

(No Model.)

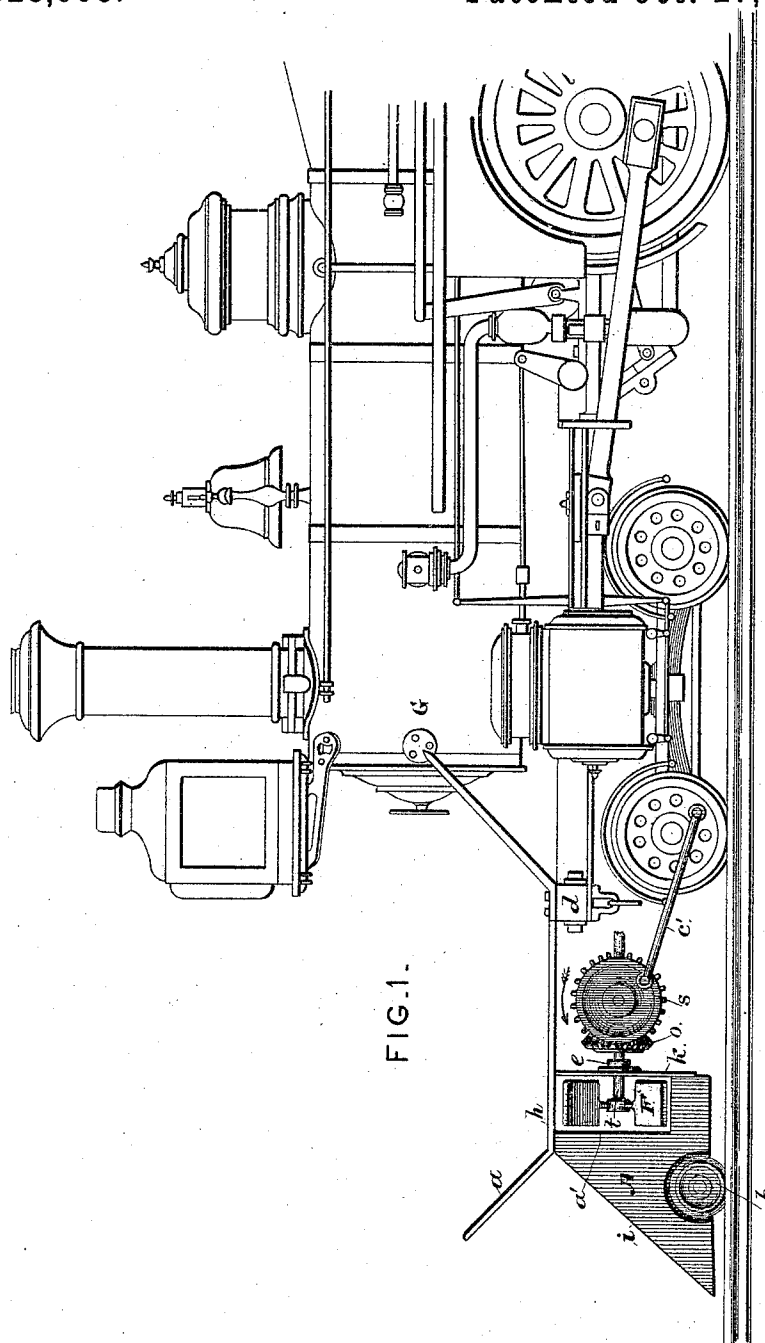
2 Sheets—Sheet 1.

A. J. WITT.

SNOW PLOW.

No. 328,993.

Patented Oct. 27, 1885.



ATTEST -

Geo. T. Smallwood.
J. Henry Kaiser.

INVENTOR -

A. J. Witt.
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city

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2 Sheets—Sheet 2.

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FIG. 2.

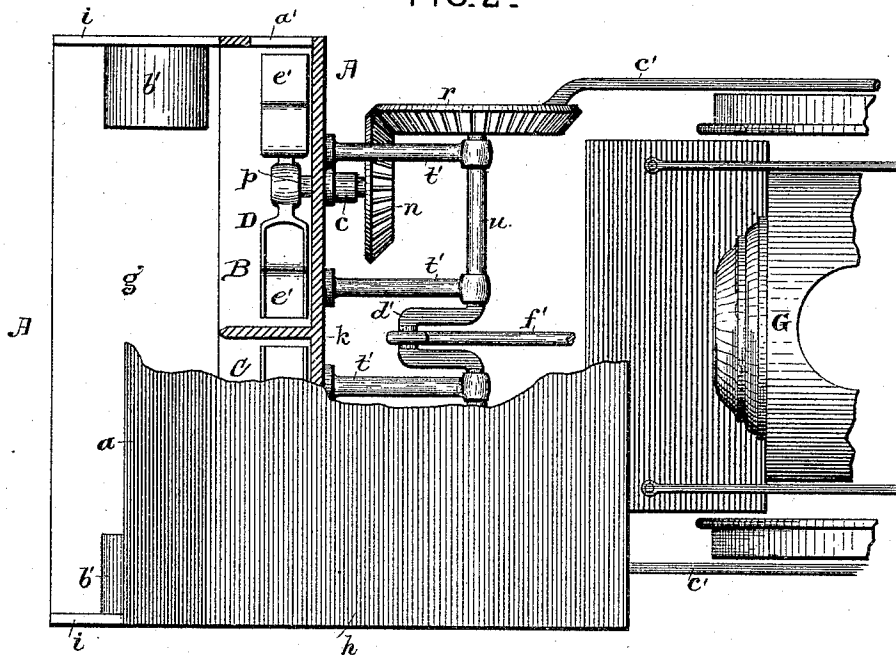
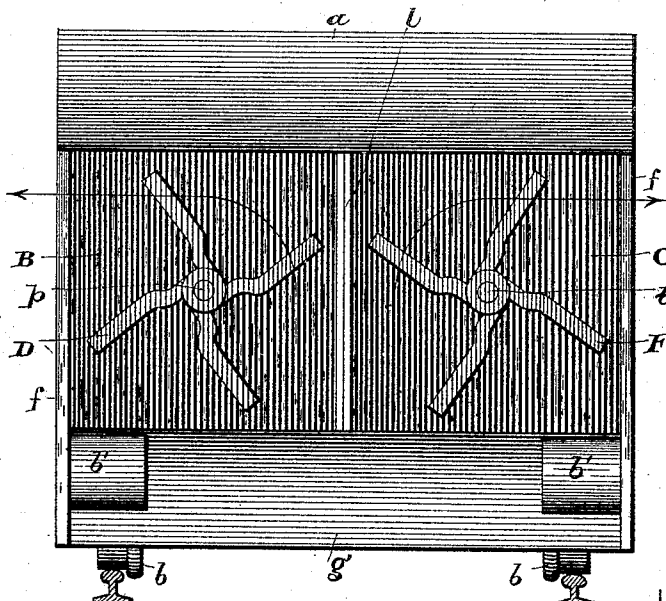


FIG. 3.



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UNITED STATES PATENT OFFICE.

ADAM J. WITT, OF ROCHESTER, NEW YORK.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 328,993, dated October 27, 1885.

Application filed February 8, 1884. Serial No. 120,187. (No model.)

To all whom it may concern:

Be it known that I, ADAM J. WITT, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Snow-Plows, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to that class of snow-plows for railroads in which the snow accumulated in front as the locomotive advances is thrown out at either side of the track by rotating parts of the plow; and it consists in parts combined and operating substantially as hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of the forward portion of a locomotive of common construction with my improved snow-plow attached in place in front of the same; Fig. 2, Sheet 2, a plan of the device, viewed from above, with parts broken away; and Fig. 3, a front elevation of the same, the latter two figures being drawn to a scale larger than that at which Fig. 1 is drawn.

Referring to the parts, A is a scoop or plow, constructed preferably of boiler-iron, resting upon wheels *b* upon the track in front of the locomotive, and securely attached to the transverse bumper-timber *d* thereof. The plow A is made slightly wider laterally than the distance through from one parallel rod of the drivers to the other, so the channel cut in the snow shall allow the locomotive to pass freely through, the vertical sides *ff* of the plow considerably overhanging the rails, as shown in Fig. 3. The forward part of the floor *g* of the plow is dropped downward forward of the wheels *b* or inclined, so as to cut the snow in a horizontal line about three inches above the rails, and the roof *h* of the same extends back sufficiently to be bolted either to the upper surface or the front surface of the bumper *d* of the locomotive. The upper plate or roof, *h*, of the plow has also a forward extension, *a*, inclined upward, as shown, which is designed to form a guard to prevent the accumulated snow from crowding over on top of the roof *h* against the smoke-box or front end of the boiler. The front edges, *ii*, of the sides *ff* of the plow are made to incline backward from the floor to the roof. *k* is the back plate or wall of the plow, which is made vertical,

and *l* is a central vertical partition reaching from the floor to the roof along the back plate, *k*, which divides the interior of the plow into two equal chambers, B and C.

D and F are two paddle-wheels occupying the chambers B and C, respectively, mounted upon parallel horizontal shafts *p* and *t*, made to pierce the back plate, *k*, of the plow, the said shafts resting in bearings *c* and *e* in rear of said plate *k*. These shafts are provided at their rear ends with bevel-pinions *n* and *o*, which are respectively actuated by gears *r* and *s*, mounted on a horizontal transverse shaft, *u*, resting in hangers *t'*, attached to the plow. If the shaft *u* be rotated by any means in the direction in which the wheels of the locomotive turn when the latter is advancing, or as indicated by arrow in Fig. 1, the paddle-wheels will be turned in opposite directions, as indicated by arrows in Fig. 3, and throw the snow taken up by the plow out through openings *a'* through the sides *ff* of the same.

The shaft *u* may be driven by means of connecting-rods *c' c'*, attached to the respective gears *r s* and the forward wheels of the truck of the locomotive, as shown, care being taken to connect said gears and wheels at "quarter-stroke," or as the main connecting-rods are attached to the driving-wheels.

The shaft *u* may, if desired, be provided with a crank, *d'*, (shown in Fig. 2,) and driven by means of a steam-cylinder placed at the front end of the locomotive, either in under the bumper forward of the trucks, or over the bumper and in front of the smoke-box G, connected to the crank by means of a connecting-rod, *f'*.

The number, size, and shape of the paddles *e'* of the wheels D and F may be altered or varied as practice may determine to be the most effectual; also, the size and position of the openings *a'* may be varied from those shown, if found desirable.

The plow extending laterally beyond the wheels *b b* each way protects them from the snow in front. Holes are cut through the floor *g* of the plow to clear the wheels, and boxes *b' b'* are placed to cover them.

The pilot of the locomotive may be removed when the plow is attached; or the latter may be constructed to be attached to the bumper over and in front of the pilot.

What I claim as my invention is--

1. The snow-plow consisting of an inclined foot-board for taking up the snow, a raised inclined fender for preventing it from passing
5 over the top of the plow, a case which is open in front to receive the snow, and provided near the rear with two discharge-openings at the sides, a partition which divides the rear part of the interior of the case into two com-
10 partments, a rotating shaft in each one of said compartments, and a series of blades carried by each one of said shafts for the purpose of laterally expelling the snow.

2. In combination with two rotating shafts and the blades carried thereby, the mechan- 15
ism for rotating said shafts and blades, and a snow-plow case which is open in front, and provided with a middle longitudinal partition that divides the case into two compartments, each of which contains one of said shafts, and 20
is provided with a lateral discharge-opening, substantially as set forth.

ADAM J. WITT.

Witnesses:

E. B. WHITMORE,
M. A. WALSH.