F. W. McGEE.
Drafting-Pencil.

No. 207,883. Patented Sept. 10, 1878.

Fig. 1.

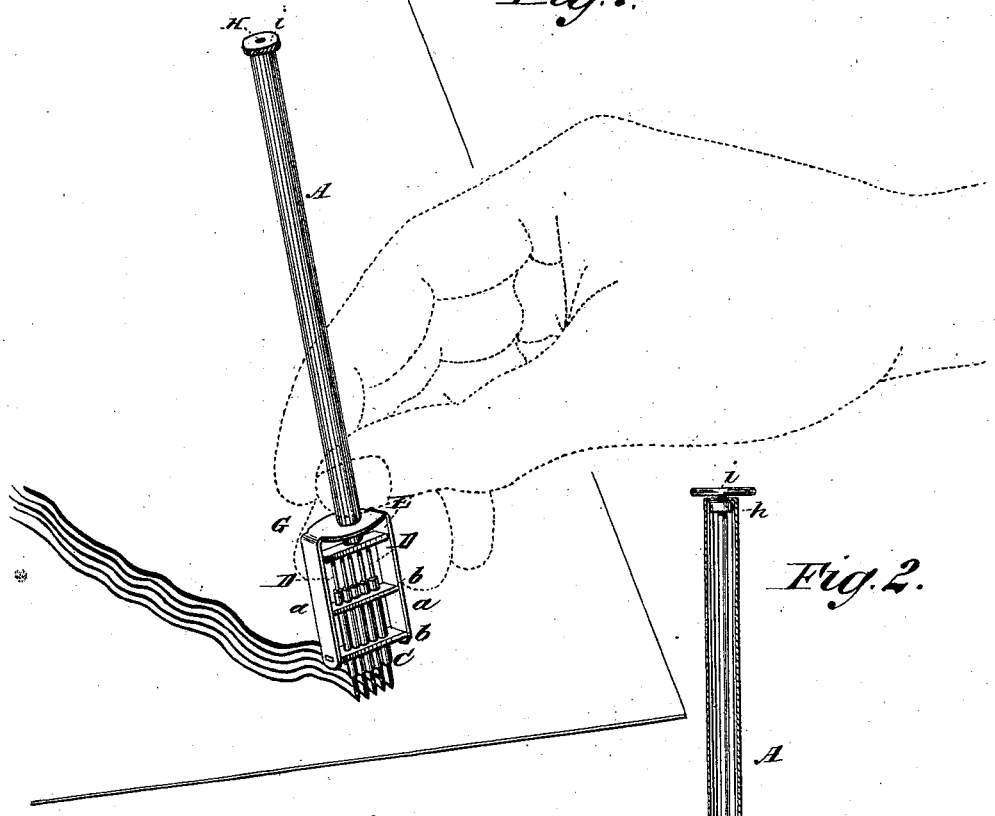


Fig. 2.

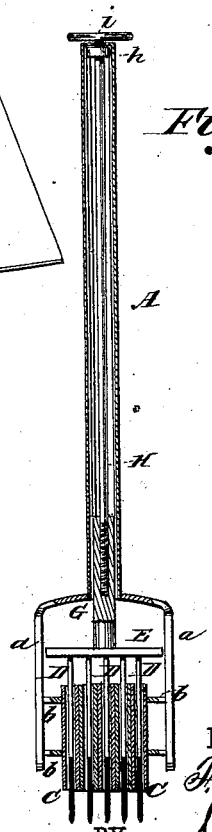
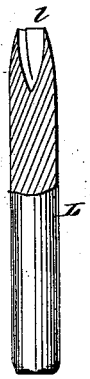


Fig. 3.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FREDERICK W. McGEE, OF RUTHERFORD, NEW JERSEY.

IMPROVEMENT IN DRAFTING-PENCILS.

Specification forming part of Letters Patent No. **207,883**, dated September 10, 1878; application filed July 26, 1878.

To all whom it may concern:

Be it known that I, FREDERICK WM. McGEE, of Rutherford, in the county of Bergen and State of New Jersey, have invented a new and useful Improvement in Drafting-Instruments, of which the following is a specification:

My invention relates to an instrument which is more particularly intended for use in map-drawing, for the purpose of drawing parallel lines to represent the coast or shore; but it is applicable to various other purposes.

The invention consists, essentially, in an instrument having a number of tubes adapted to the holding of "leads"—such as are used in "ever-pointed" pencils—and having pistons arranged to engage with said tubes, and furnished with means for operating them simultaneously, whereby provision is made for drawing a number of parallel lines at the same time.

In the accompanying drawing, Figure 1 is a perspective view of an instrument constructed according to my invention, and a representation of the manner of using the same. Fig. 2 is a longitudinal sectional view of the instrument.

Similar letters of reference indicate corresponding parts.

A represents a tube, of such size as to be readily held in the fingers like a pencil or pen. It may be made of metal or any other suitable material. The lower end of this tube is forked or divided into two branches, *a a*, which are connected by two bars, *b b*. In these bars are carried a number of tubes, C, lying in directions parallel with the length of the tube A. These tubes are of such size as to readily receive and hold leads, such as are used in what are known as "ever-pointed" pencils. For each tube C is provided a piston or plunger, D, consisting of a wire rod, fitting nicely in the tube, for the purpose of propelling or pushing out the lead, as in the pencil before referred to. These pistons D (corresponding with the number of tubes C) are attached to a bar, E, which lies between the branches *a a*, parallel with the bars *b b*. The bar E has formed on or attached to it a shank or stem, G, which works nicely in the main tube A, and is provided with an internal screw-thread.

A rod, H, works in the main tube A, and is provided with an external screw-thread for engagement with the thread in the shank or stem G. The rod H is also provided with a collar, *h*, near its outer end, to prevent it from slipping out of the tube A, and with a milled wheel or head, *i*, for turning it.

By turning the rod H in one direction the pistons D are caused to push the leads outward from the ends of the tubes C, as in the pencil referred to; but as said pistons are all attached to the bar E, carried by the stem G, they all move simultaneously.

The drawing shows the instrument as having five tubes and five pistons; but it is obvious that there may be any desired number of each, arranged in any suitable manner.

When the leads become dull they may be sharpened by a "sharpener"—such as shown in Fig. 3 of the drawing—by placing the milled recess over the point of one of the leads and rotating the handle.

I do not claim, broadly, an instrument for drawing a number of parallel lines simultaneously, as I am aware that such an idea is covered by the paper-ruling pens in common use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As an improved article of manufacture, a drafting-instrument having a number of lead-carrying tubes and pistons arranged to engage therewith, and provided with means, substantially as described, for operating them simultaneously, substantially as herein described.

FREDERICK WILLIAM McGEE.

Witnesses:

JOHN H. VER NOOYE,

JAMES R. COLLERD.