

(No Model.)

W. J. MILLER.  
REVOLVING HAIR BRUSH.

No. 481,264.

Patented Aug. 23, 1892.

Fig. 1.

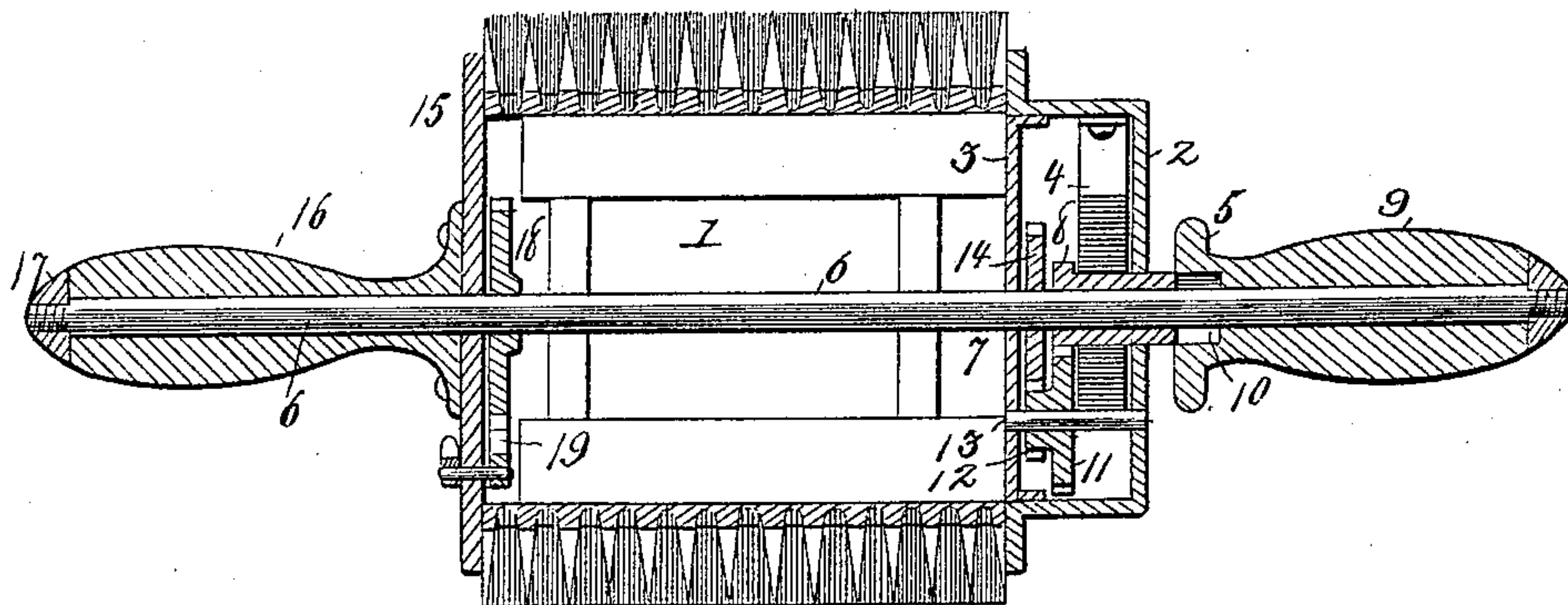


Fig. 2.

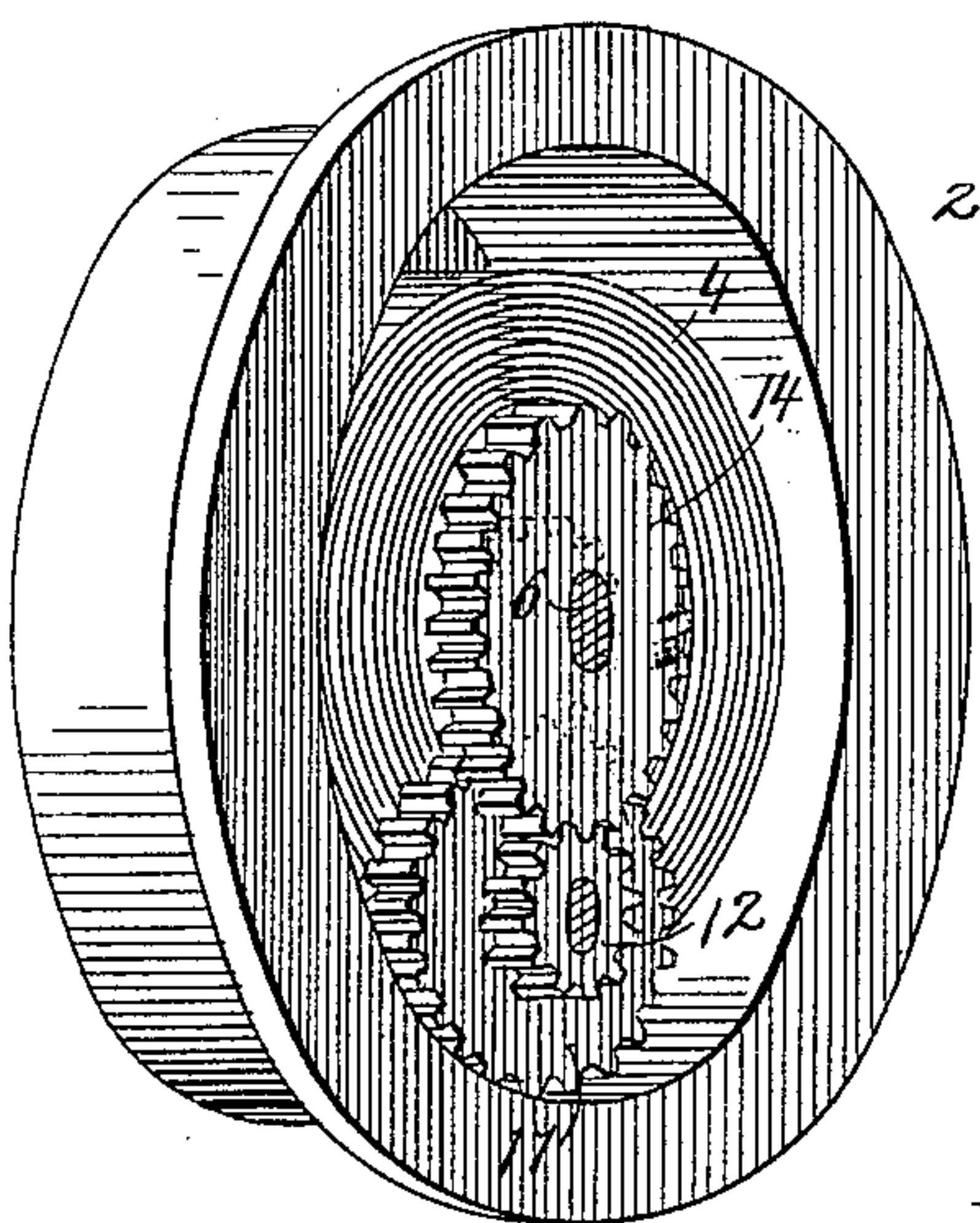


Fig. 3.

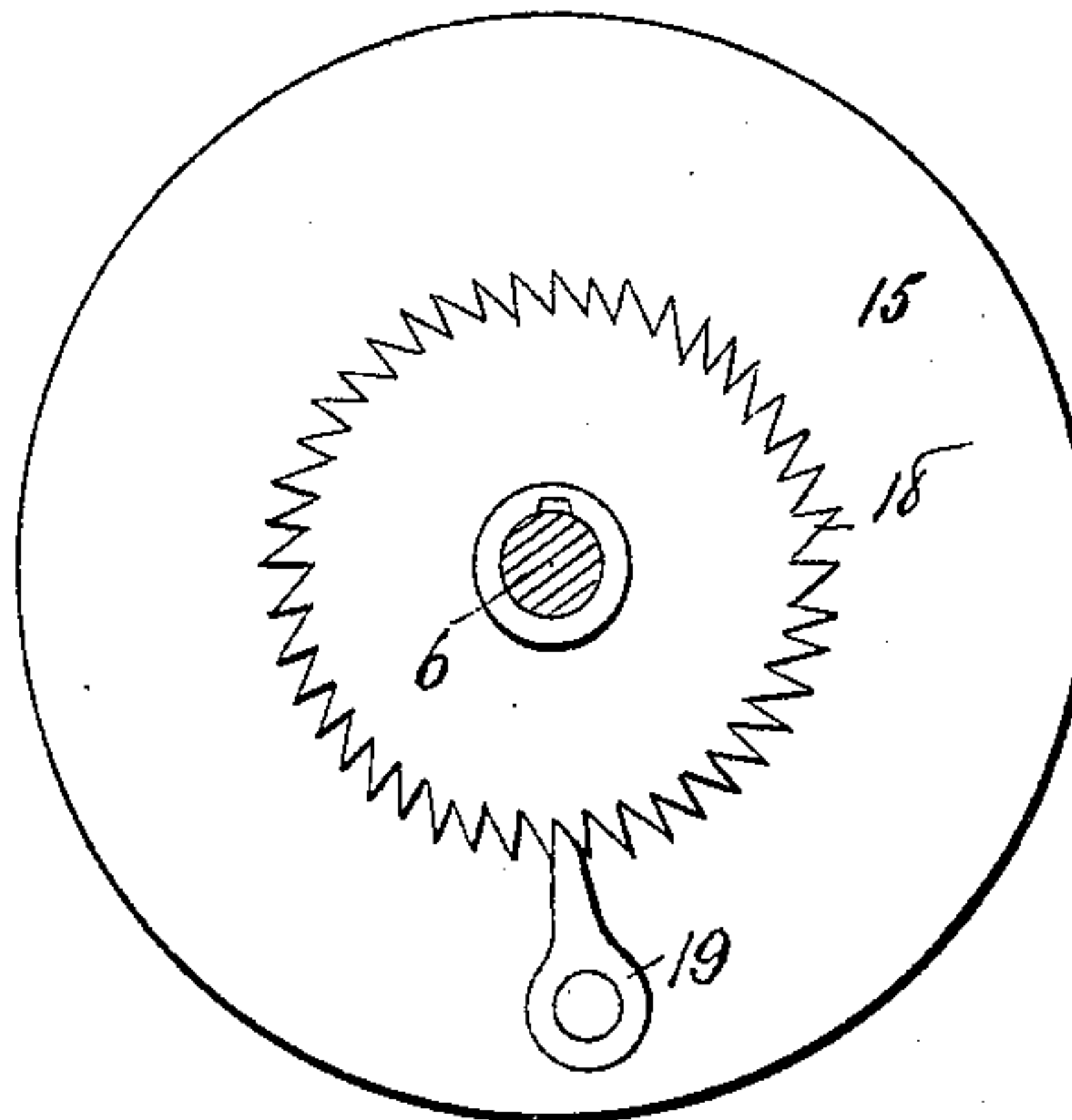
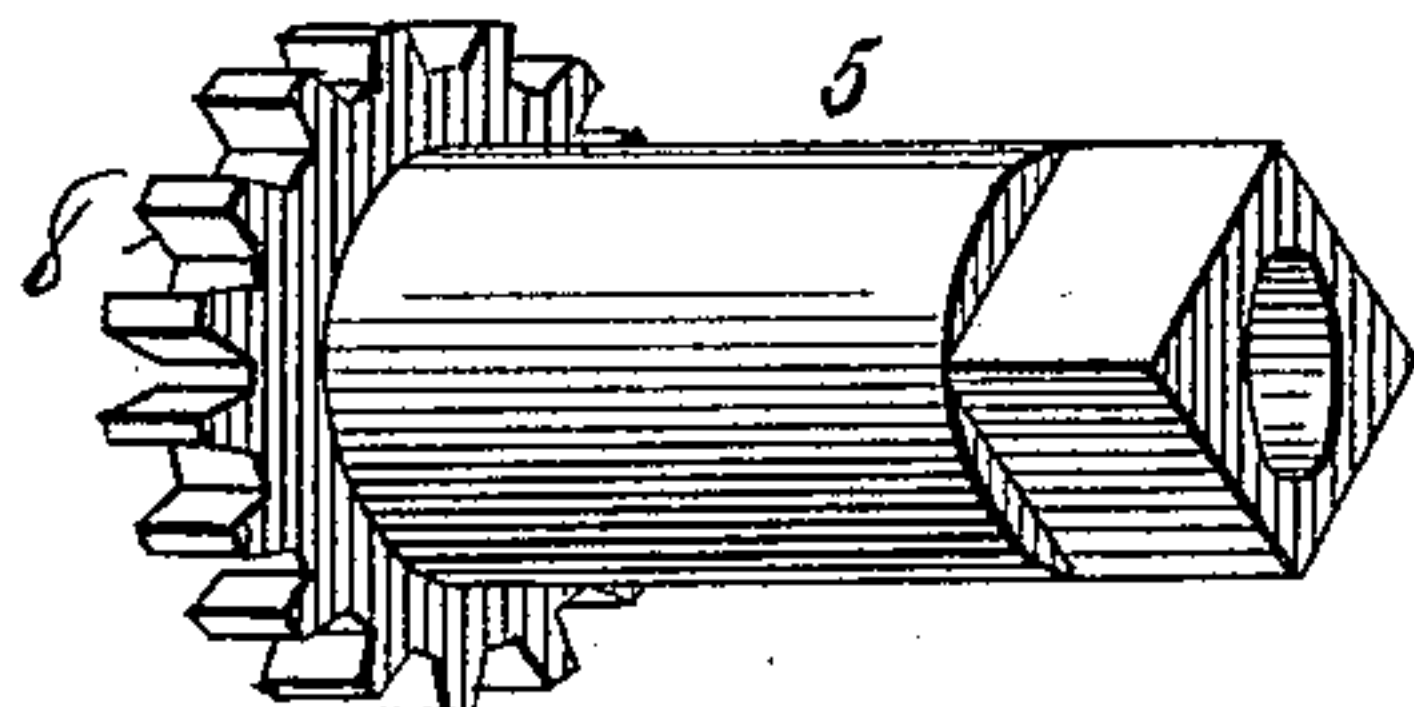


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WESLEY J. MILLER, OF HARRISBURG, PENNSYLVANIA.

## REVOLVING HAIR-BRUSH.

SPECIFICATION forming part of Letters Patent No. 481,264, dated August 23, 1892.

Application filed November 9, 1891. Serial No. 411,263. (No model.)

*To all whom it may concern:*

Be it known that I, WESLEY J. MILLER, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Revolving Hair-Brushes; 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 figures of reference marked thereon, which form a part of this specification.

My invention consists in a revolving hair-brush which is provided with means whereby the body of the brush is rapidly revolved while the brush is being held by its handles in any desired position; and my invention will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a central longitudinal sectional view of my revolving brush. Fig. 2 is a perspective view from the inner side of the end cap of the brush, within which the spring, &c., are contained. Fig. 3 is a detail view of the other end of the brush to that shown in Fig. 2. Fig. 4 is a detail view of the squared sleeve, hereinafter described.

The same numerals of reference indicate corresponding parts in all the figures.

Referring to the several parts by their designating-numerals, 1 indicates the cylindrical body of the brush, from the exterior of which project the rows of bristles, which are secured therein in the usual manner. On one end of the brush-body is secured a cap-piece 2, of substantially the form shown, and across the inner end of this cap-piece is secured a flat cross-bar 3. Within the cap is arranged a coiled spring 4, the outer end of which is secured to the inner side of the cap-piece, while its inner end is secured firmly to a sleeve 5, which is mounted loosely on the shaft or rod 6 at that end of the brush. The rod 6 passes centrally through the cylindrical brush, through apertured guide-bearings 7, and through the end pieces of the brush. The sleeve 5, which has a round bore, is mounted upon the rod 6, where the latter passes through the end cap, fitting loosely thereon,

so that it can be turned readily on the rod, and upon the inner end of this sleeve, which is shown in detail in Fig. 4, is formed or attached a small gear-wheel 8. The outer end of the sleeve 5, which projects out through an opening in the cap-piece 2, is squared, as shown, and upon that end of the rod 6 is loosely fitted a handle 9, the inner end of which is formed with a square socket 10 to adapt it to engage with the squared outer end of the sleeve when the handle 9 is slid in along the rod. The small gear-wheel 8 on the inner end of the sleeve 5 meshes with a larger gear-wheel 11, having attached to it on one side a small gear-wheel 12, the wheels 11 and 12 revolving on a spindle 13, one end of which is mounted in the cross-bar 3, while its other end is mounted in a bearing formed in the end cap 2. The small gear-wheel 12 meshes in turn with a larger gear-wheel 14, which is firmly secured on the rod 6 at the point shown. On the other end of the cylindrical brush-body is secured an end plate 15, to which a second handle 16 is secured, and the left-hand end of the rod 6 in Fig. 1 passes centrally but loosely through this end plate and handle, retaining end nuts 17 being screwed on the ends of the rod. On the rod 6, just inside of the end plate 15, is secured a ratchet-wheel 18, and a pawl 19 has its stem mounted in the end plate, so that by turning it by means of a handle on the outer end of said stem the pawl can be thrown into or out of engagement with the teeth of the ratchet-wheel. It will now be seen that to wind up the spring it is only necessary to move the handle 9 in until the squared outer end of the sleeve 5 is engaged in the socket 10 in the inner end of said handle, when by turning the handle the spring 4 will be wound up, the brush and end cap 2, to which the outer end of said spring is secured, being held from turning by grasping the handle 16. When the spring is wound up, the pawl 19 is turned to engage the ratchet-wheel 18, thus holding the spring wound up through the rod 6 and the gearing with which the wheel on the inner end of the sleeve 5 meshes, and when desired for use by throwing the pawl out of engagement with the ratchet-wheel 18 and pulling the handle 9 out to free it from the squared outer end of



the sleeve 5 the spring 4 will unwind and will through the gearing previously described rapidly revolve the cylindrical brush-body, which can be held in the desired position over the hair while it is revolving.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my invention will be readily understood.

It will be seen that my revolving hair-brush is simple, strong, and durable in its construction, and is therefore not liable to break or get out of order, while it is extremely rapid, effective, and thorough in its operation.

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

1. The combination of the cylindrical brush-body having the end cap 2, the end plate 15, and the handle 16, secured on said end plate, the rod 6, having the ratchet-wheel 18 secured upon it, the pawl adapted to be thrown into engagement with said ratchet-wheel, the sleeve 5, having the squared outer end, the coiled spring 4, arranged as specified, and the

sliding handle 9, formed with the squared socket at its inner end, substantially as set forth.

2. The combination of the cylindrical brush-body having the end cap 2, the end plate 15, and the handle 16, secured on said end plate, the rod 6, having the ratchet-wheel 18 and the gear-wheel 14 secured upon it, the pawl adapted to be thrown into engagement with said ratchet-wheel, the sleeve 5, arranged as specified, formed with the squared outer end, and having the small gear-wheel 8 at its inner end, the gear-wheels 11 and 12, secured together and mounted on the spindle 13, the coiled spring 4, secured at its inner end to the sleeve 5 and at its outer end to the end cap 2, and the sliding handle 9, formed with the squared socket in its inner end, substantially as set forth.

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

WESLEY J. MILLER.

Witnesses:

CHRISTIAN W. LYNCH,  
WM. H. EARNEST.