(No Model.)

C. W. BOMAN.

LEAD AND CRAYON HOLDER.

No. 321,785. Patented July 7, 1885.

Fig. 1.

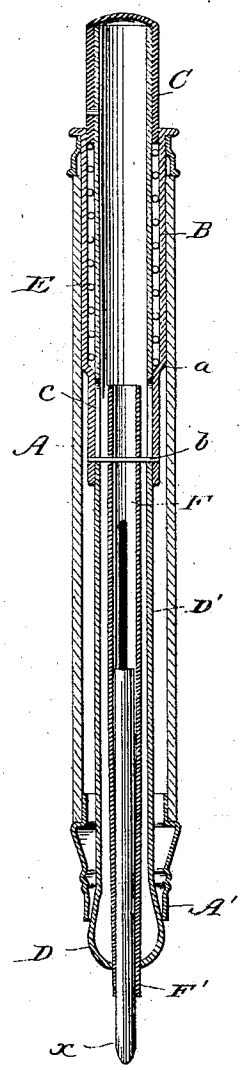
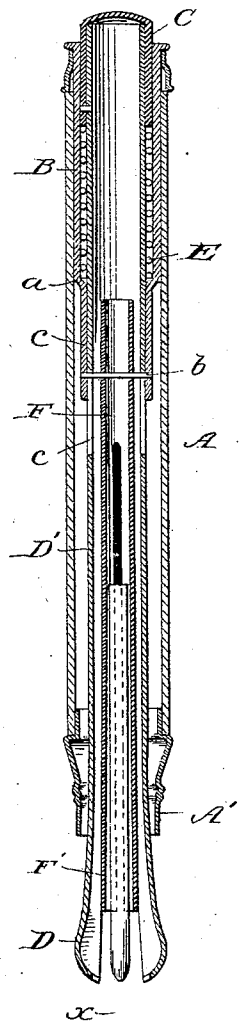


Fig. 2.



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UNITED STATES PATENT OFFICE.

CLAES W. BOMAN, OF NEW YORK, N. Y., ASSIGNOR TO THE EAGLE PENCIL COMPANY, OF SAME PLACE.

LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 321,785, dated July 7, 1885.

Application filed March 17, 1885. (No model.)

To all whom it may concern:

Be it known that I, CLAES W. BOMAN, of the city, county, and State of New York, have invented a certain new and useful Improvement in Lead and Crayon Holders, of which the following is a specification.

My invention is an improvement upon lead and crayon holders of the well-known "Automatic" type—that is to say, lead and crayon holders in which the sheath or handle and lead-containing tube or receiver are combined with longitudinally-movable clamping or grasping jaws, a spring for retracting said jaws, and a pressure-cap for moving the jaws forward against the stress of the spring. In the form of such holder now in the market the grasping-jaws bite or close directly upon the lead. This is disadvantageous, in that the lead is thereby apt to be indented, scored, and even broken. In order to withstand this action of the jaws the lead has been made thicker, or of greater diameter than otherwise would be necessary, and even this expedient has not been effective in the case of the softer kinds of leads, such as ink-leads or copying-leads. To remedy this defect is the object of my invention, which consists in combining with the parts above recited, as making up an automatic holder, a collapsible nozzle from which the lead protrudes, and in arranging the jaws so that they shall close upon the said nozzle instead of upon the lead itself. In this way I can get a broad clamping-bearing of the nozzle upon the lead instead of the sharp-biting action of the jaws; and I accomplish this result with but little change in the structure of the pencil, all that is required being to add the collapsible nozzle, which in practice I form upon the front end of the lead-containing tube or receiver, the latter being stationary and separate from the longitudinally-movable grasping-jaws, instead of carrying and moving lengthwise with said jaws, as in the ordinary automatic.

The nature of my invention and the manner in which it is or may be carried into effect will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal central section of an Automatic lead and crayon holder embodying my invention, with the lead protruding and clamped. Fig. 2 is a like section of the same with the jaws pushed forward and the parts in the position they occupy when the lead is released.

A is the sheath or handle, provided at its rear end with a metal lining or fixed internal sleeve, B, from the rear end of which projects the pressure-cap C. D are the jaws connected by a tubular stem, D′, with the pressure-cap, and E is the retracting-spring, confined between the pressure-cap and an annular shoulder, *a*, in the sleeve B.

The parts thus far described do not materially differ in structure and operation from the like parts in the ordinary Automatic.

The jaws D are spring-acting and normally stand open, and they are, when retracted by their spring E, drawn into the contracted front end, A′, of the sheath, which causes them to close upon and grasp the article placed between them. Within the jaws, and extending lengthwise of the case, is the lead-containing tube or receiver F, terminating at its front end in a split or collapsible nozzle, F′, which projects from the front of the sheath in position to be grasped by the jaws D. The rear end of the lead tube or receiver F is firmly attached to the sheath A or its metal lining B by a cross-pin or rivet, *b*, which passes through longitudinal slots *c* in the stem D′, which slots are of a length to permit the requisite longitudinal movement of the jaws. The lead *x* is contained in the stationary tube F.

When the parts are in normal position and the lead is retracted, the jaws D close tightly upon the collapsible nozzle and shut it against escape of the lead. When, on the other hand, the jaws are pushed forward, as shown in Fig. 2, they expand and release the collapsible or split nozzle F, which, like the jaws, also expands, (being for this purpose made of spring metal,) and the lead consequently is free to move. When it protrudes to the desired extent, pressure is removed from the cap C, the retracting-spring at once returns the jaws to normal position, and in thus moving they are, by the contracted front end, A′, caused to close tightly upon the collapsible nozzle F′. The latter holds the lead firmly and in an extended bearing, and thus while clamping it securely in place exercises no injurious action

upon it. It may be found desirable to slightly sharpen or bend inwardly the front edges of the nozzle, as indicated in the drawings, so that they can take a positive hold on the lead; but in this event the biting action is but slight and practically inappreciable, so far as injurious results are concerned.

It will be noted that my improvement requires little, if any, change in the construction of the Automatic holder.

I have in illustration of my invention represented the lead tube or receiver with its collapsible or split nozzle as attached to the case. But this is not indispensable; it may be attached to the longitudinally-movable stem that carries the grasping-jaws. What is essential is that there should be a collapsible or split nozzle for the lead, and that the jaws which close upon this nozzle should have a longitudinal movement with respect to that part of the sheath by which they are caused to clamp the nozzle.

I do not claim, broadly, a holder in which a collapsible nozzle for the loose lead is combined with a clamp for closing the nozzle upon the lead; but

What I claim, and desire to secure by Letters Patent, is—

The combination, with the sheath and its contracted front end, the longitudinally-movable grasping-jaws, the pressure-cap, and the retracting-spring, of the lead tube or receiver having a collapsible or split nozzle acted upon by said jaws to effect the clamping of the lead, as hereinbefore shown and described.

In testimony whereof I have hereunto set my hand.

CLAES W. BOMAN.

Witnesses:
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