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J. M. CLOSSON.

TRUCK ATTACHMENT FOR SLEIGHS.

APPLICATION FILED MAY 15, 1905.

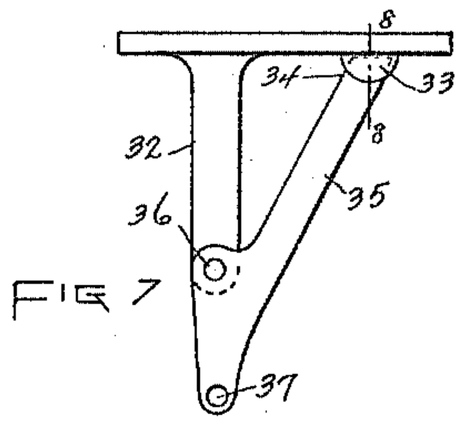

FIG 7

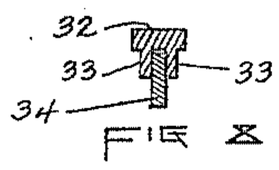

FIG 8

FIG 2

FIG 5

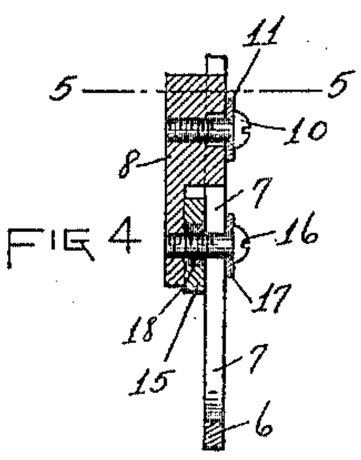

FIG 4

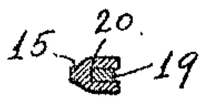

FIG 6

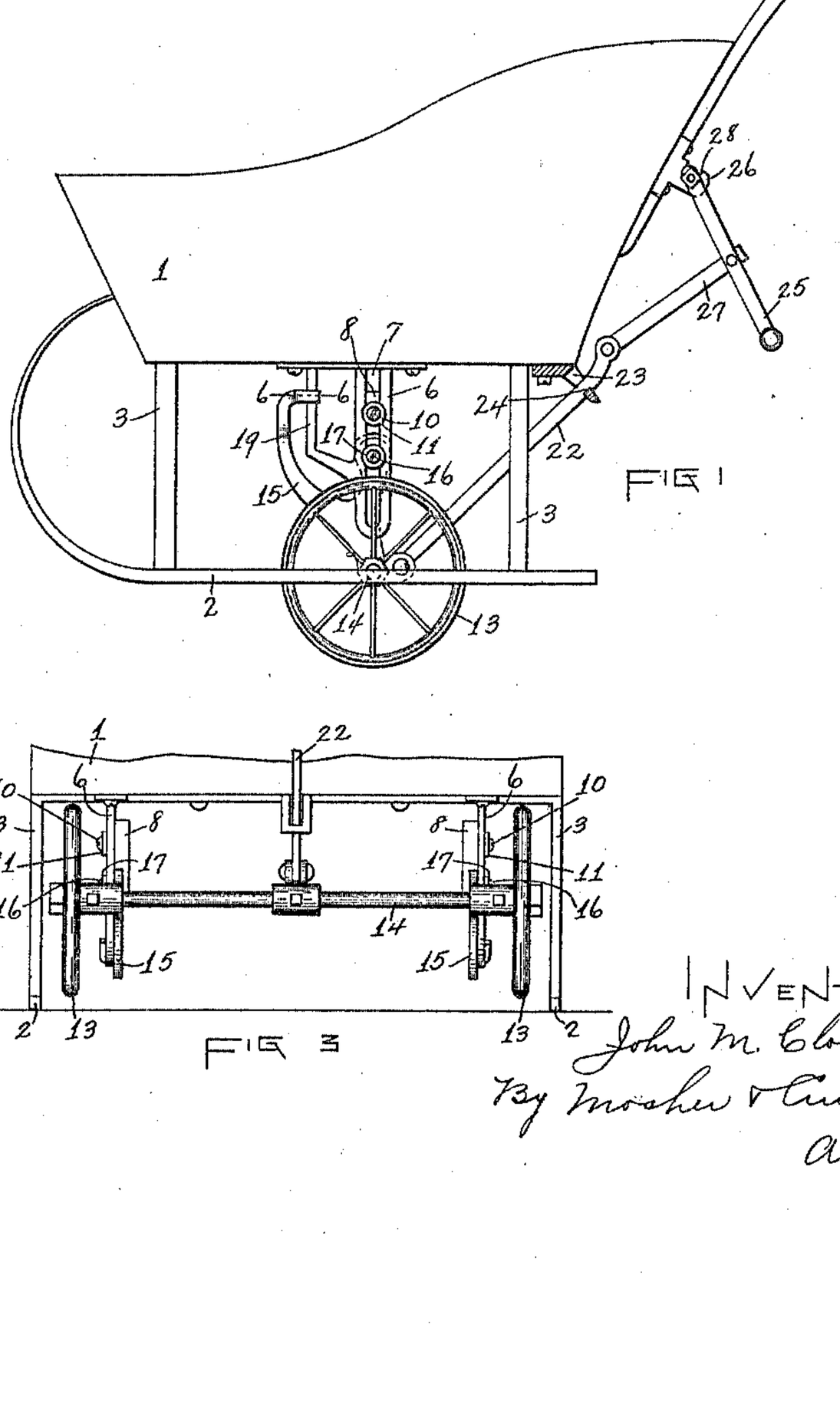

FIG 1

FIG 3

WITNESSES

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TRUCK ATTACHMENT FOR SLEIGHS.

No. 811,545. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed May 15, 1905. Serial No. 260,397.

To all whom it may concern:

Be it known that I, JOHN M. CLOSSON, a citizen of the United States, residing at Hoosick Falls, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Truck Attachments for Sleighs, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of a sleigh provided with my improved truck attachment in a lowered position. Fig. 2 is a central vertical longitudinal section of the same with the truck attachment raised. Fig. 3 is a view in rear elevation of the sleigh and attachment as shown in Fig. 2 with the upper portion broken away. Fig. 4 is a vertical cross-section of the adjustable connection between the swinging truck-frame and one of the supporting brackets or hangers, the plane of the section being indicated by broken line 4 4 in Fig. 2. Fig. 5 is a cross-section of the same, taken on the broken line 5 5 in Figs. 2 and 4. Fig. 6 is a horizontal cross-section taken on the broken line 6 6 in Fig. 1. Fig. 7 is a side view of a modified form of hanger and truck-frame member. Fig. 8 is a vertical cross-section of the same, taken on the broken line 8 8 in Fig. 7.

My invention relates to truck attachments for sleighs, and may be applied to sleighs of various kinds, being particularly adapted for use in connection with an ordinary child's box-sleigh.

The object of the invention is to provide for the temporary substitution of wheels for runners to support the vehicle to facilitate the passage of the vehicle over bare spots in the road or sidewalk or spots covered with ashes or other frictional substance.

Referring to the drawings, wherein the invention is shown in its preferred form, 1 represents the box or body of the sleigh, mounted upon runners 2 by means of the knees or braces 3 in the usual manner.

The sleigh may be propelled in any known manner, as by means of the push-handle 4.

Fixed upon the under side of the box or body by means of screws are a pair of hangers 6, each having a vertical slot 7, within which fits and is longitudinally adjustable a pivot-block 8.

The pivot-block is adapted to be locked in adjusted position at the desired distance from the bottom of the sleigh by means of a screw 10, inserted through said slot into said pivot-block, the head of said screw being engageable with a binding-washer 11, which is drawn by the screw tightly against the face of the hanger, the pivot-block being laterally extended on the opposite side of the hanger to afford the necessary resistance for the action of said screw.

The truck comprises one or more wheels 13, mounted upon a shaft or axle 14, which is supported in bearings in a pair of brackets 15, made in the form of angle-levers, said brackets being pivotally connected with the respective hangers 6.

The pivotal connection between the truck-bracket and hanger is accomplished in the manner shown in Fig. 4 by means of a screw 16, inserted through the slot 7 in the hanger and loosely through a pivot-aperture in the bracket and fitting a screw-threaded aperture in the pivot-block 8, said screw having an enlarged head or washer 17, adapted to engage the face of the hanger. The pivot-aperture in the bracket is preferably provided with a bushing 18 to prevent the bracket from being clamped too tightly between the hanger and pivot-block.

The hanger is provided with a vertical brace 19, and the forward end of each bracket is provided with a recess 20, adapted to receive and fit said brace, as shown in Fig. 6, at different distances from the bottom of the sleigh, according to the adjustment of the pivot-block. The adjustment of the pivot-block thus provided for adapts my invention for use as an attachment to different kinds and sizes of sleighs. For certain purposes of the invention such adjustment may be accomplished in any known manner.

I have shown two brackets and two wheels on my truck attachment; but I do not wish to be limited to a plurality of either wheels or brackets.

The construction described permits the truck to occupy either the raised position, (shown in Fig. 2,) in which the wheels are above the plane of the runners, or the lowered position, (shown in Fig. 1,) with the wheels below the plane of the runners, adapted to support the vehicle, and when in the latter position it will be seen that the truck-frame is firmly braced against twisting movement by the engagement of the forward recessed ends of its brackets with the respective braces on the hangers.

I have shown the shaft or axle of the truck connected with a link 22, which passes through a slideway 23, mounted upon the rear end of the sleigh-body, which link is provided with a notched portion 24, adapted to interlock with the outer wall of the slideway, as shown in Fig. 1, to further brace and support the bracket-frame when lowered.

The truck may be operated in any known manner.

I have shown means for operating the truck comprising a hand-lever 25, pivoted in a bracket 26, fixed by means of screws upon the back of the sleigh-box and connected by link 27 with the upper end of link 22 in such a manner that by a swinging movement of the lever 25 the truck-frame can be raised or lowered, as desired.

The truck may be supported in raised position by the engagement of the lever 25 with the notched portion 28 of the bracket 26, the end of said lever connected with said bracket being slotted to receive the bracket 26, said bracket being provided with an elongated aperture 30 for the connection-pivot, adapted to permit such lost motion as may be necessary to seat the lever in and unseat it from the notched portion 28.

To better adapt my invention for use as an attachment upon sleighs, provision is made for mounting the attachment upon the sleigh-body wholly by the use of screws, and the mechanism above described, whereby adjustment of the pivotal connection is accomplished, adapts the adjustment for use with larger or smaller sleighs, as may be desired, without changing in any way the curvature of the path through which the truck wheels and frame travel in passing to and from a raised position, as it will be seen that the swinging movement of the truck and its frame is always about the same center, the position of the center or pivot itself being changed in adapting the device to different vehicles, which is of importance, as otherwise a longer throw of the truck frame and wheels would be necessary in changing from raised to lowered position upon a higher than upon a lower sleigh.

Where adjustment is not desired, a simpler form of bracket and hanger may be employed, as shown in Figs. 7 and 8, wherein the hanger 32 is provided with a pair of depending ears 33, adapted to receive between them the end 34 of the truck-bracket 35, pivoted at 36 upon the hanger and provided with a bearing 37 for the truck shaft or axle.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the body and runners of a sleigh; of a brace mounted upon, and depending from, the under side of the sleigh-body; a truck-frame pivotally mounted upon the under side of the sleigh-body comprising in part an angle-lever having one end adapted to swing into and out of engagement with said brace, one of said engaging members being formed with a recess adapted to receive and fit the other; and a wheel mounted upon the other end of said angle-lever.

2. The combination with the body and runners of a sleigh; of a hanger attached to the bottom of the sleigh-body, said hanger having a depending brace; a truck-frame bracket in the form of an angle-lever pivotally connected with said hanger, and having one end adapted to swing into and out of engagement with and to receive and fit said brace; and a wheel mounted upon the other end of said lever.

3. The combination with the body and runners of a sleigh; of a pair of hangers attached to the bottom of the sleigh-body in line with each other transversely thereof, each having a depending brace; a pair of truck-frame brackets each in the form of an angle-lever pivotally connected with the respective hangers, and each having one end adapted to swing into and out of engagement with, and to receive and fit the brace on its respective hanger; a shaft or axle mounted in the other ends of said bracket-levers; and wheels mounted upon said shaft or axle.

4. The combination with the body and runners of a sleigh; of a hanger mounted upon the under side of the sleigh-body; a truck-frame having a wheel mounted thereon; a pivotal connection between the truck-frame and hanger; and means for fixedly mounting said pivotal connection upon the hanger in different positions of adjustment and means for swinging said truck-frame into and out of operative position in different positions of adjustment of said pivotal connection.

5. The combination with the body and runners of a sleigh; of a vertically-slotted hanger mounted upon the under side of the sleigh-body; a pivot-block adjustable longitudinally of the slot in the hanger; a truck-frame pivotally connected with said pivot-block; and a wheel mounted upon said truck-frame.

6. The combination with the body and

runners of a sleigh; of a vertically-slotted hanger having a vertically-extended brace mounted upon the under side of the sleigh-body; a pivot-block adjustable longitudinally of the slot in the hanger; a truck-frame pivotally connected with said pivot-block and comprising in part an angle-lever having one end thereof adapted to receive and fit said brace in different positions of adjustment of said pivot-block; and a wheel mounted upon the other end of said lever.

In testimony whereof I have hereunto set my hand this 24th day of April, 1905.

JOHN M. CLOSSON.

Witnesses:
WILLIAM J. HEALY,
ERNEST C. JONES.