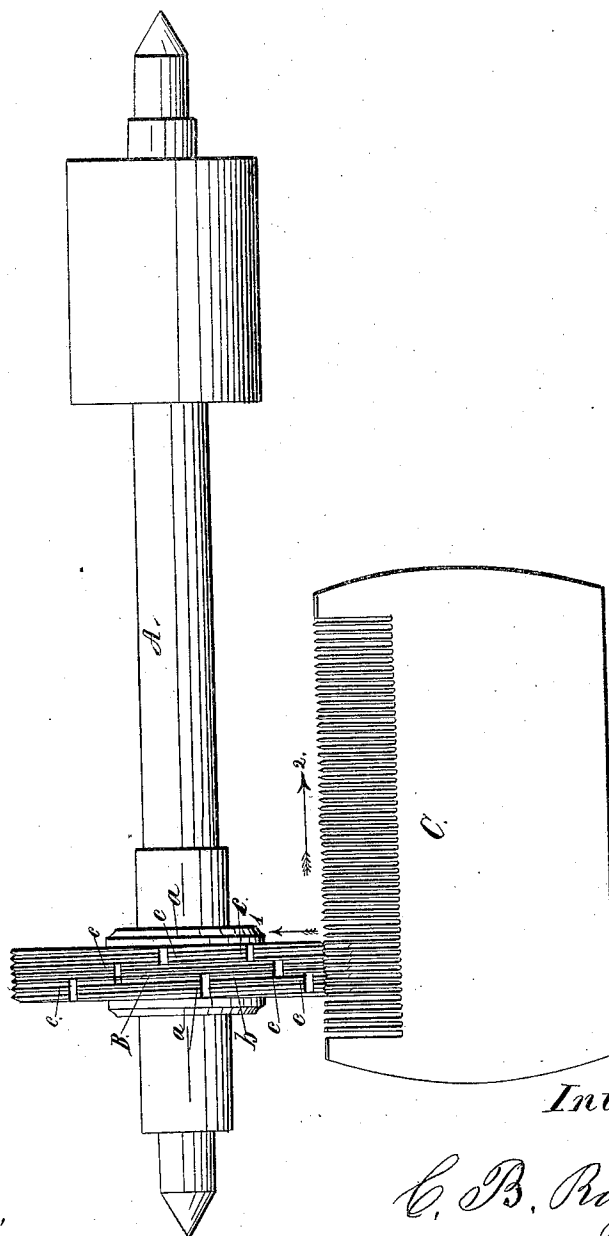


*C. B. Rogers,*  
*Making Combs,*  
*N<sup>o</sup> 22,513.      Patented Jan. 4, 1859.*



*Witnesses:*

*H. B. Kelsey,*

*H. C. Kingsley,*

*Inventor.*

*C. B. Rogers.*

# UNITED STATES PATENT OFFICE.

C. B. ROGERS, OF DEEP RIVER, CONNECTICUT.

## MACHINERY FOR POINTING THE TEETH OF HAIR-COMBS.

Specification of Letters Patent No. 22,513, dated January 4, 1859.

*To all whom it may concern:*

Be it known that I, C. B. ROGERS, of Deep River, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Devices for Pointing the Teeth of Ivory and other Combs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a plan or top view of my improvement with a comb applied to it.

This invention consists in an improved manner of arranging the cutting portion of the device as hereinafter fully shown and described, whereby the feed movement is not interfered with in any way, and the teeth of the comb rendered less liable to be broken while being operated upon than by the usual device.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents an arbor or shaft which is suspended between centers and rotated by any proper means. B, is a wheel placed on said shaft, secured thereto by means of jam nuts *a, a*, or in any proper way. The periphery of the wheel B, has a screw thread *b*, formed on it, the spaces between the threads being sufficiently wide to receive the teeth of the comb C, to be sharpened. The screw thread *b*, extends the whole width of the wheel and into the periphery of the wheel recesses *c*, are made. The recesses *c*, do not extend entirely across the wheel B, that is to say, each particular recess does not, they are formed at the center and from each side of the wheel, as shown clearly in the drawing, so that the thread *b*, shall not be wholly divided at any one point on the wheel. The edges of the recesses *c*, form the cutting portion of the device and the screw thread *b*, forms the feed. In the drawing the recesses *c*, are rectangular, but circular or other form may be used, the object being not to have either of the recesses extend entirely across the wheel, as in those of usual construction.

The wheel B, is rotated in the direction indicated by the arrow 1, and the teeth of the comb C, are placed upon the periphery of the wheel, the teeth fitting or adjusting themselves between the convolutions of the

screw thread which feeds the comb along in the direction indicated by arrow 2, while the edges of the recesses *c*, point the ends of the comb teeth.

The device hitherto employed for pointing comb teeth has a wheel with a screw thread formed on its periphery, but the recesses extend entirely across the wheel, consequently the screw thread is wholly divided at a single point and the feed movement is interrupted. This interruption of the feed movement is the cause of teeth being frequently broken, as the screw thread will not always register with the teeth when the cutting sides of the recesses come in contact with them after being thrown out from them by the recesses. By my improvement this difficulty is fully obviated for neither of the recesses *c*, extend entirely across the wheel, consequently only a portion of the comb teeth in contact with the wheel are thrown out from the thread by each recess *c*, a portion of the teeth on the wheel being always in gear or registering with the screw thread. The comb C, therefore will be moved along with a regular or constant feed and the teeth will be pointed without the liability of being broken.

This invention although extremely simple is very important, for by the usual machines, many teeth are broken and the breaking of a single tooth of a comb renders it almost worthless in a commercial point of view, and as ivory when prepared or manufactured into combs is expensive a great saving will be effected.

I would remark that a rectangular form of recess *c*, would probably be as good if not preferable to other forms, still circular recesses may be used. I do not confine myself to any particular form. I would also remark that the combs are constructed in the usual way previous to being operated upon by my invention, the improvement involving no change in the process of manufacture, and that the wheel B, may be constructed of steel and formed either of one piece or of several pieces or circular plates secured together side by side by the nuts *a, a*.

I do not claim broadly a wheel B, placed on a rotary shaft A, provided with a screw thread on its periphery and recesses to form cutters, irrespective of the form of said recesses, for such device is in common use; but,

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

Forming the recesses *c*, at the center and  
5 from the edges of the periphery of the wheel  
B, toward its center so that each recess shall  
extend only partially across the periphery  
of the wheel and still cutting surfaces be

formed entirely across it without breaking  
or dividing the screw thread *b*, entirely across 10  
the wheel at any one point, substantially as  
and for the purpose set forth.

C. B. ROGERS.

Witnesses:

H. B. KELSEY,

H. C. KINGSLEY.