

(No Model.)

E. BEATTY.  
SNOW MELTING MACHINE.

No. 541,709.

Patented June 25, 1895.

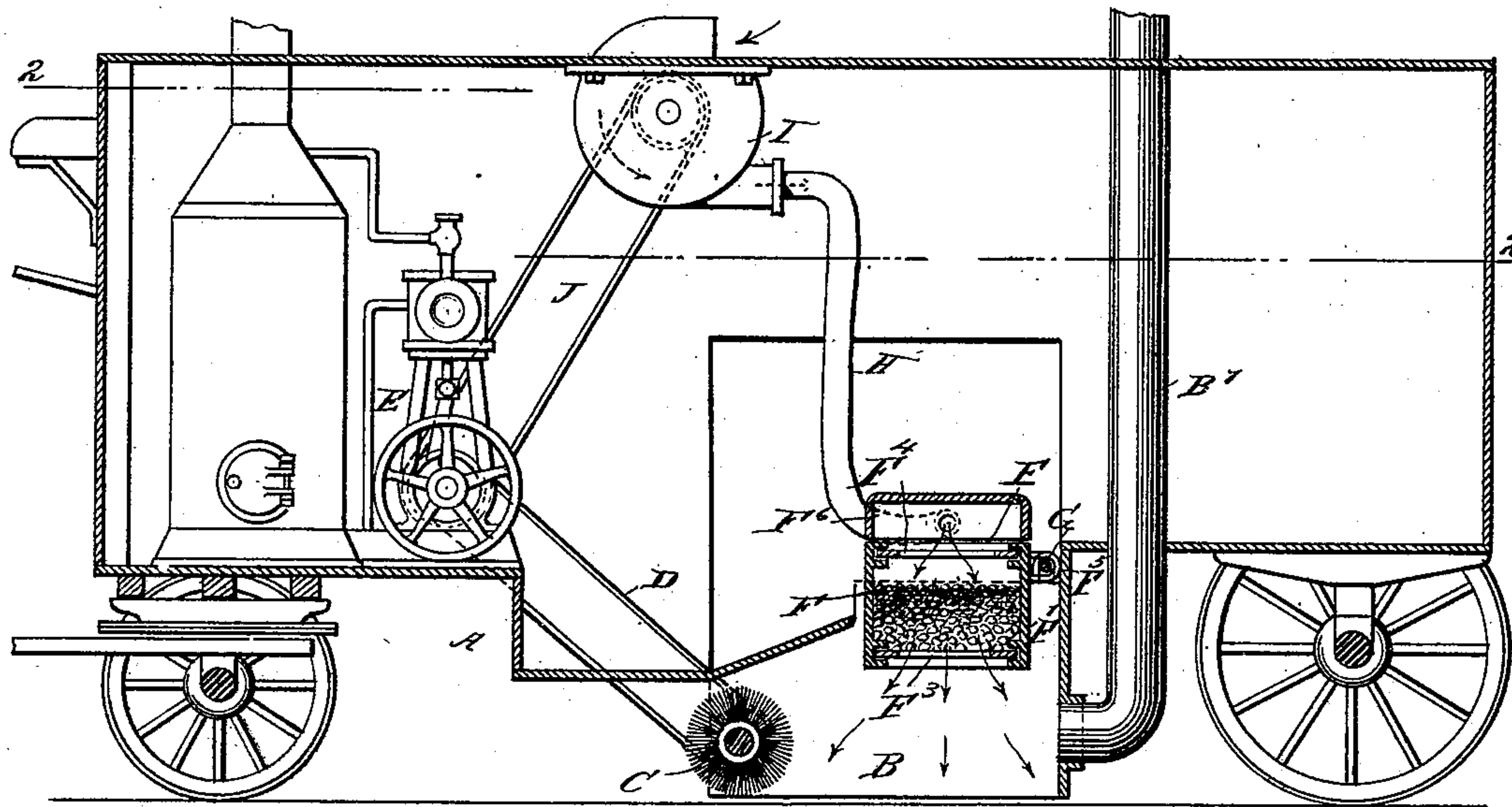


Fig. 1.

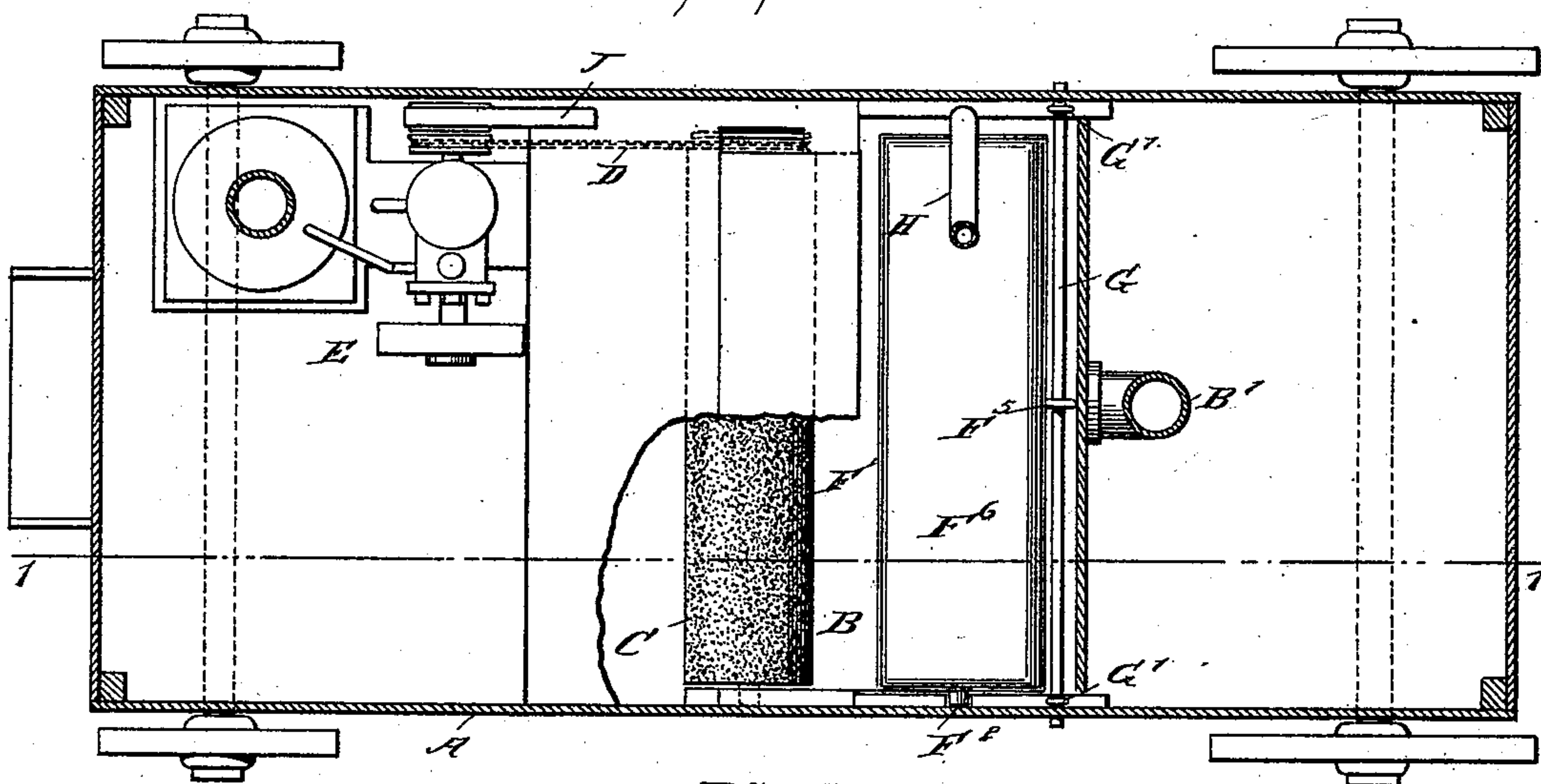
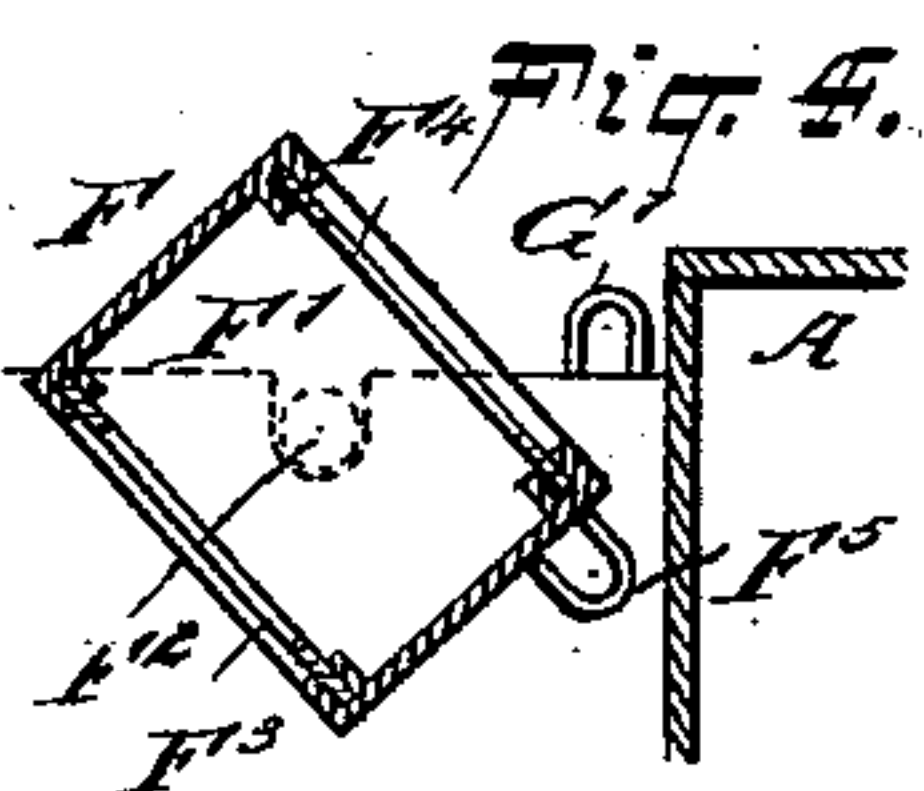


Fig. 2.



WITNESSES:

William Gaebel.

*Harry H. H. H.*

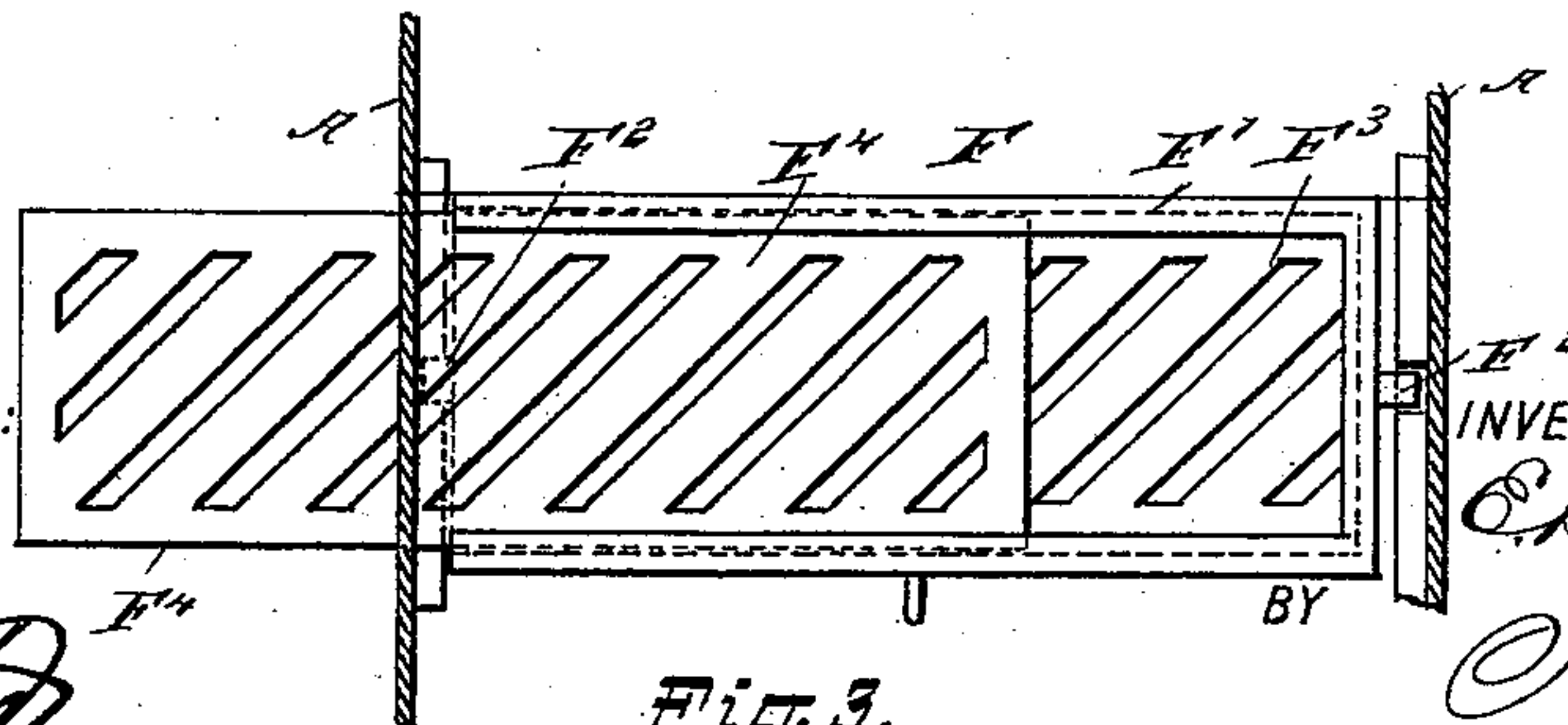


Fig. 3.

INVENTOR

*E. Beatty*

*Munn & Co.*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

EDWARD BEATTY, OF BROOKLYN, NEW YORK.

## SNOW-MELTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 541,709, dated June 25, 1895.

Application filed February 19, 1895. Serial No. 538,933. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD BEATTY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved  
5 Snow-Melting Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved snow melting machine, more especially designed to be drawn through  
10 the streets of cities and like places, and arranged to quickly melt the snow.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed  
15 out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

20 Figure 1 is a sectional side elevation of the improvement on the line 1 1 of Fig. 2. Fig. 2 a sectional plan view of the same on the line is 2 2 of Fig. 1. Fig. 3 is a plan view of the furnace with the cover removed and one of the  
25 grates partly withdrawn, and Fig. 4 is a sectional side elevation of the same in a different position.

The improved snow melting machine is provided with a wheeled vehicle A, adapted to be  
30 drawn or driven through the streets or other places in which the snow is to be melted. This vehicle A is provided in its bottom between the front and rear wheels with a chamber B, open at the bottom and extending close to the sur-  
35 face of the street, as indicated in Fig. 1. In the front end of the chamber B is arranged a revoluble brush C for sweeping the snow from the street, into the said chamber B. This revoluble brush C is connected by a belt D  
40 with a pulley on an engine E, supported on the vehicle A, and driven by steam from a boiler set in the vehicle, or by other suitable motive power. In the top of the chamber B is arranged a down-draft furnace F, provided  
45 with a fire box F', arranged transversely in the chamber B and journaled at its closed ends by trunnions F<sup>2</sup> in the sides of the vehicle A. A slidable and removable grate F<sup>3</sup> is arranged in the bottom of the said fire box  
50 F', and a similar grate F<sup>4</sup> is arranged in the top thereof, so that the fire box, when turned upside down, has a grate both on the top and

on the bottom; and between the grates is contained the coal or other fuel to be burned.

In order to hold the fire box F in proper  
55 position, as shown in Fig. 1, I provide a suitable fastening device, preferably in the form of a transverse rod G, adapted to be passed through staples G' in the vehicle A, and through a staple F<sup>5</sup> in the side of the fire box  
60 F'. When the rod G is withdrawn, the box can be conveniently turned, to bring the lowermost grate to the top and the upper grate to the bottom, as will be readily understood by reference to Fig. 4.  
65

In order to introduce the fuel, the uppermost grate is pulled out, as indicated in Fig. 3, so as to permit of charging the already  
burning fuel with a fresh supply of coal. The top of the fire box F' above the uppermost  
70 grate is adapted to be closed by a cover F<sup>6</sup>, connected at one end by a flexible pipe H with a blower I, driven by a belt J from the engine E.

Now, it will be seen that when the engine  
75 is in motion, the blower I is actuated, and forces air through the pipe H and cover F<sup>6</sup>, into and through the fire box F' in a downward direction, so that proper combustion of the fuel in the fire box is obtained, and at the  
80 same time the heat is forced through the lowermost grate F<sup>3</sup> into the chamber B in contact with the snow thrown into the chamber by the brush C. The snow is thus subjected to a high degree of heat and instantly melted,  
85 to then run into the gutter or to be swept into the same by following brushes if necessary.

A chimney B' in the rear end of the chamber B, permits the escape of gases from the  
90 chamber.

It is understood that the cover F<sup>6</sup> is lifted or entirely removed through one side of the vehicle before turning the fire box F', to  
charge the latter with the fuel, and also to change the position of the burning fuel in  
95 the said fire box. This operation is necessarily repeated from time to time as the fuel burns out in the fire box.

The pipe H is preferably made flexible, so as to permit a convenient lifting of the cover  
100 F<sup>6</sup> at the time the fire box is turned.

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

1. In a device of the character described, a rotatively mounted furnace having longitudinal guideways at opposite sides, and  
5 nally along said guideways, substantially as set forth.

2. The combination of a heating chamber, the furnace rotatively mounted therein and provided with longitudinally movable grates  
10 on its opposite sides, a cover located in the heating chamber and adapted to close one side of the furnace, a blower, means for driving the same, and a pipe communicating between the blower and the said cover and  
15 adapted to supply air thereto, substantially as set forth.

3. The combination of a heating chamber having a transverse shaft, a furnace rotatably mounted in the heating chamber and provided with longitudinally movable grates at  
20 its opposite sides and having means for locking it to said transverse shaft when set to the required position, a cover plate located in the heating chamber and adapted to close one  
25 side of the furnace, a blower, and a pipe connecting the blower with the cover of the heating chamber, substantially as set forth.

EDWARD BEATTY.

Witnesses:

THEO. G. HOSTER,  
C. SEDGWICK.