(No Model.)

N. CARPENTER, Sr.

HEARSE.

No. 596,322. Patented Dec. 28, 1897.

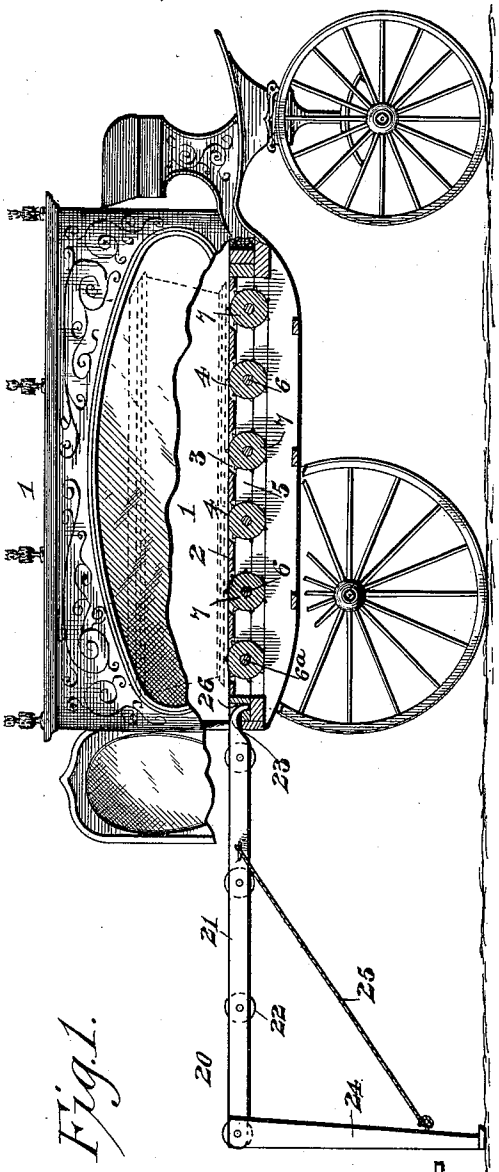


Fig. 1.

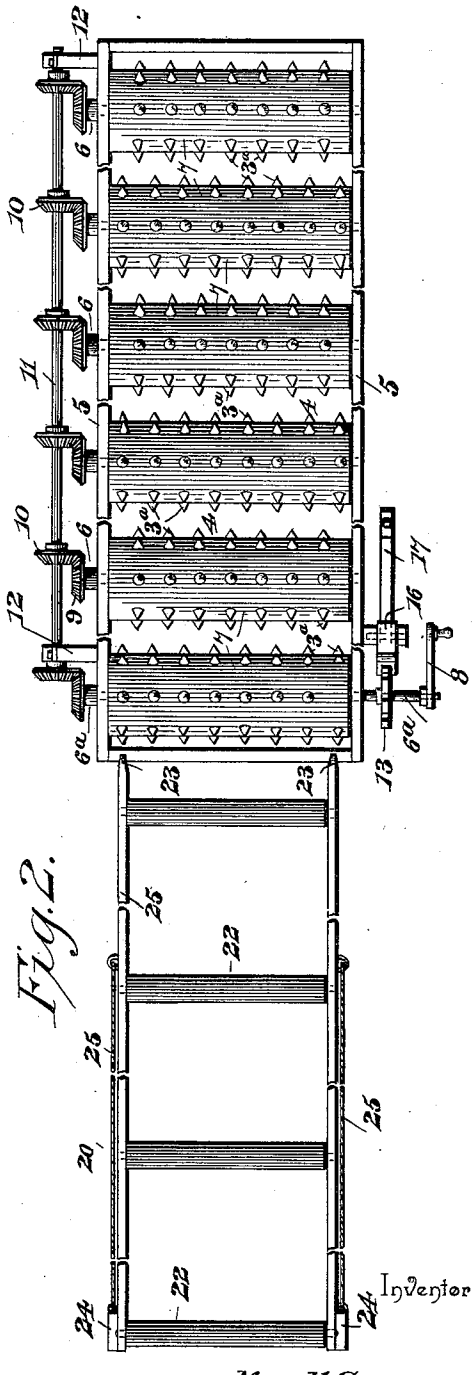


Fig. 2.

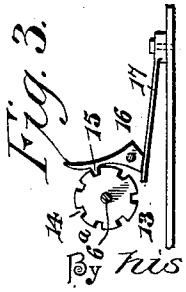


Fig. 3.

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UNITED STATES PATENT OFFICE.

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HEARSE.

SPECIFICATION forming part of Letters Patent No. 596,322, dated December 28, 1897.

Application filed February 5, 1897. Serial No. 622,237. (No model.)

To all whom it may concern:

Be it known that I, NEWEL CARPENTER, Sr., a citizen of the United States, residing at White Creek, county of Adams, and State of Wisconsin, have invented a new and useful Improvement in Hearses, of which the following is a specification.

The object of my invention is to provide means for conveying a casket or coffin into a hearse and to hold it firmly in place therein without resorting to the employment of extraneous fastening appliances.

A further object of the invention is to provide a support external to the hearse on which a casket may be placed preliminary to moving the same into the hearse, said external support being detachable from the hearse and foldable compactly upon itself to enable it to be stored beneath the hearse out of sight and out of the way when required.

With these ends in view the first part of the invention consists in the combination, with a hearse having a slotted floor, of a series of transverse toothed rollers journaled in place to have the toothed surfaces thereof project through the slotted floor, a countershaft geared to said rollers, and a locking device to restrain the rollers and the countershaft from rotation, whereby the toothed rollers engage with the bottom of the casket and serve to hold the latter firmly in place.

The invention further consists in the combination, with a hearse, of a stand equipped with smooth bearing-rolls and adapted to be connected detachably at its inner end to the hearse, and foldable legs attached to said stand at or near its outer end; and the invention further consists in the novel combination and construction of parts, which will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a sectional elevation of a hearse with my improvements applied thereto. Fig. 2 is a plan view of the improved appliance removed from the hearse. Fig. 3 is a detail fragmentary view showing the locking appliance for the rollers.

Like numerals of reference denote like parts in all the figures of the drawings.

1 designates a hearse provided with a slotted floor 2. The hearse may be constructed in the usual manner, except that the floor thereof is constructed to accommodate my improved appliance for conveniently adjusting a casket in the hearse and for holding said casket firmly in place therein.

In Fig. 1 I have shown the floor 2 provided with a series of transverse slots 3, which are spaced apart to accommodate a series of rollers 4.

The lower part of the hearse is constructed to receive a supporting-frame 5, which may be held in place rigidly within the hearse-body by any suitable fastenings—as, for example, bolts. (Not shown.) The frame 5 occupies the lower part of the hearse-body below the slotted floor 2 therein, and said frame is constructed to receive a series of transverse parallel shafts 6 6^a. The frame may be provided with a series of cap-boxes to receive the roller-shafts, or the sides of the frame may be apertured for the passage of said roller-shafts, as may be desired. Said frame 5 is fastened within the hearse-body a suitable distance below the slotted floor 2 thereof for the rollers 7 to have their toothed surfaces project through the slots in the floor 2, and the rear cross-bar of this frame 5 is provided with sockets to receive hooks on the external stand, which will be presently described.

The shaft 6^a is arranged at the rear end of the hearse-body, adjacent to the door or doors thereof, and both ends of this shaft 6^a are extended beyond the side rails of the supporting-frame 5, one end of said shaft 6^a protruding through a suitable opening in the side of the hearse-body and constructed for the attachment of an operating crank or handle 8. I prefer to make one end of the shaft square or of angular form to receive a correspondingly-shaped opening in the crank-handle 8, so that said crank-handle may be readily applied to or removed from the shaft 6^a; but it is obvious that the parts may be otherwise constructed for the expeditious application or removal of the crank-handle.

The roller-shafts 6 6^a are extended beyond

one side rail of the supporting-frame 5, and said extended ends of the shafts 6 6^a are provided with miter-gears 9, with which mesh similar miter-gears 10, provided on the counter-shaft 11. Said counter-shaft is arranged longitudinally of the supporting-frame 5, at one side thereof, and it is journaled in suitable bearings on brackets or arms 12, fastened in a suitable way to one side rail of the supporting-frame 5. This longitudinal counter-shaft serves to operatively connect the shafts of the series of rollers to give to the rollers the same peripheral speed.

By reference to Fig. 2 it will be observed that the crank 8 may be rotated by hand to turn the shaft 6^a, which drives the shaft 11, and the latter shaft in turn drives the shafts 6 of the remaining rollers of the series provided in the bottom of the hearse-body.

The series of rollers each have an equal series of teeth 3^a arranged in corresponding positions thereon, and the rollers are so geared together through the longitudinal counter-shaft that one line of teeth on each roller occupies the same relation to the casket as the corresponding teeth on the other rollers of the series, thus making each toothed roller engage with the casket similarly to all the other rollers and retaining the casket firmly in position within the hearse-body without resorting to extraneous fasteners.

On the end of the shaft 6^a, adjacent to one side rail of the frame 5, is rigidly fastened a locking-disk 13, which is provided with a series of radial notches 14 to be engaged by a nib 15 on a spring-controlled pawl 16. The number of notches in the locking-disk 13 correspond to the number of the series of teeth on each roller of the series of rollers. The pawl 16 is pivoted near its heel to a suitable support fastened within the body of the hearse, and with one of the double-inclined faces of the heel of this pawl engages a lifting-spring 17, that serves when engaged with one face of the pawl to force it normally toward the notched edge of the locking-disk 13 and when engaged with the other face of the pawl to hold it away from the notched disk to permit free turning of the rollers.

As shown by Fig. 3, the spring 17 is preferably in the form of a leaf-spring fastened at one end on the floor of the hearse and having its free end arranged to bear against the heel of the pivoted pawl. This pawl is situated within the hearse-body at one side of the roller-supporting frame and adjacent to the open rear end of said hearse-body, so that the pawl may easily be operated by hand to disengage its locking-nib from the radially-notched disk 13.

To provide means for supporting the casket in position from whence it may readily be moved into the hearse, I provide an external stand 20, adapted to be detachably connected with the rear end of the hearse-body and to occupy a position substantially in horizontal alinement with the series of toothed rollers contained within the hearse-body. This stand comprises a supporting-frame 21, a series of idle-rolls 22, attaching devices 23 on the frame 21 for connecting the stand with the supporting-frame 5 within the hearse-body, foldable legs 24, connected to the supporting-frame 21 at the end farthest from the hearse, and suitable braces or stays for the legs 25. The attaching devices 23 for the supporting-frame are shown in the drawings as hooks, which project from the front end of the frame 21 and are adapted to engage with sockets 26, provided in the rear rail of the frame 5, as shown by Fig. 1; but the detailed construction of the means for attaching the stand-frame removably to the hearse may be altered without departing from the spirit of the invention. The legs 24 for supporting the outer end of the stand-frame are pivoted at their upper ends to said frame 21 to enable them to fold compactly against the frame 21 when the stand is not in use, and when said legs 24 are folded alongside of the stand-frame 21 they may be held in place by hooks or any suitable form of catch.

The stays 25 may consist of flexible cords attached at their respective ends to the foldable legs 24 and to the stand-frame; but, if desired, rigid metallic braces may be substituted for the flexible cords.

I do not desire to restrict my invention to the employment of the foldable stand in connection with the hearse, as it is evident that the stand may be omitted altogether.

The operation may be described briefly as follows: The stand is adjusted in position at the rear end of a hearse by unfolding the pivoted legs 24 and connecting the attaching devices 23, substantially as shown by Fig. 1. A casket may be now placed upon the idle-rolls 22 of the stand, and the crank 8 having been applied to the shaft 6^a the crank is rotated to drive the counter-shaft 11 and thus rotate all the series of pivoted rolls below the slotted floor of the hearse. The casket is moved endwise on the idle-rolls of the supporting-stand until its advancing end engages with the toothed rollers, and the continued rotation of the crank serves to drive said toothed rollers so that the teeth engage with the bottom of the casket and advance the latter within the hearse-body to the proper position. The stand and hand-crank may now be disconnected and the pawl 16 engages with the notched disk 13 to hold the shaft 6^a, shaft 11, and the toothed rollers in fixed positions, so that the casket will engage firmly with the teeth of the rollers and be held in position thereby.

The stand may be folded compactly together and be thrust into a receptacle provided beneath the hearse-body, as indicated by Fig. 1.

I am aware that changes in the form, proportion, and minor details of construction

may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a hearse, of a series of toothed rollers journaled below the floor thereof, means for imparting corresponding peripheral speed to all of the rollers of the series, and means for locking said rollers against rotation, substantially as described.

2. The combination with a hearse having a slotted floor, of a series of toothed rollers journaled within the hearse to have their working surfaces protrude above the slotted floor, a counter-shaft geared to all of said rollers, and a locking device to restrain the counter-shaft and the rollers against rotation, substantially as described.

3. The combination with a hearse having its floor provided with a series of transverse slots, of a supporting-frame fixed within the hearse below the slotted floor thereof, a series of rollers journaled in said frame and arranged to have their toothed working surfaces protrude through the slots in said floor, a counter-shaft geared to the shafts of all the rollers, a driving-shaft carrying one of said rollers, geared to the counter-shaft and provided with a detachable crank, and a locking device associated with the driving-shaft, substantially as described.

4. The combination with a hearse having a slotted floor, of a driving-shaft journaled beneath said floor and carrying a toothed roller, a series of rollers, a counter-shaft geared to the driving-shaft and geared to said rollers, a radially-notched disk fastened to the driving-shaft, and a spring-controlled pawl to engage with said notched disk, substantially as described.

5. The combination with a hearse, of a supporting-stand adapted to have one end thereof connected detachably to the hearse and provided with a series of idle-rolls, and foldable legs attached to said stand, substantially as described.

6. The combination with a hearse and a series of rotatable toothed rollers journaled therein, of a supporting-stand connected detachably to the hearse to have its series of idle-rolls occupy substantially the same horizontal plane as the toothed bearing-rollers, foldable legs attached to said stand-frame, and suitable stays connected with the stand-frame and the foldable legs thereof, substantially as described.

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