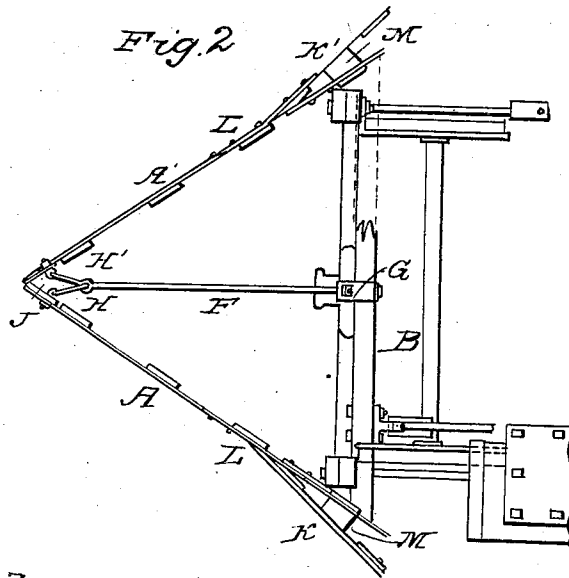
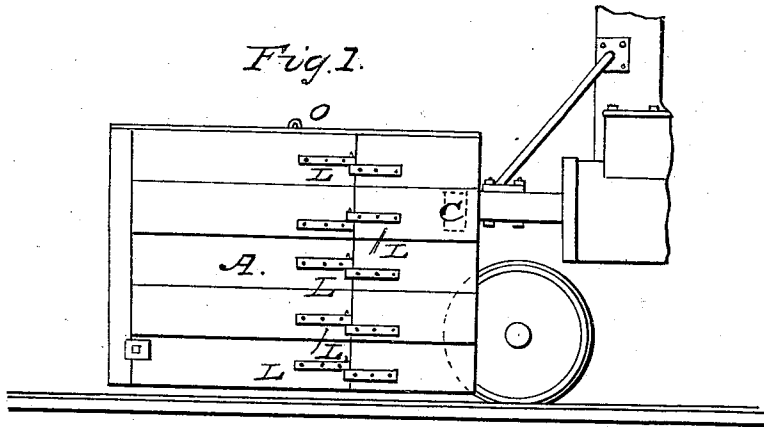


Snow Plow.

2 Sheets—Sheet 1.

No. 89,554.

Patented May 4, 1869.



Witnesses

Edward Lym Jr
John J. McHenry

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Attorneys.

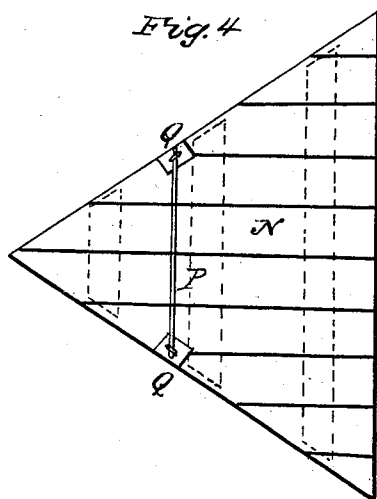
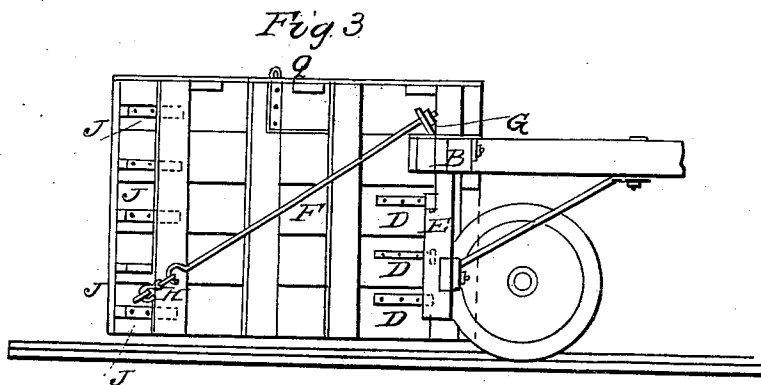
R. BUSTIN.

2 Sheets—Sheet 2.

Snow Plow.

No. 89,554.

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Witnesses
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United States Patent Office.

ROBERT BUSTIN, OF ST. JOHN, NEW BRUNSWICK, ASSIGNOR TO HIMSELF, JACOB D. McDONALD, AND GEORGE BEDELL, OF SAME PLACE.

Letters Patent No. 89,554, dated May 4, 1869.

IMPROVED SNOW-PLOW.

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

To all whom it may concern:

Be it known that I, ROBERT BUSTIN, of the city of St. John, and Province of New Brunswick, have invented a new and useful Improvement in Snow-Plows for railway-purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the figures and letters marked thereon, and in which—

Figure 1 is a side elevation of the plow.

Figure 2, a plan or top view.

Figure 3, an inside elevation.

Figure 4, the covering-board of the plow.

The same parts are indicated by the same letters in all the figures.

The nature of my invention consists in a peculiar mode of constructing the snow-plow, and in the adaptation of its parts, so that it may be readily put together and attached to, or taken apart and removed from, the front of a locomotive-engine. The several parts also being so formed that they can be stowed in a small space in the baggage-car when not in use, so as to be immediately available when required, and thereby preventing delay to trains upon the road from snow-storms.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I make the side-boards A and A' of plank, or other suitable material, about seven and a half feet long and four and a half feet, more or less, in width, and strengthen them with cross-bars, as shown in figs. 2 and 3. The front ends are mitred, so that the side-boards shall make with each other an angle of about sixty degrees.

The mitred edges, which form the front or cutting-edge of the plow, are strengthened and protected with plates of iron or steel, as shown in fig. 1.

These side-boards are attached to the front cross-beam B of the locomotive, by means of rectangular holes cut through them at the rear ends, to fit and rest upon the outer ends of the cross-beam, as shown by dotted lines at C, in fig. 1, or by any other convenient mode of fastening; and they are further secured to the locomotive by the eye-straps D engaging with the iron pins, which are attached for that purpose to the posts E, depending from the front cross-beam B, as shown in fig. 3.

The front or nose of the plow is held in place by the iron brace, or rod F, which passes down from the iron cleat G, attached to the front cross-beam B, being secured to said cleat by means of a nut and screw on the upper end of said brace-rod, or bar F; and its lower end, which is formed into a hook, connects with the two hooks H and H', which are attached, respectively, to the side-boards A and A', thus drawing the two side-boards closely together at the front joint or mitre, and rearward against the front cross-beam B of the locomotive by the action of the nut and screw upon the cleat G.

The two front edges of the side-boards A and A' are further secured to each other by passing an iron rod down through the eyes of the eye-straps J, attached

to the side-boards, as shown in figs. 2 and 3; or, if preferred, short bolts may be used for each pair of the eye-straps.

The plow thus constructed is intended to have sufficient spread at the back to give the necessary clearance to the locomotive and cars in their passage over the road, but when, for any reason, a greater clearance is required, I attach additional side-pieces, or wings K and K' to the side-boards A and A' by means of iron hinges L, as shown in figs. 1 and 2, and giving to these additional side-pieces or wings the necessary flare or spread by means of the billets M and M', which are interposed between the wings and the side-boards for that purpose, as shown in fig. 2.

To exclude the snow from the interior of the plow, I cover it with the top-board N, fig. 4, which may be composed of one or more pieces, and is secured to its place by a rod, P, passing over it and through the eye-straps Q Q, attached to the side-boards A and A'. This top-board is strengthened by cross-bars or battens of wood, as shown by dotted lines in fig. 4, the ends of which cross-bars or battens take against the inner edges of the side-boards, which completely prevents lateral displacement of the top-board.

The plow herein described has been constructed and practically tested by me in clearing the track from snow, and thereby making a safe passage for the train, when, without its timely assistance or use, great delay and suffering would have been inflicted upon the passengers in the train from the obstruction of the track. And, from my experience with its use, I am well satisfied that were all trains supplied and fitted with this portable snow-plow, the railway-tracks, except in extraordinary snow-storms, would be kept in working order, as the frequent passage of such plows over the road would effectually prevent the accumulation of snow, and the consequent blockading of the roads.

The cost of this portable plow is a mere trifle compared with its utility, or with the cost of the ordinary snow-plows. Its several parts are light, and easily handled, and can be attached to the locomotive in a few minutes, as it in nowise interferes with the cow-catcher, or other parts of the engine, and when it is not required it can be quickly removed, and if stowed in the baggage-car, it will occupy but little space, as all the parts will lie flat against each other.

I do not claim the snow-plow as a new invention, nor the application of snow-plows to locomotive-engines as my invention; nor do I claim the particular form of snow-plow herein described; but

What I do claim as my invention, and desire to secure by Letters Patent of the United States, is—

The snow-plow, consisting of side-boards A A', attached to the front cross-beam B of the locomotive and to the hanging posts E E of said cross-beam, together with the eye-straps and pins D, and brace-rod F, the whole constructed and arranged as and for the purpose substantially as herein described.

ROBT. BUSTIN.

Witnesses:

EDWARD LYON, Jr.,
JOHN COCHRANE.