S. G. SMITH.

Track-Clearer.

No. 163,893. Patented June 1, 1875.

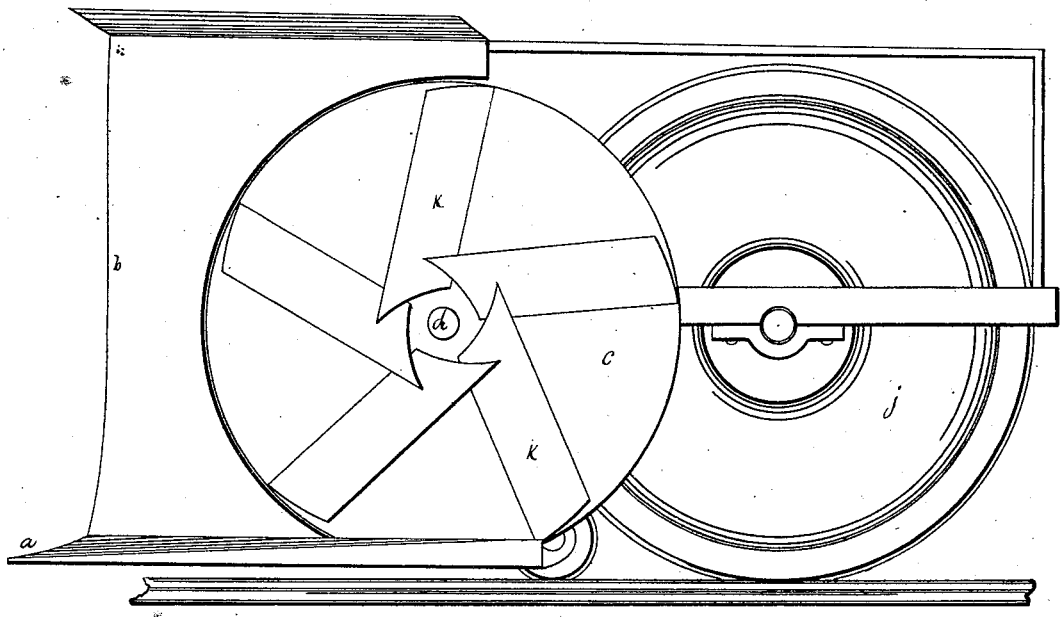

Fig. 1.

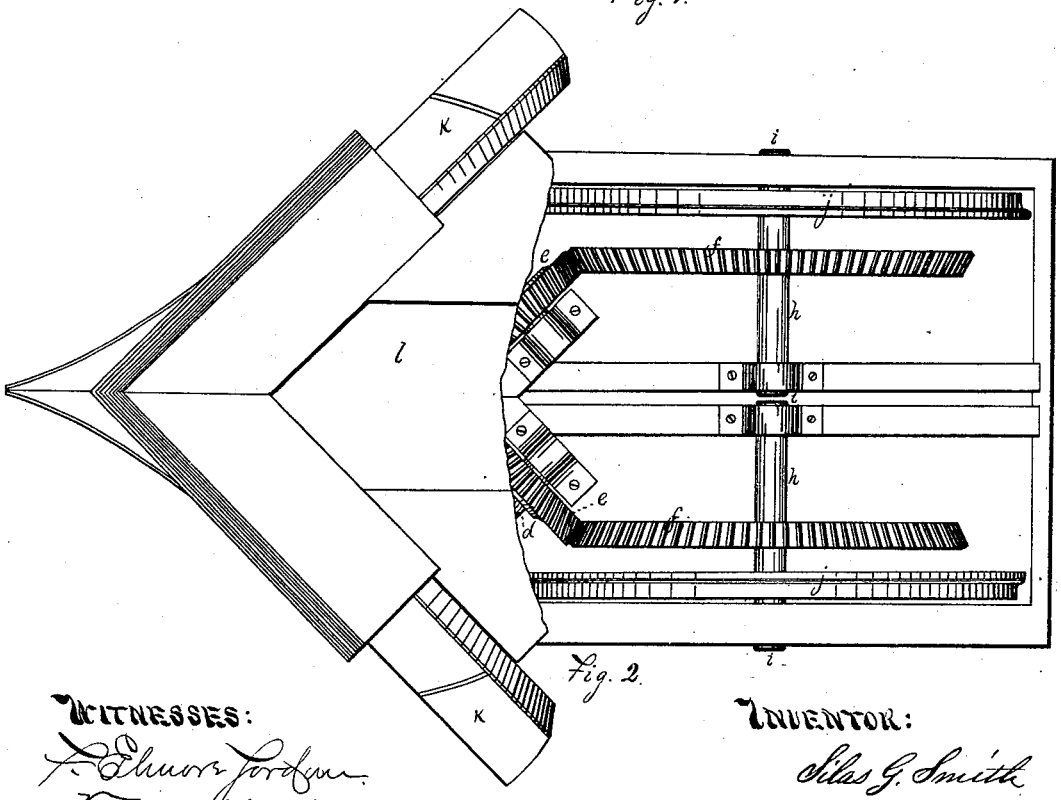

Fig. 2.

WITNESSES:

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atty.

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UNITED STATES PATENT OFFICE.

SILAS G. SMITH, OF HOLLIS, MAINE.

IMPROVEMENT IN TRACK-CLEARERS.

Specification forming part of Letters Patent No. **163,893**, dated June 1, 1875; application filed January 4, 1875.

To all whom it may concern:

Be it 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 Machines for Removing Snow from Railroads; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains 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 a top plan, parts broken out.

Same letters show like parts.

Letters Patent of the United States having already been granted me for an improvement in machines for removing snow from railways, dated April 14, 1874, No. 149,688, the object of this present invention is to produce a means or method of giving a rotary movement to the rotary disks having the radial fans described in said Letters Patent. None of the devices described in said patent are intended to be claimed as this present invention.

I will first enumerate the different parts composing my invention, without any particular reference to their operation.

a is a base, pointed at the forward end and slightly shelving toward either side, and moves over the track a slight distance above it. Rising from the base is the prow *b*, which extends 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 shafts *d*. These shafts have rigidly attached to them the bevel-gears *e*, which match the driving-gears *f*. The inner ends of the shafts *d*, as well as their outer ends, are set in proper supports or journals. The driving-gears *f* are rigidly set on two short shafts, *h*, which are journaled at their outer and inner ends at *i*. On the same shafts with the driving-gears are rigidly set the two large propelling-wheels *j*, which are made to fit the railroad-track. Thus, as the device is driven along the track, motion is imparted from these propelling-wheels to the other parts of the machine before alluded to.

The rotary disks *c* have the inclined radial fans *k*, which operate to throw the snow first parted by the prow to either side of the machine as it advances. These disks are intended to rotate in a backward direction or toward the engine which carries the plow. The position and arrangement of the fans can best be understood by reference to the drawing; but it may be said that their arrangement is such as is best calculated to prevent the adhering to them of ice and snow.

By having the driving-gears with their propelling-wheels set upon two shafts great advantage is obtained in turning a curve, as one wheel is not obliged to turn as fast as the other, but will accommodate itself to the distance to be traveled. Thus no slipping is occasioned.

The machine may have suitable running-gear in the front and rear of the propelling-wheels.

l shows a pit in the upper part of the machine in which any weighty substance may be placed in order to make the friction of the propelling-wheels greater upon the track.

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

The combination of propelling-wheels *j* revolved by contact with the track, short shafts *h*, driving-gears *f*, gears *e*, their shafts, snow-removing disks having radial fans, base *a*, and prow *b*, all as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

SILAS G. SMITH.

Witnesses:

F. ELMORE JORDAN,

FRANK H. JORDAN.