

UNITED STATES PATENT OFFICE.

M. B. LORD AND S. J. LORD, OF ELLSWORTH, MAINE.

BRAKE FOR SLEIGHS.

Specification of Letters Patent No. 31,671, dated March 12, 1861.

To all whom it may concern:

Be it known that we, M. B. LORD and S. J. LORD, both of Ellsworth, in the county of Hancock and State of Maine, have invented a new and Improved Sled; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a plan or top view of our invention. Fig. 2 is a longitudinal vertical section of the same, the line x, x , Fig. 1, indicating the plane of section.

Similar letters of reference in both views indicate corresponding parts.

Sleds of the ordinary construction, when running down hill, are liable to slue and run against the team. By this motion the sleds are brought in a dangerous position, and furthermore the team when struck by the sled is apt to become unruly. For these reasons it is desirable to have the sled so arranged that the same on going down hill is kept straight behind the team and prevented from sluing. Such is the object of our invention, which consists in the arrangement of two hinged cams or teeth, one on each runner and connected to arms which are attached to the draft pole in such a manner that said teeth are forced down into the ground as soon as the sled in going down hill crowds upon the team, and that in backing or turning, said cams do not interfere with the motion of the sled.

To enable those skilled in the art to make and use our invention, we will proceed to describe its construction and operation, with reference to the drawing.

The runners A, are connected by the cross-timbers B, in the usual manner. The beam C, to which the draft-pole D, is secured, is attached to the front ends of the runners by means of pivots a , bent twice at right angles in the form of ordinary cranks. The ends of each of these cranks turn loosely one in the end of the runner, and the other in the end of the beam, and those ends of said cranks nearest to the beam form the bearings for arms E, which extend down on the inside of

the runners being connected by a cross-bar F, and being guided by staples b , inserted in the inner sides of the runners. Stops c , which project from the edges of these arms, by striking against these staples limit the motion of said arms in either direction.

The cams or teeth d , which serve to stop the forward motion of the sled, are secured to the ends of the arms E, by means of pivots e , and these cams are provided with stops f , which by coming in contact with the ends of the arms, prevent said cams turning up in one direction while they allow them to turn in the opposite direction. As long as a strain in a forward direction is exerted on the draft pole, the arms E, are drawn forward to the position shown in black outlines in Fig. 2, and the cams d , are raised from the ground so as not to interfere with the motion of the sled. But if, on going down hill, the sled crowds on the team, so as to exert a strain on the draft pole in a backward direction, the arms E, are forced down to a position shown in red outlines in Fig. 2, and the cams, which now project beyond the lower edges of the runners, oppose the forward motion of the sled and prevent it sluing. In backing or turning the sled, the cams turn up in the direction of the arrow marked near it in Fig. 2, and the motion of the sled is not obstructed.

This simple contrivance can be attached with equal advantage to sleds of every construction, and in all cases it will prevent them most effectually from sluing or from running against the team.

Having thus fully described our invention what we claim as new and desire to secure by Letters Patent is:—

The arrangement of the cams d , pivoted to the end of the sliding arms E, and operating in combination with the cranks a , and with the draft-pole D, in the manner and for the purpose specified.

M. B. LORD.
S. J. LORD.

Witnesses:

J. R. JORDAN,
G. W. MADOX.