(No Model.)

G. B. ADAMS.

LEAD OR CRAYON HOLDER.

No. 272,931. Patented Feb. 27, 1883.

Fig. 1

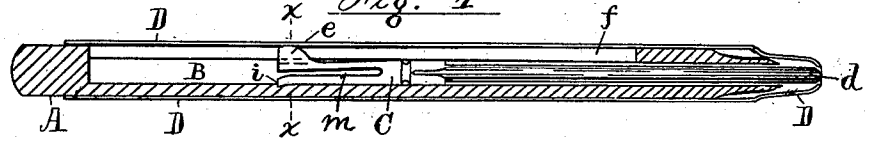


Fig. 2.

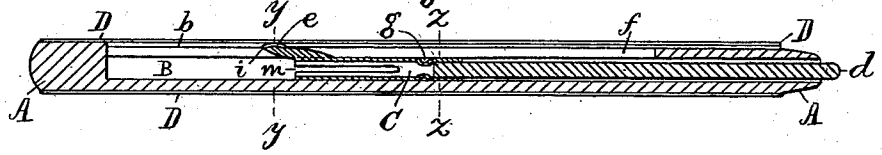


Fig. 3.

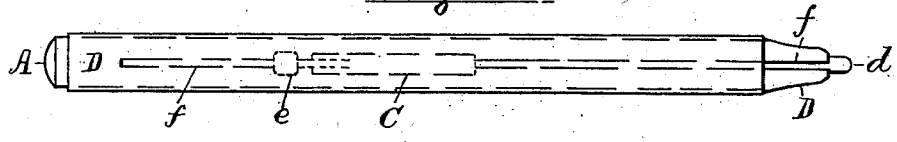


Fig. 4.



Fig. 5.

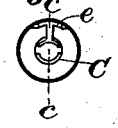


Fig. 6.

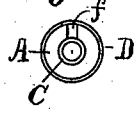


Fig. 7.



Fig. 8.

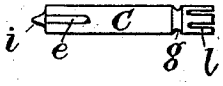


Fig. 9.

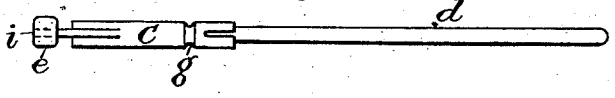
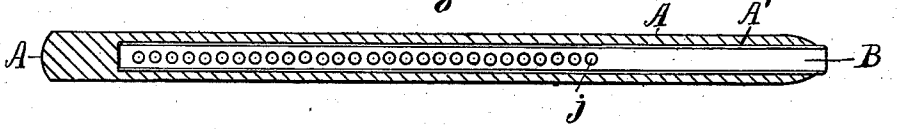


Fig. 10.



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Geo. B. Adams, per
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UNITED STATES PATENT OFFICE.

GEORGE B. ADAMS, OF NEWARK, ASSIGNOR OF ONE-FOURTH TO THOMAS S. CRANE, OF EAST ORANGE, NEW JERSEY.

LEAD OR CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 272,931, dated February 27, 1883.

Application filed November 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. ADAMS, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Lead or Crayon Holders, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention consists in a particular construction of a lead holder or case containing a movable lead-carrier and a sliding cover or sleeve fitted to the exterior of the case.

It also consists in so constructing the sliding sleeve that it operates, independently of its clamping function, as a cover or guard for the point of the lead when the latter is not in use.

The invention will be understood by reference to the annexed drawings, in which three equivalent constructions are shown.

Figure 1 is a longitudinal central section of a holder constructed with my improvement, the section being taken on line *a a* in Fig. 4, and the lead and lead-carrier not being cut by the section plane. Fig. 2 is a similar view of a holder with a modified form of catch, the section being taken at the central line, as at *c c* in Fig. 5. Fig. 3 is an external view of the construction shown in Fig. 2, the view being in the direction of the plane *c c* in Fig. 5. Fig. 4 is a section on line *x x* in Fig. 1. Fig. 5 is a section on line *y y* in Fig. 2. Fig. 6 is a section on line *z z* in Fig. 2, and Fig. 7 is a transverse section of a case lined with a metallic tube, as in Fig. 10. Fig. 8 is a detached top view of the lead-carrier shown in Fig. 1. Fig. 9 is a similar view of the lead and lead-carrier shown in Figs. 2 and 3; and Fig. 10 is a section of the lined case shown in Fig. 7, taken on line *w w* in the latter figure.

A is the case, formed with a bore, B, to admit the lead *d* and carrier C.

D is a sleeve, formed of a tube applied to the exterior of the case, and movable lengthwise thereon. It can also be removed entirely or partially from the case to obtain access to the clamp of the lead-carrier when the latter needs adjusting to compensate for the wear of the lead.

The carrier C consists of a tubular socket for grasping one end of the lead *d*, a clamp, *e*, upon which the sleeve D can act by pressure, and a catch, *i*, adapted to engage the case when pressed against the same by the action of the sleeve upon the clamp.

To obtain a connection between the carrier inside the case A and the sleeve outside of the same, the sleeve is formed with a longitudinal slot, *f*, and the clamp *e* is shaped as a thin lug attached to the lead-carrier and projected through the slot in contact with the inside of the sleeve D. To grasp the lead securely, the nozzle of the tubular carrier is preferably split at several points, as at *l* in Fig. 8, and the bore of the tube is contracted in the rear of the nozzle to limit the entrance of the lead to merely grip or hold thereon. To secure the carrier at any desired point in the case, and thus obtain a proper projection of the lead beyond the point for use, the carrier or the clamping-lug *e* is provided with a projecting or roughened part, *i*, adapted to press into or grasp upon the case A when actuated by the sleeve D. Such a projection, *i*, is shown in Fig. 1 at the rear lower corner of the carrier, the clamping-piece *e* being attached to the rear upper corner of the same, so that the pressure of the sleeve operates to push the projection *i* into the wood forming the bore B. To render the pressure of the sleeve elastic and to compensate for wear in all parts engaged in thus securing the carrier, the latter is shown split in two at its rear end, as at *m* in Figs. 1 and 2, the split extending nearly to the contracted part of the tube, and the divided parts thus being made capable of yielding under the pressure of the sleeve. When the sleeve embraces the case and clamp *e*, as shown in Figs. 1 and 4, the upper and lower parts of the carrier, where split, are pressed toward one another and an elastic pressure exerted upon the bottom of the bore B by the carrier. Except when perfectly smooth, such pressure and its consequent friction might serve to hold the carrier in the desired position; but the provision of the catch *i*, or any equivalent roughening of the bearing parts pressed together by the sleeve, obviates all risk of the carrier's slipping when it wears smooth. When the sleeve

D is entirely slid off the case A, or moved longitudinally far enough to uncover the clamping-piece *e*, the pressure of the carrier against the tube is obviously removed, and it may be shifted forward in the bore B to project the lead or backward to admit a new lead. When thus unclamped the carrier may be moved by grasping the projecting end of the lead at the nozzle of the pencil, or by pushing the piece *e* to or fro in the slot *f*. The latter is shown in Figs. 1 and 2 as extended to neither end of the case A, and the carrier in such case can only be inserted by splitting the case at the front end of the slot and springing it open to admit the piece *e*. If preferred, the slot may be extended all the way to the front end of the case A, as shown in Fig. 3, and the sleeve constructed to cover it completely, as shown in Fig. 1.

The catch *i* is shown in another form in Figs. 2, 5, and 9, the piece *e* being constructed with a flat plate at its outer end, adapted to bear upon the case A along the sides of the slot *f*, where the casing is shown in Figs. 1 and 5 as slightly flattened, or reduced at *b* to admit such plate inside the sleeve D. The rear corner of the plate is bent slightly toward the case, so as to stick or press into it, as at *i* in Fig. 2, when the sleeve is slipped over it, thus securing the carrier from slipping when pressure is applied to the lead, and the split *m* at the rear of the carrier then operates merely to raise the catch *i* from the flattened surface of the case at *b*.

Although in practice I have made the case A of wood, it may be made of any suitable material, or of wood lined with a metallic tube, slotted in agreement with the case at *f*, as shown in the section in Fig. 7. In the latter case the bottom of the metallic lining may be indented or perforated, as shown at *j* in Fig. 10, to engage the catch *i*, formed on the bottom of the carrier, as shown in Fig. 1, thus entirely obviating the risk of any slipping, the catch being readily slid over such depressions *j* to adjust the carrier, when the sleeve is removed from contact with the clamp *e*.

Other means of catching the carrier in the bore of the case A may be devised to co-operate with the sleeve D to the same effect as the catches *i* shown in Figs. 1 and 2, as a wedge pressed between the split parts at the rear end of the carrier by the depression of the piece *e*. In such construction the split *m* would be arranged to coincide with the slot *f*, and the piece *e* would be attached to the carrier at the contracted part, and furnished with a wedge inserted between the divided parts. Such wedge would press the sides of the split carrier against the walls of the bore B, and thus clamp it in position.

The sleeve D is shown in Fig. 1 formed with a nozzle adapted to cover and inclose the entire front end of the case A, including the lead *d*, the case being thereby adapted to protect the point of the lead when not in use. The nozzle of such sleeve is perforated opposite the lead, so that the latter may protrude through it when the sleeve is pushed up, and the nozzle of the sleeve then comes in contact with the front end of the case A, and the whole sleeve is held in such position by the friction induced by the resistance of the clamp *e*. The spring formed of the split end of the carrier is thus operative to hold the sleeve in position, as well as to compensate for wear or irregular fitting of the carrier in the bore B, and to cause an elastic pressure of the catch *i* against the sleeve or bearing-surface in the bore. The sleeve may also serve as a guard for the exposed point of the lead without being shaped to fit the point of the lead or case, and is thus shown in Figs. 2 and 3. In such case the sleeve consists merely of a parallel tube, and is made about half an inch shorter than the case, so that the latter will project that amount from either one end of the sleeve or the other, as the user may desire, the sleeve being held in the hand, and the projecting end of the lead or case being pressed against some solid object to protrude the opposite end when required. The sleeve, constructed as shown in Fig. 1, is operated in a similar manner, the lead in either case being supported against such end-pressure by the operation of the clamp *e* and catch *i*.

From the above description of the sleeve it will be seen that it exercises a double function—first, in its combination with the clamp *e* and yielding catch *i*, and, second, in its combination with the case A and lead *d*, projecting from the nozzle of the case for guarding the latter when not in use. It exercises the first function by pressing the clamp *e* inward and the latter one by sliding longitudinally upon the case A; and as I have shown more than one form for the catch *i*, it is obvious that others might be devised, and that the sleeve may be properly regarded as capable of performing this double function with other catches.

With the constructions thus described it is plain that the lead may be fed forward as it wears by removing the sleeve from its contact with the piece *e*, and that a new lead can be readily inserted in the holder by sliding the carrier to the front end of the case.

I am aware that certain of the elements I have employed in my invention have been used before in other combinations—as the lead-carrier—and the case A formed with slots of various kinds, and I do not therefore claim either of them as my invention; nor do I consider a sliding guard as new, except in the combination I have herein described and claimed, the same having been combined with other elements, as in United States Patent No. 188,721, of March 20, 1877. The sleeve as used in my invention differs, however, from said Patent No. 188,721 in exercising a double function, as set forth above.

Having thus fully set forth my invention, any novel subject-matter I have described and

not claimed or attempted to claim herein I have claimed in other pending applications or have reserved to claim in future applications.

I therefore claim the same as follows:

1. The combination of the case A, having bore B and slot *f*, the lead-carrier C, provided with clamp *e*, and the sleeve D, longitudinally movable upon the case over the clamp *e*, and operated to hold the carrier in the case by pressure upon the clamp, substantially as herein set forth.

2. The combination, with the case A and the lead-carrier having clamp *e*, constructed and operated as described, of the sleeve D, constructed and operated as described, to perform the double function of clamping the lead-carrier by pressure upon the clamp *e* and guarding the lead-point by sliding longitudinally, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEO. B. ADAMS.

Witnesses:
THOS. S. CRANE,
JOHN A. RODRIGO.