

No. 701,977.

Patented June 10, 1902.

J. WILLIAMS.
CLOTHES DRYING APPARATUS.

(Application filed Mar. 27, 1901.)

(No Model.)

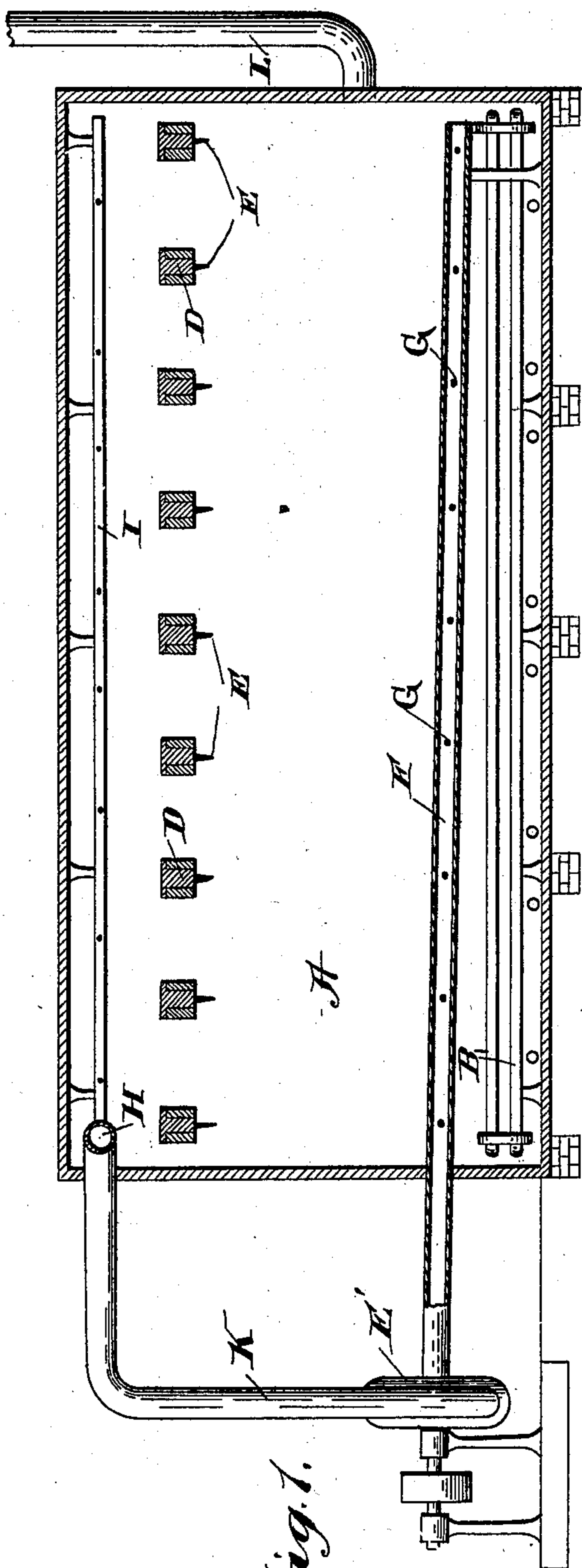


Fig. 1.

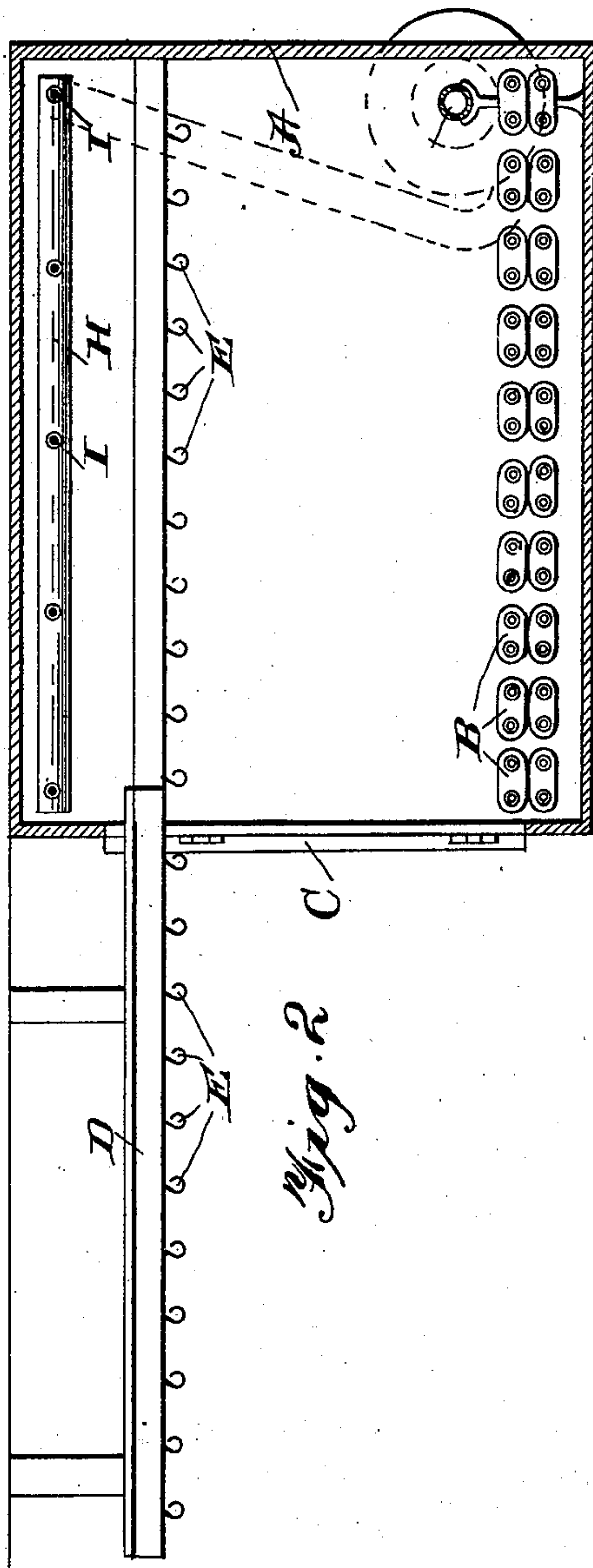


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN WILLIAMS, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-THIRD TO
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CLOTHES-DRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 701,977, dated June 10, 1902.

Application filed March 27, 1901. Serial No. 53,104. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAMS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Clothes-Drying Apparatus, of which the following is a specification.

This invention relates to improvements in clothes-drying apparatus, and particularly to that class in which the clothes are suspended in a drying casing or room and subjected to the influence of air heated by means of a suitable heating apparatus; and the object of the invention is to provide simple and effective means for insuring a body of thoroughly-heated air at the necessary point in the casing or room to quickly and thoroughly dry the clothes. In heating apparatuses of the class mentioned now in general use the heated air rises to the top of the casing or room, leaving that portion of the casing or room where thoroughly-heated air is necessary to the rapid drying of the clothes supplied with dead or imperfectly heated air, and to overcome this objectionable condition my present invention is directed, the invention contemplating the employment of suitable means for withdrawing a portion of the heated air at a point above the heating apparatus and returning the same to the casing or room and forcing it in a downward direction upon the clothes.

With the above object in view the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claims, and clearly illustrated by the accompanying drawings, in which—

Figure 1 is a longitudinal vertical sectional view of an apparatus embodying my invention; and Fig. 2, a transverse sectional view of the same, one of the clothes-racks being withdrawn.

Referring now more particularly to the accompanying drawings, A designates a casing or drying room provided with any preferred form of apparatus for heating the air, here shown as steam-coils B, arranged, preferably, a short distance above the bottom wall or floor of the casing or room. Arranged to slide in and out of the casing or room, through suit-

able doors C in the side wall thereof, are clothes-racks D, provided with suitable suspending devices E to receive the clothes to be dried. Positioned upon the exterior of the casing or room is a suction and discharge fan or blower E' of the ordinary construction and actuated by any preferred driving mechanism. Extending longitudinally of and positioned within the casing or room is a suction-pipe F, which projects through the wall of the former and communicates with the casing of the fan or blower, the portion of said pipe within the drying casing or room being provided with a plurality of perforations G and also having its inner end open. Said pipe is disposed just above the heating-coils and beneath the clothes when the latter are suspended from the racks. Arranged at one end of the casing or room and near the top wall or ceiling thereof is a transversely-extending drum H, from which extend a plurality of pipes I, which are disposed longitudinally of the casing or room and above the clothes-drying racks. These pipes are suitably supported by hangers and are formed with a plurality of perforations J, through which the hot air withdrawn from the casing through the suction-pipe F is discharged. A pipe K communicates at one end with the drum and at its other end with the fan-casing, as illustrated in Fig. 1.

In operation hot air is withdrawn by the fan from the casing through suction-pipe F and forced by said fan through pipe K into drum H and from thence into the pipes I and discharged through the perforations of said pipes, the hot air so discharged forcing the air from the heater back upon the clothes, so that a supply of thoroughly-heated air is constantly provided at the place needed—namely, around the clothes, thus insuring the rapid and thorough drying of the latter.

A ventilating-pipe L is provided, said pipe communicating with the casing or room at the line of the dead air—that is, at the point where the moisture from the wet clothes has practically absorbed the heat of the hot air. Said pipe removes the dead air from the casing or room, which removal is assisted by the pressure of the hot air from the discharge-pipes.

I do not desire to limit myself to the exact location of the heating apparatus, the drum, suction-pipe, discharge-pipes, or the fan, as the arrangement of the same may be varied 5 without departing from the spirit and scope of my invention. Nor is it necessary that the suction-pipe be provided with perforations, as the hot air could be withdrawn from the casing or room through the end of said 10 pipe without in any way impairing the efficiency of the apparatus. It is also not necessary that said pipe should be straight or extend the entire length of the casing or room, as the same may be of such length and have 15 such angles or curves as may secure the best results.

While I have herein described my invention as a drier for clothes, yet I do not desire to limit the same to this use, as it may be as effectively used for drying tanned skins, woolen goods, &c. 20

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

25 1. A clothes-drying apparatus, comprising a clothes-containing chamber having air-inlets near the bottom, a heater above said air-inlets, a pipe above said heater, racks above said pipes, pipes above said racks, means for 30 conveying a portion of the air from the bottom pipes through the upper pipes and forcing it down through the racks, and an exhaust intermediate the top and bottom of the said chamber, substantially as described.

35 2. A clothes-drying apparatus comprising a clothes-containing chamber having air-in-

lets near the bottom, racks carried by the upper portion of said chamber, a heater above said air-inlets, a suction-pipe above the heater and provided with inlet-openings, a 40 fan on the outside of said chamber and in communication with said pipe, a pipe located in the upper portion of said chamber above the racks and having outlet-openings, said pipe being in communication with said fan, 45 and an exhaust-pipe between the racks and said suction-pipe, substantially as described.

3. A clothes-drying apparatus, comprising a clothes-containing chamber having air-inlets near the bottom, racks carried by the upper 50 portion of said chamber, an elongated heater above said air-inlets, a suction-pipe extending along the entire length above the heater and provided with inlet-openings, a fan on the outside of said chamber and in 55 communication with said pipe, a pipe located in the upper portion of the said chamber above the racks and having openings therein, said pipe in communication with said fan, 60 and an exhaust-opening in the end of said chamber intermediate the inlet and suction pipes, whereby a portion of the heated air is directed through the clothes, substantially as described.

In testimony whereof I have hereunto set 65 my hand in the presence of two subscribing witnesses.

JOHN WILLIAMS.

Witnesses:

J. H. SALTSMAN,

JOHN H. SCHNEIDER.