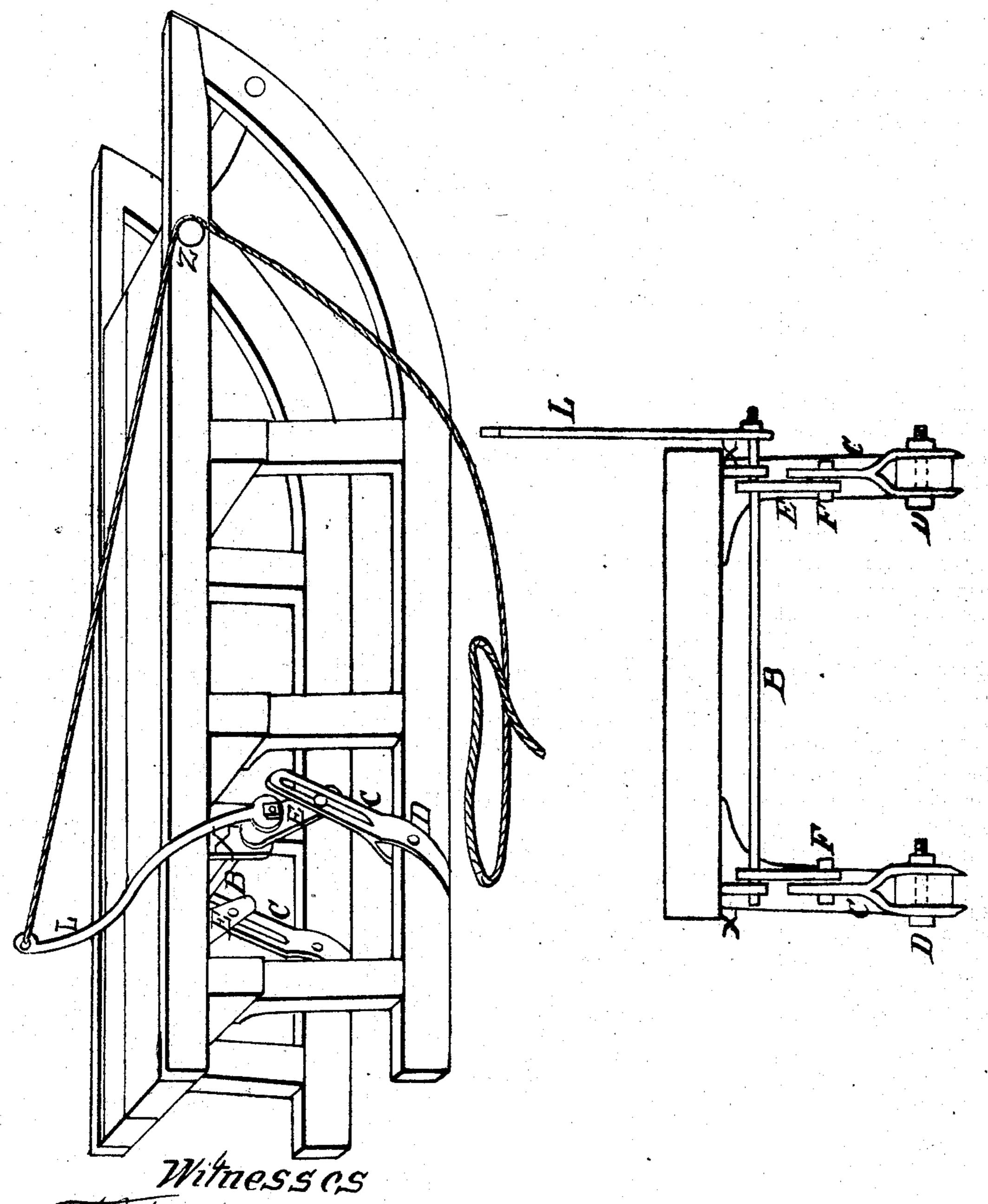
## J. Ast. Sled Brake. Nº467838. Patented Aug. 20. 1867.



Mitnesses Monthly Marke Markle

John John Soll

## Anited States Patent Pffice.

## JOHN AST, OF MAQUOKETA, IOWA.

Letters Patent No. 67,838, dated August 20, 1867.

## IMPROVEMENT IN SLEIGH-BRAKE.

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

Be it known that I, John Ast, of the town of Maquoketa, in the county of Jackson, and State of Iowa, have invented a new and useful Brake for Sleighs; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view. Figure 2, a transverse section.

The nature of my invention consists in attaching to the sleigh-runners two slotted levers C C, bolted through the runners at D. The levers are forked so as to embrace both sides of the runners, forming two curved knife edges, capable of being depressed into the surface of the ground by the operation of the machine. The slotted levers C C are connected by means of the bolt F with the crank-arm E, the crank being secured to the rod or bar B, extending from one side of the sleigh to the other, and having a similar crank on the opposite end operating the forked lever on that side, so that when the rod B is turned in its bearings X X by means of the lever L, the cranks being connected by means of the pins or bolts traversing in the slots of the forked levers C C, will cause them to be depressed simultaneously, thus operating as a brake to retard the motion of the sleigh. The points of forked levers C C are curved toward the back of the sleigh, so that if the sleigh passes over a stone or other obstruction in the road the sleigh will ride over such obstruction without injury to the working parts of the machine. It is many times more convenient for the person driving a loaded sleigh or sled to walk at the side or in the rear in order to operate the brake. In such cases I provide a pulley, z, having a cord attached to the lever L. By pulling on the cord the brake will be set, and by slacking on the line the motion of the sleigh forward will cause the points of the levers C C, holding to the ground, to be thrown back, thus releasing the sleigh from the action of the brake at will.

What I claim as my invention, and desire to secure by Letters Patent, is-

The combination of the cranks E and rod B and lever L with the slotted levers C C, so as to operate substantially as above described.

Witnesses:

Thos. B. Harrison, Rush H. Barnes. JOHN AST.