

(No Model.)

C. SNEIDER.
Lead and Crayon Holder.

No. 234,084.

Patented Nov. 2, 1880.

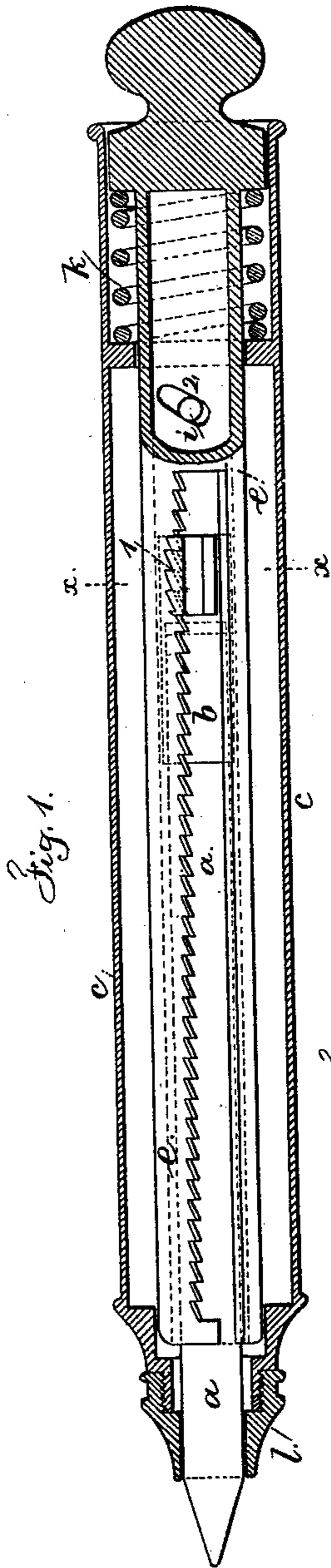


Fig. 1.



Fig. 4.

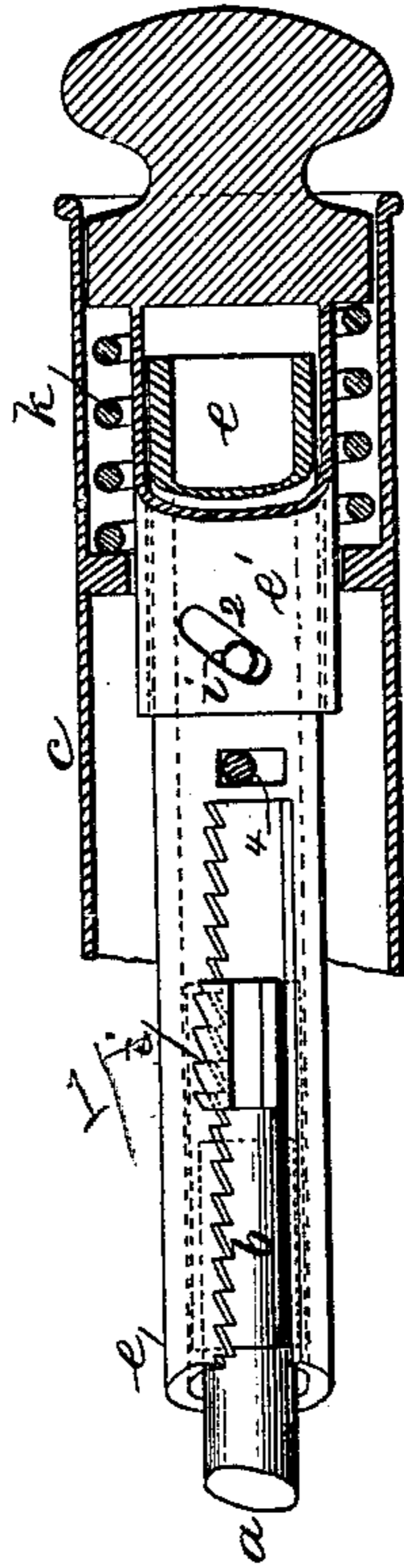


Fig. 3.

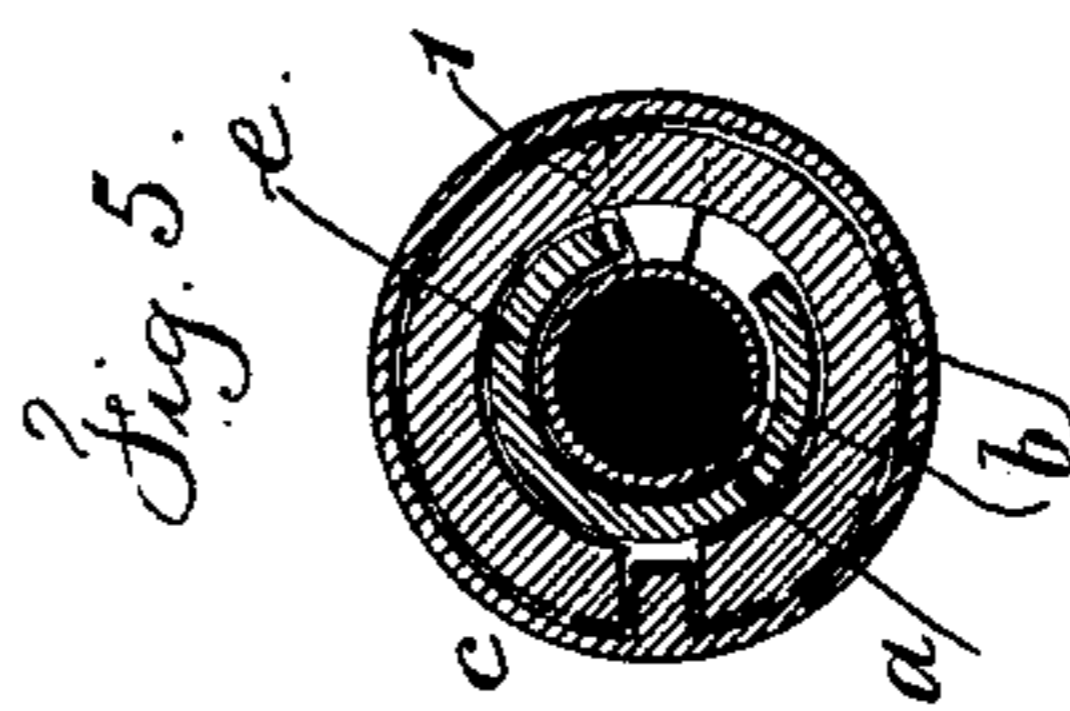


Fig. 5.

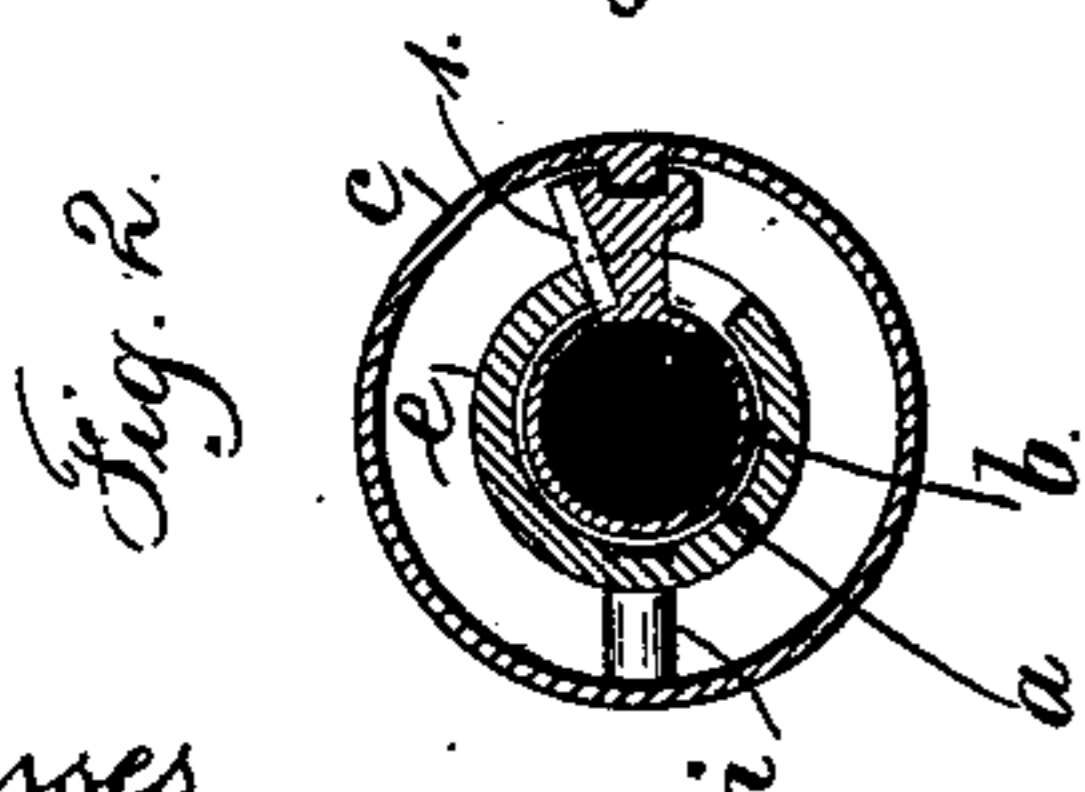


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES SNEIDER, OF NEW YORK, ASSIGNOR TO WILLIAM C. HORN, OF
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LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 234,084, dated November 2, 1880.

Application filed August 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SNEIDER, of the city and State of New York, have invented an Improvement in Lead and Crayon Holders, of which the following is a specification.

Heretofore pencil-holders have been made with a socket, into which the lead is received, and the same is moved endwise within the tubular metal holder by a screw. This is tedious, and does not allow of the pencil being rapidly projected or retracted. The well-known artist's pencil is provided with a clamp that grasps the sides of a lead that is otherwise loose, hence when the clamp is relieved the lead is free to slide endwise, and often falls out and is broken.

In my improvements the objectionable features of the previously-constructed pencil-holders are removed and the useful ones retained.

I prevent the lead falling out by the head thereof, and the head is acted upon by teeth that are upon a slotted tube, to which a partial rotary movement is given to bring the teeth forcibly into contact with the teeth on the head, and thereby hold it and the lead. The reverse movement turns the slotted cylinder away from the teeth, and allows the pencil and its head to move endwise freely. The slotted cylinder is partially turned by the action of a pin in a diagonal slot when an end movement is given to the parts, or the turning movement may be given by a diagonal link between the case and slotted cylinder, or by any similar device.

In the drawings, Figure 1 is a longitudinal section representing my improvement in its most simple form. Fig. 2 is a cross-section at the line *x x*. Fig. 3 is a section of a modification of the means for moving the slotted toothed cylinder. Fig. 4 is an elevation of the pencil-holder, and Fig. 5 is a cross-section, showing a modification of the pencil-holder. These figures are all shown of an enlarged size.

The lead *a* is inserted at one end into the socket *b*, which forms a head to the same to prevent the pencil-lead slipping endwise out of the pencil-holder. The head *b* has a projection at one side, with teeth at 1, and it is free

to slide endwise in the case *c*, but it is guided and prevented from turning by either a feather on the inside of the case *c* entering a groove in the head of the lead, or the reverse.

The case may be of metal, rubber, or other suitable material. If the case is of wood it is preferable to make a groove therein and have a rib upon the head of the pencil-lead. In some instances the head *b* may be connected to a ring that surrounds the tube *c*, and is within the tube *c*, and has a groove for the feather on the inside of the case *c*, as seen in Fig. 5, so as to be guided thereby within the external case; but I prefer to make the head with a lateral projection, as in Figs. 1, 2, 3, and 4.

The tube *e* is slotted lengthwise, and it is of a size to receive the head *b*, and allow it and the pencil to slide lengthwise freely.

The metal along one edge of the slot is notched with teeth corresponding to the teeth upon the head *b*, so that when the cylinder *e* is turned, the teeth thereof interlock with the teeth on the head of the lead-holder and hold the same firmly. When turned in the other direction the teeth are separated and the pencil-lead liberated.

In Fig. 1 I have shown the cylinder *e* with a diagonal slot, 2, near the end thereof, into which enters the pin *i*, that passes through the case *c*, and there is a spring, *k*, resting on an inward flange of the case *c*, that acts against an enlargement of the cylinder *e* to give it end motion, and in so doing the stationary pin *i* in the diagonal slot gives the cylinder *e* a partial rotation, bringing the teeth at the edge of its slot into forcible contact with the teeth on the head *b*, and thereby holding the head and its lead firmly from further movement.

Pressure upon the projecting end of the tube *e* serves to move the same inwardly of the case, and the pin *i*, acting in the diagonal slot, gives to the slotted cylinder a sufficient turning movement to separate the teeth and liberate the pencil-lead and its head.

The point *l* should be removable, to give access to the head of the pencil-lead, to allow of its being taken out for entering a lead into the socket of the head or removing the same therefrom.

When the socket of the head is long enough to slide partially through the point of the case, and thereby give access for introducing or removing the pencil-lead, the point may be stationary instead of being removable from the case.

The pencil-holders shown in Figs. 3 and 5 act in a similar manner to that before described; in Fig. 3, however, the slotted cylinder *e* has no end movement. It is retained in position by a pin, 4, entering a peripheral groove or slot that allows of a partial rotation of the slotted cylinder to connect or disconnect the teeth on the cylinder and the pencil-head. I however introduce a short intermediate cylinder, *e'*, against which the spring *k* acts, and in which is a diagonal slot, 2, receiving a pin, *i*, upon the slotted cylinder *e*, so that when the short cylinder *e'* is moved endwise, it gives to the slotted cylinder *e* the necessary turning movement to liberate the teeth thereof from the head of the pencil-lead.

If this improvement is used with a pencil-case having two ends, then there may be two rings around the case, near the middle, connected by pins passing through slots in the case to the two interior parts to give end mo-

tion to the same, instead of pressing against a projecting end of the case.

I claim as my invention—

1. The combination, with the head for the pencil-lead, of a slotted cylinder having teeth, and a pin acting in a diagonal slot to move the teeth of the slotted cylinder into contact with the head of the pencil-lead, substantially as specified. 30

2. The combination, with the head for the pencil-lead and the slotted cylinder with teeth, of the external case, a spring, and a pin acting in a slot to give a partial rotary movement to the slotted cylinder by pressure at the end of the case, substantially as set forth. 40

3. The combination, in a lead or crayon holder, of a case and a slotted tube within such case, one of which may be partially turned in relation to the other, a sliding head for the lead or crayon, and a row of teeth with which the teeth on the head are brought into contact, substantially as specified. 45

Signed by me this 24th day of August, 1880.
CHAS. SNEIDER.

Witnesses:

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