J. WILLIS.

Sled Brake.

No. 108,545. Patented Oct. 18, 1870.

Fig. 1.

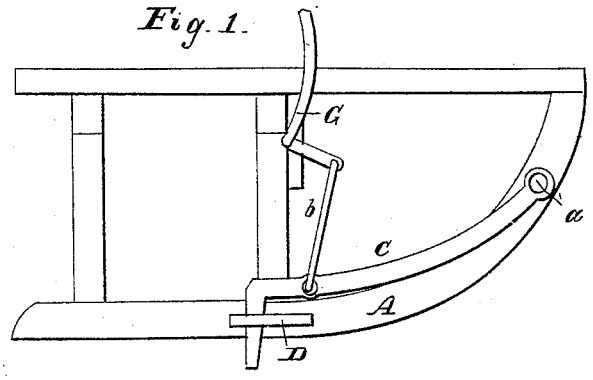
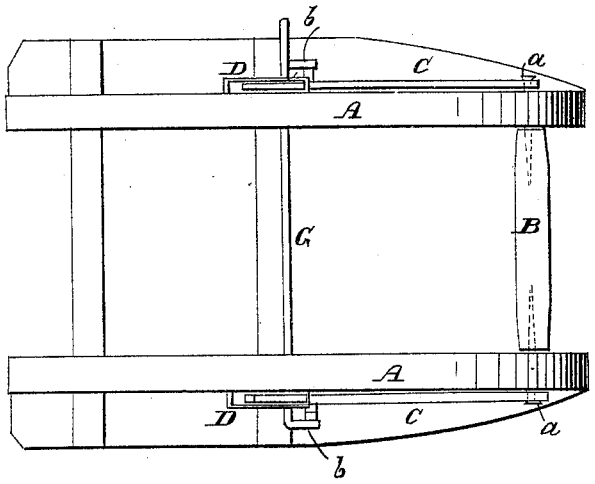


Fig. 2.



Witnesses
John M. Sloops
Ed. Bennett

Inventor
James Willis
per Alexander Mason
attys.

United States Patent Office.

JAMES WILLIS. OF MIFFLIN, WISCONSIN.

Letters Patent No. 108,545, dated October 18, 1870.

IMPROVEMENT IN SLED-BRAKES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES WILLIS, of Mifflin, in the county of Iowa and in the State of Wisconsin, have invented certain new and useful Improvements in Sled-Brake; and do hereby declare that the fol lowing is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "sled-brake," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, and

Figure 2 is a bottom view of a sled with my brake attached.

A A represent the runners of a sled, connected near their front ends by means of the tongue-rod or coupling-rod B.

C C are the dogs, made broad and flat, as shown, and curved similar to the curve on the sled to which they may be attached.

These dogs are secured by means of screws, *a a*, which pass through the runners into the ends of the tongue or coupling-rod B.

When the dogs are in action, they are kept steady and to their places by means of flat plates or steadying-staples, D D, passing outside of the dogs.

These staples can be put horizontal, and may constitute the two lowest T-iron rivets; or they may be put vertical, and constitute the two upper rivets in the sled-stud or knee.

The dogs C C are operated by means of the rock-shaft G, connected with the dogs by the rods *b b*.

The advantages of this invention of brake are many.

It is very simple in construction and very easy to operate.

The lever-power is so great that the operator can hold back a heavy load with the greatest ease; and, in consequence of this, the dogs will not need to be kept sharp, but only hooked or dull, which will make them tear up the road much less than when kept quite sharp.

The sweeping, curved shape of the dogs will prevent the twisting and welting inclination which they would otherwise have, and at the same time give them a nice appearance.

The brakes will be quite out of way of everything, and will not be liable to get broken or twisted sidewise.

This brake will be alike useful for up-hill and down-hill.

This plan of brake will be a great saving of sleds, owing to the fact that all the strain comes on the top part of the sleds, and, in case of any sudden jerks from roots or rocks, it would be counterbalanced by the team, which fully does away with the danger of straining the knees of the sled, as it is so apt to be the case with brakes that are fastened to the runners of sleds.

Having thus fully described my invention,

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

The combination of the dogs C C, tongue or coupling-rod B, staples D D, connecting-rods *b b*, and rock-shaft G, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 20th day of July, 1870.

JAMES WILLIS.

Witnesses:

JNO. HENRY,

JNO. SMITH.