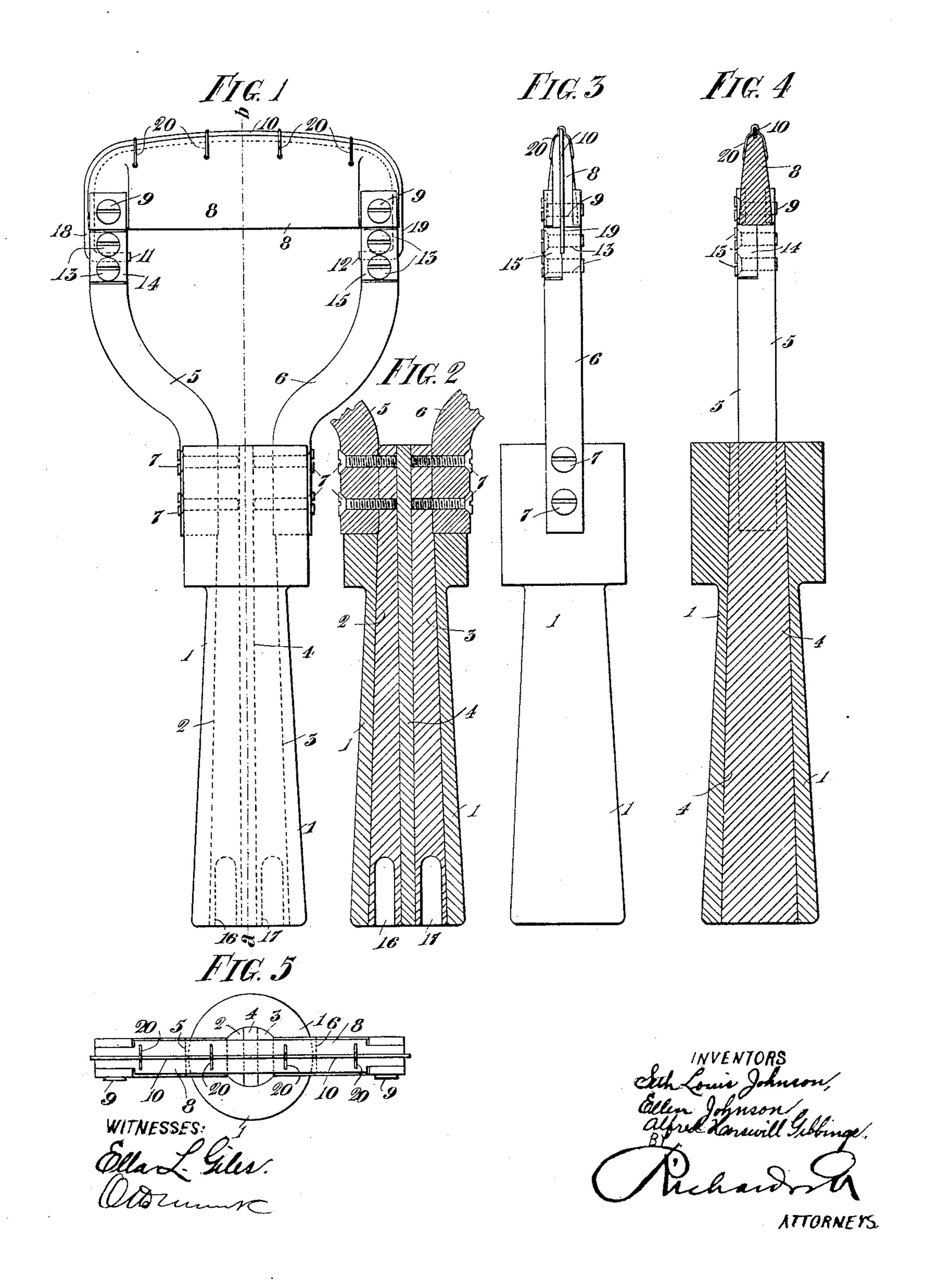
## S. L. & E. JOHNSON & A. H. GIBBINGS.

## MEANS AND APPARATUS FOR REMOVING WOOL OR OTHER HAIR FROM SKINS.

(Application filed May 31, 1899.)

(No Model.)



## UNITED STATES PATENT OFFICE.

SETH LOUIS JOHNSON, ELLEN JOHNSON, AND ALFRED HORSWILL GIBBINGS, OF BRADFORD, ENGLAND.

MEANS AND APPARATUS FOR REMOVING WOOL OR OTHER HAIR FROM SKINS.

SPECIFICATION forming part of Letters Patent No. 640,771, dated January 9, 1900.

Application filed May 31, 1899. Serial No. 718,875. (No model.)

To all whom it may concern:

Be it known that we, SETH LOUIS JOHNSON, ELLEN JOHNSON, and ALFRED HORSWILL GIBBINGS, subjects of the Queen of England, residing at Bradford, England, have invented certain new and useful Improvements in Means and Apparatus for Removing Wool or other Hair from Skins, of which the following is a specification.

the means of and apparatus for removing wool and other hair from skins. For this purpose we employ a wire or its equivalent heated by electricity to burn the wool or hair off the skin at the roots, thus removing it without appreciably damaging either the wool or the skin.

In the accompanying drawings, Figure 1 represents a plan view of our improved apparatus. Fig. 2 is a sectional view of the handle portion of same. Fig. 3 is a side view of Fig. 1. Fig. 4 is a section on the broken line a b, Fig. 1. Fig. 5 is an end view of Fig. 1.

The handle 1, formed of wood or other bad conductor of electricity, contains two conductors 2 and 3, insulated from each other by the strip 4 of insulating material. Metal branches 5 and 6 are rigidly connected to the conductors 2 and 3 by the screws 7, and a piece of ganister 8 or other refractory bad conductor of electricity is secured by the screws 9 to the ends of these branches. A platinum wire 10, preferably of flattened section, or a suitable equivalent is passed around the front of the ganister, and the ends 11 and 12 are se-

cured to the ends of the branch conductors 3 and 6 by the screws 13 and clamping-pieces 14 and 15.

The apparatus is fed by means of flexible wires connected by plugs or the like fixed in 40 the holes 16 and 17, formed in the conductors 2 and 3, with sufficient current to make the wire 10 white hot, and in this state the apparatus is passed over the skins and severs the hair at the roots.

The wire 10 is brought around the ends of the ganister and connected to the branches 5 and 6 some distance away from the front edge, and consequently the whole of the wire along the front edge from 18 to 19, Fig. 1, is sufficiently heated. The wires 20 are employed to bind the wire 10 to the ganister.

We claim—

An apparatus for removing hair and wool comprising a handle, conductors held therein 55 branch conductors extending from said handle, a non-conducting block interposed between said branches having a narrow edge and a conducting-wire stretched along the face of and parallel with said narrow edge 60 and having its ends secured to said branches, substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

SETH LOUIS JOHNSON.
ELLEN JOHNSON.
ALFRED HORSWILL GIBBINGS.

Witnesses:

SAMUEL A. DRACUP, ERNEST E. COCKCROFT.