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J. F. DOUBEK

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TRUCKING APPARATUS

Filed Feb. 14, 1930

Fig. 1.

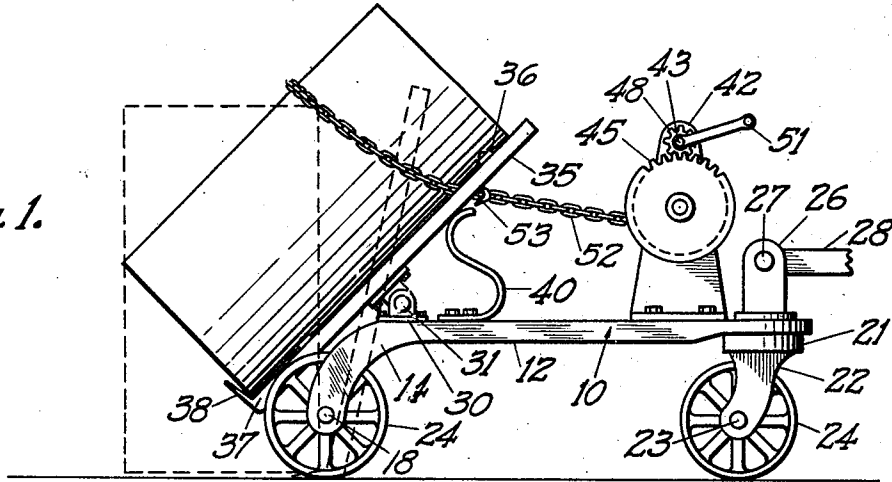
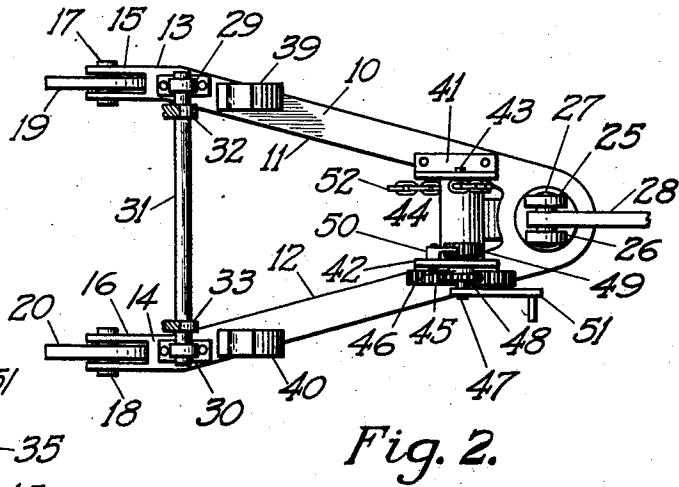


Fig. 2.

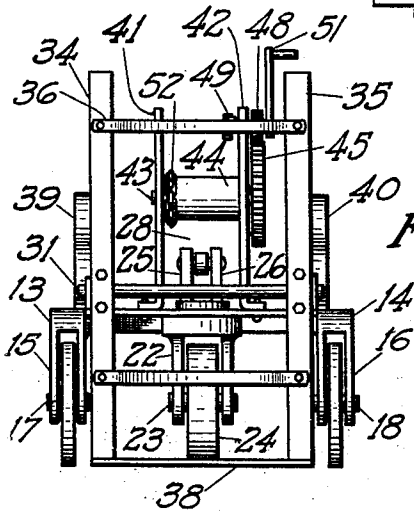


Fig. 3.

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TRUCKING APPARATUS

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This invention relates to certain novel improvements in trucking apparatus, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

The salient object of my invention is to provide a trucking apparatus which will be so arranged that it may be operated by a single person and which will be adapted for handling relatively heavy objects.

Another object of the invention is to provide an apparatus of the above described character which will be so arranged that the objects handled thereby may be picked up and arranged on the apparatus in an expeditious manner and be so retained in arranged position on the apparatus that it may be expeditiously unloaded therefrom when so desired.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing showing the preferred form of construction and in which:

Fig. 1 is a side elevational view of the preferred form of construction for my invention;

Fig. 2 is a top plan view, in which certain parts are broken away, of the apparatus as depicted in Fig. 1; and

Fig. 3 is an end elevational view.

In the accompanying drawing wherein I have illustrated the preferred form of construction for my invention, 10 indicates the main body which is substantially triangular in formation and which includes at the ends of the side portions 11 and 12 thereof downwardly depending portions 13 and 14. The downwardly depending portions are bifurcated, as indicated at 15 and 16, and pins 17 and 18 extend across these bifurcated portions and rotatably support wheels 19 and 20.

At the forward end or apex of the triangular frame 10 is a rotatable member 21 which is journaled in an opening in the frame 10. Depending from the rotatable member 21 are

arms 22 between which a pin 23 is extended and on which pin a wheel 24 is mounted. Extending upwardly from the member 21 are arms 25 and 26 between which a pin 27 is extended, and a handle 28 is pivotally mounted on the pin 27. From the foregoing it is manifest that a readily transportable arrangement is provided, and inasmuch as the member 21 is rotatable in the frame 10, it is evident that the device may be expeditiously guided.

It has been set forth that an object of the invention is to provide an apparatus in which relatively heavy objects may be handled by a single person, and this arrangement includes the following apparatus. At the ends of the side portions 11 and 12 adjacent the juncture thereof with the depending portions 13 and 14 are bearing structures 29 and 30 in which a shaft 31 is journaled which extends across the frame between the side members 11 and 12. Secured to the shaft 31 in juxtaposition to the bearing structures 29 and 30 are brackets 32 and 33. Secured to the brackets 32 and 33 are arms 34 and 35. Extending between the arms 34 and 35 is a brace 36 which is arranged in spaced relation with the upper ends thereof, as clearly illustrated in Fig. 3. To the lower ends of the arms 34 and 35 a foot member 37 is secured which includes a portion 38 that extends out at right angles to the arms 34 and 35 and which has the upper surface thereof tapered upwardly away from the outer edge thereof, as clearly illustrated in Fig. 1.

On the side portions 11 and 12 inwardly of the bearings 29 and 30, substantially S-shaped stop members 39 and 40 are mounted, and the arms 34 and 35 engage these stop members 39 and 40 when disposed in the full line position of Fig. 1 for a purpose to be set forth presently.

Mounted on the frame 10 in juxtaposition to the apex thereof are brackets 41 and 42. A shaft 43 is journaled in these brackets 41 and 42, and a drum 44 is fixedly mounted thereon between the brackets 41 and 42. On the end of the shaft 43 extending beyond the bracket 42, a spur gear 45 is fixed. Journaled in a bearing 46 in the bracket 42 is a stud

shaft 47 on which a pinion 48 is fixed that meshes with the spur gear 45. Arranged interiorly of the bracket 42 on the shaft 47 is a ratchet 49 that is engaged by a pawl 50 that is carried by the bracket 42. A handle 51 is mounted on the shaft 43 outwardly of the pinion 48.

A chain or other suitable flexible member 52 is arranged for winding or unwinding from the drum 44 and has a hook 53 at the free end thereof.

This device, as has been stated, is intended to handle relatively heavy objects and especially cylindrical objects such as rolls of newspaper. The rolls to be handled are usually stored in vertical position, as is illustrated in dotted lines in Fig. 1. The arms 34 and 35 are arranged in the dotted line position of Fig. 1, and by reason of the tapered shape of the portion 38, they may be expeditiously inserted below the roll. The chain 52 will then be directed around the roll adjacent the upper end thereof and the hook 53 will be attached. By manipulating the handle 51, movement will be transmitted from the shaft 43 through the pinion 48 to the spur gear 45 and therefore to the shaft 43 and the drum 44, and the chain 52 may be wound on said drum. Winding of the chain 52 will cause the arms 34 and 35 to pivot on the shaft 31 into the full line position of Fig. 1 where the arms will engage the stops 39 and 40 and thus be held in an angular position. The engagement of the pawl 50 with the ratchet 49 will prevent unwinding of the cable, and therefore, by reason of the fact that the frame 10 is mounted for transportation, the object so lifted may be transported to any desired location. By releasing the pawl 50, the object may be again lowered into the dotted line position, and therefore, upon detaching the chain from the object, the portion 38 may be slipped from under said object and the device will then be in condition to receive another object. It is manifest that the foregoing operation may be carried out by a single person which will greatly facilitate the operation.

Attention is respectfully directed to the fact that the center line of the shaft 31 is disposed inwardly on the frame 10 of the center lines of the aligned pins 17 and 18. By arranging the shaft in this manner, the object arranged on the arms 34 and 35 will be prevented from tilting the device about the pins 17 and 18 when the object is arranged in the full line position of Fig. 1. It is therefore manifest that this inseting of the shaft 31 must be sufficient to arrange the center of gravity of the object inwardly of the axle structure provided by the pins which are the supports for the rear wheels.

In view of the fact that the objects to be handled by this apparatus are of relatively great weight, the device may be arranged

in the following manner to facilitate the insertion of the foot portion 38 below the object. In order to do this the apparatus is so arranged that the chain 52 may be directed around the object, and by anchoring the device so as not to be movable forwardly, the chain may be wound which will tilt the object from the dotted line position of Fig. 1. A member may then be placed thereunder forwardly of the center line thereof. By then unwinding the chain, the object will settle back, and since the object is rested on a member forwardly of the center line thereof, it will be so tilted that the foot portion 38 may be very expeditiously inserted below the object.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

A trucking apparatus comprising a substantially V-shaped vehicle frame including side members joined at the front of the frame and spaced apart at the rear thereof, portions depending from said members at the rear of the frame, a wheel-bearing axle structure journaled in said depending portions and a guide wheel-bearing axle structure at the front of the frame, a shaft journaled on the top of the frame and forwardly of the rear wheels, a trucking frame pivotally mounted on the shaft for movement in a vertical arc between the depending portions and the rear wheels and including a lifting foot at the base thereof to support an object on the trucking frame, a stop on said vehicle frame forwardly of the shaft to limit movement of the trucking frame and object toward the frame, a windlass on said vehicle frame, and a flexible element adapted to encircle the object and windable on the windlass to pivot the trucking frame and object toward the stop whereby when an object is placed upon the trucking frame and the trucking frame and object are tilted against the stop by winding the flexible element on the windlass stop the center of gravity of the object will be disposed forwardly of the rear wheels and the object will thus be prevented from tipping the apparatus backward.

In testimony whereof I affix my signature.
JOSEPH FRANK DOUBEK.