(No Model.)

O. BUSSLER.

LEAD PENCIL HOLDER.

No. 381,611. Patented Apr. 24, 1888.

Fig. 1.

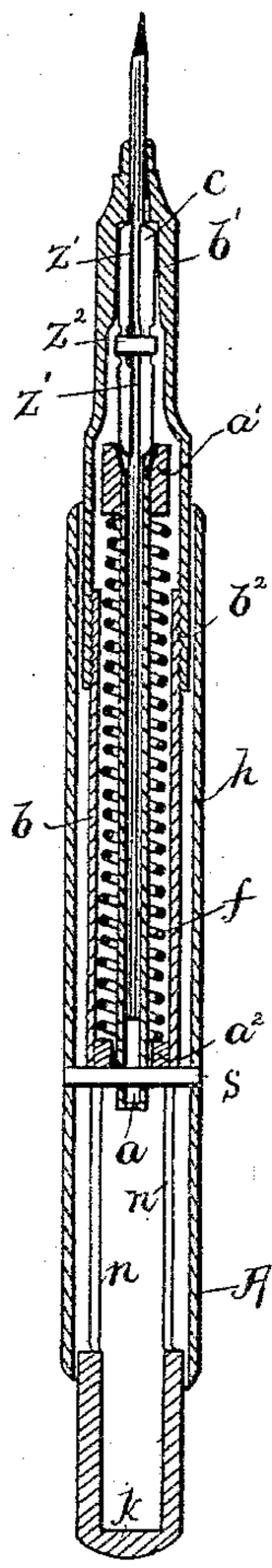


Fig. 4.

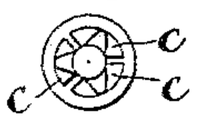


Fig. 3.

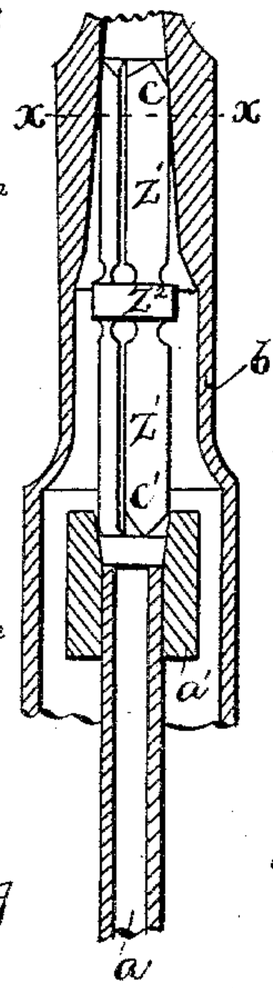


Fig. 2.

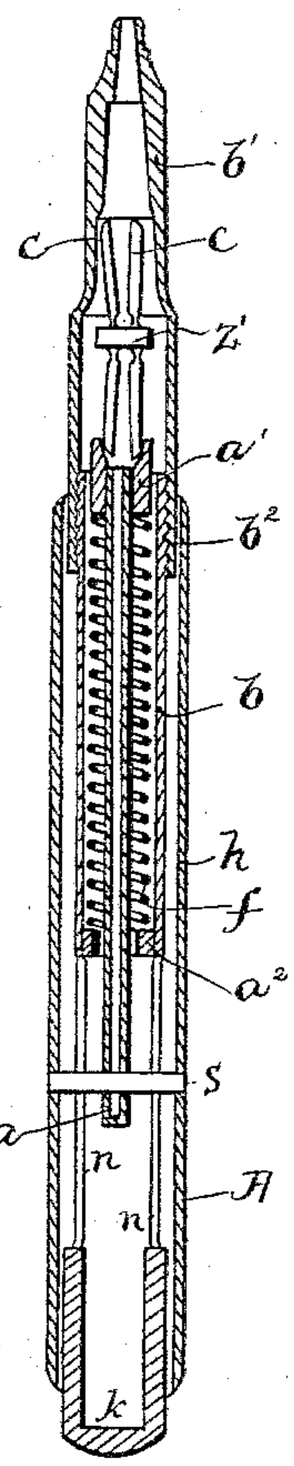
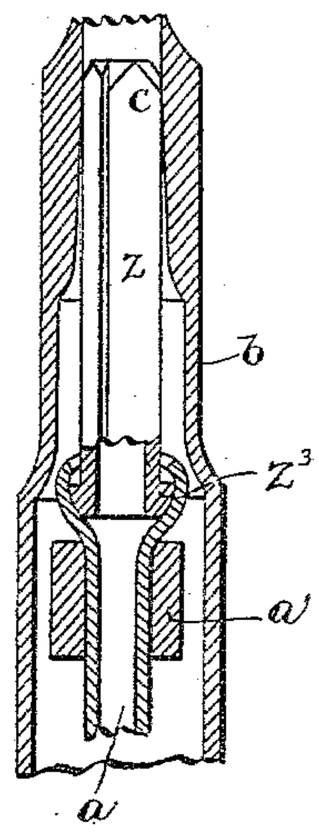


Fig. 5.



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UNITED STATES PATENT OFFICE.

OTTO BUSSLER, OF NUREMBERG, BAVARIA, GERMANY.

LEAD-PENCIL HOLDER.

SPECIFICATION forming part of Letters Patent No. 381,611, dated April 24, 1888.

Application filed January 11, 1886. Serial No. 188,201. (No model.) Patented in England December 18, 1885, No. 15,583.

To all whom it may concern:

Be it known that I, OTTO BUSSLER, of Nuremberg, in the German Empire, have made certain new and useful Improvements in Lead-Pencil Holders, (for which Letters Patent were granted in England in 1885, No. 15,583;) and I hereby declare the following to be a full and clear description thereof.

The nature and object of this invention are fully set forth and described in the subjoined specific specification, and will be readily understood by reference to the accompanying drawings, of which—

Figure 1 is a longitudinal sectional elevation of the improved pencil-holder and its sliding case, in which view the inner or sliding case is shown drawn back to the inner limit of its movement. Fig. 2 is a similar view to Fig. 1, except that the inner or sliding case is shown thrown partly forward in the outer case. Fig. 3 is an enlarged sectional elevation of the front end portion of the inner or sliding case, and also of a part of the pencil-tube. Fig. 4 is a transverse section of the pencil grip or tongs, taken on the line *x x* of Fig. 3. Fig. 5 is an enlarged sectional elevation of a portion of the front end of the inner or sliding tube, showing in connection therewith a modified form of grip or pencil-tongs.

The mechanism of this pencil case is contained in an outer case, A, which is made cylindrical or approximately cylindrical in form and contains concentrically within it the sliding case *b*. Concentrically arranged within this inner case, *b*, is a pencil-lead tube, *a*, which is fixed relatively to the outer case, A, by a transverse bar, *s*, as shown in Figs. 1 and 2, so that while the intermediate tube or case, *b*, is permitted a sliding movement forward and backward the concentric outer case, A, and the lead-tube *a* remain relatively stationary. Slots *n n* in the shell of the intermediate case, *b*, near its rear or inner end, accommodate the passage of the transverse fixing-bar *s*, so as to permit the said case *b* to slide forward and backward, as desired. A coiled spring, *f*, concentrically surrounds the pencil-tube *a* and partially occupies the annular chamber formed between *a* and *b*, as shown in Figs. 1 and 2. The forward end of this spring rests against the annular collar *a'*, fixed to the exterior of the stationary central lead-tube, *a*, and the rear end of it against the annular collar a^2, attached to the inner side of the sliding tube *b* at its inner end, so that the effect of the said spring *f* in its normal condition, thus abutting at its front end to the fixed abutment *a'* and at its rear end to the movable abutment a^2, is to throw the sliding tube *b* inwardly into its housed position, as shown in Fig. 1, but permitting the said sliding tube to be thrown forward or outwardly, as in Fig. 2, by pressing on its rear end, *k*. The intermediate or sliding tube, *b*, has an outer section or prolongation of it, *b'*, secured to its forward end by screw-threads b^2, as shown in Figs. 1 and 2. The extreme front end of this piece *b'* is centrally apertured, just so as to freely admit the lead which is to be used in this holder. The rear or inner end of this said piece is chambered out to such a considerable size as to freely admit the pencil clamps or tongs Z or Z'. These clamps or tongs may be either single-acting, as in Fig. 5, or double-acting, as in Figs. 1, 2, and 3. In either case the said clamps or tongs are formed of several triangular pieces, as shown in Fig. 4. In the case of the double-acting clamps or tongs these sectional parts forming them are united and held together by a central band, Z^2, as shown in Figs. 1 and 2, and in the case of the single-acting clamps or tongs the said sectional parts are united and held together in a base-band, Z^3, which is so seated in a converging socket in the forward end of the pencil-tube *a* as to habitually press the forward ends, *c*, of the tongs-arms together, so as to clamp upon the pencil. In the case of the double-acting tongs the rear or inner ends of their several arms are sloped and fitted to a similar inwardly-converging socket part, so as to habitually press their inner ends, *c'*, tightly together upon the pencil-lead.

The advantage of the double-acting tongs or clamps is that both their ends *c* and *c'* closing shearwise press against the embraced lead, thus forming two points of support, while in the single-acting clamps or tongs only the outer ends, *c*, of said clamps are available as points of support.

In the pencil-lead holder, described as above, the chamber in the forward sliding piece, *b'*,

for the accommodation of the lead-tongs, is considerably longer than the said tongs, so as to allow for the forward and backward movement of the said case *b b'* without contacting with either end of said tongs, so as to interrupt the said sliding movement. The conical chamber in the forward end of the piece *b* is so shaped and conformed to the front end of the said clamp or tongs pieces Z or Z' as to impinge thereon when the case *b b'* is drawn inwardly, as in Fig. 1, and thereby the central lead in *a* is grasped tightly in this position by the several clamp-pieces, the conical or dished cavity in the front end of *a*, above alluded to, assisting in this clamping movement of the parts; but when the sliding case *b b'* is thrown forward, as in Fig. 2, the front ends of the clamp or tongs pieces fall back out of the confining conical chamber in *b'* and release the pencil. Thus it is seen that in the normal position of the parts of this holder—*i. e.*, with the spring *f* holding the sliding case *b b'* housed within the outer case, A, as shown in Fig. 1—the conical chamber in the forward end of *b'* holds the clamps firmly upon the centrally-inclosed lead and in a position for use; but when the sliding case *b b'* is pressed forward by pressing on *k* the said forward ends of the clamps Z or Z' are released from holding the said lead, and it is allowed to slide freely in either direction in its said holder, and by holding the open end of the case up or down the lead will slide in or out, as desired, simply by the action of gravity.

The pointed or V-shaped formation of the grasping ends of the clamp or tongs pieces, above described, and shown in Fig. 4, assists to hold the lead firmly in its said clamps or tongs.

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

1. The outer casing and the fixedly secured lead-containing tube, combined with the sliding tube *b*, provided with a conically-apertured front extension, a clamping device loosely seated in the upper end of the lead-containing tube and capable of a slight longitudinal movement within said front extension of the sliding tube, and an actuating-spring whereby the jaws of the clamping device are normally held closed around the head passing through the lead-containing tube, substantially as set forth.

2. The outer casing, A, lead containing tube *a*, sliding tube *b*, provided with a front projection, *b'*, having a conically-shaped interior, spring *f*, and clamping device Z Z', resting on a conical seat at the top of said lead-containing tube, substantially as set forth.

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

OTTO BUSSLER.

Witnesses:
OSCAR MÜHLNER,
B. ROI.