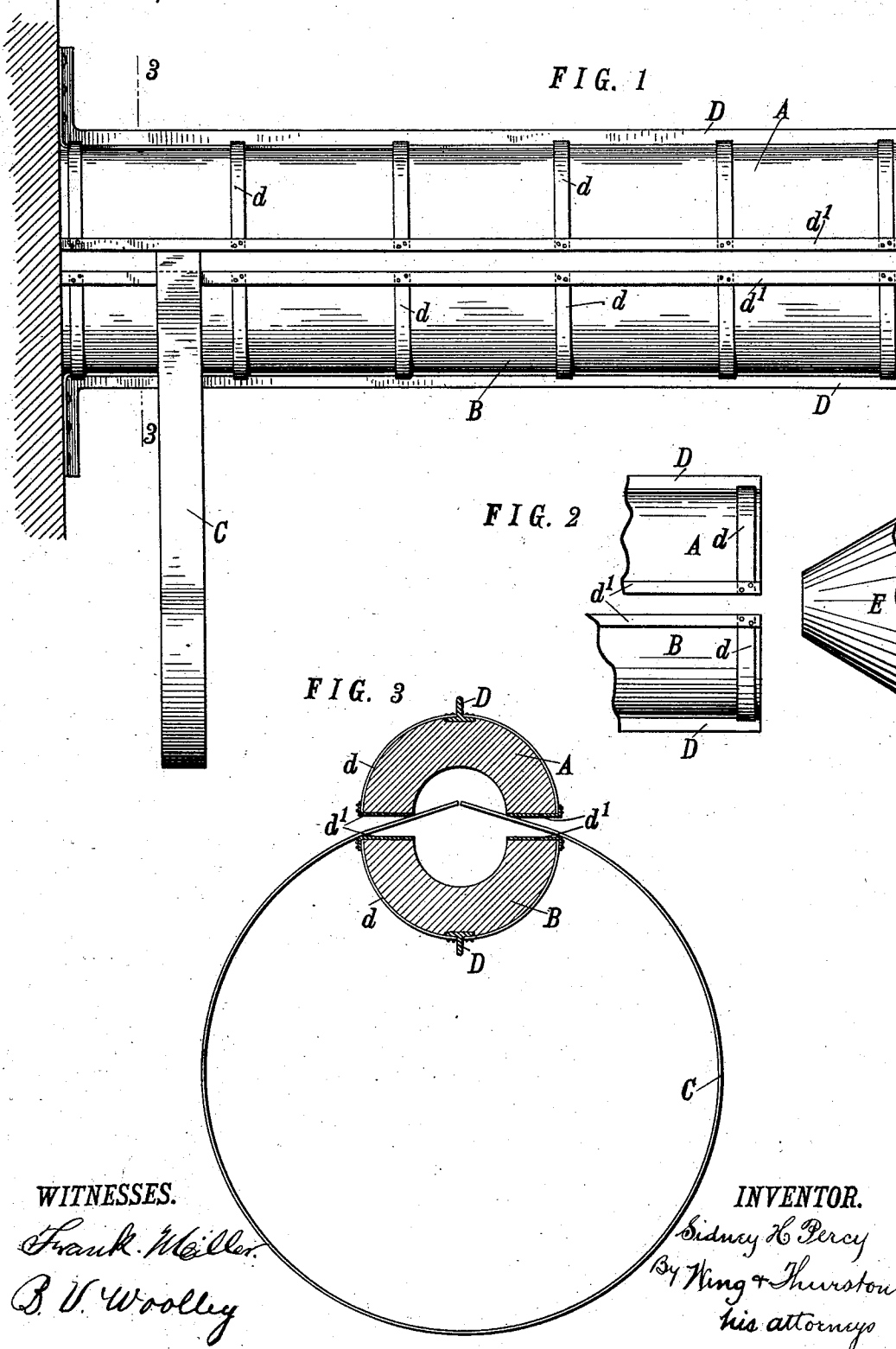


(No Model.)

S. H. PERCY.
WELDING FURNACE.

No. 509,046.

Patented Nov. 21, 1893.



UNITED STATES PATENT OFFICE.

SIDNEY H. PERCY, OF CHICAGO, ILLINOIS.

WELDING-FURNACE.

SPECIFICATION forming part of Letters Patent No. 509,046, dated November 21, 1893.

Application filed February 20, 1893. Serial No. 463,042. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY H. PERCY, a subject of the Queen of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Welding-Furnaces; 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.

My invention relates to a furnace especially adapted to heat the ends of the metal strips which are to be welded together to make wheel rims for bicycles and other vehicles.

The invention consists in a furnace composed of an upper and lower section, supported at one end and separated a distance sufficient to permit the insertion of the ends of the metal strips to be heated. It also consists in the combination of parts, and details of construction hereinafter described and pointed out in the claims.

In the drawings, Figure 1 is a side view of my improved furnace. Fig. 2 is a side view of the outer end thereof, and of the end of the blow pipe with which the flame is projected into the furnace; and Fig. 3 is a transverse sectional view of the furnace at the point indicated by the line 3—3 of Fig. 1.

The furnace consists of two parts, A and B. These parts are approximately semi-cylindrical in form, and they are placed one above the other, substantially as shown, whereby a slot or space is left between them of sufficient width to permit the passage of the ends of the rim C, to the interior of the furnace. One of the sections must be supported wholly at one end, so that when the ends of a rim are passed through the slots into the interior of the furnace, the said rim may, as the ends become heated, be moved toward the unsupported end of the furnace and out at the ends of the slots. As shown, each section is made up of a T iron beam D, which at one end is securely

fastened to a suitable support. Secured to the beam are the curved ribs *d d'*; and to the ends of the ribs the angle irons *d'* are fastened. The walls of the furnace sections may be made of fire clay or brick or other suitable material, which will be held in place and supported by the metal frame above described.

A gas or oil flame is projected into the interior of the furnace by the blow pipe E.

With the above described construction, there is no obstruction to the movement of a rim from one end of the furnace to the other, where it may be withdrawn. A supply of rims may therefore be inserted through the side slots and then moved gradually along, being exposed to the heat, until they reach the proper temperature, when they are withdrawn one at a time. This method of operation with the described furnace insures rapid delivery of rims to be welded, because a great number can be in the furnace at the same time.

Having described my invention, I claim—

In a welding furnace for heating wheel rims, the combination of the two sections A and B, each made up of a beam D, curved ribs *d*, angle irons *d' d'* connecting the ends of said ribs, and walls of fire clay or other similar material, said sections being held at a distance apart sufficient to permit the insertion between them of the ends of the rims, and supported in said relative positions by the connection of one end only of each section to a suitable support, and a blow pipe arranged at the unsupported end of the furnace, adapted to project a flame between said sections, substantially as and for the purpose specified.

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

SIDNEY H. PERCY.

Witnesses:

JAMES BAILEY,
P. E. GREGORY.