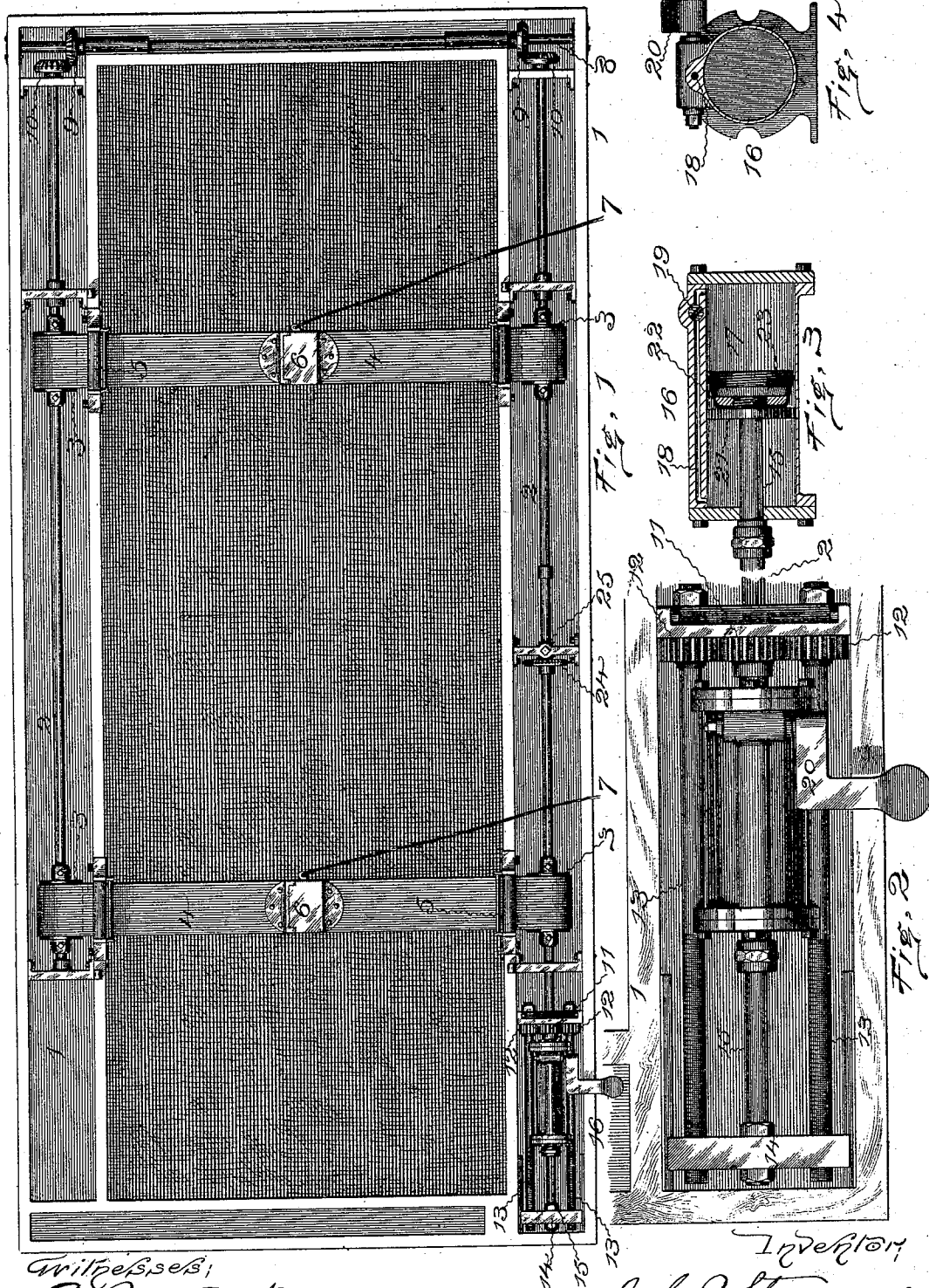


(No Model.)

J. C. STEVENS.
BURIAL APPARATUS.

No. 498,319.

Patented May 30, 1893.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOHN C. STEVENS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO AUSTIN BRAINERD AND CONSTANT L. TUTTLE, OF SAME PLACE.

BURIAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 498,319, dated May 30, 1893.

Application filed January 31, 1893. Serial No. 460,420. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. STEVENS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Burial Apparatus, of which the following is a full, clear, and exact specification.

The invention relates to the class of machines for mechanically lowering caskets into graves, the object being to provide a simple, cheap and convenient apparatus so constructed that it will not easily get out of repair, which, when placed at the opening of a grave, can be operated to positively and smoothly lower a coffin into the opening in a dignified and impressive manner without danger of starting, stopping or unseemly rapid speed at an inopportune time.

Referring to the accompanying drawings: Figure 1 is a plan of the apparatus with the cover of the frame removed to show the interior. Fig. 2 is an enlarged plan of the controlling cylinder. Fig. 3 is a longitudinal section, and Fig. 4 is a transverse section of the same.

In the views 1 indicates the oblong hollow frame which is usually built of wood. Supported by bearings secured in this frame along two sides are parallel shafts 2 bearing drums 3 wound upon which are the flexible straps or belts 4. These straps pass through the inner walls of the frame between anti-friction rollers 5, and are joined at the middle of the frame by clasps 6 that, when desired, can be unhooked by a pull upon the cords 7. At one end of the frame is placed a transverse shaft 8 with bevel gears 9 that mesh with bevel gears 10 keyed to the shafts 2, so that these longitudinal shafts shall rotate together to simultaneously and uniformly wind or unwind the belts.

To one of the longitudinal shafts near its end is keyed a gear 11 that meshes with the gears 12 keyed to the short shaft 13 that are threaded and pass through threaded sockets in a movable cross-head 14. This cross-head is clamped between nuts to the outer end of a piston rod 15, that after passing through an ordinary stuffing box into the cylinder 16 ter-

minates in the piston 17. This cylinder which is secured firmly to the frame and butts against the end of the longitudinal shaft, is filled with a fluid under pressure, usually glycerine or a similar liquid which does not congeal at ordinary temperatures. A duct 18 passes along the top of the cylinder from end to end and in this duct is placed a small valve or cock 19 provided with a simple operating lever 20 which reaches to the outside of the frame into such position that it may be tilted by the foot of a person to turn the cock. In the form shown the piston consists of a metallic disk 21 closely fitting the cylinder and a leather cup-shaped packing 22 provided to seal the metallic parts. To prevent any possibility of the liquid getting back of the cup of leather a tapering ring 23 with a threaded periphery is screwed into the open mouth of the cup to keep its edges always forced outward tightly against the walls of the cylinder. One of the shafts may be provided with a bevel gear 24 to mesh with the bevel pinion 25 having a squared head for the application of a crank or wrench whereby the shafts can be rotated by hand to wind up the straps on the drums.

When the frame is placed on the edge of an open grave with the straps clasped and the cock in the cylinder closed, a casket of any weight laid on the straps will remain in that position above the opening, until the undertaker or other person, by a slight pressure of his foot tilts the operating lever so as to open the cock and allow liquid to escape through the duct from one side of the piston to the other. The weight of the body on the straps draws on the drums and tends to rotate the shafts 2, which causes the gears to revolve and the cross-head to be fed on the screws. This, however, can only transpire as rapidly as the liquid is transferred from one end of the cylinder to the other, as the cross-head is secured to the piston rod. Thus the speed of descent of the body is very regular and uniform and can be controlled to a nicety by moving the cock lever, permitting the lowering to proceed positively in a dignified and seemly manner without conspicuous manipulation or danger of too rapid descent. The speed of the piston can be controlled at will from a rapid

movement to a complete stop. There are no parts liable to get out of repair, so accidental starts, stops or drops are obviated.

I claim as my invention—

5 1. In combination in a burial apparatus, a frame with shafts having straps, a gear mounted on one of said shafts, said gear meshing with a gear mounted on a screw shaft, a head moved by the rotation of the screw shaft, a
10 piston rod connected with the movable head, a cylinder containing a fluid, a piston attached to the piston rod in the cylinder, and a valve for controlling the flow of fluid in the cylinder, substantially as specified.

2. In combination in a burial apparatus, a 15 frame with shafts bearing straps, a gear mounted on one of said shafts, said gear meshing with two gears mounted on two screw shafts, a head moved by the rotation of the screw shafts, a piston rod connected with the movable head, a cylinder containing a fluid, a 20 piston attached to the piston rod in the cylinder, and a valve for controlling the flow of fluid in the cylinder, substantially as specified.

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Witnesses:

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