(No Model.)

H. J. SIMON.

SLEIGH BOB.

No. 441,200. Patented Nov. 25, 1890.

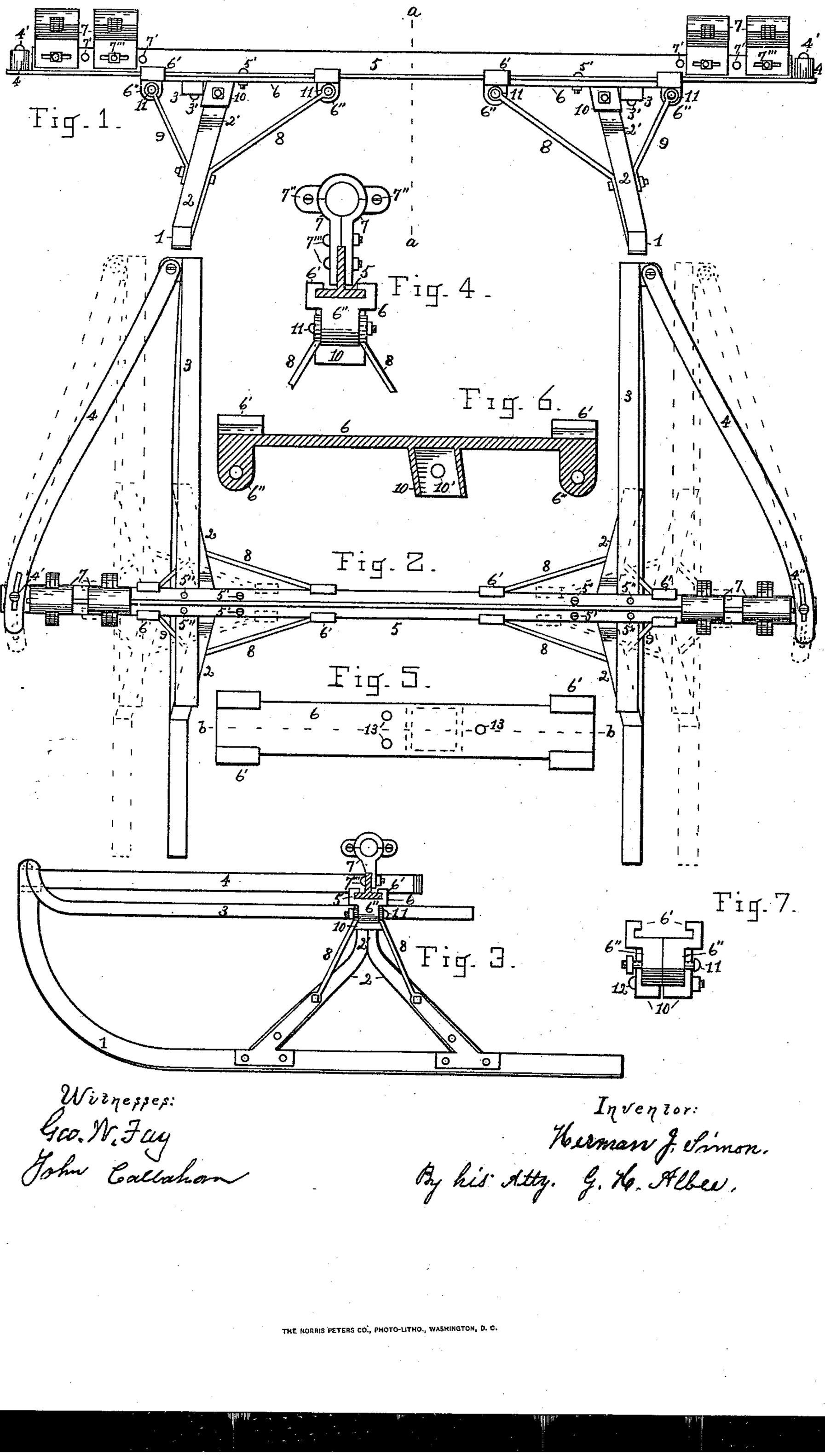

Fig. 1.

Fig. 4.

Fig. 6.

Fig. 2.

Fig. 5.

Fig. 3.

Fig. 7.

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SLEIGH-BOB.

SPECIFICATION forming part of Letters Patent No. 441,200, dated November 25, 1890.

Application filed May 31, 1890. Serial No. 353,736. (No model.)

To all whom it may concern:

Be it known that I, HERMAN J. SIMON, a citizen of the United States, residing at Peshtigo, in the county of Marinette and State of Wisconsin, have invented a new and useful Improvement in a Sleigh-Bob, of which the following is a specification.

My invention relates more particularly to sleigh-bobs for use under carriage-bodies in place of the wheels thereof when it is desired to change their mode of movement from wheels to runners, and is an improvement upon a patent granted to me December 4, 1888, No. 393,863; and it consists in a modification in the formation of the sleigh-beam and the manner of connecting it to the sleigh-runners, a modification in the formation of the connecting-piece which form said connection in the form of the sleigh knees or standards, and of the manner of connecting said standards and the aforesaid connecting-piece to each other and to the sleigh-runner, and also a modification in the formation of the bottom part of the boxes, in which the carriage-axle is to be journaled; and the object of the improvement is to lessen the cost of their construction and to provide lightness and strength therefor. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a rear view of a sleigh-bob embodying my invention; Fig. 2, a top view of the same, the parts in dotted lines representing the runners when set for a track of wider gage than those in Fig. 1; Fig. 3, a vertical section longitudinally of the runner upon the line *a a* of Fig. 1; Fig. 4, a vertical section upon said line of the sleigh-beam, showing an end view of the supporting-socket thereof, the manner of connecting braces thereto, and also showing an end view of one modification of a box for supporting a journal of a carriage-axle and the manner of connecting the two sections of the lower half of said box to each other and to the sleigh-beam. Fig. 5 is a top view of the sleigh-beam socket-piece; Fig. 6, a vertical section of said socket-piece upon the line *b b* of Fig. 5, showing the socket for receiving the top end of the sleigh knees or standards; and Fig. 7, an end view showing a modification in the construction of the socket-piece illustrated in the foregoing figures. Figs. 4, 5, 6, and 7 are upon the same scale with reference to each other, but upon an enlarged scale with reference to Figs. 1, 2, and 3.

Similar figures of reference indicate like parts in the several views.

The figure 1 indicates the sleigh-runners; 2, the sleigh knees or standards which support the beam; 3, the raves; 4, the fenders; 5, the sleigh-beam; 6, the socket-piece which connects the standards 2 2 and beam 5; 7, boxes in which the axles of the carriage are journaled under which the sleigh-bob is to be used; 8, braces connecting the inner end of the socket-piece 6, the standards 2, and the runner; 9, braces connecting the outer end of said socket-piece and standards; 10, a socket upon the lower side of the socket-piece 6; 11, bolts connecting braces 8 and 9 to the ears 6″ of the socket-piece 6; 12, a bolt passing through a hole 10′ in the socket 10, and 13 bolt-holes in the socket-piece 6 for connecting it to other parts.

The runners, standards, raves, and fenders are formed of wood of that class which is known among carriage and sleigh makers as "bent stock," and are connected together in the usual manner. The socket-piece is of metal, preferably, and may be either cast or forged, malleable iron being well adapted for it. The sleigh-beam 6, I make of the ordinary rolled T-iron of commerce. The braces 8 and 9 may be forged or of malleable cast-metal, as preferred, and for the boxes, in which the carriage-axles are journaled, I prefer for its cheapness and adaptability a cast metal.

The socket-piece 6 may be formed, as shown in Figs. 3, 4, and 5, of a single piece, or it may for convenience in casting the same be cast in two parts, and said parts bolted together with the bolts 11 and 12, as shown in Fig. 7. Said socket-piece has upon its upper side at each end and upon both sides thereof, ears or lugs 6′, which are turned over so as form sockets within which the head or bottom flange of the T-iron 5 is adapted to slide in a longitudinal direction, and within which it is secured in the desired position by means of bolts 5′. It has also depending from its lower side, at each end thereof, ears 6″ to which the braces 8 and 9 are bolted by bolts 11 and intermediate of said ears the socket 10, which

receives the top end of the standards 2 2. The lower end of said standards are tenoned into the runner in the usual manner, the braces 8 and 9 bolted to the ears 6″ and to the standards 2, and the standards further strengthened by extending the braces 8 downward thereon and connecting them by bolts or rivets to the runners 1. The raves 3 are each connected at their forward end to a runner and near their rear end secured to one of the socket-pieces 6 by means of a bolt or screw 3′.

The sleigh-bob is made strong lengthwise of the runners by reason of the peculiar form given to the standards 2. They are each made with a single bend 2′, the upper straight portion of the standards being fitted to be driven tightly into the socket 10, and their lower straight portion extended in opposite directions and connected with the runner, producing thereby a great degree of strength for withstanding any sudden longitudinal strain upon the sleigh-bob. The degree of the angle produced in the bend 2′ may be more or less, as the height of the standards and length of the runner require.

The sleigh-beam, as before described, is made of a bar of T-iron and of a length slightly longer than the carriage-axle to be used with it. At each end of said bar a portion of its stem is cut away, as shown in Fig. 1, for providing a bearing upon which the fenders 4 are bolted with the bolts 4′. At several points in its length holes 6″ are drilled in its bottom flange, through which it is bolted to the socket-piece 6, and also holes 7′ in its stem, through which the boxes 7 are secured to it with the bolts 7‴. The bottom part of the boxes are slotted for permitting the longitudinal movement of the boxes upon the sleigh-beam for arranging them in position suited to the length and position of the axle-bearings.

The boxes consisting of a lower portion, or the box and a cap therefor, may have said lower portion made in two corresponding parts 7 and 7, and said parts bolted to the stem of the T-iron sleigh-beam and to each other, as shown in Fig. 4, and the cap portion hinged to one of said lower parts and secured in a closed position to the other by a pin or bolt 7″, or be secured to it in any convenient manner.

The runners may be arranged for tracks of narrow gage, as seen by their position in the heavy lines of Fig. 2, in adapting them for country roads or for a wider gage, as shown in dotted lines, to meet the requirements of city roads, and be retained in the desired position by means of bolts 5′, for which holes 5″ are provided in the bottom flange of the sleigh-beam at such points as desired, the fenders 4 being hinged at their forward end to the runner and secured at their rear end to said bottom flange by bolts 4′, which bolts enter through slots 4″ in said rear end of the fender and permit the necessary adjustment thereof.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a sleigh-bob, a sleigh-beam formed of a bar of T-iron, said sleigh-beam being near each end thereof supported in socket-pieces and adapted to slide longitudinally on and to be secured thereto at any determined point in its length, substantially as described.

2. In a sleigh-bob, the combination of a pair of runners, each runner being provided with a standard or knee consisting of two similar pieces of wood having each a single curve, as 2′, the short end of each piece above said curve being straight and their upper extremities connecting one with the other and with a socket-piece supporting the sleigh-beam, their longer ends diverging in straight lines below said curve and the end of each piece connecting with the runner, substantially as described.

3. In a sleigh-bob, the combination of a pair of runners, each runner being provided with two standards or knees, said standard having each a single bend consisting of a curve, as 2′, the upper straight portion above said bend of each pair of said standards being connected together and having a socket-piece connecting said ends and their lower straight portion extended in opposite directions and connected with a sleigh-runner, each of said socket-pieces extending transversely of the runners and having upon each side of their inner end a brace, each brace connecting with a standard and with the runner carrying said standard, and said socket-pieces being arranged to receive upon their upper side a sleigh-beam consisting of a bar of T-iron, and a means of securing it thereon at any determined point in its length, substantially as described.

4. In a sleigh-bob, the combination of a sleigh-beam formed of a bar of T-iron, a socket-piece for supporting said sleigh-beam near each end thereof and adapted to slide longitudinally on and to be secured thereto at any determined point in its length, said socket-piece being composed of two corresponding parts and adapted to be bolted one part to the other, substantially as set forth.

5. In a sleigh-bob, the combination of a sleigh-beam formed of a bar of T-iron, a socket-piece for supporting said beam near each end thereof and adapted to slide longitudinally on and to be secured thereto at any determined point in its length, said sleigh-beam being provided with boxes for receiving the journal of a carriage-axle, and the boxes adapted for longitudinal movement, thereby adapting the sleigh-bob for axles of different length, substantially as described.

6. In a sleigh-bob, the combination of a sleigh-beam formed of a bar of T-iron, a socket-piece for supporting said sleigh-beam

near each end thereof and adapted to slide longitudinally on and to be secured thereto at any determined point in its length, said sleigh-beam being provided with boxes for receiving the journal of a carriage-axle, the bottom part of said boxes being formed of two similar sections, said sections being bolted to the stem of said T-iron sleigh-beam and adapted for longitudinal adjustment thereon, substantially as described.

7. In a sleigh-bob, the combination of the runners 1 1, the standards or knees 2 2, having each a single curve, as 2′, the raves 3 3, the fenders 4 4, the socket-pieces 6 6, having the braces 8 8, connecting said socket-pieces, the standards and runners, the sleigh-beam 5, formed of a bar of T-iron and arranged for longitudinal movement in the socket-pieces 6 6 and for being secured thereto at any determined point in its length, and the boxes 7 7, secured upon said sleigh-beam and provided with means for their adjustment longitudinally thereon, substantially as described.

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