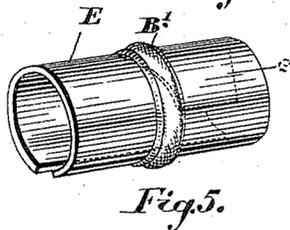
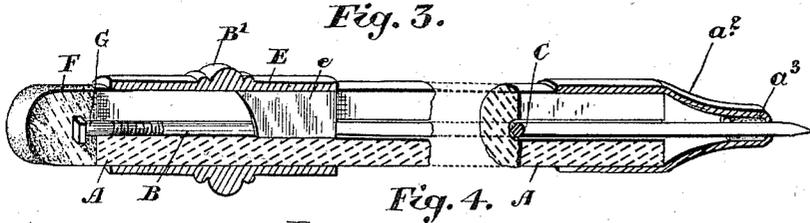
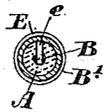
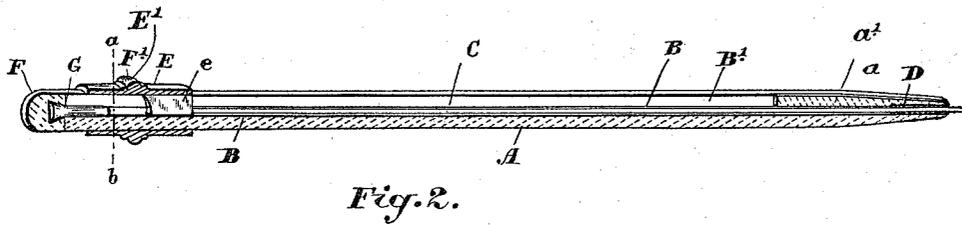
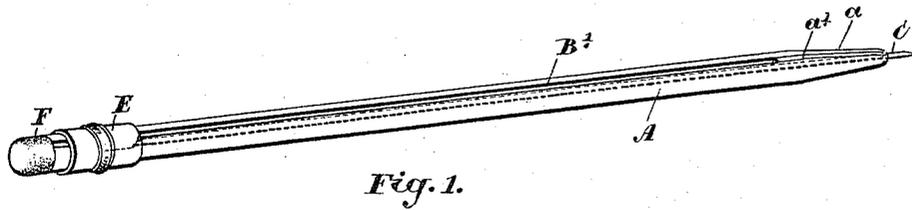


(No Model)

D. S. HEWITT.
LEAD PENCIL.

No. 586,186.

Patented July 13, 1897.



Witnesses.
H. S. Young
E. R. Case.

Inventor:
Douglas S. Hewitt
by
Fletcher & Haugh
Atty

UNITED STATES PATENT OFFICE.

DOUGLAS STANLEY HEWITT, OF TORONTO, CANADA, ASSIGNOR OF ONE-HALF TO ISAAC MOORE, OF SAME PLACE.

LEAD-PENCIL.

SPECIFICATION forming part of Letters Patent No. 586,186, dated July 13, 1897.

Application filed July 23, 1896. Serial No. 600,787. (No model.)

To all whom it may concern:

Be it known that I, DOUGLAS STANLEY HEWITT, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Lead-Pencils, of which the following is a specification.

My invention relates to improvements in lead-pencils; and the objects of the invention are, first, to design a simple form of wooden lead-pencil in which the lead may be readily adjustable, so that the point may be constantly ready for use, and also in which the lead will be held securely from receding during use, and, secondly, to provide a simple means for fastening an eraser to the end of the pencil opposite the blunt end; and it consists essentially, first, of forming the lead-pencil in one integral piece with a tapered end and a peculiarly-formed groove having a cylindrical bore with a narrower slot leading outwardly therefrom, the pointed end of the pencil being provided with a key or fastener designed to exert a pressure upon the lead, while the opposite end of the pencil is provided with a sleeve having a flat key-push attached to or forming part of same and extending into the slot and bore, so as to abut against the end of the lead, the sleeve being formed in the form of a split ring, and, secondly, of providing an eraser conforming to the general contour of the pencil and held in place by a plug, which is suitably fastened into the eraser itself and into the bore of the pencil, the parts being otherwise arranged and constructed in detail as hereinafter more particularly explained.

Figure 1 is a perspective view of my pencil, showing it complete. Fig. 2 is a longitudinal sectional view of the pencil. Fig. 3 is a cross-section through the pencil and sleeve. Fig. 4 is an enlarged detail of the pencil, showing an alternative form of point. Fig. 5 is an enlarged detail of the spring-sleeve.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the body of the pencil, which is made cylindrical or in any other suitable form, and B is a bore, preferably cylindrical, and B' a slot narrower than the bore, which extends outwardly therefrom to the periphery of the

pencil, the bore and slot being formed simultaneously by a peculiarly-formed tool out of a solid piece of wood and not as now commonly done by making the lead-pencil in two parts.

a is the tapered point; *a'*, the wooden key, which is made to fit the slot and form a terminus for same at the point end of the pencil.

C is the lead, which is preferably made any desired length. The key *a'*, when inserted into the pencil, is designed to exert a slight pressure upon the lead as it passes between it and the opposite end of the bore. The bore B itself is made larger than the lead, so that upon a slight bend of the pencil such lead will not be broken.

D is a very thin thimble, which is inserted at the point end and is designed to fit the end and also to preserve the end or, more properly, point of the wooden portion of the pencil.

E is a divided spring-sleeve which is provided with a central enlargement *E'* to adjust it longitudinally and a flat key-push *e*, attached to or forming part of the same. The key-push *e* extends from the sleeve through the slot B' to the opposite side of the bore B and has a straight inner edge designed to abut the end of the lead.

F is an eraser made, preferably, of rubber or other suitable material, the inner end of which is flat and made to abut the end of the lead-pencil.

G is a plug formed of any suitable material and preferably with a head or equivalent device by which it may be held in the eraser when once inserted. The inner end of the plug G is securely fastened by cement or otherwise in the bore B.

In Fig. 4 I show instead of the wooden tapered point *a* a metal tapered point *a²*, which is made cylindrical at its inner end, so as to slide it over the point of the pencil. When the point of the pencil is made of metal, as shown in this figure, I preferably provide instead of the key *a'* a ferrule *a³*, made of wood, rubber, or other suitable material, which is designed to have the same effect as the wooden key *a'*, which is sufficiently elastic as to exert a pressure upon the lead near the point and thereby securely hold such lead from lateral movement and prevents it breaking, which is

so commonly incident to a lead held loosely at the point. In this figure also it will be noticed that I make the plug which extends into the bore and holds the eraser in position threaded, as an equivalent device to cementing it, which I have hereinbefore referred to.

I may state that in the use of my lead-pencil the eraser may be always kept clean when the lead is not in use by throwing the sleeve back on the pencil over such eraser.

In placing the lead in position it is of course preferable to do so from the blunt end of the pencil, the sleeve being placed on the pencil afterward, and the eraser, if desired. The lead is of course adjusted by means of the sleeve and push-key so as to renew the point or elongate the point, and the lead is pushed backward when not in use by simply pressing against the point.

In the use of the pencil the key *a'* holds the pointed end securely from lateral movement. The push-key *e*, forming part of the sleeve, will hold the lead from longitudinal movement when pressure is exerted upon it when in use, as the spring-ring serves to securely grip upon the peripheral surface of the pencil.

It will be seen in the construction of the wooden pencil with the bore and slot extending outwardly from such bore that the bend of the pencil on account of the lead not being solid in the bore will not have a tendency to break the lead, as it is of less diameter, nor will it be possible for the lead to spring out

and break in the center of the bore, as the slot is also of less diameter than the lead.

What I claim as my invention is—

1. In a wooden lead-pencil having a pointed end, having a bore extending therethrough, a slot extending through the entire length of the pencil at one side only of the lead, a lead of less diameter than the bore and a pressure-key inserted into the pointed end of the slot, fixed therein, so as to complete the periphery of the wood pointed end of the pencil, and so arranged as to extend laterally into the bore beyond the inner surface thereof from the slotted side, as specified.

2. In a wooden lead-pencil having a pointed end and a bore extending therethrough, in combination, a slot extending through the entire length of the pencil at one side only of the lead and free and open at the butt-end, a lead of less diameter than the bore, a spring-sleeve, having a division, designed to have a lateral gripping pressure upon the periphery of the pencil and provided with single key-push plate forming part of the sleeve and extending into the bore diametrically, so as to abut the end of the lead and a pressure-key suitably held in the pointed end of the slot and forming a stop for the key-push plate as specified.

DOUGLAS STANLEY HEWITT.

Witnesses:

B. BOYD,

E. R. CASE.