

(No Model.)

2 Sheets—Sheet 1.

S. F. SPARR.
BOB SLED.

No. 481,643.

Patented Aug. 30, 1892.

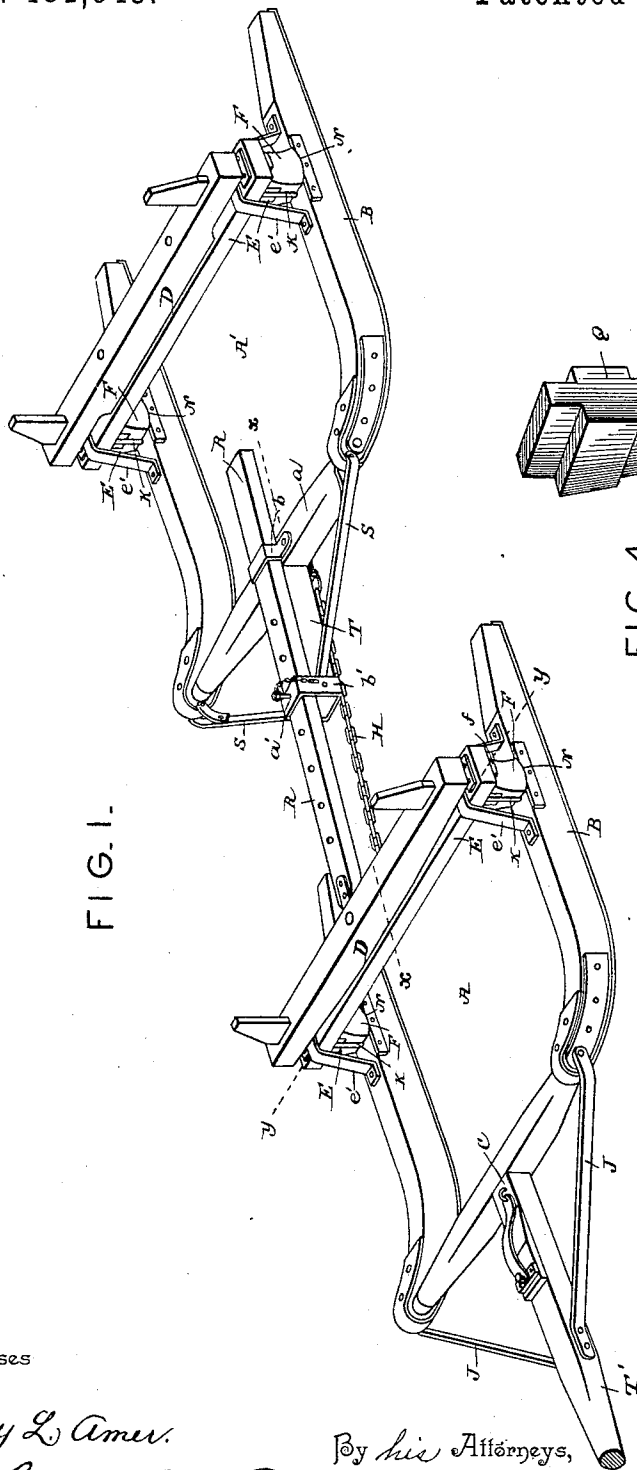


FIG. 1.

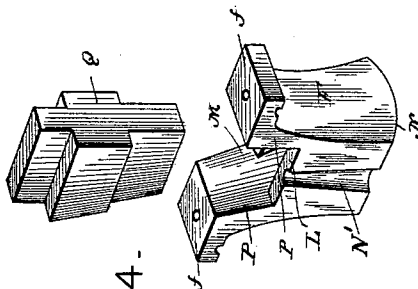


FIG. 4.

Witnesses

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By his Attorneys,

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Inventor

S. F. Sparr.

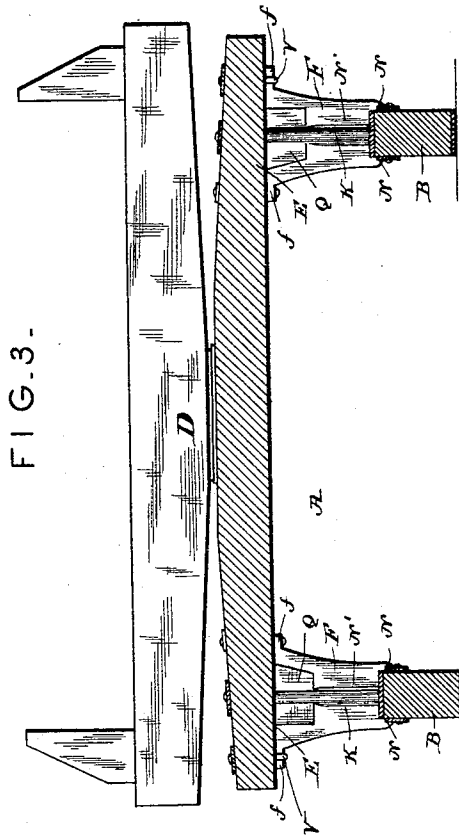
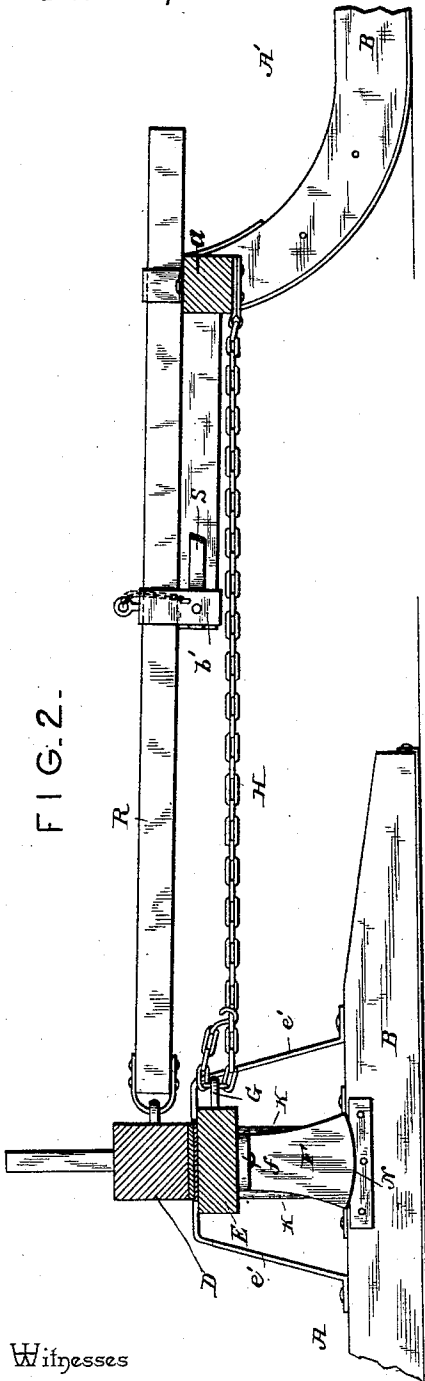
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UNITED STATES PATENT OFFICE.

SAMUEL F. SPARR, OF BOZEMAN, MONTANA.

BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 481,643, dated August 30, 1892.

Application filed March 30, 1892. Serial No. 427,042. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. SPARR, a citizen of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented a new and useful Bob-Sled, of which the following is a specification.

This invention relates to bob-sleds; and it consists in the construction and arrangement of the parts, as will be more fully hereinafter described, and pointed out in the claims.

The object of the invention is to provide convenient means for coupling the bobs whereby they may be extended lengthwise, thereby rendering the same convenient for various purposes.

In the drawings, Figure 1 is a perspective view of the improved bob-sled. Fig. 2 is a longitudinal vertical section of a portion thereof, taken on the line *xx* of Fig. 1. Fig. 3 is a transverse vertical section on line *yy* of Fig. 1. Fig. 4 is a perspective view in detail, showing an improved construction of knee, the parts thereof being separated.

Referring to the drawings, A A' represent the front and rear bobs, respectively, having runners B. To the front bob A is secured a suitable tongue C, and each of the bobs is provided with bolsters D, supported on transverse bed-beams or bunks E, which are secured to the runners by knees F in a manner which will be hereinafter set forth. The bolster D of the front bob A is held in connection with its transverse bed-beam or bunk E by a suitable king-bolt in such manner that said front bob may be turned and the direction of travel of the device entire may be changed thereby. The front cross-bar *a* of the rear bob A' is pivotally connected to the runners of said bob and has a centrally-located loop *b*, together with a short tongue T, having a loop or sleeve *b'* secured to the end thereof and formed with an aperture *a'* in the top thereof for passage therethrough of a connecting-pin. Reach-braces S are pivotally connected to the front portion of the runners of the rear bob and have their front ends attached to the outer end of the said short tongue T. To the rear of the bolster of the front bob is pivotally connected a reach-bar R, which is adapted to have adjustable movement through the loops or sleeves *b b'* and having a series of openings or holes therein

to register with the hole *a'* in the sleeve *b'*. To the rear portion of the transverse bed-beam or bunk secured to the front bob is connected an eye G, to which is adapted to be removably secured a chain H, having its rear end secured to the front cross-beam *a* of the rear bob. By means of this chain connection the strain is taken off the bolster-pins, as it can be tightened up as much as desired and in proportion to the adjustment of the reach-bar. The tongue T', connected to the runners of the front bob, has braces J, connected to opposite sides thereof and to the adjacent ends of the runners, thereby strengthening and forming a rigid support for said tongue. When it is desired to change the adjustment of the bobs, the reach-bar R is drawn out of the loops or sleeves *b b'* and at the same time the chain H is disconnected from a previous adjustment and the parts then arranged and connected up, as desired.

The transverse bed-beams or bunks E are supported on knees F, as hereinbefore set forth, and strap-braces *e'* are also connected with said bed-beams or bunks and the runners. The said knees F are held in position on the runners as an auxiliary to their general connection by stirrups K, which extend upward from the runners, embrace opposite sides of said knees, and project through said transverse bed-beams or bunks and the braces *e'*.

The knees F are constructed as fully shown in Fig. 4. A socketed casting is formed, having upper attaching-flanges *f*, adapted to be secured against the under side of the transverse bed-beams or bunks, and a lower groove N, adapted to be fitted over the top edge of the runners, and also formed with side recesses N', in which the stirrups K are confined. The socket portion M of said knee is provided with shoulders L on two sides thereof, and arms P extend upward from the opposite sides and terminate in the aforesaid flanges *f*. The innermost arm P of each knee is arranged at an angle of inclination to thereby throw the flange *f* thereof farther inward on the transverse bed-beam or bunk, to which it is secured, and provide thereby for a more rigid and secure attachment, as well as forming an additional brace. Within the socket of said knee is fitted a tenon-plug

Q, whose uppermost tenon is inserted in connection with the transverse bed-beam or bunk, to which the knee is secured, and forms convenient means for connection between the
 5 several parts. It will be seen that if said plug should become broken by the strain on the bobs it can be removed and another inserted in place thereof without injury to the metallic portion of the knee. To securely
 10 fasten the knee to the bunk, where desired, small stirrups V are employed, which take over the flanges f and extend through the said bunk, where they are secured by suitable nuts.

The advantage and utility of my improved
 15 form of construction and arrangement reside in the convenience whereby the bobs may be extended to the adjustable reach-bar described; also, in the manner of bracing the several parts and in the formation of the novel
 20 form of knee fully set forth.

Having thus described the invention, what is claimed as new is—

1. The combination, with bob-sleds, of a reach-bar pivotally secured to the front sled
 25 and adjustably connected with the rear sled, said rear sled having a short tongue projecting forwardly therefrom, a chain pivotally connected with the rear sled and removably and adjustably attached to the front sled, and
 30 braces pivotally attached to the runners of the rear sled and secured at their forward ends to said tongue of the rear sled, the said tongue of the rear sled being carried by a front cross-beam which is pivotally connected,
 35 substantially as described.

2. The combination of a front bob-sled having a pivoted bolster, a reach-bar pivotally connected to said bolster, a rear bob-sled having a tongue connected to a pivoted cross-bar
 40 and having loops or sleeves secured thereto, braces movably connected with the front por-

tions of the runners of said rear bob-sled and to said tongue, said reach-bar being adapted to be adjustably mounted in said loops or sleeves, a chain pivotally connected to the
 45 rear bob-sled and removably engaging an eye secured to the front bob-sled, substantially as described.

3. The combination of a bob-sled having a transverse bed-beam or bunk supported by
 50 hollow metallic knees on the runners, said knees being formed with upper securing-flanges and a lower grooved curved side, a wooden plug in each of said knees of tapered form and having lateral projections to bear
 55 on parts of said knees and an upper extension which is fitted into and secured to said transverse bed-beam or bunk, and metal straps secured at their ends to the runners and extended over the said bed-beam or bunk, sub-
 60 stantially as described.

4. A knee for joining the runner of a bob-sled to a transverse bed-beam or bunk, consisting of a socket having separated arms projecting upwardly therefrom formed with an-
 65 gular flanges at the upper ends thereof, and shoulders on opposite sides at the lower termination of said arms, together with recesses in said sides, and a groove in the lower end thereof to bear on the runner, and a wooden
 70 plug constructed with an upper tenon which is inserted in said bed-beam or bunk, as set forth, and the lower end thereof fitted in said socket, substantially as described.

In testimony that I claim the foregoing as
 75 my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL F. SPARR.

Witnesses:

W. R. BROOKS,
 M. C. HARTCORN.