

(No Model.)

B. G. PLATT.
LEAD AND CRAYON HOLDER.

No. 292,136.

Patented Jan. 15, 1884.

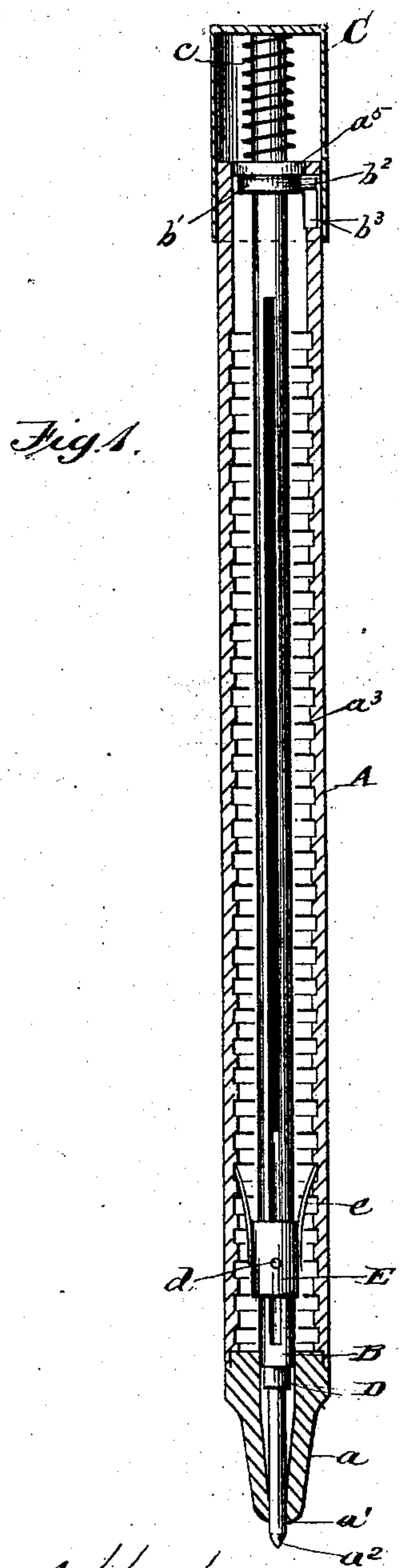


Fig. 3.

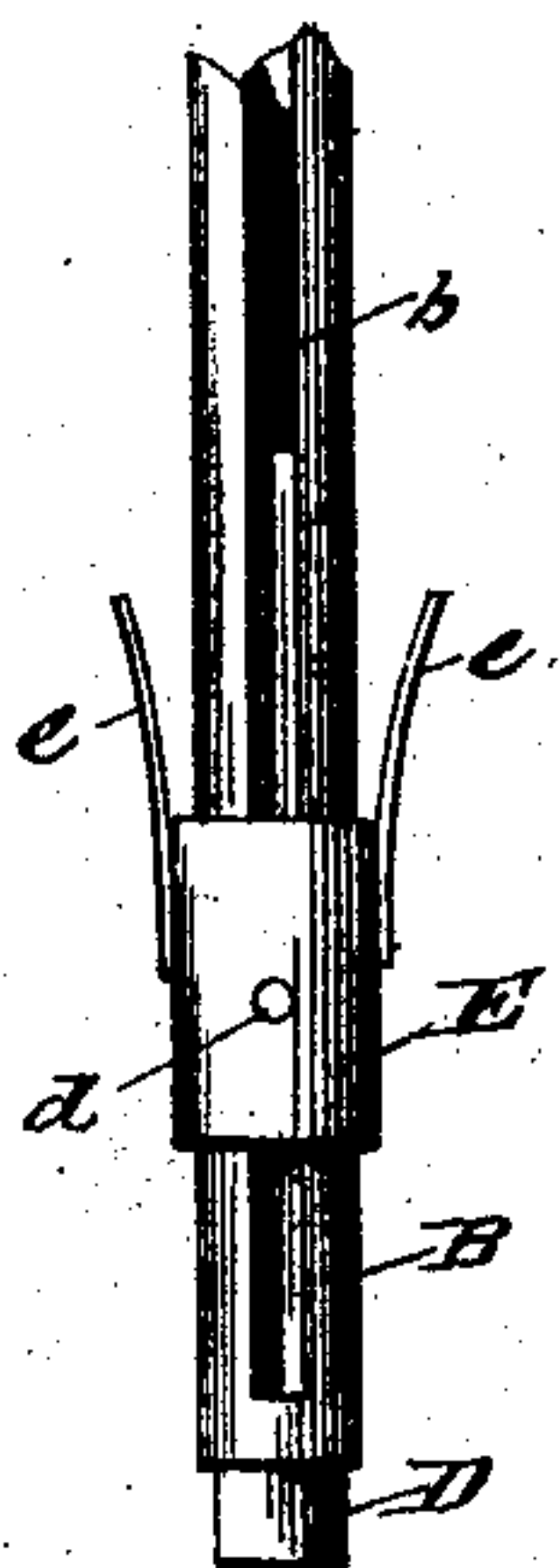


Fig. 4.

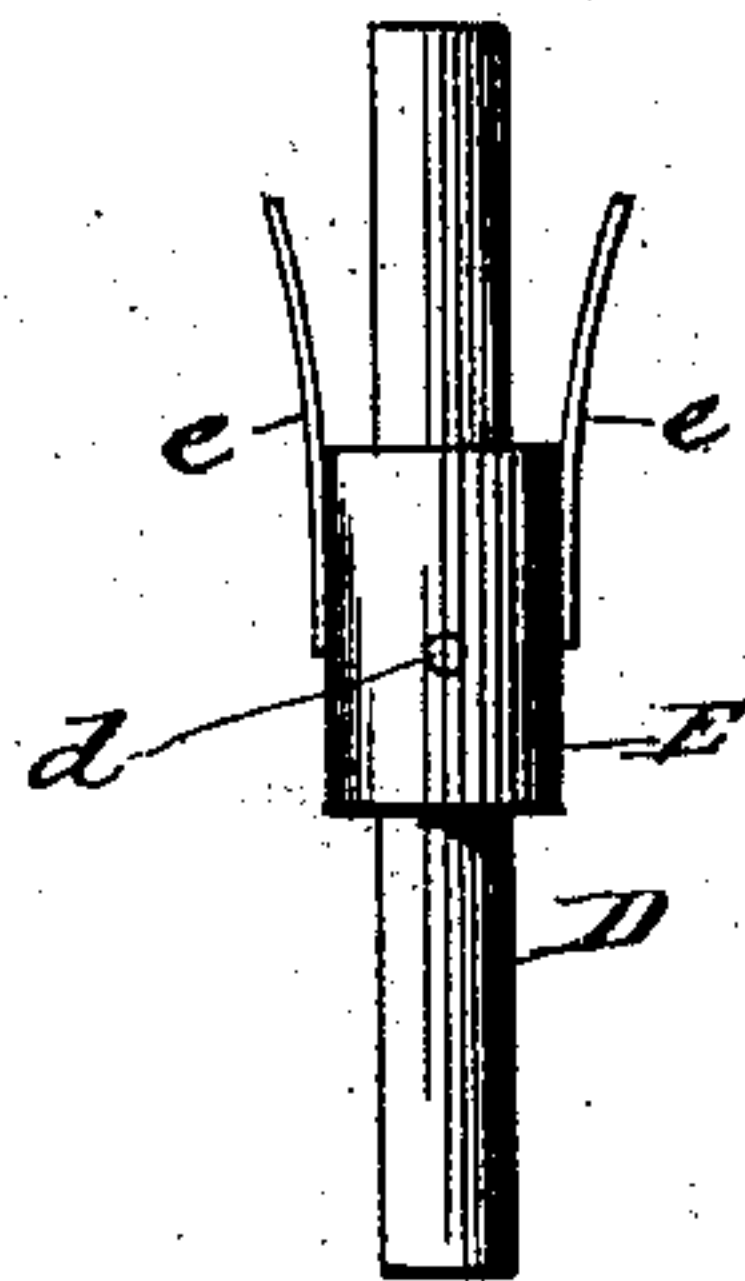


Fig. 2.

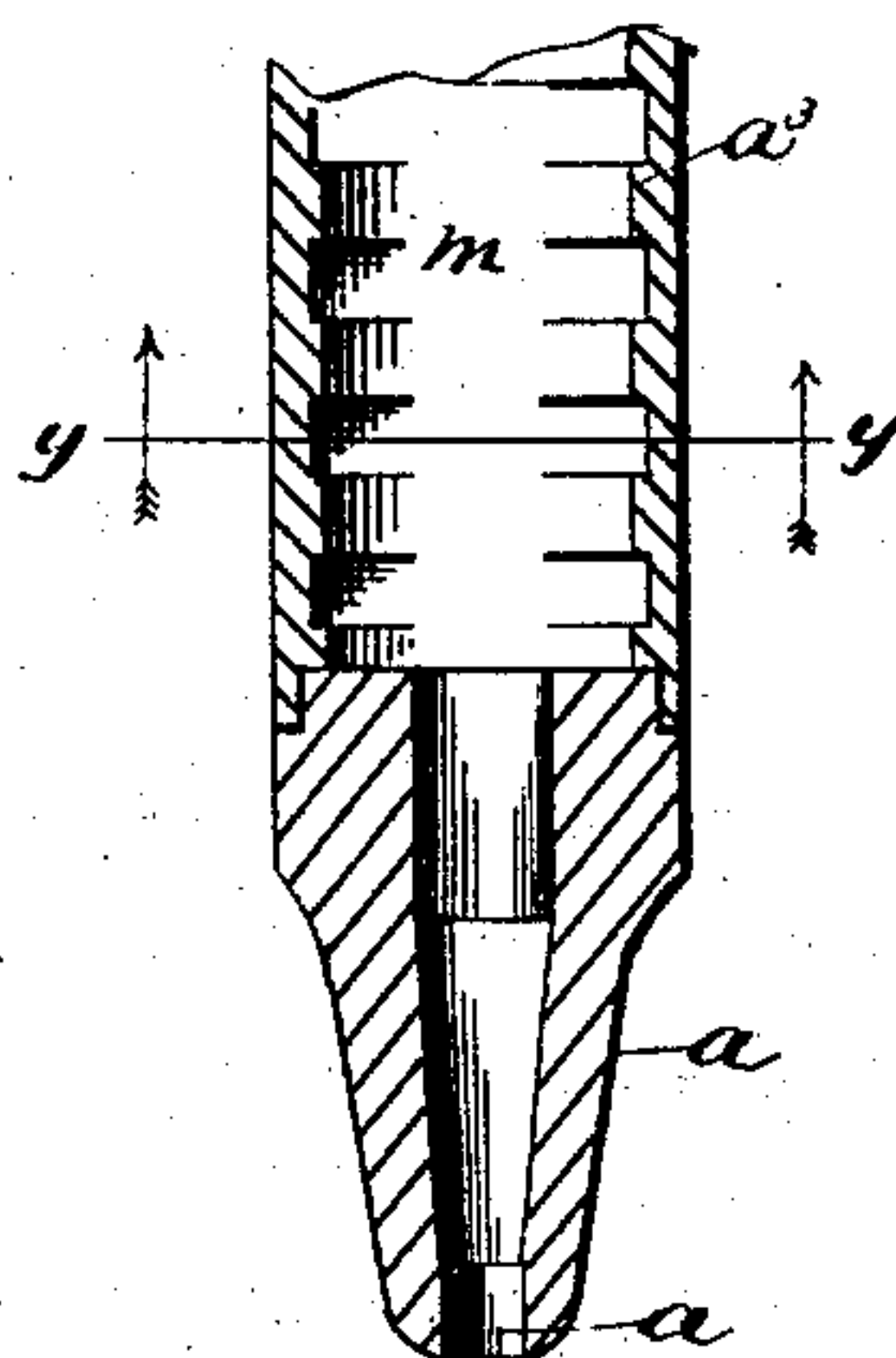


Fig. 5.



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UNITED STATES PATENT OFFICE.

BENJAMIN G. PLATT, OF BAYONNE, NEW JERSEY.

LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 292,136, dated January 15, 1884

Application filed October 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN G. PLATT, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Lead and Crayon Holders, of which the following is a specification.

My invention relates to improvements in propellible lead and crayon holders, in that class known as "automatic;" and it consists in means whereby the writing-core is propelled step by step from the sheath by longitudinal pressure.

It further consists in the means employed to hold and release the writing-core, whereby said core is ejected outwardly through the bore of an end nozzle or ferrule only a predetermined distance.

To the accomplishment of my purpose my invention consists in a plunger, a traveler, suitable springs, and in ratchet-teeth of peculiar formation, and in the construction and combination of the several parts, all as hereinafter described and claimed.

My invention is a modification of the device shown and described in the specification and claims embodied in the application for Letters Patent filed by me on or about May 18, 1883, and my present application is filed as a division of the former case.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts on each figure, Figure 1 represents a longitudinal section of my improved holder. Fig. 2 is an enlarged view of a portion thereof. Fig. 3 is a detached view of the plunger provided with traveler attached thereto. Fig. 4 is a detached view of the spring-pawled traveler. Fig. 5 is a cross-sectional view on the line *y y*.

A represents the outer sheath, common to devices of this character, provided with the usual nozzle or ferrule, *a*, having aperture *a'* for passage of a writing-core, *a''*. Said sheath may have any required outer configuration, but its inner surface must be oval in cross-section, as plainly shown in Fig. 5. Said inner surface is partly smooth, but on opposite sides of said inner surface of said sheath, and from end to end thereof, are a series of ratchet-teeth, *a''*, for a purpose hereinafter set forth.

B represents a plunger, being a tube concentric with and within the sheath A, and extending somewhat beyond the upper end thereof. Said tube is provided with a longitudinal slot, *b*. The plunger B passes freely through a plate, *a''*, attached to the head of the sheath A.

b' represents a collar or washer secured to the tube B.

b'' represents a pin projecting from the collar *b'*, said pin entering a small inverted L-shaped slot, *b'''*.

C represents a cap attached to the top of the plunger B, and sliding freely upon the upper end of the sheath A.

Within the cap C, and surrounding the projecting end of the tube B, is a spiral spring, *c*, said spring operating to keep said tube in its normal upper position.

D represents a short tube or traveler placed within the tube B, and said traveler is connected by means of a pin, *d*, that passes through the slot *b* in the tube B, with an encircling collar, E, which surrounds the tube B. The inner periphery of said collar E relative to the outer periphery of the tube B is such as to admit of said collar being easily passed upward and downward.

Upon opposite sides of the collar E is attached a spring-pawl, *e*, the upper free ends of which spring-pawls take into the ratchets *a''*, the function of said pawls in combination with said ratchets being to admit of the progression of said collar downward when longitudinal pressure is applied step by step as said pawls successively pass from one to the next ratchet; and it will be readily understood, the writing-core being first inserted within the traveler D, that said writing-core will be carried forward step by step and ejected through the nozzle *a*, when by rotary motion the spring-pawls *e* are brought into engagement with the ratchets *a''* upon opposite sides of the inner surface of the sheath. When, however, by partial rotation said pawls are caused to bear against the smooth sides of the inner surface of the sheath A, the traveler, with its attachments and its supply of lead or crayon, can be easily slid upward toward the head of the device, the pin *b''*, engaging in the slot *b'''*, serving as a guide and preventing rotation.

In other words, the operation of my device is as follows: A writing-core is inserted through the aperture in the nozzle *a'* and into the short tube or traveler D within the tube B. The tube is now rotated a quarter-turn, thus bringing the free ends of the spring-pawls against the smooth sides *m* of the sheath A. The lead is now pushed upward, carrying the traveler and its attached spring-pawls. The tube is now partially rotated, bringing the pawls and ratchets into engagement. When desired to propel the pencil forward, longitudinal pressure is applied, and the traveler progresses step by step, and the writing-core will pass out in like manner through the aperture of the end nozzle, *a*.

What I claim is—

1. In a lead and crayon holder, the sheath A, the inner surface of which is oval in cross-section, provided on opposite sides, from end to end, with ratchet-teeth *a'*, and having between said ratchet-teeth an intermediate smooth surface, *m*, in combination with a pro-

pellible traveler, D, provided with a collar, E, having on opposite sides spring-pawls *e*, all arranged as described, whereby said traveler D may be propelled step by step within a suitable case or sheath, substantially as described.

2. In a lead or crayon holder, the combination of the sheath A, provided with nozzle *a*, said sheath provided with a bore, oval in cross-section, and having on opposite sides of said bore ratchet-teeth *a'*, and the concentric tube B, having longitudinal slot *b*, with traveler D, having collar E and side spring-pawls, *e*, and means, substantially as described, whereby a writing-core can be propelled a predetermined distance longitudinally within and without said sheath A and retracted, substantially as described.

BENJAMIN G. PLATT.

Witnesses:

LOUIS Z. KINSTLER,
WM. P. WILLIAMS.

Correction in Letters Patent No. 292,136.

It is hereby certified that Letters Patent No. 292,136, granted January 15, 1884, upon the application of Benjamin G. Platt, of Bayonne, New Jersey, for an improvement in "Lead or Crayon Holders," should have been issued to *James M. Clark*, of Jersey City New Jersey, assignee of the entire interest in said invention; that the correction has been made in the files and records of the case in the Patent Office, and should be read in the patent to make it conform thereto.

Signed, countersigned, and sealed this 22d day of January, A. D. 1884.

[SEAL.]

M. L. JOSLYN.

Acting Secretary of the Interior.

Countersigned:

BENJ. BUTTERWORTH,
Commissioner of Patents.