

(No Model.)

R. HAGENMEYER.
LEAD PENCIL HOLDER.

No. 497,873.

Patented May 23, 1893.

Fig. 4.

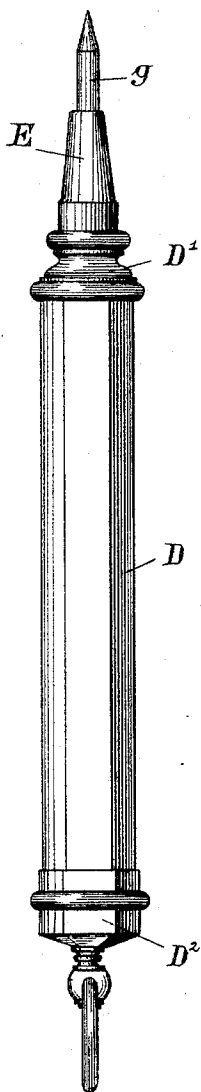


Fig. 1.

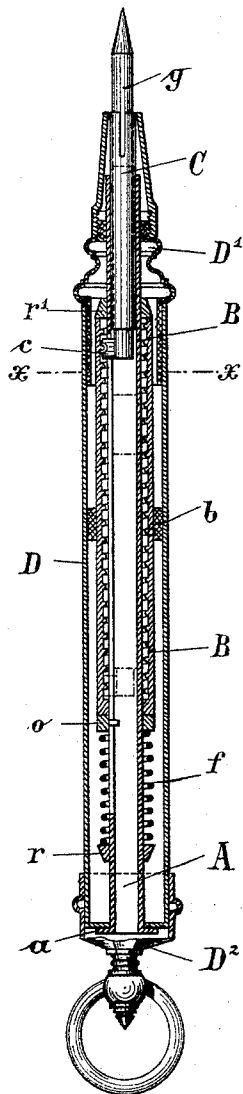


Fig. 2.

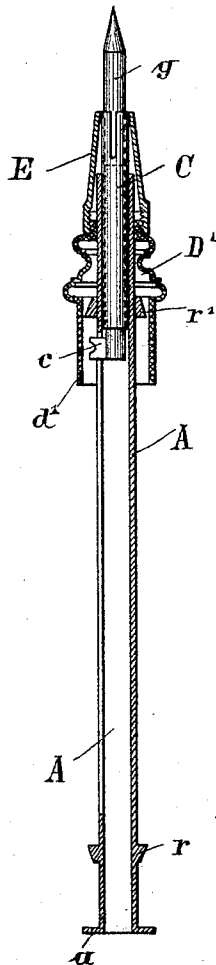


Fig. 3.

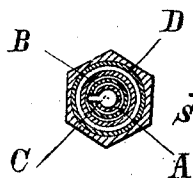
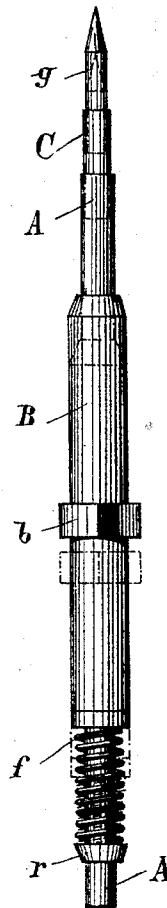


Fig. 5.
Section x-x.

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UNITED STATES PATENT OFFICE.

ROBERT HAGENMEYER, OF NUERNBERG, GERMANY.

LEAD-PENCIL HOLDER.

SPECIFICATION forming part of Letters Patent No. 497,873, dated May 23, 1893.

Application filed February 2, 1893. Serial No. 460,639. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HAGENMEYER, a subject of the King of Würtemberg, residing at Nuernberg, Germany, have invented a new and useful Improvement in Lead-Pencil Holders, of which the following is a specification.

This invention relates to holders, for pencils or crayons, made of metal or other suitable material and from which the pencil or crayon is fed forward as it is consumed, and into which it may be withdrawn when out of use.

The object of this invention, is to so construct the pencil-holder, that only a certain maximum pressure, necessary for writing, can be exerted upon the point of the pencil or crayon, and that upon exceeding such maximum pressure, the pencil yields and is forced into the casing so that the same will not break off, the pencil returning to its normal position as soon as the normal pressure is again assumed.

To attain this object, the pencil-holder embodying what I consider the preferred form of carrying out my invention, consists in a pencil-case embracing a thimble in which the pencil proper is secured at one end and which is adapted to be slid within a slotted tube by means of an interiorly screw-threaded sleeve engaging a toe on the thimble. Under my invention, the interiorly-threaded sleeve is adapted to slide with respect to the slotted tube and is held or urged forward into a certain position by means of a helical spring or other suitable device, out of which position it will yield together with the pencil or crayon when an excessive pressure is applied to the point of the pencil, until the normal pressure has been resumed. This arrangement prevents the breaking off of the pencil point.

In the drawings accompanying this specification—Figure 1—represents a longitudinal central section of a pencil-holder embodying the preferable mode of carrying out my invention; Fig. 2—a similar section, the threaded sleeve, and the outer sleeve and the head of the pencil-holder, however, being removed; Fig. 3—an elevation of the pencil-holder, in which the mouth-piece, intermediate thimble, the outer sleeve and the head of the pencil-case, have been removed; Fig. 4—an eleva-

tion of the pencil-holder, complete; and Fig. 5—a transverse section of the holder on the line $x-x$.

It will be noted that the thimble, C, for holding the pencil proper, g , is arranged within the slotted tube, A, so as to be capable of sliding therein, while a toe, c , attached to said thimble and passing through the slot in the slotted tube, prevents the same against turning therein. The said toe, moreover, engages the interior thread on the threaded sleeve, B, encircling the slotted tube, A, causing the advance of the thimble, C, by rotating the threaded sleeve, B, with respect to the slotted tube, A, in the well-known manner. A novel feature in this arrangement is the play or sliding movement of which the threaded sleeve, B, is capable upon the slotted tube between two shoulders on the latter, preferably in the shape of fixed rings, r and r' , and the yielding pressure exerted upon the same by the helical spring, f , arranged between the ring, r , and the threaded sleeve, B, whereby the said threaded sleeve is yieldingly forced against the ring, r' , and the pencil is thrust forward from the mouth of the pencil-holder to the desired extent.

In order to prevent a rotation of the spring, f , when the sleeve, B, rotates on the slotted tube, A, a ring or washer, o , is interposed between the spring, f , and the said sleeve, B, the said ring or washer being capable of sliding upon the slotted tube, but prevented from revolving around the same by means of a pin, engaging the slot therein, as shown.

The remaining details of construction, which are as follows, do not differ from the well-known constructions for causing the feed of the pencil.

In order to enable the threaded sleeve, B, to revolve around the slotted tube, A, after the same has been covered by the outer sleeve, D, in order to advance the pencil, the intermediate piece or thimble, D' , onto which the mouth-piece, E, is screwed, is soldered or otherwise secured to the slotted tube, A, and is provided with a cylindrical flange or apron, d' , which is overlapped with a hexagonal outer sleeve, D, which for other purposes, is interiorly cylindrical instead of hexagonal, at that particular point.

A hexagonal ring, b , is soldered to the

threaded sleeve and is adapted to slide within the outer sleeve, and causes the rotation of the threaded sleeve, when the outer sleeve is rotated. The cap, D^2 , closes the outer sleeve, at its other end, while the slotted tube, A , is secured to the outer sleeve by a flange, a , and a pin or rivet on the outer sleeve so that the outer sleeve cannot be pulled out or removed.

The pencil is advanced or retracted, by grasping the intermediate thimble, D' , or vice versa.

The advantage of my improvement resides in the fact that by virtue of the spring yielding device, connected with the pencil-holder, no danger of breaking the pencil, however frail it may be, is incurred by reason of excessive pressure on the pencil point.

It is manifest, that the device thus shown and described in illustration of my invention, may be modified in many particulars without departing from the spirit of the said invention. Thus, for example, the yielding pressure of the threaded sleeve, may be effected by other means than the helical spring, f , for example, by substituting rubber bands or rubber washers therefor. Or a spring, f , or a rubber stud, may be arranged within the slotted tube, A , under which arrangement the stud or pin, extending from the washer, o , is made somewhat longer, and another stud is driven through the slotted tube. The spring would then be arranged between the two studs.

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

1. In a pencil-holder, a slotted tube for guiding the pencil-holding thimble, in combination with a threaded sleeve, engaging the pencil-holding thimble, adapted to slide on the slotted tube, and means for yieldingly advancing the said threaded sleeve along the said slotted tube, substantially as set forth.

2. In a pencil-holder, a slotted tube and a pencil-holding thimble, guided within the slotted tube and provided with a toe extend-

ing through the slot in the slotted tube, in combination with a threaded sleeve, inclosing the slotted tube and engaging the toe on the thimble, and a spring interposed between the threaded sleeve and a shoulder on the slotted tube, whereby the threaded sleeve and the thimble are yieldingly thrust forward with respect to the slotted tube, substantially as set forth.

3. In a pencil-holder the combination of the following parts: a slotted tube provided with rings as, r and r' , a pencil-holding thimble guided within the slotted tube and having a toe extending through the slot in the slotted tube, a threaded sleeve encircling the slotted tube between the rings, r and r' , and engaging the toe on the thimble, and a helical spring encircling the slotted tube and interposed between the end of the threaded sleeve and the ring, r , substantially as and for the purposes set forth.

4. In a pencil-holder the combination of the following parts: a slotted tube provided with rings as, r and r' , a pencil-holding thimble guided within the slotted tube, and having a toe extending through the slot in the slotted tube, a threaded sleeve encircling the slotted tube between the rings, r and r' , and engaging the toe on the thimble, a washer, as o , encircling the slotted tube arranged at the foot of the threaded sleeve and having a pin engaging the slot in the slotted tube and a helical spring encircling the slotted tube and interposed between the washer, o , and the ring, r , substantially as and for the purposes set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT HAGENMEYER.

Witnesses:

AUGUST B. DRAUTZ,
ALBERT HOFMANN.