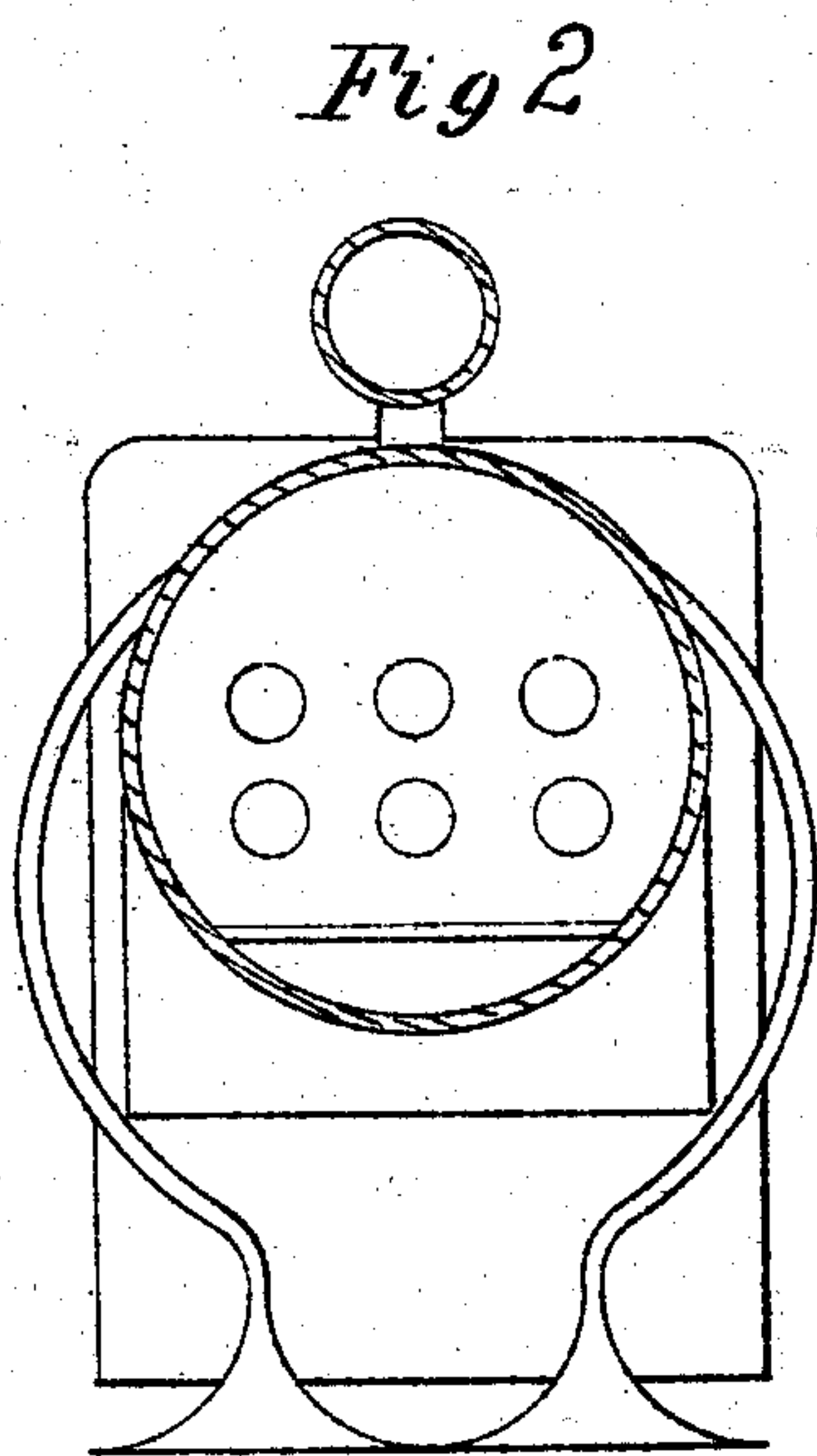
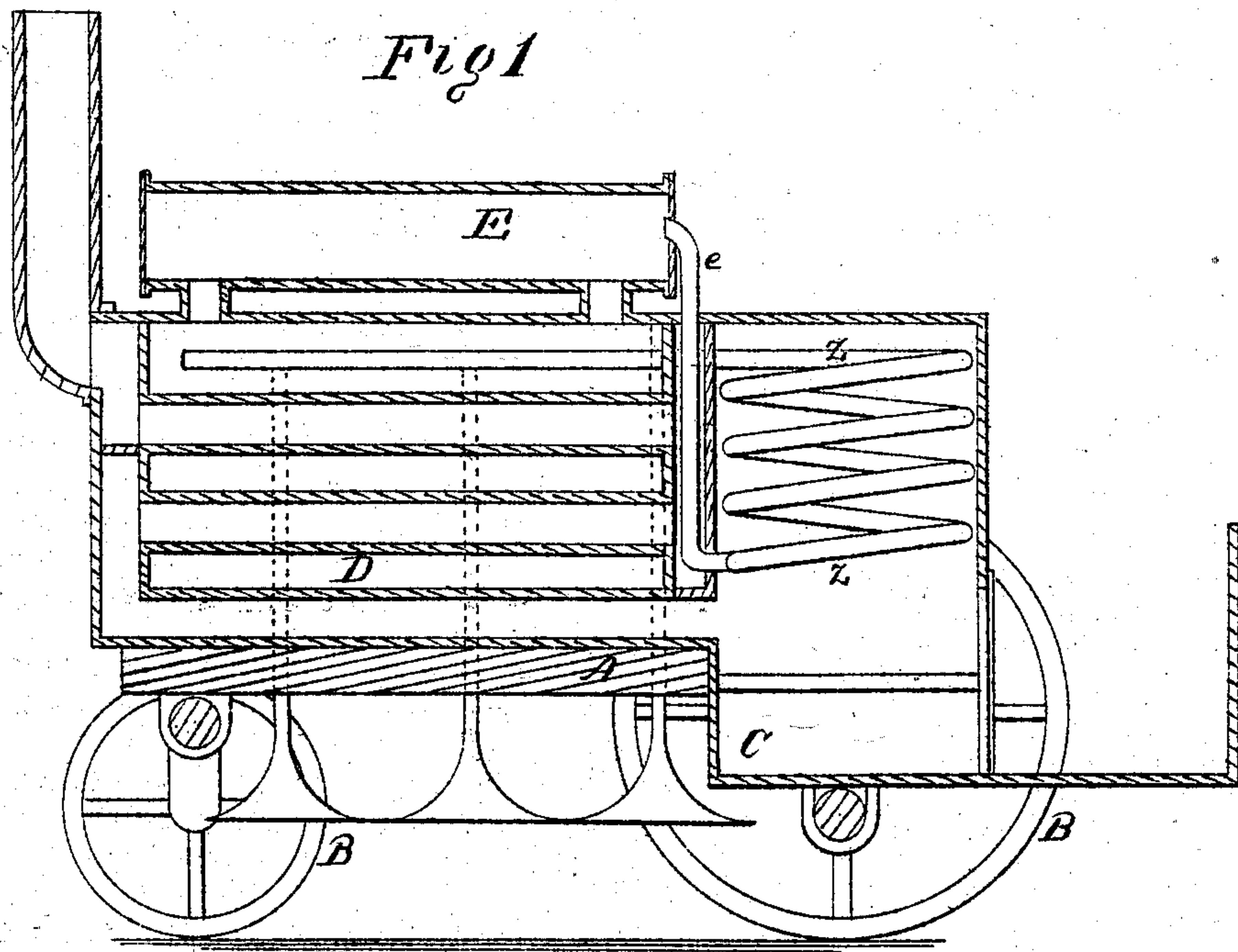


J. MULLALY.
Machines for Melting Snow.

No. 137,019.

Patented March 18, 1873.



Witnesses.
N Connolly.
A Connolly

Inventor
John Mullaly
by
Connolly Bros.
Atty.

UNITED STATES PATENT OFFICE.

JOHN MULLALY, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR MELTING SNOW.

Specification forming part of Letters Patent No. 137,019, dated March 18, 1873.

To all whom it may concern:

Be it known that I, JOHN MULLALY, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Snow-Melters; 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 pertains to make and use it, reference being had to the accompanying drawing which forms part of this specification.

Referring to the drawing, Figure 1 is a vertical longitudinal section, and Fig. 2 a detail view, of my invention.

My invention has reference to machines for the removal of snow and ice from the streets of cities and towns; and it consists essentially in means, as hereinafter described, for thawing said snow and ice by the use of superheated steam.

In carrying this invention into effect, I employ a machine, which may be generally described as a frame mounted on wheels or runners, bearing a furnace and boiler of suitable construction, by which steam is generated, and having a superheater and pipes by which the superheated steam is discharged upon the snow and ice in the streets.

Referring to the drawing, A designates a frame mounted on traction-wheels B B, flanged, if desired, to run on tracks, or runners might at times be substituted with advantage for the wheels. C shows a furnace, and D a boiler for generating steam. The boiler D is surmounted by a steam-chest, E, and from this chest or from the boiler direct, steam-pipes *ee* run to the superheater *z*, thence to the bottom of the frame, where their con-

tents are discharged upon the snow and ice lying in the street.

I have illustrated the superheater as a series of coiled pipes in the furnace, and have shown these pipes as terminating in funnel-shaped openings; but I reserve the privilege of varying the specific construction of the superheater, and also of the discharge-openings, which may be made narrow so as to send forth the steam in more condensed jets. Instead, also, of discharging the steam directly from the pipes, I may employ a perforated tank, a series of perforated brush-cylinders, or a perforated hopper, into which the snow is swept by a suitable brush, these several modifications being more fully described in my other applications for patents of previous date to this, wherein I have illustrated means for discharging natural steam instead of superheated steam as in the present case.

I do not claim, broadly, the employment of superheated steam in a snow cleaner or plow; but limit myself to the direct discharge thereof upon the snow or ice; hence

I claim—

A machine for melting snow or ice, consisting of a suitably mounted portable steam-generating and superheating apparatus, having tubes so arranged as to receive superheated steam from the superheater and discharge the same upon the snow or ice through pipes arranged between the wheels of the truck, substantially as specified.

In testimony that I claim the foregoing, I have hereunto set my hand this 5th day of February, 1873.

Witnesses:

JOHN MULLALY.

GEO. C. SHELMERDINE,

M. DANL. CONNOLLY.