(No Model.)

J. SOMERVILLE.

APPARATUS FOR WASHING GAS.

No. 305,719. Patented Sept. 23, 1884.

Fig. 1.

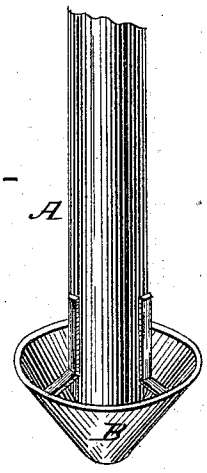


Fig. 2.

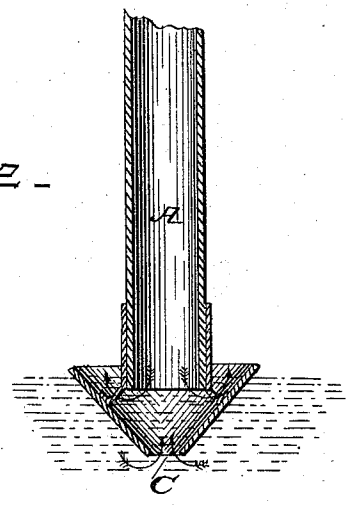
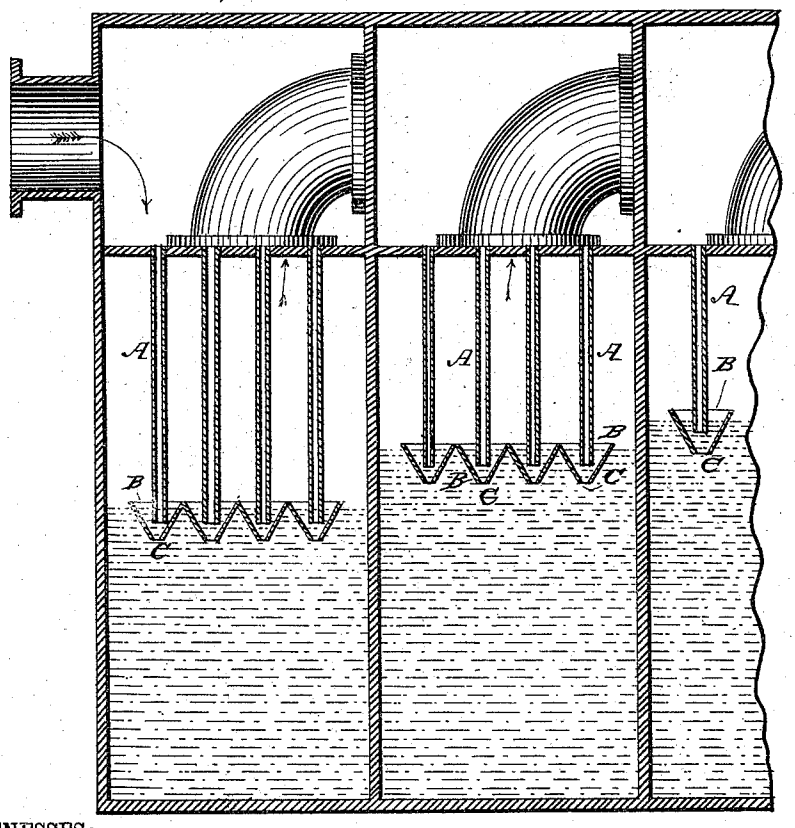


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN SOMERVILLE, OF OLD KENT ROAD, COUNTY OF SURREY, ENGLAND, ASSIGNOR OF ONE-HALF TO JOHN H. FINDLAY, OF OGDENSBURG, NEW YORK.

APPARATUS FOR WASHING GAS.

SPECIFICATION forming part of Letters Patent No. 305,719, dated September 23, 1884.

Application filed April 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN SOMERVILLE, a subject of the Queen of Great Britain, and a resident of Old Kent Road, in the county of Surrey and Kingdom of Great Britain, have invented certain new and useful Improvements in Apparatus for Washing Gas; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of the end of my improved pipe for gas-washing apparatus. Fig. 2 is a longitudinal section of the same, showing it immersed in a fluid; and Fig. 3 is a vertical sectional view of a gas-washing apparatus provided with the pipes.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to pipes for apparatus adapted for washing gas; and it consists in the improved construction and combination of parts of the pipe and its combination with the washing apparatus, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the pipe through which the gas passes, and which is open at its lower end. A funnel-shaped cap, B, is secured around the lower end of this pipe, having an aperture, C, in its lower pointed end and projecting with its upper edges a short distance above the end of the pipe.

When the pipe is used in an apparatus for washing gas, as shown in Fig. 3, or in a similar apparatus, its lower end is immersed into the fluid, as also shown in Fig. 2, the fluid covering the lower open end of the pipe and reaching nearly to the upper edge of the funnel-shaped cap; and it will be seen that as the gas passes out through the pipe it will meet with the resistance of the fluid, which enters the cap through the perforation in its bottom, and the gas will pass up through the fluid, causing the same to spray at the sides of the pipe. It will also be seen that the lower end of the pipe being immersed in the fluid the latter will operate as a seal, preventing the gas from passing back into the pipe when the pressure in the pipe is less than the pressure in the vessel or receiver into which the gas escapes, and which contains the fluid.

The washer, as represented in Fig. 3, shows a number of pipes constructed with funnel-shaped caps at their lower ends and immersed in the water or other washing-fluid, and the gas, passing through the fluid and coming in contact with the spray formed by it in its passage through the fluid, will be thoroughly washed and purified.

It is essential to have the perforation in the lower end of the funnel-shaped cap of a considerably less diameter than the diameter of the open end of the pipe, so as to force the gas to pass up along the inner sides of the cap instead of passing through the aperture in the bottom of the same, and thus meet with a comparatively greater resistance.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A pipe for apparatus for washing gas, having its lower end open and provided with a funnel-shaped cap secured a short distance from the open end, having a perforation in its lower end, and extending with its upper flaring edges a short distance above the open end of the pipe, the aperture in the lower end of the cup being of a smaller diameter than the open end of the pipe, as and for the purpose shown and set forth.

2. In an apparatus for washing gas, the combination of a closed vessel or receiver adapted to be partly filled with fluid, with one or more pipes having open lower ends provided with funnel-shaped cups having apertures in their lower ends of a diameter less than the diameter of the ends of the pipes, and having their upper flaring edges projecting above the ends of the pipes, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN SOMERVILLE.

Witnesses:
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GEO. A. ECCLESTON,
Clerks to Messrs. Surr Gubble & Bunton, 12 Abchurch Lane, London, Public Notaries.