E. L. NYLUND.

SLED.

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1,238,431. Patented Aug. 28, 1917.

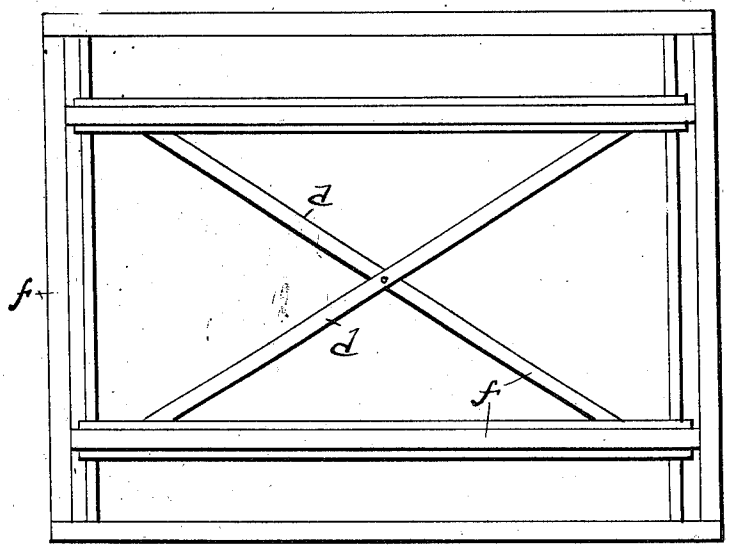


Fig. 1.

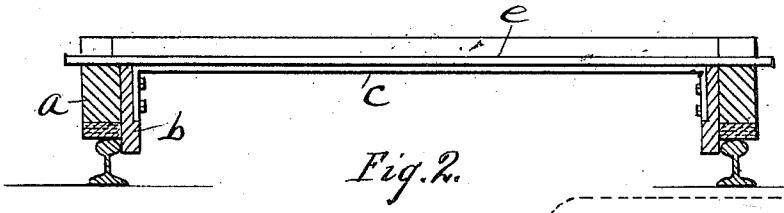


Fig. 2.

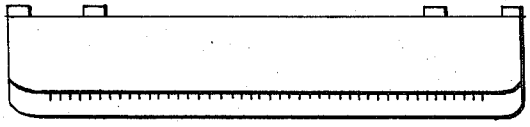


Fig. 3.

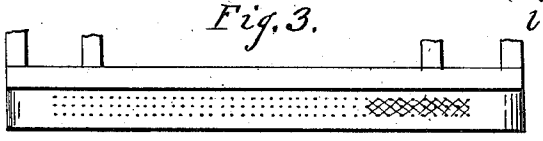


Fig. 4.

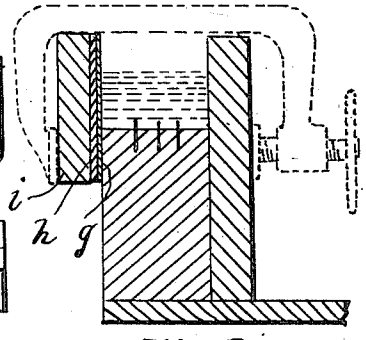


Fig. 5.

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SLED.

1,238,431. Specification of Letters Patent. Patented Aug. 28, 1917.

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To all whom it may concern:

Be it known that I, ERIK L. NYLUND, a citizen of the United States, residing at Crystal Falls, county of Iron, State of Michigan, have invented a certain new and useful Improvement in Sleds, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to sleds for use on railroad or railway lines. In northern climates where the sleighing lasts a large portion of the winter it is feasible to have a sled provided with ice runners calculated to run on rails. Of course the sled can be drawn by any suitable animal or might be propelled by the aid of an aeroplane propeller. This, of course is immaterial as the invention resides in the sled itself.

In the drawings,—

Figure 1, is a top plan view of a skeleton of the sled, the platform boards being omitted.

Fig. 2, is a cross-section.

Fig. 3, is an outside elevation of one of the runners.

Fig. 4, is a detail of one of the runners inverted.

Fig. 5, is a cross-section and enlarged detail showing how the ice runner is cast upon the sled.

In building a sled of this character exact details of the construction are not of moment as these could be varied within considerable limits without departing from the gist of the invention. However, I have shown a convenient skeleton frame for a sled embodying my invention. It comprises the two heavy uprights *a*, *a* which support the runners. To these uprights are secured by bolts or otherwise a pair of metal flanges *b*, *b* which drop down below the uprights *a* and are located on the inside of the uprights to serve the same purpose as the flanges on car wheels. The two uprights are joined by metal braces *c* turned over at their ends and countersunk into the flanges *b* to which they are bolted. Diagonal metal braces *d* meet to form an X to connect these cross-braces *c* near their ends. This forms a very strong skeleton structure. The platform boards *e* may be laid upon the braces and the uprights and secured to the skeleton frame by means of a frame *f* of 2x4's.

However, the chief feature of this invention resides in the peculiar runner. We have already noted that the runner comprises an upright *a* and a flange *b*. Into the bottom of the upright *a* may be driven a great number of spikes or nails, as indicated in Figs. 3 and 4 and these may be interlaced with cord as indicated in Fig. 4. When this has been done the runner may be inverted into the position shown in Fig. 5 and a wall clamped into the outside of the upright, which wall can be made up of a sheet of paper *g*, a metal strip *h*, a piece of lath *i* or any other suitable way. The clamp indicated in this figure may then be clamped over the flange and the temporary wall forming a channel. The ends of this channel may be plugged up in any suitable way. It has been thought unnecessary to show this. Lard has been found to be suitable for doing this. Water may then be poured into this closed channel and allowed to congeal, thereby forming a runner of ice cast directly onto the side uprights of the sled and held directly thereto by means of the spikes and intertwining cord. As soon as the water is formed into solid ice this temporary wall may be removed. The paper will allow the wall to be removed without sticking to the ice runner.

What I claim is:

1. A sled having side uprights provided with depending flanges and means on the bottom of the uprights for retaining a runner of ice cast thereon.

2. A sled having side uprights and spikes driven into the bottom of the uprights for the purpose specified.

3. A sled, having in combination a skeleton frame, including side uprights, flanges bolted to the insides of the uprights and spikes driven into the bottom of the uprights for the purpose specified.

4. A sled, having in combination, a skele-

ton frame including side uprights, spikes driven into the bottom of the uprights, and an intertwined linear member winding through the spikes for the purpose specified.

5. A sled, having in combination, a skeleton frame including side uprights, flanges secured to the inside of the uprights, and members projecting from the bottom of the side uprights for the purpose of retaining a cast runner of ice.

In testimony whereof, I sign this specification.

ERIK L. NYLUND.