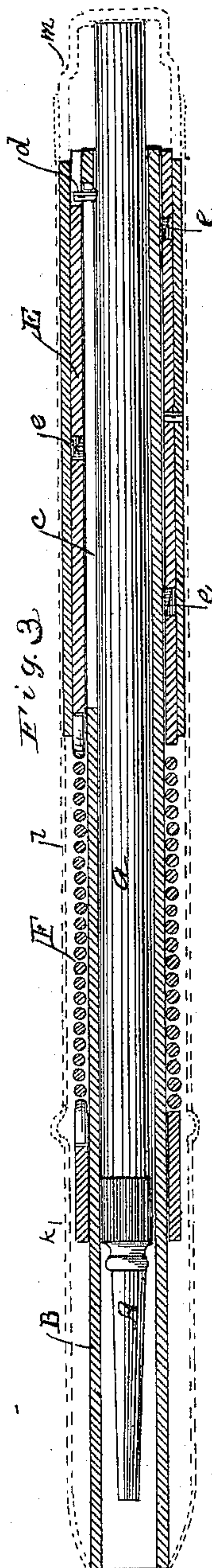
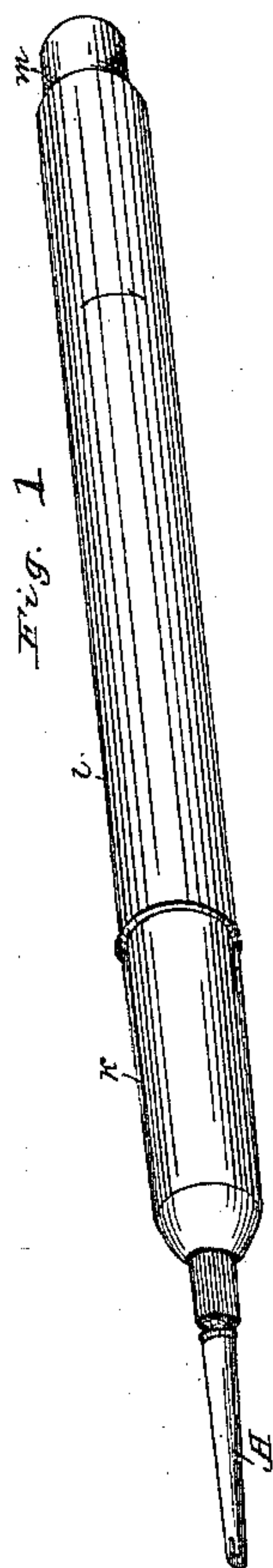
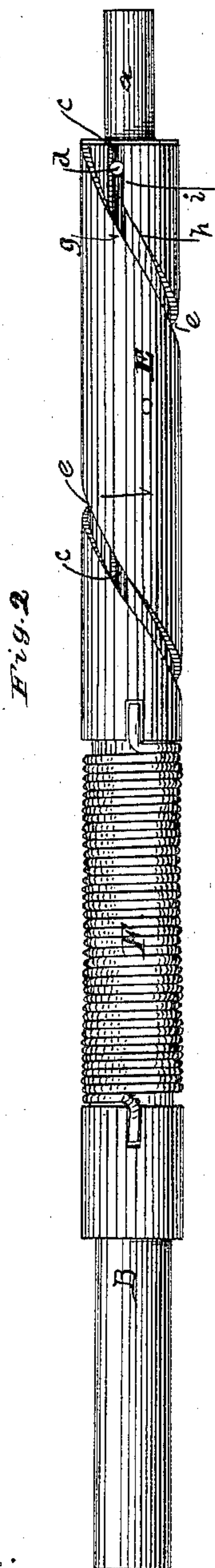


(No Model.)

J. C. HARING
PENCIL CASE.

No. 301,056.

Patented June 24, 1884.



Witnesses:

J. Curtis Turner
B. W. Smith

Inventor:

John C. Haring
By R. D. Smith
his atty

UNITED STATES PATENT OFFICE.

JOHN C. HARING, OF JERSEY CITY, NEW JERSEY.

PENCIL-CASE.

SPECIFICATION forming part of Letters Patent No. 301,056, dated June 24, 1884.

Application filed July 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. HARING, of Jersey City, Hudson county, in the State of New Jersey, have invented a new and useful
5 Improvement in Pencil-Cases; and I do hereby declare that the following is a full and accurate description of the same.

This invention relates to an improvement on the pencil-case for which Letters Patent
10 No. 214,820 were granted to me on the 29th day of April, 1879. In that patent I have described a pencil-case containing a pencil holder or point arranged to have a longitudinal movement of protrusion and retraction,
15 being actuated in the former direction by a coiled spring within the case arranged to expand or contract in a line axial to itself and the case, and actuated in the other direction by the rotation of a cylindrical shell provided
20 with the spiral groove commonly used for that purpose. When the pencil-holding point has been retracted, a small detent arrests the spirally-grooved shell in its rotation, and retains the pencil-holder within the case. When it is
25 desired to protrude the pencil-point the detent is withdrawn, and the coiled spring immediately acts in its axial direction and the pencil is protruded. In the improvement described herein I substitute for the coiled spring
30 a spiral spring acting in a direction transverse to the axis of its coil and of the pencil-case, and instead of attaching said spring to act directly upon the pencil holder or point, I now attach it to the spirally-grooved cylindrical shell, so that the pencil holder or point
35 is caused to protrude by the revolution of said grooved shell when actuated by the expansion of the coil of said spring, and to be retracted by the revolution of said shell in an opposite
40 direction, actuated by the fingers of the user, the spring being then contracted or wound up; and instead of the detent-sleeve described in my said patent, I terminate the spiral groove with a short section of one of its edges cut
45 parallel with the axis of the case, and arrest the traveling stud upon said longitudinal section of the spiral groove. A slight push upon the upper end of the pencil-point moves the traveling stud off its rest into the spiral
50 groove, and the spring then rotates the grooved sleeve and protrudes the pencil-holder.

Having now pointed out the differences between my invention and that which was previously known, I will more particularly describe it, having reference to the accompanying drawings, wherein—

Figure 1 is an exterior view of my pencil-case. Fig. 2 is a similar view of the operative parts, the exterior ornamental shell being
60 removed. Fig. 3 is a longitudinal section of the same.

A is the pencil holder or point, provided with the usual pencil-adjusting mechanism within it. The tube *a* is a continuation of the pencil-
65 holder, and it extends through to the opposite end of the case. The tube *A a* is fitted to slide within the tube B, which is provided near the upper end with a longitudinal slot, *c*, in which the stud *d* (protruding from the
70 tube *a*) slides, and not only limits the longitudinal motion of said tube *A a*, but also prevents any rotation of the same.

Outside the tube B there is at the upper end, covering the slot *c*, a sleeve, E, having a spiral
75 groove, *e*, into which the pin *d* protrudes. The sleeve E is restrained from longitudinal movement, but may revolve. When it is revolved, the pin *d* is caused to move along the slot *c* in one direction or another, according to
80 the direction of the sleeve's rotation. This is a common way of moving the pen-point out of or into its case, the rotation of said sleeve being effected by the fingers of the user. My present invention substitutes for other modes
85 of applying force to effect a rotation of said sleeve a spiral spring, F, one end of which is secured to the non-rotating tube B, and the other end is attached to the rotating tube E, and the coils are disposed in a direction which
90 will cause them in unwinding to so rotate the sleeve E that the pencil A will be protruded. It will be evident, however, that so far as the mechanical effects are concerned the invention
95 would not be changed if the uncoiling spring should cause the pencil-point to withdraw into its case; but the means for releasing said spring would be less simple and direct than I have
100 herein provided, and for that reason only I prefer the organization shown. The arrival of the stud *d* at the forward or inner end of the slot *c* limits the forward movement or protrusion of the pencil-holder A, and at the same time arrests the rotation of the sleeve E. The

arrival of said stud at the other or outer end of said slot in the same way limits the movements of said parts in the opposite directions. The pencil-point is drawn into the case B by a rotation of the sleeve E in the direction of the arrow, and therefore by contact of the pin *d* with the side *g* of the slot *e*, and therefore if at its upper or outer extremity the side *h* of the slot *e* is cut in the direction of the axis, as at *i*, the counter rotation of the sleeve E will cause the pin *d* to engage the surface *i*, and the parts will be arrested and so held until the tube A *a* has been pushed forward far enough to pass again into the groove *e*, and in contact with the oblique surface of *h*. These operative parts are inclosed within an ornamental case in three sections, *k l m*. The section *k* covers the point, and is rigidly secured to the tube B. The section *l* is similarly secured to the sleeve E, so that by holding these sections in the fingers the sleeve E may be rotated. The section M covers the extremity of the tube *a*, and has a longitudinal movement in section *l*, so that pressure by the finger upon said section *m* pushes said tube *a* endwise, and moves the stud *d* off the longitudinal part *i* of the groove *e*. Therefore a forcible rotation of the section *l* and the sleeve E retracts the pencil-holder and winds up the spring F, and the pin *d*, engaging the surface *i*, retains the parts in the position named, and a slight pressure upon the section *m* releases the spring F and sleeve E, and the pencil-holder is immediately protruded.

It will be understood that in describing the sleeve E as capable of rotation, that motion is merely relative to the tube B and A, and that the location of slots *c* and *e* as to each other is merely the usual one, but that they might be differently located without changing the mechanical effects in any way.

Having described my invention, what I claim as new is—

1. A pencil holder or point, A, adapted to move in its case longitudinally for the purpose of protruding or retracting it, a stud, *d*, attached to said pencil holder or point, a sleeve, E, provided with a spiral groove wherein said stud *d* may travel, combined with a spiral spring, F, which acts in a direction transverse to the axis of said pencil, whereby said sleeve may be rotated in one direction by the fingers, and in the opposite direction automatically by said spring and a detent-surface, *i*, substantially as shown, and for the purpose set forth.

2. A pencil-case tube, B, and a pencil-holder, A *a*, fitted to slide therein to protrude or retreat, as set forth, combined with a part having a spiral groove, *e*, a stud, *d*, projecting from said pencil-holder and traveling in said groove, a spiral spring, F, coiled around said pencil-case, and adapted to rotate said case in relation to the part containing the spiral groove *e*, whereby said stud may be caused to traverse said groove, and a detent to hold said pencil-carrier when drawn into the case, adapted to be released by an endwise push of the upper end of the pencil-holder in the direction of the axis of the pencil.

3. The pencil-holder A, fitted to slide within the case B, which is provided with a longitudinal slot, *c*, the sleeve E, provided with the spiral slot *e*, the pin *d*, projecting from said pencil-holder into and through the slots, *c e*, the spiral spring coiled about the case A and adapted to rotate the sleeve E by its recoil, substantially as set forth, the detent *i*, and the inclosing ornamental shell in three parts, *k l m*, substantially as set forth.

JOHN C. HARING.

Witnesses:

WM. J. ROUGET;
C. H. COURT.