

No. 880,308.

PATENTED FEB. 25, 1908.

J. E. KELLEY.
TRACK SWEEPER.
APPLICATION FILED MAY 24, 1907.

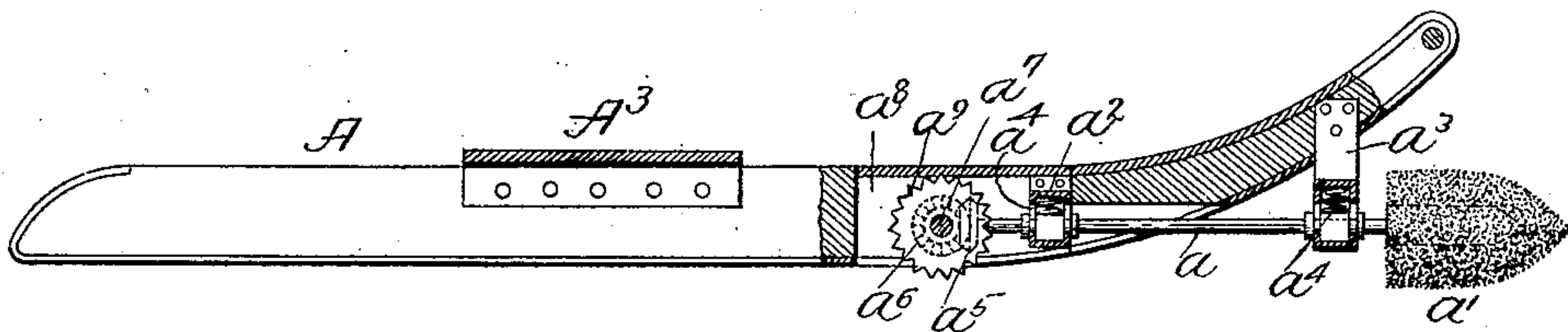


Fig. 1.

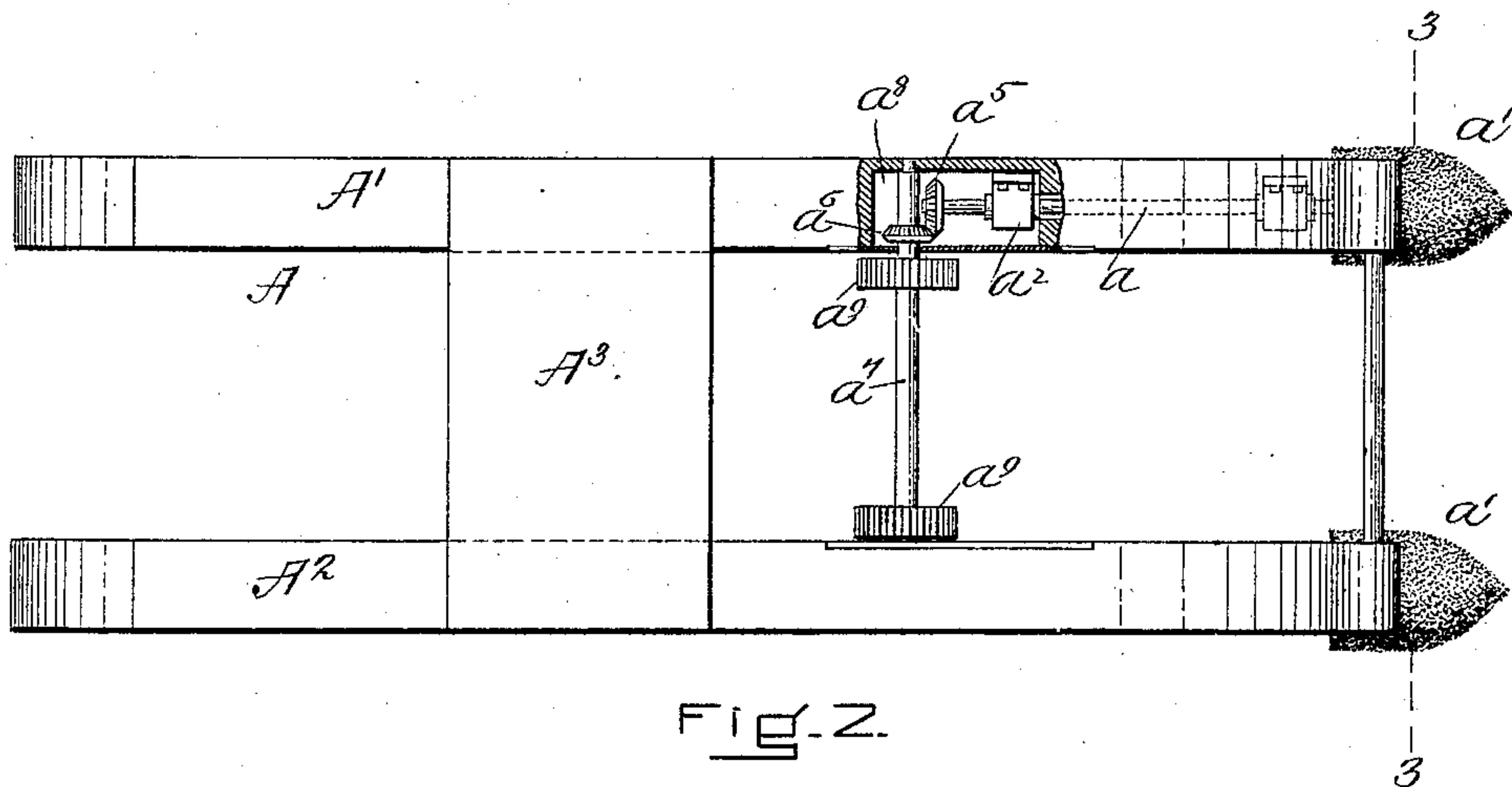


Fig. 2.

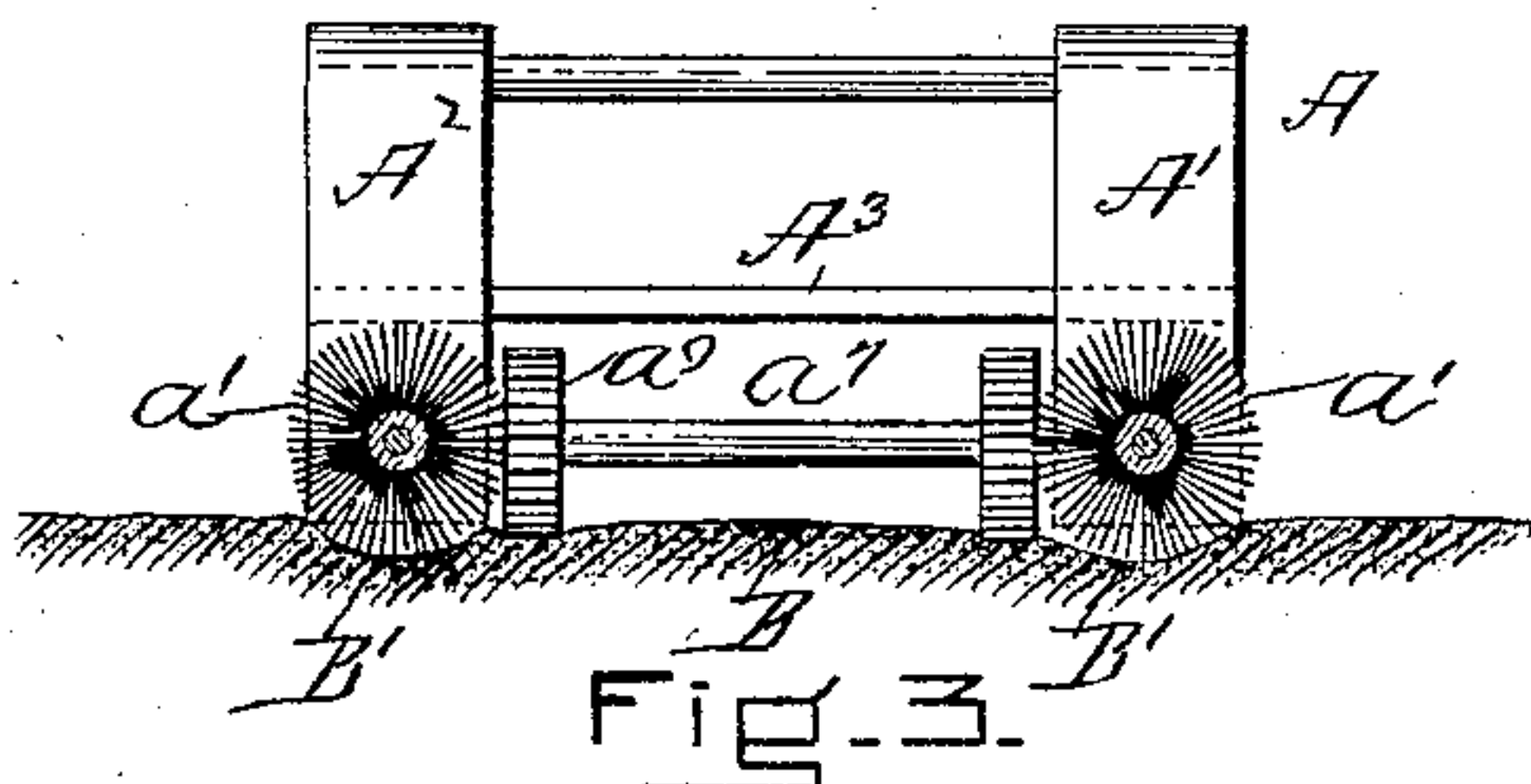


Fig. 3.

WITNESSES=

M. E. Flaherty.
M. V. Foley

INVENTOR=

John E. Kelley
by
Charles Raymond & Co.
his attys

UNITED STATES PATENT OFFICE.

JOHN E. KELLEY, OF BANGOR, MAINE.

TRACK-SWEEPER.

No. 880,308.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed May 24, 1907. Serial No. 375,387.

To all whom it may concern:

Be it known that I, JOHN E. KELLEY, of Bangor, in the county of Penobscot and State of Maine, a citizen of the United States, have
5 invented a new and useful Improvement in Track-Sweepers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

My invention relates to a sweeping device especially adapted for removing snow from the iced ways along which logs are carried. As is well known to those versed in the art, it
15 is necessary that these ways be kept clear of snow in order that they may present a smooth glaring surface to the shoe of the sled passing over the same. A plow is insufficient for this purpose for the reason that the ways lie
20 in ruts below the main surface of the roadbed and while a plow might remove the snow from the main body of the road, it leaves the snow in the ways from which it is most necessary that it should be removed.

It is accordingly the object of my invention to provide a sweeping device which will operate to remove the snow from the iced ways or ruts of a roadbed as said device is drawn or passed over the same.

My invention can best be seen and understood by reference to the drawings in which—

Figure 1 shows partly in side elevation and partly in longitudinal vertical section the device constituting my invention combined
35 with a sled. Fig. 2 shows the sled and applied device mainly in plan. Fig. 3 shows an elevation of the same looking from the front.

Before referring specifically to the drawings, I would say that while I have shown
40 my invention as used in connection with a sled, it may, of course, be used in connection with other forms of carrier; the sled is, however, the preferred form.

Referring, therefore, to the drawings, A represents a sled consisting of the two runners A¹, A² connected by a cross-board or connecting plank A³. The form of the sled is immaterial. In fact, any customary form of sled may be employed. The two sides or
50 runners of the sled should, however, be so far separated from one another that they will run in the ways or ruts B of the roadbed B¹ over which the sled is passing.

Extending preferably forward of each runner of the sled is a shaft *a* on the end of which is arranged a revolving brush *a*¹ which is

preferably made somewhat cone-shaped. In order that each of the brushes *a*¹ may be properly contained in the way or rut of the roadbed in which it is destined to operate,
60 the shaft *a* on which the brush is mounted is arranged to project from the front in the same plane with the runner of the sled, a portion of the shaft extending back to be contained within a slot or hole formed in the runner. Each shaft *a* is supported to turn
65 by arranging the same in boxes *a*², *a*³ connecting with the sled runner, in which boxes the shaft is adapted to turn. Of these the box *a*² is recessed within the sled runner and the box *a*³ dependent from the upturned portion thereof. I have also so arranged by
70 means of springs *a*⁴ contained in said boxes and bearing against the sled shafts that each of the shafts shall have a slightly yielding vertical movement in order that the brushes
75 on the ends of the shafts may have a yielding contact with the surface of the way or rut in which they are operating. This makes the brushes more effective in their operation enabling them to yield to any inequalities in
80 the surface of the way or rut, on which account the brushes are maintained at all times in a properly operative position.

The shafts *a* are turned for revolving the brushes in the following manner:—On the
85 end of each shaft is a gear *a*⁵ meshing respectively with gears *a*⁶, *a*⁶ on a shaft *a*⁷ interposed crosswise between the two runners and having bearings to turn therein. Both sets
90 of gears *a*⁵, *a*⁶ are contained within a recess *a*⁸ formed within each of the respective runners which recess may contain, also, the recessed shaft supporting box *a*² above referred to. Attached to the shaft *a*⁷ at points preferably adjacent to the inside of the runners are spur carrying gears *a*⁹. These gears extend slightly below the bottoms of the runners or so as to contact with the roadbed outside the ways or ruts therein.
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The operation of the device is as follows: As the sled is propelled or drawn over the roadway, the gears *a*⁹ engaging the bed thereof will be turned, turning the shaft *a*⁷. This through the gears *a*⁵, *a*⁶, *a*⁵, *a*⁶, imparts
105 its motion to the shafts *a* and revolves the brushes *a*¹ mounted on the ends of said shafts. As the brushes revolve they sweep the snow from the ways B to a point outside the roadbed.

While I have described my invention as being well adapted to the purpose of remov-

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ing snow from iced ways, which is its special adaptation, it may, of course, be used for the purpose of removing snow or other material from ruts or similar depressed surfaces.

5 Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:—

10 1. A sweeping device of the character specified having in combination a carrier, rotatable brushes carried thereby and located to operate in ruts in which said carrier is traveling, and means for turning said brushes.

15 2. A sweeping device of the character specified having in combination a carrier, rotatable brushes carried thereby and located to operate in separate planes parallel with the line of travel of said carrier, and means for turning said brushes.

20 3. A sweeping device of the character specified comprising in combination a carrier, revolving brushes located to operate in ruts in which said carrier is running, shafts projecting from said carrier bearing said brushes, and means whereby said shafts may
25 be rotated for rotating said brushes.

4. A sweeping device of the character

specified comprising in combination a carrier, revolving brushes located to operate in ruts in which said carrier is traveling, shafts projecting from said carrier bearing said
30 brushes, means for yieldingly supporting said shafts, and means whereby said shafts may be rotated for rotating said brushes.

5. A sweeping device of the character specified having in combination a sled, ro-
35 tatable brushes carried thereby and located to operate in ruts in which said sled is traveling, rotatable shafts projecting from said sled and carrying said brushes, means for supporting said shafts, a shaft interposed
40 between the runners of said sled, means whereby the motion thereof may be imparted to said brush-carrying shafts, and a rotatable member on said interposed shaft adapted to contact with the surface of said
45 roadbed over which the sled is passing, substantially as and for the purposes set forth.

JOHN E. KELLEY.

Witnesses:

CHARLES B. CLARK,
M. V. FOLEY.