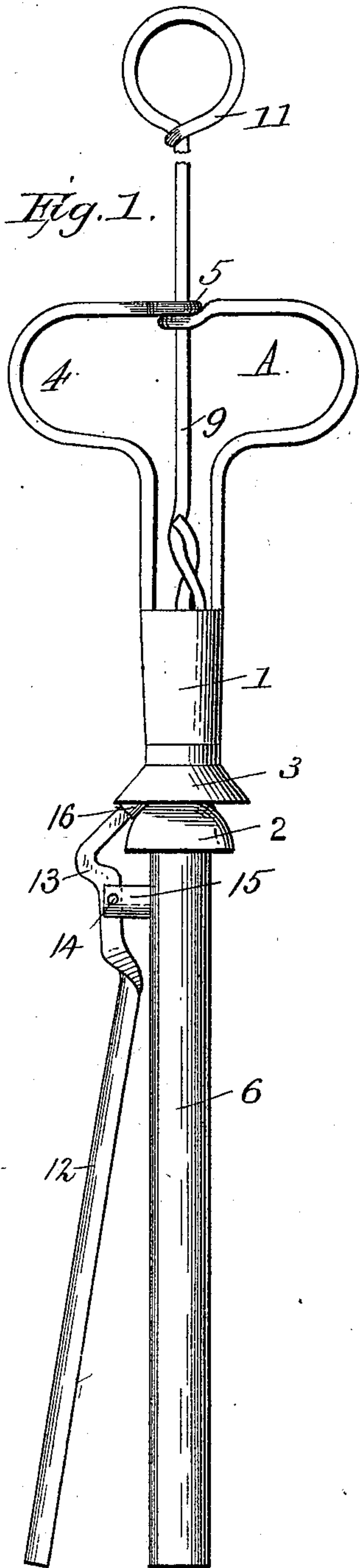


(Model.)

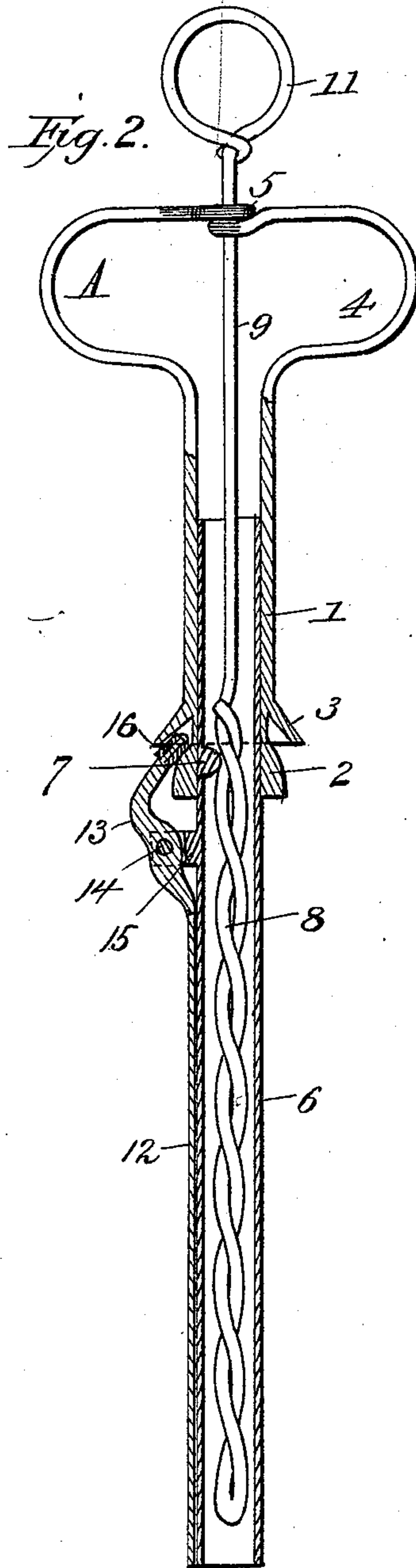
T. F. PAYNE.  
CURLING IRON.

No. 516,744.

Patented Mar. 20, 1894.



WITNESSES  
F. L. Ouraud.  
J. M. Clary.



INVENTOR  
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# UNITED STATES PATENT OFFICE.

THOMAS F. PAYNE, OF OLYMPIA, WASHINGTON, ASSIGNOR OF ONE-HALF TO  
W. H. OWENS, OF SAME PLACE.

## CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 516,744, dated March 20, 1894.

Application filed September 20, 1893. Serial No. 486,015. (Model.)

*To all whom it may concern:*

Be it known that I, THOMAS F. PAYNE, a citizen of the United States, residing at Olympia, in the county of Thurston and State of Washington, have invented certain new and useful Improvements in Curling-Irons; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in curling or crimping irons, the object being to provide improved devices for revolving the curling cylinder, and opening and closing the clamping jaw thereof.

The invention consists in the features of construction and combinations of parts hereinafter fully described and pointed out in the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation of my improved curling iron, and Fig. 2 is a central longitudinal section of the same.

A indicates the handle of the device consisting of a sleeve portion, 1, provided with a beveled head or collar, 2, and an annular beveled tripping flange, 3, and a handle proper, 4, of wire bent to the required shape and having an eye, 5.

6 indicates a hollow curling cylinder loosely seated within the sleeve portion, 1, of the handle, and provided with an interior lug, 7, adapted to take into the worm groove, 8, of a plunger rod, 9. This rod is provided throughout about half of its length with a worm groove, and is formed with a finger loop, 11, as shown. I have shown the plunger as made from a single piece of wire bent upon itself, and spirally twisted to form a worm groove. It will be apparent, however, that any form of plunger having a spiral groove cut therein may be employed in lieu of the wire rod shown. The plunger extends through the eye, 5, and sleeve, 1, of the handle and into the hollow cylinder, 6, where it is engaged by the lug of the cylinder.

12 indicates a clamping jaw of concavo-convex form in cross section to adapt it to the contour of the cylinder. This jaw is provided with a bent arm extension, 13, pivotally secured by a pin, 14, between ears, 15, projecting from the cylinder, and having its free end projecting into the space between the collar, 2, and flange, 3, of the handle and provided with an anti-friction roller, 16, adapted to contact with and travel upon either the collar or flange accordingly as the parts are adjusted as will be hereinafter explained.

The operation of the device is as follows, assuming that the curling cylinder has been heated: Normally the parts are in the position shown in Fig. 2. By withdrawing the plunger the cylinder 6 is moved lengthwise through the contact of its lug 7 with the worm plunger, said movement being stopped by the contact of the clamp roller 16 with the flange 3 of the handle. This contact of the roller and flange tilts the clamp to its raised position, and continued outward strain on the plunger revolves the cylinder without closing the clamp, and the parts are in the position shown in Fig. 1. The ends of the hair are then placed between the clamp and curling cylinder and the plunger is pressed inwardly. This inward movement of the plunger imparts a longitudinal motion to the curling cylinder, through the lug 7, such movement being stopped by the contact of the roller 16 with the collar 2, which also closes the clamp. As the cylinder is thus held against further longitudinal movement, the continued inward pressure of the plunger against the lug 7, revolves the cylinder to curl the hair, after which the iron is withdrawn in the usual manner. It will be observed that I avoid the necessity of turning the iron by hand, the curling cylinder being revolved mechanically by the plunger.

I do not limit myself to the exact construction of parts illustrated in the drawings, but reserve the right to make all such variations or modifications in the details as may properly fall within the scope of the following claims:

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—



1. In a curling iron, the combination with  
a handle provided with an annular collar, and  
a tripping flange, of a revoluble curling cyl-  
inder, a plunger extending through said han-  
dle and into the curling cylinder and having  
a worm engagement with said cylinder, and a  
clamping jaw pivotally secured at one end to  
the cylinder and provided with a lug exten-  
sion adapted to contact with said collar and  
tripping flange, substantially as described.

2. In a curling iron, the combination with  
a handle provided with a collar and an an-  
nular tripping flange, of a revoluble curling  
cylinder loosely seated in said handle, a plun-  
ger having a worm engagement with said cyl-  
inder, and a clamping jaw pivoted upon the  
cylinder and having an arm extension pro-  
vided with an anti-friction roller, substan-  
tially as described.

3. In a curling iron, the combination with  
a handle having a beveled collar and a bev-  
eled tripping flange arranged thereon, of a  
hollow revoluble curling cylinder loosely  
seated within the handle, a pivoted clamping  
jaw concavo-convex in cross section, and hav-  
ing an arm extension adapted to contact with  
said collar and flange, and a plunger rod  
passing loosely through said handle and hav-  
ing a worm engagement with the interior of  
said curling cylinder, substantially as de-  
scribed.

In testimony whereof I affix my signature in  
presence of two witnesses.

THOMAS F. PAYNE.

Witnesses:

J. E. OWENS,  
W. H. OWENS.