

(No Model.)

M. PAYNE.
SLEIGH.

No. 462,579.

Patented Nov. 3, 1891.

Fig. 1.

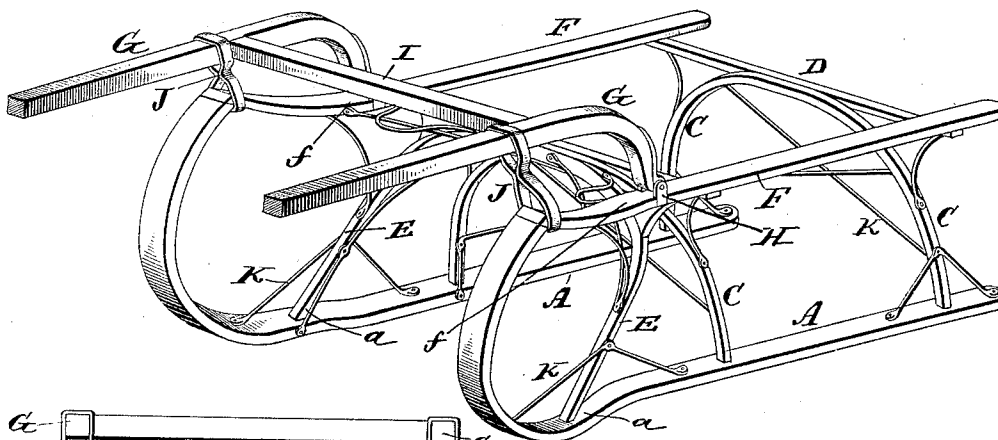


Fig. 2.

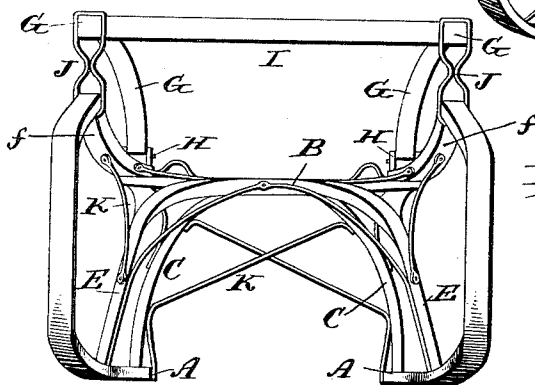
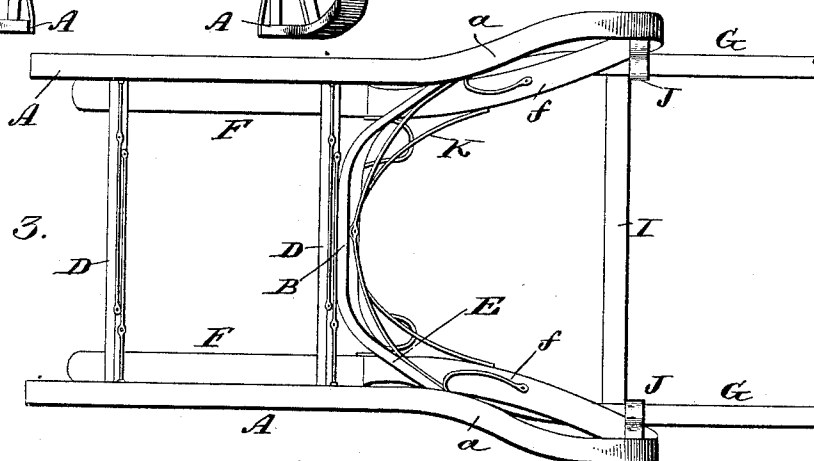


Fig. 3.



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UNITED STATES PATENT OFFICE.

MARTIN PAYNE, OF TROY, NEW YORK.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 462,579, dated November 3, 1891.

Application filed May 16, 1891. Serial No. 393,004. (No model.)

To all whom it may concern:

Be it known that I, MARTIN PAYNE, a citizen of the United States, and a resident of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Sleighs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved sleigh. Fig. 2 is a front elevation of the same; and Fig. 3 is a plan view of the under side of the sleigh, showing more clearly the diverging front ends of the runners.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to sleighs and sleds, and has for its objects to so construct the sleigh that the horse may be brought up close to the front end of the sleigh between the shafts thereof without danger of knocking against the upwardly-projecting front ends of the runners and at the same time to ease the pull when the sleigh is drawn uphill or over uneven ground.

With these objects in view my improvement consists in the novel construction and arrangement of the runners, shafts, and bearing-straps connecting the sleigh to the shafts, substantially as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, the letter A designates the straight tread or bearing-face of the runners, and C the curved knees or stanchions connecting the runners to the benches D, upon which the body or platform (not shown on the drawings) is placed. An oblique-arched brace E spans the forward ends of the runners, leaning backward and connected at its crown or highest middle part B to the front side of the forward arched stanchion C. At about the point where the lower ends or legs of this rearwardly-inclined brace E is stepped into or fastened to the runners the latter are flared laterally in an outward direction, so as to diverge from each other, as shown more clearly at *a* in Fig. 3, and the parallel side bars F are similarly

diverged, as shown at *f*, to conform to the divergence or flare of the runners, which are connected at their upper ends to the extreme outer ends of the side bars.

The shafts shown at G are coupled by shackles H to the upper side of the side bars F, back of the point where these commence to flare outwardly or at a point distant from the front end about one-third the length of the sleigh. At the point where the shafts pass or overlap the front end of the runners they—*i. e.*, the shafts—are connected by a cross bar or brace I, in front of which they are inserted through loops or flexible bearing-straps J, of leather or other suitable material, said straps being fastened, one on each side, at the point where the runners are connected to the flaring ends of the side bars and bearing with their upper free ends against the cross-bar J.

The sleigh may be "ironed" by braces K, consisting of thin rods of steel or iron, in any approved manner to give the requisite degree of strength and stiffness commensurate with as little weight as possible.

By diverging the front ends of the runners and side bars in the manner described I considerably increase the width of the front end of the sleigh to which the horse is hitched without increasing the width of the track or tread, as the divergence of the runners begins only at the point where these commence to curve or rise. By coupling the shafts to the side bars a considerable distance back, instead of near the front end, as usual, I ease up on the draft when the sleigh is pulled uphill or drawn over steep or uneven ground, the play of the shafts being at the same time limited or regulated by the loops or bearing-straps J, so that when going uphill the direct draft or upward pull will be at the extreme forward end of the sleigh. I thus construct a sleigh or sled which will always run easy and cause no undue strain upon the horse.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. As an improvement in sleighs or sleds, the runners flared outwardly from the point where the upward curve or rise commences to their top, substantially as and for the purpose set forth.

2. In a sleigh or sled, the combination of

the runners having diverging front ends, with the parallel side bars flared outwardly at their front ends and connected at the point of their greatest divergence to the top of the flaring runners, substantially as and for the purpose set forth.

3. The combination, in a sleigh or sled, of the outwardly-flaring runners, the diverging side bars, the shafts coupled to said side bars back of the point where their divergence commences, and the flexible loops or bearing-

straps, all constructed and combined substantially in the manner and for the purpose herein shown and described.

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

MARTIN PAYNE.

Witnesses:

CHARLES E. LANSING,
GEORGE L. HOLCOMB.