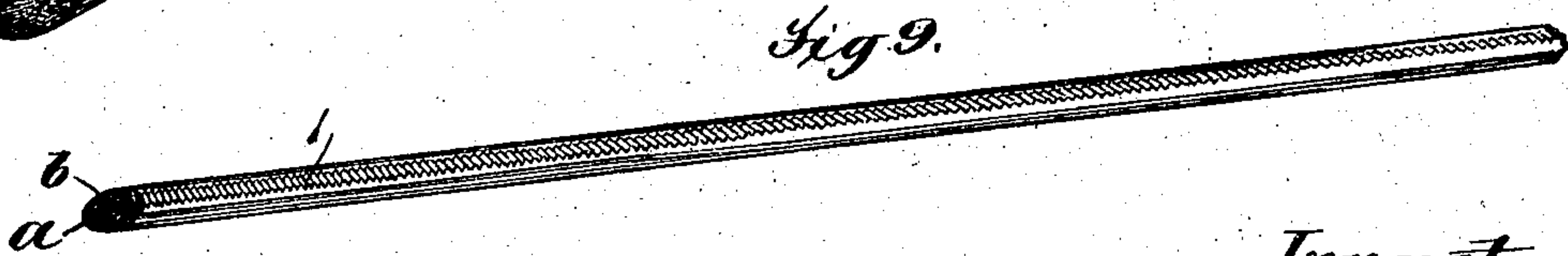
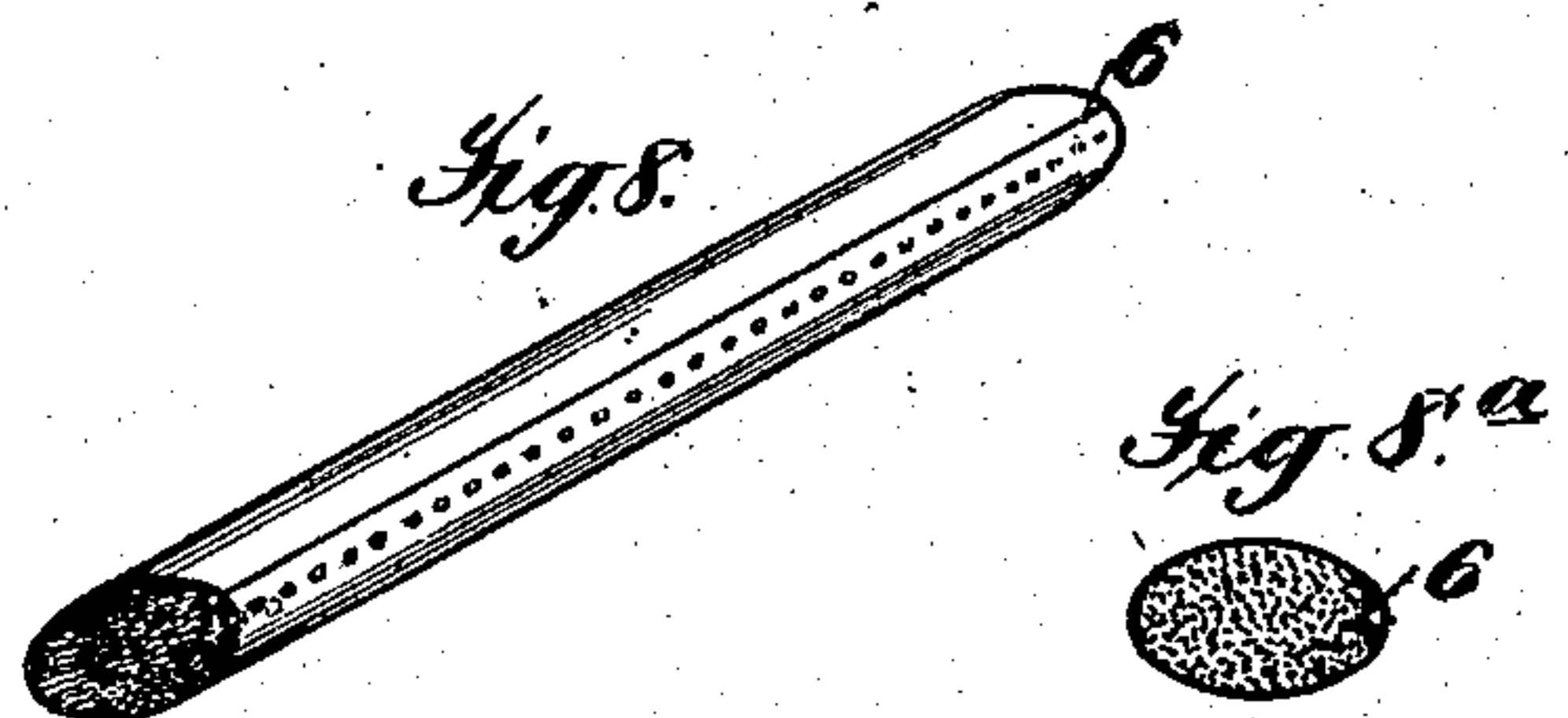
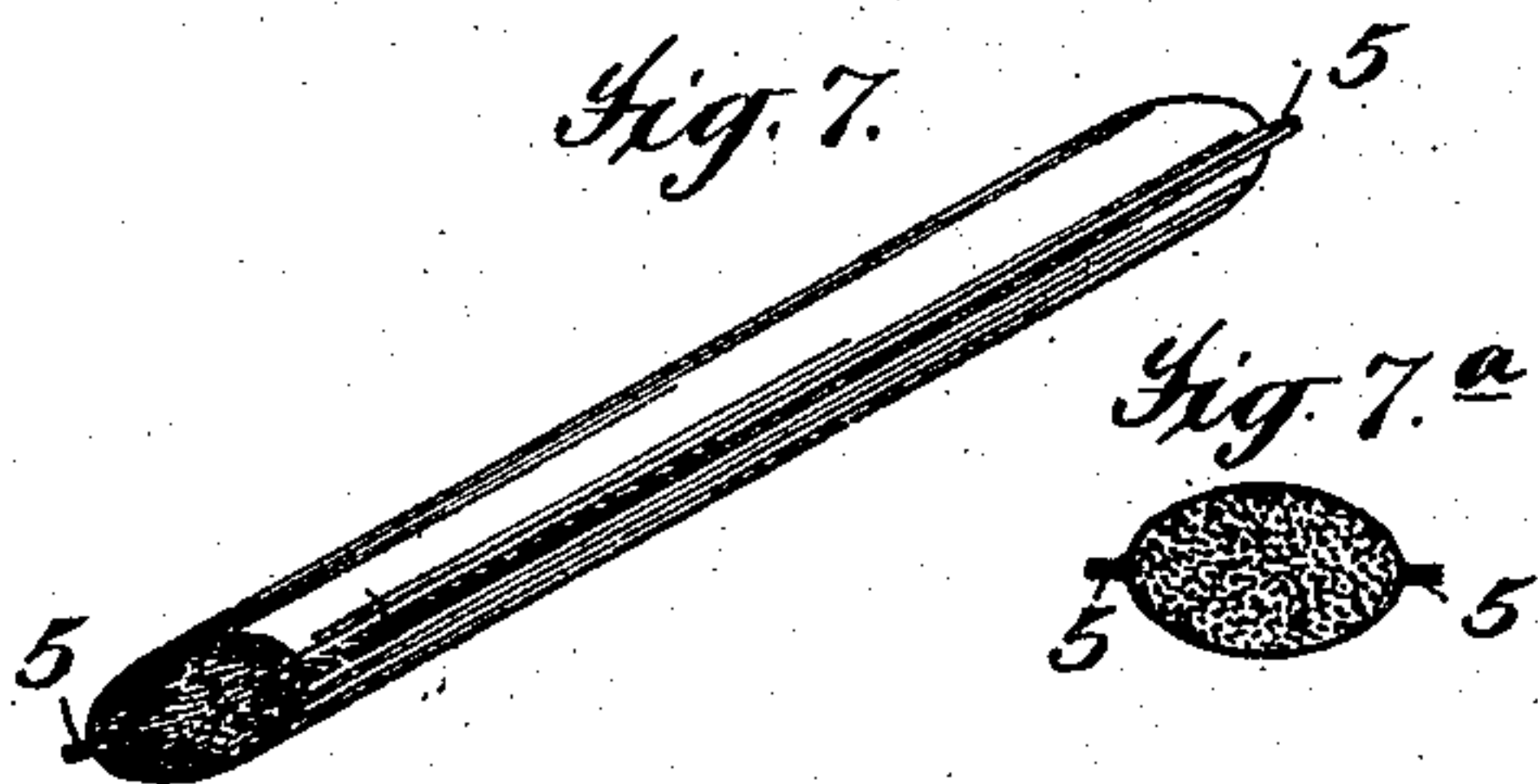
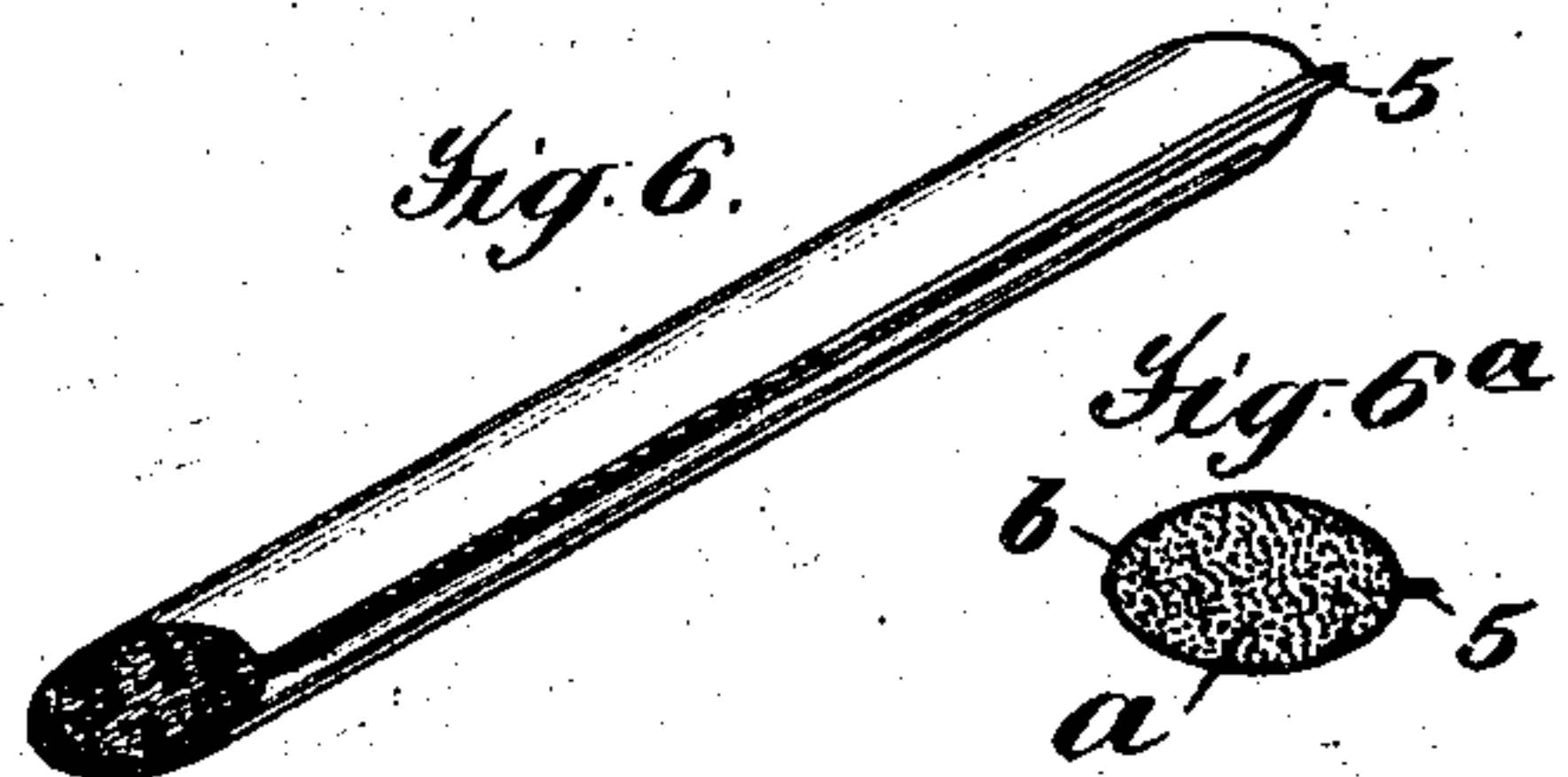
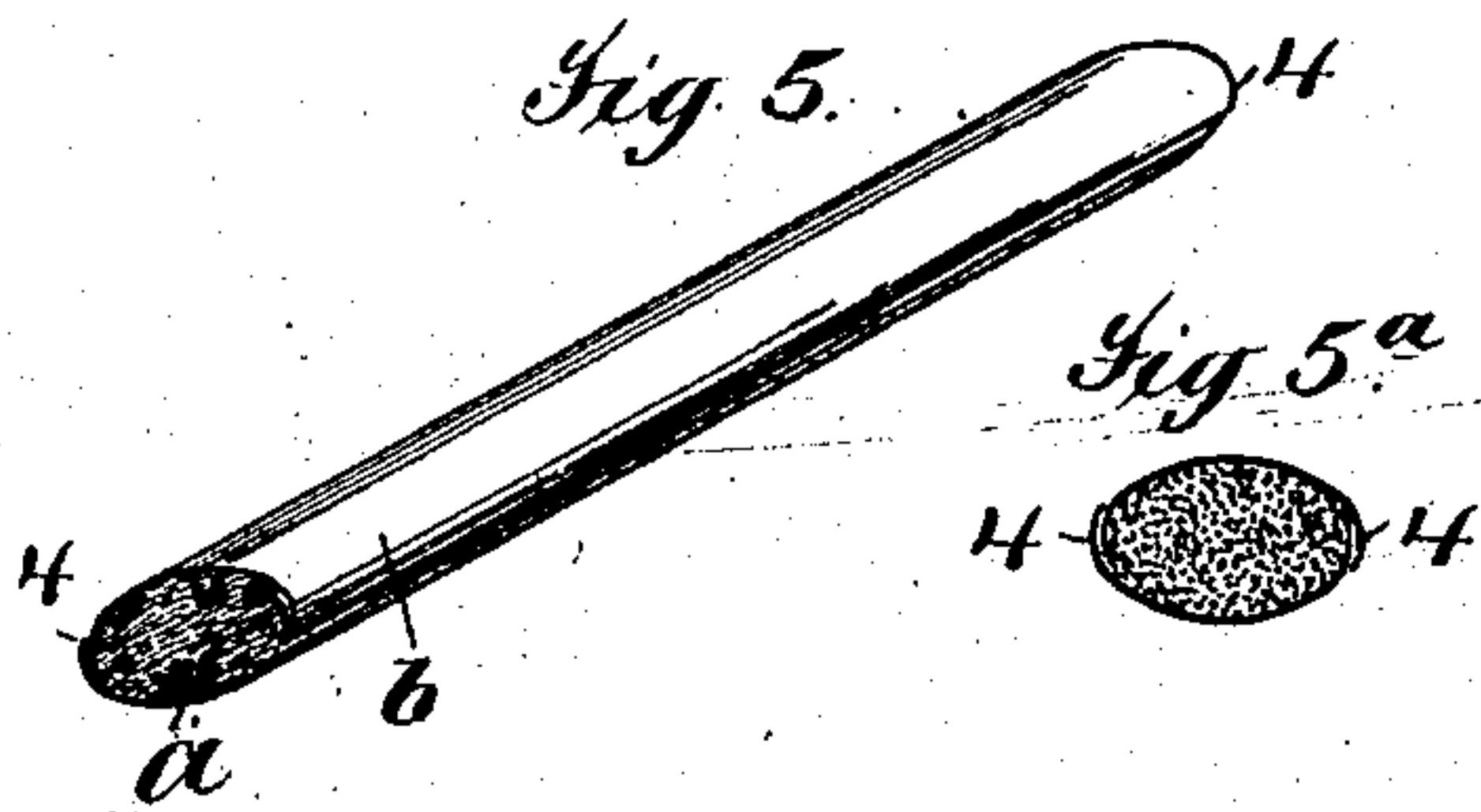
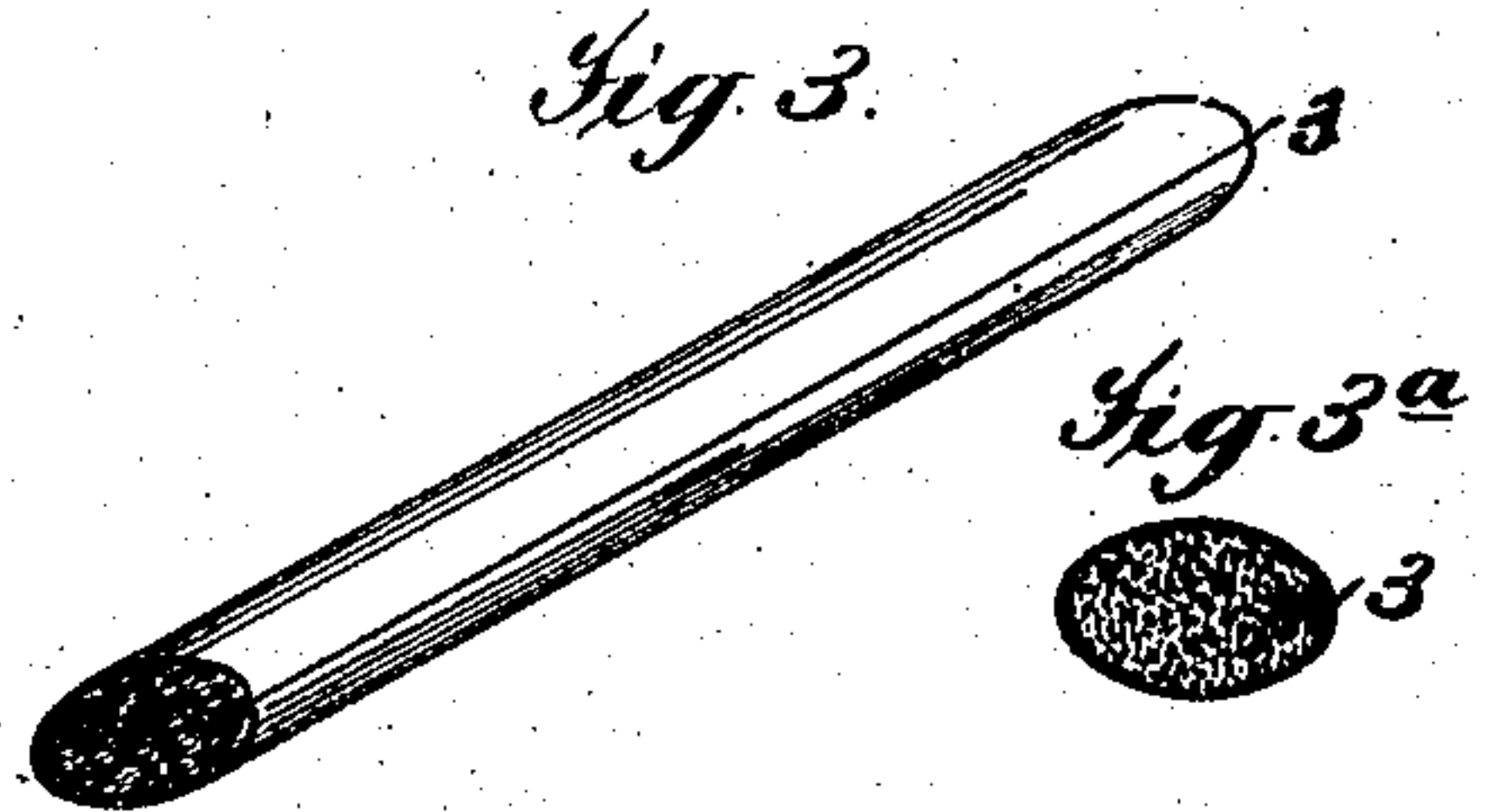
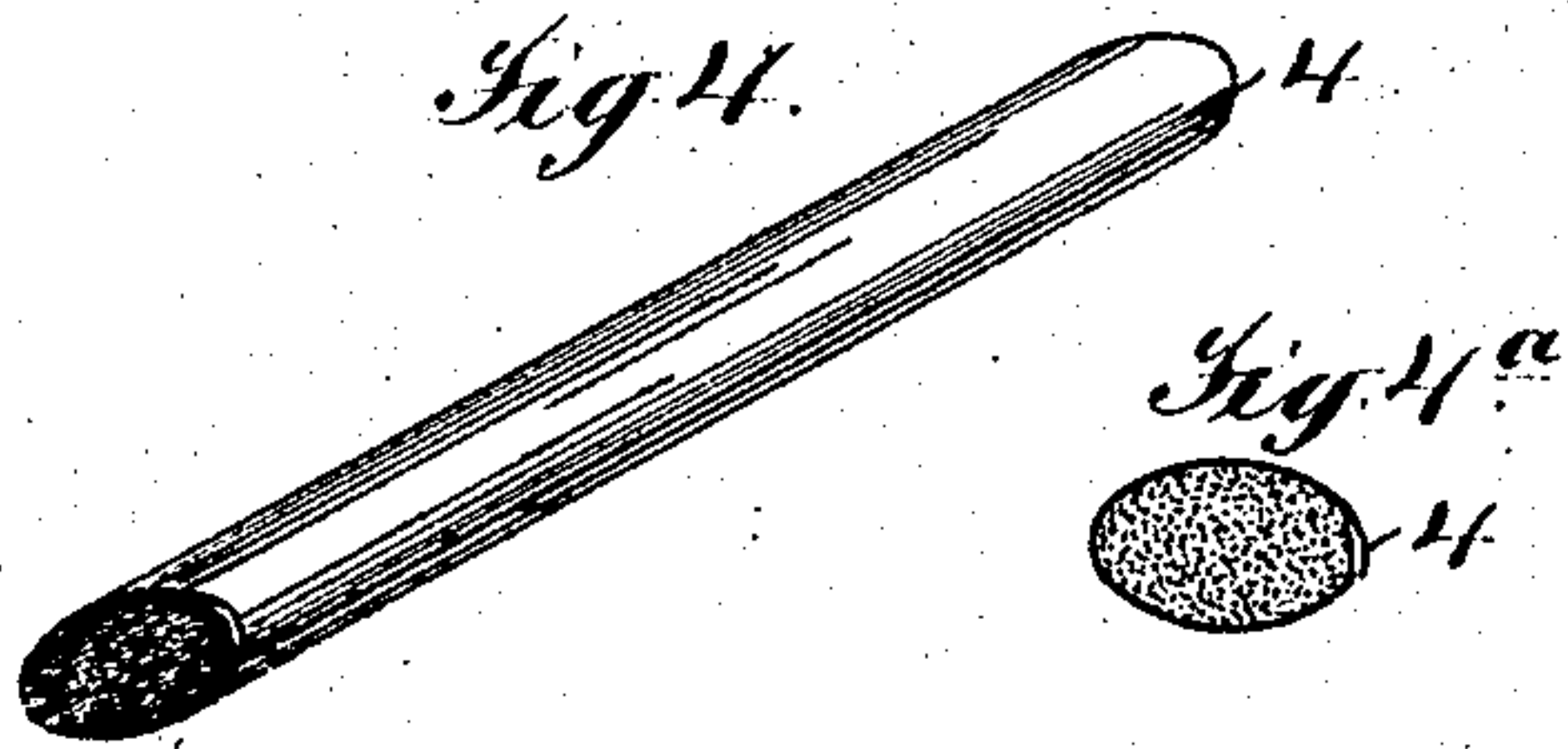
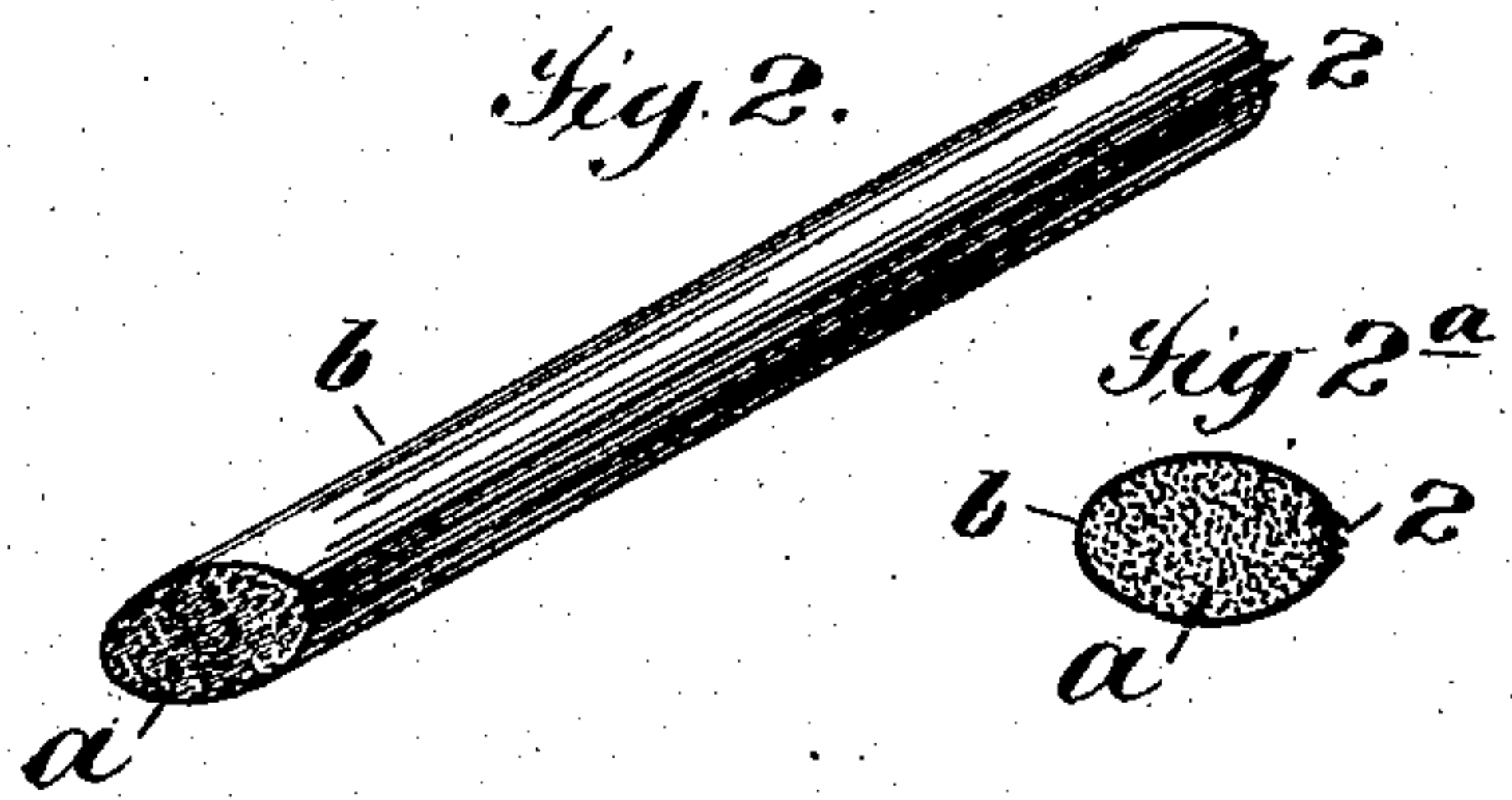
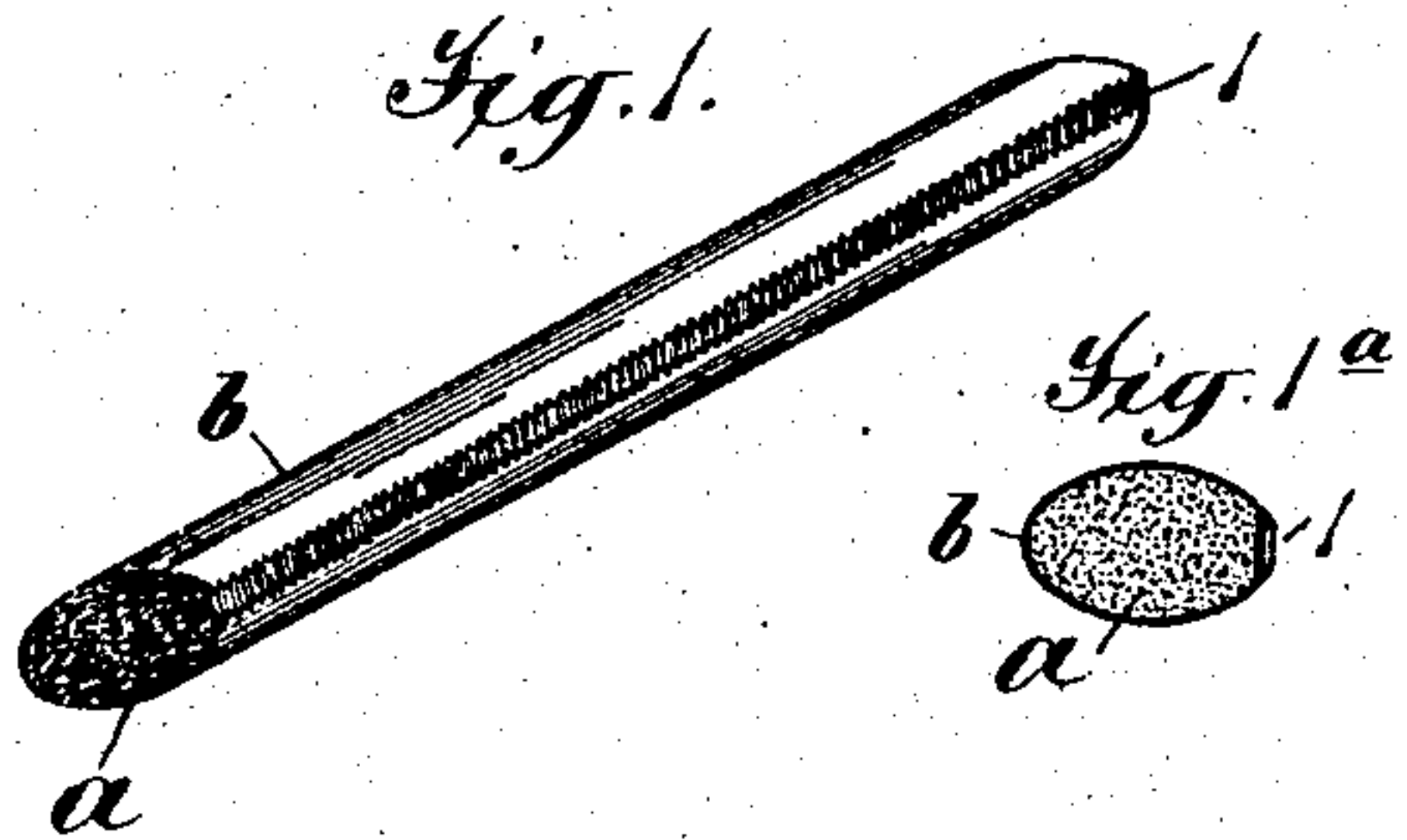


(No Model.)

D. J. CAMPBELL.  
ELLIPTICAL CIGARETTE.

No. 582,265.

Patented May 11, 1897.



Attest:  
Geo. H. Botts  
C. J. Sawyer

Inventor:  
Daniel J. Campbell  
By Philip Munson & Phelps,  
Attys



# UNITED STATES PATENT OFFICE.

DANIEL J. CAMPBELL, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN TOBACCO COMPANY, OF NEWARK, NEW JERSEY.

## ELLIPTICAL CIGARETTE.

SPECIFICATION forming part of Letters Patent No. 582,265, dated May 11, 1897.

Application filed March 30, 1896. Serial No. 585,340. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL J. CAMPBELL, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Elliptical Cigarettes, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The present invention relates to an improved cigarette of elliptical form in cross-section, which form fits better between the lips and avoids the necessity for moistening and flattening the ends, as in the ordinary cylindrical cigarettes. Such elliptical cigarettes have heretofore been made with the seam on the broad or flat side of the cigarette; and the present invention, broadly considered, consists in an elliptical cigarette having a seam on the edge or on each edge of the cigarette, by which construction many advantages are secured, of which the following are the most important.

The desirability of a seamless cigarette, or one having the appearance of being seamless, has long been recognized, but it has heretofore been impossible to secure such a result or appearance without molding a seamless paper tube and filling the tube with tobacco after molding, which is very expensive, and as the filler is forced longitudinally into the tubular wrapper after the wrapper has been formed the tobacco does not closely fill the tube and can readily be displaced longitudinally by pushing it out of the latter. By making the seam of the elliptical cigarette on its edge, however, the cigarettes, which lie on their broad or flat sides when packed, will then appear to the eye seamless, and even when handled separately have approximately that appearance. The formation of elliptical cigarettes with the seam on the edge also secures a seamless surface for printing on the broad or flat side, which is very important, as it is very difficult to produce a good impression on the top of a seam with the flat type necessarily used, as the printing will not be uniform, being heavy on the seam and faint at each side of the seam, the type in some cases failing to print throughout. Such cigarettes, moreover, may readily be printed

on a seamless surface on both sides, so that in packing it is unnecessary to place the cigarettes with a certain side up, but the printing will always be uppermost and exposed, whichever side is up. My improved cigarettes also are stronger than with the seam on the broad or flat side, as the strain comes primarily on the flat side and the pull upon the edges is sidewise of the seam instead of largely transverse to it, as is the case where the seam is made on the flat side of the cigarette, so that a weaker seam will hold the wrapper or the same seam will produce a stronger cigarette.

In making my cigarette in the preferred form also—that is, by corrugating, indenting, or perforating the edges together—the support which is used inside the wrapper in machines for making continuous cigarette-rods with such seams can be thicker and stiffer on account of pressing the tobacco sidewise instead of flatwise, so as to permit a greater pressure upon the seam. In thus making the seam upon the flat side of the cigarette the interior support must be quite thin, wide, and flat.

There is an advantage also in elliptical cigarettes having the seam on the edge in that the lips do not come in contact with the seam to the same extent as when the seam is upon the broad or flat side, thus avoiding the rough feeling of the cigarette to the lips, especially with crimped or perforated seams, and this feature of less contact between the lips and the cigarette-seam is also important in the case of pasted cigarettes, as the paste is sometimes unpleasant to the lips, being somewhat liable to harden and stick thereto, and, moreover, the saliva in the mouth is less liable to loosen the wrapper by contact with the paste than when the seam is made on the broad or flat side. This feature of less contact between the lips and seam, moreover, removes largely the objection to cigarettes made with the edges of the wrapper turned outwardly at an angle to the body of the wrapper and secured together, so as to form a slight rib projecting from the cigarette, this rib being very objectionable when placed on the broad or flat side of an elliptical cigarette, but hardly

My improved cigarettes also burn better



than either the circular cigarettes or the elliptical cigarettes with the seam on the broad or flat side and avoid the objectionable angular burning of such cigarettes, as the seam  
5 burns more readily and with the rest of the cigarette, and in case of any irregularity of burning the angle is very slight, so as to be hardly noticeable.

Cigarettes embodying my invention, broadly  
10 considered, may be made by different methods and by apparatus of widely different character, and the seam or seams by which the wrapper is secured may be of any suitable form. I prefer, however, to make my im-  
15 proved cigarette by a method similar to that now in use in connection with cylindrical cigarettes, by which a continuous filler is inclosed within a wrapper-strip and the latter secured to form a continuous cigarette-rod,  
20 which is subsequently divided into proper lengths to form cigarettes, the seam or seams preferably being formed by rolling or folding the edges together and crimping or perforating them to make what is known as a  
25 "crimped" seam.

The invention includes, in addition to the broad invention above stated, various features of invention in elliptical cigarettes and continuous cigarette-rods having a wrapper-  
30 seam on one or both edges, and for a full understanding of the invention a detailed description of constructions embodying the invention in the preferred forms will now be given in connection with the accompanying  
35 drawings, and the features forming the invention will then be specifically pointed out in the claims.

In the drawings, Figures 1 and 1<sup>a</sup> are respectively a perspective view and cross-section of a cigarette embodying the invention  
40 in the form which I now consider the best, with a crimped seam formed by cross-corrugations in the edges of the wrapper previously folded or rolled together. Figs. 2 and 2<sup>a</sup> are  
45 similar views showing a modified form in which the corrugations run longitudinally of the cigarette. Figs. 3 and 3<sup>a</sup> are similar views showing a cigarette with the edges of the wrapper turned inwardly at an angle to the  
50 body of the wrapper and secured together, so as to form a rib inside the wrapper. Figs. 4 and 4<sup>a</sup> are similar views showing a cigarette with a pasted seam on one edge. Figs. 5 and 5<sup>a</sup> are similar views showing a cigarette with  
55 a pasted seam on each edge. Figs. 6 and 6<sup>a</sup> are similar views showing a cigarette similar to that shown in Fig. 3 with the edges of the wrapper turned outwardly at an angle to the body of the wrapper to form an external rib.  
60 Figs. 7 and 7<sup>a</sup> are similar views showing a cigarette of the same construction as in Fig. 6, but with a seam on each edge. Figs. 8 and 8<sup>a</sup> are similar views showing a cigarette of the same construction as shown in Figs. 1  
65 and 2, but with the folded or rolled edges of the wrapper perforated together to secure

them. Fig. 9 is a perspective view of a continuous cigarette-rod with a crimped seam of the same form as shown in Fig. 1.

In each of the figures of the drawings, *a* is  
70 the tobacco filler, and *b* the wrapper, preferably of paper, as usual in cigarettes, forming a tube inclosing the filler, so as to form with the latter a cigarette of substantially elliptical form in cross-section.  
75

The crimped seam 1 shown in Figs. 1 and 9 is formed by corrugating or indenting the edges of the wrapper, so as to secure them together, the edges of the wrapper prior to corrugating or indenting preferably being turned  
80 outwardly or inwardly at an angle to the body of the wrapper and rolled or folded together, as now well understood in the art in connection with cylindrical cigarettes, both in meth-  
85 ods for making continuous cigarette-rods and in making crimped-seam cigarettes by other methods.

The seam 2 shown in Fig. 2 is the same as seam 1 and preferably formed in the same manner except that the corrugating or in-  
90 denting devices which form the crimped seam are arranged to make the corrugations or indentations run longitudinally of the cigarette.

The seam 3 of Fig. 3 is made by turning the edges of the wrapper inwardly, so as to  
95 form a rib projecting inside the wrapper and securing them together, preferably by corrugating, indenting, or perforating them, with or without paste. This form of seam may also be made without corrugating, indenting,  
100 or perforating the edges by pasting them together.

Seams 4 of Figs. 4 and 5 are pasted seams made in the usual way by overlapping the edges of the wrapper and pasting them to-  
105 gether, the cigarette shown in Fig. 4 being made from a single strip of wrapper-paper and with the seam at one edge, and that shown in Fig. 5 being made from two strips of wrapper-paper with a seam at each edge.  
110

The seam 5 shown in Figs. 6 and 7 is or may be formed in the same way as seam 3 of Fig. 3, except that the edges of the wrapper are turned outwardly and secured together, so as to form a single external rib, as shown  
115 in Fig. 6, or two external ribs when two strips are used, as shown in Fig. 7. It will be understood that these external ribs may be rolled, folded, or pressed down upon the cigarette.  
120

The seam 6 of Fig. 8 is or may be formed in exactly the same manner as seams 1 and 2 of Figs. 1 and 2, except that instead of corrugating or indenting the wrapper edges so as to form a crimped seam the successive layers  
125 of the wrapper are perforated and thus secured together either with or without paste.

As above stated, the cigarettes embodying the present invention are preferably made by the continuous-rod method, and any specific  
130 method and apparatus may be used for this purpose, so as to secure a continuous ciga-



rette-rod and cigarette with the filler uniformly compressed and properly filling the wrapper-tube.

It will be understood that the term "elliptical" used herein is not intended to limit the invention to a cigarette-rod of exactly elliptical form in cross-section, but is intended to cover any modifications of form so long as it is substantially elliptical.

10 What I claim is—

1. An elliptical cigarette having a wrapper-seam on the edge.
2. An elliptical cigarette having a wrapper with a pasteless seam on the edge.
- 15 3. An elliptical cigarette having a wrapper with a seam on the edge consisting of the edges of the wrapper turned at an angle to the body of the wrapper and secured together.
4. An elliptical cigarette having a wrapper with a seam on the edge consisting of the edges of the wrapper turned inwardly and secured together.
- 20 5. An elliptical cigarette having a wrapper with a seam on the edge consisting of the edges of the wrapper secured together by crimping or perforating.
- 25 6. An elliptical cigarette having a wrapper with a seam on the edge consisting of the edges of the wrapper rolled or folded together and secured by crimping or perforating, substantially as described.
- 30 7. An elliptical cigarette having a wrapper-seam on each edge.
8. An elliptical cigarette having a wrapper with a pasteless seam on each edge.
- 35

9. An elliptical cigarette having a wrapper with a seam on each edge consisting of the edges of the wrapper turned at an angle to the body of the wrapper and secured together.

10. A continuous elliptical cigarette-rod 40 having a wrapper-seam on the edge.

11. A continuous elliptical cigarette-rod having a wrapper with a pasteless seam on the edge.

12. A continuous elliptical cigarette-rod 45 having a wrapper with a seam on the edge consisting of the edges of the wrapper turned at an angle to the body of the wrapper and secured together.

13. A continuous elliptical cigarette-rod 50 having a wrapper with a seam on the edge consisting of the edges of the wrapper turned inwardly and secured together.

14. A continuous elliptical cigarette-rod 55 having a wrapper with a seam on the edge consisting of the edges of the wrapper secured together by crimping or perforating.

15. A continuous elliptical cigarette-rod 60 having a wrapper with a seam on the edge consisting of the edges of the wrapper rolled or folded together and secured by crimping or perforating, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DANIEL J. CAMPBELL.

Witnesses:

WM. C. DOSCHER,  
A. L. KENT.