

(No Model.)

E. HICKMAN.
TRUCK.

No. 517,219.

Patented Mar. 27, 1894.

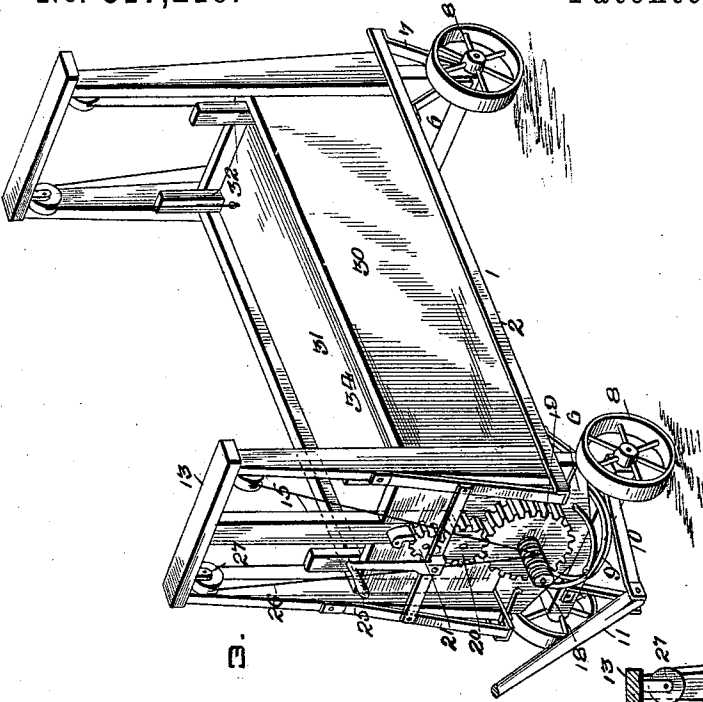


FIG. 3.

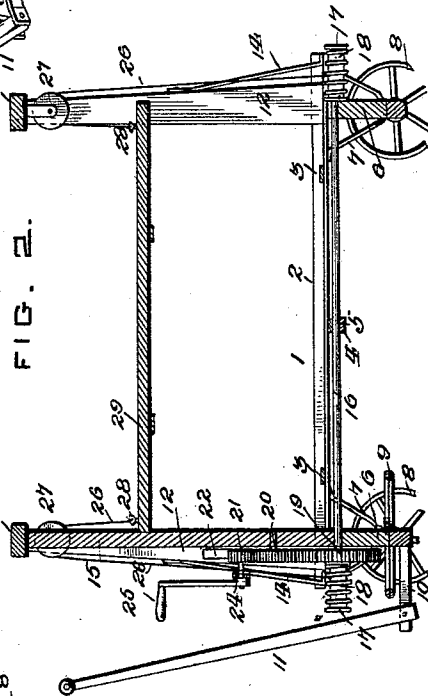


FIG. 2.

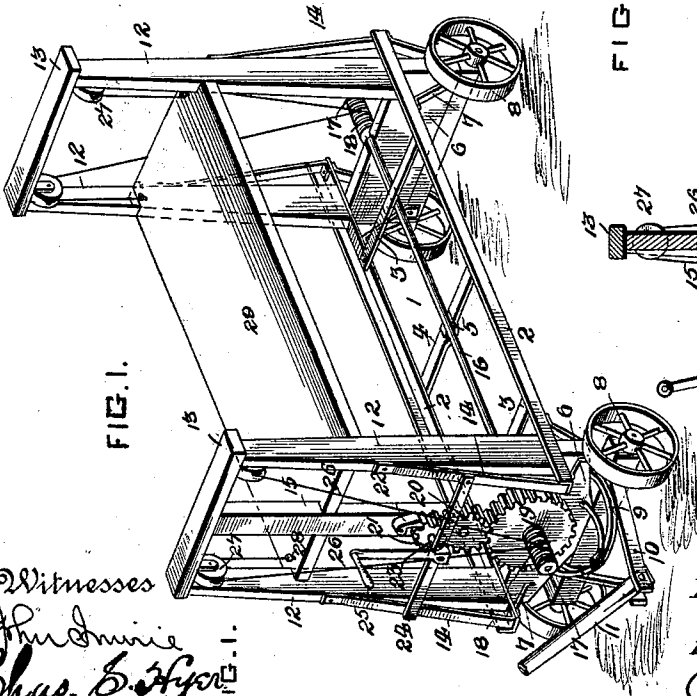


FIG. 1.

Witnesses
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FIG. 1.

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UNITED STATES PATENT OFFICE.

ELIJAH HICKMAN, OF RED BLUFF, CALIFORNIA.

TRUCK.

SPECIFICATION forming part of Letters Patent No. 517,219, dated March 27, 1894.

Application filed July 12, 1893. Serial No. 480,265. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH HICKMAN, a citizen of the United States, residing at Red Bluff, in the county of Tehama and State of California, have invented certain new and useful Improvements in Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to vehicles, and has special reference to an adjustable bed, with preferred means for raising the same, that may be used for general purposes.

The object of the invention is to provide convenient means for manipulating heavy and cumbersome baggage, to facilitate the loading of the same in cars, or unloading it therefrom; to make it convenient in loading or unloading grain or other material; to facilitate the gathering of fruit, and packing the same directly in the orchard or grove as it is gathered; and for other general purposes wherever found desirable to use the device.

With these and other objects in view, the invention consists of the construction and arrangements of the parts as will be more fully hereinafter described and claimed.

In the drawings:—Figure 1 is a perspective view of the improved vehicle shown arranged as a baggage truck, and with the bed bottom in elevated position. Fig. 2 is a central longitudinal vertical section of the vehicle as shown in Fig. 1. Fig. 3 is a perspective view of a wagon adapted for use in loading or unloading grain, or analogous material, and also for gathering fruit within an orchard or grove, and embodying the invention.

Similar numerals of reference are employed to indicate corresponding parts in these several views.

Referring to the drawings, Figs. 1 and 2, the numeral 1 designates a bed frame comprising oppositely situated longitudinally disposed parallel angle bars, 2, which are connected at suitable points by cross braces, 3, and at the center, or near the center, by a bearing plate, 4, having a central depression, 5. The opposite ends of the bars, 2, rest upon bolsters, 6, that are connected to the said bars by braces, 7, and to the said bolsters are suitably fixed axles and truck wheels, 8, the front axle be-

ing supplied with a fifth wheel, 9, and hounds or braces, 10, to which is pivotally secured the rear end of a draft tongue or pole, 11. The truck wheels are preferably made small in proportion to the remaining portions of the vehicle, and at the front are adapted to turn under the body.

Rising vertically from the bars, 2, adjacent to their opposite ends are uprights, 12, arranged in parallel pairs at each end, and connected at their upper ends by cap beams, 13. The uprights, 12, are held in rigid position by inclined braces, 14, secured to the bars, 2, and to the said uprights, and between the front pair of uprights is mounted the centrally located vertically disposed supporting beam, 15.

Extending longitudinally in a central position between the bars, 2, is an elongated shaft, 16, which has bearing adjacent to its opposite ends in the bolsters, 6, and at or about the central portion thereof in the depression, 5, of the bearing plate, 4. On the two ends of the said shaft, 16, heads or washers, 17, are secured, and inside of said heads or washers, are located spirally coiled springs, 18, which surround the adjacent portions of said shaft. Near the front end of the shaft, and in advance of the said bolsters, 6, a master-gear, 19, is keyed on the said shaft, and immediately above the same and meshing therewith, is an intermediate gear, 20, which is journaled on the supporting beam, 15. Above the intermediate gear, is a pinion, 21, which is also attached to the supporting beam, and is adapted to be engaged by a stop pawl, 22, immediately above the same. The pinion, 21, is mounted on a shaft, 23, which extends forwardly in a longitudinal direction and through a strap-brace, 24, connected to and extending transversely across from one brace, 14, to the other, and on the projecting end of said shaft, 23, is secured an operating crank handle, 25. The portions of the shaft, 16, projecting in advance of and rearwardly beyond the front and back bolsters, and which are encircled by the springs, 18, serve as drums upon which are adapted to be wound double cords, cables, or chains, 26, which in each instance separate and pass up vertically and run over sheaves or pulleys, 27, secured to the inner sides of the upper ends of the

uprights, 12, and then extend downwardly and engage eyes, 28, secured to the opposite four corners of the adjustable bed bottom or platform, 29, which is guided between the up-
 5 rights and by the supporting beam, and when lowered to its fullest extent, fits snugly between the bars, 2.

The device as thus described constitutes a convenient form of baggage truck, and when
 10 loading the same, the bed or platform, 29, is lowered to its fullest extent and thereon is placed the baggage. To avoid lifting the said baggage to place the same in the baggage car, the crank handle, 25, is operated to elevate
 15 the bed or platform, 29, to bring the baggage on a level with the door or opening of the baggage car and thereby facilitate the transfer of the baggage to the car without requiring any great amount of manual labor which
 20 is now requisite, and further without injury to the trunks or other parcels of baggage.

In operating the bed or platform to elevate the same, the crank handle, 25, is turned to operate the pinion, 21, which in turn operates
 25 the intermediate gear, 20, and the latter actuates the master-gear, 19, and the shaft, 16, on which the said master-gear is mounted. The pinion, 21, is materially smaller in diameter than the intermediate gear, 20, and the latter
 30 is less in diameter than the master-gear, 19, thereby requiring only a small amount of power applied to elevate a heavy load upon the bed or platform, 29. By the use of the coiled springs, 18, the cords, cables or chains,
 35 26, in their double form, are adapted to be wound equally upon the ends of the shaft, 16, by being fed backward and forward between the spiral coils of the said springs. In view of the fact that the single shaft only is em-
 40 ployed and the cords, cables, or chains act directly thereon and are attached to opposite ends of the bed or platform, the latter will be equally raised at its opposite ends.

In Fig. 3, a wagon, 30, is shown having a
 45 bed, 31, with side boards and corner uprights, 32, and an intermediate support, 33, at the front end. In the said bed is mounted a vertical adjustable bottom, 34, and in this connection, the same mechanism is employed as
 50 in the previously described device for raising or lowering the said bottom, 34, and the said wagon may be supplied with a pole for a double team, or shafts, or thills for a single team and the operation of the several parts
 55 thereof may be varied at will.

This wagon is intended for loading or unloading grain from elevations, and it will be seen that the bottom alone can be made ad-justable as described, or the entire bed above

the running gear may be so constructed, and
 60 in the latter event, the uprights and guides would be extended upward from the said running gear, which is self-evident, so that the sides of the bed might be easily raised with the bed or bottom thereof. It will be
 65 seen that this form of vehicle can also be conveniently used in gathering fruit within an orchard or grove, and serve in the capacity of an elevated platform, upon which the gatherers may stand, and contain the packing
 70 boxes or receptacles, in which the fruit as gathered may be at once placed without any intermediate handling or bruising of the same. This would facilitate the gathering and storing for transportation of large quantities of
 75 fruit, and quicken the operation, and no delay would ensue by reason of a necessary selection or separation of the different sizes of fruit, as this operation could be carried on successfully by the gatherers, and the differ-
 80 ent sizes of fruit deposited in different boxes or receptacles.

Many other uses and advantages might be enumerated, but they all come within the scope of the invention, as well as many minor
 85 changes in the construction and arrangement of the several parts which can be adopted without departing from the nature or spirit of the invention.

Having thus described the invention, what
 90 is claimed as new is—

1. In a vehicle of the character described, the combination of suitable supports, an adjustable bed or platform, a single longitudi-
 95 nally disposed shaft, and cords, cables, or chains connected to the opposite ends of said platform, and adapted to be wound upon the opposite ends of said shaft, said shaft being located under the said bed or platform, sub-stantially as described. 100

2. In a device of the character set forth, the combination of an adjustable bed or plat-
 105 form, a shaft located below the same, having spiral springs encircling the ends thereof, and cords, cables, or chains connected to the said bed or platform, and adapted to be wound upon and unwound from the opposite ends of said shaft, and moved between the spiral coils of the said springs, substantially
 110 as described.

In testimony whereof I have signed this specification in the presence of two subscrib-
 115 ing witnesses.

ELIJAH HICKMAN.

Witnesses:

A. L. BROWN,
 L. W. VALENTINE.