R. B. CURRIER.

Pencil-Case.

No. 162,533. Patented April 27, 1875.

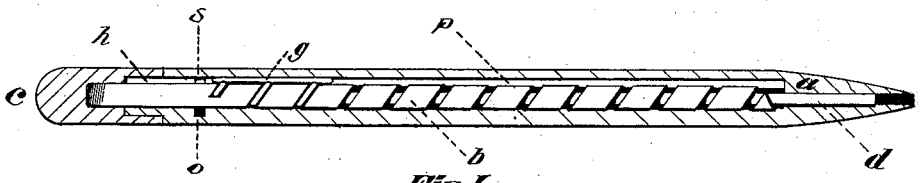

Fig I.

Fig II.

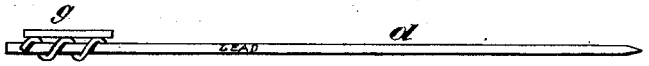

Fig III.

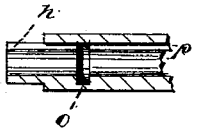

Fig IV.

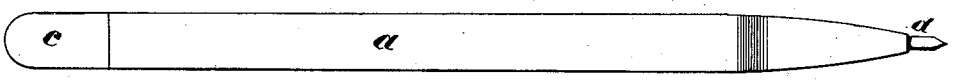

Fig V.

Witnesses:
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E. L. Peck.

Inventor:
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by his Attys,
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THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

RICHARD B. CURRIER, OF NORTHAMPTON, MASSACHUSETTS.

IMPROVEMENT IN PENCIL-CASES.

Specification forming part of Letters Patent No. **162,533**, dated April 27, 1875; application filed January 13, 1875.

To all whom it may concern:

Be it known that I, RICHARD B. CURRIER, of Northampton, Hampshire county, Massachusetts, have invented an Improved Pencil-Case, of which the following is a specification:

The nature of my invention is illustrated in the accompanying drawings, in which—

Figure I is a longitudinal section; Figs. II, III, and IV, detail views; and Fig. V, a complete external view.

My invention consists of the hollow case *a*, in which is inserted and moves the spiral *b* by the rotation of the head *c*, to which it is attached. Within the spiral *b* travels the lead *d*, by means of a follower, *g*, to which it is attached, and which, engaging with the threads of the spiral, and being splined within the case, is, by the rotation of the spiral, caused to move in either direction, to extend or retract the lead. The head *c* fits, in the usual manner, over the end of the case proper, and the spiral *b* has near the head *c* the stud *s* rising from it, which permits the spiral to be inserted by passing through the channel *h* in the case, to the annular groove *o* within the case. The channel *h* and the spline *p* being coincident, it will be seen that when the head is turned until the stud *s* comes opposite the channel, the head can be detached from the case, to take with it the spiral, with its follower and inclosed lead; while the stud, when in any other position in the groove *o* than immediately opposite the mouth of channel *h*, though offering no opposition to the free rotation of the head, keys it to the case. When the follower is retracted to its utmost, I arrange it to stop the rotation of the spiral at a point, *x*, when the stud *s* shall come opposite the channel *h*, so that to withdraw the spiral, the lead has only to be retracted until the head *c* will move no more. The follower I prefer to form, as shown in Fig. III, of a spiral of wire of the same pitch as the spiral *b*, and connected to a bar that moves easily in the spline of the case, as the lead is easily forced into this follower until firmly held, as shown in the above-mentioned figure of the drawing. I do not wish to confine myself to this specific form for a follower, as a rod attached to the lead at one of its ends, within the spiral *b*, and having its other bent at right angles to pass through the spiral and into the spline, would subserve the same purpose. The spiral *b* I form of an elastic material, for which purpose I prefer sheet metal, and its elasticity is made such as to slightly bind the lead within it, so that while there will be no difficulty in moving the lead in either direction, by means of the rotation of the head *c*, there will be friction enough to prevent the spiral from being rotated by any pressure upon the point of the lead in using it. It will be seen that in this device a positive motion can be given to the lead in both directions, and that it is at no time released from its connection with the operating-head *c*.

What I claim is—

1. In a pencil-case, the combination of the spiral *b* and splined follower *g*, the latter formed to grasp the end of the lead, both operating together to retract or extend the lead by the movement of the head *c*, as shown and described.

2. The combination of the stud *s*, stop *x*, channel *h*, and groove *o*, constructed in the manner as and for the purpose set forth.

RICHARD B. CURRIER.

Witnesses:

E. B. MAYNARD,

J. B. VINCENT, Jr.