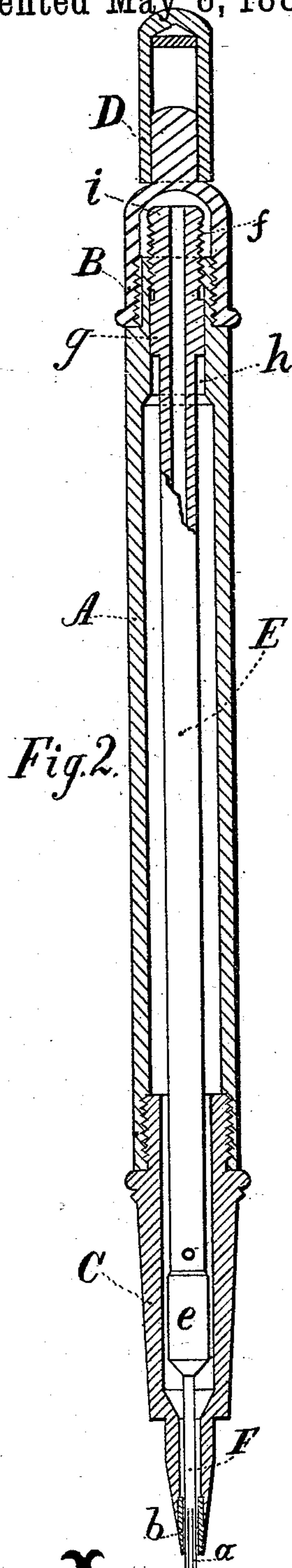
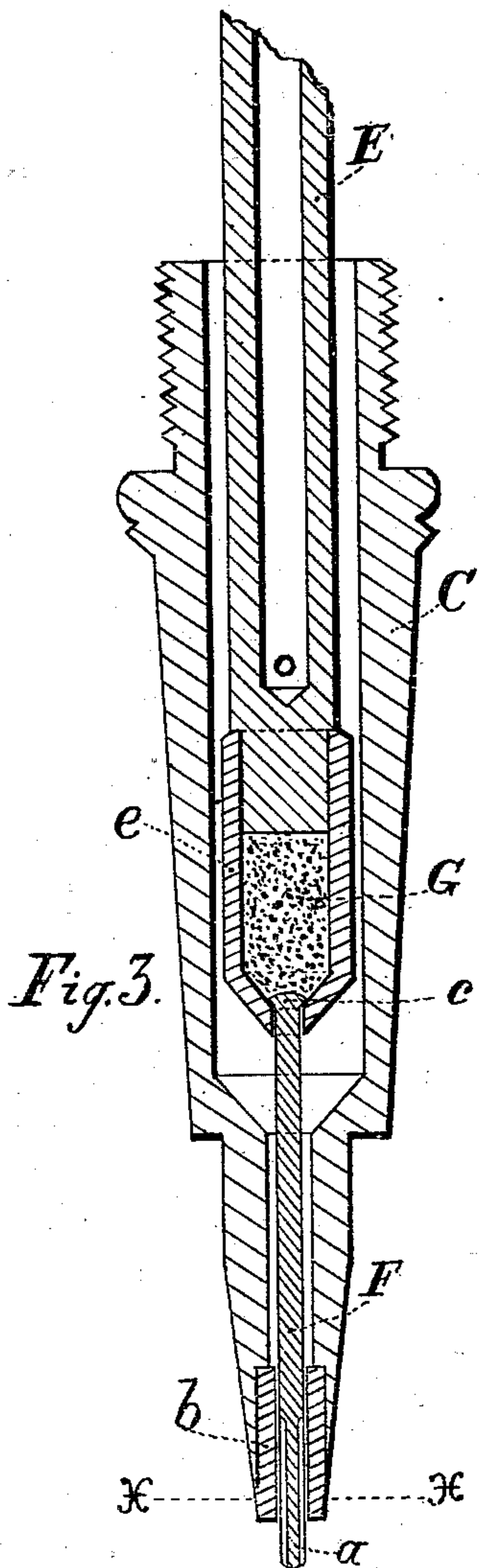
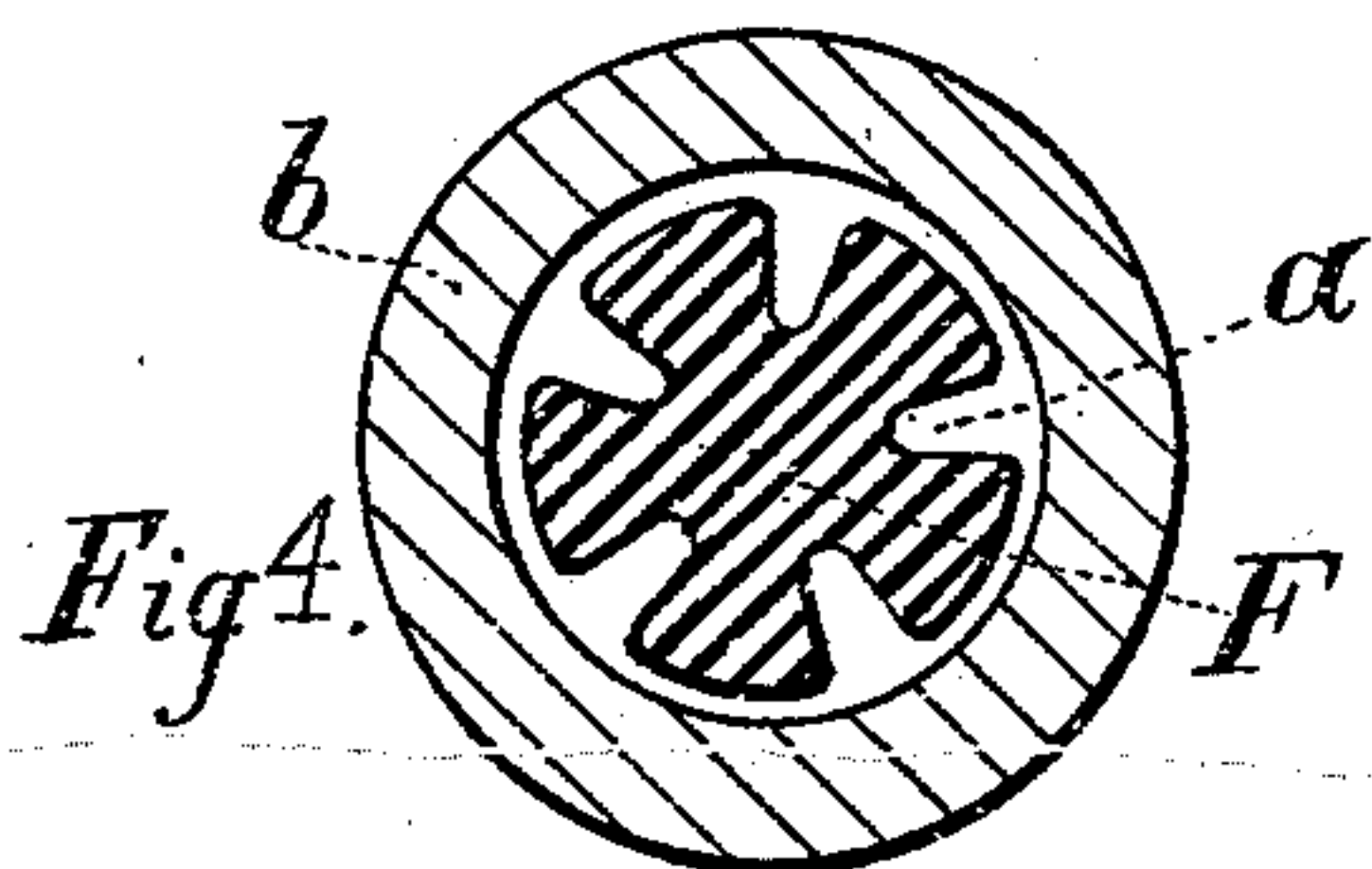
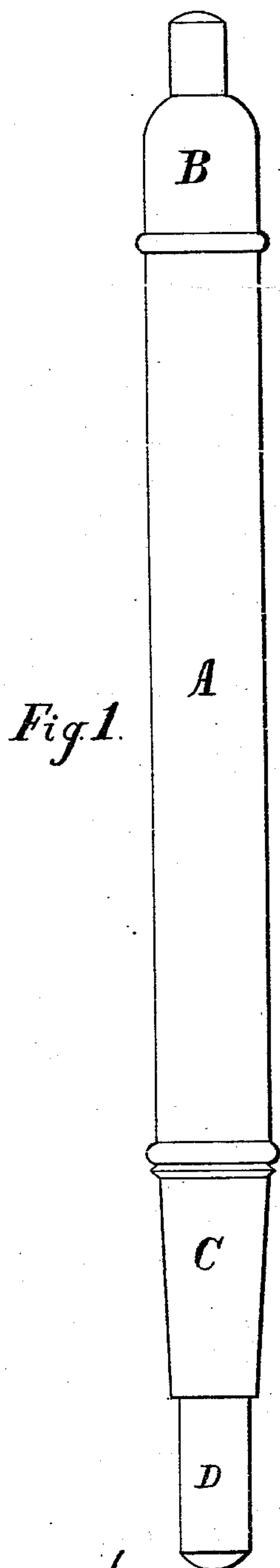


(No Model.)


E. W. MORTON.
STYLOGRAPHIC FOUNTAIN PEN.

No. 277,149.

Patented May 8, 1883.



Attest
G. M. Brown
G. M. Frost

 **Inventor,**
Edmund W. Morton

UNITED STATES PATENT OFFICE.

EDWIN W. MORTON, OF WHITE PLAINS, NEW YORK.

STYLOGRAPHIC FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 277,149, dated May 8, 1883.

Application filed August 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN W. MORTON, residing at White Plains, in the county of Westchester and State of New York, have invented
5 an Improvement in Stylographic Fountain-Pens, of which the following is a specification.

The object of my invention is to provide a point for fountain-pens that may be extended as it wears away.

10 The nature of my invention consists in providing a cushion or spring composed of soft rubber or other similar material inclosed in a cap or short tube placed on the lower end of the air-tube, which gives a certain amount of
15 elasticity to the writing-point, and by its vibratory movement prevents the ink from drying in the tube near the point.

My invention also consists in loosely screwing the air-tube in the upper part of the pen,
20 and enlarging the air-tube near the screw, so as to fit tightly in a corresponding-sized bore in the top of the pen.

Figure 1 represents the exterior of the pen when closed for carrying in the pocket. Fig. 2
25 is a longitudinal sectional view. Fig. 3 is an enlarged longitudinal section of the point-section of the pen. Fig. 4 is a transverse section taken in the line *x x* of Fig. 3, it being very much enlarged to clearly show the form of the
30 needle or writing point.

Similar letters refer to similar parts throughout the several views.

In the accompanying drawings, A is the ink-reservoir, preferably made of hard rubber or
35 other similar non-corrosive material.

B is the vent-cap.

C is the point-section; D, the point-cover; E, the air-tube; F, the needle or writing point, and G the rubber spring or cushion.

40 The needle F is of one size throughout, and has cut in its lower end one or more flutes or grooves, *a*, five being preferred, as shown clearly in Fig. 4, said grooves to conduct the ink from the tube *b* down to the paper, the difference in the size of the needle above the
45 grooves and the size of the bore in the metal tube *b* being just sufficient to properly govern the supply of ink. The upper end of the needle F is enlarged to form a head, *e*, which
50 rests against the rubber spring or cushion G,

and both the needle and the cushion being kept in position by a cap, *e*, held frictionally to the lower end of the air-tube E or an extension thereof. The rubber cushion allows of an endwise vibratory movement of the needle, preventing dry ink forming in the tube *b*. It also makes an easier and softer writing pen than those with a fixed point, as heretofore. The upper end of the air-tube E is provided with a screw-thread, *f*, and just below the
60 screw it is slightly enlarged to form a piston, *g*. A hole, *h*, is bored in the upper part of the ink-reservoir A of such a size that the piston *g* will just enter and be able to pass through said bore, but tight enough to make an air-tight joint. The upper part of the bore *h* is cut
65 interiorly with a screw-thread to engage loosely the corresponding screw, *f*, on the air-tube E. Thus by removing the air-cap B and turning the air-tube E by the knurled head *i* the air-tube E, carrying the needle F, can be screwed
70 in or out to properly adjust the distance that the end of the needle F projects from the end of the tube *b*, so that the pressure of writing will not force the needle up far enough to allow
75 the end of the tube *b* to touch the paper, and also to extend the needle F as it wears away, thus keeping the writing-point always the same until it is entirely worn out, when it may
80 easily be replaced by a new one by simply removing the cap *e* and dropping out the rubber cushion G. The fluted end of the needle may also be tipped with iridium, to more effectually prevent wear.

I claim as my invention—

1. In a fountain-pen, the combination of the fluted needle F, provided with an enlargement or head, *e*, the rubber cushion G, and cap *e*, attached to the tube E, as herein described and shown, and for the purpose set forth.

2. In a fountain-pen, the combination of the air-tube E, provided with a loosely-fitting screw, *f*, and the piston *g*, fitting tightly in the bore *h*, as herein shown and described, and for the purpose set forth.

EDWIN W. MORTON.

In presence of—

ELISHA HORTON,
EDWARD W. MORTON.