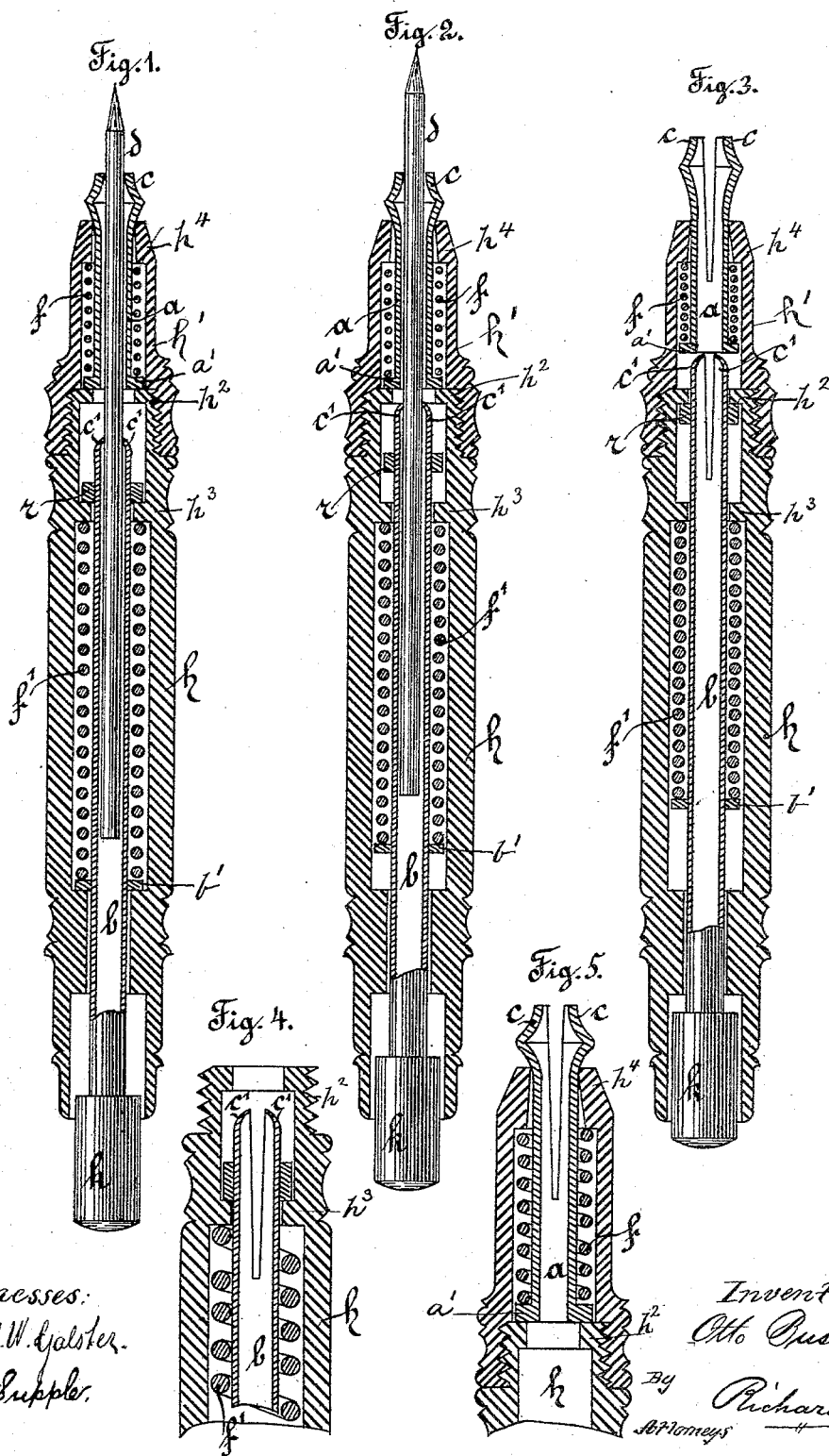


(No Model.)

O. BUSSLER.  
PENCIL HOLDER.

No. 381,612.

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Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## PENCIL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 381,612, dated April 24, 1886.

Application filed February 19, 1886. Serial No. 152,512. (No model.) Patented in England January 7, 1886, No. 275, and in Germany December 20, 1886, No. 37,881.

*To all whom it may concern:*

Be it known that I, OTTO BUSSLER, of Nuremberg, in the German Empire, have invented certain new and useful Improvements in Lead-Pencil Cases, (for which Letters Patent were granted in England in 1886, No. 275, and also in Germany, No. 37,881;) and I hereby declare the following to be a full and clear description thereof.

10 This invention relates to a pencil case or holder of that class in which the lead or pencil proper is held in a concentrically-surrounding case or holder in such a manner as to be fed forward in its said case as its front end is worn off, the forward feeding of the lead in its said case being accomplished by the forward pressure or manipulation of some part of or appendage to the inclosing-case.

15 The specific parts of the said case or holder which form the especial features of this invention are a double holder or a pair of actuating-cases each of which is made to grasp the inclosed lead and is actuated by a special spring so that they may be operated partly together and partly separately, in a peculiar manner (hereinafter fully explained,) which actuates or moves forward the lead, as desired.

20 The invention will be readily understood by reference to the accompanying drawings, of which—

25 Figures 1, 2, and 3 are full-length sectional elevations of the improved lead-pencil case or holder, showing in each of the said figures, respectively, the operative parts thereof in different positions. Figs. 4 and 5 show sectional elevations of the front end portions of the said pencil cases or holders.

30 The outer or inclosing case consists of two parts,  $h$  and  $h'$ , which abut together, end to end, and are secured together by screw-threads. The longer part,  $h$ , of this case constitutes about three-fourths of its whole length, and the other part,  $h'$ , about one-fourth of its length. The forward part of the said case  $h$  carries two inwardly-projecting flanges,  $h^2$  and  $h^3$ , the flange  $h^2$  being located just at the front end of the said case and the flange  $h^3$  a short distance—say an inch or two, more or less—to the rear of said flange  $h^2$ , so as to form between the two said flanges a sort of cylindrical

chamber, in which the ring  $r$  slides forward and backward in the manner and for the purpose presently explained. The forward end of the forward section,  $h'$ , of the outer case also has an inwardly-projecting flange,  $h^4$ , which forms an abutment against which the spiral spring  $f$  is seated and presses. The rear face of the innermost flange,  $h^3$ , also forms an abutment for the actuating spiral spring  $f'$  to press against.

35 There are two inner cases or grips,  $a$  and  $b$ , which are respectively seated concentrically in the outer cases,  $h'$  and  $h$ , and slide longitudinally therein. The front end of each of these sliding cases is slotted, and has its extreme end turned inwardly, so as to form grips or lips  $c$  and  $c'$ , between which the pencil  $d$  is gripped and held longitudinally in position, as below described. The spring  $f$ , having its front end abutted against the front end flange,  $h^4$ , and its rear or inner end against the flange  $a'$ , at the inner end of the sliding case or holder  $a$ , acts thereon to habitually throw the sliding case  $a$  inward in its housing-case  $h'$ , yet permitting it to move forward in the said case  $h'$ , as presently explained. This grip-case  $a$ , when thus thrown inwardly by the spring  $f$ , has its outwardly-flaring front end,  $c$ , pressed against the inner face of the front aperture in  $h$ , thereby causing it to spring inwardly, (its front end being slotted, so as to permit it to do so,) and by this gripping movement of the case  $a$  its extreme front end is pressed inwardly, so as to impinge against the pencil  $d$ , which is thereby held fast at the extreme front end of its holder. The inner or rearward sliding grip-case  $b$  has its slotted front end surrounded by a sliding ring,  $r$ , which said ring when thrown forward on the said slotted front end of the tube  $b$  causes the lips  $c'$  at its extreme front end to press inwardly and impinge tightly upon the lead-pencil  $d$ , so as to hold it firmly at that point; but when the said ring is thrown rearwardly on said tube  $b$  the jaws or lips  $c'$  rest lightly against the periphery of the lead  $d$ , which is then permitted to slide easily forward or backward within the said jaws.

40 The spiral spring  $f'$ , arranged as shown in the drawings, with its front end abutting against the flange  $h^3$  and with its rear end

against the collar *b'*, attached to the case *b*, acts to habitually throw the said grip-case *b* inwardly in its housing-case *h*, and thereby the sliding collar also is drawn back on the outwardly-springing slotted front end of the case *b* until it impinges against the front face of the flange *h<sup>3</sup>*, which causes the said ring to stop, and then the spring *f'*, continuing to act, presses the tube *b* still farther inwardly, the said tube *b* meanwhile sliding within the ring *r*, which is thus relatively moved forward on the said sliding tube and up on its outwardly-springing front end, thereby causing the lips *c'* to impinge tightly upon the sides of the lead *d*, which is thus firmly grasped at a second point. The rear end of the inner tube, *b*, extends back beyond the rear end of the case *h* far enough for a button, *k*, to project sufficiently for the forward movement of the tube *b* for feeding forward the lead *d*, as required.

The operation of the pencil-case thus constructed is as follows: The cases *a* and *b* are thrown forward, as shown in Fig. 3, when a lead is to be inserted, and in this position the jaws *c* and *c'* are relaxed as far as possible and sufficiently so to allow the lead *d* to be inserted longitudinally as far as required, and then, as pressure of the thumb is relaxed from the button *k*, the springs *f* and *f'* press their respective grip-cases *a* and *b* inwardly, and the outwardly-flaring grips *c* and *c'* are pressed inwardly, respectively, by the front end of *h'* and the sliding ring *r* acting as above described. This rearward movement of *a* and *b* continues until the rear end of *a* is stopped against the front end of the flange *h<sup>2</sup>*. The grip-cases *a* and *b* have a longitudinal movement independently of each other for the purpose of feeding forward the lead *d* when it is required so to do. Thus when the button *k* is pressed forward, it first causes the tube *b* to slide forward on the lead *d*, the grip-teeth *c'* slipping on *d* for that purpose, while the tube *a* remains stationary, the spring *f* pushing it back meanwhile, so as to keep the grip *c* tightly closed upon the lead *d*. Then as the forward movement of the tube *b* is continued the front end of *b c* strikes the rear end of *a* and pushes it forward, as shown in Fig. 3, and

during this part of the movement, or during the latter part of it, the grip *c* is loosened from the pencil's sides and the grip-jaws *c'* push the lead forward in said jaws *c*, and thus the lead is fed forward.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lead-pencil holder, the inclosing-case *h h'*, combined with the lead-holding case *a*, auxiliary lead-holding case *b*, button *k*, and springs *f f'*, the whole constructed and operating substantially as set forth.

2. In a pencil holder or case, a front cylindrical pencil-case, *a*, centrally apertured longitudinally for the pencil-lead *d* and provided with an actuating-spring, *f*, and an outside embracing jaw-piece, *h'*, arranged to press the jaws *c*, forming the outer end of the case *a*, upon the said lead *d*, in combination with a similarly-formed inner case, *b*, which is actuated by a spring, *f*, and provided with a sliding clamping-ring, *x*, moving longitudinally in an annular chamber in the handle or case of the pencil and arranged to clamp the inner case, *b*, upon the lead *d* when the said clamping-ring is thrown forward and to release it therefrom when the said clamping-ring is thrown backward, substantially as described and set forth.

3. In a pencil case or holder, the inner sliding tube or lead-grip, *b*, slotted and provided at its front end with inwardly-inclined grip-jaws *c'*, adapted to hold the lead in place when it is otherwise released, in combination with a sliding clamping-ring fitted exteriorly thereon and arranged to move forward and backward on the said tube and within a housing formed for it in the outer case, so as to cause it to press the jaws *c'* upon the lead *d* when it is thrown forward and release them therefrom when it is retracted, substantially as described and set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

OTTO BUSSLER.

Witnesses:

OSCAR MÜHLNER,  
B. ROH.