

(No Model.)

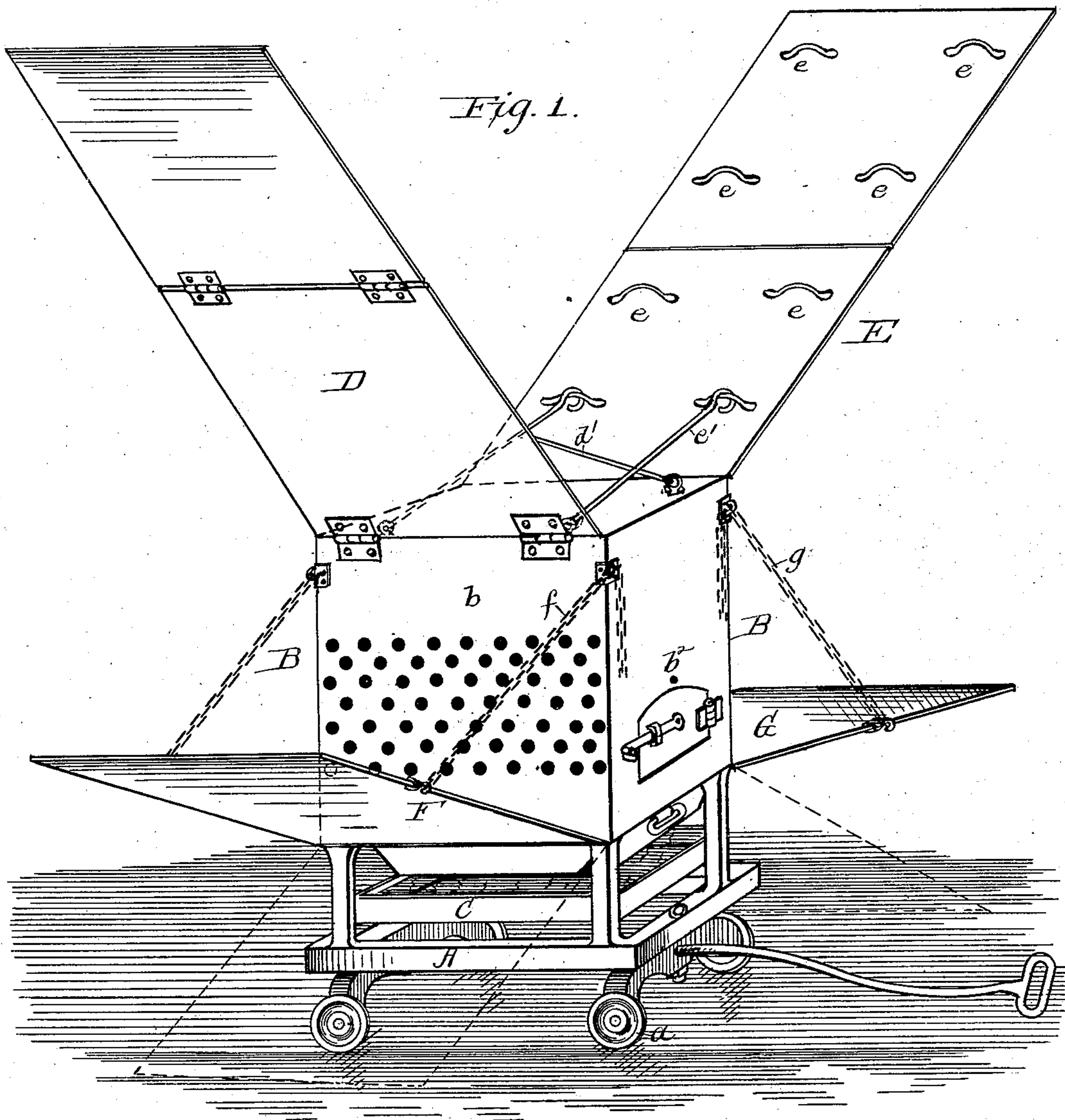
2 Sheets—Sheet 1.

A. DREYFUS.

DRYING AND HEATING APPARATUS.

No. 256,655.

Patented Apr. 18, 1882.



Witnesses:  
L. S. Hyer  
M. G. Hallack

Inventor:  
Auguste Dreyfus  
by his attorney  
J. E. B.

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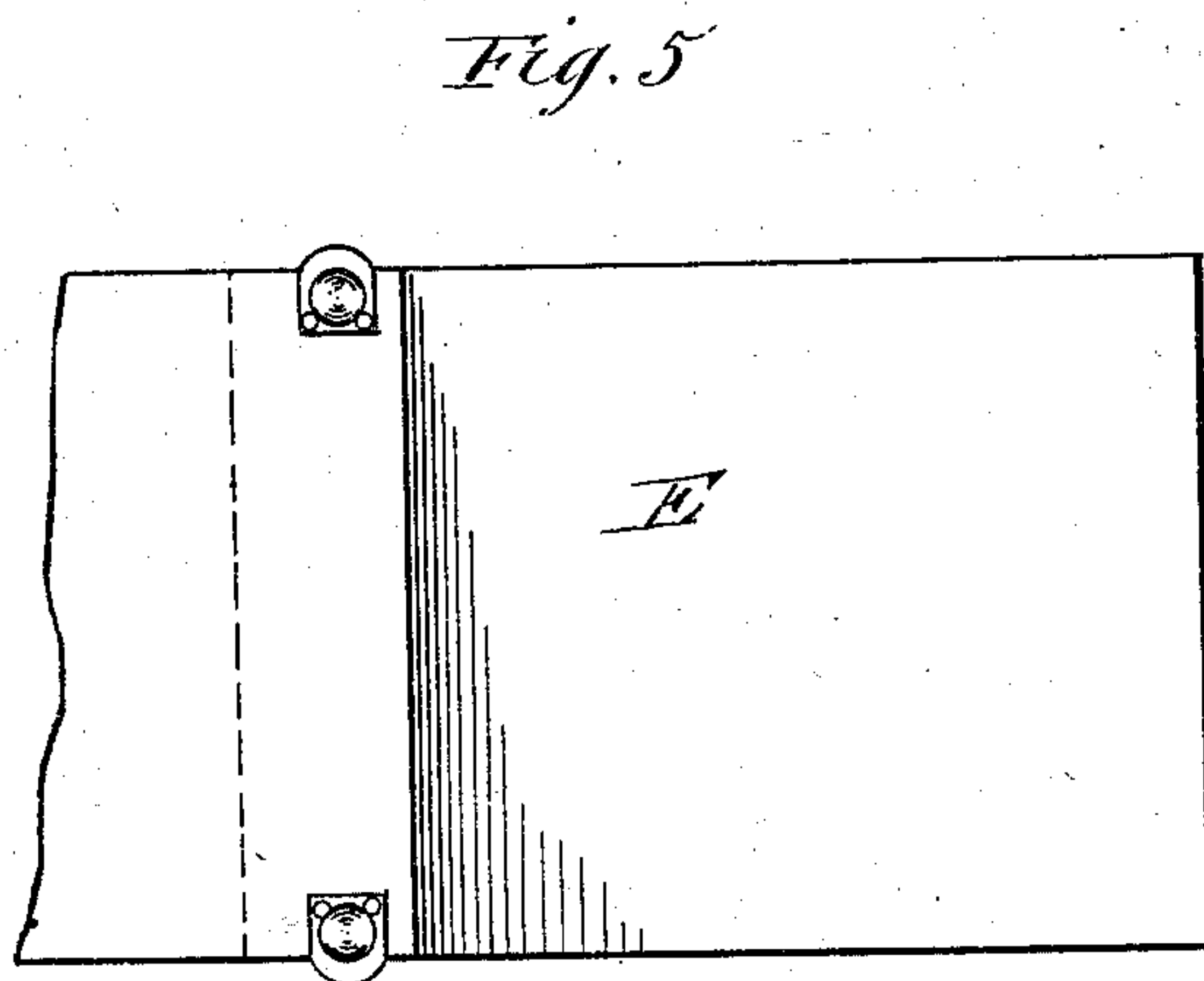
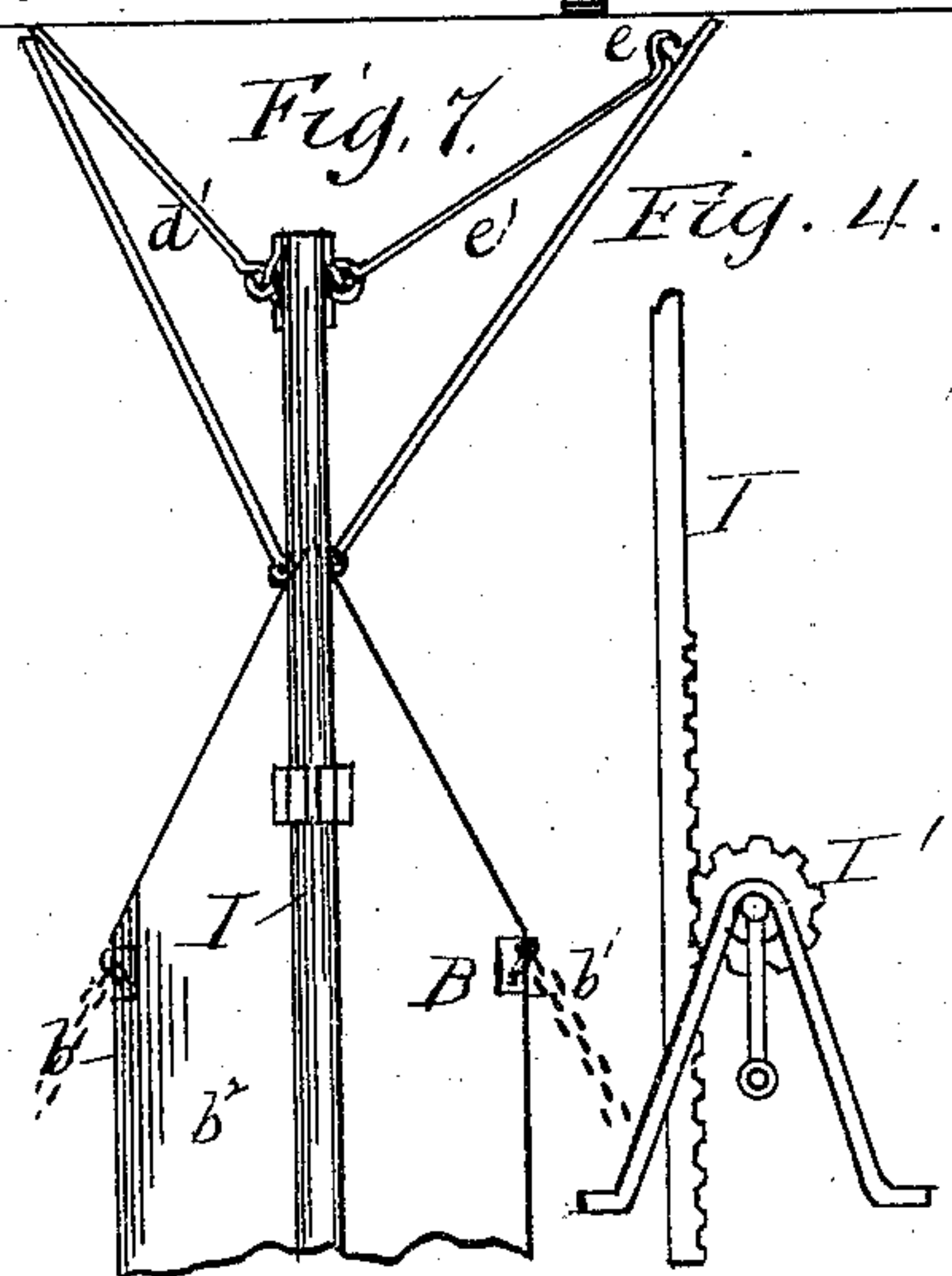
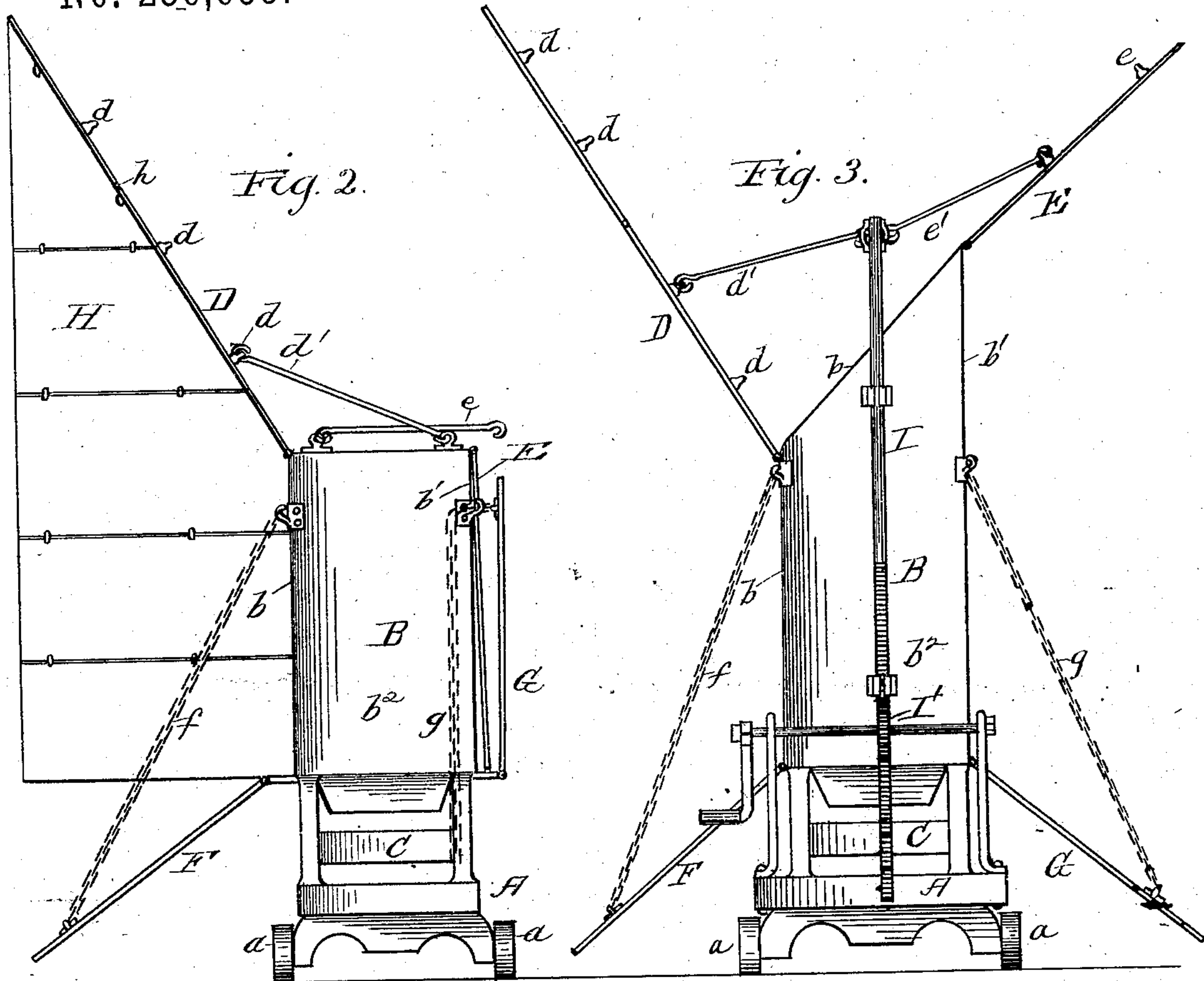
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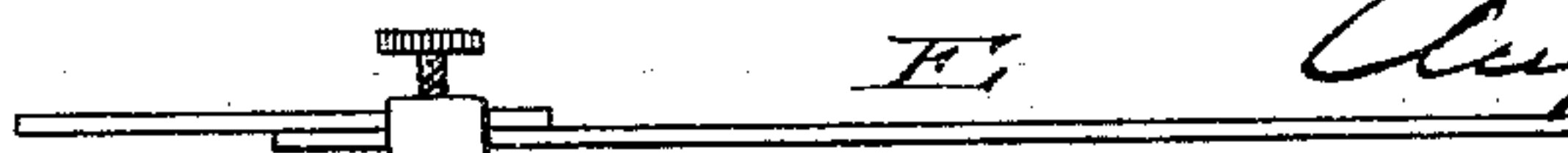
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Fig. 6.



Inventor:  
Auguste Dreyfus  
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# UNITED STATES PATENT OFFICE.

AUGUSTE DREYFUS, OF CATFORD, COUNTY OF KENT, ENGLAND.

## DRYING AND HEATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 256,655, dated April 18, 1882.

Application filed January 30, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTE DREYFUS, a citizen of Germany, residing at Catford, in the county of Kent, England, have invented certain new and useful Improvements in Drying and Heating Apparatus; 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.

This invention relates to that class of devices used for heating and drying the interior walls of buildings.

The invention consists in a portable furnace or heater provided with deflectors, by means of which the heat from the fire contained in the furnace can be directed against any portion of the walls and into the angles of a room or building.

It further consists in certain particulars of construction and combinations of parts, that will be fully described in the ensuing specification and particularly set forth in the claims at the close thereof.

For a full understanding of my invention I will proceed to describe the construction and operation of my improved heating and drying apparatus as represented in the accompanying drawings, wherein—

Figure 1 is a perspective view, showing the deflectors in position. Fig. 2 is an end elevation of the same. Fig. 3 is an end elevation, showing the furnace-walls extended up to form a hood at the top. Figs. 4 to 6 are details. Fig. 7 is an end view of the furnace, representing a modification of the form of hood shown in Fig. 3, only so much of the furnace and deflectors being shown, however, as is necessary to illustrate the modification.

The same letters of reference are used in all the figures to designate identical parts.

On a stout frame, A, provided with suitable casters or sledges, *a*, is mounted a furnace, B, having the necessary grate, ash-pan, drafts, &c., and beneath the ash-pan I arrange a shallow vessel, C, which is to be partially filled with water to prevent undue heating of the floor of the building in which my drying-furnace is in operation.

I make my furnace B rectangular in cross-

section, providing perforations in the front and rear vertical walls, *b* and *b'*, to permit the heat from the fire to escape more freely at these points. The end walls, *b<sup>2</sup>*, of the furnace are made of unperforated metal. The furnace is preferably provided interiorly with a fire-pot or basket to protect the sheet-metal walls thereof from the fire.

At the top of the front and rear walls, *b b'*, of the furnace I attach by means of hinge-joints deflectors D and E, of sheet metal or other suitable material, to direct the heat issuing from said front and rear walls against the walls of a room or building. These deflectors D and E are held in position after being raised or lowered to the proper angle by means of the hooked ends of rods *d'* and *e'* engaging one of the loops *d* or *e* on the upper sides of the respective deflectors.

I prefer to make the deflectors in two or more sections, adjustable one upon the other, in order to meet the requirements in drying the walls in different-sized apartments or buildings, a larger deflector being required in rooms having high ceilings.

The deflectors may be so constructed that when adjusted to their smallest size they may be folded down to cover the perforated sides *b* and *b'* of the furnace. This would be desirable when drying only one of the walls of an apartment at a time, as under these circumstances it is important that nearly all the heat from the fire should be radiated from one side of the furnace. In some instances I prefer to attain this end by securing a removable plate or shutter against the perforated side *b* or *b'* opposite from that at which the drying operation is being carried on. The sections of the deflectors may be made detachable for purposes of transportation or storage.

To the bottoms of the front and rear walls of the furnace I hinge additional deflectors, F and G, to be used in conjunction with the deflectors D and E in directing the heated air from the furnace against the walls to be dried. These deflectors F and G may be adjustably supported from fixed studs on the furnace by means of rods or chains *f g*, or they may be supported by rods extending from the floor of the room to the under side of the deflectors.



It may in some instances be found desirable to direct the heat radiated from the furnace to a comparatively limited space upon a wall. To accomplish this I suspend curtains 5 H from the edges of the upper deflectors, D E, by links *h* or other suitable means, which curtains may extend downward to or past the lower deflectors, F G. These curtains I have also made in sections, as shown in the drawings, the upper sections being attached to the 10 edges of the upper deflectors, the next lower ones being attached to the lower edges of the first, and so on.

In some instances I propose to form a hood 15 at the top of the furnace by extending the walls *b* and *b'* upward, the rear one, *b'*, vertically and the front one, *b*, inclined toward and connected to it, as shown in Fig. 3. In this form the deflector E should be hinged at or 20 near the top of the vertical wall *b'*, and that portion of the wall *b* which is above the deflector D should be unperforated. In using large deflectors I have found it expedient to link the hooked rods *d'* and *e'* to a stout vertical bar, I, secured at one end of the furnace. 25 I form a rack on this bar I, so that it can be adjusted vertically by means of a pinion, I', the shaft of which is mounted in bearings on a frame secured to or forming part of the frame 30 A, which supports the furnace.

It is obvious that various modifications may be made in the above-described apparatus without departing from the spirit of my invention— 35 as, for instance, the furnace might have other than a rectangular form in horizontal section, or the hood might be constructed with the front and rear walls sloping toward each other and one or both upper deflectors hinged to the

top or peak. These variations of form I would regard as but mere modifications and within 40 the scope of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an apparatus for drying the walls of buildings, a furnace having one of its walls 45 provided with perforations or openings, and having deflectors hinged one above and one below said openings, substantially as before set forth.

2. The combination, substantially as before 50 set forth, of a furnace having one or more of its walls provided with openings, the deflectors hinged respectively above and below said openings and adapted to be set at an angle with the wall or walls, and means for supporting 55 the deflectors.

3. The combination, substantially as before set forth, of a furnace having one or more of its walls provided with openings, the deflectors hinged respectively above and below said 60 openings and adapted to be set at an angle with the wall or walls, means for supporting the deflectors, and the curtains.

4. In a drying apparatus such as described, the combination, substantially as before set 65 forth, of the deflectors, the hooked rods, the vertical bar provided with a rack, and the pinion.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUSTE DREYFUS.

Witnesses:

JAMES JOHN LAURY,

W. TODD,

Clerks to Messrs. Comerford & Co., 7 Tokenhouse Yard, Lathbury.