C. O. GAUSE.

TIRE HEATING DEVICE.

No. 186,721. Patented Jan. 30, 1877.

Fig. 2.

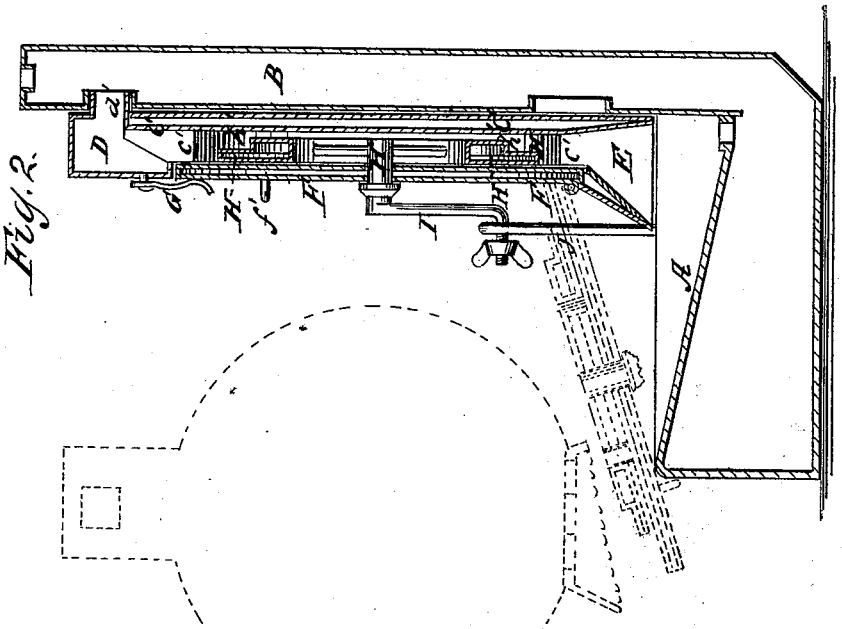
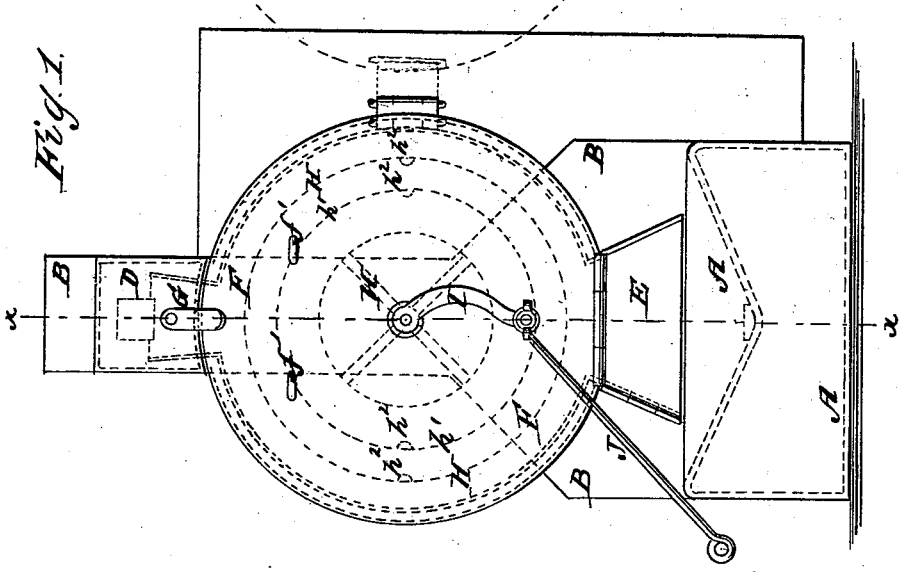


Fig. 1.



WITNESSES:

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CHARLES O. GAUSE, OF HESPER, KANSAS.

IMPROVEMENT IN TIRE-HEATING DEVICES.

Specification forming part of Letters Patent No. **186,721**, dated January 30, 1877; application filed November 4, 1876.

To all whom it may concern:

Be it known that I, CHARLES O. GAUSE, of Hesper, in the county of Douglass and State of Kansas, have invented a new and useful Improvement in Tire-Heater, of which the following is a specification:

Figure 1 is a front view of my improved tire-heater, shown as applied to a forge. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

As heretofore constructed, the fronts or doors of tire-heaters of the class to which mine belongs have been hinged at the side, and thus adapted to swing horizontally, and the wheel, or other device, for supporting the tire while being heated has been attached to the back of the furnace or heater. In consequence of this construction, the operation of attaching and removing the tires before and after being heated is inconvenient and comparatively laborious.

The object of my invention is to provide a tire-heater which shall be free from these objections; and, to this end, I hinge the front or door of the heater at its lower edge, and also pivot the tire-holding wheel to said front or door, so that the latter may be turned down, together with the tire-wheel, and allowed to rest, in a nearly horizontal position, on the forge or furnace. The tire or tires may be easily applied to or removed from the wheel while in this position, thus saving much of the time and labor previously incident to that operation.

A represents an ordinary blacksmith's forge, and B represents the forge-chimney. C is a circular plate, a little larger than the largest tire to be heated, and which has an outwardly-projecting ring-flange, *c'*, formed around its outer edge, except at its upper and lower parts, where are openings leading into the flue D and furnace E. The flue D is made with a collar, *d'*, which fits into a hole in the chimney B, to conduct the smoke into said chimney. The box E, which I call a furnace, is made in the shape of an inverted hopper, and is designed to collect the heat from the fire upon the forge A, and conduct it into the cavity of the heater, and also to receive extra fuel to increase the heat. To enable fuel to be readily put into said furnace, one of its ends is loose, and is hinged in place, so that it may be readily opened and closed, as desired.

The flue D and the furnace E are rigidly attached to the plate C. The plate C may be permanently attached to or formed in the chimney B, or it may be hinged to some suitable support at the side of said chimney, so that it may be swung back out of the way when not required for use, as shown in dotted lines, Fig. 1. In such case the tire-heater proper swings with it, and the hearth A is thus left free for the ordinary operations of the forge.

F is a circular plate of the same diameter as the plate C, so as to fit snugly upon the edge of the flange *c'* of said plate C. The plate F is hinged at its bottom to the lower part of the plate C, or to the upper part of the furnace E, so that it may be readily turned up and down, as required. The plate F is secured in place when turned up against the flange *c'* of the plate C by a button, G, or other suitable fastening.

H is a wheel, the hub of which revolves in bearings in the center of the plates F, and which is made of such a size as to receive the larger tires upon its rim. The wheel H is made with an offset or shoulder, *h'*, of such a size as to receive the smaller tires. In the opposite sides of the rim and of the shoulder of the wheel H, are formed notches h^2, to receive wedges for securing the tires in place, and the jaw of the tongs for placing and removing the tires.

The device may be made of such a size as to receive a single set of tires, or more, as may be desired.

The end of the axle of the wheel H that works in the plate F projects, and to it is attached a crank, I, to the crank-pin of which is pivoted the end of a rod, J, to enable the wheel H to be conveniently turned, so that all parts of the tires may be equally heated. To the upper part of the plate F are attached eyes *f'*, to receive the hooks of hook-rods for convenience in raising and lowering the said plate and the tires.

When it is desired to use the apparatus for

heating tires, the button G is turned to one side, and the plate F lowered and its upper end supported on the hearth, as shown in dotted lines, Fig. 2. The shouldered wheel H is thus exposed in position for convenient application of the tires. When this has been effected, and the wedges h^2 properly inserted to hold the tire, the plate F and its attached hub H, carrying said tire or tires, is raised to a vertical position, and again secured by button G, as in Fig. 1. When the tire has been heated to the required degree, the plate F is again lowered to enable the tires to be removed from the wheel.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The front or cover F of the tire-heater hinged at its lower side, and the wheel H pivoted thereto, in combination with the forge A, as shown and described, to operate as specified.

CHARLES O. GAUSE.

Witnesses:
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