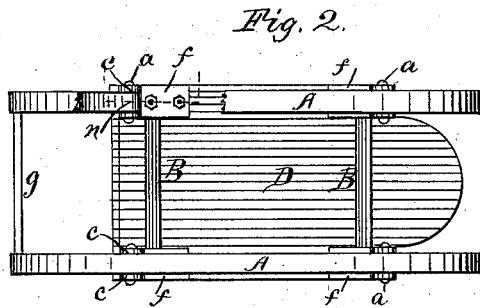
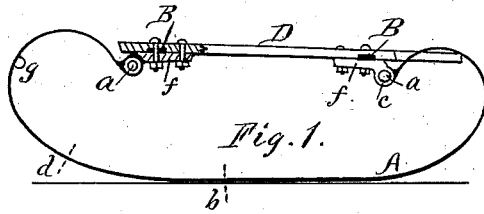


T. GRAETHER.  
Sled.

No. 201,519.

Patented March 19, 1878.



Witnesses.

J. Chase  
Henry & White

Inventor.

Theodore Graether  
By Wood, Goughborough  
Atty

# UNITED STATES PATENT OFFICE.

THEODORE GRAETHER, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN SLEDS.

Specification forming part of Letters Patent No. 201,519, dated March 19, 1878; application filed November 30, 1877.

*To all whom it may concern:*

Be it known that I, THEODORE GRAETHER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Sleds; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side sectional elevation of my invention. Fig. 2 is an inverted view of the same, that portion of one runner between the dotted lines *b d* in Fig. 1 being broken away to expose the devices for coupling the runners to the body.

The object of this invention is to provide a cheap and substantial spring-runnered sled for coasting, &c.

It consists in the employment, in spring-runnered sleds, of metallic cross-beams in connection with the wooden platform, the runners, and the hinge coupling-jaws.

I preferably employ steel in the formation of the runners *A*. Their ends are turned over, as shown in Fig. 1, much like the ordinary C-spring, and an eye is formed at each extremity to receive the coupling pins or bolts *a*. The coupling-jaws *f* are each provided with two projecting ears, *c*, between which are placed the ends of the runners, the ears also being perforated to receive the bolts *a*, by which the runners and jaws are firmly connected together by a rolling or hinge joint. The jaws are at-

tached to the bed or platform *D* by suitable bolts, as shown.

There is a plate or bar, *B*, preferably of metal, extending from side to side of the platform at front and rear, and each end receives one of the bolts which secure the jaws *f* to said platform, as shown more clearly in Fig. 1. They support the platform and secure the parts rigidly in their proper relative position.

The brace-rod *g* may be made of either wood or metal. This rod is quite important as a brace to support the runners against lateral or side thrusts or strains. There might be one attached to the rear also, if desired.

It will be seen that the effect in passing over obstructions, elevations, depressions, &c., with this style of runner will scarcely produce a jostle, on account of the spring or flexibility of the runners.

It might be found desirable to connect either the front or the rear end of the runners rigidly to the bed or platform by means of the ordinary knees and cross-beam.

What I claim as my invention is—

In a spring-runnered sled, the combination of the platform *D* and cross beams or plates *B* with the coupling-jaws *f* and runners *A*, substantially in the manner and for the purposes set forth.

THEODORE GRAETHER.

Witnesses:

WM. S. LOUGHBOROUGH,  
A. L. MABBETT.