

T. W. TYLER.
Car-Heaters.

No. 159,002.

Patented Jan. 19, 1875.

Fig 1.

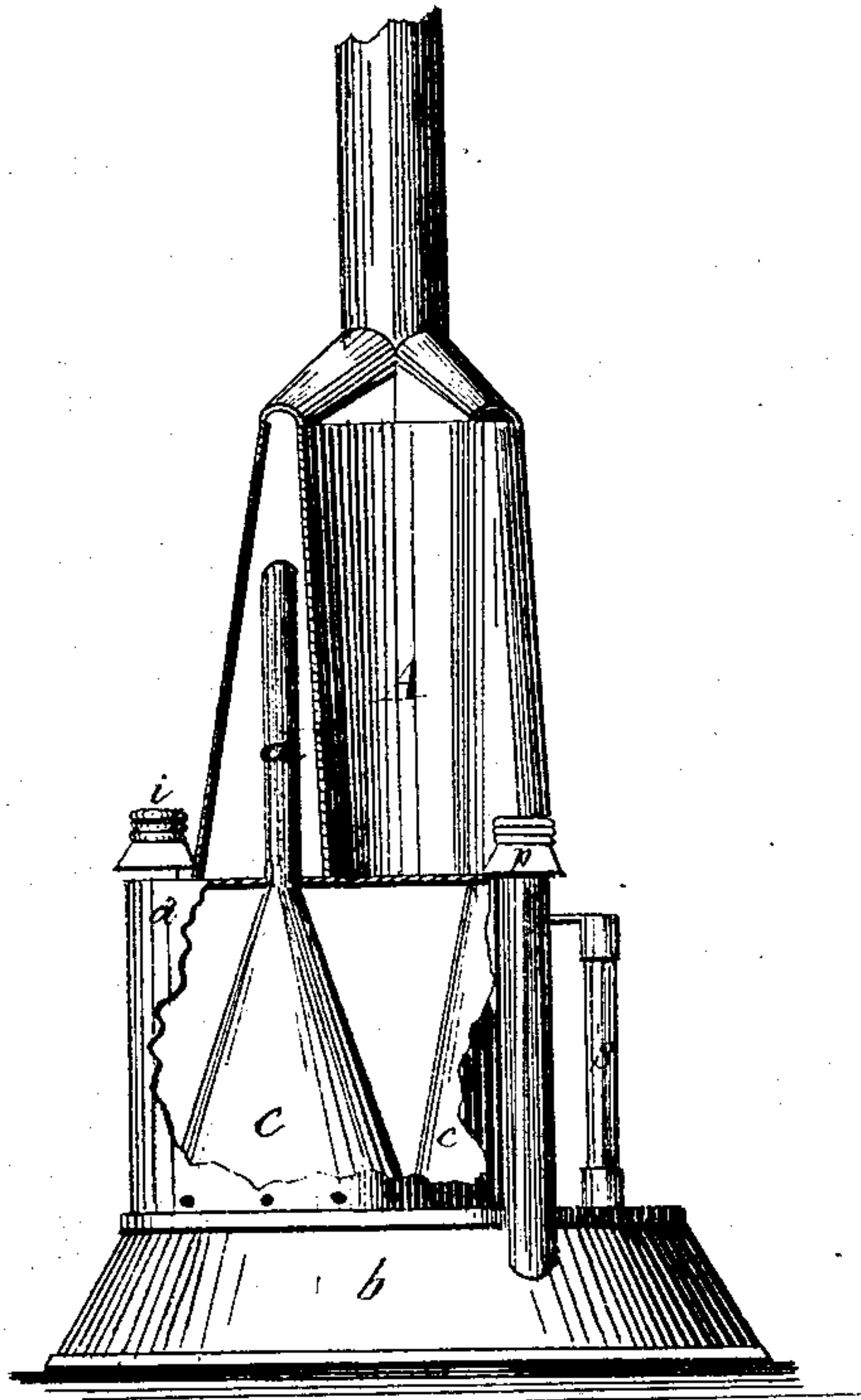


Fig 2.

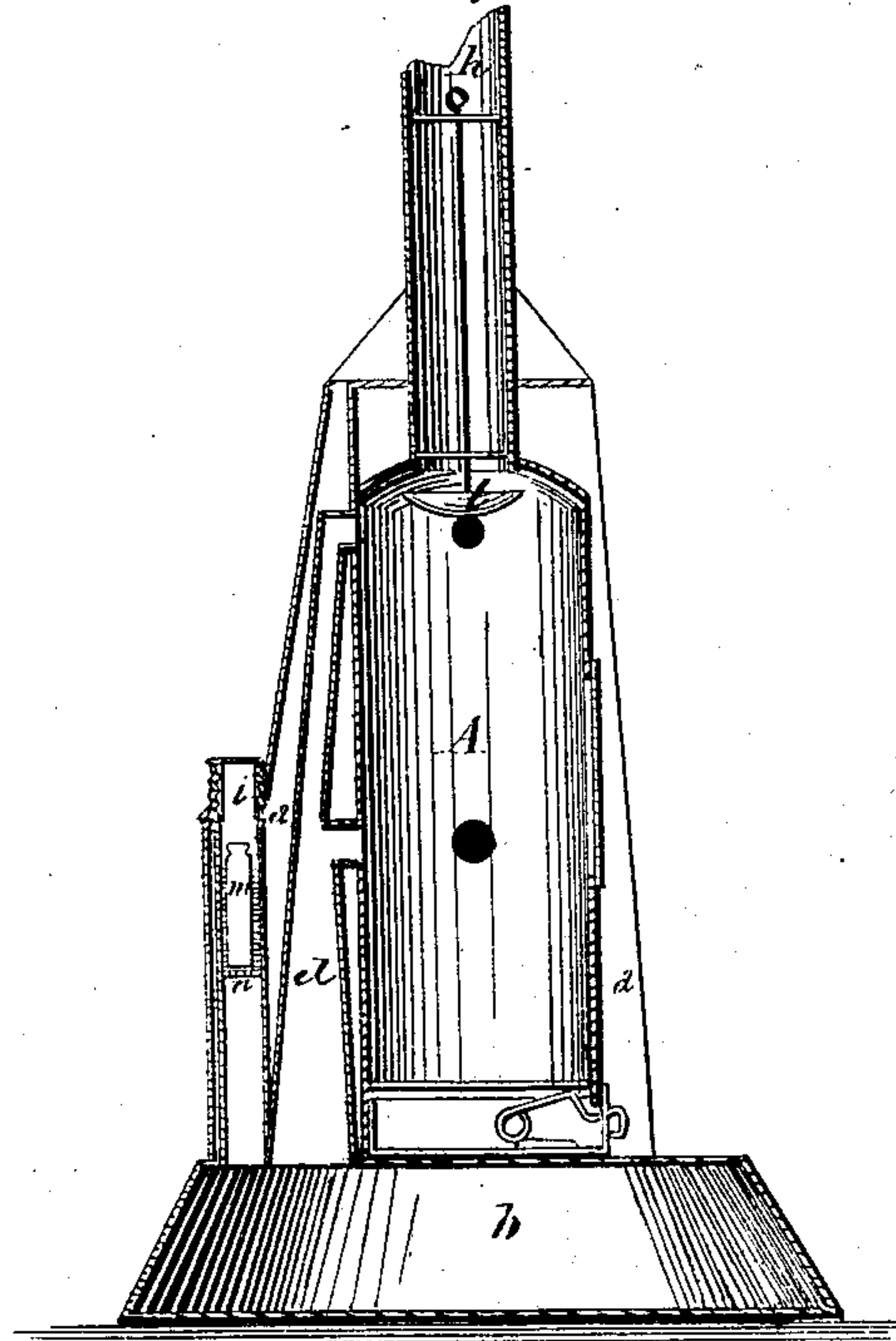
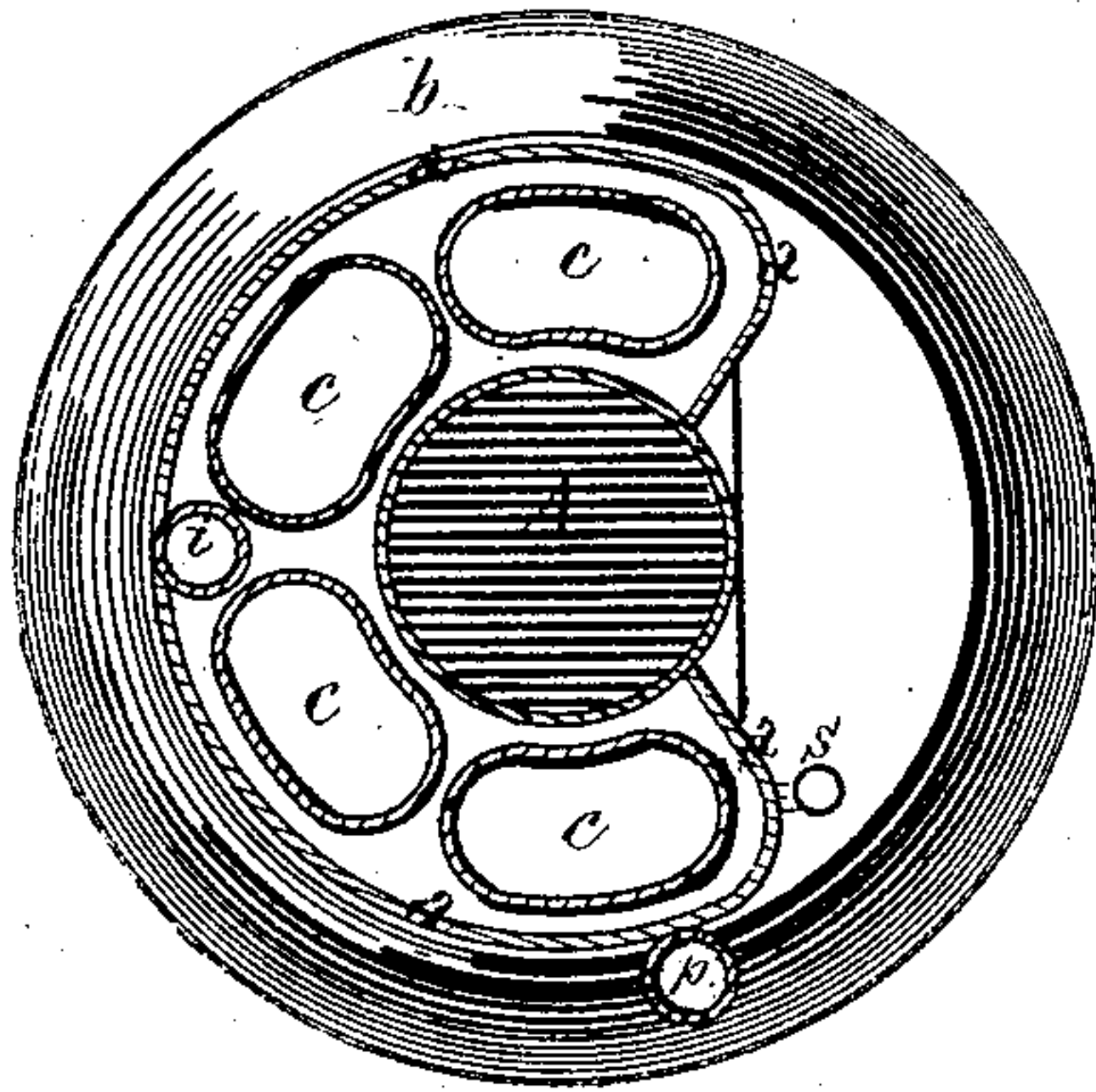


Fig 3.



WITNESSES.

J. W. Garner,
Chas. H. Lemon.

INVENTOR

Thomas W. Tyler
per F. A. Lehmann Atty.

UNITED STATES PATENT OFFICE.

THOMAS W. TYLER, OF CORRY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO FRANK M. LOCKWOOD, OF SAME PLACE.

IMPROVEMENT IN CAR-HEATERS.

Specification forming part of Letters Patent No. **159,002**, dated January 19, 1875; application filed January 11, 1875.

To all whom it may concern:

Be it known that I, THOMAS W. TYLER, of Corry, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Car-Heaters; 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 drawings, which form part of this specification.

My invention relates to an improvement in car-heaters; and consists in a tube in which is suspended a vessel containing sulphuric acid, the contents of which, when the heater is overturned, come in contact with carbonates and generate carbonic-acid gas, which, forcing itself into the heater, will effectually extinguish the fire, as will be more fully described hereafter.

The accompanying drawing represents my invention.

A represents an ordinary stove, of any desired construction, which is secured to the hollow base *b*. This base is to be filled with a fluid holding a carbonate in solution, and has a number of tubes, *d*, extending upward from it, through which the water flows upon the fire in case the stove should accidentally be upset, so as to instantly extinguish it. These tubes communicate with the interior of the stove, near its top, and also just above the level of the fire-pot, and have their lower ends enlarged, so as to form funnels *c*, in order that a large volume of water may rush upward through them, instead of being supplied in small streams.

The heater, funnels, and tubes are surrounded by a jacket, *a*, so that the heat rises upward, and issues at the top from under the radiator placed over the top of the stove. In the stove-pipe *h* on the top of the heater is a valve or damper, *l*, which, so long as the

heater stands in an upright position, remains open, but when upset closes the pipe, so that, should any fire have remained in the heater, it cannot drop out.

At the rear part of the heater is a tube, *i*, in which is suspended from the top an open vessel, *m*, containing sulphuric acid, and under this vessel is a perforated bottom, *n*, upon which chalk or carbonate of soda is placed.

Should the heater be overturned, the acid, coming in contact with the carbonates, forms carbonic-acid gas, which will force out the water from the base through the tubes into the interior of the heater.

The base is filled with water impregnated with carbonate of soda through the pipe *p*, and the gage *S* indicates the height of the water.

I am aware that car-heaters having a hollow base to hold water, and pipes to conduct this water into the stove to extinguish the fire in case the stove should be upset, is not new.

I am also aware that the mere use of carbonic acid for extinguishing fires is not new.

My invention consists in an arrangement and combination of parts whereby this old principle is applied to a car-heater.

Having thus described my invention, I claim—

In combination with a heater having a hollow base or vessel for holding water, the tube *i*, containing a vessel for sulphuric acid or other chemical, whereby carbonic-acid gas is generated upon the upsetting of the stove, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of January, 1875.

T. W. TYLER.

Witnesses:

T. F. LEHMANN,
F. A. LEHMANN.