

United States Patent Office.

JOHN RESCO ADAMS, OF CISCO, CALIFORNIA.

Letters Patent No. 73,276, dated January 14, 1868.

IMPROVED RAILROAD SNOW-PLOUGH.

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, JOHN R. ADAMS, of Cisco, county of Placer, State of California, have invented an Improved Snow-Plough for Railroads; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

The nature of my invention is to provide an improved engine or device for removing the snow from railroads, so constructed and attached to locomotives that light snow will shoot up the incline of the frame and be deposited at either or both sides of the track, and heavy bodies of snow in deep cuts can be loaded upon it and be removed to a place of deposit.

In order to accomplish this object, I construct a frame of wood and mount it upon the ordinary or low car-trucks and wheels, at an incline of from forty degrees to sixty degrees, more or less, so that the front portion will skim the top of the rails. The shovel or scraper is made wider at its mouth, and has upright side pieces, which are curved and support a bonnet or gate, which can be let down to retain the load upon the incline. These side pieces also support a platform placed across the machine, upon which hand-wheels are placed for raising and lowering the bonnet, and a curved dash-board which slides upon the incline surface of the plough. Side pieces, which move in ways, are placed upon each side of the frame to be moved down to the upright piece when loading the plough. A bar passes lengthwise through the frame above the axles, and is attached to the back part of the incline frame, passing through an opening in the rear end. This bar is for the purpose of imparting strength to the plough, and providing a sufficient attachment or coupling-place to the locomotive, and has a sufficient-sized opening in the back, where it passes through the back part of the frame, to admit of considerable lateral play in passing curves on the track.

To more fully illustrate and describe my invention, reference is had to the accompanying drawings and letters marked thereon, of which—

Figure 1 is a top view,

Figure 2 is a side view,

Figure 3 is a side sectional elevation.

A represents the frame or plough, constructed at an inclination of from forty degrees to sixty degrees, as the case may be, and is mounted on low car-trucks, B B. The surface of the frame or plough is covered with sheet or boiler-iron, C, presenting a sharp edge at the end, wider than the track, and a little removed from above the surface of the rails, so that it will skim the track and make a wide path. Upright side pieces, D and D', are attached to the point of the plough, and are bent so as to fit the curves in the sides of the point, and, when so attached, present a flaring mouth. A bonnet or gate, E, is attached to these uprights by arms or cross-bars, *a a*, so that, when the plough is loaded, this bonnet may be lowered to the face of the incline and prevent the snow from sliding off when backing to unload from a gorge or deep cut, and is raised and lowered by means of a hand-wheel and pins, *b*, through which a rod passes, having its bearing in the uprights; a cord or chain, *b'*, being attached to the wheel, with one end fastened to the top edge of the bonnet. This wheel is operated from a platform, *c*, also connected to the uprights, and has a pawl or catch, *d*, upon it, against which the pins of the wheel rest to hold the bonnet in place when it is raised. Upon the incline I place a slide, F, which may be made of iron, and movable up and down in ways, *e e*, at each side of the incline. A share or dash-board, G, having double curvatures with extreme points, is placed on the slide or false bottom, and is attached to it by a strap, *f*, with a pin, *f'*, passing through it, and holes, *f'' f'''*, made in the bottom of the dash-board, so that it can be confined in the centre or at any angle on the incline, and the light snow be thrown at either or both sides of the track. This share can be raised or lowered, operating in ways upon each side of the incline, between it and the iron plates placed over the bonnet, on the platform, by a hand-wheel, *g*, and pins, with grooves around the wheels, in which a chain or cord, *g'*, operates, which passes up beneath the incline over a sheave or pulley, *h*, with its end connected to the slide. This wheel is also held in position by a pawl, similar to that of the bonnet-wheel. Side boards or pieces, G G, of iron or other material, are placed at each side of the plough, sliding in ways, *i i' i'' i'''*, which prevent the snow from falling over the sides of the plough after it is loaded. For strengthening the plough, and to provide a place for coupling to the locomotive, as well as to allow a lateral

swaying of the machine in passing around curves, I attach a stout iron push-bar, H, which is loosely jointed underneath the front part of the incline, and extends back through a slot, K, made large enough to allow the bar to vibrate in turning curves.

For operating my snow-plough, it is attached to a locomotive in the ordinary way, and the share or curved dash-board lowered to near the point if it is desired to throw the snow a great distance from the track, as in the case where light snow is to be removed; and if it becomes necessary to throw it all one way the share is placed at an angle upon the incline, and confined in position by the pin described above. When heavy or packed snow is to be removed from deep cuts, the share is removed back to the extreme end of the incline, and the side boards moved down the ways, and the load taken upon the plough, when the gate or bonnet is to be dropped, and the plough withdrawn by the locomotive to the desired place for unloading, and the side boards drawn back, when the snow can be shoved off the incline at either side of the track. By this means the snow can be removed from a track with great rapidity and ease. The point being sharp, and a little broader than the track, it consequently cuts a little wider than the track itself, so that the snow will not settle back again, and interrupt the progress of the train, after the plough has once been over the road.

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

1. The dash-board or share G, and the false bottom or slide F, operated by the hand-wheel *g*, and cord or chain, *g'*, substantially as and for the purpose specified.
2. The bonnet or gate E, for retaining the load upon the incline, and the hand-wheel and pins *b*, pawl *d*, and cord or chain, *b'*, for raising or lowering said bonnet, substantially as described; and
3. The side pieces D and D', movable in the ways *i i' i''*, substantially as and for the purpose described.
4. The platform C, upon which the hand-wheels are placed, as described.

In witness whereof, I have hereunto set my hand and seal.

JOHN RESCO ADAMS. [L. S.]

Witnesses:

CHAS. E. OLNEY,
JOSEPH KUTZ.