

M. Phineas,
Pen.

No. 9843.

Patented July 12, 1853.

Fig. 1.

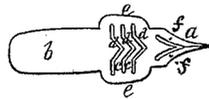


Fig. 2.



Fig. 3.

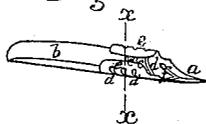


Fig. 4.



Fig. 5.

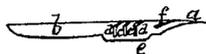
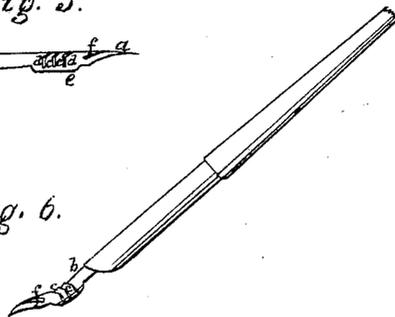


Fig. 6.



UNITED STATES PATENT OFFICE.

MYER PHINEAS, OF NEW YORK, N. Y.

METALLIC PEN.

Specification of Letters Patent No. 9,843, dated July 12, 1853.

To all whom it may concern:

Be it known that I, MYER PHINEAS, of the city, county, and State of New York, have invented a new and useful Improvement in Metallic Pens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which makes part of this specification, and in which—

Figure 1 represents a plan of a pen blank as it is stamped from the sheet of metal preparatory to bending it into form, Fig. 2, represents a view in perspective of one of my improved pens seen on the back; Fig. 3, represents a similar view of the opposite side of the pen; Fig. 4, represents a transverse section taken at the line $x x$ of Fig. 3; Fig. 5 represents a side view of the pen, and Fig. 6 represents a similar view of the same, showing the flexure of the back of the pen when under the pressure produced by writing.

My invention and improvement consists in forming the back of the pen just behind the nib, into a series of narrow ribs, separated by narrow slots, and connected on each side of the pen by a flat plate, which yields readily to slight pressure, and allows the arches of the ribs to approach toward, and recede from each other to permit the back of the pen to bend. By thus forming the back of the pen of a series of ribs, it has such great flexibility, that the hand is not fatigued in writing with it, even when the nib is stiff and hard. This flexibility of the back of the pen is also a great protection to the nib against injury, as it so far softens all the concussions produced by irregular pressure and sudden jerking motions of the hand, that they are but little felt at the point.

A little lateral flexibility is required to prevent the pen from sputtering, but much more flexibility is required in the opposite direction, and therefore the plates at the sides of the pen which connect the ribs, the nib, and the shank, are placed very nearly, but not quite in a plane joining the two sides of the pen, so that they may oppose

most of their edgewise strength to resist the lateral flexure, and but little more than the stiffness due to their thickness to resist the flexure of the back.

In the accompanying drawing, a is the nib, b the shank, c the ribs, d the slots between the ribs, e the side or spring plates, and f the lateral slits of the nib.

The pen is punched out of a thin plate of steel in the shape seen in Fig. 1, which is then bent into form and finished in the usual manner.

As the various operations of finishing this pen are the same in all particulars as in the manufacture of other metallic pens, a description thereof is here unnecessary.

I am aware that Perry attempted to give the proper degree of flexibility to pens by making a transverse slot in the back and extending it along the side of the pen leaving a narrow spring beneath, inclined equally to the side and back of the pen, which renders it too rigid for the easy working of the pen unless made so long that its great range of flexure renders it difficult to direct. I therefore make no claim to a side and back slot, or to a spring inclined equally to the back and side of the pen, but

What I do claim as my invention and desire to secure by Letters Patent is—

Constructing the back of the pen with a series of transverse ribs and slots, and leaving two flat springs beneath, nearly parallel to the back and free to bend between the ribs; the effect of this construction being to give to the pen combined stiffness and flexibility within certain limits resembling that produced by a series of vertebral articulations, and which is found to render the working of the pen more easy and pleasant than any form of metallic pens heretofore assayed.

In testimony whereof I have hereunto subscribed my name.

MYER PHINEAS.

Witnesses:

CHARLES Z. NACK,
A. C. KINGSLAND.