Jan. 5, 1943. F. J. MEAD 2,307,420

DEVICE FOR PLACING BURIAL VAULTS AND CASKETS

Filed April 20, 1939

Fig. 1

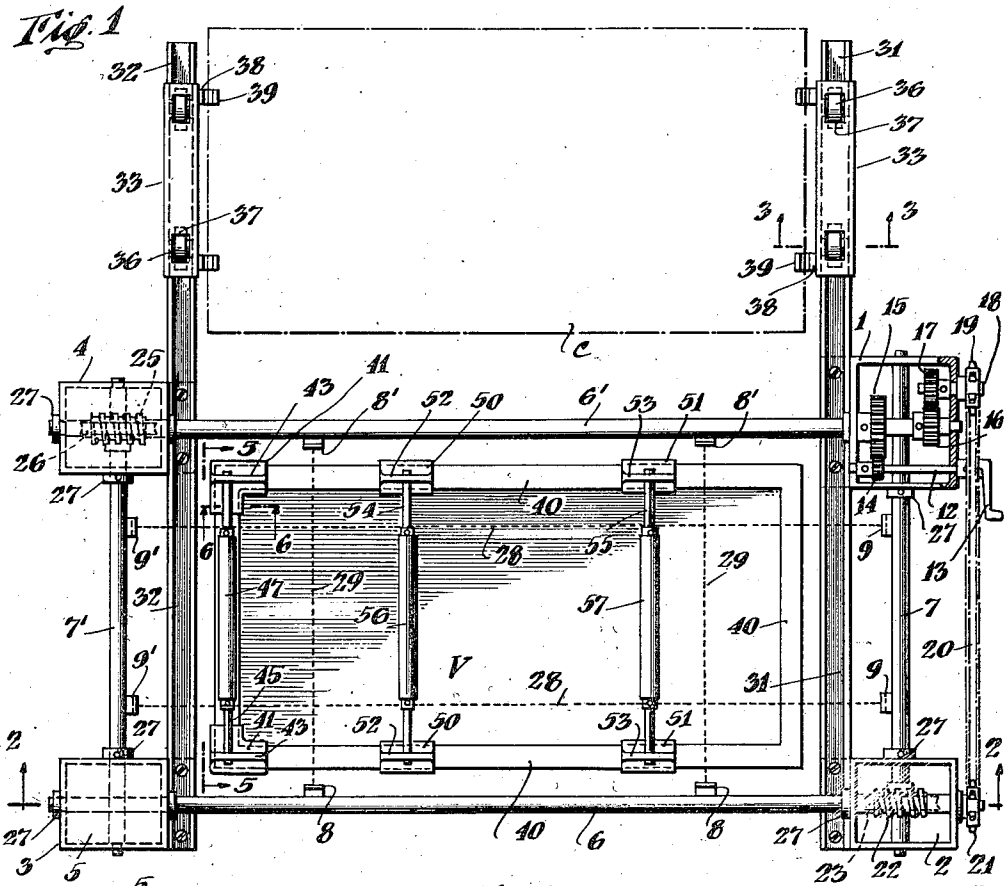


Fig. 2

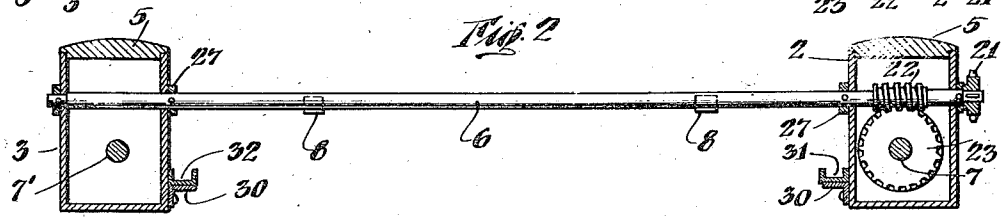


Fig. 4

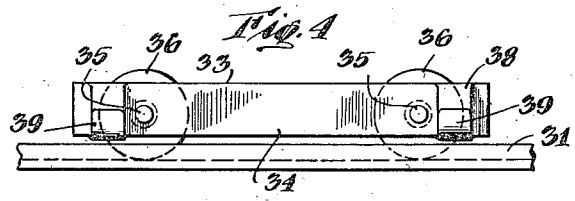


Fig. 3

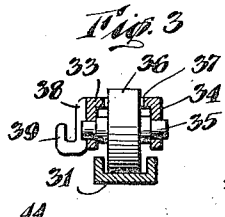


Fig. 6

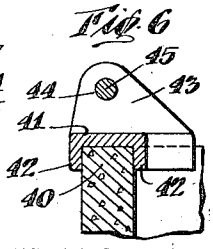
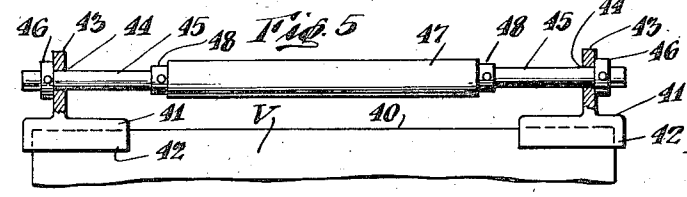


Fig. 5



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DEVICE FOR PLACING BURIAL VAULTS AND CASKETS

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Application April 20, 1939, Serial No. 268,915

8 Claims. (Cl. 27—32)

This invention relates to a device or apparatus by means of which heavy burial vaults can be suspended in graves with their upper edges near the surface of the ground, caskets placed therein, the covers put on and sealed in place in plain view of the spectators, after which the same can be quietly lowered to the bottoms of the graves. This makes it possible for the operation to be seen and also readily and satisfactorily accomplished.

Heretofore it has been the practice to set concrete burial vaults in graves before the caskets were lowered into them and the cover afterwards put on. For this reason the purchasers were not able to obtain a good view of the vaults at the burial service or be sure that the interment was properly carried out. With the present invention, by suspending the vaults with their upper edges near the surface of the ground they may be observed and the operation can be watched closely by those interested.

The invention will be understood from the description in connection with the accompanying drawing, in which Fig. 1 is a plan view of an illustrative embodiment of the invention, Fig. 2 is a section along the line 2—2 of Fig. 1, Fig. 3 is a section along the line 3—3 of Fig. 1 on an enlarged scale, Fig. 4 is a side view of Fig. 3, Fig. 5 is a side view on an enlarged scale showing some of the details, and Fig. 6 is a section on an enlarged scale along the line 6—6 of Fig. 1.

In the drawing, reference characters 1, 2, 3 and 4 indicate short hollow posts or columns made of metal with comparatively thick walls and having removable tops or covers 5. A pair of parallel shafts 6 and 6' is revolubly supported in bearings in the walls of the posts 2, 3 and 1, 4, respectively, and parallel shafts 7, 7' of shorter lengths are revolubly mounted at right angles to the shafts 6, 6' in the columns 1, 2 and 3, 4, respectively. The shafts 6 and 6' are provided with hooks 8 and 8' for the ends of a pair of straps, and the shafts 7 and 7' are provided with hooks 9 and 9' for a pair of longer straps. The hooks 8 and 8' point in the opposite direction from the hooks 9 and 9' because the hooks have straps attached thereto in such a manner that when one pair of straps is wound up on a pair of parallel shafts the other pair of straps is unwound from the other pair of shafts. The shafts 6 and 6' are geared so that they revolve in opposite directions, and the same is true of the shafts 7 and 7', and also when one pair of shafts revolves to tighten or wind up the straps the other pair revolves to unwind or loosen the straps.

A drive shaft 12 is journaled in the post or column 1 and is driven in any convenient way, as by means of the crank arm 13, or a motor may be used for driving it. The shaft 12 carries a small gear 14 which meshes with a larger gear 15 that is rigidly mounted on the shaft 6' inside of the post 1. This shaft also carries a gear 16 that meshes with a gear 17 of the same size on the shaft 18 that is journaled in the wall of the post 1 and carries a gear 19 for a chain drive 20 which passes over a corresponding gear 21 that is mounted on the end of the shaft 6. The shaft 6 carries a worm gear 22 inside of the post 2 which meshes with a gear 23 on the shaft 7 to drive it. A worm gear 25 like the gear 22 is provided on the shaft 6' in the post 4 and meshes with a gear 26 like the gear 23 to drive the shaft 7' in a direction opposite to that of shaft 7.

The straps 28 whose ends are connected to the hooks 9 and 9' on the shafts 7 and 7' and the straps 29 that are attached to the hooks 8 and 8' on the shafts 6 and 6' are indicated by dotted lines to avoid confusion. They may be of a well known type that is provided with metal eyelets at their ends to fit over these hooks.

Brackets 30 are attached to the lower ends of the posts 1, 2, 3 and 4. These brackets support parallel tracks 31 and 32, respectively. These tracks are channel shaped in cross section to accommodate two carriages 33 for moving the vault covers C into place over the vaults. Each carriage 33 is shown as a flat plate of metal having downwardly extending flanges 34 (Fig. 3) in which shafts 35 for the wheels 36 are journaled. The upper edges of the wheels 36 may extend through openings 37 in the carriages 33. Supports 38 having upturned ends or hooks 39 are provided along the sides of the carriages 33 for supporting the ends of vault covers C. The hooks 39 catch under the lower edges of the metal straps that are provided on concrete vault covers, thus supporting the covers.

Reference character 40 indicates the upper edges of a concrete vault V. Brackets 41 that are angle shaped in plan view are placed upon the upper edges 40 of the vault at the left hand corners (Fig. 1). These brackets are provided with flanges 42 (Fig. 6) which extend downwardly short distances along the walls of the vault and also upwardly projecting ribs 43 which are provided with holes 44 for a rod 45 which carries collars 46 to keep the rods in place and to permit adjustment of the brackets 41 to fit the edges of vaults of different sizes. A roller 47 is mounted on the rod 45, preferably on ball bearings, and is kept in place by means of the collars 48.

Pairs of brackets 50, 51, similar to the brackets 41 except that they are straight, are placed farther along the edges 40 of the vault. They are provided with ribs 52 and 53 in which the rods 54 and 55 carrying the rollers 56 and 57, which are similar to the roller 47, are supported.

The operation is as follows. The device is placed on boards or the like with the posts 1, 2,

3 and 4 near the corners of the grave. The straps 28 are attached to the brackets 9 and 9' on the shafts 7 and 7', and a vault is placed in the grave and raised by turning the shafts 7 and 7' in opposite directions sufficiently to wind the straps 28 on the shafts enough to suspend the vault V with its upper edge near the surface of the ground. The rollers 47, 56 and 57 are then put in place on the edges 40 of the vault.

The ends of the straps 29 are attached to the hooks 8 and 8' on the shafts 6 and 6' with relation to the straps 28 at such a time that when the vault is held with its upper edge near the surface of the ground the straps 29 will hang loosely slightly in the vault. One end of the casket is then placed upon the roller 47 and the casket moved to the right until it rests upon the rollers 56 and 57. Thereupon, the shaft 12 is turned to lower the vault which rests on the straps 28 and tighten the straps 29 sufficiently to lift the casket off of the rollers. The rollers and brackets by which they are supported that rest upon the edge 40 of the vault are then removed. The shaft 12 is turned in the opposite direction, thereby simultaneously raising the vault and lowering the casket into it. The ends of the straps 29 are then removed from the hooks 8' and attached to the edge of the cover C. The shaft 12 is then driven to wind the straps on the shaft 6 to pull the cover C along the tracks 31, 32 to a place over the vault while at the same time the vault is again raised by means of the straps 28 so that the vault lifts the cover C off of the supports 37. The carriages 33 are then pushed back along the tracks 31 and 32 and the shaft 12 turned to lower the vault, casket and cover to the bottom of the grave. The vault may be provided with grooves along its bottom side to receive the straps 28 so that they can be easily removed without being caught by the weight of the vault.

What is claimed is:

1. In a device of the character described, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to the first set in proximity to said grave, connecting means between said pairs of shafts to enable one pair to drive the other and sets of straps, one set of said straps being so connected to said pair of driving shafts and the other one to said pair of driven shafts that when one set is raised the other set is lowered.

2. In a device of the character described, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to the first set in proximity to said grave, connecting means between said pairs of shafts to enable one pair to drive the other and sets of straps, one set of said straps being so connected to said pair of driving shafts and the other one to said pair of driven shafts that when one set is raised the other set is lowered, the connecting means between said pairs of shafts being such that one set revolves faster than the other.

3. In a device of the character described, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to the first set in proximity to said grave, connecting means between said pairs of shafts to enable one pair to drive the other and sets of straps, one set of said straps being so connected to said pair of driving shafts and the other one to said pair of driven shafts that when one set is raised the other set is lowered, said driving shafts being provided with worm gears and said driven shafts being provided with toothed gears meshing with said worm gears.

4. In a device of the character described, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to the first set in proximity to said grave, connecting means between said pairs of shafts to enable one pair to drive the other sets of straps one set of said straps being so connected to said pair of driving shafts and the other one to said pair of driven shafts that when one set is raised the other set is lowered, and means independent of said driven shafts for connecting said driving shafts with each other.

5. In a device of the character described, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to the first set in proximity to said grave, connecting means between said pairs of shafts to enable one pair to drive the other sets of straps, one set of said straps being so connected to said pair of driving shafts and the other one to said pair of driven shafts that when one set is raised the other set is lowered, and means comprising a chain drive for connecting said driving shafts with each other.

6. In a device for lowering a casket into a grave, a pair of driving shafts of substantially equal lengths to be placed at equal heights along opposite sides of a grave, and a pair of shafts adapted to be driven by said first named shafts and placed at equal heights at right angles to the first named pair in proximity to said grave, and means to cause one shaft of the second pair to be driven by one shaft of the first pair and the other shaft of the second pair to be driven by the other shaft of the first pair.

7. In a device for lowering a casket into a grave, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to them in proximity to said grave, and means to drive the first pair of shafts at one rate and the other pair at a different rate.

8. In a device for lowering a casket into a grave, a pair of driving shafts of substantially equal lengths to be placed along opposite sides of a grave, a pair of shafts adapted to be driven by said first named shafts and placed at right angles to them in proximity to said grave, and means comprising worm gears on said driving shafts and toothed gears on said driven shafts to drive the first pair of shafts at one rate and the other pair at a different rate.

FRED J. MEAD.