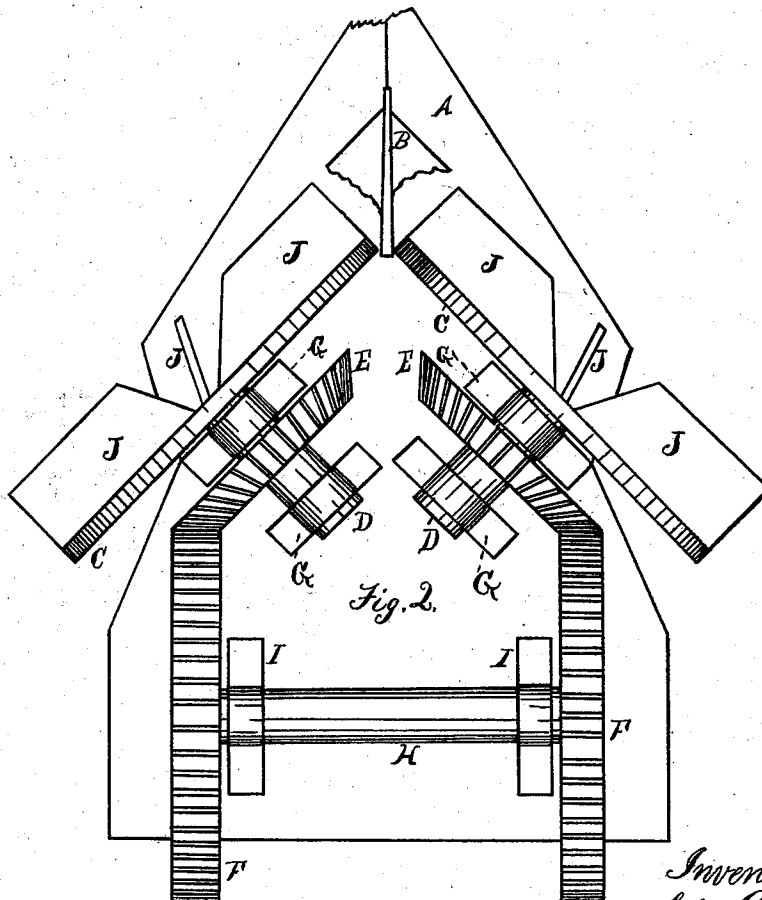
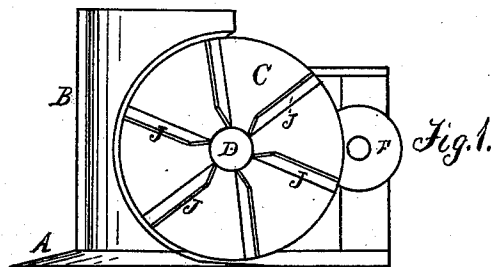


S. G. SMITH.

Machines for Clearing Railways of Snow.

No. 149,688.

Patented April 14, 1874.



Witnesses:-
Frank H. Jordan.
Edgar A. Gordon

Inventor:
Silas G. Smith
per Wm. Henry Clifford
att'y

UNITED STATES PATENT OFFICE.

SILAS G. SMITH, OF HOLLIS, MAINE.

IMPROVEMENT IN MACHINES FOR CLEARING RAILWAYS OF SNOW.

Specification forming part of Letters Patent No. **149,688**, dated April 14, 1874; application filed February 18, 1874.

To all whom it may concern:

Beit known that I, **SILAS G. SMITH**, of Hollis, in the county of York and State of Maine, have invented certain new and useful Improvements in Snow-Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation. Fig. 2 is a top plan, parts broken out, the same being on an enlarged scale from Fig. 1.

Same letters show like parts.

The purpose of my invention is to produce a device to be attached to a locomotive-engine, and operated by the motions of the wheels of said engine, for the purpose of removing snow from railroad-tracks.

The parts of my invention are as follows: A is a base pointed at the forward end and slightly shelving toward either side. This moves over the track, but a slight distance above it. Rising from the base is the prow B, extending off into a V-shape, as illustrated in the drawing. A short distance behind the prow and on each side are the rotary disks C, rigidly set on the shafts D. These shafts have rigidly attached to them the bevel-gears E, which match the driving-gears F. The shafts D have the supports or journals G. The driving-gears are set upon the shaft H, having the bearings I. The rotary disks C have the inclined radial fans J, which operate to throw the snow first parted and separated by the prow to either side of the plow as it advances. It should be observed that the disks are intended to rotate in what may be called a backward direction—that is to say, backwardly or toward the engine, which carries the snow-plow.

The position and arrangement of the fans can best be apprehended by reference to the drawing, but it may be said of them that their arrangement is calculated to prevent the adhering to them of ice and snow.

The V-shape or flaring part of the prow is

provided with a circular recess to prevent the snow being thrown upward or backward upon the engine. The driving-gears are impelled by rods or links connecting them with the proper wheels of the engine for this purpose. The disks C are placed so that their forward ends come nearly together on the front end of the plow, and their rear or the ends near the engine are considerably separated, as shown in the drawing.

If desired, on the inner side of the disks, small fans, similar to those on the outer side, may be attached in order that when the device is drawn backward it will operate to clear the track of any snow that might otherwise tend to retard its movements.

The object of the base is to break and separate any frozen snow or ice that might be near the track.

I do not claim placing the wheels by which the snow is removed from the track obliquely to the direction of the rails; neither do I claim, broadly, imparting motion to the obliquely-placed wheels from the rotation of the engine-wheels. I do not claim snow-removing fans or wheels placed vertically upon a horizontal stand or table, as seen in patent No. 110,446, of 1870, or the combination therein shown of shafts, gearing, and driving-rods; neither do I claim a propeller-screw set upon a horizontal shaft in front of the plow, as shown in the application of G. W. Edwards filed July 3, 1857. My invention consists in the described arrangement of the devices named, for the purposes set forth.

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

The snow-plow composed of the base A, prow B, disks C, carrying the fans J, shafts D, gears E, gears F, and shaft H, all combined to operate as described.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of February, 1874.

SILAS G. SMITH.

Witnesses:

FRANK H. JORDAN,
F. STANWOOD.