

June 15, 1926.

1,589,117

J. R. COTTER

CURLING IRON

Filed August 12, 1925

Fig. 1.

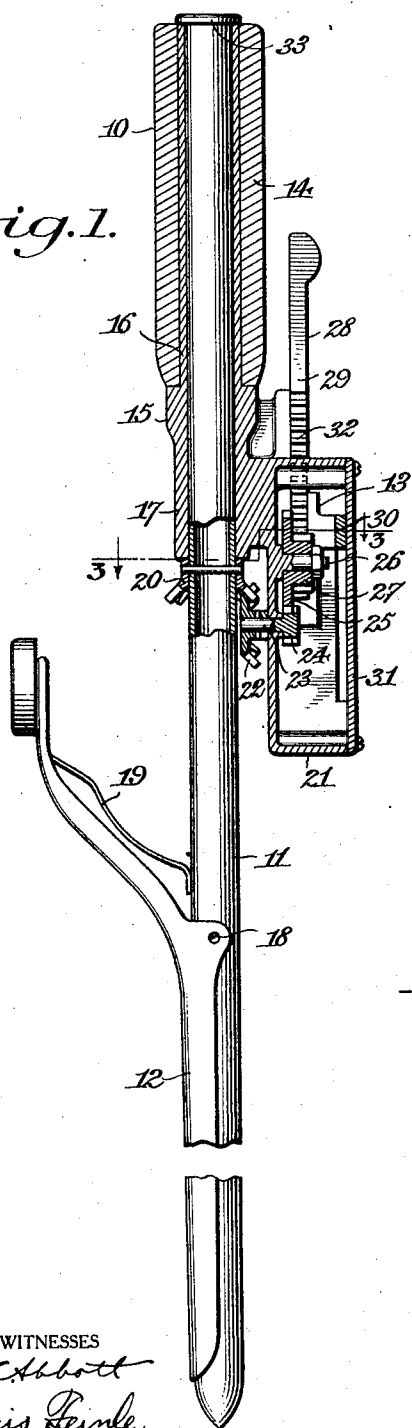


Fig. 2.

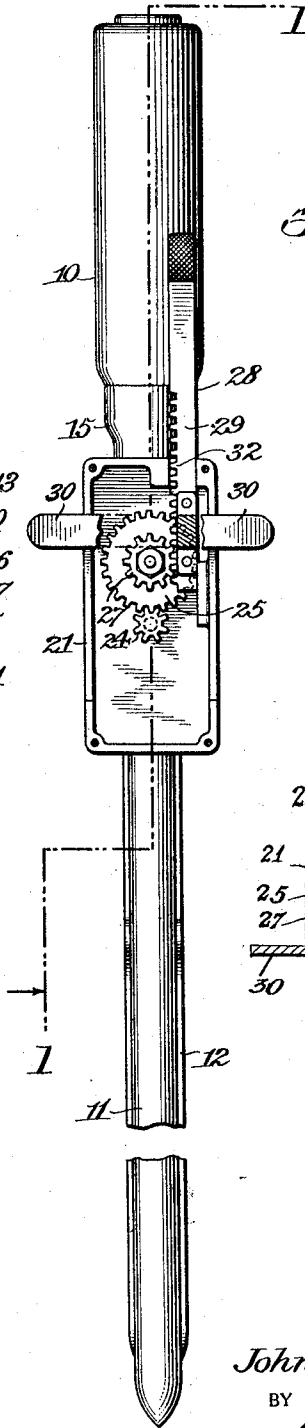
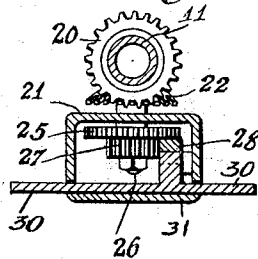


Fig. 3.



WITNESSES
W. C. Abbott
Chris Seinde.

INVENTOR,
John R. Cotter.
BY *Mum Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN R. COTTER, OF BROOKLYN, NEW YORK.

CURLING IRON.

Application filed August 12, 1925. Serial No. 49,799.

This invention relates to curling irons, and has especial reference to the class of curling irons providing curler elements which are co-operatively associated to clamp strands of the hair and about which the hair is wrapped or coiled.

An object of the present invention is the production of a device which embodies means for facilitating the wrapping or curling of strands of the hair for the curling thereof.

Another object of the invention is to improve devices of the character mentioned by simplifying the same, by rendering them more efficient structurally, and by rendering them more effectual in operation.

The distinguishing features and advantages will appear when the following specification is read in conjunction with the accompanying drawing, in which;

Figure 1 is a sectional elevation of the curling iron embodying the present invention, the section being taken substantially on the line 1—1 of Fig. 2.

Fig. 2 is an elevation of the device with the cover of the gear case removed and a portion of the transverse manipulator being broken away to show the underlying parts.

Fig. 3 is a transverse sectional view taken substantially on the line 3—3 of Fig. 1.

Referring now more particularly to the views of the drawing for all of the details, it will be apparent that, the device or curling iron of the present invention generally stated consists of a handle 10, curler elements 11 and 12 which are co-operatively associated with respect to each other and rotatably associated with the handle 10, and means 13 for effecting the rotation of the curler elements. The handle as constructed in the present instance but which may be modified and still serve the purpose of rotatably supporting the element 11, consists of a part 14 and a part 15, the latter including a tubular extension 16 which tightly fits in a bore in the part 14. The bore of the extension 16 is extended through the portion 17 of the part 15 to accommodate one end of the element 11 for rotation. The element 12 is pivotally connected as at 18 to the element 11, and is under the influence of a spring 19 which functions to hold the element 12 in a closed relationship with respect to the element 11. The element 11 is round in cross section, whereas, the element 12 is semi-

cylindrical so that the element 11 will fit within element 12. These features are common to ordinary curling irons now in use for clamping the hair prior to the wrapping of the hair about the same.

The means 13 for causing the rotation of the element 11 and therefore the element 12 which is connected to it consists of the parts and operates in a manner presently to be described. A toothed wheel or gear 20 connected to the element 11 in any suitable manner to rotate therewith. Operatively applied in conjunction with the gear 20 is a gear train supported by a casing 21 formed or otherwise attached to the portion 17. The gear train consists of a gear 22 which meshes with the gear 20, the gear 22 being secured to a shaft 23 which has secured thereto a pinion 24 which meshes with a gear 25 rotatable on a stub shaft 26 carried by the wall of the casing 21, and a gear 27 which also surrounds the shaft 26. The gear 27 is smaller than the gear 25 and is formed integral with the gear 25. A manipulator 28 is employed which consists of members 29 and 30, 30. The manipulator 28 is arranged for sliding movement by virtue of the members 29 and 30 being disposed respectively in recesses formed in portions of the casing 21 and by virtue of the use of a cover 31 which is removably secured to the casing 21. The member 29 is provided with teeth 32 which mesh with the teeth of the gear 27. Upon the manipulation of either of the members 29 or 30, 30 in one direction the elements 11 and 12 will be rotated in one direction by virtue of the intervention of the several gears mentioned. Therefore, it will at once be apparent, that when a strand of the hair is clamped between the elements 11 and 12 by actuating the manipulator 28 the elements 11 and 12 will be rotated and as a result hair will be wrapped or curled about said elements for the curling operation; it being understood, of course, that the elements 11 and 12 will have been heated. By employing a train of gears it is possible to obtain three or more complete revolutions of the elements 11 and 12, and the fact that the manipulator 28 has sliding movement facilitates the operation of the train of gears for the rotation of the elements 11 and 12. It is to be noted that the element 11 is prevented from having longitudinal movement with respect to the handle by virtue of the

hub of the gear 20 being in contact with the portion 17 and the flange 33 at the end of the element 11.

I claim:

- 5 A curling iron comprising a handle, co-operatively associated curler elements rotatably associated with the handle, one of said curler elements being carried by the other curler element and having movement
10 with respect thereto to opened and closed relationships and being normally held in a

closed relationship to the other curler element, a manipulator arranged for reciprocation and having several manipulating portions, gear teeth on said manipulator, and a
15 train of gears operatively arranged between the gear teeth on the manipulator and one of said curler elements, said train of gears being operable upon the manipulation of the manipulator to cause the rotation of
20 said curler elements in opposite directions.

JOHN R. COTTER