

## Snow-Plows.

Patented Oct. 14, 1873.

FIG. 1.

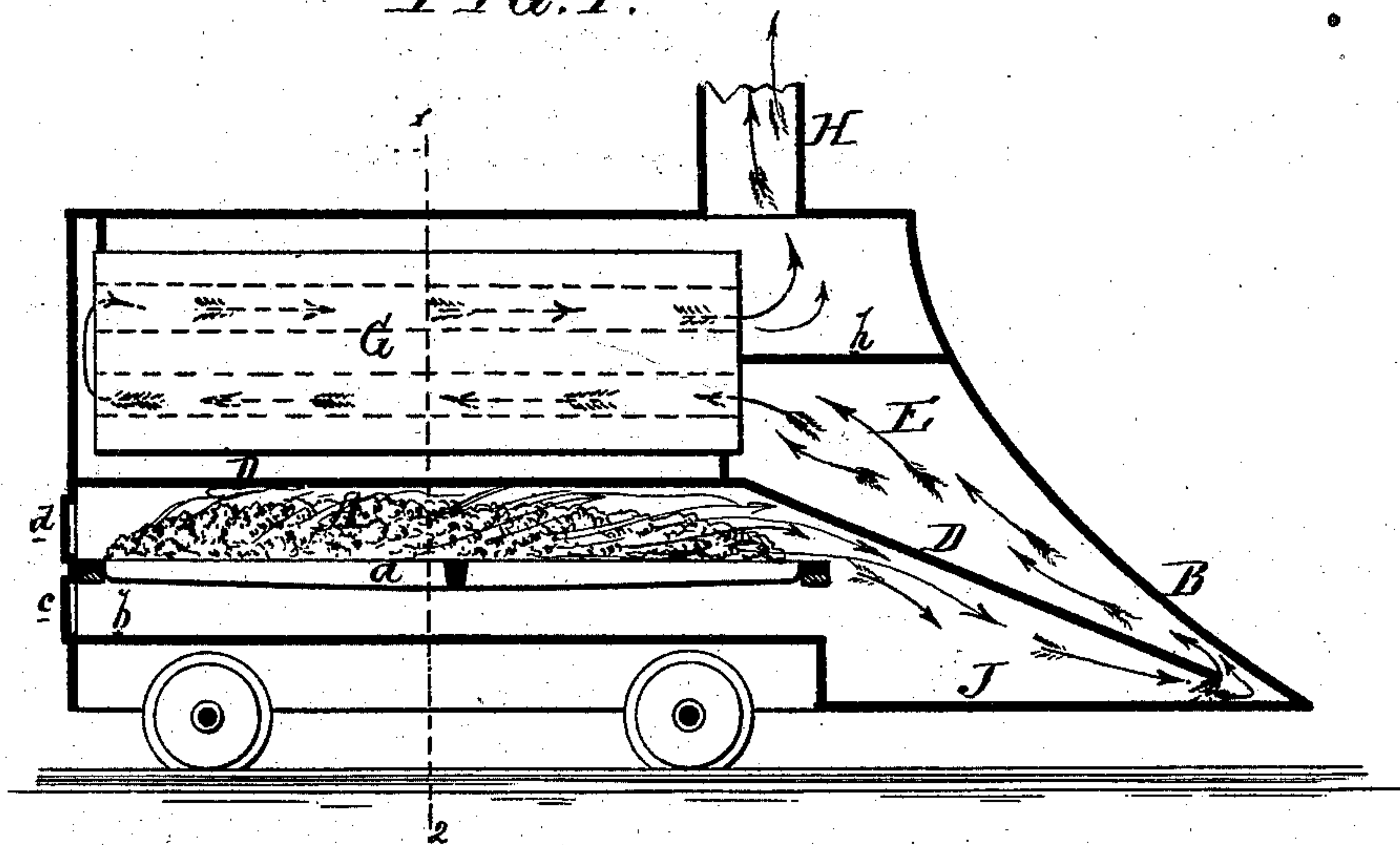
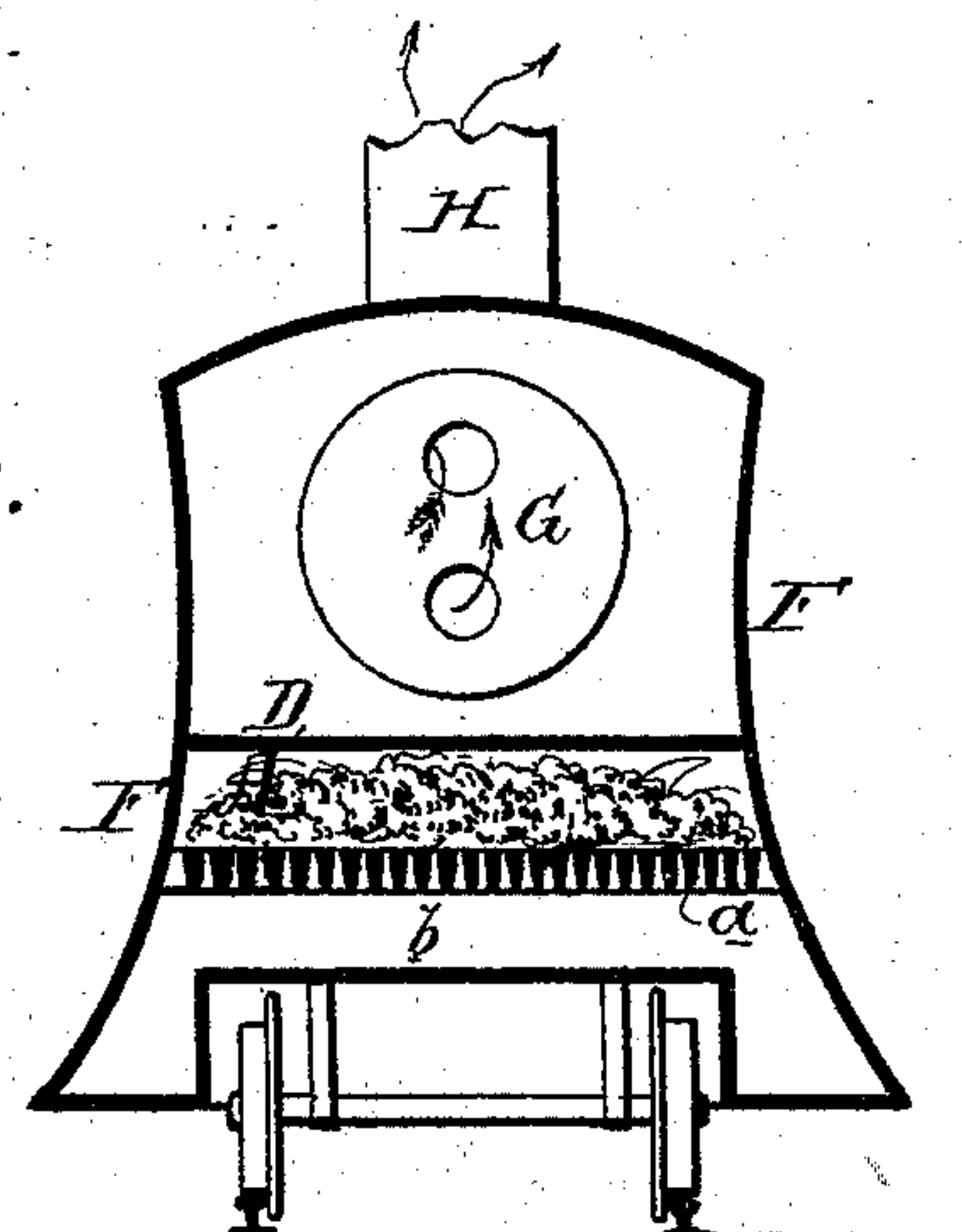


FIG. 2.



Witnesses, Harry Smith  
Thomas McIlwain

Benj. B. Sweet  
and John Noble  
By their Atty.  
Housers and Son

# UNITED STATES PATENT OFFICE.

BENJAMIN B. SWEET, OF WILMINGTON, DELAWARE, AND JOHN NOBLE, OF  
PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. **143,731**, dated October 14, 1873; application filed  
August 25, 1873.

*To all whom it may concern:*

Be it known that we, BENJAMIN B. SWEET, of Wilmington, Delaware, and JOHN NOBLE, of Philadelphia, Pennsylvania, have invented an Improved Heated Snow-Plow, of which the following is a specification:

The object of our invention is to thoroughly heat the nose and other exterior portions of a plow for removing snow from railway-tracks; and this object we accomplish by directing the whole body of the products of combustion from a furnace, A, into the extreme front portion or nose B of the plow, thence around a partition, D, into a chamber, E, bounded by the nose and sides F F of the plow, and thence through the flues of a boiler, G, or around another partition, if a boiler is not used, before they finally escape through the stack H at the front of the plow, all as plainly shown in the longitudinal section, Figure 1, and transverse section, Fig. 2, on the line 1 2 of the accompanying drawing. The furnace A occupies the whole lower portion of the plow beneath the partition D, and has a grate, *a*, and ash-pan *b*, access being obtained to the spaces above and below the grate through doors *d* and *e* at the rear end of the plow. The partition D is inclined downward at its front end, so that it may be extended as far as possible into the nose B of the plow, and so that it shall not only serve to direct the heated products into the said nose, but also against the bottom plate J of the plow. In their farther passage through the chamber E, and through the flues of the boiler G, the prod-

ucts of combustion are brought in contact with and thoroughly heat the upper portion of the nose and the sides and top of the plow, so that in forcing the latter forward the snow, if light, will be entirely melted by contact with the heated surfaces, while, if it should be heavy, sufficient will be melted to prevent it from packing and adhering to and obstructing the passage of the plow, the remainder being deflected to opposite sides of the track, as usual.

We propose to use the steam-boiler G only when the plow is to be self-propelling, a simple arch or partition, forming a continuation of the partition *h*, being employed, if a boiler is not required.

We claim as our invention—

A snow-plow, in which are combined a furnace, A, a partition, D, extending into the nose of the plow, and a return flue-boiler, G, or its equivalent, whereby the whole of the products of combustion from the said furnace are directed first into the nose of the plow, thence to the rear end of the latter, and finally to the front, before making their escape, all substantially as and for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

BENJ. B. SWEET.  
JOHN NOBLE.

Witnesses:

WM. A. STEEL,  
HARRY SMITH.