

(No Model.)

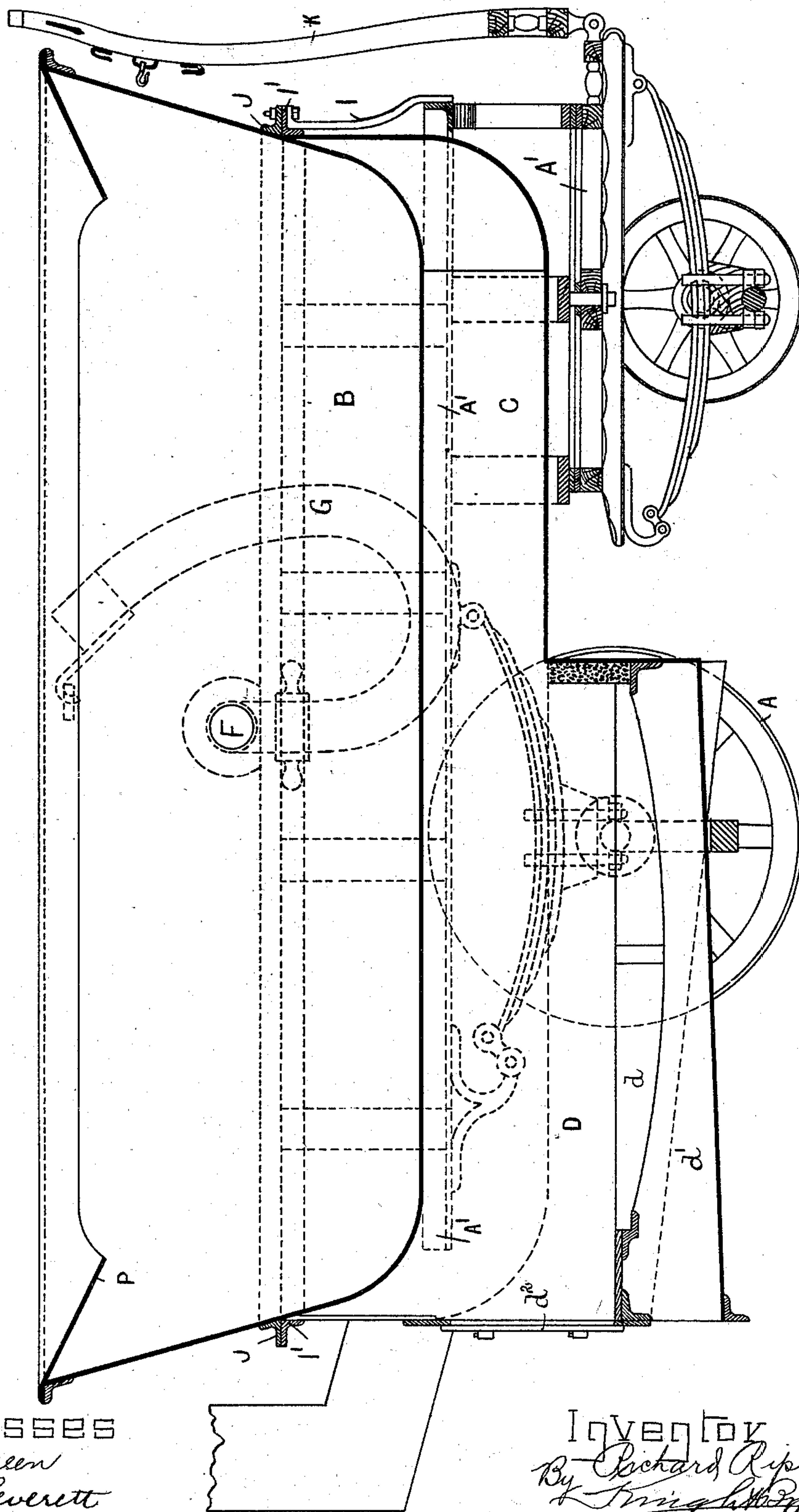
3 Sheets—Sheet 1.

R. RIPLEY.
APPARATUS FOR MELTING SNOW OR ICE.

No. 559,217.

Patented Apr. 28, 1896.

FIG. 1.



Witnesses
J. Green
H. L. Leverett

Inventor
By Richard Ripley
Tringham Ripley

(No Model.)

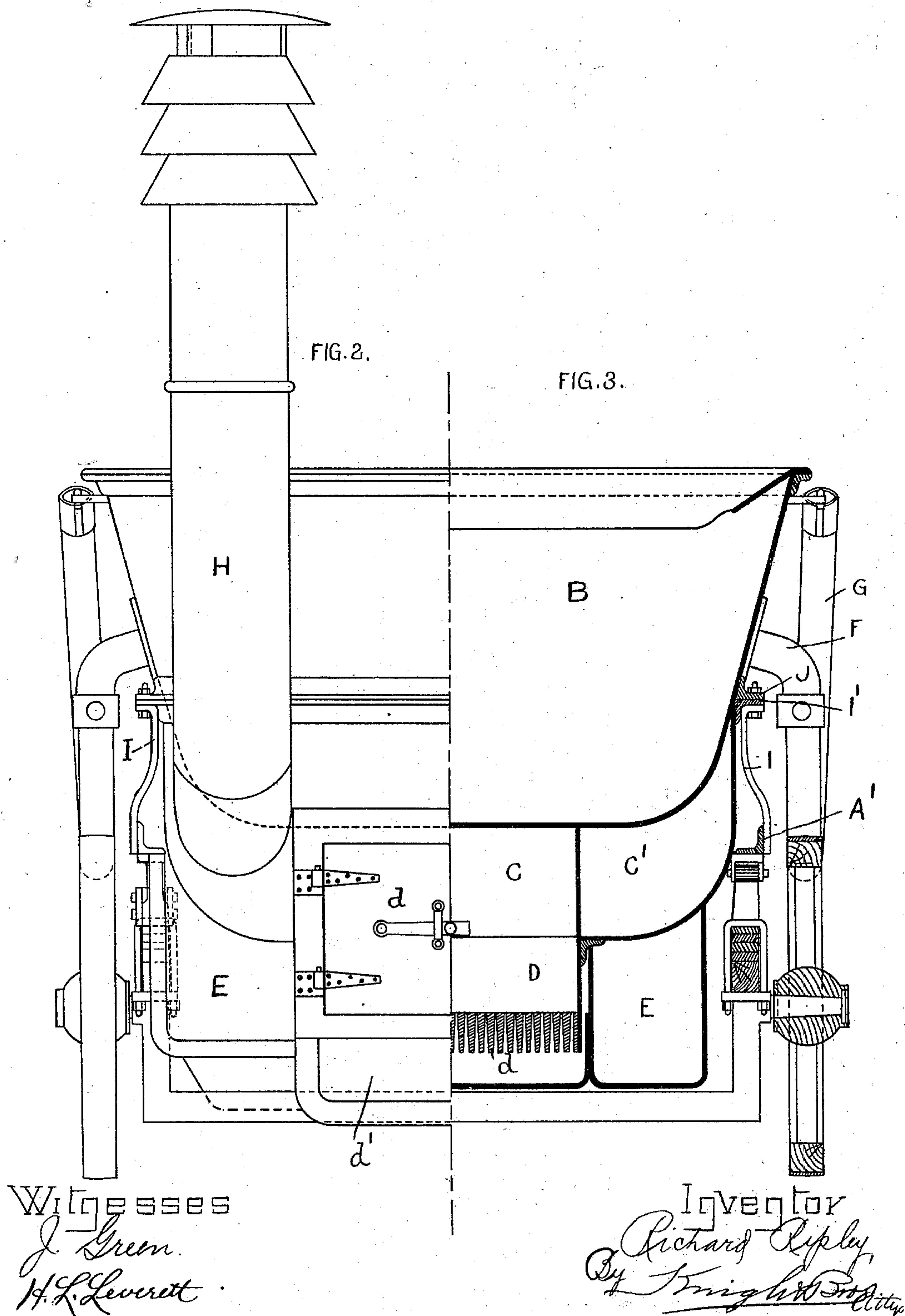
3 Sheets—Sheet 2.

R. RIPLEY.

APPARATUS FOR MELTING SNOW OR ICE.

No. 559,217.

Patented Apr. 28, 1896.



Witnesses
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(No Model.)

3 Sheets—Sheet 3.

R. RIPLEY.
APPARATUS FOR MELTING SNOW OR ICE.

No. 559,217.

Patented Apr. 28, 1896.

FIG. 5.

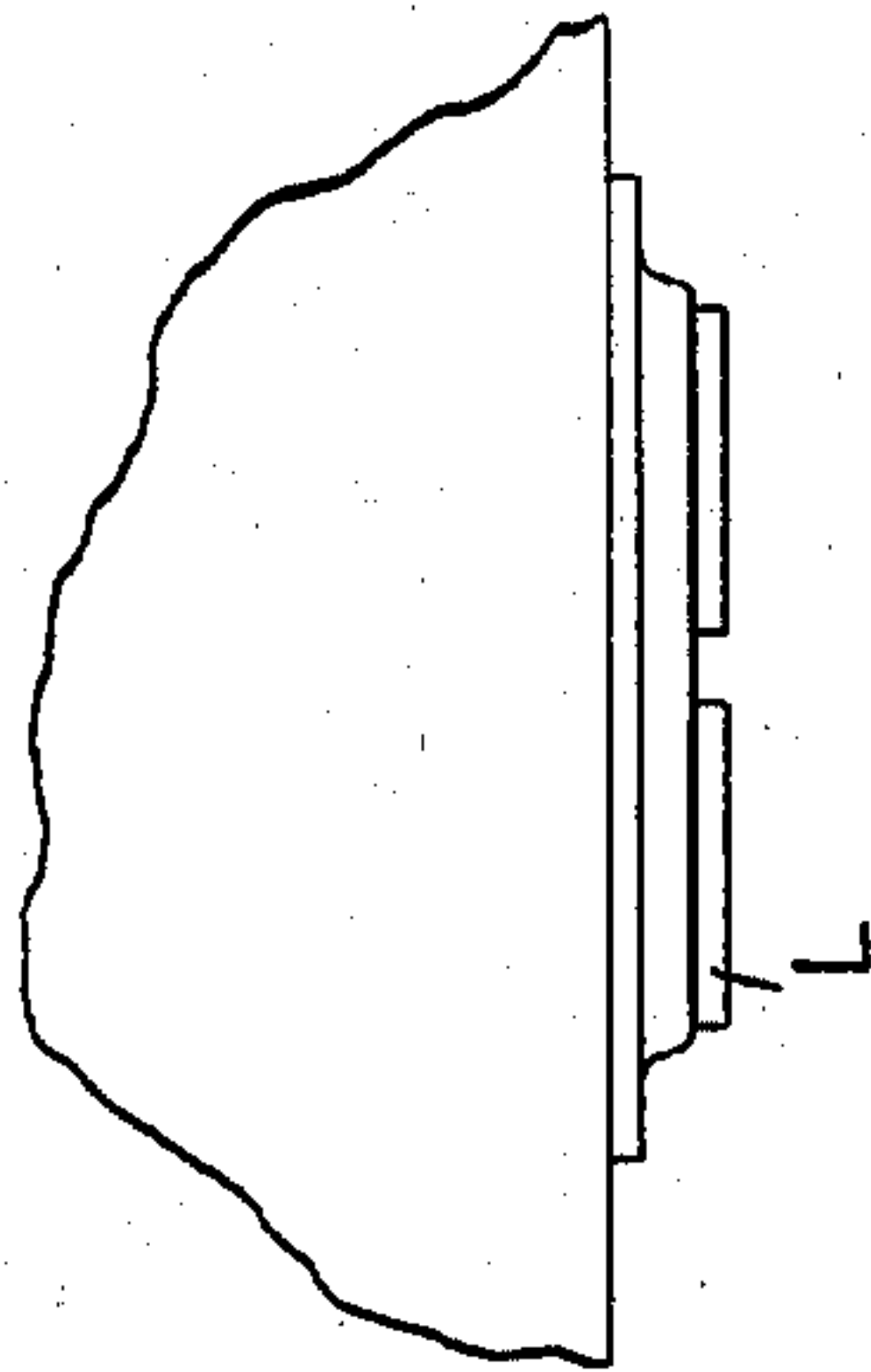
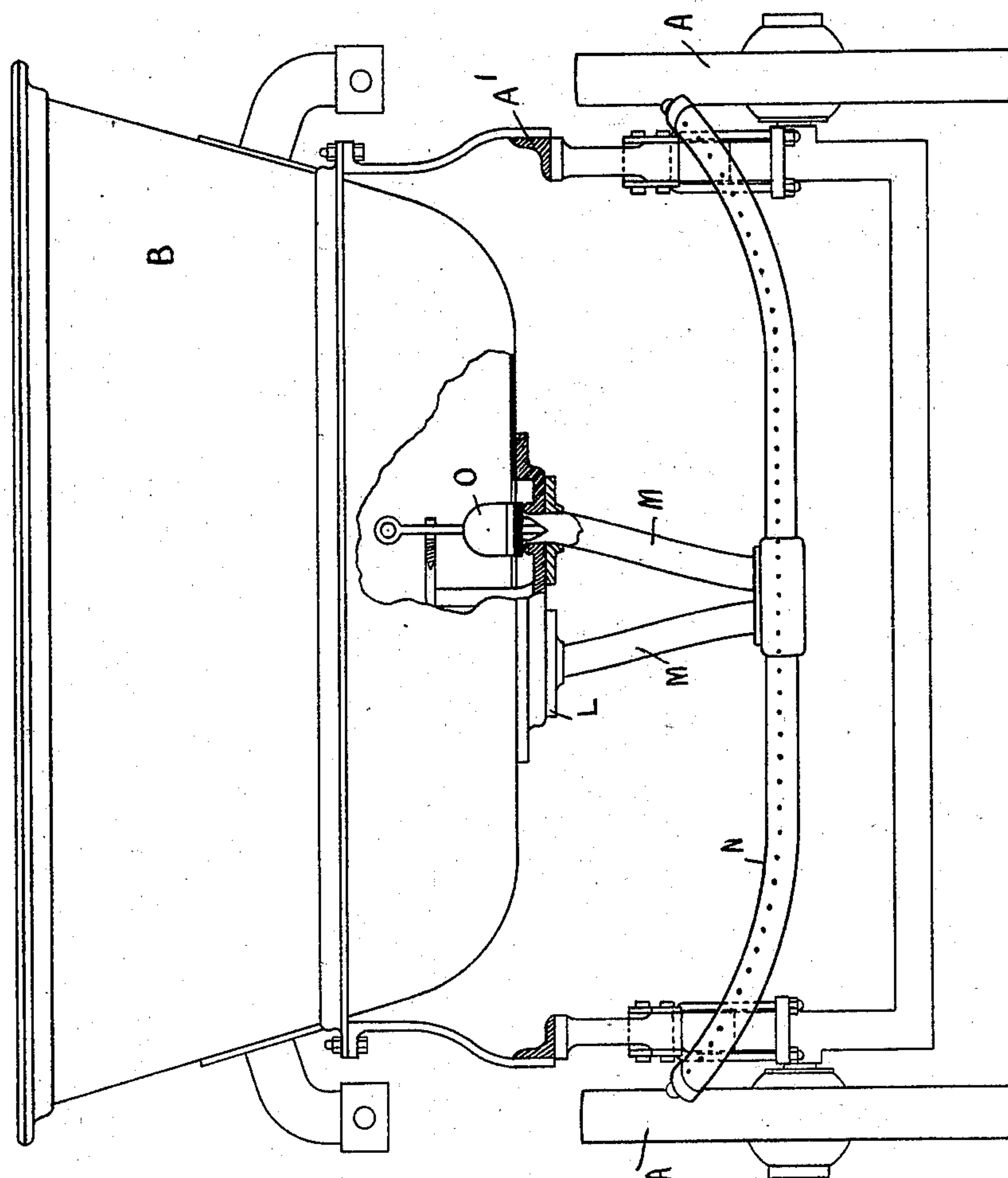


FIG. 4.



Witnesses
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H. L. Leverett

Inventor
Richard Ripley
By Knight Bros. Attys

UNITED STATES PATENT OFFICE.

RICHARD RIPLEY, OF LIVERPOOL, ENGLAND.

APPARATUS FOR MELTING SNOW OR ICE.

SPECIFICATION forming part of Letters Patent No. 559,217, dated April 28, 1896.

Application filed September 5, 1895. Serial No. 561,528. (No model.)

To all whom it may concern:

Be it known that I, RICHARD RIPLEY, a subject of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, England, have invented certain new and useful Improvements in Apparatus for Melting Snow or Ice, of which the following is a specification.

This invention has for its object an apparatus applicable for removing snow or ice from streets or roads and other like places in a more expeditious manner than at present.

The invention is also applicable for use as a water-cart in dry weather when not required for use in removing snow. It will be understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of my improved apparatus as used for melting snow or ice; Figs. 2 and 3, a rear end elevation and transverse section, respectively; Fig. 4, a front end elevation of my apparatus as used as a street-watering cart, and Fig. 5 a detail view of the tank-bottom with the perforated pipes removed.

In the drawings, A are the wheels; A', the draft-frame, on which is mounted the receptacle B for the snow or ice. This latter is constructed of copper or other suitable material.

C C' are flues, and D is a furnace or fire grate arranged underneath the receptacle B, *d* being the fire-bars, *d'* the ash-pan, and *d''* the fire-door.

E E are boxes or chambers for the fuel, or I may have a separate tender for the fuel, if necessary; F, a spout or opening in the receptacle B, provided with a hose-pipe G for discharging the melted snow or ice into a gutter or drain; H, a chimney, (of which there are two at the rear end,) the heat from the furnace D passing along the entire length of the flue C under the receptacle B and returning through the flues C' to the chimneys H.

It will be seen that the casing or jacket *c*, forming the furnace and flues, is supported on angle-irons I', which rest on brackets I, attached to the draft-frame A', and the receptacle B is provided with an angle-iron J, which rests upon the angle-iron I', these two angle-irons and the top of bracket I being bolted together.

The mode of action is as follows: The re-

ceptacle B is first filled with water up to the orifice F, the fire in the grate is lighted, and when the water in receptacle B is hot the snow is shoveled into the receptacle. The flames and heated products of combustion passing along the flues C C' quickly melt the snow and ice in the receptacle as it is thrown in by the scavengers, the water flowing out through the orifice F into the gutter or drain at the side of the street. If there is not a frost at the time the apparatus is being used, the hose G may be allowed to hang down loose to admit of the water flowing away as quickly as it is melted. If there exists a frost, the hose may be hooked up at *g*, thus allowing the water to accumulate in the receptacle B till a grid is reached, when the hose is unhooked and the water discharged into the grid direct, thus avoiding any danger of the water freezing in the streets. K are shafts for harnessing horses to the apparatus, so that it can be easily moved about. It will be seen that the apparatus possesses this great advantage of dispensing with the old and costly system of employing men to cart the snow away, the snow in my apparatus being far more quickly disposed of by melting it and running it to waste through the public drains.

At other seasons of the year, when the apparatus is not required for use as a snow-melter, the apparatus may be used as a watering-cart or as a cart for agricultural or other purposes. In this case the angle-irons are disconnected by undoing the bolts, and the receptacle B and casing *c* are then removed. When this is done, the receptacle B is replaced alone without the casing and the angle-irons J bolted directly on the brackets I. The hose-pipe G is moreover removed and the exit-opening closed up. A cart is thus produced which may be used for a variety of purposes.

When the apparatus is required for use as a watering-cart for watering the street in summer, the ends of the pipes M of the perforated sprinkler N are fitted and secured into the sockets L in the bottom of the receptacle B. O are valves controlling these pipes.

P is a projecting rim or shield adapted to check the water from splashing over the top of the receptacle B when the water-cart is in

motion. This is detachable and may be removed when required.

I claim as my invention—

1. In a snow and water cart, a furnace and
5 flues mounted upon the draft-frame of the
vehicle, in combination with a tank for hold-
ing the snow or ice to be melted, said tank,
furnace and flues being so arranged that they
can be removed from the frame, the tank
10 separated from the furnace and flues, and re-
placed alone on the frame substantially as
and for the purpose described.

2. The combination of the draft-frame A',
the receptacle or jacket movably supported
15 upon the draft-frame and carrying a furnace
and furnace-flues, and a tank supported upon
and within the casing and adapted to rest
upon the draft-frame when the casing or

jacket is removed, substantially as and for
the purpose set forth. 20

3. The combination of the draft-frame A',
the brackets I extending up therefrom, the
receptacle or jacket provided with angle-
iron flanges or rims I' adapted to rest upon
the brackets I, and a pan or tank B provided 25
with angle-iron flange J adapted to rest on
the angle-iron I' for the purpose of support-
ing the tank within a receptacle or jacket,
substantially as set forth.

In testimony whereof I have signed my 30
name to this specification in the presence of
two subscribing witnesses.

RICHARD RIPLEY.

Witnesses:

G. C. DYMOND,
W. H. BEESTON.