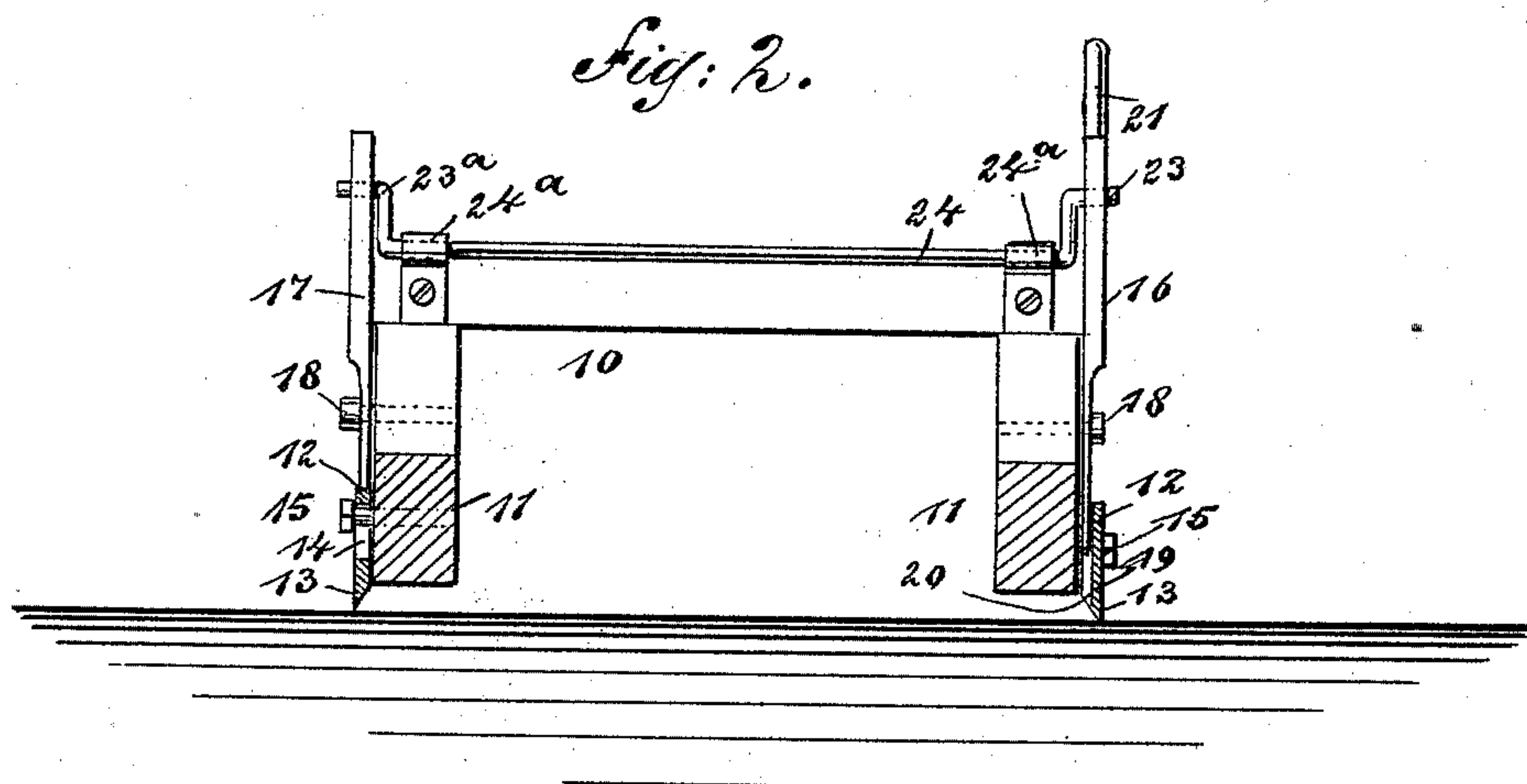
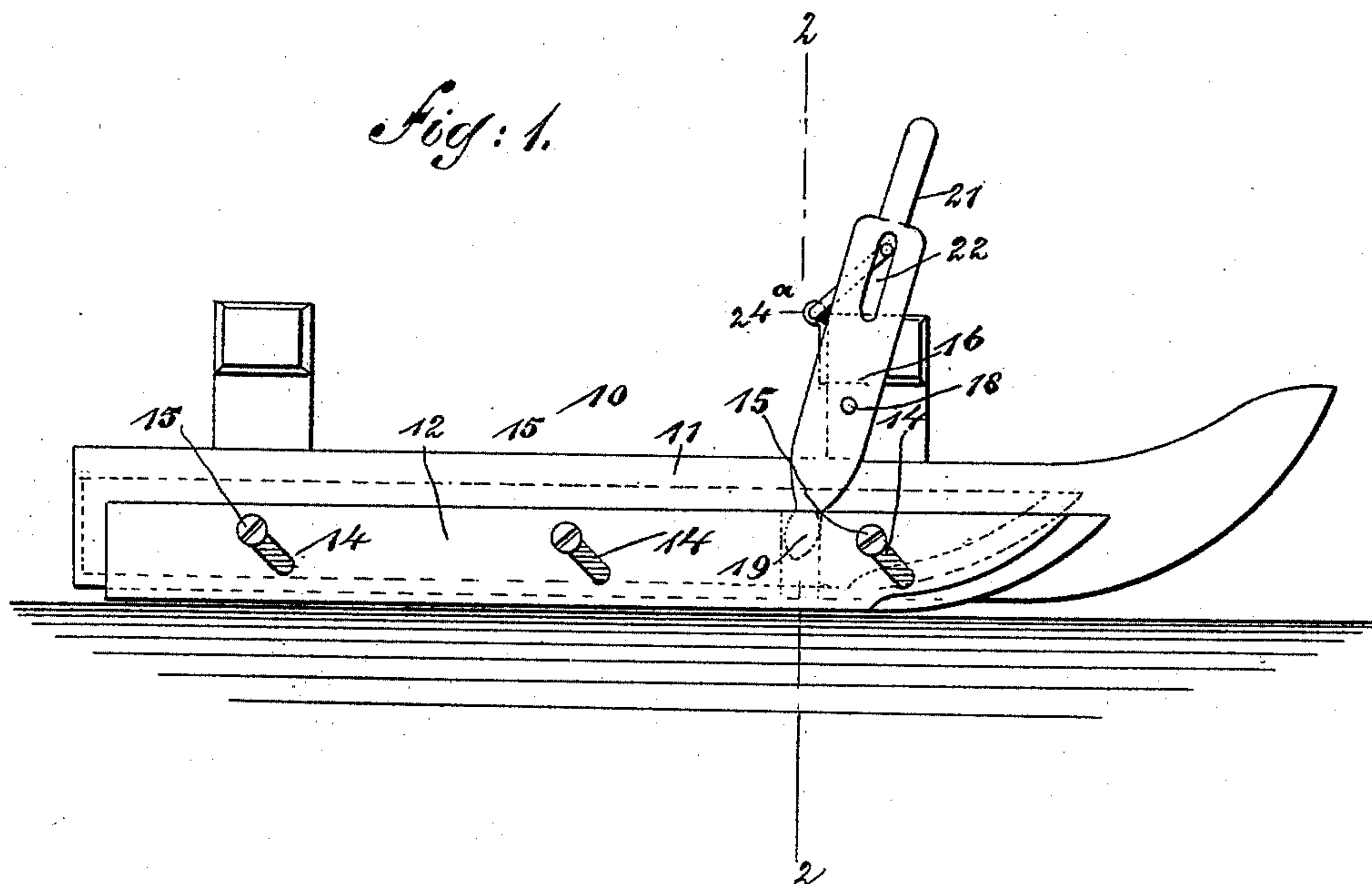


(No Model.)

C. N. HARTLING.
SLEIGH GUARD.

No. 497,174.

Patented May 9, 1893.



WITNESSES:

Chas. Nida.
C. Sedgwick

INVENTOR

C. N. Hartling

BY

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UNITED STATES PATENT OFFICE.

CHARLES N. HARTLING, OF HALIFAX, CANADA.

SLEIGH-GUARD.

SPECIFICATION forming part of Letters Patent No. 497,174, dated May 9, 1893.

Application filed June 1, 1892. Serial No. 435,158. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. HARTLING, of Halifax, in the Province of Nova Scotia and Dominion of Canada, have invented a new and Improved Sleigh-Guard, of which the following is a full, clear, and exact description.

My invention relates to improvements in sleigh guards, although the guard may be used upon any vehicle which is adapted to run upon snow or ice, and the object of my invention is to produce a simple, cheap and durable guard which may be conveniently attached to the shoes or runners of any sleigh, pung, sled or similar vehicle, and which may be easily operated by a rider so as to throw the guards below the shoes or runners of the vehicle and cause them to engage the ice or snow so as to prevent the vehicle from slueing. On icy roads the attachments are especially valuable, as it is well known that the roads frequently become uneven, being higher on one side than on the other, and consequently the sleighs or other vehicles are very likely to slue or slide sidewise on the roads, thus making traveling dangerous, as meeting vehicles are likely to collide and the vehicle is also in danger of tipping over and spilling the occupants. But with my attachments the vehicle may be made to run perfectly straight and in such a way that the guard will not act as a brake, and will not in any way interfere with the easy running of the vehicle.

To this end, my invention consists in a sleigh guard, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both views.

Figure 1 is a side elevation of the guard embodying my invention, as applied to the running gear of a sleigh or pung; and Fig. 2 is a cross section on the line 2—2 in Fig. 1.

The running gear 10, may be of any ordinary construction, and as shown, it is provided with shoes or runners 11. To the outer side of each shoe 11 is held a guard or plate 12, which extends longitudinally of the runner, and is provided with a sharp lower edge 13, which is adapted to engage the snow or ice, as shown in the drawings. The blade

should be long enough to have a good bearing upon the snow or ice, and high enough to have a strong connection made between it and the shoe or runner 11. Each blade 12 is provided with slots 14, which extend diagonally upward from near the lower portion of the blade and these slots receive bolts 15, which serve to attach the blade to the runner, and the blade may be moved up and down on the bolts so as to be thrown into engagement with the snow or ice, or lifted above the bottom of the shoe or runner 11.

Pivoted on the outer sides of the running gear, and preferably on opposite standards are levers 16 and 17, these being fulcrumed, as shown at 18, and having their lower ends 19 reduced and made to enter slots 20 in the blade 12. The lever 16 has its upper end formed into a handle 21, which is placed within reach of the driver or rider in the vehicle. The lever 16 has a longitudinal slot 22 near its upper end, which receives a crank 23 formed on one end of a rod 24, which rod extends transversely across the vehicle, being journaled in suitable bearings 24^a, and at its opposite end it has a crank 23^a, which is made to enter a slot in the lever 17, similar to the slot 22 shown in Fig. 1.

The operation of the guard is as follows: For ordinary use on level and not very slippery roads, the handle 21 of the lever 16 is thrown forward, and this tilts the lever 16 and pushes one of the blades 12 backward and upward so as to raise it above the bottom of the shoe or runner 11, and at the same time it pulls the crank rod 24, and imparts the same movement to the lever 17 and the blade 12 on the opposite side of the vehicle. When the road is slippery and inclined to one side, the opposite movement is given to the levers 16 and 17, thus throwing the blades 12 downward and forward and causing their edges to strike the ice or snow below the runners, and the said edges 13, by cutting into the ice or snow, will effectually prevent the vehicle from slueing.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a sleigh or like vehicle, of flat elongated blades or auxiliary runners lying flatwise against the sides of the

runners and extending longitudinally there-
along, and means for raising and lowering the
blades; whereby when the blades are lowered
they will serve as runners and prevent lateral
5 movement of the vehicle, substantially as set
forth.

2. The combination with the vehicle run-
ners, of the thin flat blades or auxiliary run-
ners provided with slots, screws or pins ex-
10 tending through said slots and securing the
blades flatwise to the runners, and means for
raising and lowering the blades, whereby
when lowered the blades will serve as runners
and prevent lateral movement of the vehicle,
15 substantially as set forth.

3. The combination, with the running gear
of a sleigh, pung or similar vehicle, of verti-
cally movable blades having sharp lower edges
held to the sides of the shoes or runners, a
handle lever fulcrumed on one side of the 20
running gear and pivotally connected with
the opposite blade, and a crank rod extending
transversely across the running gear and hav-
ing end cranks connecting with the levers,
substantially as described.

CHARLES N. HARTLING.

Witnesses:

HEBER HASTLEN,
JOSEPH IRWIN.