

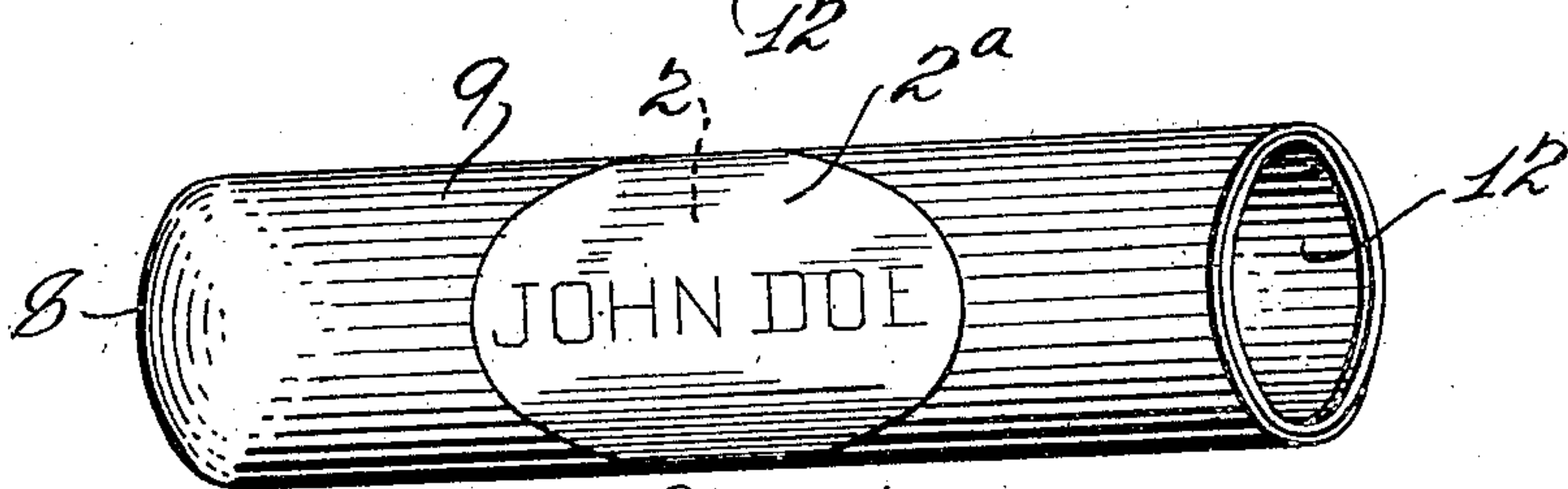
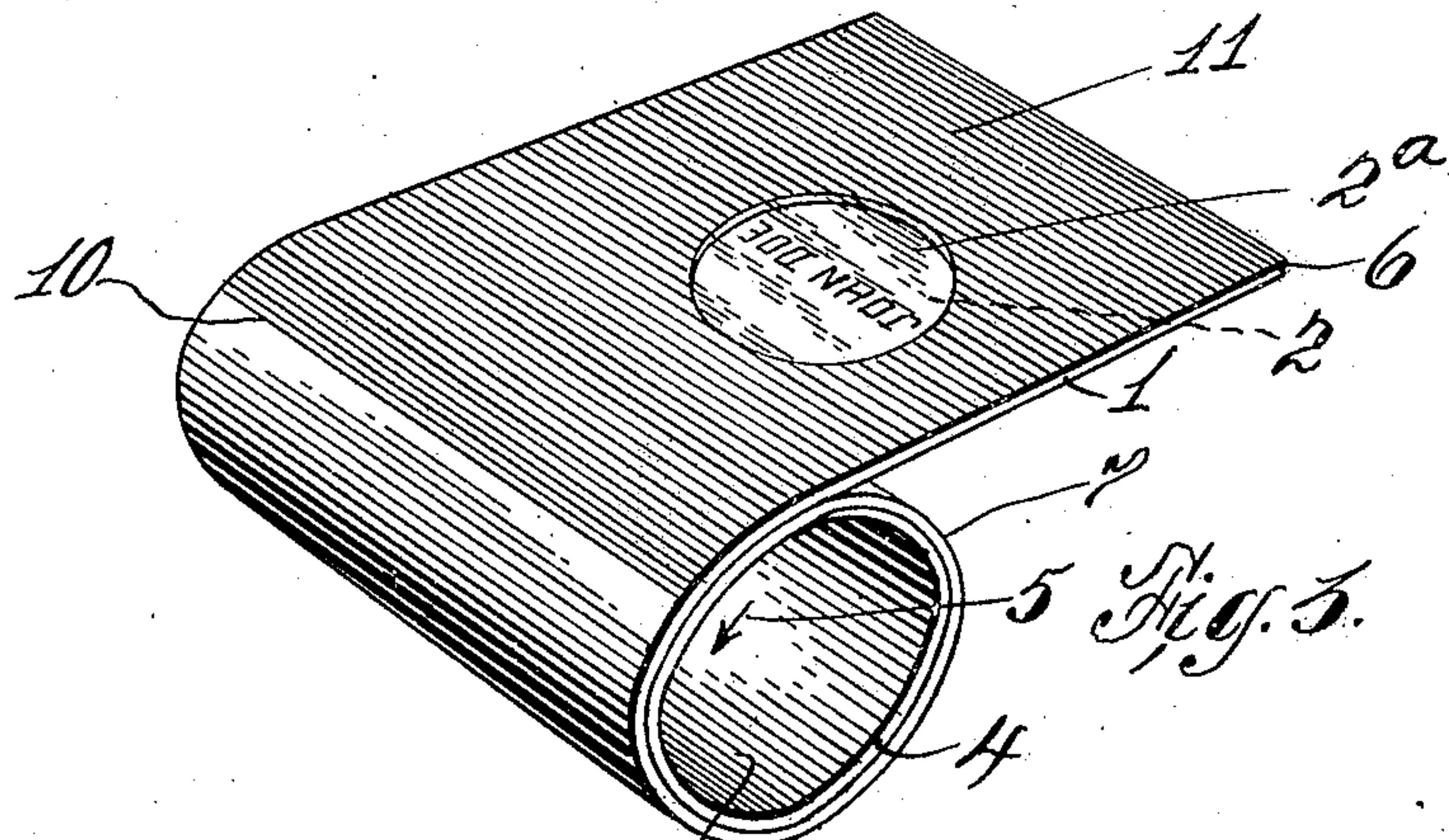
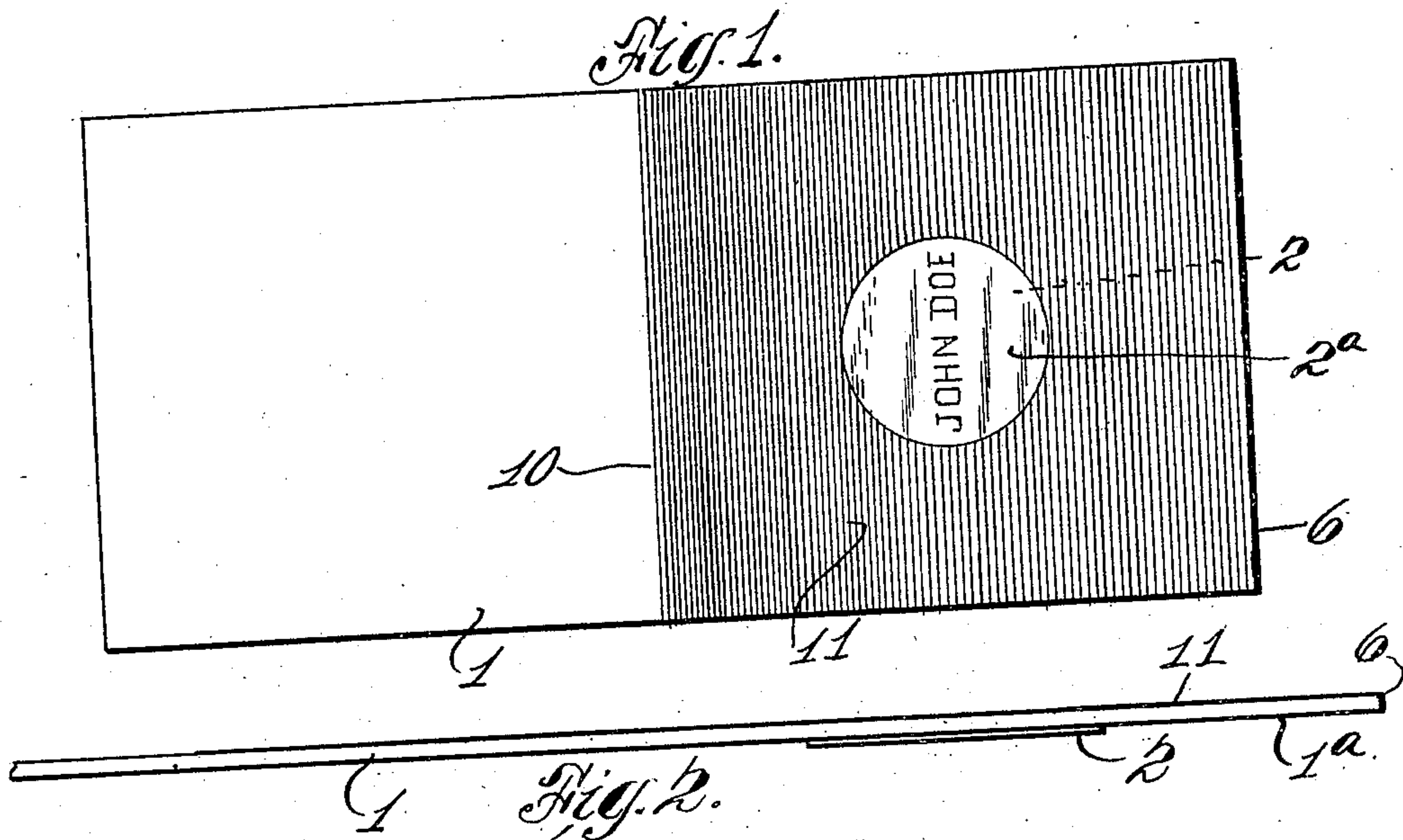
No. 836,905.

PATENTED NOV. 27, 1906.

J. N. WHITEHOUSE.
FOUNTAIN PEN CAP AND BARREL.
JAN 16 1906.

APPLICATION FILED JAN. 16, 1906.

3 SHEETS--SHEET 1.



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3 SHEETS—SHEET 2.

Fig. 5.

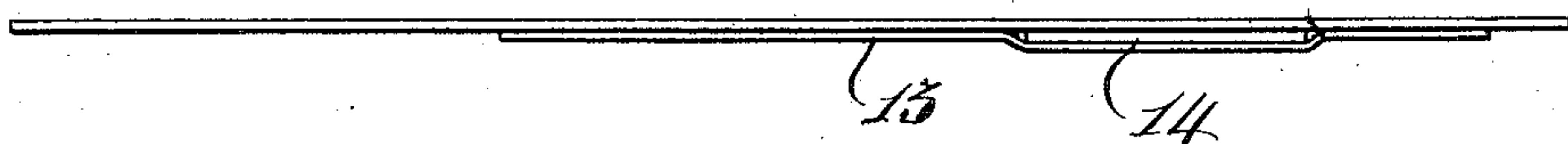
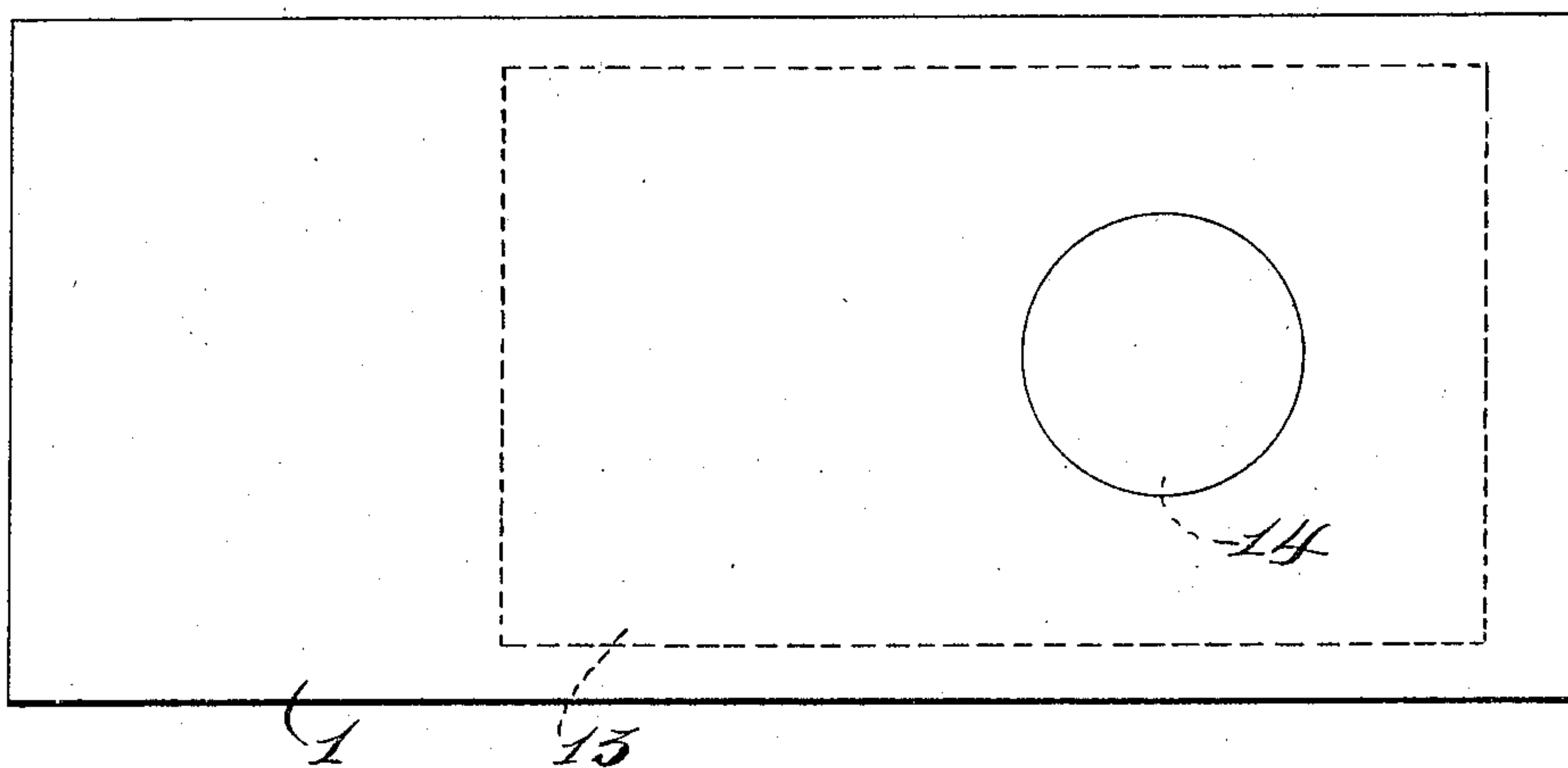


Fig. 6.

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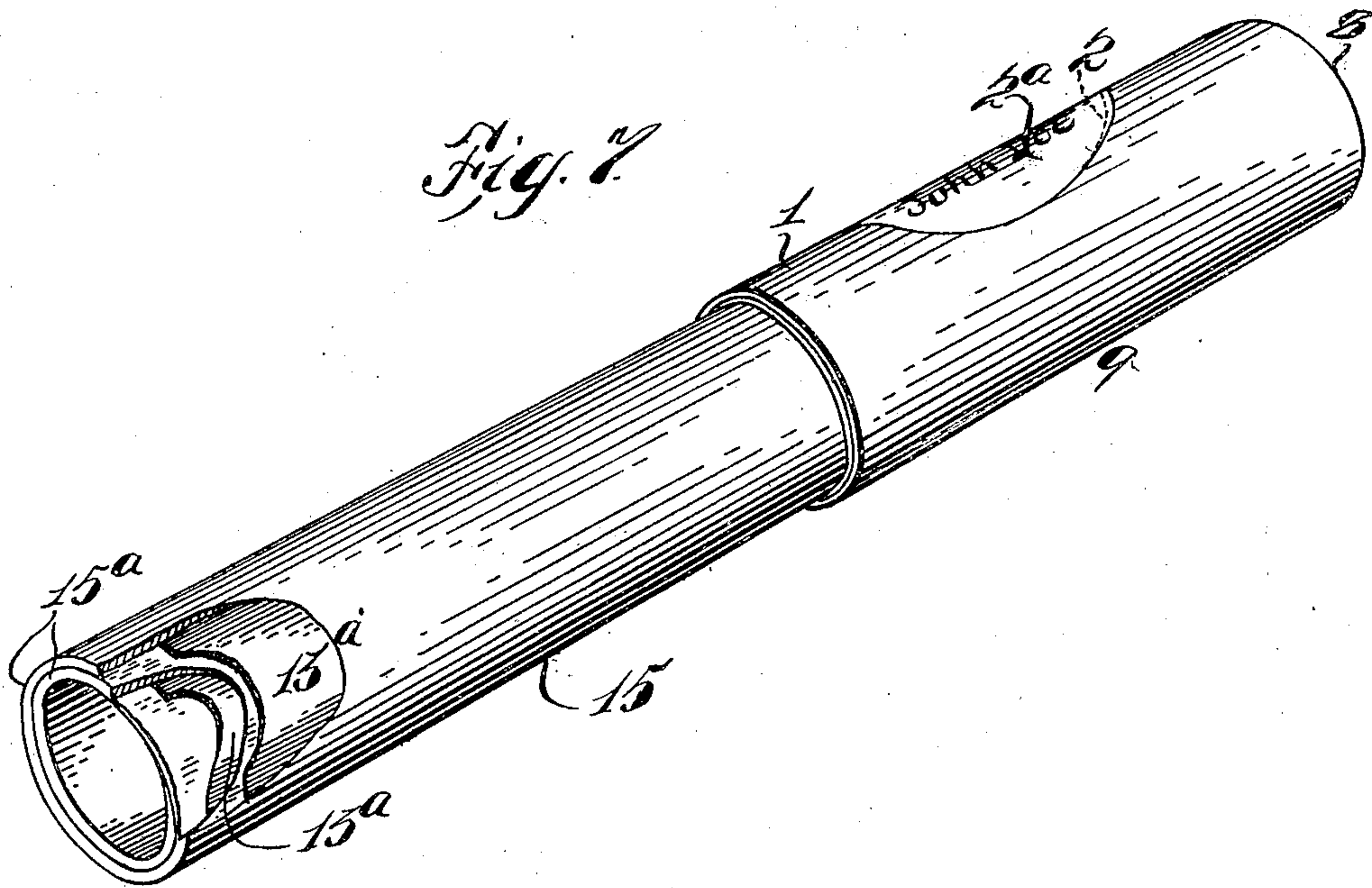
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN CAP AND BARREL.

No. 836,905.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed January 16, 1906. Serial No. 296,270.

To all whom it may concern:

Be it known that I, JOHN N. WHITEHOUSE, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Fountain-Pen Caps and Barrels, of which the following is a specification.

My invention relates to the tubes used for fountain-pen caps and barrels or allied purposes and comprises the novel features of improvement and details of construction hereinafter described and claimed.

Fountain-pen caps and barrels constructed in accordance with my present invention are more durable than the common rubber caps and barrels now in common use, as the process of vulcanizing renders the rubber brittle and liable to breakage. My improved caps or barrels are constructed of sheets of celluloid rolled into a tube, as hereinafter set forth, making them more elastic than in the ordinary construction heretofore used.

In forming the fountain-pen caps or barrels in accordance with my invention I preferably employ sheet-celluloid, then color this sheet and roll it into the form of a tube, and then seal one end, so as to be adapted in case of use as a fountain-pen barrel for containing ink or the like; but instead of coloring the sheet I may interpose colored sheets of paper or fabric between the layers forming the tube, such interposed sheets also giving a stiffening or strengthening effect to the tube. I may also attach to the sheet of celluloid at or near one end thereof a picture, legend, or the like, that part of the sheet above the picture, &c., being without color. After having attached the said picture, legend, &c., to what would be the under side of the sheet I then roll the same, as stated, starting from the end that does not have attached thereto the picture, &c. After having completed the roll the picture, &c., will be between the two last layers of the celluloid sheet, thus becoming permanently embedded in the wall of the tube and cannot be effaced without destroying the tube. In making the caps or barrels in accordance with my improvements I may cement to the under side of the celluloid sheet before it is rolled into a tube thin sheets of metal or paper in suitable lengths to aid in strengthening the tube, although the label, if

of sufficient size and thickness or of very thin metal, will answer the same purpose.

A more detailed description of my invention will now be set forth in connection with the accompanying drawings, forming part of this specification, wherein—

Figure 1 illustrates a sheet of transparent celluloid with an advertisement attached thereto, part of the sheet being colored. Fig. 2 is an enlarged side elevation thereof. Fig. 3 is a perspective view of the sheet in the act of being rolled to form a tube. Fig. 4 is an enlarged perspective view of my improved fountain-pen cap or barrel completed. Fig. 5 is a top plan view of a sheet of celluloid from which the tube is made, the same in this instance having a strengthening-sheet attached thereto. Fig. 6 is a side elevation thereof; and Fig. 7 is a perspective view of a barrel of a fountain-pen embodying my improvements having the cap attached, the barrel being broken away to more clearly show the construction.

Like numerals of reference indicate corresponding parts in the several views.

In constructing my improved cap or barrel for advertising purposes I take a flat sheet of transparent celluloid of proper size, Fig. 1. I then attach in any suitable manner to the under side 1^a of the transparent sheet 1 a label or other display device 2, containing an inscription, picture, &c., the same being of any desired configuration and color and of any suitable size, material, or thickness, so as to aid in stiffening or strengthening the finished tube. The position of the label 2 upon the sheet 1 is arbitrary; but I prefer to place it about where indicated in Fig. 1, the under side 1^a of said sheet being used for this purpose, the face of the label being discernible through the transparent sheet. That portion of the sheet nearest to what will be the bore of the tube when completed I term the "under" side.

For some purposes I may employ a translucent sheet of celluloid, to which I cement a strengthening-sheet 13, of thin metal or stiff paper, (see Fig. 5,) upon which I may place a suitable inscription or the like, in which case transparent celluloid is employed, or I may take a transparent sheet of celluloid to which I cement the strengthening-sheet 13, and a label or the like 14 may be interposed be-

tween the strengthening-sheet 13 and celluloid sheet 1; but it is obvious that the label 2 may be of such size and material as to fully answer the purpose of and constitute a strengthening or stiffening element.

In Fig. 3 a partially-completed tube or cap is indicated by 4, the arrow 5 indicating the direction in which the sheet is rolled to form the tube. It will readily be seen that if the label or display device 2 having its face upward is upon the under side of the sheet 1, as indicated in Fig. 2, and the sheet rolled, as indicated in Fig. 3, the tube when completed, Fig. 4, will have between the last and next to the last layer thereof the label 2, and consequently the same becomes permanently embedded within the wall of the tube. After having completed the roll or tube body 9 I seal the end 6 of sheet 1 to layer 7, Fig. 3, in any suitable manner, and when the tube-body 9 is completed I seal the end 8 thereof to form the usual spherical head, whereby when the tube is to be used as a barrel for a fountain-pen same will be a practicable ink-container.

Referring again to Fig. 1, the line 10 indicates the approximate extent to which I color the sheet before rolling. In other words, that part of the sheet 1 between the end 6 and line 10 indicated by 11 is colored, any desired color or shade being used, the portion 2^a above the display-label 2 being left transparent or uncolored. After having completed the tube I may color the bore 12 thereof.

In Fig. 7 I have shown a barrel 15 for a fountain-pen constructed in accordance with my invention, the same being made up of a sheet of celluloid rolled into layers 15^a to form a tube similar to the cap 9, and between the layers a stiffening element or label 13^a may be interposed in a manner as above described. It is of course obvious that fountain-pen caps or barrels may be constructed in accordance with my improvements without the use of any interposed label.

It will be understood that I may use pre-colored sheets of celluloid in forming my tubes and that the term "celluloid" in the foregoing specification and appended claims shall include any equivalent material.

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

1. An improved fountain-pen cap or barrel composed of a plurality of layers or rolls

of celluloid forming a tube, one end of the tube being sealed, to form a head, whereby the tube is adapted for containing liquid.

2. An improved fountain-pen cap or barrel composed of a plurality of rolls of celluloid sealed together, forming a tube, the tube having between the layers thereof a label.

3. An improved fountain-pen cap or barrel composed of a plurality of layers of celluloid forming a tube, one of said layers having attached to the under side thereof a label, and said tube being sealed at one end thereof.

4. An improved fountain-pen cap or barrel composed of a plurality of layers of celluloid forming a tube, one of said layers having attached to the under side thereof a label, a portion of the layers being transparent at a point above said label, and the tube being sealed at one end thereof.

5. An improved fountain-pen cap or barrel composed of a sheet of celluloid formed into a plurality of layers to constitute a tube, said sheet being colored for a portion of its length, the top layer of said tube having upon its under side a display device, said layer being transparent at a point above the same, and being sealed at one end thereof.

6. An improved fountain-pen cap or barrel composed of a plurality of rolls of celluloid, forming a tube, the rolls being sealed together and the tube headed, and a stiffening element interposed between the layers of said tube.

7. An improved fountain-pen cap or barrel composed of a plurality of layers of celluloid forming a tube, the layers being sealed together and having therebetween a stiffening element.

8. An improved fountain-pen cap or barrel composed of a sheet of transparent celluloid having upon the under side near one of the ends thereof a display device, said sheet being colored for a portion of its length commencing from the end containing the display device, said sheet being transparent at a point above the display device and being rolled, commencing from the end without color, to form a tube, whereby said display device becomes embedded between the last layer and the layer next thereto, one end of said tube being closed.

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