N. CORSON.
Sleigh.

No. 197,103. Patented Nov. 13, 1877.

Fig 1

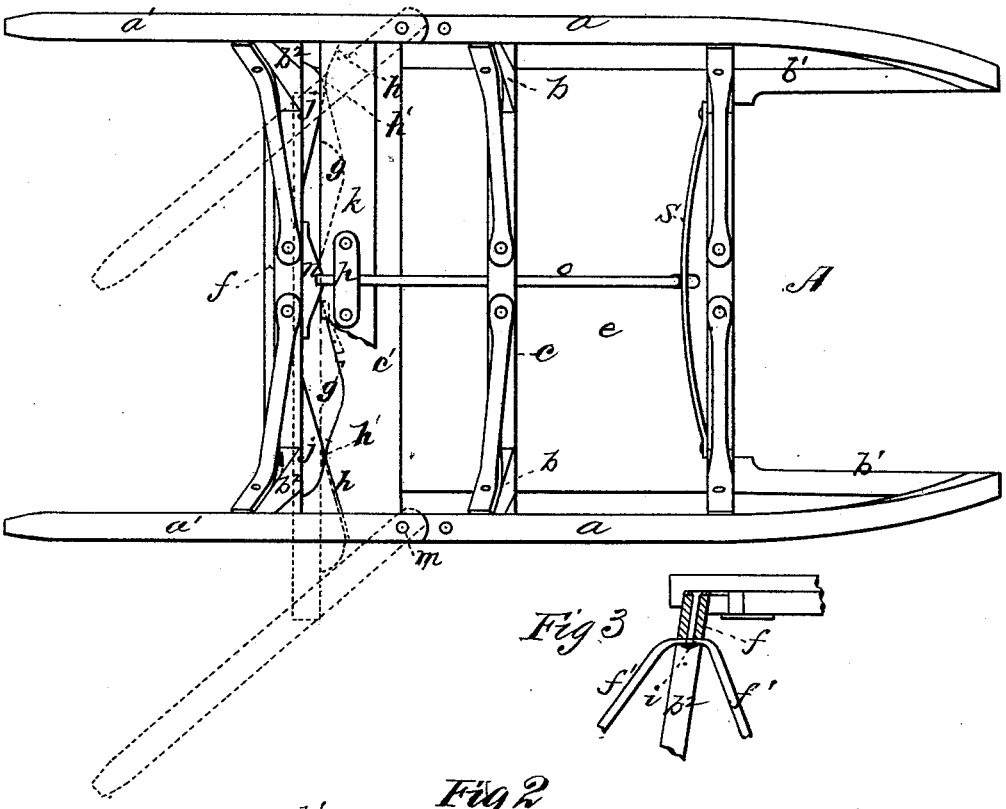
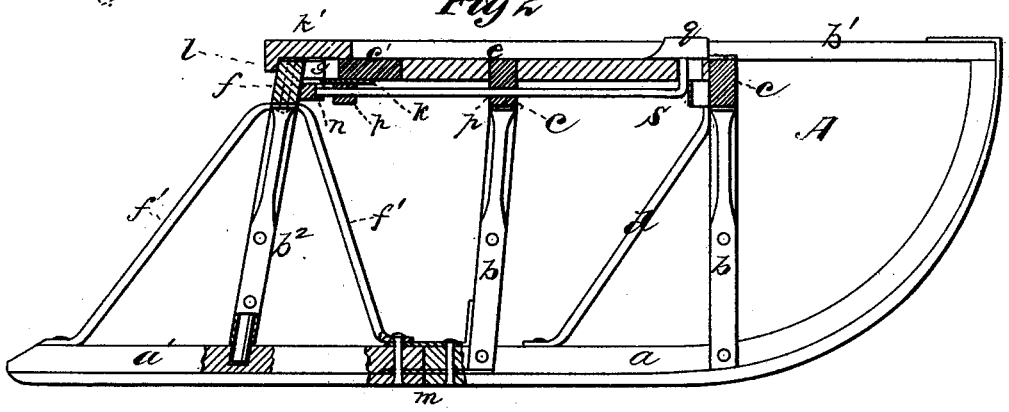


Fig 3

Fig 2



WITNESSES
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NAHUM CORSON, OF ROCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **197,103**, dated November 13, 1877; application filed July 21, 1877.

To all whom it may concern:

Be it known that I, NAHUM CORSON, of Rochester, in the county of Strafford and State of New Hampshire, have invented a new and valuable Improvement in Sleighs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a bottom view of my improved sleigh. Fig. 2 is a longitudinal vertical section thereof, and Fig. 3 is a detail view.

This invention has relation to improvements in sleighs.

The object of my invention is to improve horse-sleighs, so that they may readily and safely turn sharp curves or around corners, and all danger of capsizing will be prevented.

To this end the nature of the invention consists in combining, with the frame of the sleigh and its runners, a rear extension of the said runners, that is pivoted thereto and provided with knees, connected by a transverse bar having spaced latches or lugs, working in a groove in the rear cross-beam of the frame, whereby the rear runner-extension and its knees and cross-bar are allowed to swing to either side in turning.

It also consists in combining, with a sleigh having a swinging rear extension hinged to the sleigh by its runners, a catch upon the cross-bar of the said extension, and an endwise-movable spring-actuated latch-bar, which, when engaged with the catch, prevents the extension from swinging to either side, as will be hereinafter more fully explained.

In the annexed drawings, the letter A designates an ordinary sleigh, having the usual runners *a*, the knees *b*, the rails b^1, the cross-beams *c*, and metallic brace-rods *d*, the cross-beams being covered with the flooring *e*.

As shown in Fig. 1, the runners *a* terminate somewhat short of the sleigh-frame at their rear, the full length thereof being supplied by means of supplemental runners *a′*, hinged by means of a rule-joint, preferably, to the rear end of the said runners *a*. The extension-runners support the knees b^2, rigidly tenoned into and secured to the cross-beam *f*, and loosely tenoned into the said runners *a′*.

The lower ends of the knees b^2 are held to their engagement with the runners by means of a V-shaped metallic brace, *f′*, the apex of which is swiveled by means of a bolt, *i*, to the end of the cross-beam *f*, and the lower ends of which are rigidly bolted to the said runner.

The rear cross-beam *c′* of sleigh A is provided upon its rear edge, at each side of the middle of the length, with recesses *g g*, of curved form, and its ends are beveled off, as shown at *h*, the beveled surfaces being connected with the concave recesses by convex curved surfaces *h′*. The general appearance of the rear edge of this beam is, therefore, serpentine.

The cross-beam *f* of the swinging runners *a′* is provided with spaced projections *j*, of the same general form as recesses *g*, that are tangential to the convex surfaces *h′*, when runners *a* and *a′* are in line with each other. These projections bear upon an overlapping, preferably metallic, plate, *k*, and are covered in above by a board, *k′*, that extends over the cross-beam *f*, and is provided with a cleat, *l*, that not only prevents the separation of beams *f* and *c′*, but also prevents snow, ice, or other foreign matter from getting in between them.

In turning a corner the runners *a′* swing upon their hinges *m*, and cause the turn to be made with safety and ease, this result being due to the journaling of the knees in the said runners, and to the peculiar connection of the cross-bar of the said runners and the rear one of the sleigh, which allows the former a sufficient degree of endwise play.

Beam *f*, midway of its length and upon its front edge, is provided with a centrally-notched and doubly-beveled catch, *n*, and the sleigh-body, upon its under side, with an endwise-movable metallic latch-rod, *o*, actuated by means of an elliptic or other suitable spring, S. When the runners *a′* straighten out after the sleigh has completed a turn, the end of this latch-rod strikes against one of the beveled faces of the latch, which is moved against it by the endwise movement of the beam *f*. The spring yields, and, when the said rod is in line with the notch, reacts, thereby engaging it therewith, and preventing the rear extension from swinging from side to side.

The latch-rod is supported by hangers *p*, and its front end extends up through a slot in the bottom of the sleigh, and is provided with a foot-plate, *q*. By pushing this plate to the front, the occupant of the sleigh can at any time disengage the latch from the catch.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a sleigh, of a horizontally-vibrating rear extension and a catch therefor, the runners of said extension being pivoted to those of the sleigh, substantially as specified.

2. The combination, with the sleigh having the recessed end beam *c'*, of the rear extension, having its runners pivoted to the sleigh-runners *a*, and its cross-beam *f*, having projections engaging said recesses, substantially as specified.

3. The combination, with the sleigh A and its horizontally-swinging rear extension, of a catch, and an endwise-movable latch-rod engaging said catch, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

NAHUM CORSON.

Witnesses:

CHARLES S. ELA,

EZRA STAPLES.