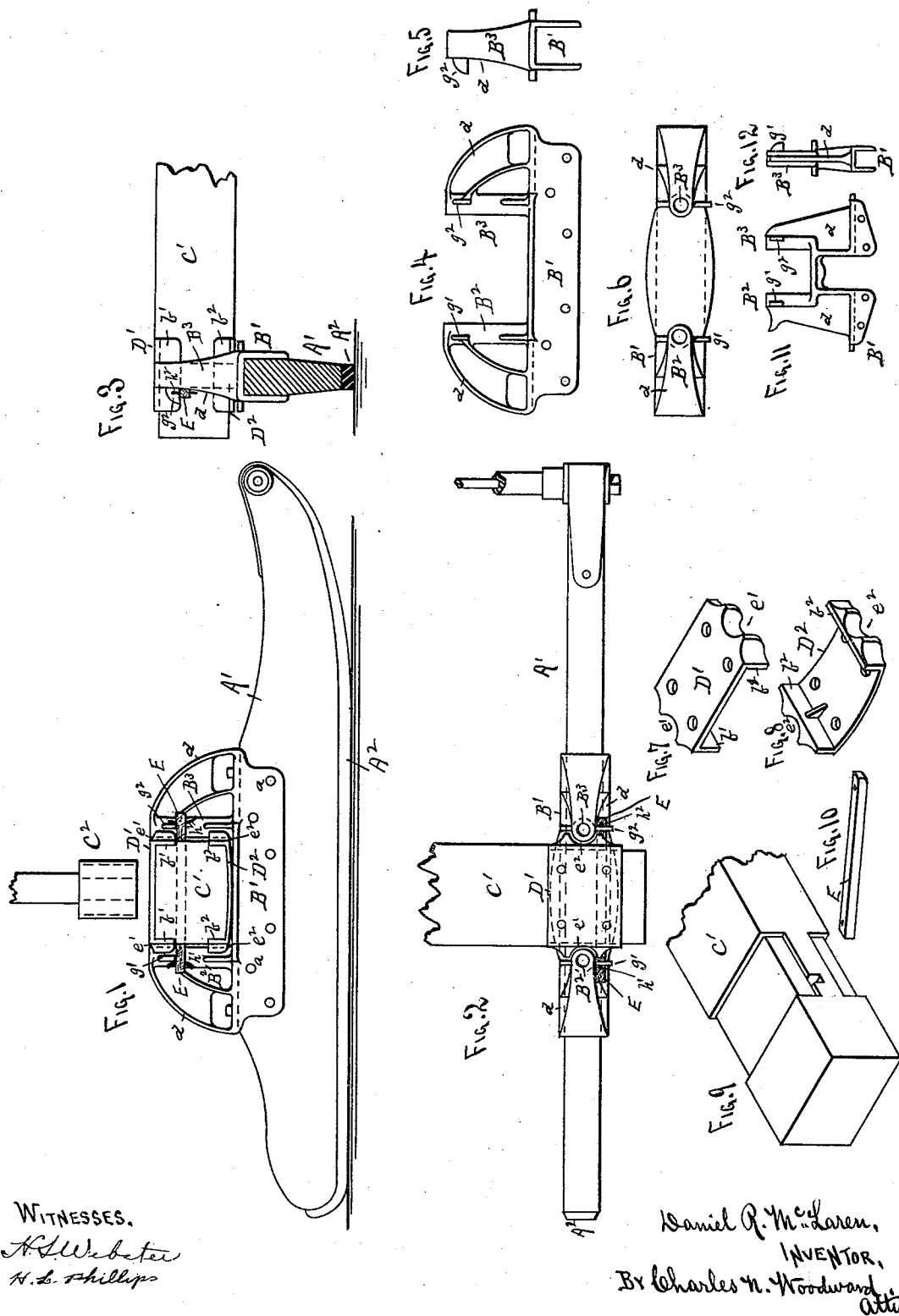


(No Model.)

D. R. McLAREN.
SLEIGH.

No. 512,259.

Patented Jan. 2, 1894.



UNITED STATES PATENT OFFICE.

DANIEL R. McLAREN, OF HINCKLEY, MINNESOTA.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 512,259, dated January 2, 1894.

Application filed February 1, 1893. Serial No. 460,530. (No model.)

To all whom it may concern:

Be it known that I, DANIEL R. McLAREN, a citizen of the United States, residing at Hinckley, in the county of Pine and State of Minnesota, have invented certain new and useful Improvements in Sleighs, of which the following is a specification.

This invention relates to sleighs, more particularly to that class of sleighs employed in hauling heavy logs or timber, and other similar material, and consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claim.

In the drawings,—Figure 1 is a side elevation. Fig. 2 is a plan view, and Fig. 3 is a cross sectional elevation, of a sleigh runner and a portion of one of the bolster beams and bolsters, with my improvements attached thereto. Fig. 4 is a side elevation. Fig. 5 is an end elevation, and Fig. 6 is a plan view, of the base frame, detached. Figs. 7 and 8 are perspective views of the bolster beam plates, detached. Fig. 9 is a perspective view of one end of the bolster beam, and Fig. 10 is a perspective view of the bolster beam pin, detached. Figs. 11 and 12 are views similar to Figs. 4 and 5, illustrating the modification required to adapt the invention to a lighter class of vehicles.

This invention may be applied to nearly all forms of sleighs used for hauling heavy material, such as logs, timber, &c., but is more particularly applicable to logging sleds used in hauling logs in timber districts.

In the drawings, I have shown one runner, and a portion of one end of the bolster beam, and bolster, of one of these logging sleds, with my improvements attached thereto which is sufficient to illustrate the invention.

A' represents the runner which is formed in the usual manner, with the shoe A² attached to its lower surface.

B' represents a frame or cap plate resting upon top of the runner A' and embracing it on both sides and secured thereto by bolts or rivets *a*. Rising from the upper side of this frame B' are two standards B² B³ having circular adjacent sides and supported by strengthening webs *d* having curved upper surfaces, as shown.

C' represents the wooden bolster beam, only

one end being shown, but which connects two of the runners A' together and is of the ordinary construction.

C² represents a portion of the wooden "bolster" which is pivoted to the center of the bolster beam C', in the ordinary manner.

D' D² are two plates adapted to be fitted upon the upper and lower sides of the bolster beam, and having right angled side wings *b'* *b*² to embrace portions of the sides of the beam, as shown, the plates and wings being recessed into the beam, as shown in Fig. 9. The plates D' D² are each provided with cavities or channels *e'* *e*² adapted to partially inclose the circular sides of the standards B² B³, when the bolster beam is inserted into its place, as shown in Figs. 1, 2 and 3, the cavities being somewhat larger than the standards B² B³, so that a certain degree of "play" will occur between the bolster beam and the standards and base plate B'. The lower surface of the lower plate D² is formed curving lengthwise of the runner, so that the runner will have a certain degree of oscillation beneath the bolster beam, when running over uneven ground, so that any unevenness of the surface will not cause an undue motion to the load being borne upon the sled.

Upon the outer sides of each of the standards B² B³, near their upper parts, are formed lugs *g'* *g*², beneath which a long preferably square or oblong pin E fits, the pin being passed through a suitable hole in the bolster beam, as shown more clearly in Fig. 9. The ends of the pin E are formed with holes to receive pins or "cotters" *h'* *h*² outside the lugs *g'* *g*² by which the pin may be held in place. By this simple construction after the bolster beam, with its attached plates D' D², is inserted in place upon the base frame between the standards, the pin E will be passed through the bolster beam and secured in place by the "cotter" *h'* *h*², thereby forming a simple means of connection, but which will permit the requisite amount of free play between the parts. This form of connection also permits the bolster beam to be readily and quickly removed when required. By forming the plates D' D² so as to embrace the opposite sides of the bolster beam, the beam is supported and the friction all borne by the metal plates, while at the same time if the wood of the beam shrinks, the plates may be quickly and easily

adjusted to fit it by "setting up" on the bolts or rivets by which the plates are connected to the beam.

I claim a great advantage by forming the joint between the plates D' D^2 and standards B^2 B^3 so that a certain degree of free play exists between them, as the runners are thus free to adapt themselves to the uneven surface of the ground without cramping or straining the parts. The upward strains on the plates D' D^2 , are very slight, only occurring when the sleds are empty and being lifted from place to place. Hence the lugs $g' g^2$ will never have to be subjected to a strain greater than the weight of one of the runners A' and its frame B' .

In Figs. 11 and 12 I have shown two views similar to Figs. 4 and 5, illustrating the slight changes necessary to adapt the invention to the lighter class of vehicles. The only changes required are to elevate the bolster socket and form the base frame and other parts of smaller sizes. The manner of connecting the bolster beam and forming the bolster plates are the same as in the others.

Having thus described my invention, what I claim as new is—

In a sleigh the runners A' , cap plate B' embracing the upper edges of said runners and having standards B^2 B^3 provided with circular adjacent sides and with curved strengthening webs d , and lugs $g' g^2$, plates $D' D^2$ having channels $e' e^2$ adapted to embrace the circular adjacent sides of said standards and attached to the upper and lower surfaces of the bolster beam, said lower plate B^3 being curved to permit the runner to oscillate beneath the bolster beam, in combination with pin E adapted to be inserted through the bolster beam and project by its ends beneath the said lugs $g' g^2$, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DANIEL R. McLAREN.

Witnesses:

A. E. CRAIG,
ROBT. C. SAUNDER.