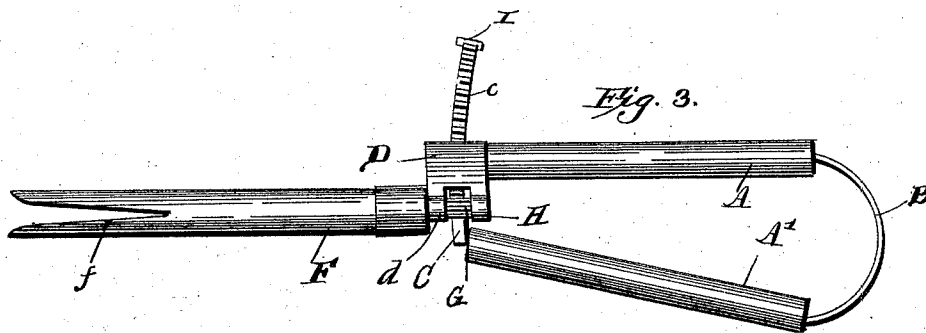
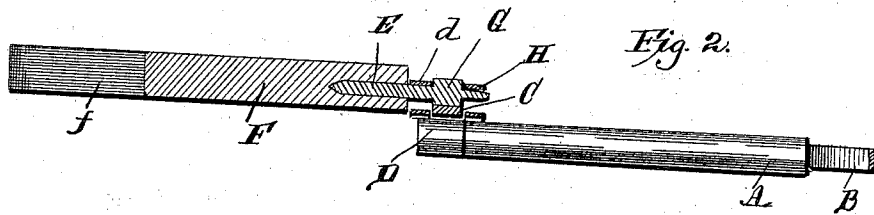
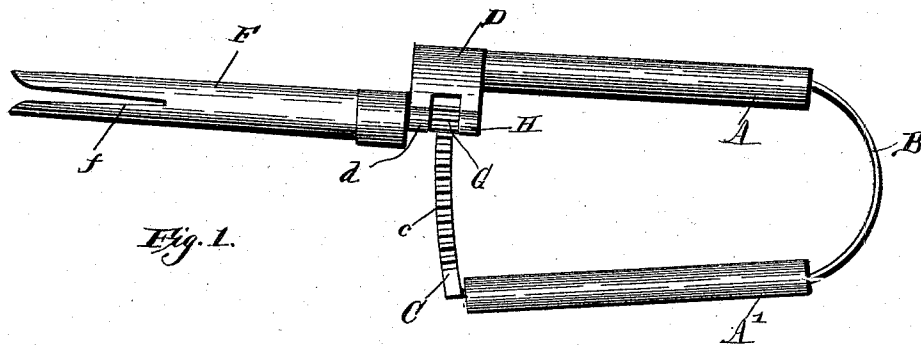


(No Model.)

F. D. WILLIAMS.
CURLING IRON.

No. 576,244.

Patented Feb. 2, 1897.



Witnesses
Henry F. Mills
H. A. Han

Inventor
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By *John Wedderburn*
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UNITED STATES PATENT OFFICE.

FRED D. WILLIAMS, OF COOPERSTOWN, NORTH DAKOTA.

CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 576,244, dated February 2, 1897.

Application filed May 16, 1896. Serial No. 591,867. (No model.)

To all whom it may concern:

Be it known that I, FRED D. WILLIAMS, a citizen of the United States, residing at Cooperstown, in the county of Griggs and State of North Dakota, have invented certain new and useful Improvements in Curling-Irons; 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.

This invention relates to certain new and useful improvements in curling-irons; and it has for its objects, among others, to provide a simple and cheap construction of curling-iron by which the hair may be quickly curled and the iron easily handled, so as to not only curl the hair but to twist it. It comprises an iron or other device for engaging the hair and a pair of handles connected by a spring and having provision whereby pressure of the handles to and from each other will cause the curling-iron to rotate.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation of the improved curling-iron. Fig. 2 is a sectional view of the same. Fig. 3 is a view showing the handles compressed as in the operation of rotating the curling device.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A A' designate the handles, which may be of any suitable material and shape and length and are connected by means of a flat spring B, which may be attached at its ends to the handles in any suitable manner, as, for instance, by being simply inserted in slots or grooves in the ends of the handles. On the opposite end of one of the handles is affixed a bar C, which is toothed or racked upon one face, as seen at c, and extending at substantially a right angle to the handle. On

the other handle is a collar D, having a lug *d*, in which is mounted for rotation the shaft E, one end of which is secured in the end of the curling-iron F, the other end of which is provided with a slot *f*, into which the hair is to be received, and this shaft is extended and carries the pinion G, which is adapted to mesh with the rack-bar, as shown. The sleeve on the handle is formed with a lug H, and between this lug and the lug on the opposite side of the sleeve the rack-bar is guided in its movements and is limited in its outward movement by the lugs or extensions I on the end of the said rack-bar, which engages the lug H on the handle. This rack-bar is preferably so constructed as to form a hinge-joint with the handle, to which it is connected, being in this instance shown as inserted through the handle near the end and turning therein, as upon a pivot. This rack-bar may be straight or more or less curved, as may be found most desirable in use.

With the parts constructed and arranged substantially as above described the operation will be readily understood. When it is desired to curl the hair, the curling-iron is engaged with the hair in the usual manner, the hair being placed in the slot thereof, and then by pressing the handles toward each other the pinion is caused to engage with the rack-bar, and as the handles are further compressed the engagement of the rack-bar with the pinion will cause the iron to be rotated and by alternately compressing and allowing the handles to separate the curling-iron will be rapidly rotated alternately in opposite directions, when desired, but of course in the ordinary operation of curling it is only necessary to compress the handles and when the hair has been curled sufficiently tight hold them thus compressed for a sufficient length of time, when by releasing pressure on the handles they will separate by reason of the action of the spring, and the hair can be easily removed from the iron and the latter is ready to be again used.

The device is simple, composed of few parts, and in operation will be found most effective for the purpose for which it is designed.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what
5 is claimed as new is—

As an improved article of manufacture a curling-iron comprising handles consisting of two like parts, a spring connecting the same at their outer ends, one of said parts
10 carrying at its inner end a tubular bearing, a mandrel rotatably mounted therein, and a

pinion carried at the inner end of said mandrel, and a rack-bar carried by the inner end of the other part, adapted to engage said pinion to rotate the mandrel. 15

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRED D. WILLIAMS.

Witnesses:

T. J. COOPER,

ROLLIN C. COOPER.