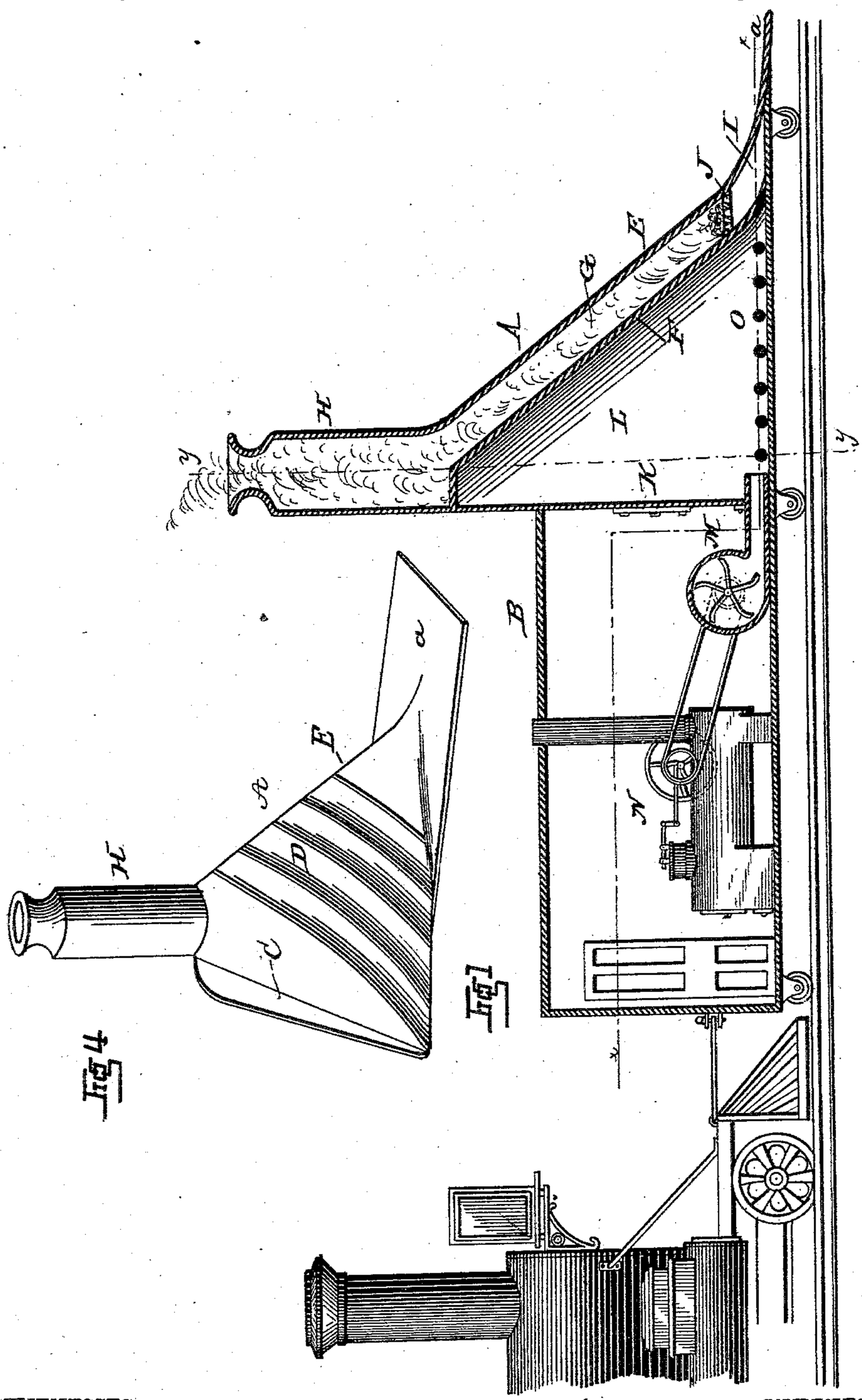
(No Model.)

2 Sheets—Sheet 1.

E. C. DAWSON.

SNOW PLOW.

No. 281,031. Patented July 10, 1883.



WITNESSES:

Fred. L. Dieterich.

Jno. G. Hinkel

INVENTOR.

Eugene C. Dawson

By Louis Bagger & Co.

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

E. C. DAWSON.

SNOW PLOW.

No. 281,031. Patented July 10, 1883.

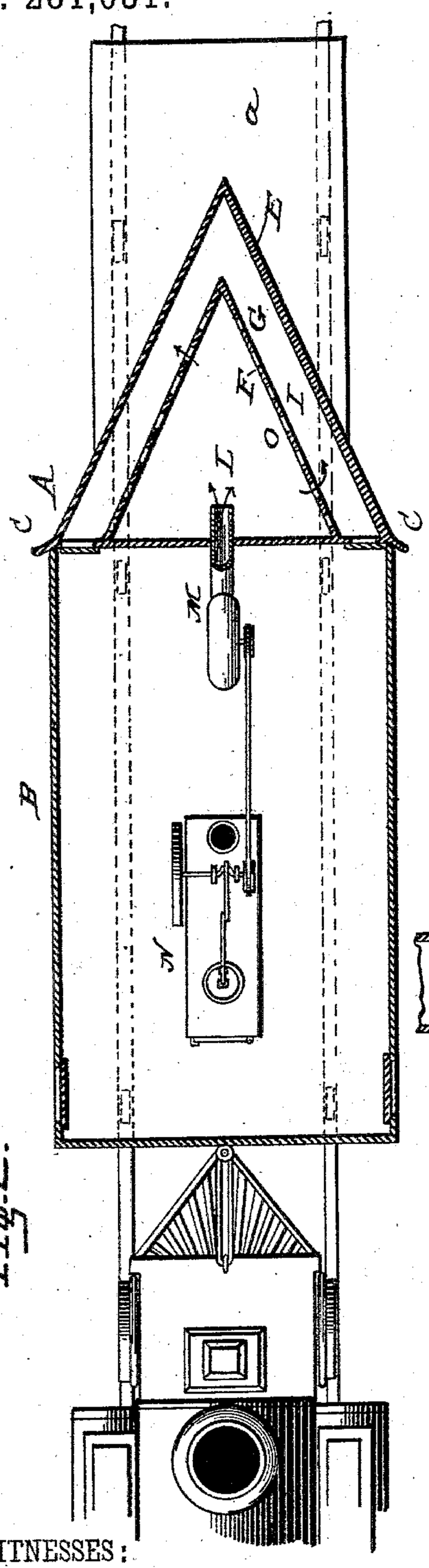


Fig. 2.

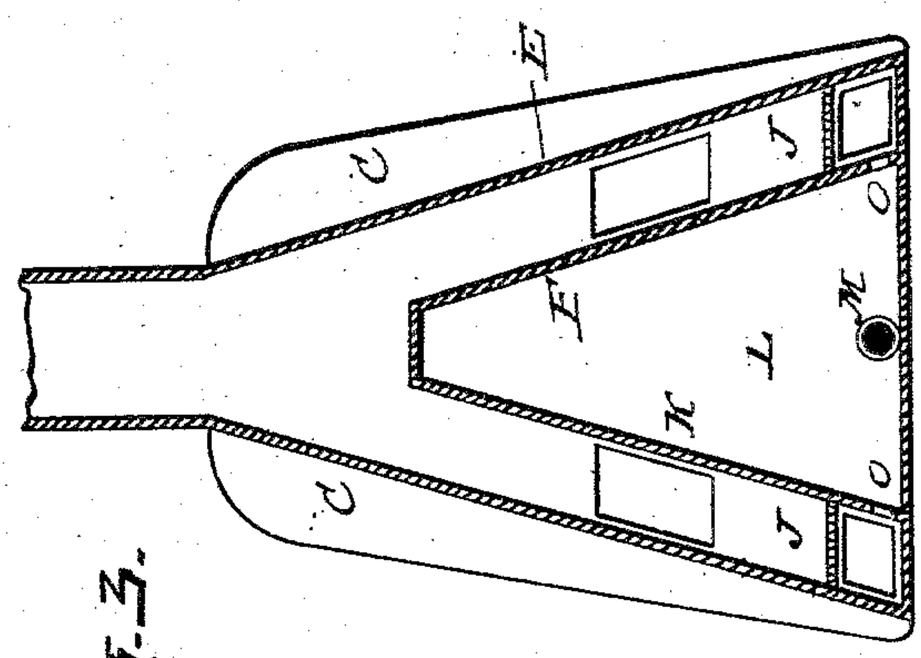


Fig. 3.

WITNESSES:

Fred. L. Dieterich.

Jno. G. Hinkel

Eugene C. Dawson

INVENTOR.

by Louis Bagger & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

EUGENE C. DAWSON, OF MAQUOKETA, IOWA.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 281,031, dated July 10, 1883.

Application filed March 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. DAWSON, of Maquoketa, in the county of Jackson and State of Iowa, have invented certain new and useful Improvements in Snow-Plows; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal vertical sectional view of my improved railroad snow-plow and tender. Fig. 2 is a horizontal section of the same on line *x x*, Fig. 1. Fig. 3 is a cross-section on line *y y*, Fig. 1; and Fig. 4 is a perspective view of the plow.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of railroad snow-plows in which the surface of the plow forms the outer wall of a furnace; and it consists in the improved construction and combination of parts of such a plow in which the heat may be evenly distributed over the entire plow, and the blast which aids the combustion in the same be equally distributed to all points of the fire-place, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the plow, and B the tender, which are both mounted upon wheels rolling upon the rails. The plow is of the usual shape, having a square share, *a*, extending forward, running near the rails, and two wings, C, upon the ends of the curved sides, which turn the snow which has not been melted by contact with the sides, and which would interfere with the moving of the cars down upon the heated sides of the plow. These sides are grooved at D, the grooves running downward from the front edge, serving to carry the water off as it is melted.

The plow consists of an outer casing, E, of plate metal, bent or indented to form the before-mentioned grooves, and a correspondingly-shaped inner casing, F, which both form the fire-space G between them, which at the top of the plow is extended to form a smoke-stack, H. A short distance above the bottom I of the plow, in the fire-space, is a grate, J, extending entirely around on both sides, upon which grate the fuel and fire rest. The rear ends of the two casings are closed by a plate, K, which is provided with doors above and below the grate J, for the purpose of feeding and raking the fire and of cleaning the ashes out below the grate. Inside the inner casing, F, is formed an air-chamber, L, into which a blast of air is forced by a fan, M, operated by a small stationary engine, N, both upon the tender, and the blast is carried out into the fire-space, under the grate, through a series of holes, O, in the inner casing, near the bottom. This blast creates a lively combustion and an intense heat in the fire-space, and as the plow and tender are pushed ahead of a locomotive-engine the plow is pushed in under the snow and melts it, cleaning the road.

It will be seen that by conducting the blast into the air-chamber L and distributing it under the entire fire-place through the holes O the blast will aid the combustion in the entire fire-place, and at the same time, the air in the space becoming heated, it will distribute the heat evenly over the entire inner surface of the furnace-wall, and through it and the fire-space G the outer wall.

I am aware that snow-plows have been made having a plow-shaped furnace upon their forward end, which serves to melt the snow, and provided with a fan-blower, which serves to increase the draft in the furnace, and I do not wish to claim such construction, broadly; but

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

In a railroad snow-plow of the described class, the combination of the plow A, consisting of the outer plow-shaped casing, E K, and the inner casing, F, having perforations O at its lower edge, the said casings forming fire-space G, having grate J, ash-pit I, and the inner casing, F, and the rear wall, K, forming air-space L, with the blower M, opening into the air-space through the wall K, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

EUGENE CHARLES DAWSON.

Witnesses:

FAYETTE W. CRUNE,

QUINCY F. FARR.