(No Model.)

J. HOFFMAN.

LEAD AND CRAYON HOLDER.

No. 259,759. Patented June 20, 1882.

Fig. 1,

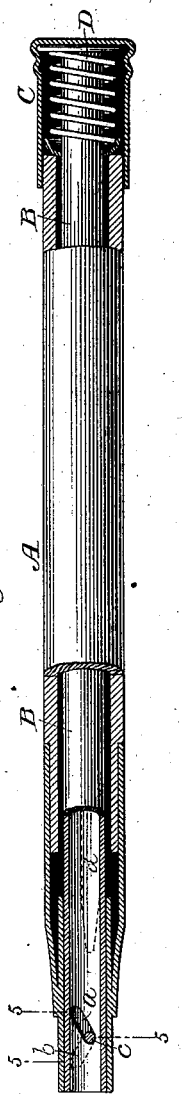


Fig. 5,

Fig. 6,

Fig. 7,

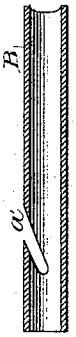


Fig. 2,

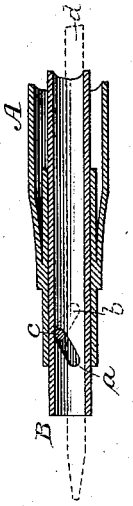


Fig. 3,

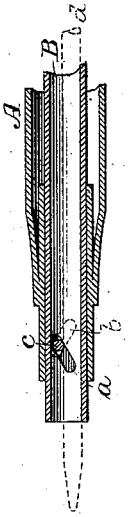
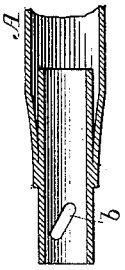


Fig. 4,



WITNESSES

Wm A. Skinkle

Geo W. Breck

By his Attorney

INVENTOR

Joseph Hoffman,

M Bailey

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH HOFFMAN, OF NEW YORK, N. Y., ASSIGNOR TO JOSEPH RECKENDORFER, OF SAME PLACE.

LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 259,759, dated June 20, 1882.

Application filed September 29, 1881. Renewed May 23, 1882. (No model.)

To all whom it may concern:

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

My invention relates to that kind of lead and crayon holder in which there is employed within the sheath or handle, and in connection with the longitudinally-movable lead-containing tube, a lead-grasping jaw or contrivance, whose movement is controlled by the sheath in such manner that the said contrivance, when the tube is moved in one direction, will enter an opening therein far enough to grasp the lead, and when the tube is moved in the opposite direction will be removed from the opening enough to release the lead. A lead and crayon holder of this kind is embraced in Boman's Letters Patent No. 235,122, and also in Boman's application filed in the Patent Office on or about September 27, 1880, and referred to in said Letters Patent.

My invention consists in an improved form of lead-clamp adapted to be used in holders of the kind above referred to. It can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a side sectional elevation of the holder. Figs. 2 and 3 are longitudinal sections, representing the lead-clamping devices in different positions. Fig. 4 is a longitudinal section of the tip portion of the sheath. Fig. 5 is a section on line 5 5, Fig. 1. Fig. 6 is a side elevation of a modification. Fig. 7 is a longitudinal section of the front portion of the lead-tube in this modification.

A is the sheath or handle, terminating at the front in a contracted tip or nozzle, and surmounted at the rear by a pressure-cap, C, connected to the longitudinally-movable lead-containing tube B, and containing the spring D, by which the tube is retracted. The parts thus far described are similar in a general way to "automatic pencils," so called, now in the market, and require no further detailed description, except in the particulars hereinafter noted.

In the lead-tube are formed, near its front end, slots *a*, inclining downward from rear to front, which are designed to answer the same general purpose as the undercut jaw, admitting slots or openings described in Letters Patent No. 235,122, above referred to. In the tip or nozzle are formed like slots, *b*, which have an inclination similar to that of the slots *a*, but in a reverse direction. They are so placed that when the tube B is retracted and in normal position the lower front ends of the inner slots, *a*, will coincide with the lower rear ends of the outer slots, *b*.

Through the two slots passes a cross pin or bar, *c*, which extends loosely through both tip and lead-tube, and has its outer ends headed or otherwise enlarged, so that it may be prevented from slipping out of its position. This pin, which serves as the lead clamp or grasping jaw, lies loosely in the slots, so that it may move therein, and it always occupies the angle of intersection of the two sets of slots *a b*. When the tube B is pushed forward the pin, as will be readily understood, is forced to rise, and when the tube moves back it is forced to descend. Thus the pin, by reason of its connection with both tube and sheath, is forced to move to and from the lead *d* in the tube, so as to clamp or release the same, according to the direction of movement of the tube.

The holder shown in Figs. 1 to 5, and just described, is the preferred embodiment of my improvement, the reversely-inclined slots constituting a ready and effective means for bringing the clamp-pin into its various positions without rendering the pin liable to stick or become jammed. The slots in the tip may, however, be set at a different inclination from that stated. They may, for instance, be vertical or at right angles to the longitudinal axis of the tip, as shown in Fig. 6, in which case they are mere guide-slots, in which the pin is raised and lowered by the inclined slots or undercut opening or openings of the lead-containing tube B. In the modified holder shown in Figs. 6 and 7 an undercut opening or slot, *a'*, is cut in the tube, which is the equivalent of the inclined slots *a* in the figures previously described.

I remark, in conclusion, that I do not claim broadly a holder in which the lead-clamp is composed of a loose cross bar or pin having a slot-connection with the parts by which it is held, so as to move to and from the lead, in accordance with the direction of movement of the lead-containing tube; but

What I do claim as of my invention is—

1. The longitudinally-movable lead-tube

provided with rearwardly-inclined slots or undercut openings *a*, in combination with the sheath provided with the slotted tip or nozzle, and the cross-pin passing loosely through the slots of both tip and tube, as herein shown and described.

2. The longitudinally-movable lead-tube and the sheath, tip, or nozzle provided with reversely-inclined slots *a b*, as described, in combination with the loose cross-pin passing through said slots at their point of intersection, as and for the purposes herein shown and specified.

In testimony whereof I have hereunto set my hand this 27th day of September, 1881.

JOSEPH HOFFMAN.

Witnesses:
D. L. PHILLIPS,
JOE. W. SWAINE.