April 9, 1940. P. O. KROGH 2,196,265

RELEASABLE CATCH MEANS FOR POWER OPERATED CASKET-CARRYING TABLES OR THE LIKE

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FIG. 1.

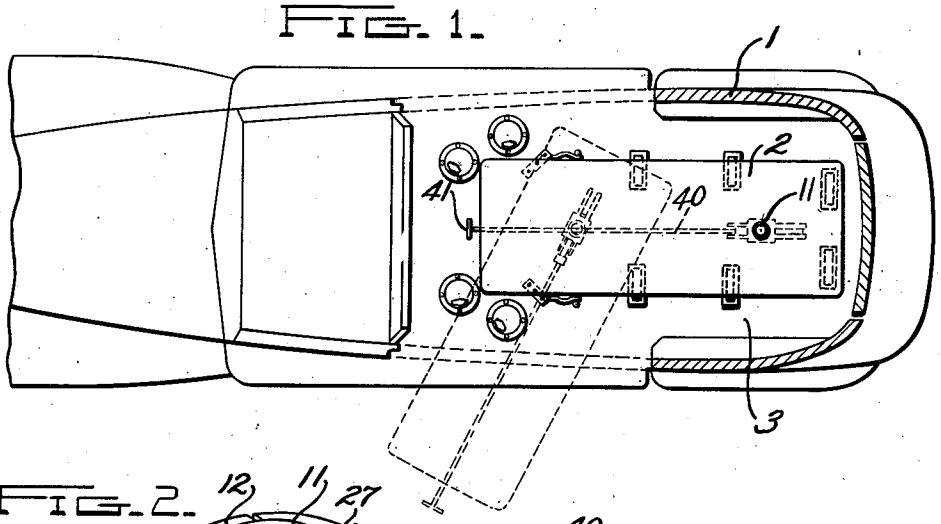


FIG. 2.

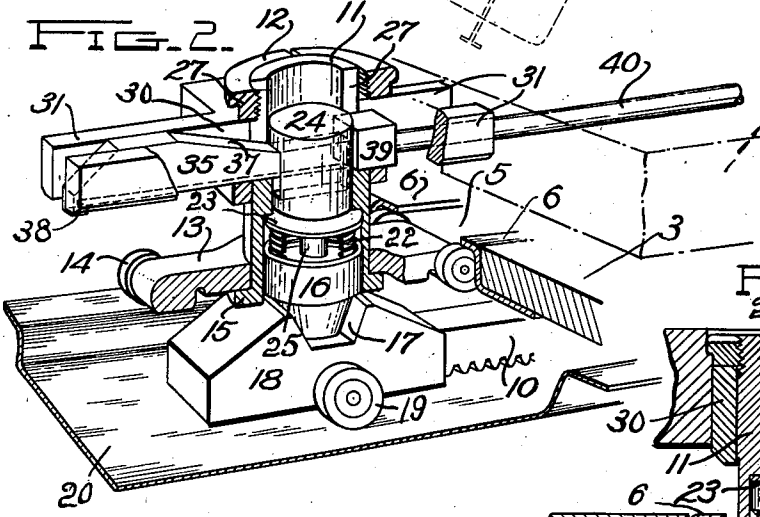


FIG. 3.

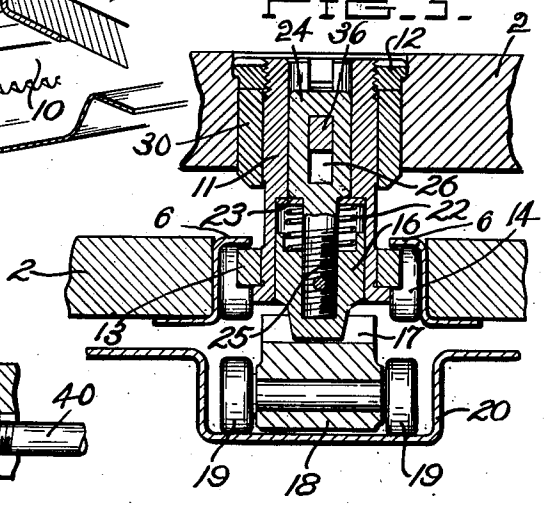
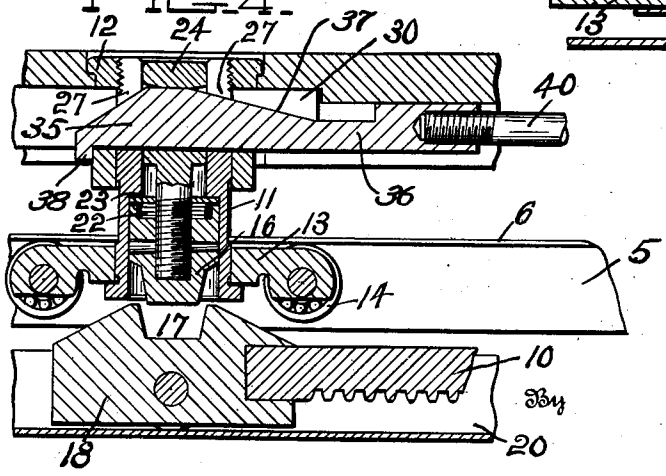


FIG. 4.



Inventor

Peter O. Krogh

By Owen & Owen

Attorneys.

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FIG. 5.

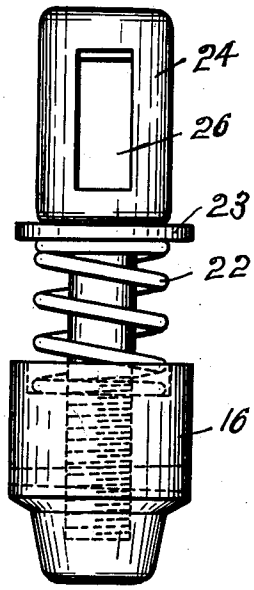


FIG. 6.

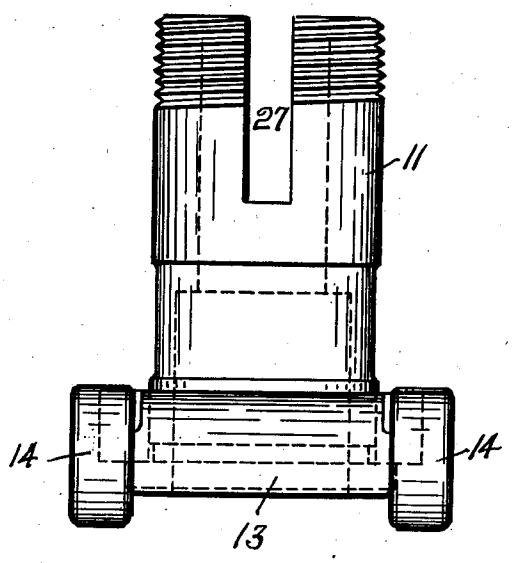


FIG. 7.

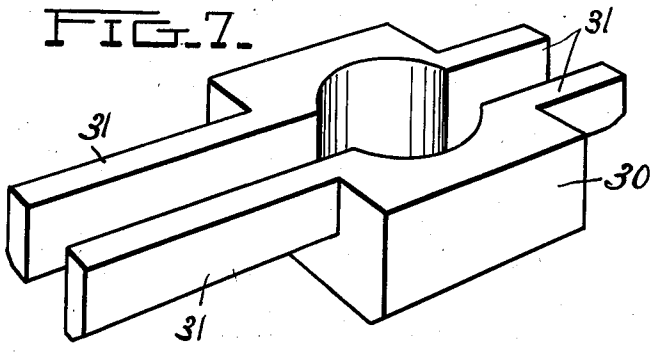
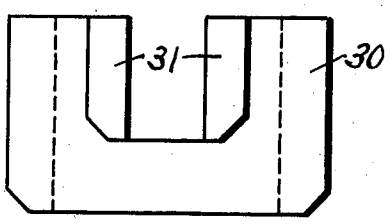


FIG. 8.



Inventor

Peter O. Krogh

By Owen & Owen

Attorneys.

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UNITED STATES PATENT OFFICE

2,196,265

RELEASABLE CATCH MEANS FOR POWER OPERATED CASKET-CARRYING TABLES OR THE LIKE

Peter O. Krogh, Lima, Ohio, assignor to Superior Body Company, Lima, Ohio, a corporation of Ohio

Application August 17, 1939, Serial No. 290,618

10 Claims. (Cl. 214—65)

This invention relates more particularly to hearses of the type employing power driven casket-carrying tables, which are movable to carrying position within the hearse or to delivery or receiving positions through a hearse door.

In the use of such apparatus the power means for moving the table is connected thereto in a more or less permanent manner, so that in the event of power failure the table is rendered inoperative and requires a lifting of a casket into or out of the hearse by hand to the inconvenience, embarrassment and annoyance of the attendants.

The primary object of the present invention is the provision of a simple and efficient releasable connection between the power means and table of a hearse of the character described, which means is manually operable in a simple and easy manner to quickly release the table from the power means in the event of power failure or otherwise, so that the table may then be freely moved by hand to loading or carrying position.

A further object of the invention is the provision of such a release means which, in addition to being capable of effecting an easy and rapid disengagement of the table and power means, is also capable of easy and rapid engagement of such parts.

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

Figure 1 is a fragmentary plan view of a hearse with a part of the body in horizontal section and with the casket-carrying table shown in full lines in casket-carrying position and in dotted lines in casket-delivering or receiving position; Fig. 2 is a fragmentary perspective detail of the associated parts embodying the invention with the catch means in engaged position and with parts in section; Fig. 3 is a vertical cross-section thereof taken centrally through the latch means and with the parts in engagement; Fig. 4 is a longitudinal section taken centrally through the latch means with the latch parts disengaged; Fig. 5 is an enlarged detail of the catch pin assembly; Fig. 6 is an enlarged detail of the clutch pin carrying sleeve and truck, and Figs. 7 and 8 are enlarged perspective and end views, respectively, of the block sleeve and cam guide.

Referring to the drawings, 1 designates a hearse having a casket-carrying table 2 mounted and guided for movements therein, whereby it may be disposed in carrying position within the hearse, as shown in full lines in Fig. 1, or moved therefrom to loading or delivery position, as shown by dotted lines in Fig. 1, as well understood in the art. The table is mounted slightly above the hearse floor 3 for free sliding movements on the customary anti-friction rollers or supports. The guiding of the table may be effected by members projecting downward therefrom and working in guide slots provided in the floor, as is common in the art. In the present instance (Fig. 2), 5 designates a guide slot extending lengthwise in the hearse floor centrally of its sides. This slot is provided at the upper edges of its side walls with inturned guide flanges 6.

The power means for the table is shown in the present instance as comprising a reciprocally movable rack bar 10, disposed beneath the floor 3 lengthwise thereof and actuated in any suitable manner to impart longitudinal movements to the table. The present invention resides in the releasable connection between the power means 10 and the table.

In the illustrated embodiment of the releasable catch means comprising the invention, a vertically disposed sleeve 11 is mounted in an opening provided in the table 2, preferably adjacent to its rear end and extends a distance below the table and into the guide slot 5. This sleeve may be secured to the table by means of a nut 12, as hereinafter described. The lower end of the sleeve 11 is rotatably mounted in a truck 13, which extends lengthwise within the table slot 5 and carries four wheels 14, two at each end, in upward rolling engagement against the under side of the flanges 6 at the respective sides of the slot. In the present instance, the sleeve 11 rotatably projects through a central opening in the truck 13 and is flanged beneath such truck, as shown at 15.

A catch-pin head 16 is mounted for reciprocatory movements in the lower end of the sleeve 11 and has a tapered lower end for releasable engagement within a slot or recess 17 in the top of a catch block 18 attached to the power member 10. This block is provided with rollers 19 for traveling in a channel guide 20 extending lengthwise beneath the guide slot 5 and secured in some suitable manner to the under side of the floor 3. The top surface of the catch block 18 at front and rear of the recess 17 is preferably beveled downwardly and outwardly from the top of the recess walls for facilitating engagement of the catch-pin with the block recess when the block is moved under the pin from either direction of movement.

The catch-pin 16 is normally held projected downward in catch-block engaging position by a

coiled expansion spring 22 mounted within the sleeve 11 between the head and a washer 23 shouldered in the sleeve. The bore of the sleeve 11 is reduced above the washer 23 and receives a plunger 24 which has a stem 25 projecting downward from its lower end through the washer 23 and in fixed engagement with the catch-head 16, so that the head and plunger move together. A slot 26 extends diametrically through the plunger 24 and registers at its ends with slots 27 in the front and rear sides of the sleeve 11 within the table 2.

The table 2 is recessed at its under side to receive a sleeve block 30 through which the sleeve 11 is fitted, such block being fixedly secured to the table, as by welding if the table is of metal or its recess is bounded by metal, or in any other suitable manner. The sleeve block 30 is slotted at opposite sides in registry with the sleeve slots 27 and has the walls of its slots extending lengthwise of the table and away from the sleeve 11 by extensions 31 on the block.

A stud cam 35 is guided for longitudinal reciprocatory movements by the sleeve block 30 between the extensions 31 thereof and extends through the slots 27 of the sleeve 11 and also the slot 26 in the plunger 24. The cam 35 has a narrow neck portion 36 which, when within the plunger slot, permits the catch pin 16 to be lowered into engaging position with the catch block 18. A cam surface or incline 37 extends outward in one direction from the neck 36 and is adapted when drawn into the plunger 25 to cause a raising of the plunger and consequent raising of the catch pin 16 from catch block engaging position, as shown in Fig. 4. The cam 35 has a stop lug 38 at one end for engagement with the sleeve block 30, as shown in Fig. 4, to limit the catch pin releasing movement of the cam, and at its other end is provided with a shouldered part 39 for engagement with either the sleeve 11 or the side of the plunger 24 to limit the movement of the cam in the opposite direction. Extending in the present instance from the neck end of the cam is a control rod 40, which projects lengthwise of the table 2 through an opening provided therein for the purpose, and extends without the forward end of the table. The rod 40 at its forward end is provided with a handle 41.

When the parts of the releasable catch means have been assembled with the sleeve 11 mounted in the sleeve block 30 and the truck 13 disposed within the floor slot 5, the nut 12 is turned down against the sleeve block 30 to cause the truck rollers 14 to exert an upward pressure against the guide flanges 6 and to hold the table 2 down on its supporting floor rollers. When the parts have been so assembled in connection with the table and floor, the catch pin head 16 is released from or permitted to have catch engagement with the catch block 18, at the will of the operator, by movements of the rod 40 and its cam 35, as is apparent. The outer end 41 of the rod 40 is in convenient reach of the operator, so it may be easily controlled. When the catch has been released the table 2 may be freely moved by hand relative to the power means the same as when the hearse is not equipped with power operating means for the table. It will be understood that the table 2 is held in casket-carrying position within the hearse in any suitable manner.

I wish it understood that my invention is not limited to any specific construction, 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. In a vehicle having an article carrying table guided for predetermining movements therein, and a table actuating power means part reciprocably movable lengthwise of the table movement, a releasable catch means between the power means part and table including cooperating catch members carried one by the table and the other by the power means part, one being relatively movable to release and engage the other, and means manually operable to control the releasing and engaging movements of said relatively movable member.

2. In a vehicle having an article carrying table guided for predetermined movements therein, and a table actuating power means part movable with the table, a releasable catch means part between the power means part and table, including cooperating catch members carried one by the table and the other by the power means, one of said members comprising a clutch pin relatively movable to release and engage the other, and cam means engaging said pin member and manually operable to control its releasing and engaging movements.

3. In a vehicle having an article carrying table guided for predetermined movements therein, and a table actuating power means part reciprocably movable lengthwise of the table movement, a releasable catch block movable with the power means part, a cooperating catch pin movable with the table and mounted therein for movements relative thereto transverse to its plane of movement, and means carried by the table and operable to control its movements transverse to the table to engage and release said catch block.

4. In a vehicle having a floor with a guide slot therein, an article carrying table mounted for predetermined movements on the floor, and a power actuating means part reciprocably movable beneath the floor lengthwise thereof, of a releasable catch means between said table and power means part and cooperating with the guide slot to guide the table movements, said catch means having cooperating catch members carried one by the table and the other by the power means part, one of said members being relatively movable to release and engage the other, and means manually operable to control the releasing and engaging movements of said relatively movable member.

5. The combination with a vehicle having a guide slot in its floor, an article carrying table movably mounted on the floor, and a table actuating power means part reciprocably movable beneath the floor lengthwise thereof, of a releasable catch means for connecting said table and power means part through said slot and cooperating with the slot to guide the table movements, and means manually operable to control the release and engagement of said catch means.

6. In a vehicle having a guide slot in its floor, a table mounted for guided movements on said floor, and a table actuating power means beneath the floor, the combination of a releasable catch means for connecting said table and power means through said slot and cooperating with the latter to guide the table movements, said catch means including a catch block movable with the power means and a catch pin movable with the

table and mounted for catch engaging and releasing movements relative to the table, and means associated with the table and manually operable to control the catch engaging and releasing movements of the catch pin.

7. The combination with a vehicle having a floor with a guide slot therein, an article carrying table mounted for movements on the floor, and a movable table actuating power member mounted beneath the floor slot for movements lengthwise thereof, of a releasable catch means between said table and power member, said means including a catch block carried by said power member, a vertically disposed sleeve carried by said table and extending through said slot and cooperating therewith to guide the table movements, a movable catch member mounted in said sleeve and operable to release or engage said catch block, and means manually operable to control the catch engaging and releasing movements of said catch member.

8. In a hearse having a casket carrying table movably mounted on its floor, a guide slot lengthwise in its floor, aind a reciprocally movable table actuating power member beneath said floor and slot, the combination of a releasable catch means between said table and power member including a catch part attached to said power member, a truck in cooperating guiding engagement with said slot and having a sleeve extending through the slot and attached to the table, a catch member movably mounted in said truck sleeve, and means movable with the table and manually operable to control the clutch engaging and releasing movements of said clutch member.

9. In a hearse having a casket carrying table movably mounted on its floor, a flanged guide slot lengthwise in its floor, and a reciprocally movable table actuating power member beneath said floor and slot, the combination of a releasable catch means between said table and power member including a catch part attached to said power member, a truck in upward thrust guiding engagement with the slot flanges and having a sleeve projecting upward therefrom through the slot and attached to the table, a catch pin mounted in said sleeve for movements to engage and release said power clutch part, and means movable with the table and manually operable to control the clutch engaging and releasing movements of said pin, said truck and sleeve cooperating with the guide flanges to hold the table to the floor for parallel movements thereover.

10. In a hearse having a casket carrying table movably mounted on its floor, a flanged guide slot lengthwise in its floor, and a reciprocally movable power member beneath the floor and slot, of releasable catch means for connecting said table and power member through said slot, said means including a catch member fixed to and movable with said power member, a truck having upward thrust engagement with the slot flanges and having a sleeve extending upward through the slot and attached to said table, said sleeve having provision for drawing the truck upward against the slot flanges and holding the table down on the floor, a catch pin mounted in said sleeve for releasable engagement with said power catch member, and cam means cooperating with said sleeve and pin and manually operable to control the catch engaging and releasing movements of the pin, said pin being normally biased to engage its companion when the cam means is in released position.

PETER O. KROGH.

CERTIFICATE OF CORRECTION.

Patent No. 2,196,265. April 9, 1940.

PETER O. KROGH.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, second column, line 7, claim 1, for the word "predetermining" read—predetermined--; 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 14th day of May, A. D. 1940.

Henry Van Arsdale,

(Seal) Acting Commissioner of Patents.