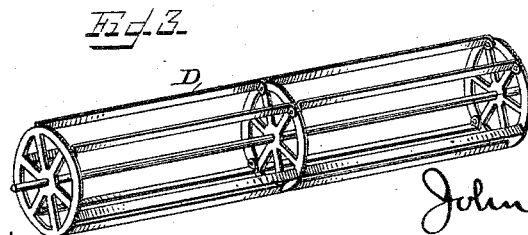
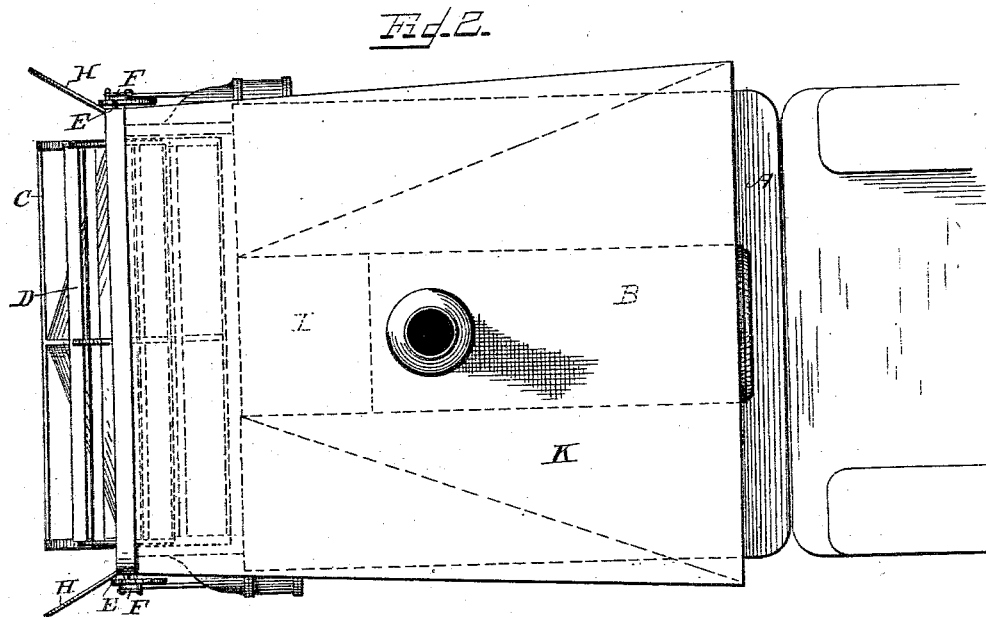
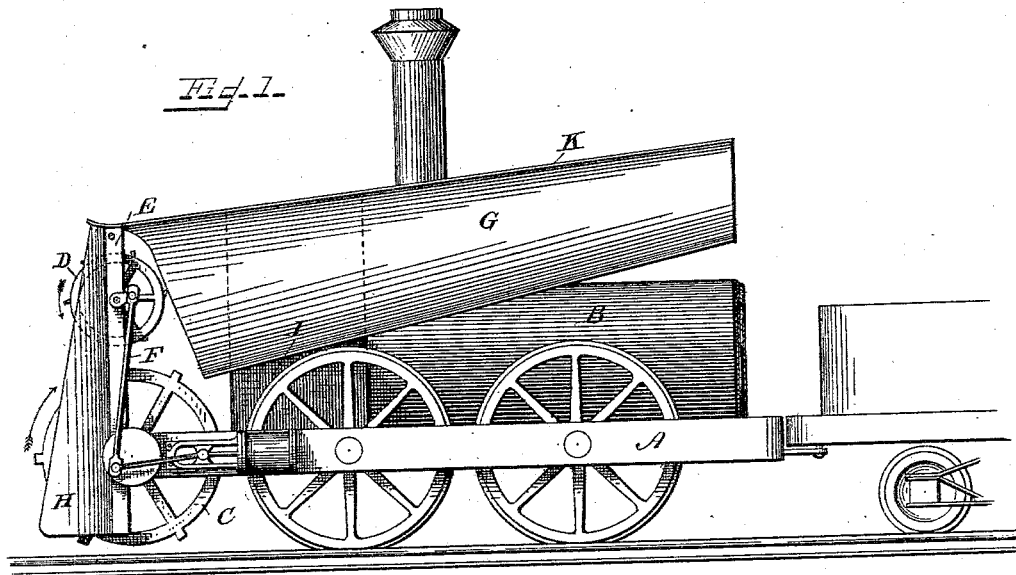


(No Model.)

J. PHILLIPS.
SNOW PLOW.

No. 301,752.

Patented July 8, 1884.



WITNESSES
F. L. Curran.
S. G. Nottingham

INVENTOR.
John Phillips.
By H. A. Seymour.
Attorney

UNITED STATES PATENT OFFICE.

JOHN PHILLIPS, OF BOONE, IOWA.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 301,752, dated July 8, 1884.

Application filed April 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN PHILLIPS, of Boone, in the county of Boone and State of Iowa, have invented certain new and useful
5 Improvements in Snow-Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My invention relates to an improvement in snow-plows, and more particularly to an improvement on a snow-plow for which Letters Patent No. 286,634 were granted to me October 16, 1883, the object of this invention being to provide new and improved devices for
15 cutting down the snow in deep cuts; and with this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of my improved plow. Fig. 2 is a top plan view thereof, and Fig. 3
25 is a detached view of the upper cutting-wheel.

A represents a frame, to the forward end of which is secured the lower cutting-wheel, C, constructed substantially as described in my
30 aforesaid patent, and operated by steam-cylinders connected with the boiler B, mounted on said frame.

Immediately above the cutting-wheel C is an open cutting-wheel, D, smaller than the wheel C, and secured between the uprights E, and connected to the lower wheel by a pitman, F, adapted to turn the said upper wheel in an
35 opposite direction to the lower wheel, as indicated by the arrows. This upper wheel, D, is preferably made open, as shown in Fig. 3 of the drawings, and is adapted to cut down the
40 snow in deep cuts and throw it into the lower wheel, whereupon it is thrown to the sides by suitable devices.

G represents the curved wings, inclined outward and upward toward the rear end of the plow to aid in carrying off the snow. To the
45 forward end of the machine and on each side thereof are secured wings H, inclined outward and upward, and adapted to throw the snow on the sides of the bank into the wheels, and thereby provide ample clearance for the side
50 of cars in the rear.

In my present improvement I place the cab

I (and head-light inside of cab) back of the upper wheel and under the cover K of the boiler, so that the sight of the operator will not be
55 interfered with by the said upper wheel, as the paddles, when they reach the cab, are in or nearly in a horizontal position.

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

1. The combination, with a frame, of a lower cutter-wheel secured to the forward end thereof, and an upper cutter-wheel moving in an
65 opposite direction to said lower wheel, and adapted to cut down the snow and throw it into said lower wheel, substantially as set forth.

2. The combination, with a frame, of a lower cutter-wheel secured to the forward end thereof, and an open upper cutter-wheel connected
70 to the lower by a pitman, said wheels moving in opposite directions, substantially as set forth.

3. The combination, with a frame, of a boiler
75 secured thereon, horizontal cutter-wheels situated one above the other, and rotating in opposite directions, a cylinder and piston for moving the lower cutting-wheel, and a pitman
80 connecting the upper cutting-wheel with the lower cutting-wheel.

4. The combination, with a frame, of wings inclined upwardly and outwardly, as described, a boiler, a lower cutter-wheel secured
85 to the forward end of the frame and operated by cylinders connected with said boiler, and an upper cutter-wheel secured above and operated by said lower wheel, substantially as set forth.

5. The combination, with a frame and suitable cutting-wheels, the upper one of which is
90 open, of a cab, a head-light secured thereon in rear of the upper cutting-wheel, and mechanism, substantially as described, for rotating the cutting-wheels, substantially as set forth.

In testimony whereof I have signed this
95 specification in the presence of subscribing witnesses.

JOHN PHILLIPS.

Witnesses:

JOHN C. HALL,
T. REED,
THERON REED.