

J. G. Kenyon.
Fountain Pen.
N^o 96,598. Patented Nov. 9, 1869.

Fig. 1.

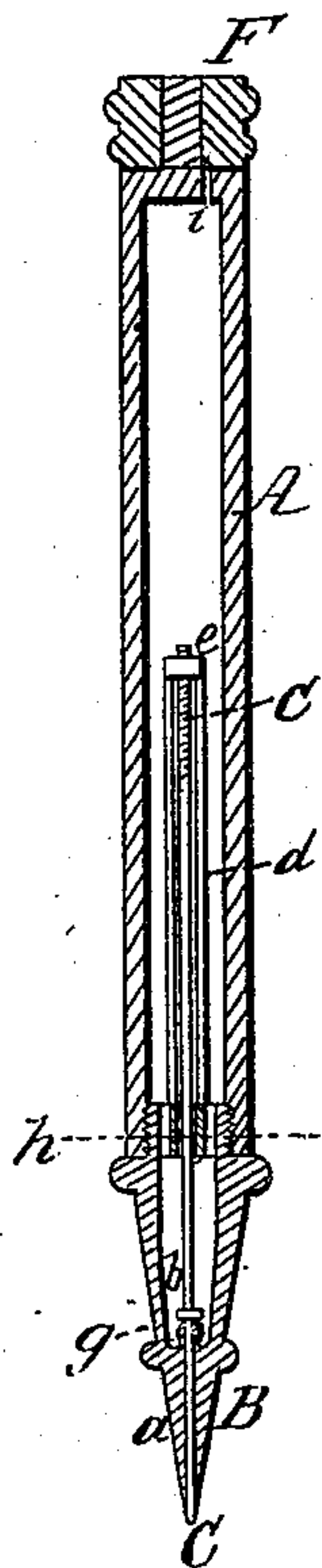
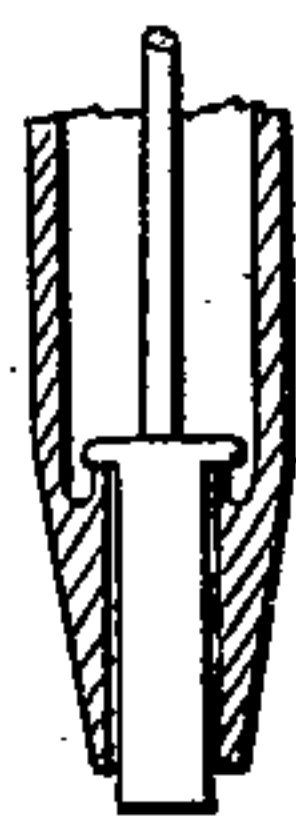


Fig. 2.



Fig. 3.



Witnesses

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J. GARDNER KENYON, OF FERNDALE, CALIFORNIA.

Letters Patent No. 96,598, dated November 9, 1869.

IMPROVEMENT IN FOUNTAIN-PENS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, J. GARDNER KENYON, of Ferndale, county of Humboldt, State of California, have invented an Improved Writing-Instrument; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to produce an instrument for writing with ink, which shall be a substitute for both pen and pencils, and which can be carried about the person with all the facility of an ordinary pencil, and be always ready for immediate use. This I call an ink-pencil.

Referring to the accompanying drawings, forming part of this specification-

Figure 1 is a longitudinal sectional view of one of my improved ink-pencils or writing-instruments;

Figure 2 is a transverse sectional view; and

Figure 3 shows a modification of the point, which may be employed for such purposes as it may be adapted for.

The case A, for holding a supply of ink, has on its lower end the tapering or conical end B, which is solid, excepting an extended narrow passage through it, which is formed of a uniform width or diameter throughout, and in which the lower part of the rod or stem C fits loosely, projecting a short distance from the lower extremity of the passage.

Around the upper end of the passage *a*, I form a depression or sediment-well, *g*, to receive any sediment that may be deposited by the ink, and prevent its entering and clogging the passage *a*.

A circular edge for a valve-seat is thus formed around the top of the opening, between it and the well, and the opening is closed by an India-rubber valve or stop, *b*, upon the stem C.

The stem C, with the valve *b*, is pressed down by the slender India-rubber spring *d*, attached to the guide *h*, through which the stem passes, and to a hook or projection upon the screw-nut *e*, on the upper part of the stem, but the extent to which the stem C may project below the passage *a*, is limited by the stop or valve *b*.

By screwing the nut *e* up or down upon the stem, the length and tension of the spring may be regulated as required.

If a pencil is required for marking-purposes, or to make very thick lines, the lower part of the stem C may be flattened and made wider, as shown in fig. 3, the passage *a* being, of course, made of a corresponding shape.

The top of the case A has a narrow air-passage or

vent, *i*, through it, and is surmounted by a screw-nut, *F*, by means of which the passage *i* may be opened or closed at pleasure.

Operation.

The point being unscrewed, and the case A supplied with ink, the point is screwed on again, and it is ready for use.

The valve *b* being held down by the spring *d*, no ink can escape, but when the point is pressed upon the paper or other surface for writing, the projecting end of the stem C is pushed in and the valve *d* raised, thus allowing the ink to pass down into the passage *a*, but the stem C nearly filling this passage, the attraction between the liquid and the sides of the passage and stem prevents it from descending freely, but when the point is moved over the paper, a vibration is communicated to the stem which partially counteracts the attraction above mentioned, and a gentle and uniform flow of the ink is produced.

When the point is removed from the paper, the flow instantly ceases, and not even the smallest drop escapes.

I have found, by experiment, that when the point of the pencil is a shell, with merely an opening through it at the end, closed by a valve just within the point, the ink is constantly liable to escape in small drops, particularly when the point is raised from the paper, as well as to flow too freely at times, when the point is pressed down harder than usual, thus making blots. But the long and narrow passage provided for the ink in the construction of my improved pencil completely remedies this capital defect, and a gentle and uniform flow of ink is secured while the pencil is in use, which instantly and entirely ceases when the point is removed from the paper.

If the passage *a* be entirely dry, as when the pencil is first used, it may be necessary to blow very gently through the vent *i*, to bring the ink down to the point, which must, of course, be at the same time pressed lightly upon some surface, so as to raise the valve *b*, but in general, the mere moving of the point over the surface of paper, so as to produce a vibration of the stem, will be sufficient.

If, after writing awhile, the ink seems not to flow freely enough, it indicates that the screw-nut *F* requires to be raised, for the admission of air.

The passage *a* is reamed out somewhat at the top, to facilitate the entrance of the stem and of the ink, and so as to form, between it and the cavity *g*, a narrow or sharpish edge, for the valve *b* to rest on, as the valve will then form a tight joint, with a very light pressure.

What I claim as my improvements in ink-pencils, and desire to secure by Letters Patent, is—

1. In combination with the ink-case A, the cavity *g*, by means of which a receptacle is provided for the sediment deposited by the ink, and a narrow edge formed around the stem, as a seat for the valve *b*, substantially as described.

2. In combination with the stem C, carrying the

valve *b*, the arrangement of the rubber spring *d*, attached to the removable cone B, and regulated by the adjustable screw-nut *e*, substantially as specified.

J. GARDNER KENYON.

Witnesses:

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