(No Model.)

J. WOOLLEY.

RAILROAD SNOW PLOW AND CAR COMBINED.

No. 376,698. Patented Jan. 17, 1888.

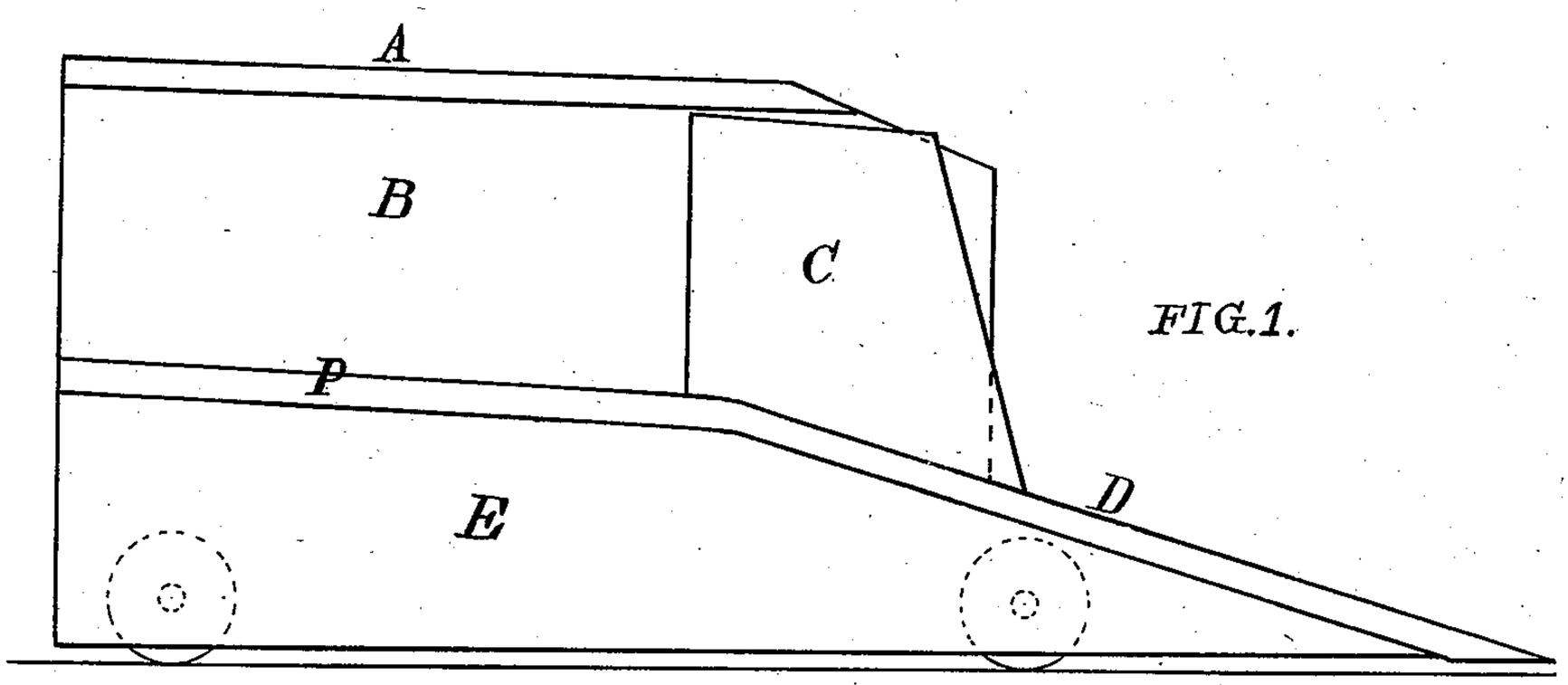


FIG. 1.

FIG. 2.

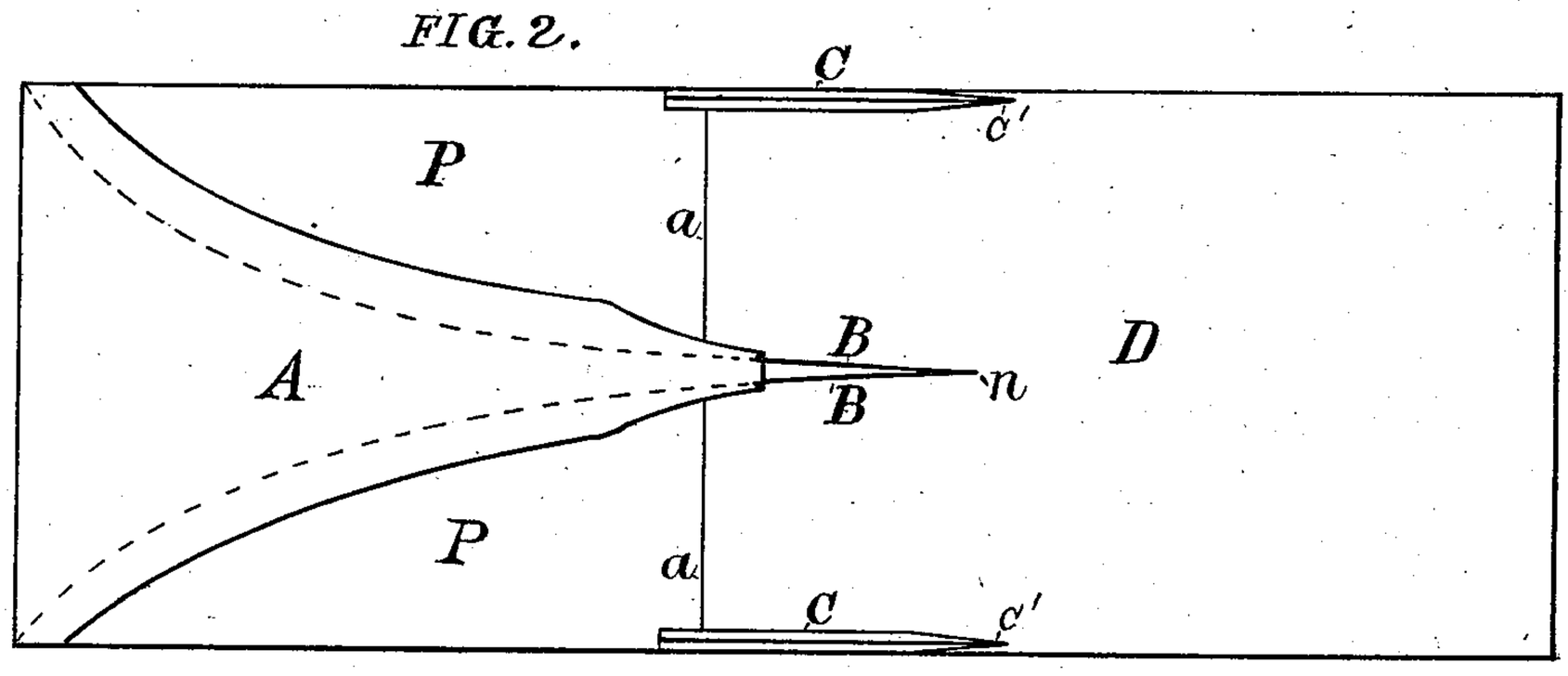


FIG. 3.

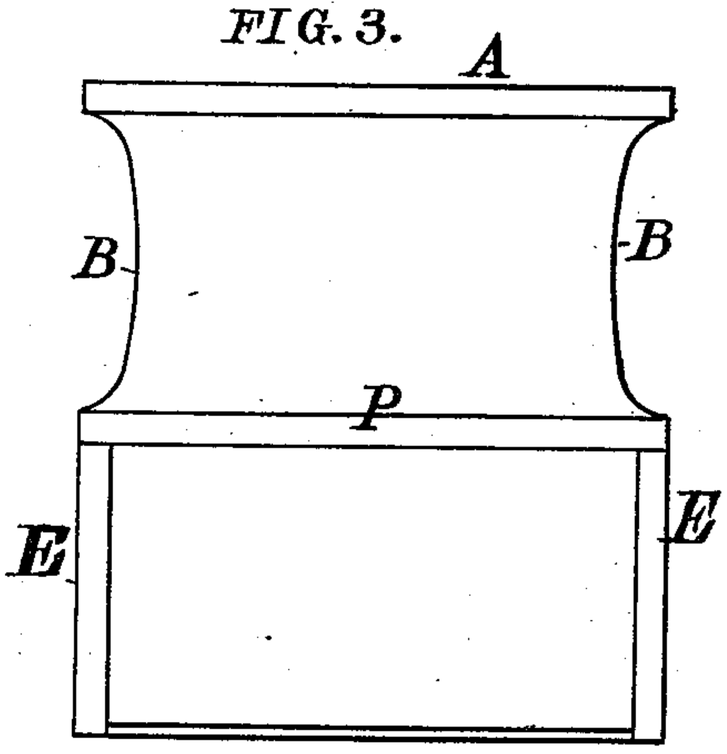
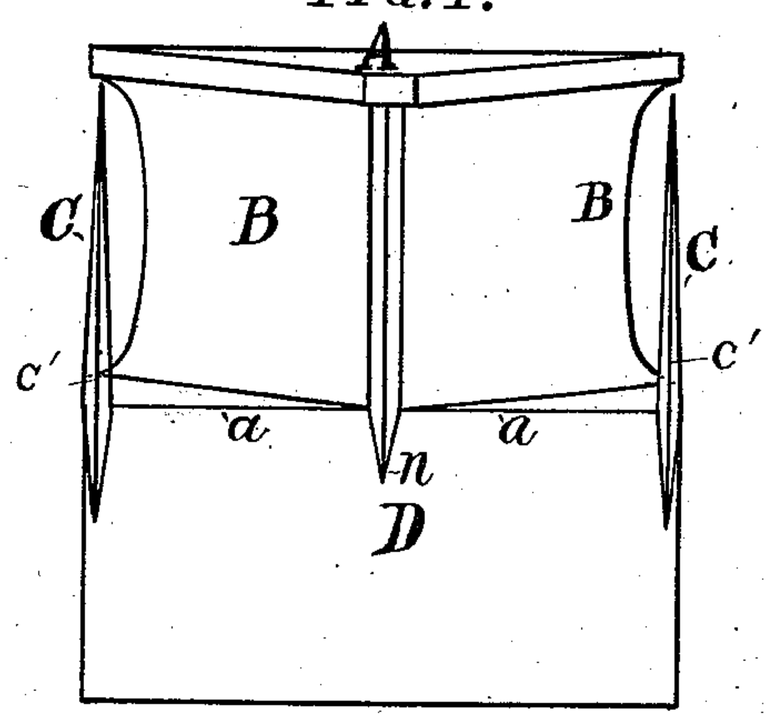


FIG. 4.



WITNESSES

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RAILROAD SNOW-PLOW AND CAR COMBINED.

SPECIFICATION forming part of Letters Patent No. 376,698, dated January 17, 1888.

Application filed October 30, 1886. Serial No. 217,628. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WOOLLEY, a citizen of the United States, residing at Rutland, in the county of Rutland and State of Vermont, have invented a new and useful Snow-Plow and Car Combined for Removing Snow from Railroads, of which the following is a specification.

My invention relates to an improvement in that class of railroad snow-plows in which are combined rearwardly and upwardly inclined surfaces of a different degree of inclination, mold-boards, and cutters upon said surfaces.

The object of my invention is to provide a snow-plow which shall require less power to successfully operate the same, and which shall at the same time do its work more effectually than the devices of this class heretofore in use; and with these ends in view my invention consists in the combination, with a forward wedge-shaped inclination, inclined surfaces continuing upwardly and rearwardly from the forward incline at a less degree of inclination than the same, and downwardly-extending sides, of the mold-boards provided with a beveled point or cutting-edge and extending from the center of the upper portion of the forward incline to the rear corners of the plow with a gradual increasing lateral curvature, the outline of said mold-boards from their point to their rear ends being vertically concave in cross-section, cutters upon the opposite edges of the first incline and extending rearwardly to and upon the rear inclines, the side faces of said cutters tapering upwardly from their lower portions and their front edges sloping upwardly and rearwardly and being beveled to form a sharp cutting-edge, and a top covering the upper portions of said mold-boards and projecting beyond the edges of the same.

In the accompanying drawings, Figure 1 is a side elevation of my complete device; Fig. 2, a top plan view of the same; Fig. 3, an end elevation, and Fig. 4 a front elevation.

In the drawings, the reference-letter E indicates the sides of a car carrying and forming a part of my improved snow-plow. The forward portion of the plow consists of a wedge-shaped nose or projection, D, provided with an upwardly and rearwardly sloping upper surface, which reaches its highest point at the line *a a*, which line also marks the lowest point of surfaces P P, sloping upwardly and rearwardly to the end of the car, but at a less degree of inclination than the slope of the first inclination, D.

Vertical mold-boards B B are located upon said inclines P P and D, the beveled point *n* of said mold-boards being centrally located upon the upper part of the first incline, D, from which point the mold-boards extend to the rear end corners of the car with a gradual increasing lateral curvature, and the vertical outline of said mold-boards in cross-section is vertically concave from the point *n* to the rear end of the mold-boards, as shown in Figs. 3 and 4; but I wish it understood that the mold-boards do not change their vertical position and form a spiral curve, as has heretofore been the case.

Beveled cutters C C are located upon the opposite edges of the first incline, D, and extend rearwardly a short distance upon the upper inclines, P P. The side faces of these cutters C C gradually taper upward to their top edges, and their cutting or front edges, *c'*, slope upwardly and rearwardly and are beveled to form a sharp cutting-edge, *c'*. The cutters limit the width of the cut and guide the snow being removed in its passage up the inclines, and by constructing the cutters in the above-described form they offer the least resistance possible to the passage of the snow.

A horizontal top or roof, A, is secured upon the upper edges of said mold-boards, and the outer edges of the top are made to conform to the lateral curvature of the mold-boards and project a short distance beyond the edges of the same.

By constructing the mold-boards, inclines, and cutters in the manner before described, a snow-plow is produced which, when performing its work, imparts to the snow being removed a gradual upward and lateral motion in such a manner that the resistance offered to the passage of the snow and the forward movement of the plow is reduced to a minimum.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a snow-plow, the combination of a forward wedge-shaped incline, inclined surfaces

continuing rearwardly from said forward incline at a less degree of inclination than the same, mold-boards extending from the center of the upper portion of the forward incline to the rear corners of the rear inclined surfaces with a gradual increasing lateral curvature, the outline of said mold-boards throughout their length being vertically concave in cross-section, a beveled point for said mold-boards, and cutters upon the opposite edges of said inclines, substantially as described.

2. In a snow-plow, the combination, with the forward wedge-shaped inclination, the inclined surfaces continuing upwardly and rearwardly from the forward incline at a less degree of inclination than the same, and the downwardly-extending sides, of the mold-boards provided with a beveled point or cutting-edge and extending from the center of the upper portion of the forward incline to the rear corners of the plow with a gradual increasing lateral curvature, the outline of said mold-boards from their point to their rear ends being vertically concave in cross-section, cutters upon the opposite edges of the first incline and extending rearwardly to and upon the rear inclines, the side faces of said cutters tapering upwardly from their lower portions and their front edges sloping upwardly and rearwardly and being beveled to form a sharp cutting-edge, and a top covering the upper portions of said mold-boards and projecting beyond the edges of the same, substantially as described.

JOSEPH WOOLLEY.

Witnesses:
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