

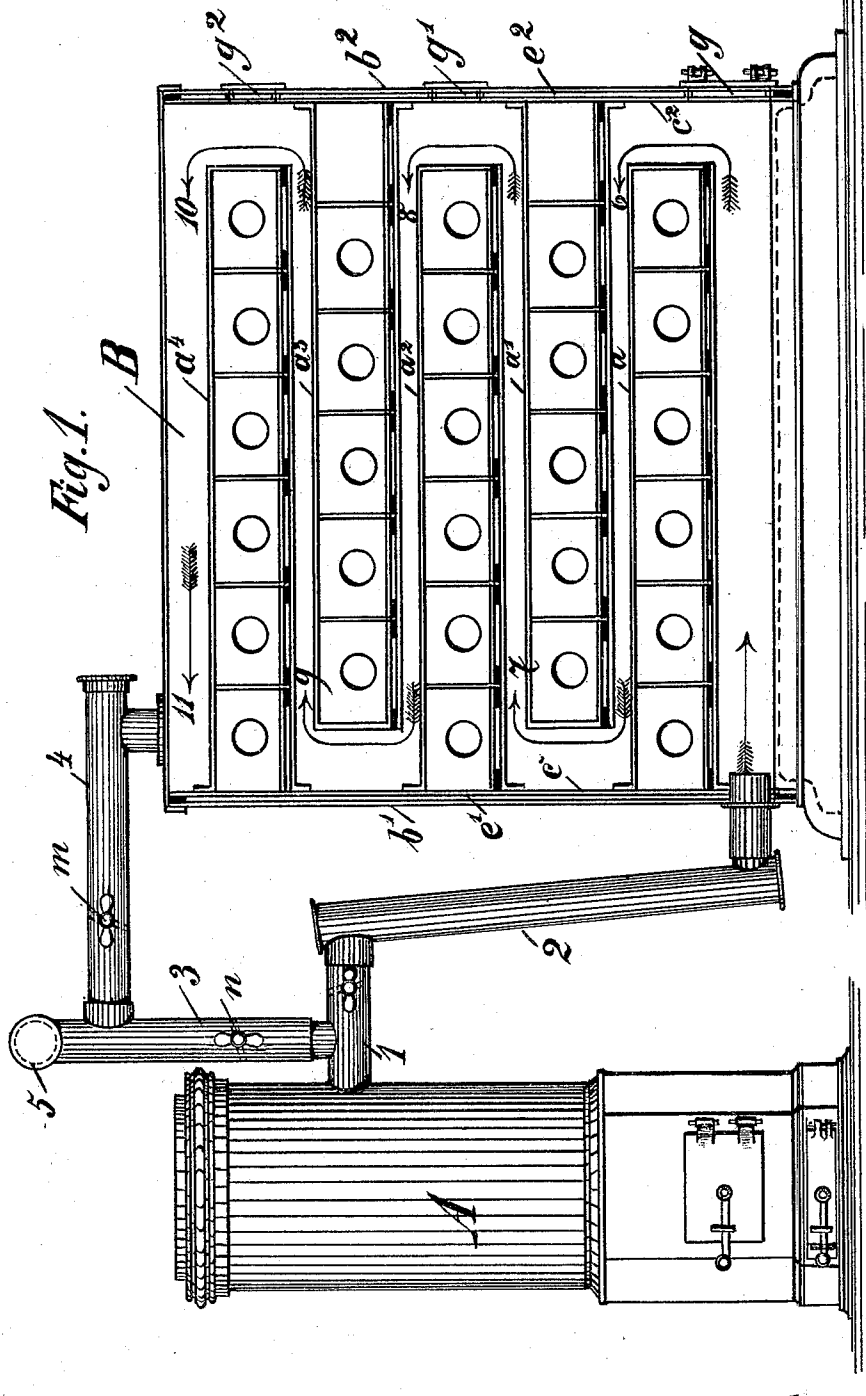
(No Model.)

3 Sheets—Sheet 1.

A. RODDE.
DRYING APPARATUS FOR SHOES.

No. 545,818.

Patented Sept. 3, 1895.



Witnesses:
Archib. G. Ruse
J. B. McGirr.

Inventor:
Alfred Rodde
by Leonard H. Dyer
Attorney

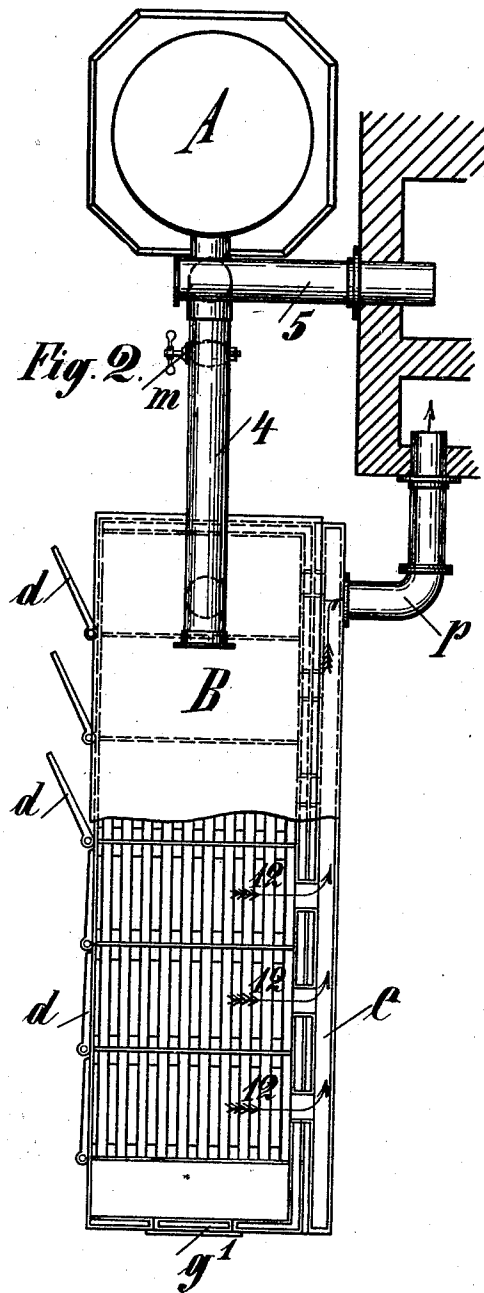
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Patented Sept. 3, 1895.



Witnesses.
Th. Grube
J. J. Bruhn

Inventor.
Alfred Rodde
per *Robert Krayn*
Attorney

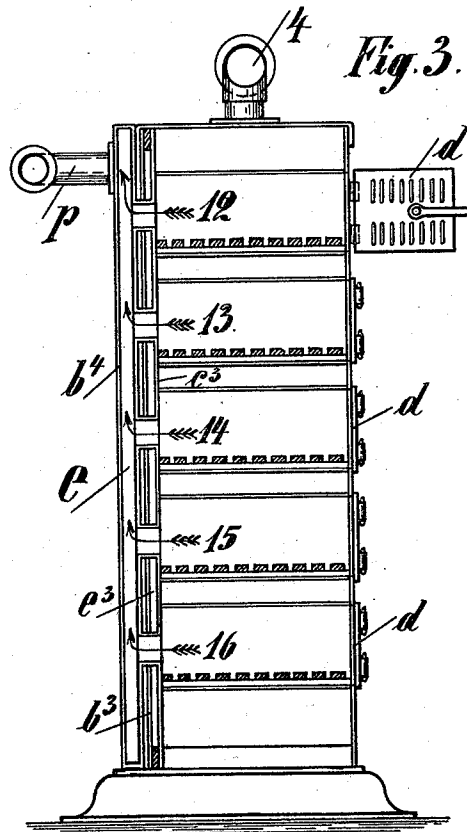
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3 Sheets—Sheet 3

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Witnesses.
Th. Grube
J. J. Bruhn

Inventor.
Alfred Rodde
per Robert Kruga
Attorney.

UNITED STATES PATENT OFFICE.

ALFRED RODDE, OF LUBECK, GERMANY.

DRYING APPARATUS FOR SHOES.

SPECIFICATION forming part of Letters Patent No. 545,818, dated September 3, 1895.

Application filed October 5, 1894. Serial No. 525,044. (No model.) Patented in Germany July 12, 1894, No. 79,153; in Belgium July 17, 1894, No. 111,026; in Luxemburg July 17, 1894, No. 2,072; in Sweden July 18, 1894, No. 5,771; in Norway July 19, 1894, No. 3,783; in Hungary August 4, 1894, No. 870; in Portugal August 4, 1894, No. 1,923; in Spain August 28, 1894, No. 16,084; in Austria September 19, 1894, No. 44/4,947; in France September 19, 1894, No. 241,494; in England September 24, 1894, No. 18,125; in Italy September 30, 1894, No. 37,255, and in Canada December 4, 1894, No. 48,319.

To all whom it may concern:

Be it known that I, ALFRED RODDE, a subject of the Emperor of Germany, residing at Lubeck, Empire of Germany, have invented certain new and useful Improvements in Drying Apparatus for Shoes, &c., (for which I have obtained Letters Patent in the following foreign countries, viz: in Germany, dated July 12, 1894, No. 79,153; in Austria, dated September 19, 1894, No. 44/4,947; in Hungary, dated August 4, 1894, No. 870; in England, dated September 24, 1894, No. 18,125; in France, dated September 19, 1894, No. 241,494; in Belgium, dated July 17, 1894, No. 111,026; in Luxemburg, dated July 17, 1894, No. 2,072; in Italy, dated September 30, 1894, No. 37,255; in Spain, dated August 28, 1894, No. 16,084; in Portugal, dated August 4, 1894, No. 1,923; in Sweden, dated July 18, 1894, No. 5,771; in Norway, dated July 19, 1894, No. 3,783, and in Canada, dated December 4, 1894, No. 48,319;) 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 make and use the same.

The object of this invention is to provide an apparatus for drying shoes, which can be operated from stoves, furnaces, or other sources of heating. Such a device is of special utility in hotels, boarding-houses, and private residences, and by means of the device a large number of shoes can be quickly dried without danger of burning or injuring the leather.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved drying apparatus, showing the same used in connection with ordinary heating-stoves; Fig. 2, a horizontal sectional view of the same; and Fig. 3, a cross-sectional view through the drying apparatus.

My improved drying apparatus consists, essentially, of a rectangular casing B, which is provided with a series of chambers therein, arranged in rows for the reception of the shoes or other articles to be dried.

In the accompanying drawings, I have shown my improved drying apparatus used

in connection with an ordinary heating-stove A. From this stove is a pipe which connects by means of the pipes 3 and 5 with a chimney, and by means of a pipe 2 with the lower end of the improved heating apparatus. A damper *n* is placed in the pipe 3 and another damper *o* is placed in the pipe 1, as shown, whereby when the damper *n* is closed and the damper *o* is opened the products of combustion from the stove A will pass into and through the drying apparatus, and when the damper *o* is closed and the damper *n* is opened the products of combustion from said stove will pass immediately into the stack.

The chambers for the reception of the shoes or other articles to be dried are arranged in rows or tiers, as shown, there being a passage-way between the forward end of the lower tier and the front wall or casing B and a similar passage between the rear end of the second tier and the rear wall of the said casing, whereby the products of combustion from the stove A will be caused to pass around and in contact with the entire surface of the rows or tiers of heating-surfaces, through the passages *a*, *a'*, *a²*, *a³*, and *a⁴* in the direction of the arrows 6, 7, 8, 9, 10, and 11, and thence through a pipe 4, connecting the top of the heating apparatus with the pipe 3, which, as before stated, connects with the stack. This pipe 4 is provided with a chamber *m* therein.

In order to retain the heat within the casing B it is made with double walls *b¹* *b²* *b³* and *c'*, *c²*, and *c³*, and the spaces between these walls may either be filled in with some suitable insulating material or the air between them may be availed of to prevent radiation of heat.

In the front wall of the casing B I preferably provide doors *g*, *g'*, and *g²*, by means of which the interior of the casing may be reached, and any soot, ashes, or other deposits which commonly accumulate within said casing, and particularly within the passages *a*, *a'*, *a²*, *a³*, and *a⁴*, may be removed.

The chambers for the reception of the shoes or other articles are each provided with a door *d* for the reception of the shoes, and said doors

are preferably slitted or perforated, as shown in Fig. 3, the top door being swung open for the purpose of illustration, whereby air will be supplied to the interior of the heating-chambers. Each of these heating-chambers are also provided with openings 12, 13, 14, 15, and 16 in the rear wall thereof, which openings connect with the passage C at one side of the heating apparatus, and which passage is cut off from communication with the products of combustion. This passage C connects by means of the pipe *p* with a separate waste-chimney, or it may be in communication with the outside atmosphere or with the chimney.

In order to prevent the boots, shoes, or other articles which are placed within the heating-chambers from becoming burned or damaged by the effects of products of combustion in passing around the heating-chambers, I provide the same with slatted wooden bottoms, as shown in Fig. 3, so that the shoes, boots, or other articles will not come in contact with the metal surfaces of the heating-chambers.

By means of the dampers *m*, *n*, and *o* the amount of heat supplied to the drying apparatus can be easily and conveniently regulated.

The device operates as follows: Shoes, boots, or other articles which are to be dried are placed in the drying-chamber and the doors *d* are closed. The products of combustion from the stove A, passing around the various drying-chambers, tend to evaporate or drive

off water from the articles therein, and air will enter said chambers through the slitted or perforated doors *d*, so as to carry off the evaporated water through the openings 12, 13, 14, 15, and 16, and this air, which will then be hot and carry a good deal of moisture with it, will pass through the passage C and pipe *p* to the outside atmosphere. In this way boots, shoes, and other articles can be very quickly dried, and in large numbers, and the completed device will be of a compact portable shape.

What I claim is—

A drying apparatus for shoes, comprising a casing B having drying chambers alternately arranged therein in relation to one another, whereby the products of combustion will pass entirely around said drying chambers, means for supplying heat at the lower end of the casing to said drying chambers, doors *g*, *g'* and *g''*, in the front wall of said casing, whereby said casing may be cleaned; doors *d*, *d'*, for each drying chamber, a passage C in the rear of the drying chambers, openings 12, 13, 14, 15 and 16, in the rear of said drying chambers connected with said passage, and a pipe *p* connecting said passage C with the outside atmosphere.

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

ALFRED RODDE.

Witnesses:

TH. GRUBE,
J. J. BRUHN.