J. E. FABER.
Lead-Pencil.

No. 220,591. Patented Oct. 14, 1879.

Fig. 1.

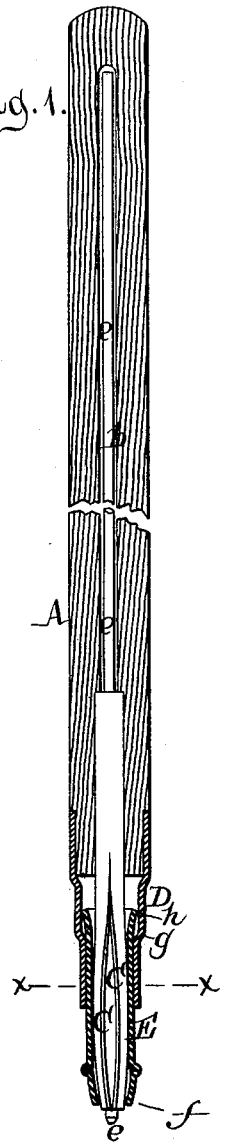


Fig. 2.

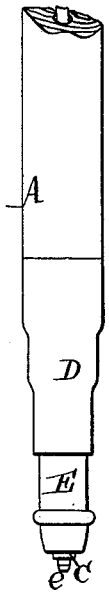
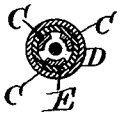


Fig. 3.



Witnesses.
Chas. Wahlers.
William Miller

Inventor.
John Eberhard Faber
by Van Santvoord & Hauff
his attys.

UNITED STATES PATENT OFFICE.

JOHN E. FABER, OF PORT RICHMOND, NEW YORK.

IMPROVEMENT IN LEAD-PENCILS.

Specification forming part of Letters Patent No. **220,591**, dated October 14, 1879; application filed September 2, 1879.

To all whom it may concern:

Be it known that I, JOHN EBERHARD FABER, of Port Richmond, in the county of Richmond and State of New York, have invented a new and useful Improvement in Lead-Pencils, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal central section of my pencil on an enlarged scale. Fig. 2 is a side view thereof. Fig. 3 is a cross-section of the same in the plane of the line *x x*, Fig. 1.

Similar letters indicate corresponding parts.

My invention relates to that class of pencils in which the lead is contained in a bore of the pencil stock or handle and confined at the pencil-point.

It consists in the combination, with a pencil-handle having a central bore to receive the lead, of elastic fingers on the lower end of the handle, a projecting ferrule surrounding the elastic fingers, and a clamping-cap which slides in the projecting part of the ferrule, and is reduced at the outer end, so that when the cap is pulled outward the lead may be set between the elastic fingers, while when the cap is pushed inward the fingers are compressed by its means, thereby confining the lead in the desired position. The ferrule is provided with a stop, and the clamping-cap with a flange to engage such stop, for the purpose of retaining the cap within the ferrule.

In the drawings, the letter A designates the stock or handle, and *b* its bore; C, the elastic fingers; D, the ferrule, and E the clamping-cap.

The bore *b* is of sufficient diameter to admit the lead *e*, and the elastic fingers C are formed by a split tube inserted in the open end of the bore, the latter being enlarged at such end for this purpose, so that the fingers project from the lower end of the handle.

The ferrule D is secured to the lower end of the handle A, and projects therefrom, so as to surround the elastic fingers C. The clamping-cap E is fitted into the projecting part of the ferrule D, so as to slide therein, and is reduced or contracted at the outer end, as at *f*.

When the clamping-cap E is pulled outward the elastic fingers C are allowed to spread, so that the lead may be set between them, either in an inner or outer direction. When, however, the clamping-cap E is pushed inward, the reduced end thereof is brought over the elastic finger, C, as shown, whereby the fingers are compressed so as to confine the lead in the desired position.

In the projecting part of the ferrule D is a shoulder, *g*, constituting a stop, while at the upper or inner end of the cap E is a flange, *h*, which engages said stop when the cap is pulled out, thereby retaining the cap within the ferrule.

It will be seen that in my pencil I dispense entirely with screw-threads, (which is a feature of all pencils of this class hitherto made,) thereby saving a great amount of labor; and since it is only necessary to slide the clamping-cap in or out to adjust the lead, the least time and labor are required to effect this object.

I am aware that a spring-impelled clamping-sleeve has been arranged to slide upon the external surface of the end of a handle for pencils for closing the jaws of a split tube upon the lead, and such, broadly, I hereby disclaim.

What I claim as new, and desire to secure by Letters Patent, is—

In combination with the pencil-holder A, having the usual central bore, *b*, and tube split at its lower end for receiving and clamping the lead, a ferrule rigidly attached to the exterior of the lower end of the handle, and having a contracted portion to form a shoulder, *g*, and a clamping-tube, E, constructed to slide within and upon the internal surface of the contracted portion of the fixed ferrule, said tube being provided at its upper end with a shoulder or flange, *h*, and its lower end contracted to grasp the split tube when pushed within the fixed ferrule, all substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 28th day of August, 1879.

JOHN EBERHARD FABER. [L. S.]

Witnesses:

J. VAN SANTVOORD,

CHAS. WAHLERS.