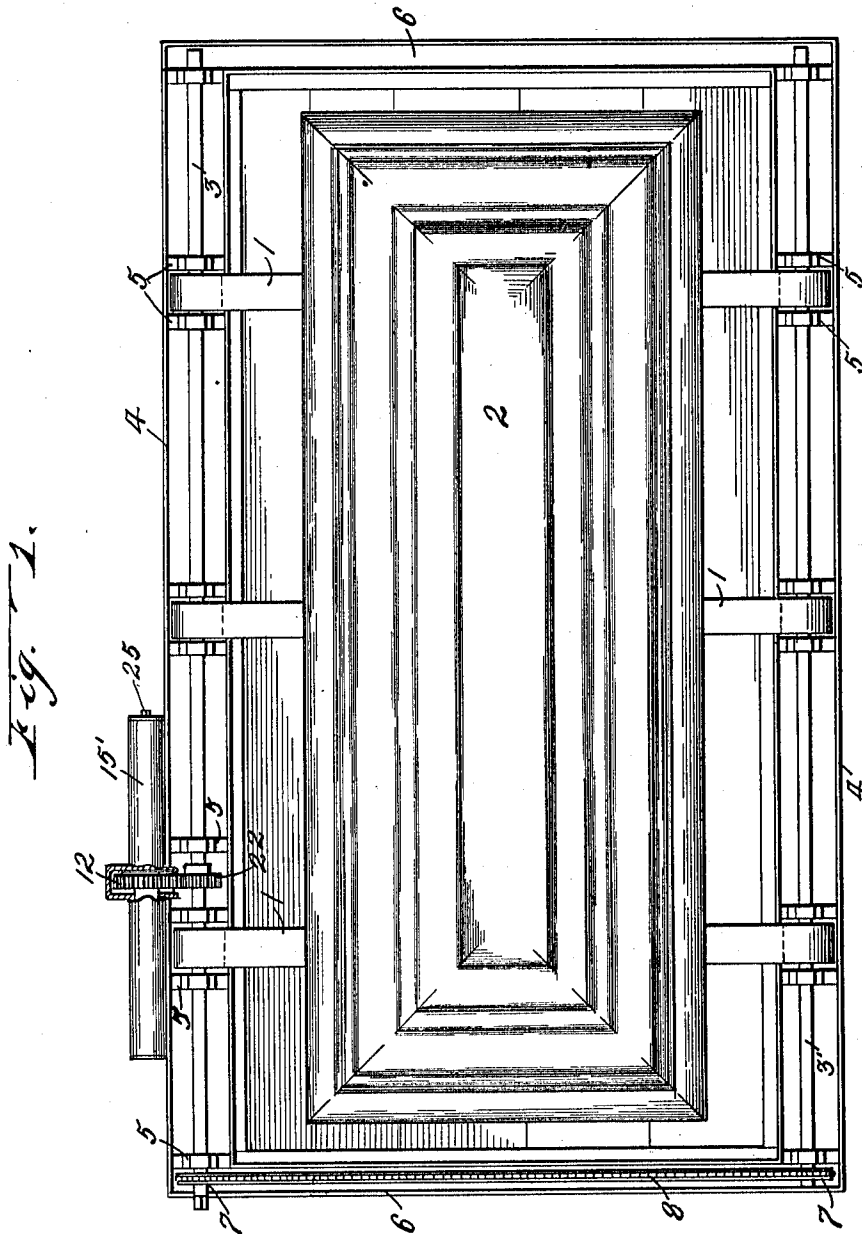


A. N. HOSLET & A. LIBERT.
GOVERNOR FOR REGULATING THE REVOLUTION OF A SHAFT.
APPLICATION FILED MAR. 7, 1910.

1,004,430.

Patented Sept. 26, 1911.

2 SHEETS—SHEET 1.



Witnesses

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Fig. 2.

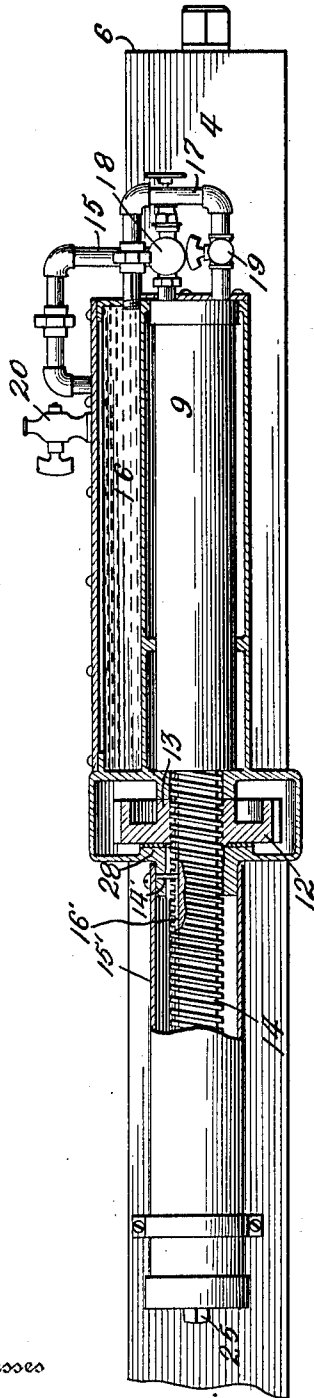
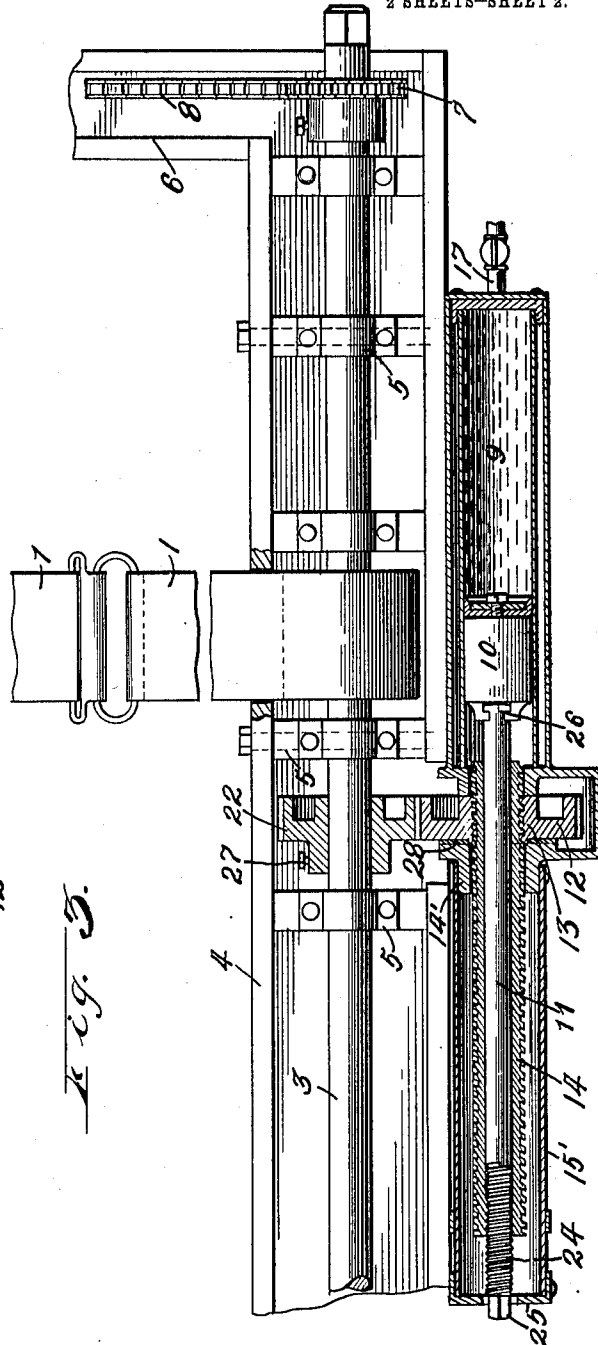


Fig. 3.



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ALBERT N. HOSLET AND ARTHUR LIBERT, OF GREEN BAY, WISCONSIN.

GOVERNOR FOR REGULATING THE REVOLUTION OF A SHAFT.

1,004,430.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed March 7, 1910. Serial No. 547,672.

To all whom it may concern:

Be it known that we, ALBERT N. HOSLET and ARTHUR LIBERT, citizens of the United States, residing at Green Bay, county of Brown, and State of Wisconsin, have invented new and useful Improvements in Governors for Regulating the Revolution of a Shaft, of which the following is a specification.

Our invention relates to improvements in governors for regulating the revolutions of a shaft, and the same is more especially adapted to be used in connection with devices for lowering burial caskets, as more fully explained by reference to the accompanying drawings, in which—

Figure 1 represents a plan view thereof, showing the casket supported from the straps, preparatory to being lowered. Fig. 2 is a side view, part in section, of the governing mechanism by which the speed of the device is controlled, and Fig. 3 is a plan view, part in section, of the device shown in Fig. 2.

Like parts are identified by the same reference numerals throughout the several views.

1 represents the straps upon which the casket 2 is supported preparatory to being lowered. The respective ends of the straps 1 are secured to and are adapted to be wound upon the longitudinal shafts 3 and 3', and the shafts 3 and 3' are supported from the side members 4, 4, of a rectangular frame in the journal bearings 5, 5, which frame comprises the side member 4, 4, and end members 6, 6, and said members are rigidly connected together at the corners of the frame in any convenient manner. Preparatory to placing the casket upon the straps 1, said straps are wound upon said supporting shafts 3 and 3' until they are brought to a taut horizontal position between the respective sides of the frame. When this is done, the casket is placed thereon, as shown in Fig. 1, preparatory to being lowered. The shafts 3 and 3' are each provided at one end with a sprocket wheel 7 and said wheels are connected together by the sprocket chain 8, whereby said shafts are caused to move simultaneously at a uniform speed together by the weight of the casket as it descends.

The mechanism thus far described is substantially of ordinary construction, and invention in this application is predicated, more especially among other things, upon

the mechanism hereinafter described for retarding or governing the movement of the casket as it is lowered by its own gravity to the place of deposit. Our governing device comprises the cylinder 9, piston 10, piston rod 11, pinion 12, provided at its center with a threaded hub 13, threaded sleeve 14 operating in said threaded hub 13, outlet duct 15, communicating from said cylinder 9 to a reservoir 16, return duct 17 through which the contents of the reservoir 16 is returned back to the cylinder 9, needle valve 18 for closing the duct 15, globe valve 19 for closing the duct 17, and valve 20 for the passage of air as the contents of the cylinder passes to and from said reservoir 16.

It will be understood that preparatory to using the device, the cylinder 9 is filled with water or other liquid, and that the descent of the casket is resisted by the resistance of the fluid as it is being forced by the piston 10 from said cylinder 9 through the duct 15 into the reservoir 16 and that the passage of the fluid from the cylinder to the reservoir is governed by the needle valve 18, whereby the casket may be lowered more or less rapidly. It will also be understood that motion is communicated to the piston 10 from the descending casket through the supporting straps 1, longitudinal shafts 3 and 3', pinion 22, pinion 12, threaded hub 13, which is formed integral with said pinion 12, threaded sleeve 14 and piston rod 11, which piston rod 11 has threaded bearings 24 in said sleeve 14, whereby as said pinions 12 and 22 are revolved by the gravity of the casket, said threaded sleeve 14, together with the piston rod 11 and piston 10 are moved forward in the cylinder 9, thereby forcing the contents of the cylinder therefrom into the reservoir 16, as previously stated. The object of the threaded connection 24 between the piston rod 11 and the sleeve 14 is to enable the operator to move the piston 10 firmly against the contents of the cylinder, when the needle valve 18 is closed so that when the casket is placed upon the straps, they can only move as the liquid in the cylinder is permitted to escape from the cylinder. The piston rod 11 is adjusted in its threaded bearings 24 by applying a wrench to the rectangular protruding end 25 of said rod, whereby as said rod is turned forward in the threaded shaft, said piston will be forced forward against the contents of the cylinder, as stated. The retarding mechanism thus

far described is connected directly with the longitudinal shaft 3 only and said shaft 3 is connected with the opposite shaft 3' through the sprocket wheels 7 and sprocket chain 8, as previously described, whereby both of said shafts are caused to move uniformly together, and whereby both sides of the casket supporting straps are simultaneously unwound from said supporting shafts at the same uniform speed. It will be understood that the movement of the casket, as it is permitted to descend of its own gravity, is accelerated by opening the needle valve 18 and retarded by adjusting said valve in the opposite direction, whereby the casket may be caused to descend at any speed desired. The piston rod 11 is revolubly connected with the piston 10 by an ordinary ball and socket joint 26, whereby said rod 11 is free to be turned in its threaded bearings 24 without revolving the piston.

When the casket has been lowered, the valves 19 and 20 are opened, when the shaft 3 is revolved in the opposite direction, whereby the piston 10 will be drawn back to its original position shown in Fig. 4 and a partial vacuum will be formed in the cylinder 9, when the liquid which has been discharged by the forward movement of the piston will be caused to flow back from the reservoir 16 into said cylinder, preparatory to being used again. The pinion 22 is rigidly affixed to the shaft 3 by the set screw 27, while the pinion 12 is revolubly supported on the screw threaded bearings of the threaded sleeve 14, and said pinion 12 bears at its rear side against the opposing stationary bearing 28, whereby as it is revolved upon said threaded sleeve 14, said sleeve 14 will be moved forward while the pinion 12 is prevented from moving in the opposite direction by said opposing bearing 28. The threaded sleeve 14 is prevented from turning with the threaded hub 13 by the radial bearing 14', which radial bearing is rigidly affixed at its outer end in the inclosing stationary sleeve 15' and has slidable bearing in the longitudinal slot 16' formed in one side of said threaded sleeve, whereby as the hub 13 is revolved with its supporting pinion 12 on said threaded sleeve, said sleeve

will be moved longitudinally without turning in its bearings.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is:—

1. A governor for regulating the revolutions of a shaft, consisting in the combination with such shaft, of a pinion mounted on said shaft, a cylinder, a piston located in said cylinder, a piston rod revolubly connected with said piston, a screw threaded sleeve adjustably connected with said piston rod, a pinion having a screw threaded hub mounted on said screw threaded sleeve, and meshing with said first named pinion, a liquid located in said cylinder in front of said piston, a reservoir for such liquid, a by-pass communicating between said cylinder and said reservoir, and means for governing the flow of said liquid between said cylinder and said reservoir.

2. A governor for regulating the revolutions of a shaft, consisting in the combination with such shaft, of a pinion mounted on said shaft, a cylinder, a piston located in said cylinder, a piston rod revolubly connected with said piston, a screw threaded sleeve adjustably connected with said piston rod, a pinion having a screw threaded hub mounted on said screw threaded sleeve, and meshing with said first named pinion, a liquid located in said cylinder in front of said piston, a reservoir for such liquid, a by-pass communicating between said cylinder and said reservoir, manual means for moving said piston in said cylinder until resisted by the liquid therein, preparatory to revolving said shaft and gears, means for governing the flow of liquid through one duct from said cylinder to said reservoir, and means for conducting the liquid through another duct from said reservoir back to said cylinder.

In testimony whereof we affix our signatures in the presence of two witnesses.

ALBERT N. HOSLET.
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Witnesses:

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