No. 619,407. Patented Feb. 14, 1899.

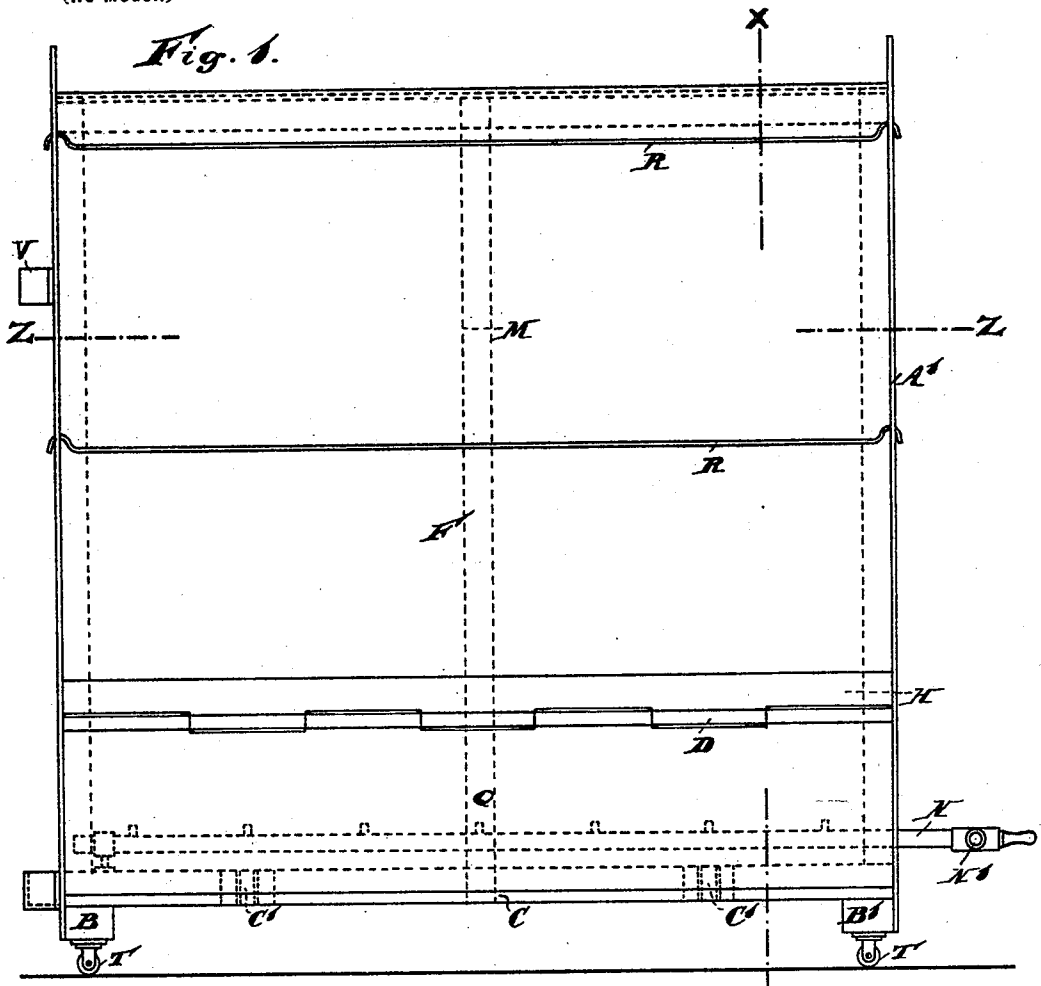
H. HARGREAVES.

APPARATUS FOR HEATING, DRYING, OR AIRING.

(Application filed July 29, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



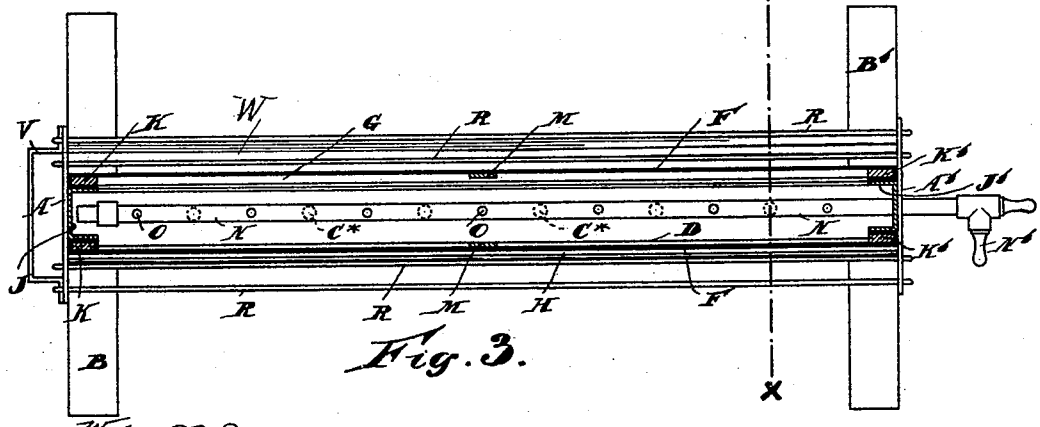


Fig. 3.

Witnesses:
Stephen Edward Gimson.
Stanley Quatremain.

Inventor:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.) 2 Sheets—Sheet 2.

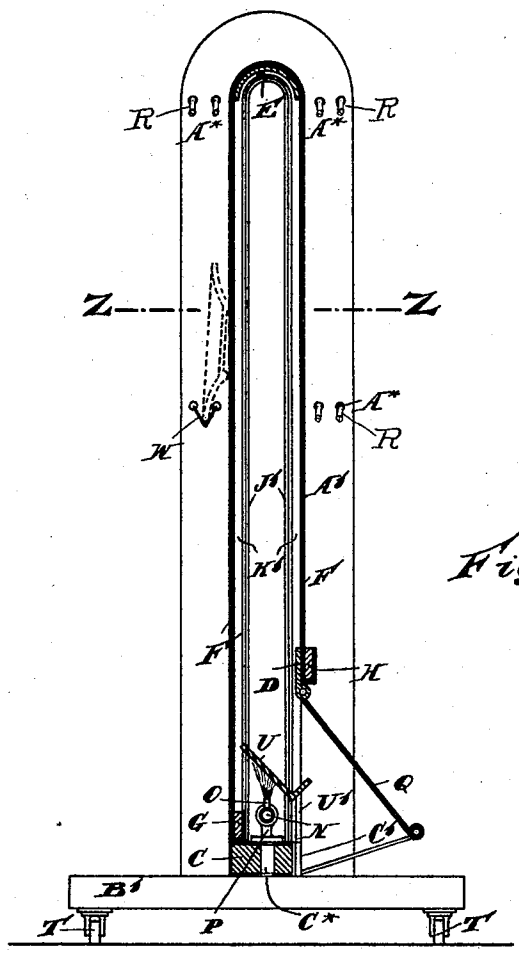


Fig. 2.

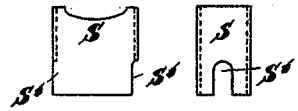


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY HARGREAVES, OF LONDON, ENGLAND.

APPARATUS FOR HEATING, DRYING, OR AIRING.

SPECIFICATION forming part of Letters Patent No. 619,407, dated February 14, 1899.

Application filed July 29, 1898. Serial No. 687,220. (No model.)

To all whom it may concern:

Be it known that I, HENRY HARGREAVES, a subject of the Queen of Great Britain, residing at 38 Mount View road, Finsbury Park, London, in the county of Middlesex, England, have invented certain new and useful Improved Apparatus for Heating, Drying, or Airing, (for which I have applied for Letters Patent in Great Britain, dated January 8, A. D. 1898, No. 597, and in Germany, dated June 2, 1898;) 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 appertains to make and use the same.

The apparatus forming the subject of this invention is intended to be employed more especially for the purpose of drying and airing domestic linen and the like, obviating the employment of clothes-horses, with the attendant dangers of the articles thereon being upset onto or blown or drawn into contact with the fire, and with the disadvantages of occupying the position opposite the fire and making it a difficult matter to use the said fire for other purposes while the clothes-horse is in use.

According to my invention I employ an apparatus which consists of a flat vertical box or casing or a series of such casings of sheet iron, copper, or other suitable metal, corrugated or not, gauze or net work, incombustible or other suitable fabric or material, the two sides of which preferably meet at the top in a semicylindrical curve. The two ends are closed by plates the edges of which preferably project so as to form flanges. The bottom of the box or casing may be more or less open, and the whole is suitably supported in such a manner as to leave a space or spaces between the bottom and the floor. A gas-pipe with any convenient number of jets or burners is placed at or near the bottom thereof, and an extension or branch of this pipe may be conveniently provided for the purpose of carrying a supplementary burner for boiling purposes.

In order that my invention may be clearly understood, I will now proceed to describe the same with reference to the accompanying sheet of drawings, illustrating one form of my apparatus which I have found to give good results.

Figure 1 is a front elevation of a heating, drying, or airing apparatus constructed in accordance with my invention, this view being taken from the right of Fig. 2. Fig. 2 is a vertical transverse section on line X X of Figs. 1 and 3. Fig. 3 is a horizontal section on line Z Z of Figs. 1 and 2; and Fig. 4 illustrates a device for heating laundry-irons, as hereinafter more fully referred to.

Similar letters relate to like parts in all the figures of the drawings.

A A′ are two metal end plates attached at their lower ends to the timbers B B′, which are firmly connected together by the longitudinal timber C, which latter is preferably incased with zinc or other protective material capable of withstanding the required degree of heat and provided with air-inlet openings C*, as shown. It will be seen that the parts A A′, B B′, and C form the base or stand of the apparatus. The end plates are also held together by the longitudinal hinge-bar D and the curved top bar E.

F is a cover of what is known as "asbestos cloth," which I have found to be suitable for this purpose; but, if preferred, such cover may be of thin sheet iron, copper, or any other suitable metal or material. If sheet metal is employed, I provide suitable outlets for the products of combustion. One end of the asbestos-cloth cover F is sewed or bound around the bar G, whence it is carried upward and over the curved top bar E, thence downward to the bar H, around which it is sewed or bound. The bars G and H are attached by screws or otherwise at each of their ends to the flanges of the plates J J′, and the bar H may be further attached to the hinge-bar D, if desired. The side edges of the asbestos cover F may preferably be sewed or bound to the vertical bars K K′, which bars may be screwed or otherwise attached to the flanges of the plates J J′. It will be seen that by this arrangement the framework G H K K′, with the asbestos-cloth cover F, may be easily removed from the apparatus for the purposes of repairing or cleansing when required. In order to further strengthen the apparatus and also prevent the asbestos-cloth cover

F from sagging, I provide the intermediate vertical bars M.

N is a gas-pipe with burners, which may be of any suitable form. One end of the pipe N is supported by a bracket P from the longitudinal timber G, its other end passing through a hole in the end plate A′, as shown, and provided, if desired, with a branch N′ for the purpose of connecting to it any suitable or convenient form of burner or stove for boiling purposes.

Q is a door hinged to the bar D, as shown, by which access is obtained to the burners O.

The apparatus is used in the following manner: The gas is lighted, and the clothes or other articles to be heated, dried, or aired are hung loosely over the top of the apparatus and are allowed to depend therefrom, so that they are brought into more or less close contact with the asbestos cloth or other cover F, forming the sides of the apparatus, and in order to increase the hanging accommodation I provide rods R, the ends of which are adapted to hook into holes A* formed in the end plates A A′, as shown, and over which rods other clothing or the like may be hung; or, if preferred, cords or wires may be laced through the holes A* in the end plates A A′ to serve the same purpose as the rods R. In some cases I surround the apparatus with a fender or railing, on which articles may be hung preparatory to being finished on the apparatus itself.

The apparatus is provided with casters T, so that it may be readily moved from place to place, and the gas connection may be made by a union or a flexible tube, according to requirements; or if gas is not available the apparatus may be adapted to be heated by oil or spirit burners.

In order to utilize the apparatus for heating laundry-irons, I provide sheet-iron stands S, such as shown in side elevation, end elevation, and plan in Fig. 4. I place one of these stands over each of the burners O, the gas-pipe N passing through the gaps S′, the bottom edges of the stands S resting on the longitudinal timber C. A laundry-iron may be placed on the top of each of the stands and will be quickly and thoroughly heated by the burner below it; or, instead of the stands S, I may sometimes employ for the same purpose the sloping hot plate U, which may be placed in position over the series of burners O, as shown in Fig. 2, the stems U′ being adapted to take into suitable sockets or staples C′, fitted on the longitudinal timber C. This sloping hot plate U may also be usefully employed for heating plates, dishes, and other similar articles, and for the same purpose I provide bars W of trough-like section, the ends of which are adapted to take into the before-mentioned holes A* in the end plates A A′. When the bars W and rods R are not in use, they may conveniently be placed in the stand or rack V, which is provided at one end of the apparatus for their reception.

It will be understood that by the employment of the apparatus above described the heat is most conveniently and economically employed, and great saving of time and trouble is thereby effected.

I claim—

1. In combination, the elongated burner, the vertically-extending end plates A, A′, at the ends thereof, the cross-bars extending between the upper parts and also between the lower parts of said end plates, and a cover extending between the end plates and stretched over the cross-bars, substantially as described.

2. In combination, the elongated burner, the end plates A, A′, the cross-bars C and E at the lower and upper parts of said plates respectively, the bar extending between the end plates at a point intermediate of their height, the cover stretched over the said bars, and the door extending from the intermediate cross-bar downwardly, substantially as described.

3. In combination, the elongated burner, the end plates A, A′, the cover extending over the burner and between the end plates, said end plates extending laterally beyond the cover and the rods extending between said lateral extensions of the end plates and adjacent to the cover, substantially as described.

4. In combination, the vertically-extending box, heating means within the same, and the trough-shaped support for dishes and the like extending alongside the box, substantially as described.

5. In combination, a heating-chamber having a body portion of narrow cross-section, an elongated burner in the lower part thereof, a sloping plate U over said burner to hold the irons in inclined position and a door at the base of the heating-chamber, said door being arranged at an inclination substantially parallel to that of the sloping plate and extending laterally from the main part of the heating-chamber, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HENRY HARGREAVES.

Witnesses:
STEPHEN EDWARD GUYON,
STANLEY QUATREMAIN.