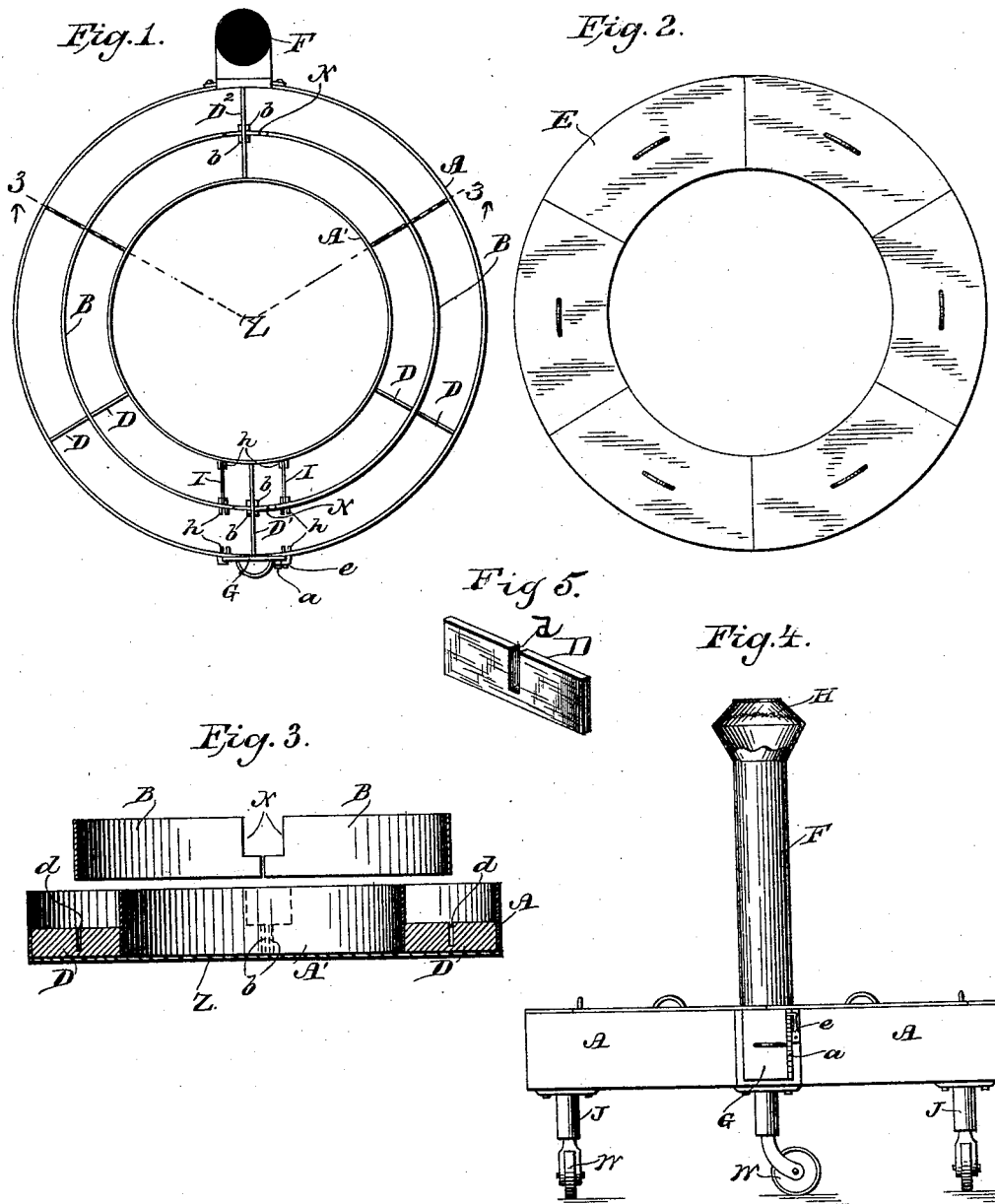


(No Model.)

N. H. COOK.  
TIRE HEATER.

No. 454,205.

Patented June 16, 1891.



Witnesses

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# UNITED STATES PATENT OFFICE.

NATHAN H. COOK, OF ABILENE, TEXAS.

## TIRE-HEATER.

SPECIFICATION forming part of Letters Patent No. 454,205, dated June 16, 1891.

Application filed August 30, 1890. Serial No. 363,479. (No model.)

*To all whom it may concern:*

Be it known that I, NATHAN H. COOK, a citizen of the United States, residing at Abilene, in the county of Taylor and State of Texas, have invented a new and useful Tire-Heater, of which the following is a specification.

This invention relates to tire-heating furnaces; and the object of the invention is to provide an improved furnace of this character wherein tires of various sizes may be heated either independently or continuously and having certain other highly advantageous characteristics, all as hereinafter more fully described, and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved tire-heating furnace with the cover removed. Fig. 2 is a plan view of the cover. Fig. 3 is a section on the line 3 3 of Fig. 1 with the parts slightly separated. Fig. 4 is a front elevation of the entire device, showing the same as mounted upon wheels, whereby it is rendered portable. Fig. 5 is a perspective detail of one of the partitions.

Referring to the said drawings, the letters A A' designate, respectively, outer and inner rings secured upon a floor Z, the whole comprising the body of my improved tire-heating furnace. In the outer ring A at the front thereof is a door G, having a rack *a* adapted to be engaged by a finger *e*, whereby the door may be sustained at any height and any desired amount of air permitted to pass through the same to create a draft in the furnace.

F is the chimney or exit for the products of combustion, located diametrically opposite the door G and preferably provided with a spark-arrester H of any desired construction.

Between the two rings A A' and rising from the floor Z are secured in any suitable manner a number of partitions D, each having a deep slot or notch *d* at its center, and by these partitions the annular space between the rings is divided into six compartments more or less.

B B are the two halves of a ring, which is of a size to fit about midway between the outer and inner rings, and the front and rear ends of these halves are notched or cut away, as shown at N.

*b b* are lugs at the opposite sides of the front and rear partitions D' D<sup>2</sup>, which rise from the floor Z to the same height as the others

D, and between these lugs the ends of the half-rings B B may be detachably inserted. By this means when the half-rings are in place the annular space is divided longitudinally and the several partitions D rise part way therein at intervals, for a purpose to appear hereinafter.

*h h* are lugs formed upon the inner faces of the rings A A' and upon both faces of the half-rings B B at the front, as shown, and on either side of the front partition D', and I I are removable gates adapted to be inserted from above within and between these lugs, as shown in Fig. 1. If desired, the standards J may be secured to the bottom of the device and wheels W mounted upon said standards, whereby the whole is rendered portable.

E is an annular removable cover whose use is obvious.

With a device constructed as above described the tire or tires to be heated are placed therein, the smaller ones in the inside annular space and the larger ones in the outside. Shavings, chips, and other combustible materials are placed around them within the device and ignited and the damper G set so as to admit the desired amount of draft. If the gates I are used, as shown in Fig. 1, the draft will be directed into the outer annular space, around the same, and out of the chimney; but if such gates should be placed across the outer space it will be obvious that the draft will be permitted to pass only around the inner space and out of the chimney.

Heretofore partitions similar to those lettered D have been used in tire-heating furnaces to produce an interrupted flue or passage-way for the flames or products of combustion; but I am not aware that the annular partition B has been used, nor that the same has been provided with notches *h*, whereby the gates I could be employed to close one of the annular spaces.

The use of machines and furnaces of this character is too well known to be enlarged upon here.

What I claim is—

1. In a tire-heating furnace, the combination, with the annular rings A A' and the partitions D between and of less height than the same and provided with notches *d* in their bodies, of the ring B, adapted to fit within

said notches and provided with inlet and outlet openings, the whole constructed and operating as set forth.

2. In a tire-heating furnace, the combination, with the annular rings A A', the partitions D between and of less height than the same and provided with notches *d* in their bodies, the similar partition D' between said rings at their front and having lugs *b* on its opposite sides, and the similar partition D<sup>2</sup> between them at their rear, also provided with lugs *b*, of the ring B of the same height as said annular rings and formed in two halves, each half fitting at its ends between said lugs and between said ends in said notches, inlet and outlet draft-openings in the outer ring A, respectively opposite said partitions D' D<sup>2</sup>, notches N in the ends of said half-rings, for the purpose set forth, and means for closing either half of the annular space adjacent said inlet-opening, each and all substantially as described.

3. In a tire-heating furnace, the combination, with the annular rings A A', the partitions D between and of less height than the same and provided with notches *d* in their bodies, the similar partitions D' between said rings at their front and having lugs *b* on its opposite sides, and the similar partition D<sup>2</sup> between them at their rear, also provided with

lugs *b*, of the ring B of the same height as said annular ring and formed in two halves, each half fitting at its end between said lugs and between said ends in said notches, inlet and outlet draft-openings in the outer ring A, respectively opposite said partitions D' D<sup>2</sup>, notches N in the ends of said half-rings, lugs *h* on the inner faces of the rings A A' and on the opposite faces of the half-rings adjacent the front partition D', and gates I of the same height as the rings removably inserted between said lugs *h*, each and all substantially as described.

4. In a tire-heating furnace, the combination, with the concentric rings A A' and the removable cover E therefor, of the chimney F opening from the rear of said rings, the vertically-sliding door G at the front of said rings, the vertical rack *a* on said door, and the finger *e*, secured to the outer ring adjacent said door with its tip engaging said rack, substantially as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

NATHAN H. COOK.

Witnesses:

THOS. J. WHITWORTH,  
JOHN R. WOODWARD.