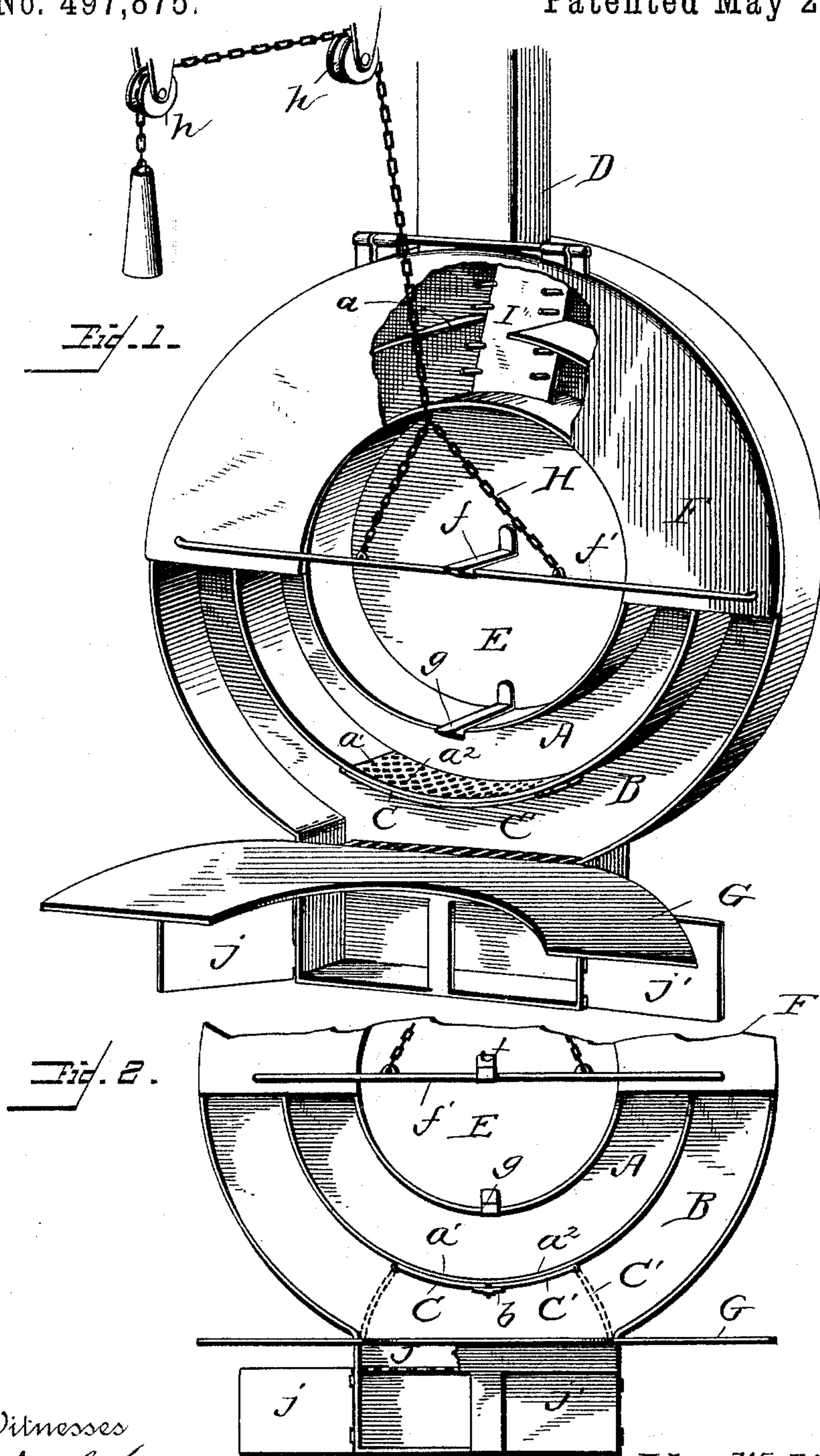


(No Model.)

J. W. HIGGASON.
TIRE HEATER.

No. 497,875.

Patented May 23, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN W. HIGGASON, OF BELLEVILLE, KANSAS.

TIRE-HEATER.

SPECIFICATION forming part of Letters Patent No. 497,875, dated May 23, 1893.

Application filed June 22, 1892. Serial No. 437,632. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. HIGGASON, a citizen of the United States, residing at Belleville, in the county of Republic, State of Kansas, have invented certain new and useful Improvements in Tire-Heaters; 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 heaters for vehicle rims or tires; and has for its object to provide a heater for the aforesaid purposes which will be simple in construction and utilize the fuel to the best possible advantage, and which at the same time will be easy of manipulation and give satisfactory results.

The improvement consists of the novel features and the peculiar construction and combination of the parts which will be hereinafter more fully described and claimed and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view of a tire heater embodying my invention, the doors to the ash pit being opened, the lower door to the ovens being let down, and parts of the upper oven door being broken away to show the rack for supporting the rims or tires. Fig. 2 is a detail view of the lower portion of the heater showing the two positions of the doors for deflecting the heat into one or the other of the two ovens by full and dotted lines.

The ovens are arranged in vertical relation to and directly above the furnace and are of sufficient depth to receive two or more rims or tires when arranged side by side. These ovens A and B are concentrically disposed. The oven A being the smaller has communication at its highest and lowest points with the oven B through the openings a and a' , respectively. The opening a may or may not be closed, but it is preferred to leave it unobstructed at all times. The opening a' at the bottom is protected or covered by a grating a^2 and is adapted to be closed by two doors C C' which are adapted to open downward from a point midway between the ends of the said opening a' and extend across the lower portions of the oven B so as to cut off the passage of the heat through said oven B when

desired and cause said heat to pass through the oven A. A catch or turn button b is attached to the grating b^2 and is adapted to hold the doors C C' in a closed position. The smoke flue D communicates with the highest point of the oven B and is directly opposite the opening a . Hence a direct draft is had through either of the ovens. The rear wall E may be of masonry or cast or wrought iron and preferably conforms to the circular shape of the oven B. These ovens are opened on their front sides and are closed, preferably, by two doors F and G. The door G is hinged at its lowest end and is adapted to open downward and is held closed by a catch g . The top door F is hinged at its highest point and opens upward. The catch f engages with a cross bar f' that connects the ends of the said door F and holds the latter closed. To facilitate the opening of the top door F a rope H is provided. One end of this rope is attached to the cross bar f' , and the other end is weighted and passes over pulleys h . The rack for supporting the rims or tires consists of a plate I which is located at the highest point of the ovens and extends across the same, and a series of pins i which are provided in corresponding pairs so as to steady the rims or tires when suspended in the ovens. This rack inclines slightly from the rear walls E at its lower end so as to hold the rims or tires away from said rear wall and permit the free circulation and access of the heated air to all parts of the aforesaid tire.

The furnace J may be of any approved form of construction and the ash pit is closed by doors $j j'$.

While the nature of the material is not essential to the essence of the invention, yet to provide the cheap and portable heater it is proposed and preferred to construct the entire heater from cast or wrought metal, the parts being suitably secured by any well known means.

When it is desired to heat tires or rims of large dimensions the same are suspended in the ovens B by means of the racks I i , and the doors C C' are closed so as to cause all the heat to pass through the said oven B. For smaller rims or tires the latter are suspended in the oven A and the doors C C' are

opened and projected across the space of the oven B to cause the heat to pass through the oven *a*.

5 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A tire heater comprising concentric ovens which are arranged in the same vertical plane and have communication at their highest and 10 lowest points, a heater for supplying the proper heat to the outer oven at the lowest point, and doors hinged to the divisional plate between the said ovens one on each side of the lowest opening formed therein, and adapted 15 to close the said opening to cut off the supply of heat to the inner oven, and adapted to swing downward at their inner ends to extend across the space between the outer oven to cause the heated air to pass wholly and entirely through the inner oven, substantially 20 as set forth.

2. The combination in a tire heater having concentric ovens which are arranged in the same vertical plane and have communication 25 at their highest and lowest points, of a rack

located in the upper opening between the ovens, and consisting of a plate having pairs of pins at different levels, and having the pins of each pair in the same horizontal plane whereby the rims or tires will be steadied 30 when suspended in the said ovens, substantially as set forth.

3. A portable tire heater comprising a furnace, concentric ovens disposed in vertical relation above the said furnace and having 35 openings *a* and *a'* respectively, at their upper and lowest points, doors C C' adapted to close the opening *a'* and be projected across the outer oven a rack for suspending the rim or tires in said ovens, and doors for closing the 40 opening sides of said ovens, the parts being arranged and operating substantially in the manner shown and set forth.

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

JOHN W. HIGGASON.

Witnesses:

J. L. DANIELS,

A. W. ROBINSON.