(No Model.)

M. S. SHIPLEY.

LEAD OR CRAYON HOLDER.

No. 302,786. Patented July 29, 1884.

Fig. 1.

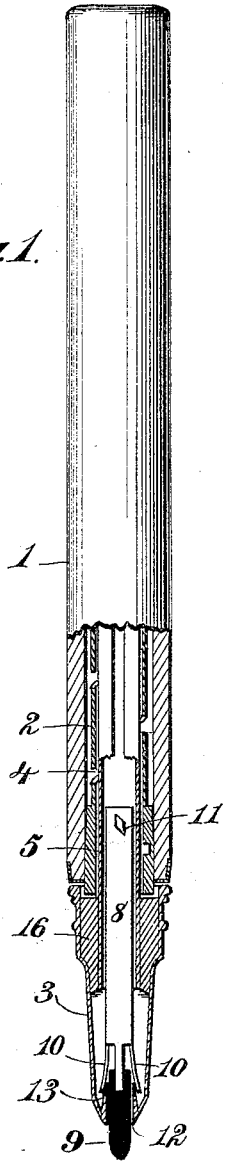


Fig. 2.

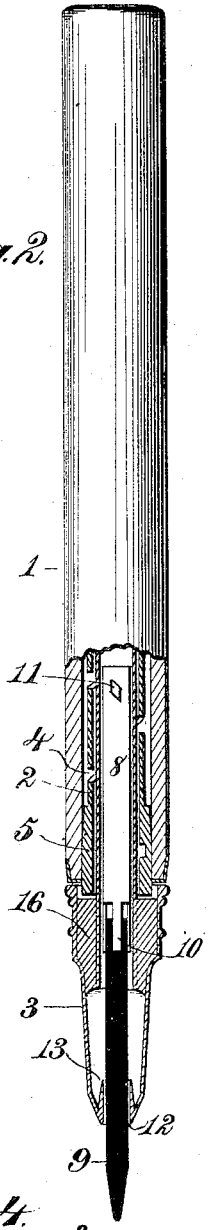


Fig. 3.

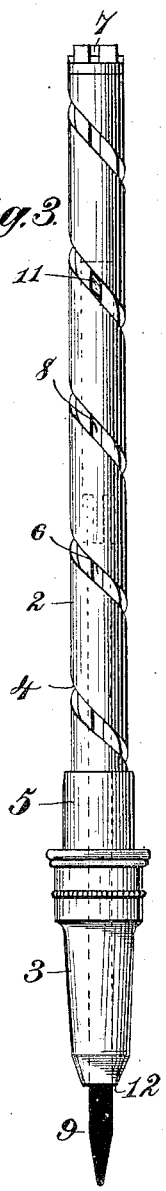
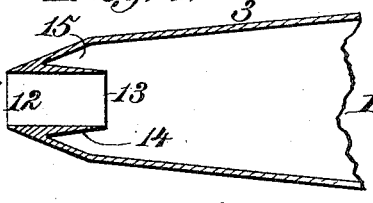


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

MORRIS S. SHIPLEY, OF CINCINNATI, OHIO.

LEAD OR CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 302,786, dated July 29, 1884.

Application filed May 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, MORRIS S. SHIPLEY, a citizen of the United States, residing at Cincinnati, Ohio, have invented new and useful Improvements in Lead and Crayon Holders, of which the following is a specification.

This invention relates to improvements in lead and crayon holders, wherein a longitudinally-movable carrier in the barrel of the pencil is constructed with a spring-grip to grasp and hold the lead and project or retract the latter when the holder is moved outward or inward.

The object of my invention is to provide novel, simple, and effective means whereby the stub of lead is automatically released from the holder at the termination of the outward movement thereof, whereby the stub can be readily ejected from the pencil and a fresh lead inserted. This has heretofore been accomplished by the combination of coiled springs with tubular lead-carriers of peculiar construction, in various ways; but the devices essential for the effective working of the ejectors have been complicated and exceedingly liable to become disarranged, ruptured, and inoperative.

In order to enable others to make and use my invention, I will now proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation showing the position of the parts when the lead or crayon is released from the carrier; Fig. 2, a similar view showing the lead or crayon held by the carrier so that it can be projected or retracted; Fig. 3, a detached elevation of the parts, omitting the barrel; and Fig. 4, a longitudinal sectional view of a part of the point.

Referring to the drawings, the number 1 indicates the pencil-barrel; 2, the interior spirally-slotted tube secured to the barrel, to be rotated therewith in the butt-end of the point 3; and 4, the longitudinally-slotted tube fixed by a collar, 5, at the outer end to the inside of the point, and having the inner end of its slot 6 suitably closed, as at 7. The cylindrical lead-carrier is provided at its forward end with a grip to grasp and hold the butt-end of the lead 9; and, as here shown, the grip is composed of spring-fingers, 10, suitably attached to or formed with the carrier, while the rearward end of the carrier is provided with a guide-stud, 11, preferably diamond shaped, which extends through the slot 6 of the tube 4, and enters the spiral slot in the tube 2, so that when the latter is turned by rotating the barrel the lead-carrier will be moved longitudinally in the tube 4. The point 3 is interiorly provided, adjacent to its mouth or orifice 12, with an inward-projecting annular flange, 13, constituting a tubular extension, the outside of which is tapering, as at 14, the flange being arranged at a distance from the wall of the point to create an intervening annular space, 15, so that when the barrel and its attached spirally-slotted tube are rotated in one direction the carrier will be advanced, and the spring-fingers gliding over the inward tubular extension 13 will be spread apart, thereby releasing the grip on the lead stub, (see Fig. 1,) and permitting it to be ejected by falling out. A reverse rotary movement of the barrel will retract the carrier, permitting a fresh lead to be inserted, and when the grip of the carrier enters the outer end of the longitudinally-slotted tube the latter compresses the grip, causing it to securely hold the lead, so that its point can be projected or retracted, as desired. The forward end of the tube 4 may be extended beyond the collar 16 to a point adjacent to the inner end of the tubular extension 13, and thus the ends of the fingers 10 may spring slightly away from the lead when projected beyond the tube 4, to become directly engaged by the tubular extension and be spread sufficiently to entirely release the lead stub.

The parts comprising the pencil may be of any material suitable for the purpose, but the point 3 is preferably of metal, and the body of the lead-carrier may be a solid cylinder, or tubular, as desired.

The invention is such that the lead stub is positively released at such a point that it can drop out with freedom, and all ejecting-springs, plungers, and similar complicated mechanisms are avoided.

Having thus fully described my invention, what I claim is—

1. A lead or crayon holder consisting of a barrel having a point provided interiorly with

an annular tubular upward extension, and a longitudinally-movable lead or crayon carrier having a laterally-yielding lead-holder adapted to release the lead by engaging said interior tubular extension, substantially as described.

2. The combination of the point having the interior annular upward extension, with the lead or crayon carrier having laterally-yielding spring-fingers at its forward end, substantially as described.

3. The combination of the point having the interior annular upward extension, with the barrel, the spirally-slotted tube, the longitudinally-slotted tube, and the carrier having the guide-stud and the grip-fingers, substantially as described.

4. The combination of the point having the interior annular upward extension tapered on its outside, with the longitudinally-movable carrier having grip-fingers for holding the pencil, and adapted to be released by engaging the tapered outside of the annular extension, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

MORRIS S. SHIPLEY.

Witnesses:

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