

(No Model.)

H. J. COWGER.
FOUNTAIN PEN.

No. 576,555.

Patented Feb. 9, 1897.

FIG. 1.

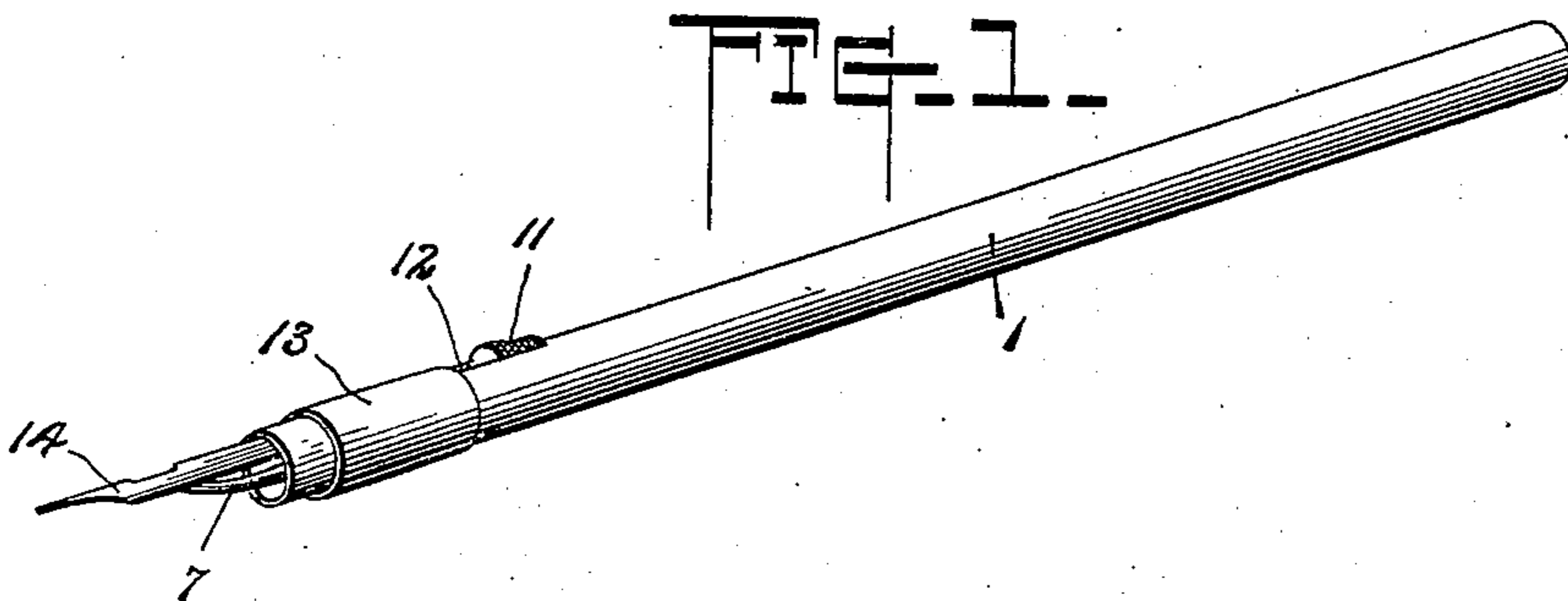


FIG. 2.

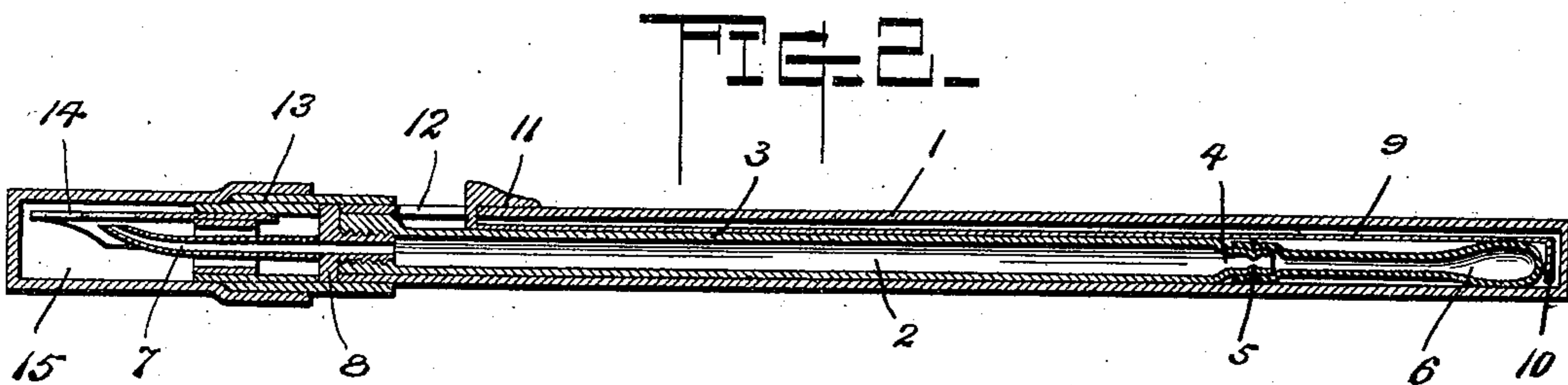


FIG. 3.

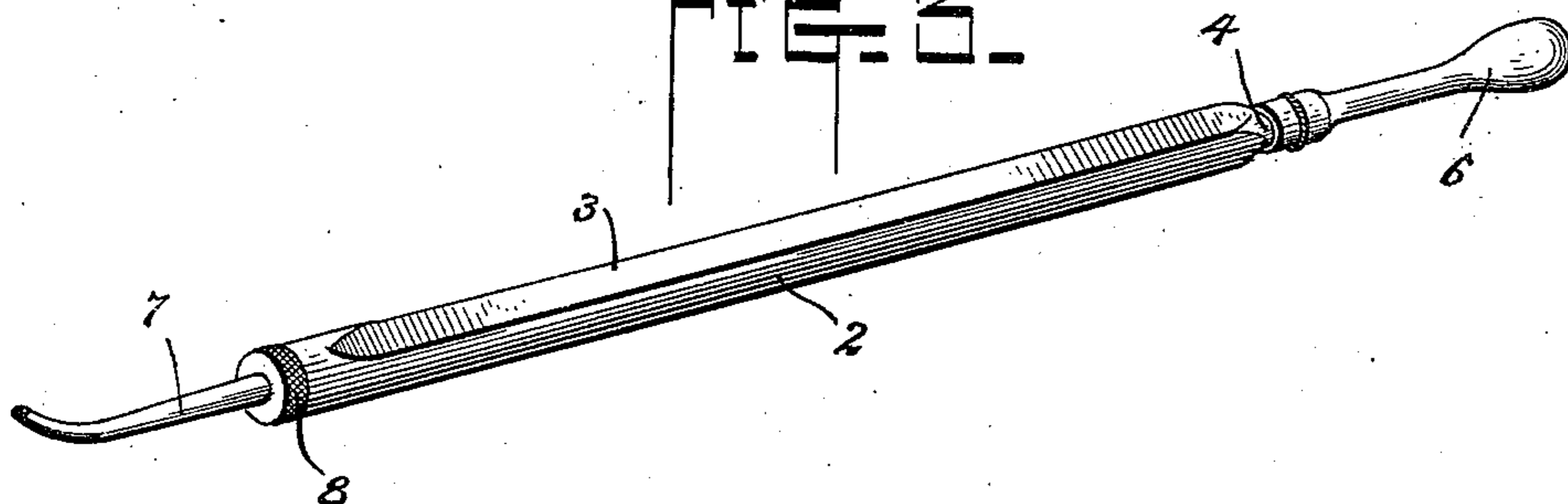
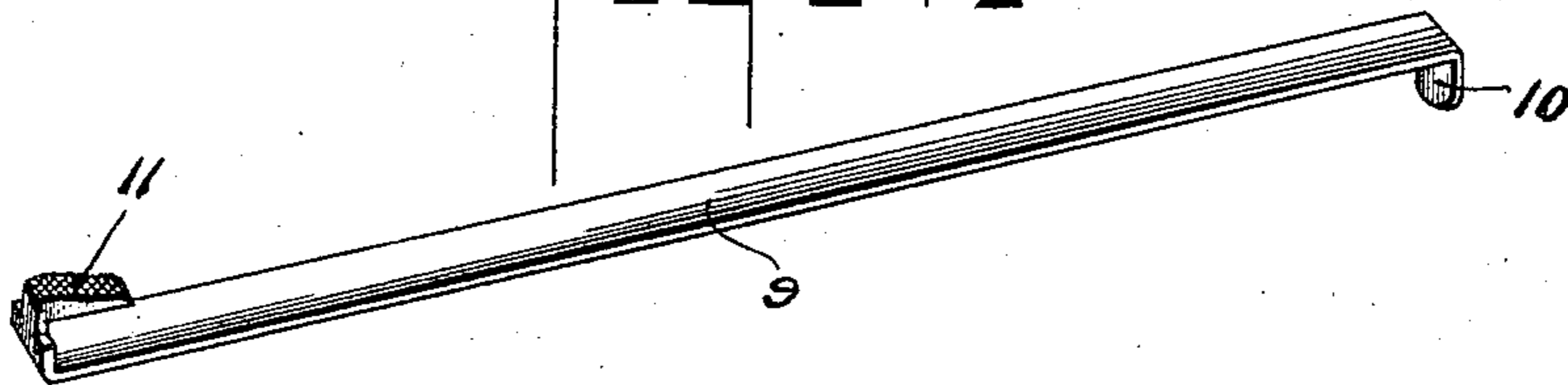


FIG. 4.



Inventor

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Witnesses

By *his* Attorneys,

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UNITED STATES PATENT OFFICE.

HENRY J. COWGER, OF PACIFIC GROVE, CALIFORNIA.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 576,555, dated February 9, 1897.

Application filed September 8, 1896. Serial No. 605,169. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. COWGER, a citizen of the United States, residing at Pacific Grove, in the county of Monterey and State of California, have invented a new and useful Fountain-Pen, of which the following is a specification.

This invention relates to improvements in fountain-pens.

The object of the present invention is to simplify the construction of fountain-pens and to provide in a device of this character efficient means for controlling the supply of writing fluid upon the pen-point, whereby the fluid is caused to flow only as the same is required; and, further, the invention contemplates a fountain-pen with which any ordinarily-constructed pen-point may be used.

With these objects in view the invention consists, substantially, in the construction, combination, and arrangement of parts, as will be hereinafter fully illustrated, described, and claimed.

In the accompanying drawings, Figure 1 is a perspective view, on an enlarged scale, of a fountain-pen constructed in accordance with the present invention, the cap for covering the pen-point being illustrated as removed. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a detail perspective view of the reservoir. Fig. 4 is a similar view of the operating-slide.

Similar numerals of reference designate corresponding parts throughout the figures.

Referring to the drawings, 1 designates a casing, which may be of any desired shape in cross-section, but preferably cylindrical, and said casing has one of its ends closed and the other open.

Disposed within the casing 1 is a reservoir 2, which reservoir preferably conforms to the shape of said casing 1, and one side of the reservoir 2 is flattened, as at 3, for a purpose to be hereinafter stated. The inner end of the reservoir 2 is open and is contracted to form a neck 4, which is provided with a peripheral groove 5, and secured upon said neck 4 is the open end of a compressible feeding-bulb 6, preferably of rubber, said end of the bulb 6 being stretched over the neck 4 and held thereon by a string or other equivalent means tightly surrounding the same and fit-

ting in the peripheral groove 5, so as to prevent displacement of the bulb 6 and also to form a firm joint between the same and the reservoir 2. The outer end of the reservoir 2 is provided with a threaded opening, and detachably secured to said outer end is a feed-tube 7, the outer end of which is slightly curved, so as to guide to the pen-point the ink being discharged. The other end of the feed-tube 7 is exteriorly threaded and is adapted to enter the threaded opening in the outer end of the reservoir 2 for connecting said feed-tube with said reservoir, and formed on the feed-tube 7, adjacent to the threaded end thereof, is a collar 8, the diameter of which is slightly greater than the inner diameter of the casing 1, thereby preventing the collar 8 entering said casing when the reservoir 2 is inserted into the latter, and also limiting the inward passage of said reservoir within the casing.

For the purpose of compressing the feeding-bulb 6 an operating-slide 9 is employed, and said slide is arranged within the casing 1 and lies against the flattened side 3 of the reservoir 2, said flattened side permitting the slide 9 to move freely along the reservoir. The inner end of the slide 9 is bent at a right angle to the body of said slide, so as to form a contact-lip 10, which is adapted to press against the free end of the feeding-bulb 6 when said lip is forced against said bulb, and by reason of the lip 10 contacting with the bulb 6 it is obvious that a sufficient movement of the operating-slide 9 will cause said lip 10 to compress the feeding-bulb 6 and thereby discharge a portion of the fluid from the reservoir 2 upon the pen-point. The outer end of the operating-slide 9 is bent at a right angle to the body of the slide and is provided with a substantially triangular finger-piece 11, said finger-piece having a roughened surface and lying parallel with the outside of the casing 1.

It will be noted that the outer end of the slide 9 is bent in an opposite direction to the contact-lip 10, and said outer end passes through a guide-slot 12, formed in one side of the casing 1 near the open end thereof, thus positioning the finger-piece 11 on the outside of said casing. By placing a finger upon the finger-piece 11 the slide 9 may be readily moved within the casing 1, and from

the fact that said finger-piece is triangular or tapering it will be seen that the finger may be conveniently and comfortably held thereon.

Mounted upon the open end of the casing 1 is a removable thimble 13, in which is secured any ordinary means for holding a pen-point 14, and when said thimble 13 is placed upon the casing 1 the feed-tube 7 extends through the thimble and the curved end of said feed-tube lies adjacent to the pen-point and in a position to permit the fluid within the reservoir 2 readily discharging upon said pen-point.

A removable cap 15 is used for closing the open end of the casing and covering the pen-point 14, and said cap is placed upon the thimble 13 and thereby prevents dirt and other substances from entering said casing and also permits the pen being carried within a pocket.

The operation and advantages of the herein-described fountain-pen will be readily understood by those skilled in the art.

In practice the pen is formed of any suitable material, gutta-percha being preferable, and when the reservoir 2 has been filled with a writing fluid the same is inserted within the casing 1 through the open end thereof. By reason of the operating-slide 9 lying against the flattened side 3 of the reservoir 2 it is apparent that said slide may freely move along said reservoir, and after the casing 1 has been grasped in the hand, as in the position for writing, and it is desired to discharge a portion of the writing fluid from the reservoir 2 it is simply necessary to place a finger upon the finger-piece 11 and move said finger-piece toward the pen-point. By this operation the contact-lip 10 of the operating-slide 9 will be forced against the free end of the feeding-bulb 6 and the latter will be compressed, thereby discharging a portion of the writing fluid from the reservoir 2, said fluid flowing through the feed-tube 7 and upon the pen-point 14. While the finger-piece 11 is held after moving the same toward the pen-point, the bulb 6 will remain compressed, but immediately upon releasing the finger-piece 11 said bulb, by reason of the same being compressible, will expand and return the finger-piece 11 to its normal position, or that which it occupied before being moved to compress the bulb 6. The contact-lip 10 is thus forced away from the end of the bulb 6 and the slide 9 placed in a position for again being operated for discharging a portion of the writing fluid upon the pen-point when required.

From the foregoing it will be seen that I have provided a fountain-pen which is simple and durable; that the same embodies in its construction efficient means for controlling the supply of writing fluid upon the pen-point, whereby the fluid will flow only when the finger-piece 11 is operated to compress the bulb 6; that any ordinarily-constructed pen-point may be used with the invention, and, finally, that the supply of the writing

fluid may be controlled while the hand is in the position for writing, the finger-piece 11 being so located as to enable the writer to continuously retain a finger upon said finger-piece 11, and thus overcome the necessity of raising the hand for the purpose of adjusting the feeding means.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. A fountain-pen comprising a casing, a reservoir arranged within the casing, compressible feeding means attached to the reservoir, and an operating-slide concealed within the casing between the same and the reservoir, provided with an exterior handle and arranged to compress the feeding means to discharge ink from the reservoir, substantially as described.

2. A fountain-pen comprising a cylindrical casing, a reservoir arranged within the casing and having one side flattened to provide an intervening space between it and the casing and form a guide, a bulb attached to one end of the reservoir, and a slide arranged on the flat side of the reservoir in the space between the same and the casing, said slide being provided at one end with an exterior handle and having its other end engaging the bulb and adapted to compress the same, substantially as described.

3. A fountain-pen, comprising a casing, a reservoir disposed in said casing and adapted to hold a suitable fluid, said reservoir having one of its sides flattened, compressible feeding means secured to said reservoir, a feed-tube detachably secured to the reservoir and adapted to guide the fluid discharged from the reservoir to a pen-point carried by the casing, and an operating-slide disposed in said casing and lying at the flattened side of the reservoir, whereby said slide is permitted to freely move along said reservoir, said operating-slide being adapted to compress the feeding means to discharge the fluid from the reservoir, substantially as described.

4. A fountain-pen, comprising a casing, a reservoir disposed in said casing and adapted to hold a suitable fluid, compressible feeding means secured to said reservoir, a feed-tube detachably secured to the reservoir and adapted to guide the fluid discharged from the reservoir to a pen-point carried by the casing, an operating-slide disposed in said casing and adapted to compress the feeding means to discharge the fluid from the reservoir, and a tapering finger-piece carried by the operating-slide and extending along the outside of the casing, whereby said operating-slide may be moved to discharge the fluid from the reservoir, substantially as described.

5. A fountain-pen, comprising a casing, a reservoir disposed in said casing and adapted to hold a suitable fluid, compressible feeding means secured to the inner end of said reser-

voir, a feed-tube detachably secured to the outer end of the reservoir and adapted to guide the fluid discharged from the reservoir to a pen-point carried by the casing, an operating-slide disposed in said casing, the inner and outer ends of said slide being bent at right angles to its body and each extending in an opposite direction to the other, said inner end forming a contact-lip adapted to compress the feeding means to discharge the fluid from the reservoir when the operating-slide is moved, and a tapering finger-piece carried by the outer end of the operating-slide and extending along the outside of the casing, whereby said operating-slide may be moved to discharge the fluid from the reservoir, substantially as described.

6. A fountain-pen, comprising a casing, a reservoir disposed in said casing and adapted to hold a suitable fluid, the inner end of said reservoir being open, a neck formed at said inner end and provided with a peripheral groove, a compressible feeding-bulb secured to said neck, the open end of said bulb receiving the neck and being held thereon by suitable means adapted to fit within the peripheral groove to prevent displacement of the bulb from said neck, a feed-tube detachably secured to the outer end of the reservoir and having its outer end curved to guide the fluid discharged from the reservoir to a pen-point carried by the casing, a collar formed on said feed-tube and adapted to limit the inward pas-

sage of the reservoir within the casing, an operating-slide disposed in said casing, the inner and outer ends of said slide being bent at right angles to its body and each extending in an opposite direction to the other, said inner end forming a contact-lip adapted to compress the feeding-bulb to discharge the fluid from the reservoir when the operating-slide is moved, the outer end of the operating-slide passing through a guide-slot formed in one side of the casing, a tapering finger-piece carried by said outer end of the operating-slide and extending along and lying parallel with the outside of the casing, whereby said operating-slide may be moved to discharge the fluid from the reservoir, a removable thimble mounted upon the casing and provided with suitable means for holding a pen-point adapted to receive the fluid discharged from the reservoir, the feed-tube extending through said thimble and the curved end of said tube lying adjacent to the pen-point when the thimble is placed upon the casing, and a removable cap for closing the open end of the casing, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY J. COWGER.

Witnesses:

CHARLES SPARKS,
WILLIAM DAVIDSON.