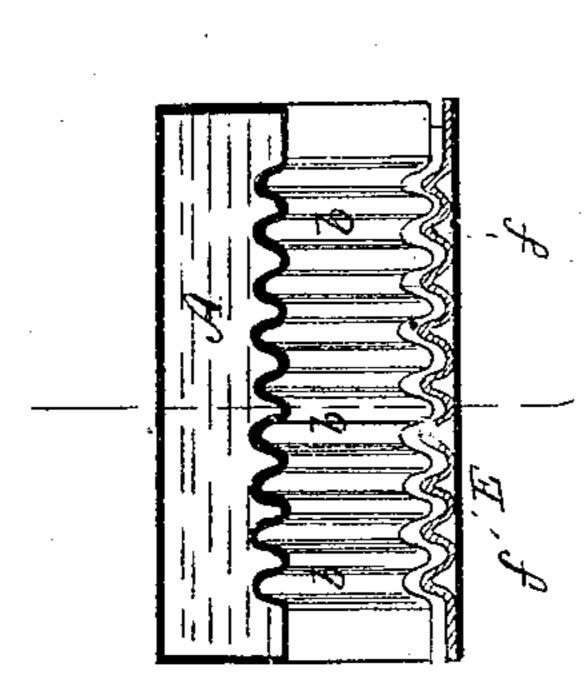
H. Christian.

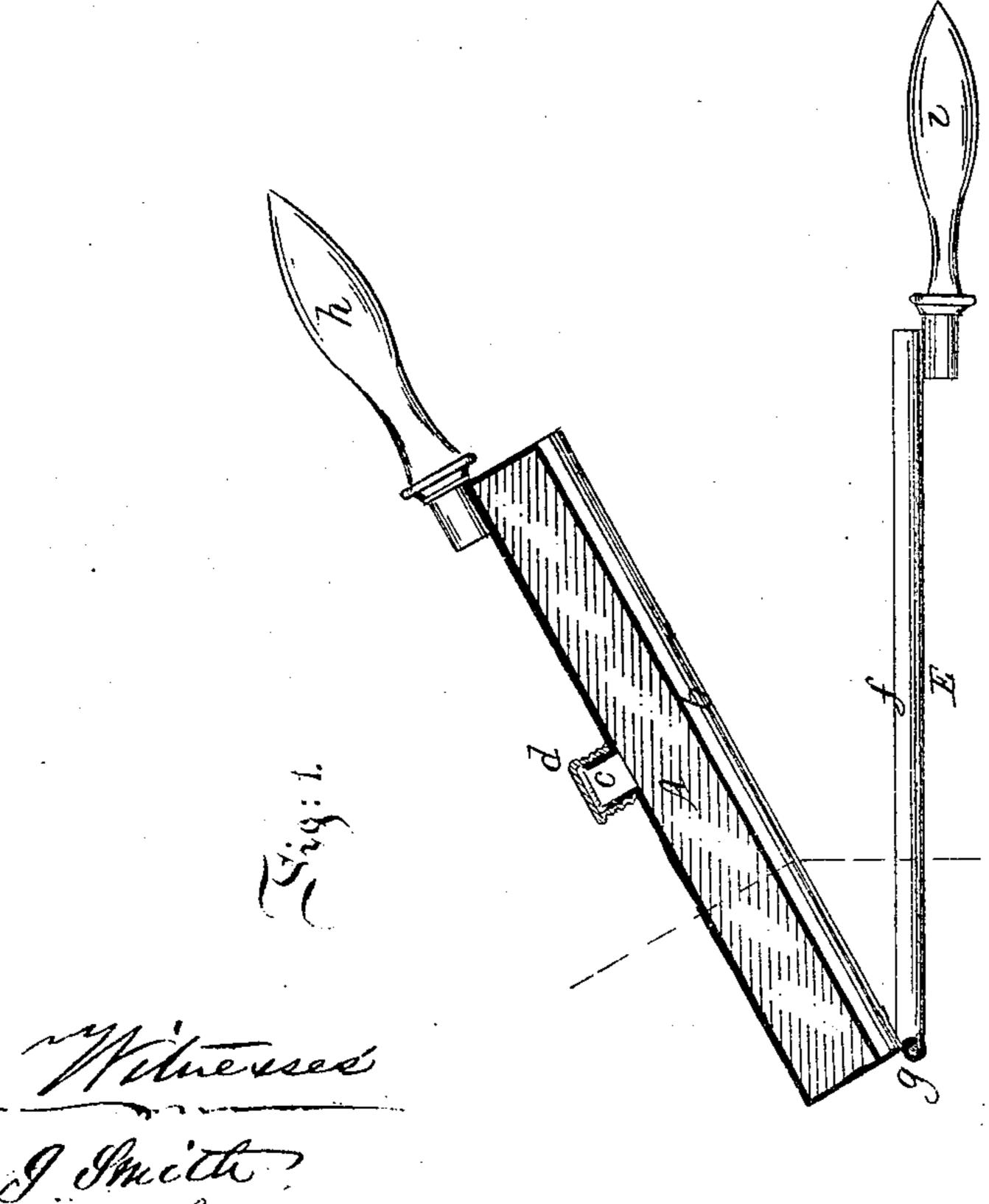
Grinning Hair.

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## United States Patent Office.

H. CHRISTIAN, OF NEW YORK, N. Y.

## IMPROVEMENT IN APPARATUS FOR CRIMPING HAIR.

Specification forming part of Letters Patent No. 53,413, dated March 27, 1866.

To all whom it may concern:

Be it known that I, H. Christian, of New York, in the county of New York, in the State of New York, haxe invented a new and Improved Apparatus for Crimping Ladies' Hair; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making

part of this specification.

My invention relates to a novel apparatus for crimping ladies' hair, and has for its object to afford for use a means of effecting the crimping without the use of fire and without bringing the hair in contact with highly-heated metallic surfaces, as is apt to occur when the crimping-tool is heated in a fire or over a flame; and to these ends my invention consists in the employment of a hollow crimping-iron, suitably corrugated, adapted to and used in connection with hot water supplied thereto, as will be presently more fully described.

To enable those skilled in the art to make and use my invention I will proceed to describe more fully the construction and operation of one of my improved crimping apparatuses, referring by letters to the accompanying drawings, in which Figure 1 is a longitudinal sec-

tion, and Fig. 2 a cross-section.

In the several figures the same parts are designated by the same letter of reference.

A represents a rectangular box or tank, which is suitably corrugated on one side, as seen at b b, and made of any suitable sheet metal, and which is provided on its back side with a suitable nozzle, c, through which it is filled and emptied, and which is closed by a screw-cap, d, suitably packed to make it water-tight. E is a sheet-metal pad or thin box, one side of which is corrugated, as seen at f, so as to

match into the corrugations bb. These two corrugated cases A and E are hinged together at g, as clearly seen, and each one is provided with a handle, h and i, by means of which the

apparatus is manipulated.

The operation of my improved crimping apparatus will be readily understood. When it is to be used the hollow portion A is filled with hot water, and the nozzle c effectually closed by means of its screw-cap d, and the operation of crimping the hair between the corrugated surfaces is effected in the manner well known. If deemed expedient both parts of the apparatus may be made hollow and filled with hot water. The pattern and proportions may, of course, be varied without departing from my invention.

It will be seen that by the use of the surfaces heated by hot water all liability of accidentally burning the hair with over-heated surfaces is effectually avoided, as in the case of the hot-water curling-iron for which Letters Patent were granted to me some time ago.

Having fully explained my invention so that those skilled in the art can make and use the same, what I claim as new, and desire to se-

cure by Letters Patent, is—'

A crimping apparatus adapted for use in connection with hot water as a medium of supplying heat to the surface or surfaces brought into contact with the hair, substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand and affixed my seal.

H. CHRISTIAN. [L. s.]

In presence of—
J. N. McIntire,
CHARLES SPEER.