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Patented May 16, 1911.

2 SHEETS—SHEET 1.



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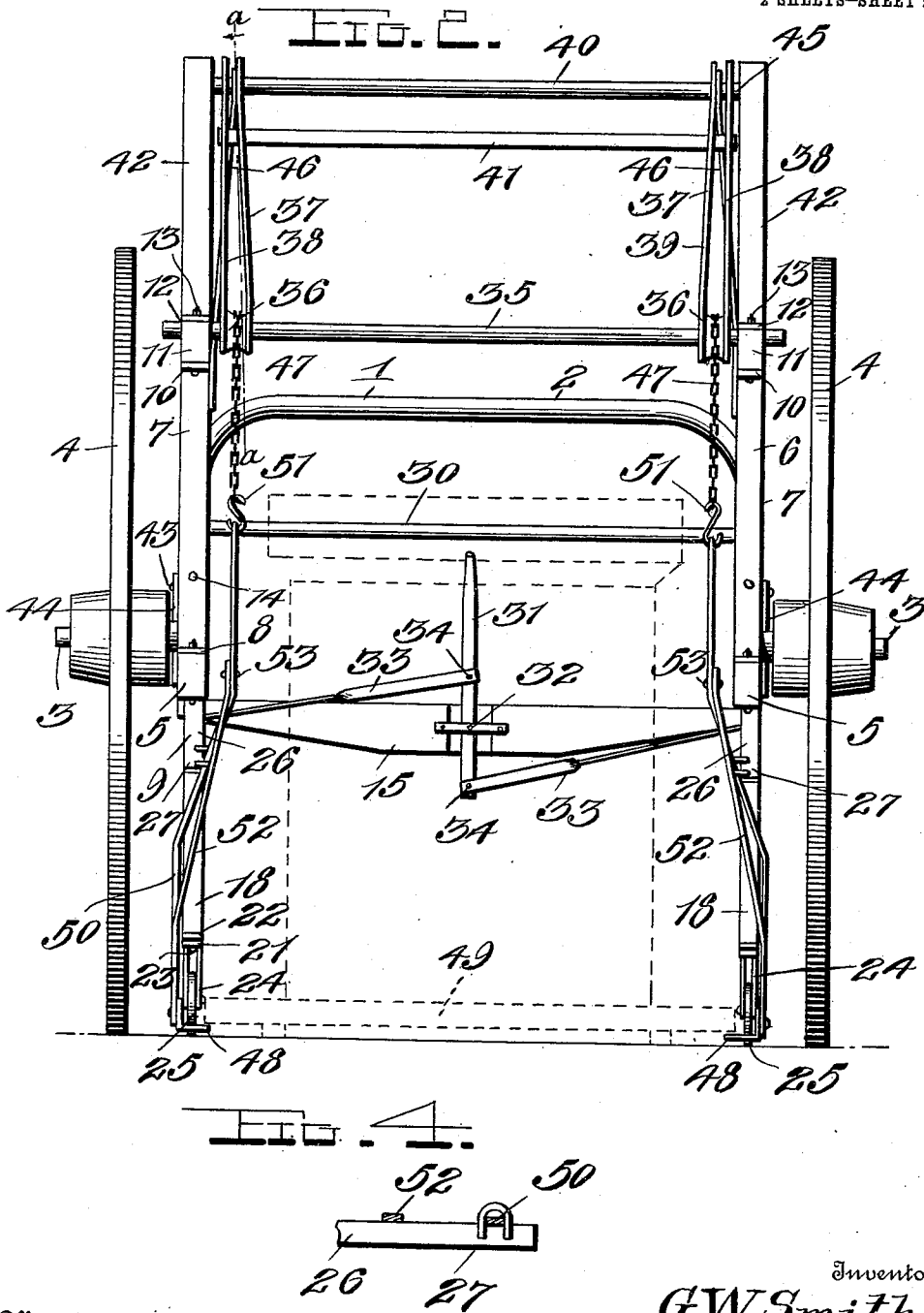
G. W. SMITH.
TRUCK.

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Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. SMITH, OF NEW BRIGHTON, PENNSYLVANIA.

TRUCK.

992,276.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. SMITH, a citizen of the United States, residing at New Brighton, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Trucks, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention is an improved truck, especially adapted for use in handling large sewer pipe and other like material and in conveying the same while in a green state from the press to the drying floor as well as 15 for carrying such pipe or other material from the dry floor to the kilns, the object of the invention being to provide an improved truck of this class which is provided with large wheels that will pass easily over 20 uneven surfaces, and with an arched axle on which the wheels are mounted, and below which the pallet board or platform is swung, and with improved means for raising or lowering the loaded pallet or platform.

25 The invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings,—Figure 1 is a side elevation of a truck constructed 30 in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a detail sectional view on the plane indicated by the line *a—*a** of Fig. 2, and showing the upper portion of the frame, and the means 35 for raising and lowering and shoes which engage and carry the loaded pallet. Fig. 4 is a detail sectional view on the plane indicated by the line *b—*b** of Fig. 1, showing a portion of one of the shoe engaging levers 40 in plan and showing the link and brace bar which are connected thereto in section.

In the embodiment of my invention, I provide an axle 1, which has an arch 2, and spindles 3 on which spindles are mounted the 45 main supporting wheels 4, which are of considerable size, in practice about 4 feet in diameter, so that the said wheels are adapted to pass easily over uneven surfaces, and with but very little if any jarring effect. The 50 end portions of the axle extend across a pair of side bars 5, and on the upper sides of the said side bars, are standards 6, each of which comprises a pair of members 7 which in practice are made of bar metal and are provided at their lower ends with feet 8 which 55 bear on and are secured to the said bars by

means of bolts 9. The members 7 have oppositely extending arms 10 at their upper ends on which are blocks 11. Straps 12 are on the upper sides of the said blocks and 60 the latter are secured in place by bolts 13, which pass through the said blocks, the said arms 10, and the said straps. The members 7 of the standards 6, bear against opposite sides of the vertical portions of the arched 65 axle, and are secured thereto by bolts 14. The front ends of the side bars 5, are connected together by a cross bar 15 which is disposed with its ends under the said side bars 5, and secured thereto by any suitable 70 means. The side bars and the said cross bar form the main frame. In the angles between the bars 5 and the cross bar 15 are depending brackets 16, each of which comprises a pair of members 17, 18, which are 75 made of bar metal or other suitable material. The members 17 have horizontally disposed upper arms 19 which are secured to the under sides of the bars 5, by bolts 20, and said members also have lower horizontally extending 80 arms 21 which bear against the under side of corresponding arms 22 with which the members 18 are provided, and are secured thereto, by bolts 23, said bolts also serving to secure casters 24 in place on the 85 under sides of said brackets, the said casters being provided with wheels or rollers 25 of suitable size.

Levers 26, which are horizontally disposed, have downturned front end portions 90 27. The said levers are disposed under the side bars 5, and are pivoted upon bolts 28 which also serve to secure the upper ends of the members 18 of the brackets 16 to the said side bars. On the rear portions of the 95 said side bars are angle arms 29 which extend upwardly therefrom, and are secured thereto by certain of the bolts 20. The said angle arms have their vertical members connected together by a handle bar 30 which is 100 grasped when propelling or pushing the truck.

An upright lever 31 is pivotally mounted on the center of the cross bar 15 as at 32, and is connected to the levers 26 by links 33. 105 The pivots 34 which connect the inner ends of the said links to the lever 31 are respectively above and below the pivot 32 of said lever, and equi-distant therefrom, so that when the said lever is turned, it moves the 110 said links simultaneously in opposite directions, and hence causes the levers 26 to also

move simultaneously in opposite directions to bring their ends 27 nearer to, or farther from each other, as will be understood. The blocks 11 form bearings for a shaft 35 on which are drums 36, and each of which is attached to the lower end of a lever 37. Each of the said levers 37 comprises a pair of members 38, 39 which are respectively disposed on the outer and inner sides of the drum. The upper ends of the said levers are connected together by a cross rod 40, and the said levers are also connected at a suitable distance from their upper ends by a cross bar 41.

15 A pair of main levers 42 have their lower ends pivoted as at 43 to plates or arms 44 which are bolted to the outer sides of the bars 5, and rise therefrom. Said main levers have their upper ends connected together by a handle bar 45, and they are also connected to the levers 37 by links or connecting rods 46. Hence the levers 37 may, by means of the main levers 42, be moved as may be required to turn the drums 36 in either direction. Chains 47 are attached to and depend from the said drums. Shoes 48 for engaging under opposite sides of a pallet or platform 49 on which is a sewer pipe or other article, are provided at their centers with upwardly extending links 50 which are connected to the lower ends of the chains 47, by means of hooks 51. At the ends of the said shoes are oppositely inclined brace bars 52, the upper ends of which are secured to the said links as at 53. The said links are connected to the down turned front ends of the levers 26, and hence when said levers are moved by the lever 31, and the connections hereinbefore described, the said shoes may be engaged with or disengaged from the loaded pallet or platform as will be understood. It will be also understood, that when the truck has been run over a loaded pallet so as to dispose its main wheels 4 on opposite sides of the pallet, the sewer pipe or other article on the pallet under the arch of the axle, the shoes are then engaged with the loaded pallet and the truckman by grasping the handle bar 45, and drawing rearwardly on the same, causes the main levers 42 to turn, and communicate motion to the levers 37 so as to turn the drums 36 in the required direction to cause the drums to partly wind up the chains 47 and thereby lift the loaded pallet when the truck may then be wheeled to the place where it is desired to deposit the loaded pallet, and the latter is then lowered to the ground by reversing the movement of the

said levers 42. While wheeling the loaded truck, the truckman grasps the handle bar 30 with one hand, and retains his grasp on the handle bar 45 with the other hand. Owing to the arrangement of the levers 37, 42, in connection with the connecting bars 46, and the drums 36, the leverage is very great and the loaded pallet may be lifted with very slight effort. The cross bar 41 becomes engaged by the connecting rods 46 when the levers 42 are raised, and serves thereby to prevent the levers 37 from being lowered to an undesirable extent.

I claim:—

1. The herein described truck comprising a main frame, an arched axle extending across the front portion of the main frame, supporting wheels on said axle, standards secured to and rising from the front portions of the main frame, and connected to the vertical portions of the cranked or arched part of the axle, bearings on the said standards, a shaft in said bearings, drums on said shaft, levers connected to said drums, to turn the latter, main levers mounted on the frame, links connecting the main levers to the drum levers, chains attached to and depending from the drums, shoes suspended by the chains and levers fulcrumed to the frame and connected to the shoes to move the latter toward and from each other.

2. The herein described truck comprising a main frame, an arched axle extending across the front portion of the main frame, supporting wheels on said axle, standards secured to and rising from the front portions of the main frame, and connected to the vertical portions of the crank or arched part of the axle, bearings on the said standards, a shaft in said bearings, drums on said shaft, levers connected to said drums to turn the latter, main levers mounted on the frame, links connecting the main levers to the drum levers, chains attached to and depending from the drums, shoes suspended by the chains, levers fulcrumed to the frame and connected to the shoes to move the latter toward and from each other, an operating lever mounted at the rear end of the frame and links connecting the said lever to the shoe operating levers.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE W. SMITH.

Witnesses:

GEO. R. McPHERSON,
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