# R. F. THOMPSON.

## Tire-Heaters.

No. 143,041. Patented September 23, 1873.

*Fig. 2.*

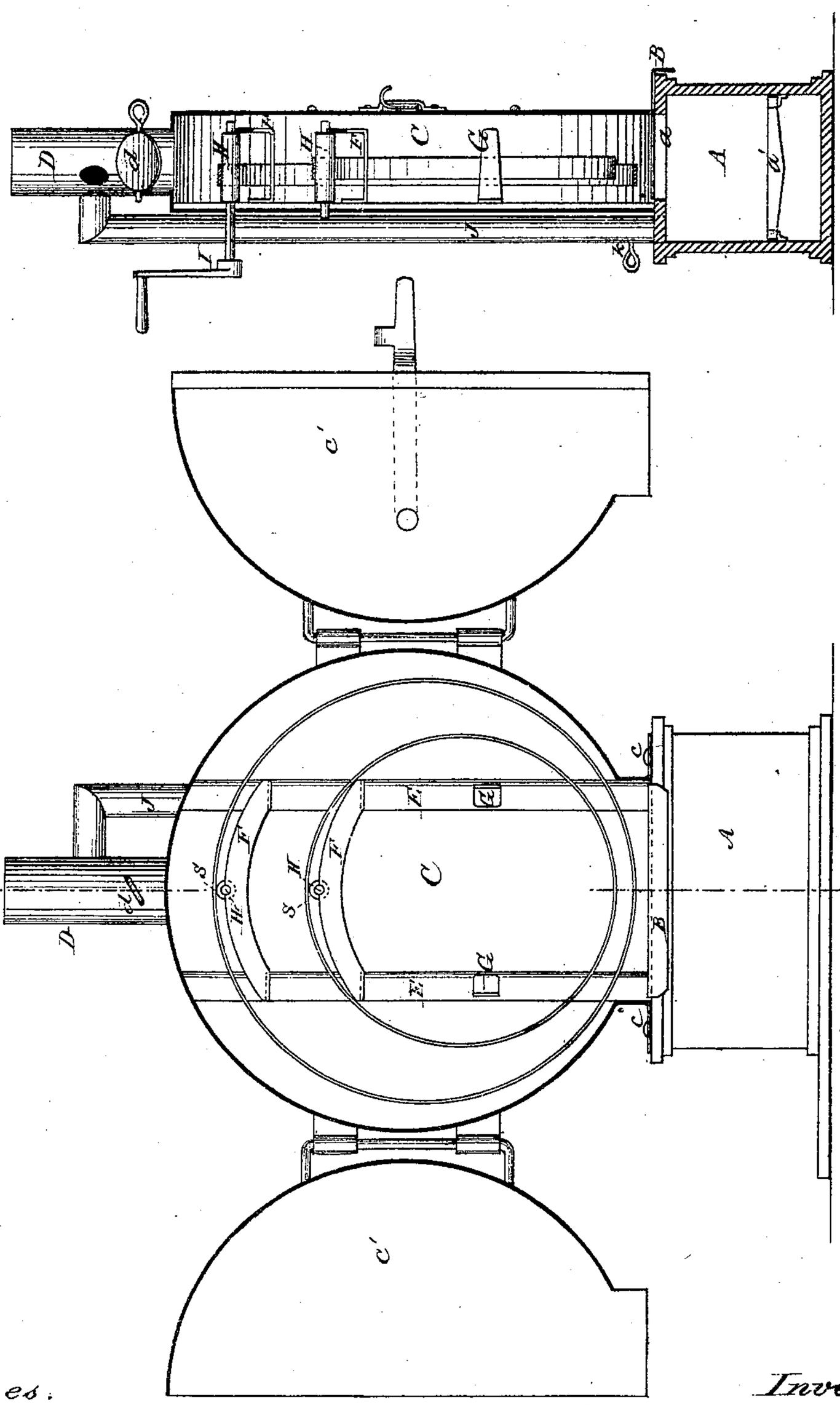


*Fig. 1.*




*Witnesses:*

*L. Hanway*

*O. G. Stuart*

*Inventor:*

*Roderick F. Thompson*

*by A. McCallum*

*Atty*

# UNITED STATES PATENT OFFICE.

RODERICK F. THOMPSON, OF BATAVIA, NEW YORK.

## IMPROVEMENT IN TIRE-HEATERS.

Specification forming part of Letters Patent No. **143,041**, dated September 23, 1873; application filed January 27, 1873.

*To all whom it may concern:*

Be it known that I, RODERICK F. THOMPSON, of Batavia, in the county of Genesee and State of New York, have invented certain Improvements in Stoves for Drying Wood, Heating Tires, and other purposes, of which the following is a specification:

My invention relates to an improved heater for use in wheelwright and blacksmith shops; and the invention consists in conbining and arranging with a stove, which may be used for ordinary heating purposes, a close-heating chamber or drum, in which wood and other materials are dried, tires heated, and which may be used for a variety of useful purposes connected with the aforesaid business, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a front elevation of my improved stove and heater with the doors open to show the interior arrangement. Fig. 2 is a transverse vertical section of the same on the line *x x*, Fig. 1.

A represents a box-stove, having an opening, *a*, on the top, and, if desired, grate-bars *a'*, the form and description of stove being immaterial provided it is made with an opening on the top of sufficient size for the purposes to be described. B is a cover for the opening *a*, arranged to slide back and forth so as to open and close the same. C is the drum or heating-chamber, constructed of sheet iron or boiler plate. It is circular in form, as shown by the drawings, and is arranged on the top of the stove in an upright or vertical position. The under portion of its circular side is cut away, and formed into a support or base, *c*, by means of which it is securely bolted to the top of the stove. The back is flat and made close throughout. The front consists of two hinged half-doors, *c'*, which, when closed and secured, form a close side corresponding to the back. D is a stove pipe or flue leading from the interior of the drum provided with a damper, *d*. E E represent two vertical standards of metal securely bolted to the back of the drum. Two or more brackets, F F, are bolted or adjustably secured to these standards, and projecting arms G may also be secured thereto in a similar manner at corresponding heights, as many as may be found convenient or desirable. H H are metallic rollers, having shafts, the inner ends of which are journaled in circular notches formed in the brackets F. The outer ends of the shafts pass through the back of the drum, and are shaped to receive a crank, I, by which they are made to revolve. J is a stove-pipe or flue leading from the interior of the stove A, and connecting with the flue D immediately above the damper *d*. It is also provided with a damper, as shown at *k*, Fig. 2.

The operation of my apparatus is as follows: When it is desired to use the stove for ordinary heating purposes, the sliding lid B is closed over the opening *a*, and the damper *k* is opened. The products of combustion will then pass directly from the stove into the flue J, which may be conducted throughout the building, as desired.

When it is desired to use the drum for heating tires, the latter are suspended on the rollers H, as shown at *s s* in the drawings, the brackets F being so arranged or adjusted as to bring a portion of the tire immediately over the opening *a* of the stove. The doors are then closed, the damper *d* opened, the sliding cover B drawn out so as to uncover the opening *a*, and the damper K closed. The products of combustion will then pass from the stove into the drum, and out by the flue D. As the portion of the tire in immediate contact with the fire becomes sufficiently hot, the roller H is turned by means of the crank I, the revolution of the roller causing the tire to revolve also, and thus every portion of the latter is brought into contact with the fire. When the tire has been brought to the required heat, the cover B is closed over the opening *a*, the damper *k* opened, and the damper *d* closed, when the smoke and other products of combustion will again pass through the flue J, leaving the drum clear, so that when the doors are opened the workmen are not annoyed or hindered by the smoke and gases passing from the stove, as heretofore.

When the drum is used for drying wood and other articles, a moderate degree of heat may be introduced by partially withdrawing the cover B, and adjusting the dampers *d* and *k*, and the degree of heat may thus be regulated to suit different purposes, as desired.

The articles to be dried or smoked, as the case may be, are supported by the arms G or

brackets F, the rollers H being removable at pleasure.

I am aware that devices for heating tires, placed vertically over a forge or furnace, have before been invented, and that the tires being heated have been caused to revolve by means substantially such as herein shown and described. I do not, therefore, broadly claim such as my invention. But I am not aware that a close chamber or drum, suitable for other purposes as well as for heating tires, and provided with devices for reversing the draft like mine, has ever before been known or used.

I therefore claim as my invention—

The combination of the stove A, cover B, drum C, and flues D and J with their respective dampers, the whole arranged substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of December, 1872.

RODERICK F. THOMPSON.

Witnesses:

WILLIAM TYRRELL,

JAS. B. ERWIN.