

No. 740,603.

PATENTED OCT. 6, 1903.

I. K. STORMS.
BOB SLEIGH.

APPLICATION FILED NOV. 11, 1902.

NO MODEL.

Fig. 1.

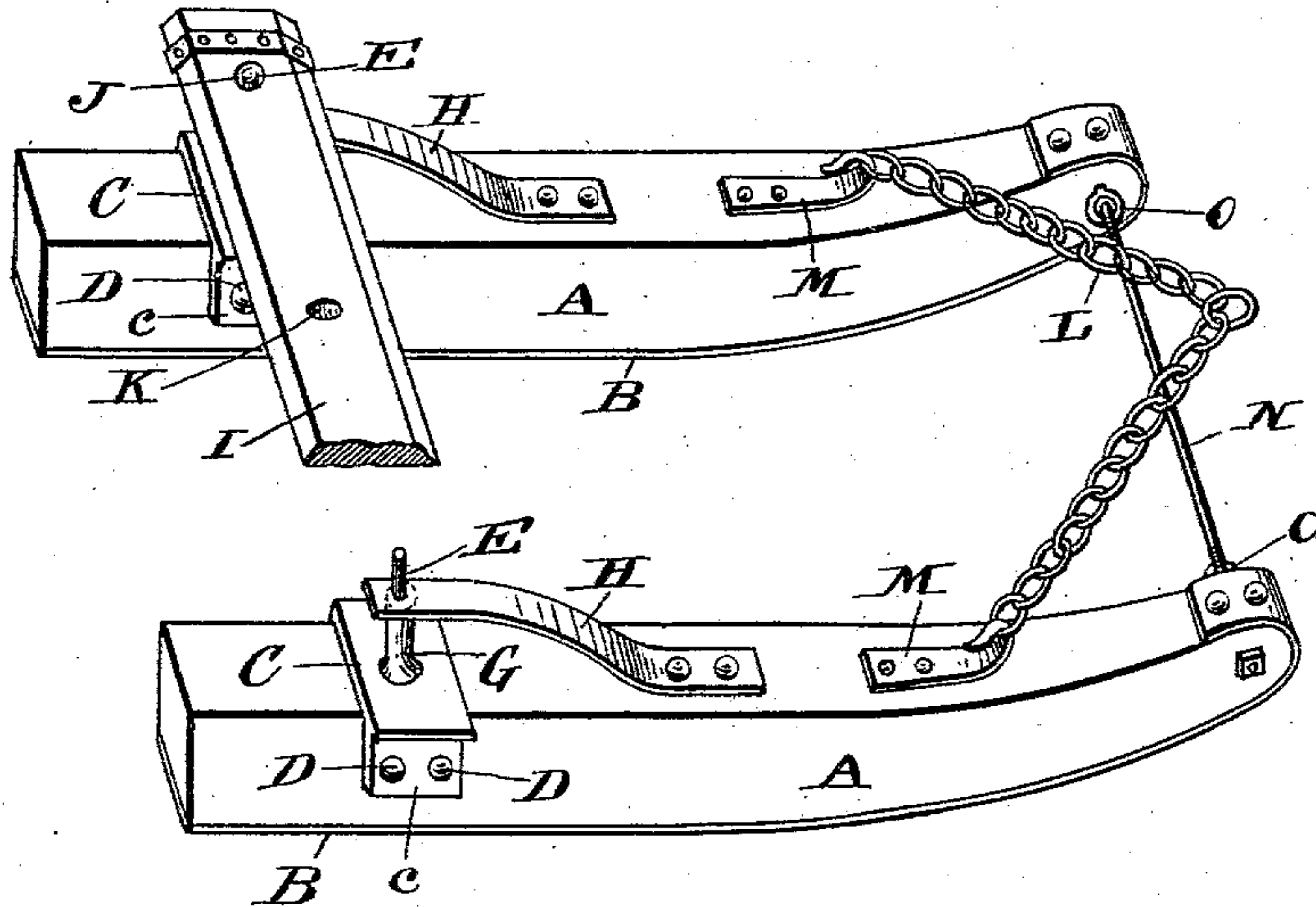


Fig. 2.

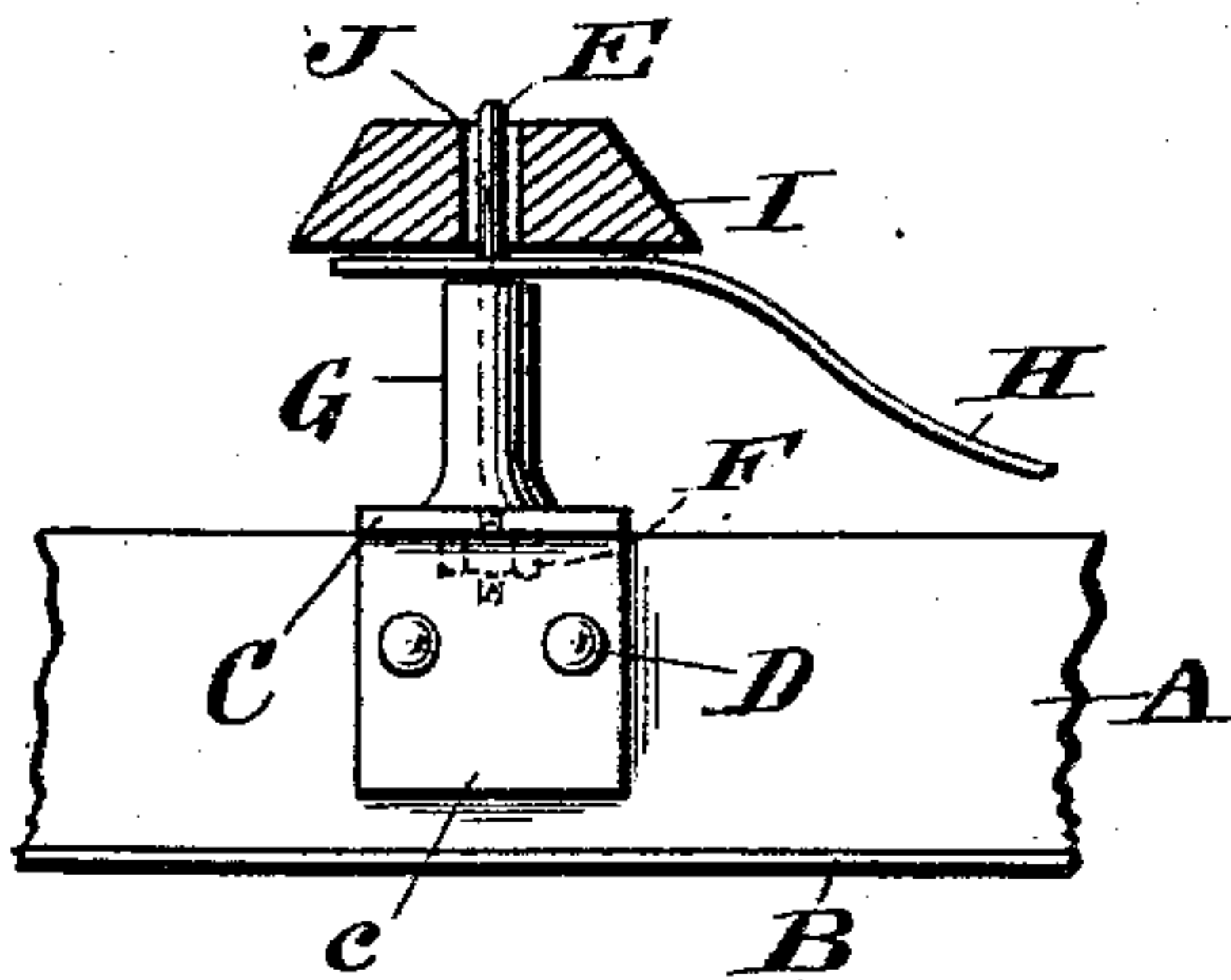
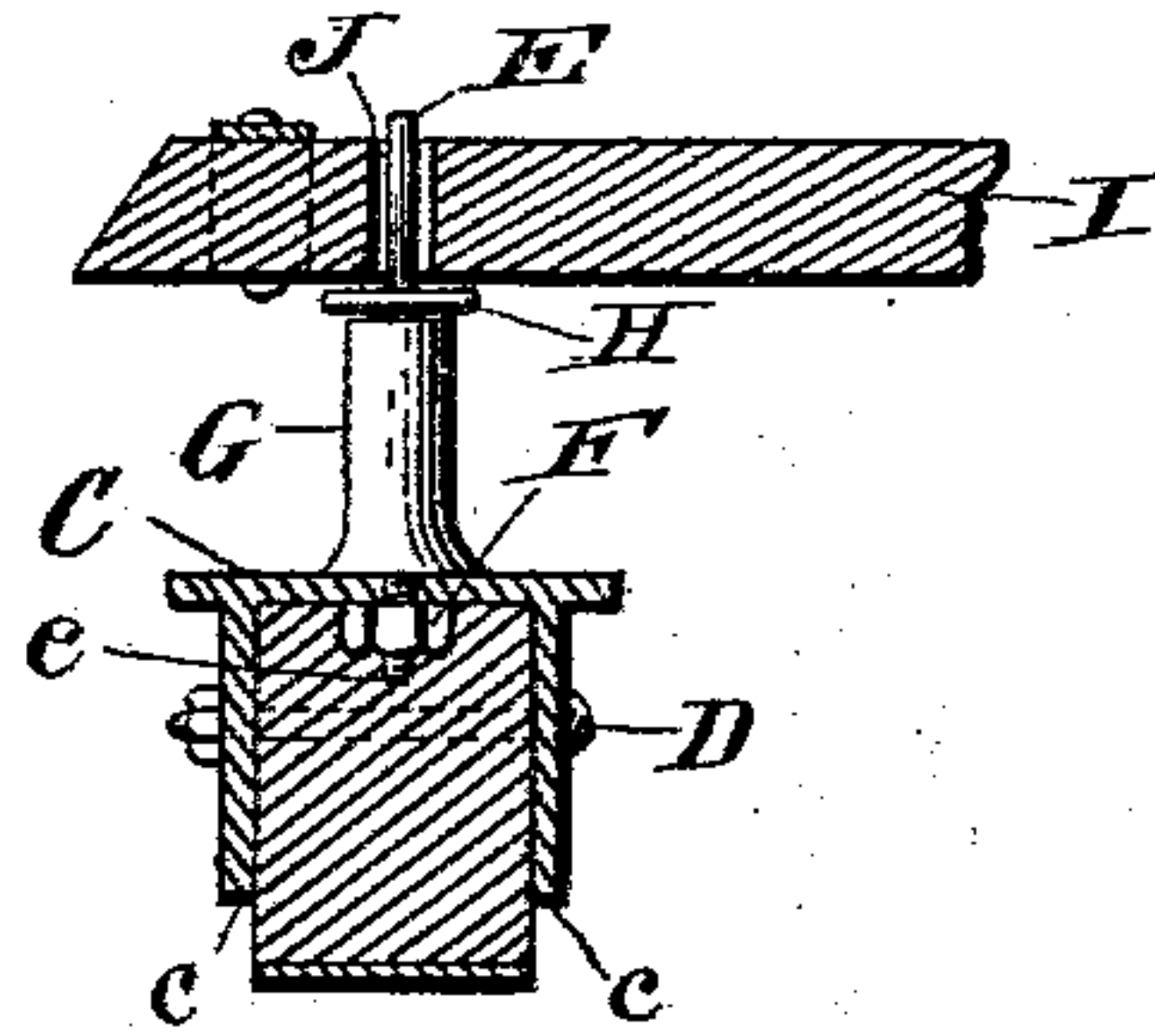


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ISAAC K. STORMS, OF DULUTH, MINNESOTA.

BOB-SLEIGH.

SPECIFICATION forming part of Letters Patent No. 740,603, dated October 6, 1903.

Application filed November 11, 1902. Serial No. 130,905. (No model.)

To all whom it may concern:

Be it known that I, ISAAC K. STORMS, a citizen of the United States, and a resident of Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Bob-Sleighs, of which the following is a specification.

My invention relates to bob-sleighs, and has for its object to provide a device of this character that will overcome to a great extent the jars to which they are subjected by swivelly mounting the runners so that they will dodge obstructions as well as accommodate themselves to unevennesses in the road.

In logging through woodland, hauling over rough farm-land, as well as teaming over country roads many obstructions—such as stones, stumps, roots, &c.—are liable to be encountered, and also ruts and mounds, so that a set of runners that are flexibly mounted so as to dodge around any obstructions that may be encountered or accommodate themselves to surface unevennesses would not only add to the safe carrying of the load, but also to the life of the structure.

The advantages of my invention will fully appear hereinafter and by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a pair of runners embodying my invention; Fig. 2, an enlarged side view of a portion of a runner, and Fig. 3 a cross-section through one of the runners.

Referring to the drawings, in which similar reference characters indicate corresponding parts throughout the several views, A represents the runners shod with the iron bands B.

C represents the knee-pedestals, which are secured to the top of the runners A by means of bolts D, passing through ears c, extending downward from the pedestals C, while E represents the pivot-pins secured to the pedestals C by means of nuts F, secured on a threaded extension e on said pins E, said bolts being countersunk in the top of runners A, as shown in Fig. 3. The central portion of pins E are made larger in diameter than the ends, as shown at G, the bottoms of said central portions resting on the pedestals C, while the upper end forms a shoulder to hold the free end of strengthening-braces H, secured to the top of runners A, in the desired position.

I represents the bolster connecting the pins E, J being the holes to receive said pins. K represents the hole to receive the king-pin to secure the sleigh-body to the runners. The holes J and K are made considerably larger than the pins E and the king-pin, (not shown,) so as to permit side play of the runners in passing over unevennesses in the road.

L represents the draft-chain secured over hooks M on the top of the runners, and N a spreader-bar pivotally connected to the front of the runners A by means of eyebolts O, passing through said runners.

Having thus described my invention, what I claim is—

1. A knee for bob-sleighs consisting of a pedestal resting on the top of the runner, downwardly-extending ears resting against the sides of the runner, bolts passing transversely through the runner and said ears, a pin secured through the top of said pedestal having an enlarged central portion resting on said pedestal, and a brace secured to the runner and over said pin, substantially as shown and described.

2. In a bob-sleigh, the combination with runners, suitable draft connections, and a pivoted spreader-bar, of knees consisting of pedestals resting on the top of said runners, downwardly-projecting ears through which pass transverse securing-bolts, pins secured through the top of said pedestals, and brace-rods secured to the top of said runners and loosely fitting on the pins aforesaid, and a bolster loosely mounted on said pins, substantially as shown and described.

3. In a bob-sleigh, the combination of the runners, draft connections, and a pivoted spreader-bar, of knees consisting of pedestals resting on the top of said runners, downwardly-extending ears through which pass transverse securing-bolts, pins secured through the top of said pedestals having enlarged central portions resting on the top thereof, and brace-rods of flat metal secured at one end to the runners forward of the pins and having their other ends provided with an opening to receive the top of the pins, and a bolster having openings to receive said pins, said openings being appreciably larger in diameter than the pins, substantially as shown and described.

4. In a bob-sleigh, the combination of independently-movable runners, a draft-chain secured to both runners, a spreader-bar connected by eyebolts to the front of said runners, knees secured through the sides of the runners, and a bolster pivotally connecting said knees, substantially as shown and described.

5. In a bob-sleigh, the combination with independently-movable runners, a draft-chain secured to both runners, a spreader-bar connected by eyebolts to the front of said runners, of knees consisting of pedestals resting on the top of said runners, downwardly-projecting ears resting against the sides of said runners, transverse bolts secured through said ears and runners, and pins secured through the top of said pedestals, and a bolster loosely mounted on said pins, substantially as shown and described.

6. A sleigh-knee comprising a pedestal, downwardly-projecting ears thereon to fit on each side of a sleigh-runner, bolts passing through said ears and the runner, a pivot-pin

secured to said pedestal having an enlarged portion next to said pedestal, and a strengthening-brace secured to the runner and having a hole in its free end through which the pivot-pin extends, substantially as shown and described.

7. A sleigh-knee comprising a pedestal, downwardly-projecting ears thereon to fit on each side of a sleigh-runner, bolts passing through said ears and the runner, a pivot-pin secured to said pedestal having an enlarged portion next to and seated upon said pedestal, and a smaller portion above said larger portion, and a strengthening-brace secured to the top of the runner ahead of the pedestal and having a hole in its free end to register with the smaller end of said pivot-pin, substantially as shown and described.

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

ISAAC K. STORMS.

Witnesses:

DAVID M. DE VORE,
EVA M. MCNAMARA.