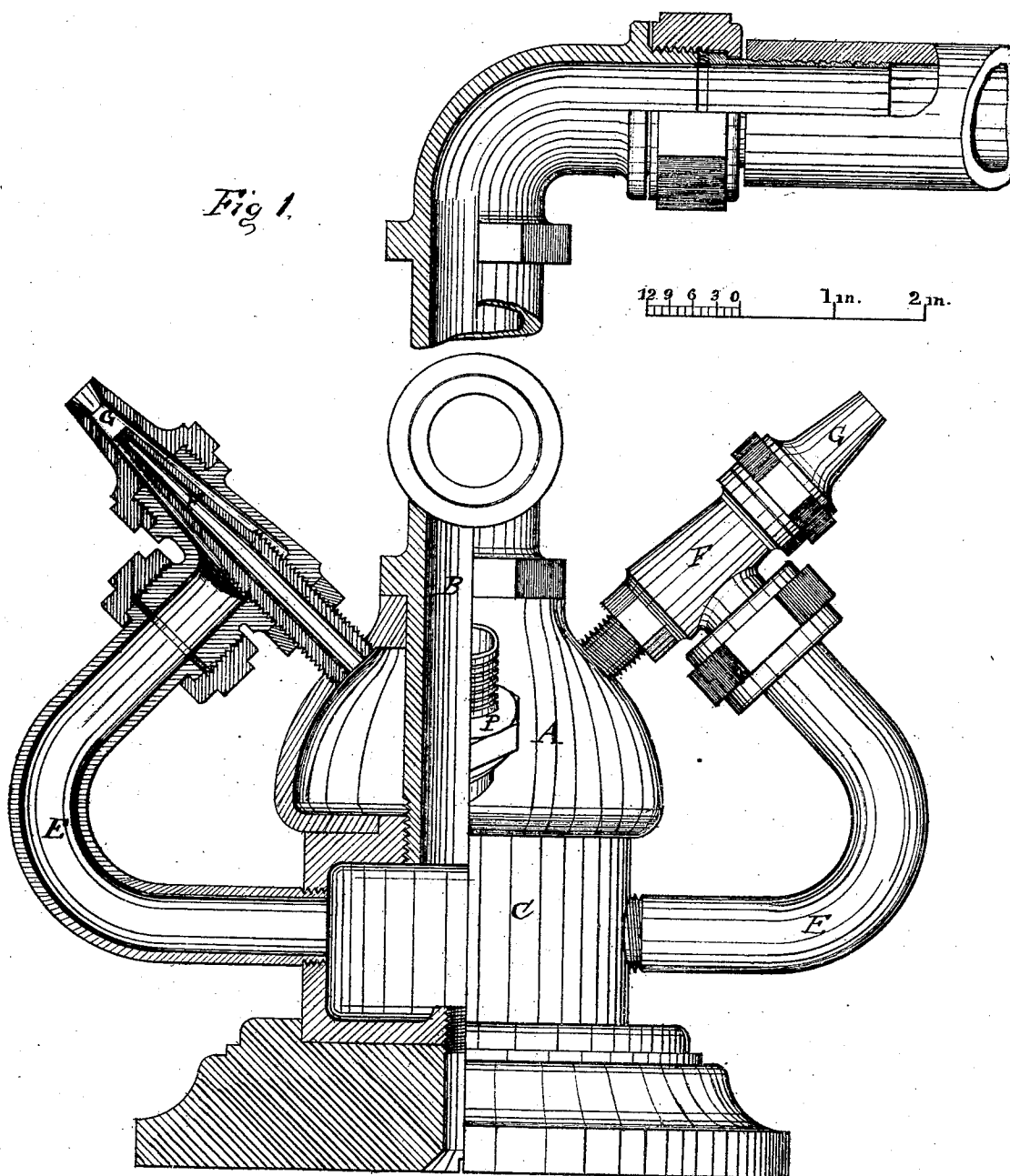


DE LUCE & WELLS.
Improvement in Apparatus for Vaporizing and
Atomizing Disinfectants.

No. 128,368.

Patented June 25, 1872.



WITNESSES:

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INVENTORS

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UNITED STATES PATENT OFFICE.

EDMUND S. DE LUCE AND HENRY M. WELLS, OF UNITED STATES NAVY.

IMPROVEMENT IN APPARATUS FOR VAPORIZING AND ATOMIZING DISINFECTANTS.

Specification forming part of Letters Patent No. 128,368, dated June 25, 1872.

SPECIFICATION.

We, EDMUND S. DE LUCE, Chief Engineer in the United States Navy, and HENRY M. WELLS, Surgeon in the United States Navy, have invented a certain new and useful Apparatus for Vaporizing and Atomizing Disinfectants, for the purpose of fumigation or deodorizing, of which the following is a specification:

Our invention relates to that class of disinfecting apparatus in which steam or compressed air is employed as a medium for the conveyance and distribution of any deodorizing or disinfecting liquid; and it consists of an apparatus in which the steam or compressed air supply-pipe passes centrally through the chamber containing the disinfectant into a steam-chest placed immediately under said chamber, by which means the heat, radiating inward from the central supply-pipe and the base of the chamber containing the disinfectant, vaporizes the same and causes it to ascend into jets where it is met and surrounded by the steam, which atomizes it and projects into the apartment to be fumigated, in the form of fine spray or vapor.

In the accompanying drawing, Figure 1 is a view of our improved apparatus, partly shown in elevation, and partly in vertical section.

A is the chamber which is partially filled through a small hose attached to the coupling P with bromochloralum, carbolic acid, or any other suitable liquid disinfectant, and B the steam supply-pipe which passes centrally through said chamber and communicates with the steam-chest C underneath. E E are the steam-pipes which are used to conduct the steam into the jets F F where it meets the escaping vapor which ascends from the volatil-

izing-chamber, assisted by a partial vacuum formed by the passage of the steam past the inner pipe of the jet, and atomizes it and projects it into the room or closed space, in the form of fine spray or vapor, which rapidly mingles with and saturates the atmosphere. The chamber A is so placed relatively to the supply-pipe and steam-chest as to utilize a portion of the heat radiating therefrom, rendering the volatilization of the disinfectant rapid and complete. On the ends of the jets F F we attach supplementary jets G G by means of screw-threads, which may be removed when desired to clear the jet of any obstruction caused by the deposition of matter therein.

When steam is objectionable compressed air may be used, and in such a case a continuous stream of the disinfectant employed can be fed to the chamber A through the small hose and nozzle P.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. An improved apparatus for fumigation, consisting of the vaporizing chamber A, located above the steam-chest B, in combination with the central supply-pipe C, and auxiliary-pipes E E, arranged and used as and for the purpose set forth.

2. In combination with the jets F F, we claim the supplementary nozzles G G, as and for the purpose set forth and described.

EDMUND S. DE LUCE.
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Witnesses:

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