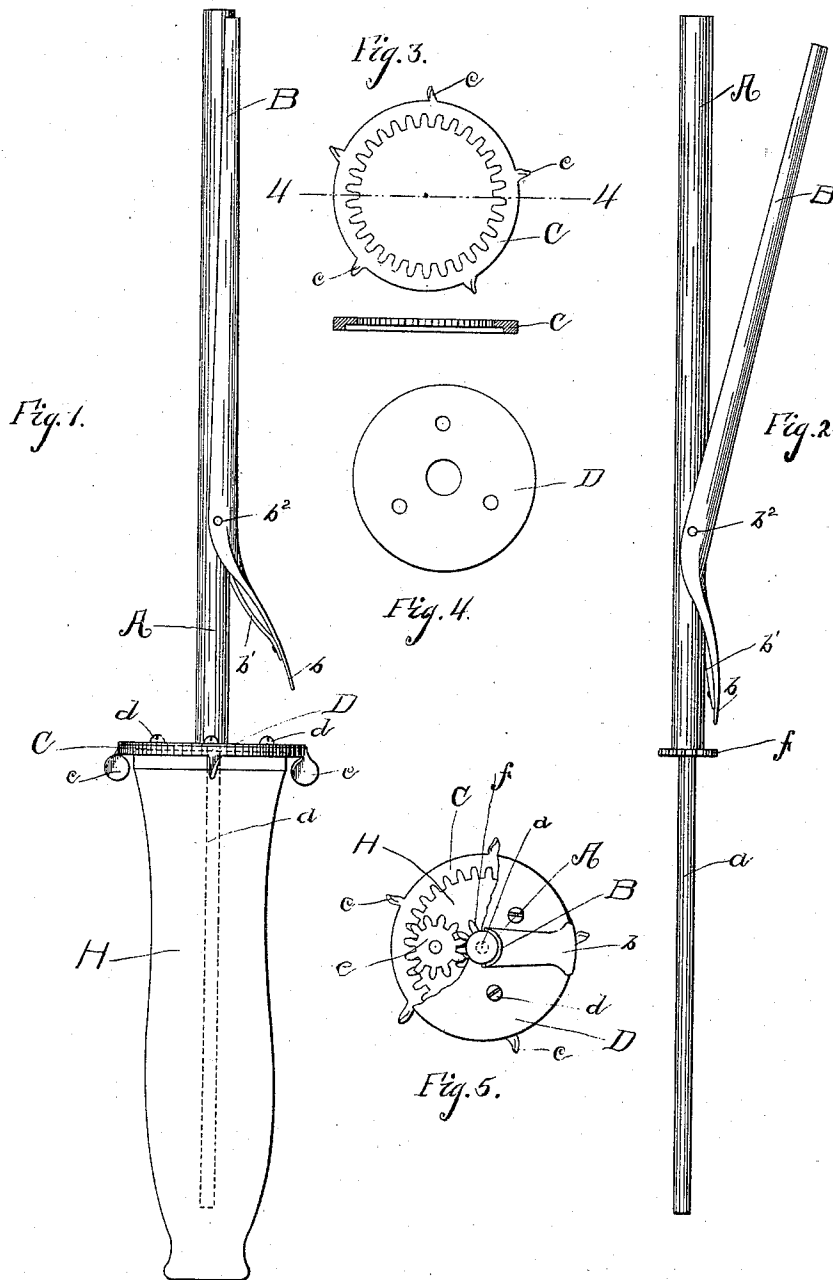


(Model.)

J. D. SCHOONMAKER.
CURLING IRON.

No. 546,031.

Patented Sept. 10, 1895.



Witnesses:
A. B. Miller
J. D. Schoonmaker

Inventor:
John D. Schoonmaker

UNITED STATES PATENT OFFICE.

JOHN D. SCHOONMAKER, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHARLES B. GOURLAY, OF SAME PLACE.

CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 546,031, dated September 10, 1895.

Application filed August 4, 1894. Serial No. 519,451. (Model.)

To all whom it may concern:

Be it known that I, JOHN D. SCHOONMAKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Curling-Irons, of which the following is a specification.

My invention relates to a novel construction in curling-irons for curling hair. The device shown comprises a handle and a mandrel rotatably journaled therein. The mandrel is provided with a shoulder at the point of union thereof with the handle, the portion of the mandrel that is within the handle being reduced. At the shoulder portion of the mandrel a pinion *f* is secured. Upon the inner face of the handle is provided a cap-like ring which has its edge turned over the end of the handle, and is provided at said edge with a series of outwardly-projecting wings to be engaged by the thumb of the operator. The inner edge of the ring is provided with cogs or teeth. Meshing with these teeth of the cap-ring and with the teeth of the pinion is an idler.

Figure 1 is a longitudinal elevation of the curling-iron complete. Fig. 2 is a detailed view showing the mandrel with the clamp open; also, the shank and pinion on the same. Fig. 3 is a plan view of the operating cap-ring; also, a sectional view on line 4 4. Fig. 4 is a plan view of the retaining-plate. Fig. 5 is a detailed plan view with part broken away, showing a part of the operating cap-ring, the idler, and part of pinion on shank of mandrel.

In the drawings, A indicates a cylindrical mandrel made of any kind of suitable metal formed so as to present a smooth, even, and an accurately cylindrical surface. Said mandrel is formed with a rearwardly-extended shank *a*, which penetrates the handle about two-thirds its length. Said handle may be made of wood or metal, preferably of wood.

B indicates a clamp or concave opposing jaw, which is formed so as to closely and accurately fit upon the adjacent convex surface of the mandrel and bear upon the same from the pivotal point to the end of the mandrel. The clamp is made of metal of suitable thickness, which is preferably struck up by dies, but

which may be given shape by other convenient or preferred means. The clamp B is bent or deflected at or near the pivot-pin *b*² and extends back and is so bent as to form a flat surface at its end, on which to place the thumb when operating the same. (See Fig. 1.) Under said deflected portion of said clamp is a flat spring *b'* of suitable size, so bent as to press upward. One end of said spring rests upon the mandrel near the pivot-pin *b*². The other end is riveted to the end of the clamp B. (See Fig. 1.) The action of said spring serves to hold the mandrel and clamp together.

C indicates the operating cap-like ring, which has its edge turned over the end of the handle, and is provided at said edge with a series of outwardly-projecting wings *c* to be engaged by the thumb of the operator. The inner edge of the ring is provided with cogs or teeth.

e indicates an idler of suitable size and thickness, provided with cogs or teeth on its edge.

f indicates the pinion on the shank *a*, which is of suitable size, through which the shank *a* passes, and is secured to the same. (See Fig. 2.) The cogs or teeth of the pinion mesh with the cogs or teeth of the idler, and the cogs or teeth of the idler mesh with the cogs or teeth of the cap-ring.

D indicates the retaining-plate, made of suitable size and thickness of metal and provided with a hole in the center of suitable size to receive the mandrel A; also, with three holes of suitable size to receive the necessary screws to fasten the same to end of the handle.

H indicates the handle, made of suitable material and of suitable shape and size to be conveniently held in the hand, and is provided with a suitable hole to receive the shank *a*, which revolves loosely therein.

To put the whole together, first put the shank *a* of the mandrel in the handle, the pinion *f* resting on the end of the handle, then put the cap-ring C in place, then put idler *e* between the pinion and cap-ring, put the retaining-plate on, and put the screws *d* in their places, one of which passes through the idler and

holds it in place. The retaining-plate holds the cap-ring, idler, and pinion in their respective places, after which the clamp B is put in place and held in place by means of the pivot-pin *d*².

Having described the several parts composing my invention, I will indicate the mode of operating the same. Take the handle of the curler in either hand you may desire, put your thumb on the rear end of clamp B at *b*, and press down on the same sufficient to raise the front end of the clamp, and then place the end of the hair between the clamp and mandrel, remove the thumb, which will let the clamp down on the hair, then place your thumb on one of the wings *c*, and rotate the same either way you may desire, and so on until you have rolled up the hair as far as desired, and then press gently on the clamp, as

before, which will loosen the clamp so the hair can be removed.

What I claim as my invention, and desire to secure by Letters Patent, is—

A curling iron comprising a mandrel with a clamp pivoted thereto, provided with a spring, said mandrel provided, with a shank on which is secured a pinion, said shank being inserted in a handle, the pinion on said shank engaging an idler, which in turn engages, with the cogs of an operating cap-like ring, and all being held in place by a retaining plate, secured to the end of the handle by screws, substantially as described for the purposes set forth in the specification.

JOHN D. SCHOONMAKER.

Witnesses:

R. B. STILES,

B. SCHOONMAKER.