out above, in many instances the undertaker desires to have the casket shipped in a case for purposes of the burial. With such vertical spacing of the shelves, it will be appreciated that cased and uncased caskets can be loaded in the van indiscriminately to suit the convenience in delivery. In case of an abnormally high casket, of course, the shelves and brackets above the ones on which the casket is to be supported can be folded against the sides of the van to retracted position.

In order to use all available space for the loading of caskets it will be noted that caskets are also placed in the space between the inside wheel housing 63 and the upright wall portion 64 of the van as indicated at C² in Figure 1.

In order to prevent damage to the caskets should there be any shifting of the caskets in transit from side to side of the van, cushions or

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bumpers 65 are provided at the side walls of the van at each shelf. It is preferred when transporting unboxed or uncased caskets to cover them with suitable covers or blankets which may be strapped in place.

When unloading caskets the platform 35 of the platform elevator truck 30 is raised to a position in which it will move beneath a casket resting on a shelf and then it is raised to lift the casket off the shelf after which the casket can be removed. As a guide to the operator in doing this, index marks 66, 66a and 66b are provided on the upright member 58 of the truck to indicate a position of the platform slightly below the corresponding supporting shelves. Thus, for example, when the operator raises the platform until the upper edge of the bracket 57 registers with the index mark 66, he will know that the platform is in position to be moved beneath the caskets on the bottom shelves of the tiers. Then by raising the platform until the upper edge of the bracket registers with the index mark 59, this casket is raised from its shelf and may be withdrawn.

The elevator truck is carried with the van and in order to prevent it from shifting from its position in transit slide bolts 68, 68 are provided on the truck. These bolts are engaged in holes 69, 69, in the van floor to hold the truck in position.

From the foregoing description it will be apparent that the only substantial physical effort required by the operator is the raising and lowering of the tail gate and the sliding of the casket from the loading dock on to the roller conveyor 39. We have found that these operations are well within the capabilities of the normal individual and it results that van loads of caskets can be taken from the manufacturing plant to warehouses and from warehouses to individual customers about the country with a single operator without requiring any undue physical effort on the part of the operator.

Throughout the specification and claims for convenience we have referred to the transportation of caskets. It will be understood, however, that the van would be useful for the transportation of a variety of objects where the objects to be transported are of generally uniform size and shape and it will be understood that reference to "caskets" is for the sake of convenience only.

We claim:

1. A casket van having opposed vertically spaced casket supporting members on the sides of the van, each supporting member on one side being opposed by a supporting member of the opposite side at substantially the same elevation, a loading stage at the rear of the van, a platform elevator truck arranged to run lengthwise of the van and onto said loading stage, said truck having an upright frame extending upwardly to the region of the uppermost supporting members of the tiers, a platform forward of the frame and carried thereby said platform being positioned to engage and support a casket intermediate the ends thereof and means on said frame to raise and lower said platform.

2. A casket van having a plurality of opposed tiers of projecting casket supporting members on the sides of the van, each supporting member of each tier being opposed by a supporting member of an opposite tier at substantially the same elevation, said supporting members being retractable from projecting position to lie flat against the sides of the van, a loading stage constituting a rearward extension of the floor of the

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van substantially in the plane of said floor, said loading stage being movable to a transit position on the van when not in use for loading, a casket carrying platform elevator truck arranged to run lengthwise of the van and onto said loading stage, said truck having an upright frame extending upwardly to the region of the uppermost supporting members of the tiers, a platform forward of the frame and carried thereby and means on said frame to raise and lower said platform.

3. A casket van having opposed tiers of projecting casket supporting members on the sides of the van, each supporting member of each tier being opposed by a supporting member of an opposite tier at the same elevation, said supporting members being retractable from projecting position to lie flat against the sides of the van, a guiding trackway extending lengthwise of the van, a loading stage constituting a rearward extension of the floor of the van substantially in the plane of said floor, said loading stage having trackway extensions thereon and being movable to a transit position on the van when not in use for loading, a platform elevator truck arranged to run lengthwise of the van guided by said trackway and trackway extensions, said truck having an upright frame extending upwardly to the region of the uppermost supporting members of the tiers, a casket supporting platform forward of the frame and carried thereby and means on frame to raise and lower said platform, a pair of vertical swinging doors on the rear of said van, means to secure either of said doors to said stage in open position substantially in the plane of a side of the van and an abutment strip on each of said doors to position the casket on the platform when loading.

4. A casket van having opposed tiers of projecting casket supporting members on the sides of the van, each supporting member of each tier being opposed by a supporting member of an opposite tier at the same elevation, said supporting members being retractable from projecting position to lie flat against the sides of the van, a guiding trackway extending lengthwise of the van, a loading stage constituting a rearward extension of the floor of the van substantially in the plane of said floor, said loading stage having trackway extensions thereon and being movable to a transit position on the van when not in use for loading, a platform elevator truck arranged to run lengthwise of the van guided by said trackway and trackway extensions, said truck having an upright frame extending upwardly to the region of the uppermost supporting members of the tiers, a casket supporting platform forward of the frame and carried thereby and means on frame to raise and lower said platform, a pair of vertical swinging doors on the rear of said van, means to secure either of said doors to said stage in open position substantially in the plane of a side of the van, an abutment strip on each of said doors to position the casket on the platform when loading and a roller conveyor adapted to be removably mounted on the loading stage on either side of the elevator truck platform.

5. A casket van having a plurality of opposing vertically spaced casket supporting members on the sides of the van, each supporting member on one side being opposed by a supporting member on the opposite side at substantially the same elevation and providing for support of a plurality of caskets transversely of the van in a horizontal series lengthwise thereof at each of a plurality of elevations, a casket carrying platform truck

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arranged to run lengthwise of the van, said truck having an upright frame extending upwardly to the region of the uppermost supporting members, platform means mounted on the frame, mechanism on said frame to raise and lower said platform to move a casket to any one of a plurality of casket supporting positions at different elevations and the van having means associated therewith providing for loading of caskets on the platform.

6. A casket van having a plurality of vertically spaced supporting members at opposite sides of the van to provide for support of caskets extending transversely of the van, the supporting members on one side being opposed by supporting members at the opposite side at a plurality of elevations and providing for support of a plurality of caskets in a horizontal series lengthwise of the van at each of a plurality of elevations, a casket carrying platform truck movable lengthwise of the van and adapted to move a casket to any one of a plurality of casket supporting positions lengthwise of the van, the platform of said truck being movable vertically to move a casket to any one of a plurality of casket supporting positions at different elevations, said platform being positioned to engage the casket intermediate the ends thereof to leave the end portions of the casket free to engage the supporting members and the van having means associated therewith providing for loading of caskets on said platform truck.

7. A casket van having a plurality of opposed tiers of projecting casket supporting members on the sides of the van, each supporting member of each tier being opposed by a supporting member of an opposite tier at substantially the same elevation, said supporting members being retractable from projecting position to lie flat against the sides of the van, a casket carrying platform truck movable lengthwise of the van and adapted to move a casket to any one of a plurality of casket supporting positions lengthwise of the van, the platform of said truck being movable vertically to move a casket to any one of a plurality of casket supporting positions at different elevations and the van having means associated therewith providing for loading of caskets on said platform truck.

8. A casket van in accordance with claim 1 wherein said loading stage constitutes a rearward extension of the floor of the van substantially in the plane of said floor, said loading stage being movable to a transit position on the van when not in use for loading.

9. A casket van in accordance with claim 1 wherein said casket supporting members project from the sides of the van and are retractable from said projecting position whereby to lie flat against the sides of the van.

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