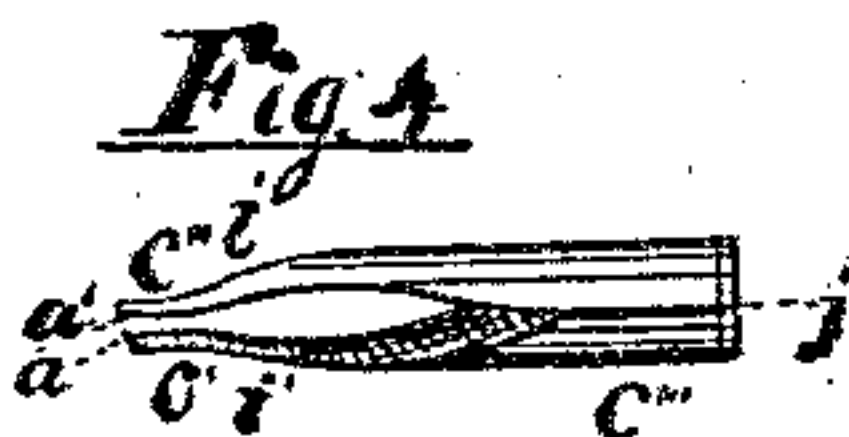
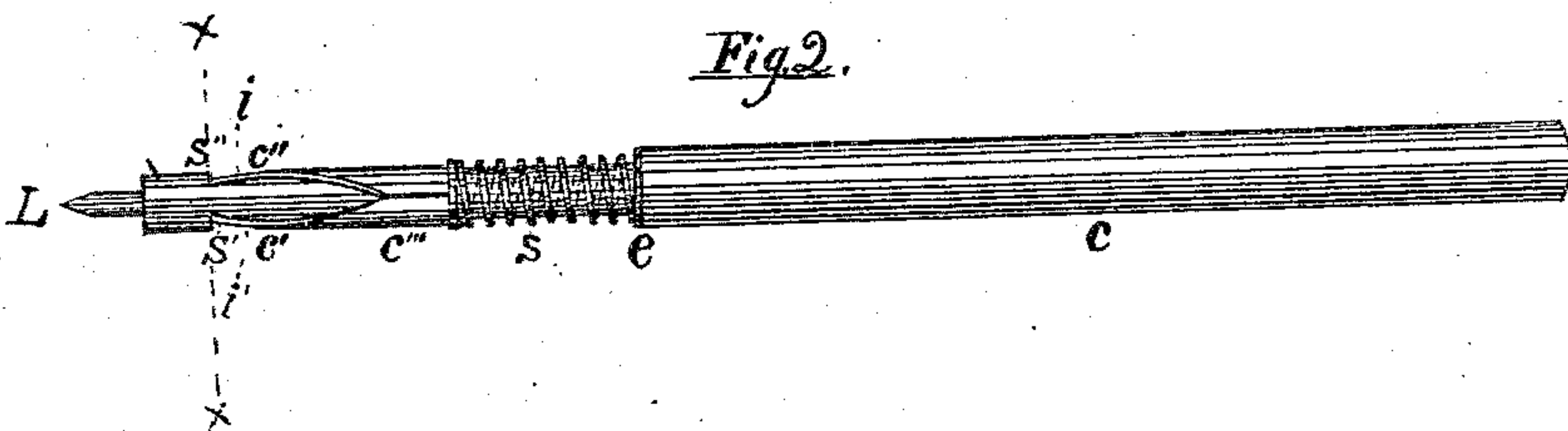
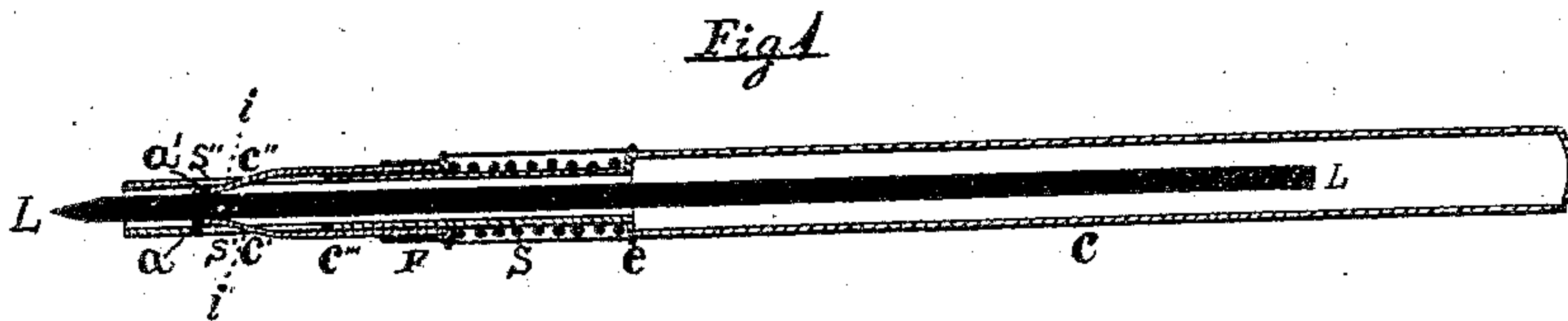


(Model.)

H. C. HUNT.
CRAYON OR LEAD HOLDER.

No. 286,615.

Patented Oct. 16, 1883.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY C. HUNT, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
A. J. HALSEY, OF SAME PLACE.

CRAYON OR LEAD HOLDER.

SPECIFICATION forming part of Letters Patent No. 286,615, dated October 16, 1883.

Application filed January 19, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY C. HUNT, of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Automatic Crayon or Lead Holders for Pencils; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a longitudinal section, Fig. 2 a side view, Fig. 3 an enlarged cross-section taken in the line *x*, Fig. 2, and Fig. 4 a detached view, of the clamping device.

In Fig. 1 *c* is a single tube, which may be drawn in two or more sizes, so as to form a shoulder at *e*; or the said tube or case *c* may be a single straight tube, (sufficiently large to allow the crayon or lead to move freely within it,) and be covered with hard rubber (or anything with which it may be ornamented) as far as to the point *e*, thus forming the shoulder against which the coiled spring *s* abuts. The said spring is made to fit the small part of the tube *c*, with its upper end resting against the shoulder at *e*. This spring *s* is used for the purpose of moving the clasp *c'''* forward when it has been withdrawn for the purpose of letting the lead in or out, and to give elasticity to the point of the pencil or lead while in use, which is accomplished by the clasp resting against the spring *s*, and when the lead has unnecessary pressure brought upon it, or the pencil should be dropped upon its point while in use, the spring yields and allows the clasp *c'''* to give backward enough to save the lead from breakage, and at the same time it retains its hold upon the lead, and is always ready for use. The said clasp may be made of a single piece of steel, (or any suitable material that will insure the necessary grasping energy to hold the lead,) having two or more extensions, with its edges rolled together, as shown in Fig. 4, the body of it being just large enough to embrace the small end of the tube *c* and allow it to move freely thereon, while the extensions *c'* and *c''* are turned inward, thus forming on each a tooth or grip, which is concaved to fit the lead, and has a knife-edge, as shown in Figs. 3 and 4. These points or teeth *a* and *a'* are brought together by forming the inclines *i* and

i', as is also shown in Fig. 4, and while the said clasp *c'''* is outside of the tube *c* the teeth *a* and *a'* are allowed to grasp the lead *L* through slots *s'* and *s''*, as shown in Figs. 1 and 2. These slots *s'* and *s''* are just long enough to allow the clasp to move upward, before opening, the distance that the point of the lead is to project while in use. Here the inclines *i* and *i'* come in contact with the case or tube *c* at the upper end of the slots *s'* and *s''*, which open the clasp, and the lead is thereby released, and is free to move out or in. When the pencil is to be used, the head or upper end is placed in the palm of the right hand and the clasp *c'''* is grasped by the thumb and finger. The lower end of the tube is then placed against the left hand, (or any convenient object,) when the clasp is withdrawn till the lead drops. When the clasp, being released from the grasp of the thumb and finger, is carried forward by the action of the spring *s*, and the extensions of the clasp *c'''* approaching each other by their own action, the teeth *a* and *a'* grasp the lead *L* and carry it forward until the clasp reaches the lower end of the slots *s'* and *s''*, where it is held by the action of the spring *s*, thus always automatically regulating the distance that the lead projects while in use. The clasp *c'''* may be made of two or more pieces, (each having a point to grasp the lead,) and be held together by means of a ferrule, (marked *F*, Fig. 1,) and the said ferrule may extend upward to the shoulder *e*, thus forming an ornament, and covering the spring *s*; or it may only come even with the top of the clasp, thus leaving the spring exposed, as in Fig. 2.

In Fig. 2, which shows the pencil ready for use, *c* is the tube or case; *e*, the shoulder for the spring to abut against. *s* is the spring. *c'''* is the clasp, which holds the crayon or lead by its own grasping energy without the aid of any other clamping device. *c'* and *c''* are the points of the clasp, with their inclines *i* and *i'*, for forcing the points open when the lead is to be let out or in; and *s'* and *s''* are the slots in the lower end of the tube *c*, through which the teeth *a* and *a'*, Fig. 4, are permitted to come in contact with the lead *L*.

In Fig. 3 (which is an enlarged view of a cross-section taken in the line *x*, Fig. 2) *L* is the lead. *a* and *a'* are the teeth, which grasp

the lead. *c* is the end of the lead-receiving tube between the slots. *s'* and *s''* are the slots, through which the teeth on the points of the clasp grasp the lead; and *c'''* is the main body of the clasp, and *F* the ferrule, which covers the spring and holds the clasp together when it is made of more than one piece, as shown in Fig. 1.

In Fig. 4 (which is a detached view of the clasp) *c'''* is the main body of the clasp, showing the joint *j*, where the edges come together when made of a single piece. *c'* and *c''* are the points of the clasp, (of which there may be any desired number.) *i* and *i'* are the inclines, by which they are forced open; and *a* and *a'* are the teeth on the tips of the clasp, which grasp and hold the lead *L*, they being concaved, as shown in Fig. 3, and knife-edged, as shown in Fig. 4, so as to bite into the lead; and the end of the tube *c* below the slots *s* and *s'* may be slightly enlarged, so that the tips of the clasp may be forced within it, and thus steady the point of the lead when the lead plays loosely in the tube.

The advantages of my invention consist in its elastic point, its measuring the protrusion of the lead while in use, and its simplicity of construction, there being but three pieces in Fig. 2; and by ignoring the first two advantages I can dispense with the spring *s* and have but two pieces in the entire holder—viz., the tube *c* and clasp *c'''*—by making the inclines *i* and *i'* sufficiently abrupt to act in place of the springs.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A lead or crayon holder, composed of a single tube or case adapted to contain a lead or crayon, a lead-clamping device or clasp arranged to slide externally upon said tube or case and to automatically clasp, by its own energy, the lead or crayon, and a spring coiled around the outside of said tube and adapted to act in conjunction therewith and with the said clasp to hold the lead or crayon in position when in use, substantially as and for the purposes set forth.

2. In a lead or crayon holder, the combination, with the lead-containing tube thereof,

of a lead-clamping device and mechanism arranged and operating in connection therewith, as described, to automatically measure and limit the quantity of lead or crayon projecting outside the lead-containing tube or case, substantially as and for the purpose set forth.

3. In a lead or crayon holder, the combination, with the lead-containing tube thereof, of a lead-clamping device and a spring arranged and operating in connection therewith, as described, to automatically grasp and project the lead outside the case when in use, substantially as and for the purpose set forth.

4. The combination, in a lead or crayon holder, of a slotted lead-containing tube, a lead-clamping device adapted to grasp the lead and move with the same to and fro longitudinally in said slotted tube without releasing its hold upon the lead, and a spring having a normal tendency to cause said clasp to project the lead outside of said tube and to yield or give back when undue pressure is exerted upon the point of the lead when in use, substantially as and for the purposes set forth.

5. In a lead or crayon holder, the combination of a spring, a tube or case provided with slots, and a clasp having extensions working in said slots, the length of the latter and the extent of the traverse of the clasp therein being arranged to limit and control the quantity of lead to be projected for use, substantially as and for the purposes set forth.

6. In a lead or crayon holder, the combination, with the lead-containing tube and lead grasping and releasing mechanism, of means arranged and operating to automatically limit the extent to which the lead can project or protrude from the case or holder, for the purpose set forth.

7. In a lead or crayon holder, the combination of a lead-clamping device arranged and operating to automatically clamp the lead, and means arranged and operating to automatically limit the extent to which the lead may project therefrom, for the purpose set forth.

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Witnesses:

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