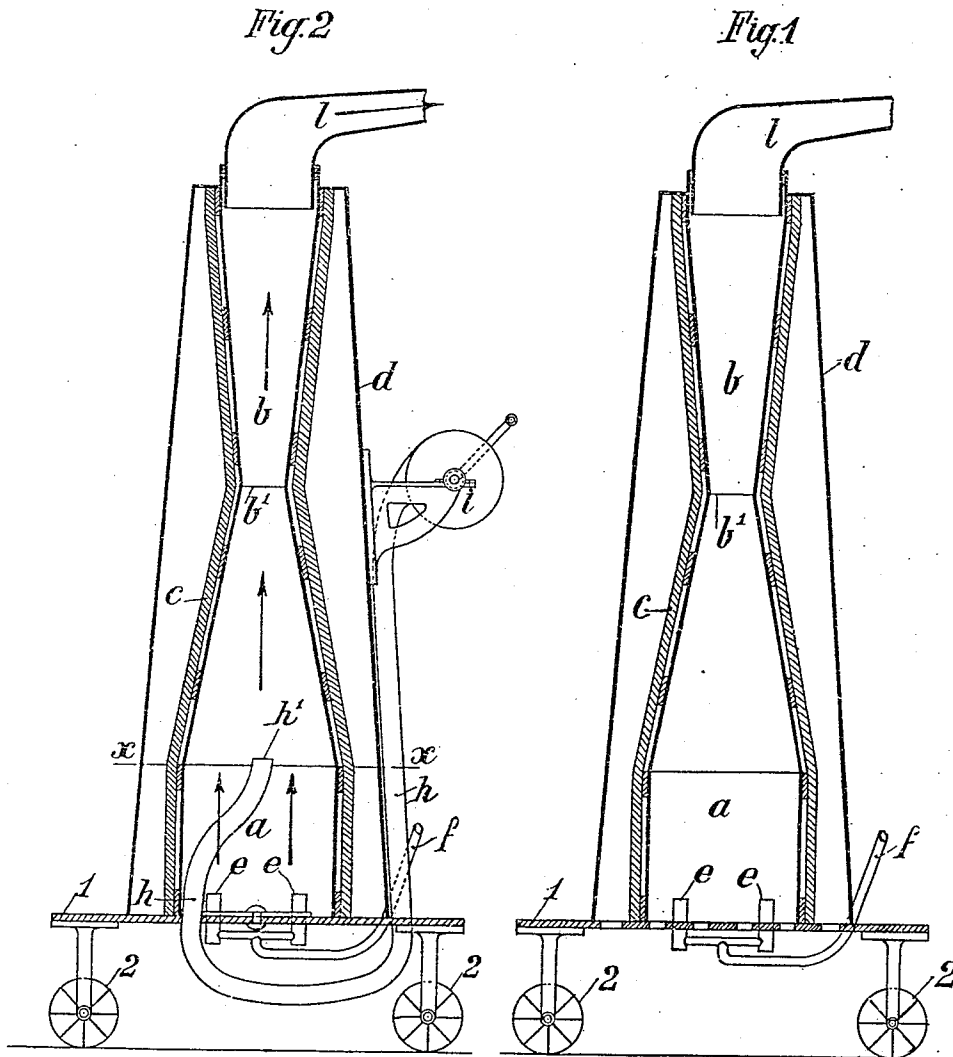


F. LE FAGUAYS.
DISINFECTING DEVICE.
APPLICATION FILED JULY 10, 1909.

958,259.

Patented May 17, 1910.

2 SHEETS—SHEET 1.



Witnesses

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Fig.3

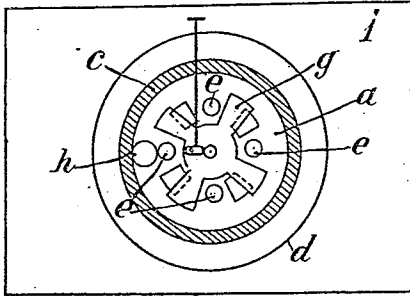


Fig.4

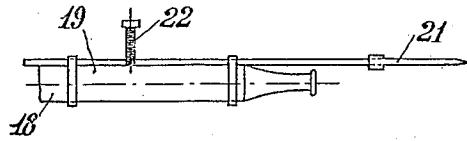


Fig.5

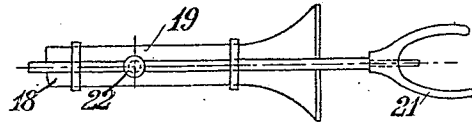


Fig.7

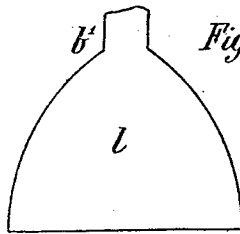
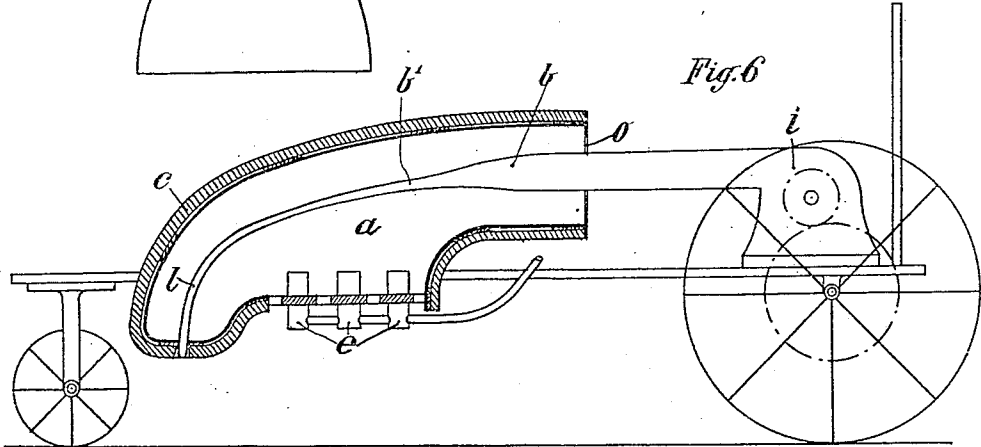


Fig.6



Witnesses

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UNITED STATES PATENT OFFICE.

FERNAND LE FAGUAYS, OF NANTES, FRANCE.

DISINFECTING DEVICE.

958,259.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed July 10, 1909. Serial No. 506,953.

To all whom it may concern:

Be it known that I, FERNAND LE FAGUAYS, citizen of the Republic of France, residing at Nantes, in the Republic of France, have invented certain new and useful Improvements in Disinfecting Devices, of which the following is a specification.

The invention consists in a method of disinfection, and in apparatus for carrying it into practice.

It is well known that the most effective way of disinfecting any article is to submit it to a high temperature. For this purpose stoves are generally used in which the articles to be disinfected are inclosed for a given time. The employment of this method is necessarily restricted owing to the capacity of the stoves, and it can only be applied to portable articles.

The new method consists in projecting onto the articles to be disinfected, whatever they may be, tapestry, furniture, walls, floors, platforms, etc., a jet of air brought to a temperature of 200° to 350° Fahr. This method does not entail the displacement of the articles. It is sufficient to bring in front of these latter a nozzle for directing the jet of air. It will be evident that apparatus enabling the process to be carried out practically can be of such simple form that the apparatus can be a domestic appliance.

In the accompanying drawings, various types of portable apparatus for carrying into practice the method above indicated are shown by way of example. Figure 1 is a vertical section of a very simple form of the apparatus; Fig. 2 is a similar section of a more elaborate apparatus; Fig. 3 is a corresponding horizontal section on the line $x-x$; Figs. 4 and 5 show in plan and elevation the nozzle by which the heated air is discharged; Fig. 6 shows in vertical section an apparatus arranged for the disinfection of carpets, parquetry, the ground of courtyards, the gardens of hospitals or public buildings, or the like; Fig. 7 is a detail of one of the constituent parts of this apparatus.

In these figures like letters or figures of reference indicate the same parts.

The apparatus shown in Fig. 1 is mounted on a platform or truck 1, provided with wheels 2. It comprises a heating chamber a surmounted by a kind of flue or chimney b , having a constriction at b^1 . The chamber a and the chimney b are surrounded by a heat-

insulating covering c , the whole being hidden by a suitable casing d .

In the lower part of the chamber a , the bottom of which is perforated, are arranged a certain number of burners e for gas, petroleum, or spirit, fed by a single tube f . In the upper part of the chamber b is arranged a pipe l , fixed or movable, on which is fitted a flexible pipe 18, Figs. 4 and 5, terminated by a nozzle 19. The air escapes from the nozzle by an elongated opening like a slot.

To use this apparatus, it suffices to light the burners e ; the gases of combustion rising in the flue b and passing through the constricted part b^1 , induce through the perforations at the bottom of the chamber a a vigorous inflow of external air; this air is heated as it rises in the said chamber a , mixes with the products of combustion in the flue b , and the mixture which is raised to a high temperature (200° to 350° Fahr.) escapes by the pipe l to the nozzle 19.

In order to effect the disinfection by means of the apparatus which has just been described, it is only necessary to move the nozzle 19 in front of the articles or surfaces to be disinfected in order to treat them thoroughly with heated air. Of course the duration of this treatment will vary according to the articles to be treated.

In certain cases the jet of air discharged at short range, might injure the articles treated by reason of its high temperature, particularly in the case of certain fabrics. In order to obviate this difficulty, the nozzle 19 is provided with a forked piece 21, the position of which can be regulated by means of a screw 22. According to the position given to this piece 21, it will be seen that the end of the nozzle 19 cannot be approached beyond the predetermined position which gives every security when the disinfecting operation is being carried out.

The apparatus shown in Fig. 1 can be combined with a fan to draw the external air into the flue b . Fig. 2 shows how this modification is carried out. The fan is shown at i and is operated by hand or mechanically. The air is driven into the tube h which traverses the bottom of the heating chamber a and terminates at h^1 in the center of the flue b below the constriction b^1 . The tube h could, of course, have a serpentine course in the chamber a before reaching h^1 . Whether the apparatus comprises a fan or not, the perforated bottom of the heating

chamber *a* can be provided with a valve *g* as shown in Fig. 3 in order to regulate the admission of external air.

The apparatus instead of being arranged 5 vertically can be inclined or arranged horizontally without departing from the spirit of the invention. The horizontal position is more suitable, furthermore, for the disinfection of carpets, parquetry, the ground of 10 children's playgrounds or the like.

Fig. 6 shows an apparatus similar to that of Fig. 2, but arranged for the above purpose, which does not require a flexible tube. In this apparatus the pipe *l*, shown in plan 15 view in Fig. 7, forms the nozzle which is directed downward, its elongated opening or slot opening toward the ground. The fan *i* actuated mechanically from the wheels of the vehicle, or in any other suitable way, 20 forces the external air into a trunk *b* which is preferably constricted at *b'*; this air passes into the pipe or nozzle *l* in order to escape by the opening of this latter. A part of the trunk *b* and the nozzle *l* are contained in the 25 heating chamber *a*, in the lower part of which the burners *e* are arranged. These latter heat the walls of the nozzle *l* and the said trunk *b* which transmit the heat to the air fed by the fan *i*. The gases of combustion escape from the chamber *a* to the exterior by openings *o*. As in the vertical type 30 of the apparatus the chamber *a* is surrounded by a heat-insulating covering *c* which can also be concealed by a casing not shown in the drawing. 35

I declare that what I claim is:—

1. In an apparatus for disinfecting, a heating chamber having perforated bottom and a continuous uninterrupted flue with 40 restricted passage intermediate its ends, means for causing air to pass upward

through said chamber from the bottom thereof and through said restricted passage to create a vigorous inflow of external air and to be mixed with the products of combustion beyond said restricted passage and 45 forked means for regulating the distance relative to the articles at which the device can be situated.

2. In an apparatus for disinfecting, a 50 heating chamber having perforated bottom and a continuous uninterrupted flue with restricted passage intermediate its ends, means for causing air to pass upward through said chamber from the bottom 55 thereof and through said restricted passage to create a vigorous inflow of external air and to be mixed with the products of combustion beyond said restricted passage, a nozzle, means for directing the air upon the 60 articles to be disinfected, and adjustable forked means connected therewith for regulating the distance relative to the articles at which said nozzle can be situated.

3. Disinfecting apparatus comprising a 65 heating chamber, means for causing air to pass into said chamber, means for conducting the heated air from said chamber, a nozzle connected with the last mentioned means, for directing the air upon the articles to be 70 disinfected, and adjustable forked means connected with said nozzle for regulating the distance relative to the articles at which the nozzle can be situated.

In witness whereof, I have hereunto 75 signed my name this 29th day of June 1909, in the presence of two subscribing witnesses.

FERNAND LE FAGUAYS.

Witnesses:

E. L. FAGUAYS,
K. J. ETANGUAY.