

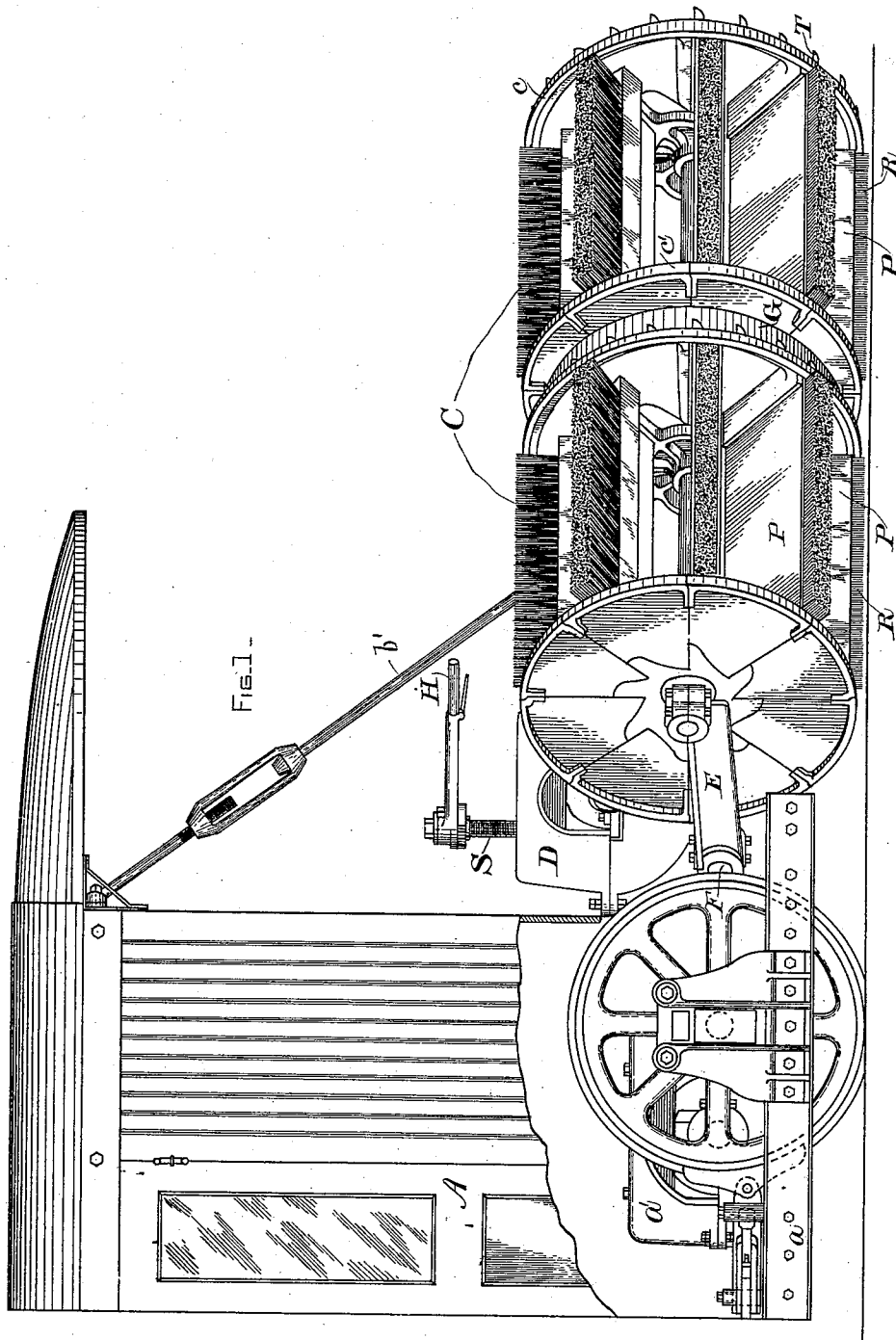
(No Model.)

3 Sheets—Sheet 1.

N. C. BASSETT.
SNOW SWEEPER.

No. 508,668.

Patented Nov. 14, 1893.



WITNESSES.

A. F. Macdonald.
A. F. Macdonald.

INVENTOR-

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by Bentley Bloodgett
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(No Model.)

N. C. BASSETT.
SNOW SWEEPER.

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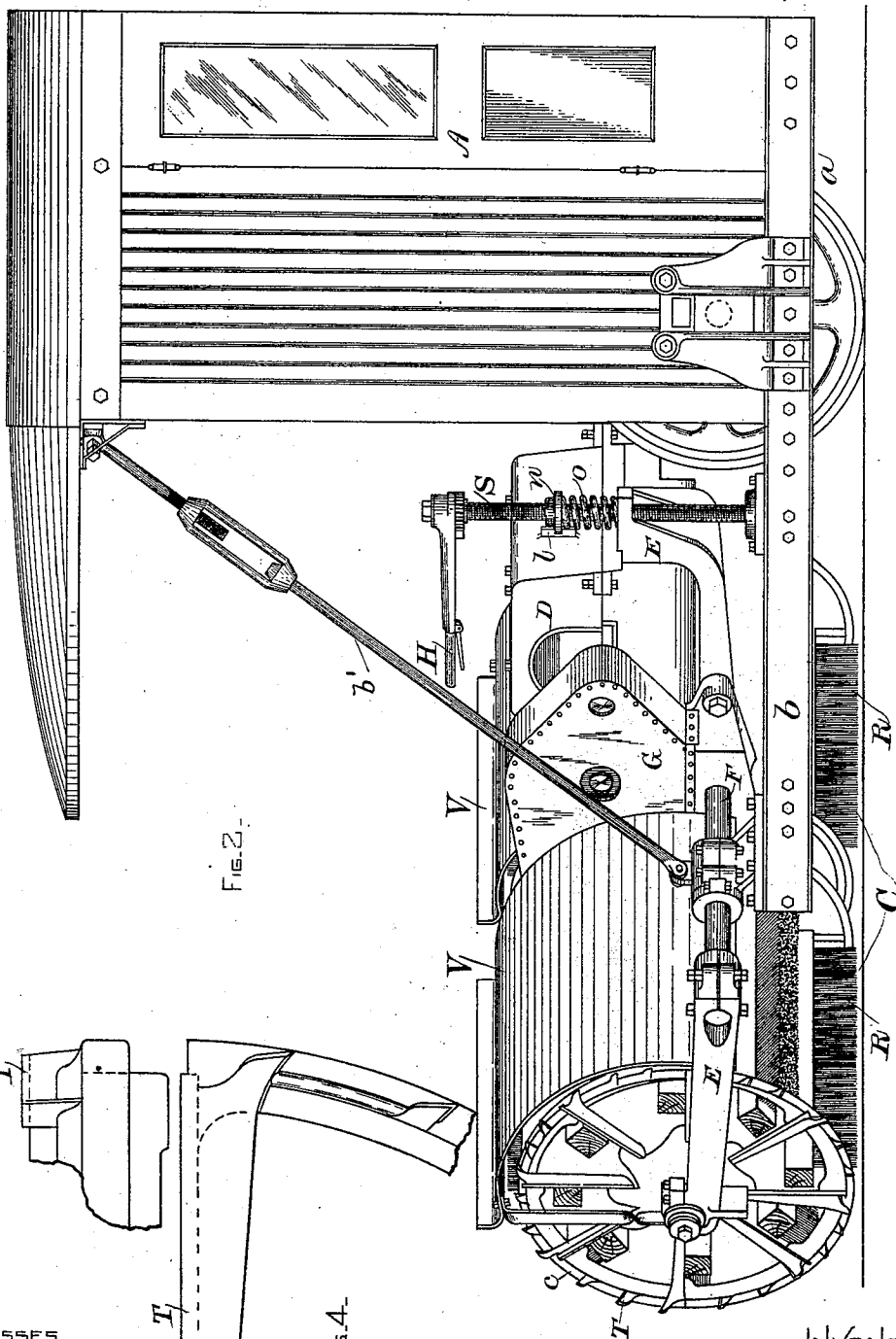


FIG. 2.

FIG. 4.

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(No Model.)

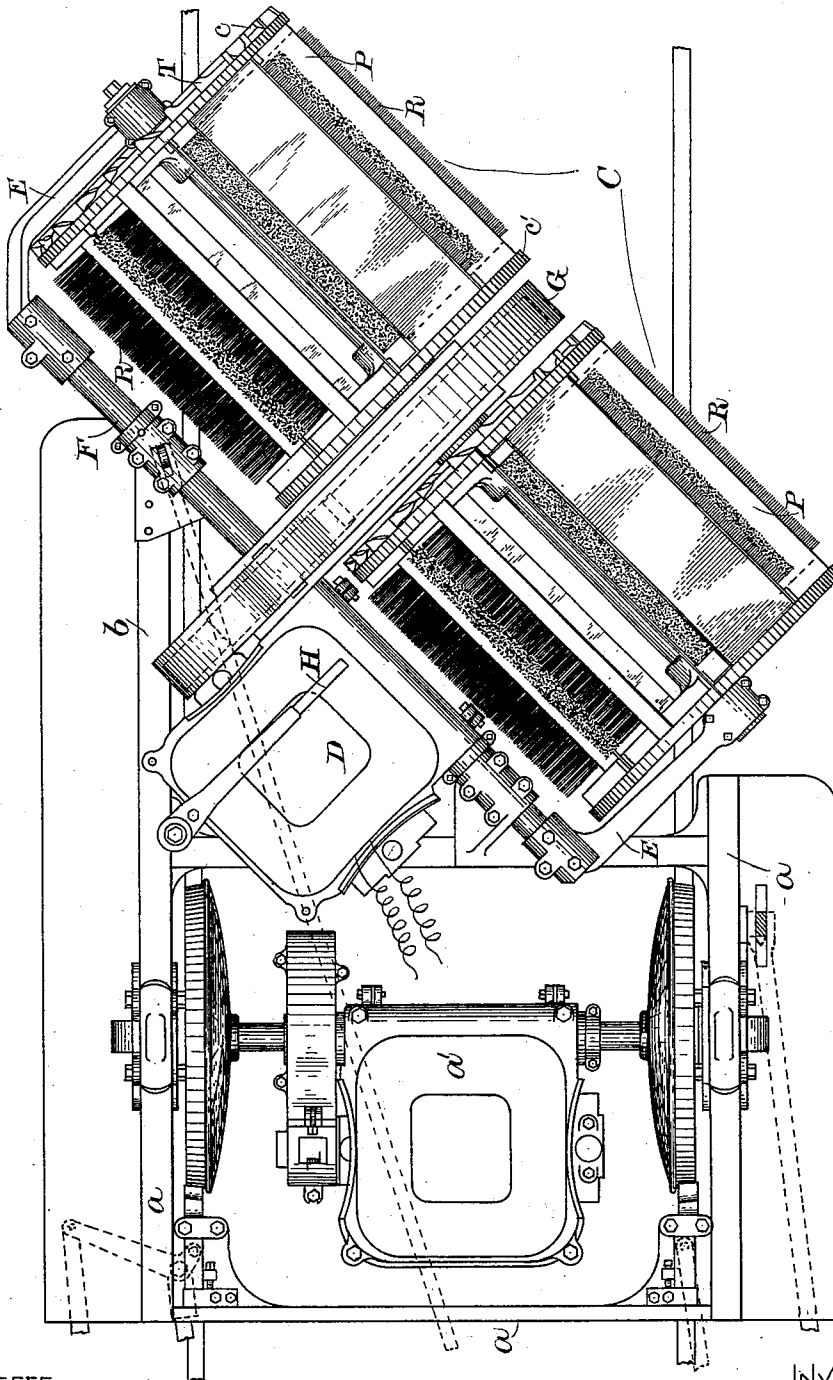
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SNOW SWEEPER.

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FIG. 3—



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UNITED STATES PATENT OFFICE.

NORMAN C. BASSETT, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE
THOMSON-HOUSTON ELECTRIC COMPANY, OF CONNECTICUT.

SNOW-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 508,668, dated November 14, 1893.

Application filed November 25, 1891. Serial No. 413,026. (No model.)

To all whom it may concern:

Be it known that I, NORMAN C. BASSETT, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Snow-Sweepers, of which the following is a specification.

This invention relates to improvements in snow sweepers for railways and comprises improvements in the arrangements of the motors and sweepers, and the construction of the sweepers themselves.

In the accompanying drawings, Figures 1 and 2 are elevations, from opposite sides, of the end of a car provided with my improved sweeping devices. Fig. 3 is a plan view of the same. Fig. 4 is a detail.

The car or carrier, A, for the sweeper has usual or suitable running gear and motive devices, such as truck *a* and electric motor *a'*. Projecting forward from the carrier is a frame *b* which together with the car itself supports the sweeper. This frame is preferably rigid with the car timbers, but it is preferred to give it additional support in the shape of one or more truss rods *b'*, running from the outer end of the frame to the upper part of the car. The one shown in the drawings is attached to the frame at or near the outer end of the diagonal axis on which the broom carrying frame turns. This sweeper consists of a rotary broom or drum C and a motor D mounted in a frame E hung on pivot or rock shaft F, the motor and drum being on opposite sides of the shaft so as to counterbalance one another. The motor indicated is an electric motor regulated or controlled independently of the car motor, and connected to the circuit by flexible connections, necessitated by its movements. The motor is geared to the sweeping drum in any suitable manner, as by means of gear wheels indicated in dotted lines in Fig. 3, or by belting or otherwise. In any case the gearing should be adapted to vibrate with the motor and drum around the pivot shaft F, so as to preserve the connection in all positions of the drum. The gearing is incased in a casing or cover G, carried by frame E.

To lower and raise the drum or rotary broom C, means are provided for tilting the frame E

and holding it in any required position. Such means may consist of a screw S, provided with a handle H and a nut *n*, which is held from rotation by guide *l*, and is therefore moved up and down in accordance with the rotation of the screw. The motion of this nut is preferably transmitted to the frame E, through a buffer spring O, which therefore serves as a yielding support for the frame, so as to take up jars or vibrations thereof, thus preventing pounding. The nut *n*, serves as an adjustable support for the frame.

The rotary broom or sweeper C, is preferably divided into two parts, with the driving gear between them. Each part consists of wheels or heads *c, c'* connected by framing pieces which carry the brushes or brooms proper R. Each brush R consists of steel or other strips bound together and provided with a front plate or cutting or striking plate P, of steel, which acts as a cutter for ice and compacted snow, and prepares the way for the action of the brush R which, projecting slightly below the plate, effectually clears the track of loose snow, and is prevented from clogging by the plate. The drum, is as usual placed at an angle across the track and the forward end of each part of the drum is utilized as an ice cutter, the head or wheel *c* being provided with cutters or teeth T, which break into the mass of ice and snow and prevent the jamming thereof against the heads. These teeth are formed both on the rims and the spokes of the wheels, as shown in Figs. 2 and 4. Casings V are provided for the drums.

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

1. In a sweeper the combination of the carrier the frame pivoted thereon and the rotary broom and motor geared together, and supported on said frame on opposite sides of the pivot.

2. In a sweeper, the combination of the carrier, the frame pivoted thereon, the motor and rotary drum supported on said frame on opposite sides of its pivot, and gearing connecting the motor and drum, and a casing for said gearing, all turning around the said pivot of the frame.

3. A sweeper having a carrier, a pivoted

and counterbalanced frame thereon; a rotary broom carried by said frame; and an adjusting device for said frame, consisting of a screw and nut engaging with the frame and

5 carrier.
4. A sweeper having a carrier, a pivoted and counterbalanced frame thereon, a rotary broom carried by said frame, a support on the carrier, and a spring or cushion placed between
10 said frame and support.

5. A sweeper comprising a carrier, a broom carrying frame pivoted thereon, on a horizontal axis a support on the carrier, on the opposite side of the axis from the broom and a
5 spring interposed between said frame and support.

6. A sweeper comprising a carrier, a broom carrying frame pivoted thereon, an adjustable support on the carrier, on the opposite
20 side of the axis from the broom and a spring interposed between said support and frame.

7. A sweeper having a carrier, a frame pivoted thereon, a rotary broom and an electric motor supported on said frame on opposite

sides of said pivot, and geared together and 25 flexible electric connections to said motor.

8. A sweeper comprising a car, having a rigid frame projecting from one end, and a broom carrying frame pivoted on said frame on a diagonal horizontal axis, substantially 30 as described.

9. A sweeper comprising a car having a rigid frame projecting from one end, a broom carrying frame pivoted thereon, and a truss rod supporting the outer end of said rigid 35 frame.

10. A sweeper comprising a car having a rigid frame projecting from one end, a broom carrying frame pivoted thereon on a diagonal axis, and a truss rod running from near the 40 outer end of said axis to the upper part of the car, substantially as described.

In witness whereof I have hereunto set my hand this 23d day of November, 1891.

NORMAN C. BASSETT.

Witnesses:

JOHN W. GIBBONEY,
BENJAMIN B. HULL.