(No Model.) 2 Sheets—Sheet 1.

O. A. MOSES.

LEAD OR CRAYON HOLDER.

No. 325,959. Patented Sept. 8, 1885.

Fig. 1.

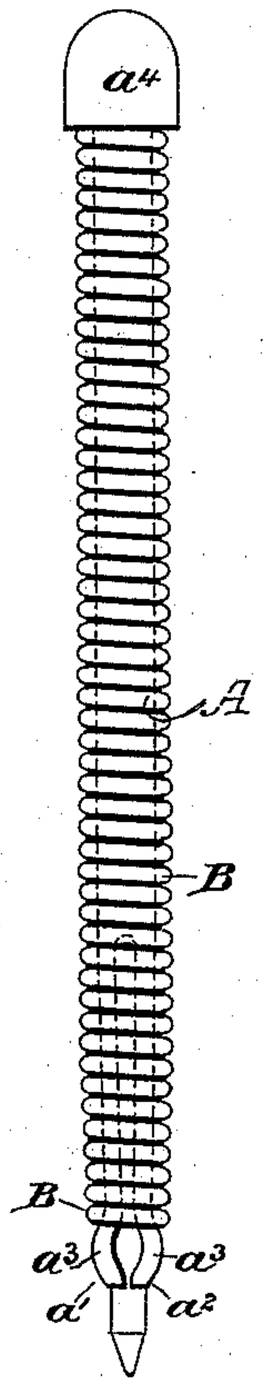

Fig. 2.

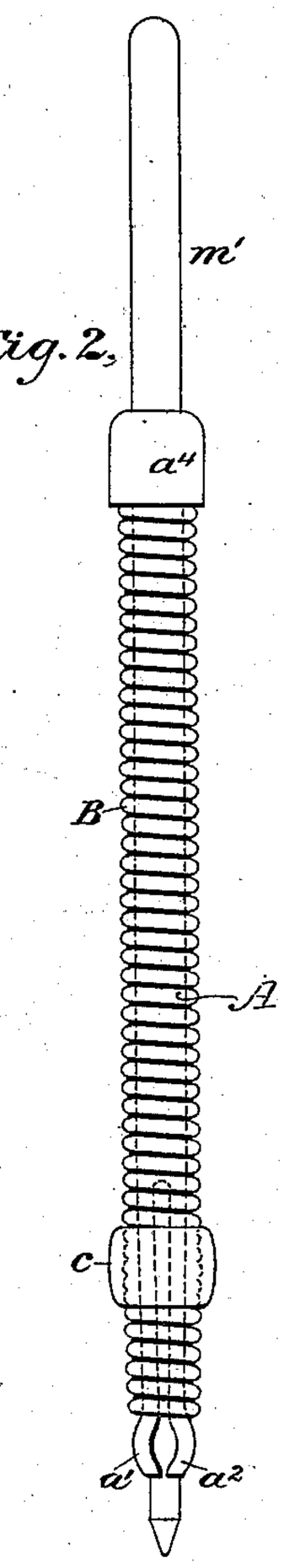

Fig. 3.

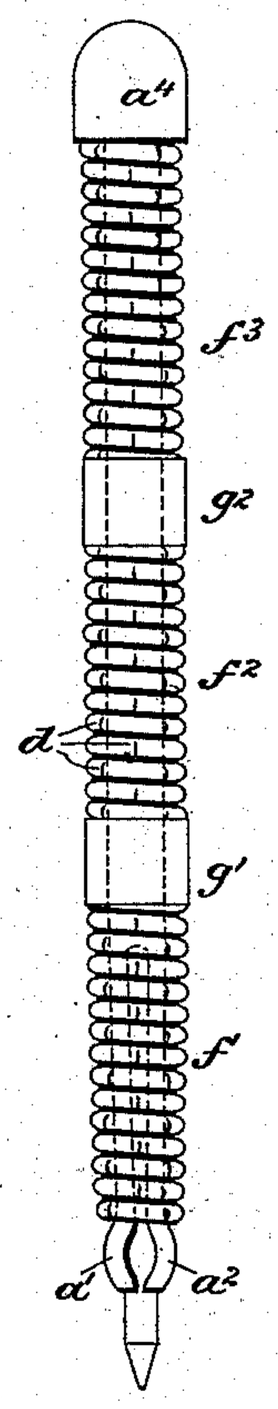

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

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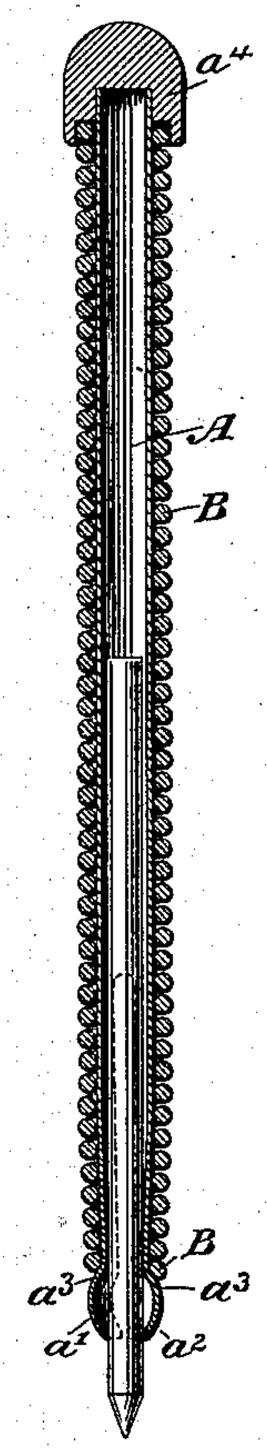
Fig. 5.



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LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 325,959, dated September 8, 1885.

Application filed March 11, 1885. (No model.)

To all whom it may concern:

Be it known that I, OTTO A. MOSES, a citizen of the United States, residing in 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 class of pencil or lead and crayon holders in which a split tube or holder or clamping-jaws are caused to contract or close upon the lead by the longitudinal movement of an external clamping-sleeve; and, more specifically stated, my invention consists in constructing the pencil-holder of practically two parts only—that is to say, a lead-containing tube bearing the clamping-jaws and a spiral spring encircling the lead-containing tube which serves not only to close the jaws, but also does away with the inclosing sleeve or case usually necessary in such structures.

It has long been customary to construct lead and crayon holders with a narrow tube for receiving the lead, and this tube terminates in jaws which tend to spring apart. The jaws are forced together so as to grasp and hold the protruding lead in some instances by means of a shield or thimble screwing upon a surrounding case or handle, and in other instances by means of a handle movable along the tube and normally pressing against the jaws by a spring at or near the upper end of the tube. Numerous modifications have been made in the construction of these holders; but in all those which employ a spring, so far as I am aware, a sheath or holder incloses the tube, and the spring is applied to this, exerting its stress between the tube and the upper portion of the holder.

My invention consists in applying to the lead-inclosing tube a closely-formed coil-spring, which, encircling the same, serves both as a handle and as a means for closing the jaws. There are several different ways in which the springs may be formed and applied; but in each case the construction and adjustment of the parts is such that the spring in its released or extended position engages with enlargements on the jaws, whereby the same are forced together while permitting them to separate and allow the free movement of the lead or crayon when the spring is compressed. The spring, it will be understood, is always under or more or less tension or compression, and it serves thus to bind the jaws tightly against the lead. The coils of the spring form a screw or solenoid which tends to turn slowly between the fingers of the person using it. The slight revolution thus occasioned causes a fresh portion or edge of the lead to be constantly presented to the paper, and in this manner the lead is worn off evenly. Upon compressing the spring to adjust the lead the jaws are released, and, owing to the length of the spring, the force required is slight.

In some instances it is designed to apply one or more small nuts to the coiled spring for the purpose of affording a convenient point or points to grasp in compressing the spring. This nut or nuts may be adjustable by screwing up and down the coil-spring; or may be placed between different sections of the spring.

The spring may be made in sections, if it is so desired.

In the accompanying drawings, Figure 1 is a view showing the complete pencil. Figs. 2 and 3 show modifications in the form of the same. Fig. 4 shows the form of spring employed in the pencil illustrated in Fig. 3. Fig. 5 is a longitudinal section of the pencil shown in Fig. 1.

Referring to the figures, A represents a tube for containing the lead or crayon. This tube terminates in two or more jaws, a' and a^2. Upon the jaws there are formed slight enlargements, a^3, which are designed to hold the spring B in place, and also to receive the pressure exerted by the end of the spring. The upper end of the spring B presses against the enlargement or head a^4, formed at the upper end of the tube A. The lower end of the spring may taper slightly, as shown, and is of such diameter as not to pass over the enlargements upon the jaws. By compressing the spring the jaws are allowed to separate by their own resiliency, and thus permit the lead or crayon to move between them. The convolutions of the spring are close together, so that they form a convenient handle for the pencil.

In Fig. 2 I have shown a modification in which a small nut, *c*, is screwed upon the coil-

spring for the purpose of affording a convenient point to grasp with the fingers to compress the spring. The thread of the nut coincides with the convolutions of the spring. The nut may, however, be rigidly attached to the spring, if desired.

In Fig. 3 a form of spring which has been formed upon a square or polygonal mandrel is shown. The angles *d* of this spring break joints with each other, and the irregular surfaces which they form afford a convenient handle to grasp. Fig. 4 is an end view of the spring, showing its construction. In Fig. 3 the spring is represented as constructed in several sections, $f' f^2 f^3$, and these sections are united with each other by coupling-bands $g' g^2$. This construction will be found useful for certain forms of pencil.

The internal diameter of the spring is preferably but slightly greater than that of the holding-tube, so that there is but little, if any, lateral movement of the spring upon the tube. At the same time there is sufficient yielding quality to the spring to prevent it from tiring the fingers of the person using the pencil.

It may in some instances be desired to construct the pencil to contain a greater length of lead, and also to afford a longer handle. This may be readily accomplished by extending the upper end of the tube, as shown in Fig. 2 in full lines at *m'*.

Several of the advantages incident to this form of pencil have been already enumerated.

I do not limit myself to the details of construction described and shown, since they may be varied extensively and still my invention be embodied.

I claim as my invention—

1. The combination, substantially as hereinbefore set forth, of a lead or crayon holding tube, said tube being provided with jaws for grasping the crayon, and a coil-spring inclosing the same and constituting a handle and serving to compress said jaws through its resilience.

2. A lead or crayon holder consisting of the combination, substantially as hereinbefore set forth, of a lead or crayon holding tube terminating at one end in resilient jaws and having enlargements formed upon or in said jaws, and a coil-spring compressed between said enlargements and the remaining end of said tube, which spring constitutes the handle of the same.

3. The combination, substantially as hereinbefore set forth, of the lead or crayon tube, the coil-spring inclosing the same, and the nut or nuts upon said spring.

4. The combination, substantially as hereinbefore set forth, of a lead or crayon holding tube and a coil-spring inclosing the same, the convolutions of which spring have angles formed in them, substantially as described.

5. A lead or crayon holder consisting of a tube and one or more inclosing springs, and means, substantially such as described, whereby the tension of said spring or springs causes the crayon to be grasped in said tube.

6. The combination, substantially as hereinbefore set forth, of a lead or crayon tube terminating in jaws having enlargements and a spring surrounding said tube and having one end normally in contact with said jaws.

In testimony whereof I have hereunto subscribed my name this 10th day of March, A. D. 1885.

OTTO A. MOSES.

Witnesses:
DANL. W. EDGECOMB,
CHARLES A. TERRY.