(No Model.)

G. D. BURTON.

BRACKET FOR ELECTRIC HEATERS.

No. 472,634. Patented Apr. 12, 1892.

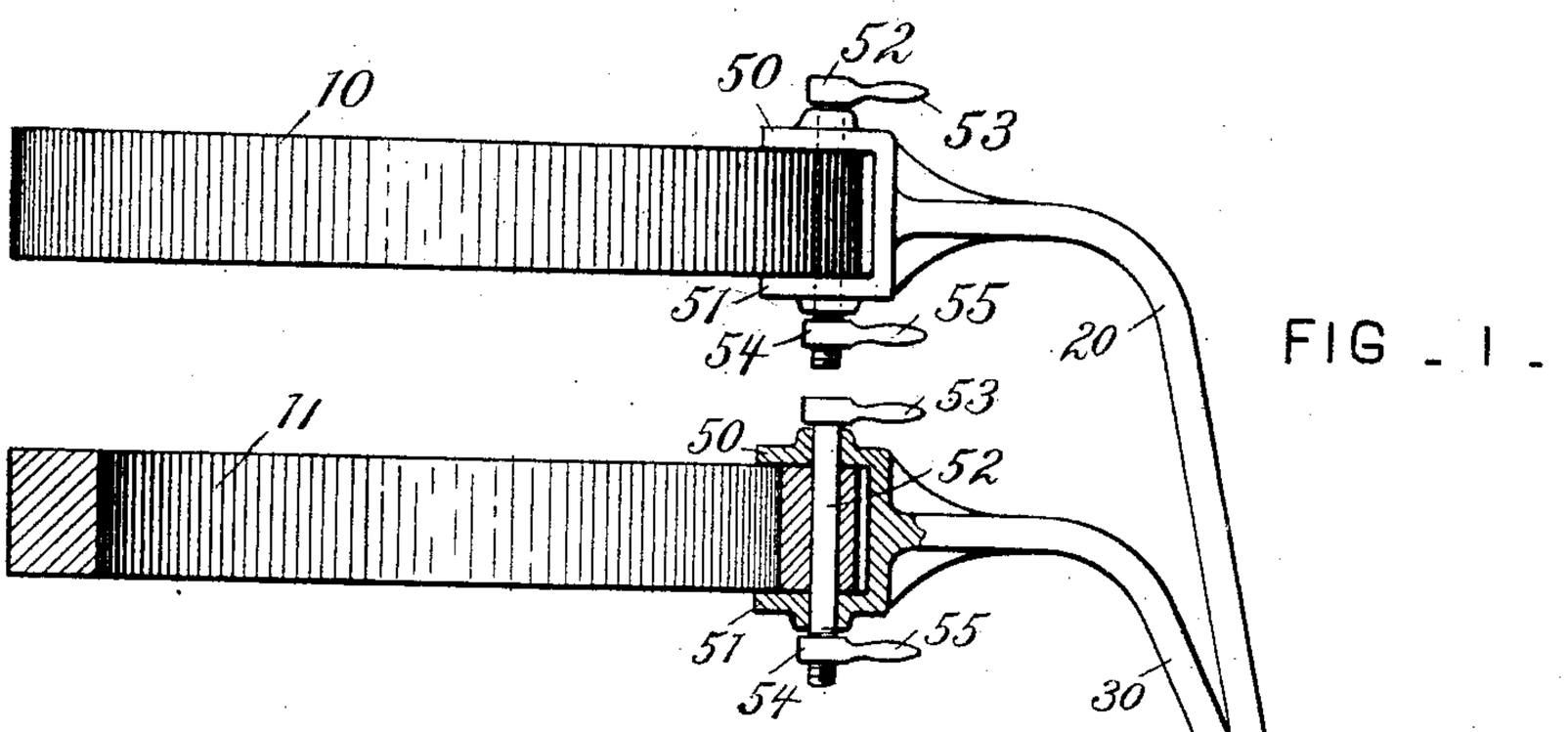

FIG. 1.

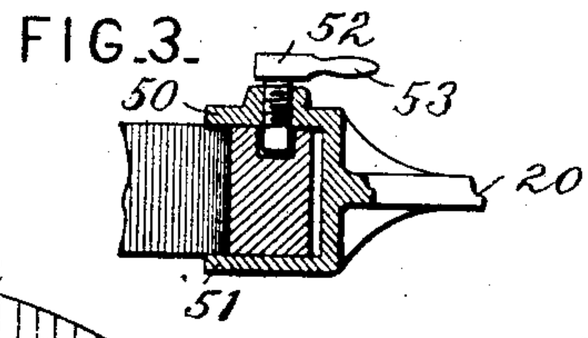

FIG. 3.

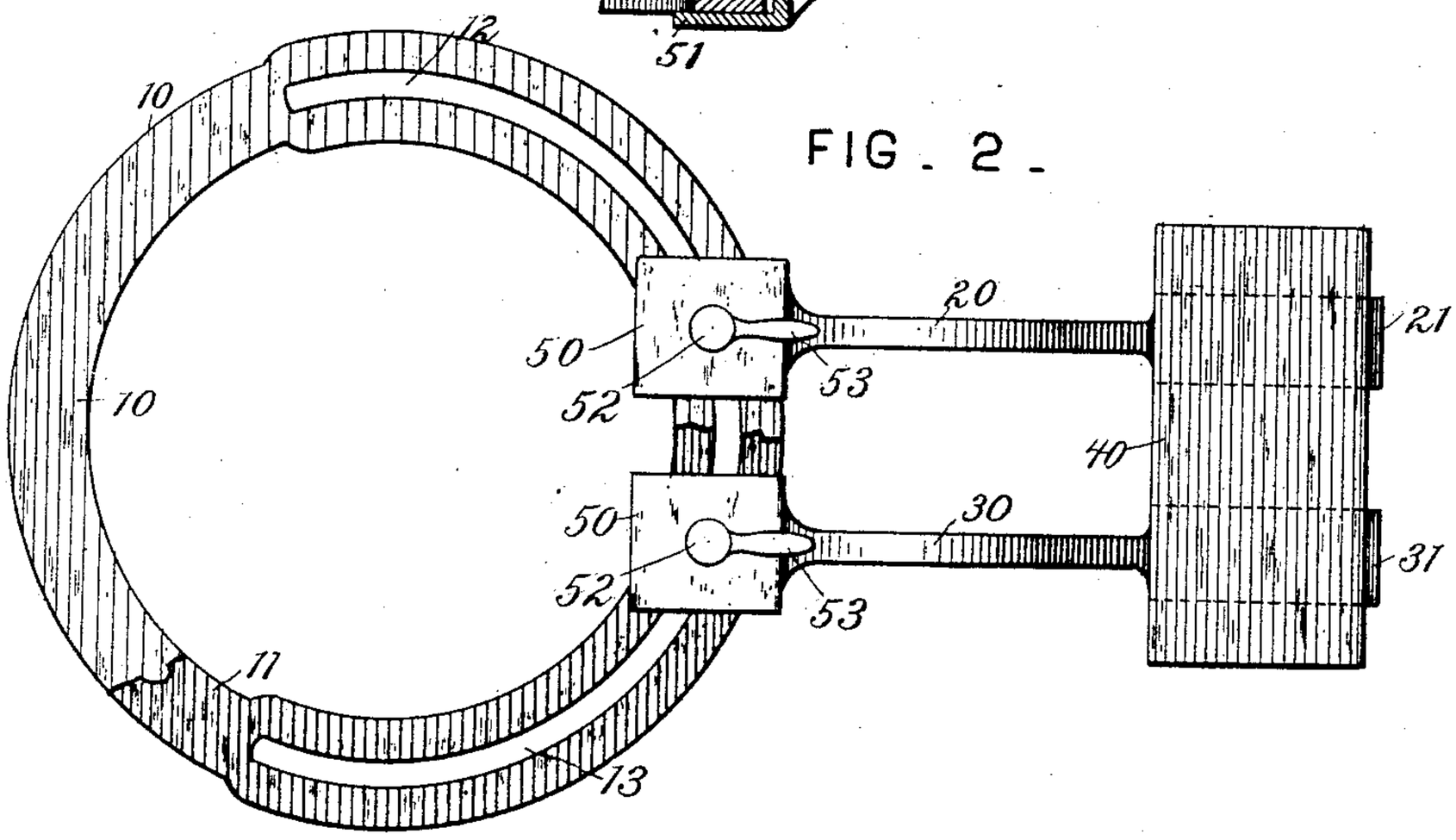

FIG. 2.

Attest:
Geo. T. Smallwood.
C. A. Reed.

Inventor
Geo. D. Burton
By F. C. Soames,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE D. BURTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE ELECTRICAL FORGING COMPANY, OF MAINE.

BRACKET FOR ELECTRIC HEATERS.

SPECIFICATION forming part of Letters Patent No. 472,634, dated April 12, 1892.

Application filed June 26, 1891. Serial No. 397,631. (No model.)

To all whom it may concern

Be it known that I, GEORGE D. BURTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Electric Heaters, of which the following is a specification.

This invention relates to an electric heater for use as a forge for heating metals to be forged or tempered, or as a cooking apparatus.

The object of this invention is to secure adjustability of the electric heater on the supporting or converter rings to which it is connected and adjustability of the two members of the heater with relation to each other.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of this improved electric heater. Fig. 2 represents a plan view thereof, a portion of one of the supporting-rings being broken away. Fig. 3 represents a transverse section of one of the converter-rings and a portion of one of the conducting-brackets, showing the connection of the bracket to the ring, the slot in the ring extending only partially through it.

Similar numerals of reference indicate corresponding parts in the different figures.

The rings 10 and 11, one of which is positive and the other negative, constitute parts of an electric-current converter, which need not be fully illustrated in this case. These rings are the medium for the conveyance of the electric current to and constitute the support for the heater proper, and they are provided, respectively, with vertical slots 12 and 13.

The heater proper comprises two brackets 20 and 30, composed of copper or other suitable conductive material. These brackets are provided at their lower ends with arms 21 and 31, respectively, which extend horizontally in the same plane, one of them being made longer than the other for that purpose. A heating-plate 40, composed of carbon or other suitable material of a higher resistance than the brackets, may be laid across the horizontal arms thereof or clamped thereon; or said arms may be provided with clamps or holders similar to those illustrated and described in other of my pending applications. Both of the brackets 20 and 30 are adjustable on the supporting-rings 10 and 11, whereby their positions on the ring and relatively to each other may be readily shifted. To effect this adjustment, the upper end of each bracket is provided with two ears 50 and 51, which slide over and under the upper and lower faces of the ring, said ears being perforated opposite the slot in the ring. A clamping-bolt 52, preferably provided with an actuating-handle 53, extends through said ears and through the slot in the ring. The lower end of the bolt is provided with a nut 54, which may have a handle 55 for actuating it.

The connection of one bracket to one of the rings is illustrated in a modified form in Fig. 3, in which the slot extends downward a short distance from the top of the ring and the clamping-bolt simply enters the slot without passing through the ring.

In the use of this improved electric heater the brackets 20 and 30 may be adjusted at any desired point on the supporting-ring and at the required distance from each other by simply loosening the clamping-bolts, shifting the brackets on the rings, and then tightening said bolts. The ears are thus pressed tightly against the rings and form a good electric contact therewith. The current passes from the positive ring 10 through the bracket 20, thence through the heating-plate 40 or through the article to be heated to the bracket 30, thence through said bracket to the negative ring 11. It will be observed that the adjustment of the brackets 20 and 30 is pivotal as well as longitudinal in the converter-rings, so that the outer ends of the brackets may be separated or brought nearer together by merely swinging the brackets on their pivoting-bolts 52. The slot 12 need not be cut entirely through the ring 10, but may be made in one side or edge thereof only, in which case a set-screw would be tapped into one of the ears 50 or 51 on that side of the ring in position to have its point end enter and engage with the slot; but such a modification is obvious without further description.

What I claim as new and of my invention is—

1. In an electric heating apparatus, the combination of a current-converter having two conducting-rings, one of which is provided with a slot, conductive brackets connected with said rings, one of said brackets being

provided with a perforated ear engaging one of said rings, and a bolt passing through said ear and engaging said slot.

2. In an electric heating apparatus, the combination of a current-converter having positive and negative conductive rings provided with slots, adjustable conductive brackets provided with ears engaging said rings, and bolts passing through said ears and engaging said slots.

3. In an electric heating apparatus, the combination of an electric converter having two conductive rings provided with slots extending therethrough, adjustable conductive brackets provided with ears engaging said rings, and clamping-bolts passing through said ears and through said rings within the slots.

GEO. D. BURTON.

Witnesses:
EDWIN E. ANGELL,
E. F. PHILIPSON.