No. 612,029. Patented Oct. 11, 1898.

J. J. FORCIER.

TRUCK FOR SLEIGHS.

(Application filed Jan. 3, 1898.)

(No Model.)

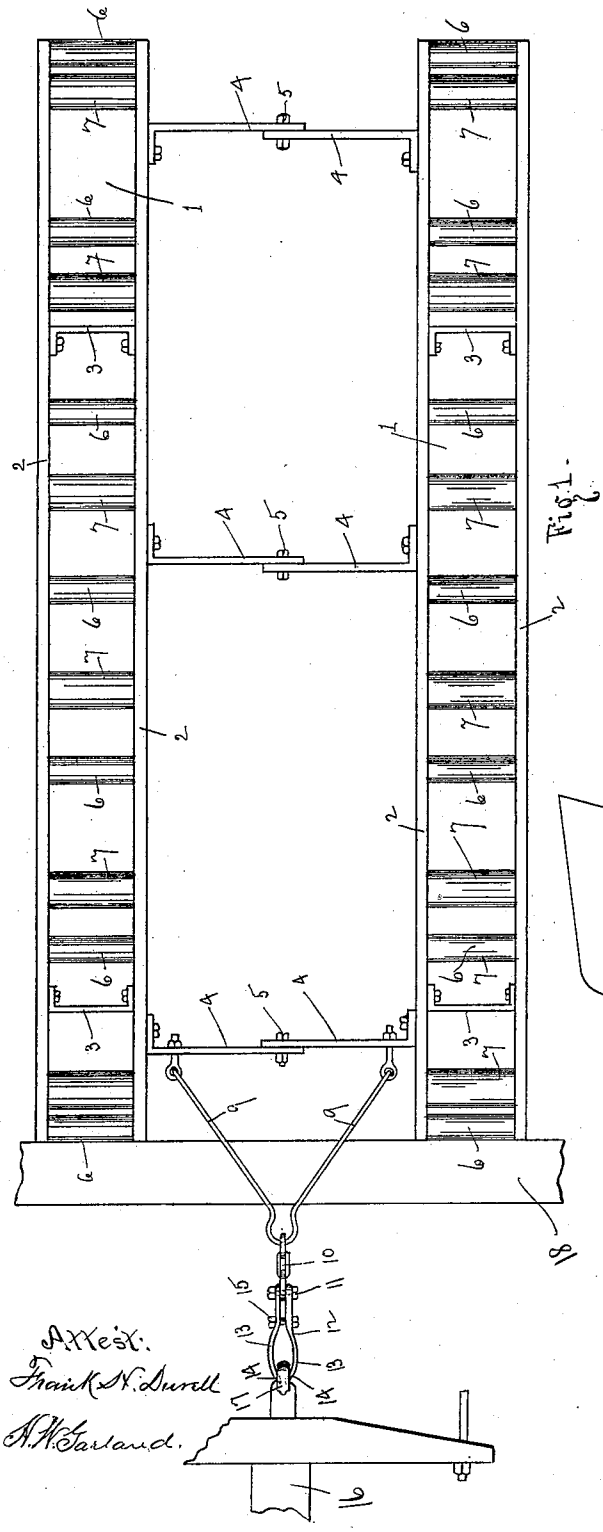


Fig. 1.

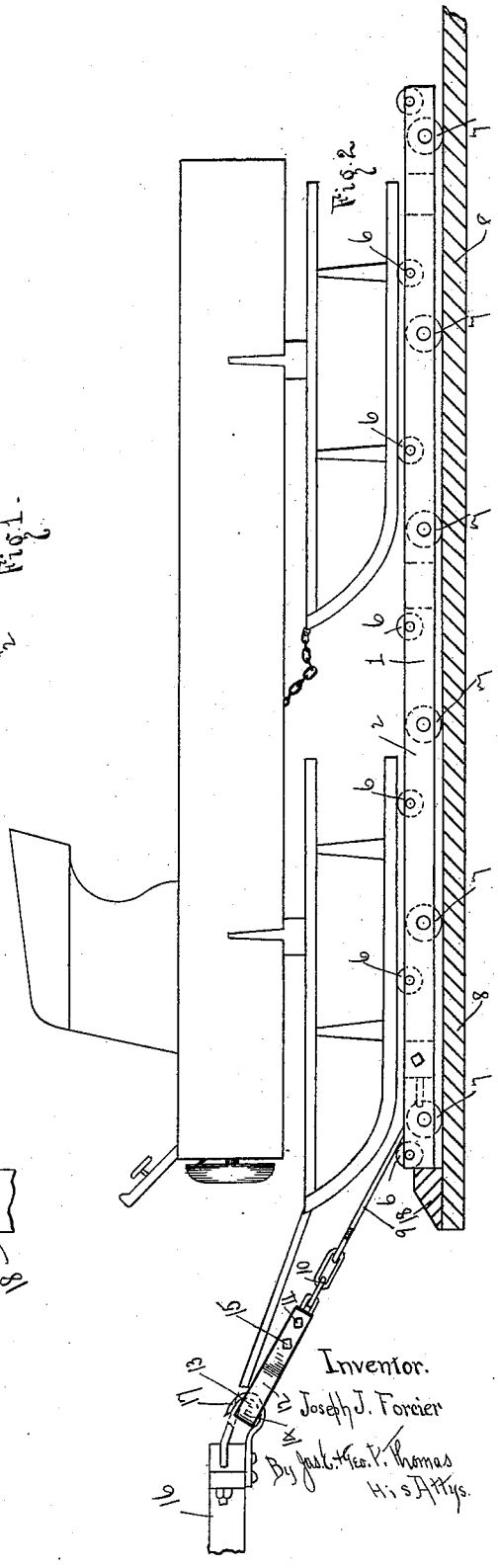


Fig. 2.

Attest:
Frank N. Durell
A. W. Farland.

Inventor.
Joseph J. Forcier
By Jas. L. Fee. V. Thomas
His Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH J. FORCIER, OF BAY CITY, MICHIGAN.

TRUCK FOR SLEIGHS.

SPECIFICATION forming part of Letters Patent No. 612,029, dated October 11, 1898.

Application filed January 3, 1898. Serial No. 665,400. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. FORCIER, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Trucks for Sleighs, of which the following is a specification, reference being had therein to the accompanying drawings, and to the reference characters marked thereon, which form a part of this specification.

The invention is more especially intended for use in supporting sleighs which carry hose-carts, fire-engines, or hook-and-ladder trucks and other loaded sleighs of a fire department, and which it is common to stand within the engine or hose house with the runners resting upon greased plank or some equivalent support, and which requires a heavy strain and pull upon the team to start the sleighs and to move the same out of the inclosure to the snow upon the street or sidewalk.

The invention consists, essentially, of a pair of truck-frames each provided with an upper series of rollers for supporting and carrying the runners of a sleigh and with a lower series of rollers which rest upon the floor of an inclosure for carrying the loads, and devices for attaching the end of the truck to the rear end of the tongue of the sleigh and adapted to automatically release the truck without stopping the team when the truck has been moved to a stated position; and the invention also consists in the combination, arrangement, and operation of the several devices and contrivances, as I shall hereinafter fully set forth, and specifically point out in the claims of this specification.

The object of the invention is to provide a roller-truck for supporting sleighs on the bare floor of an inclosure in a manner that will allow the sleigh with its load to be easily moved upon the bare floor of an inclosure.

Another object of the invention is to provide a roller-truck for supporting sleighs upon the bare floor of an inclosure which can be easily attached to the tongue of the sleigh and which will be automatically detached therefrom at the door of the inclosure without stopping the team which is pulling the apparatus.

Another object is to provide a roller-truck for carrying and moving sleighs on the floor of an inclosure that can be easily manipulated for getting the loaded sleigh on and off the truck, and which will also be provided with devices whereby when the sleigh and truck are drawn to the door of the inclosure the truck will stop and become automatically detached from the sleigh and be left behind while the sleigh and team move forward without stopping.

In the accompanying drawings, which form a part of this specification, the invention is illustrated, and the same reference characters in each view indicate the same part or element.

Figure 1 represents a plan view of my improved truck. Fig. 2 is a side view of the same and shown in position when carrying a sleigh.

1 1 represent two rectangular truck-frames, each having the side pieces 2 and the cross-pieces 3 for holding the sides in position in relation to each other, and these frames are connected together at a suitable distance from each other by the transverse pieces 4, which have their inner ends overlapped and secured together by the bolts 5, which allows the distance between the truck-frames to be adjusted as required.

6 are series of upper rolls arranged transversely between each set of side pieces 2, to which they are journaled by their ends, with their upper peripheries extending considerably above the upper edges of the side pieces, and 7 are a series of lower rolls which are arranged transversely between each set of side pieces 2 and journaled by their ends to the side pieces in a position to allow their lower peripheries to project considerably below the lower edges of the said side pieces and rest upon the floor 8 of an inclosure, which of course would be bare of snow covering.

Attached by their rear outer ends to the front cross-piece 4 are the links or rods 9, with their forward ends brought together and secured to the rear end of a short section of chain 10, and to the front end of this chain-

section is pivotally secured by a bolt 11 the rear end of a connecting-grip 12. This grip 12 is arranged with the side portions 13 of a flexible material, so as to form stiff springs, and on their front ends they are provided with the inwardly-projecting jaws 14, while nearly midway of the sides is a transverse bolt 15 with which to adjust the tension of the spring sides against a spreading force exerted between the jaws 14.

16 is the tongue of an ordinary sleigh, and at its rear end this tongue is provided with a rearwardly-extending hook 17, around which the jaws 14 of the grip device are caught.

At the point at which it is desired to leave the truck behind, usually at the door of the inclosure, is secured solidly to the floor a bumper or stop 18, which receives the ends of the truck as the team moves forwardly to draw the sleigh from the inclosure.

In practice the trucks are arranged with the right distance between the frames to allow the runners of the sleigh to be drawn forwardly over the middle portion of the series of upper rolls, and the grip 12 is attached to the tongue 16 by passing the jaws 14 over the hook 17, and then the sleighs resting upon the trucks are left until needed, at which time the team is hitched to the tongue and started off as with an ordinary wagon, and when the front ends of the trucks come in collision with the stop 18 the spring side portions 13 allow the jaws 14 to move apart and allow the hook to pass from between the same, and the truck then remains, and the sleigh then glides over the rolls 6 and to the snow-covered surface of the ground outside of the inclosure without putting any extra exertion upon the team or any checking of their speed in order to release the trucks.

It will be seen that this device in handling fire-engines and fire-trucks and apparatuses on sleighs is a very great advantage over common forms of appliances usually used, as it needs no special preparation of the floor, no greased or slippery planks, and is in the same condition for starting a heavy fire-truck quickly as engines which are mounted on wheels and avoids heavy strain being placed upon the team when starting to make a run to a fire or when bringing the engine after being run out of the building, as the sleighs need only be run over the rolls until the proper position is reached for connecting the grip with the hook, and then the truck with its load can be moved either forward or backward until the position required is reached for the trucks to remain until again required for use.

I have of course described a certain construction of the trucks and also the gripping device for attaching the same to the tongue of the sleighs; but I do not limit my invention simply to these precise details of construction used in this description, as many well-known equivalent devices may be used and accomplish the same result.

Having described the construction and operation of my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a truck for sleighs the combination of the frames each provided with a lower series of rolls for carrying the trucks, and with an upper series of rolls for carrying the sleighs, and means as a grip for connecting the front end of said trucks with the sleigh and for releasing the same at a fixed point, substantially as set forth.

2. In a truck for sleighs, the combination of two truck-frames each provided with a lower series of rolls for carrying the frames, and with an upper series of rolls for carrying the sleigh, the link-rods secured by their rear ends to the front ends of the truck-frames and by their forward ends to a grip device and means as a hook for connecting said grip device to the sleigh-tongue, substantially as set forth.

3. In a truck for sleighs the combination of two frames standing parallel to each other and provided with transverse bars for holding the frames in position in relation to each other, a series of lower rolls for supporting said frames above the floor, and a series of upper rolls journaled upon the frames for supporting the sleigh, the draft-rods connected to the front ends of said frames, the grip provided with forwardly-extending spring-arms terminating with opposing jaws and with its rear end secured to the front end of said draft-rods, a rearwardly-extending hook secured to the sleigh-tongue and adapted for passing between said opposing jaws, and a stop secured to the floor for stopping the trucks and releasing the grip substantially as set forth.

4. In a truck for sleighs, the combination of the frames provided with lower rolls for supporting the frames and with upper series of rolls for supporting the sleighs, with a grip device composed of two parallel arms having their rear ends connected with the front end of the truck by draft-rods and provided on their front ends with opposing jaws, a hook secured to the rear end of the sleigh-tongue and engaged with said jaws, and a stop secured to the floor for receiving the ends of said truck-frames to stop the trucks and release the jaws from the hook without stopping the forward movement of the sleigh or team, substantially as set forth.

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

JOSEPH J. FORCIER.

Witnesses:
GEO. P. THOMAS,
JAS. E. THOMAS.