

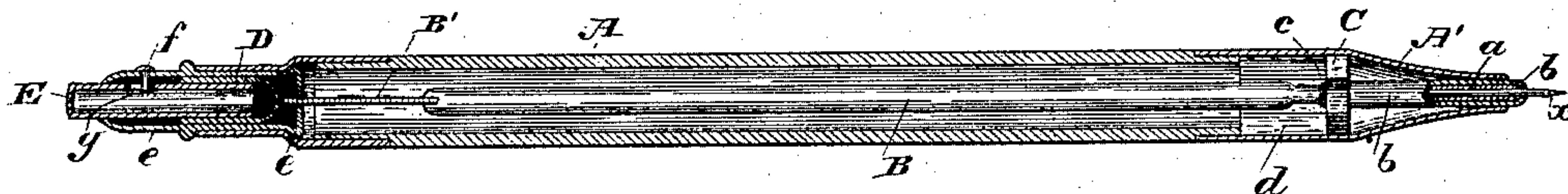
(No Model.)

C. W. BOMAN.  
LEAD AND CRAYON HOLDER.

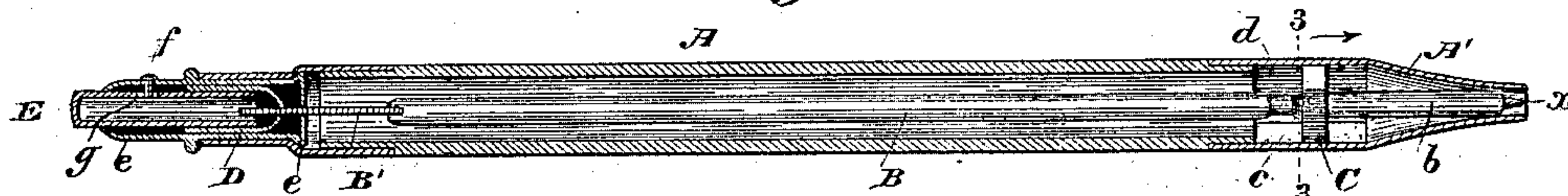
No. 297,060.

Patented Apr. 15, 1884.

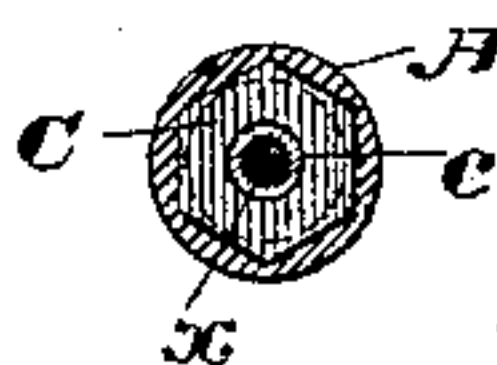
*Fig 1.*



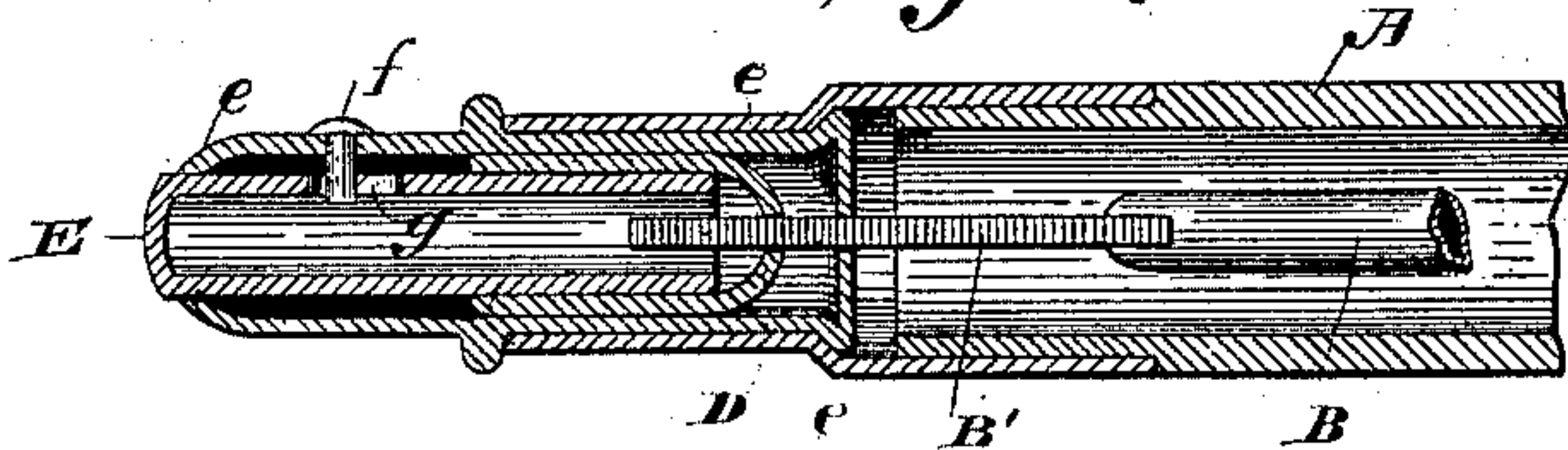
*Fig 2.*



*Fig 3.*



*Fig 4.*



Attest:

Geo. T. Smallwood.  
E. H. Dick

Inventor:

Clas W Boman  
By Manuel Barber  
his atty



# UNITED STATES PATENT OFFICE.

CLAES W. BOMAN, OF NEW YORK, N. Y., ASSIGNOR TO JOSEPH RECKENDORFER, OF SAME PLACE.

## LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 297,060, dated April 15, 1884.

Application filed May 1, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CLAES W. BOMAN, of the city, county, and State of New York, have invented certain new and useful Improvements in Holders for Leads and Crayons and other Objects, of which the following is a specification.

The holder in which my invention is comprised is designed, principally, as a holder for leads and crayons. The instrumentalities which mainly enter into its composition can, however, by modifications obvious to the skilled mechanic, be made to serve as a holder for other objects, such as pens, knife-blades, and a variety of articles.

The invention can best be explained by reference to the accompanying drawings, in which I have represented the same as embodied in a lead and crayon holder.

Figure 1 is a longitudinal central section of the holder with the lead-containing stem in its foremost position. Fig. 2 is a like section of the same with the stem in its retracted or rear-most position. Fig. 3 is a cross-section on line 3 3, Fig. 2. Fig. 4 is a longitudinal central section of the rear portion of the holder, representing the parts in the position which they assume when the pressure-cap is pushed forward.

The holder in a general way embraces features which characterize the device for which Letters Patent No. 273,222 were issued on February 27, 1883, to Joseph Reckendorfer as my assignee. The essential elements which enter into its composition are the case or handle A, the freely longitudinally-movable stem B, the stop C, which limits its forward movement, the spring-closed stem-grasping device D, which serves to hold the stem in both its rear-most position and its foremost position, and the spring-controlled longitudinally-movable pressure-cap E, which, when pushed forward, acts to force the stem-grasping device open and to release from its control the stem. The stem in this instance, being designed to contain a lead, *a*, is tubular. It is provided at the front with jaws *a*, closed by means of a sleeve, *b*, which has a conical or contracted front end, and is screw-threaded, so as to engage a cor-

responding screw-thread, *c*, on the stem B, on which it is mounted, much as a screw compressing-sleeve is mounted on the stem of what is known in the trade as an "artist-pencil." The case or handle A terminates in a tapering tip, A', into the contracted nozzle of which the front end of the stem and its sleeve project when the stem is in its forward position. By turning the sleeve on the stem, jaws *a* can be caused to close or permitted to open, as desired. This rotary movement of the one with respect to the other is made possible in the present instance by means of the stop C, which, for this purpose, is attached to sleeve *b*, and is made polygonal in cross-section, as indicated in Fig. 3, so as to fit snugly, but not so tightly as to prevent its free lengthwise movement in a portion, *d*, of the tip, which has a corresponding shape in cross-section. A shoulder or contracted part of the tip just in advance of the part *d* limits the forward movement of the stop C. The stop can thus move lengthwise in the case or handle A, but is incapable of rotary movement independently thereof. Consequently by rotating the stem, and at the same time holding the handle still, the sleeve *b* can be advanced to release or retracted to close the jaws *a*, according to the direction of rotation. Under the arrangement shown, the stop C and part *d* serve to guide, center, and support the stem in its movement.

In order to provide a means for rotating the stem with respect to the handle, the stem at its rear has the form of a flat tang, B', which projects through a slot of corresponding shape formed in the head of a rotatable sleeve, *e*, which has its bearing in and projects through beyond the rear end of the handle. This sleeve, which is capable of rotary movement only, can be turned by hand, so as to cause the lead-grasping jaws *a* to open or close, as desired.

The spring-closed stem-holding device in the present instance is composed of jaws D, which in the particular instrument here represented are placed within and secured to the sleeve *e* in a position in which they will close on the tang B'. They normally tend to close



together. When the stem is in its rearmost position, they close upon and clasp the tang, as indicated in Fig. 2. When the stem is in its foremost position, they either close upon the tang and enter notches or their equivalent formed therein, so as to prevent its backward movement in case the tang be long enough for this purpose, or, in case the tang be not long enough for this, they close together just behind the end of the tang, and thus prevent any rearward movement of the stem. The latter arrangement is embodied in the instrument shown in the drawings, and is illustrated in Fig. 1.

In order to open the jaws D, and thus permit the free unimpeded movement of the stem either forward or back, I make use of longitudinally-movable pressure-cap E, which may be used to actuate or influence any suitable contrivance for pushing open the spring-closed jaws D, although in the present instance it in itself constitutes the contrivance for this purpose. It is mounted to slide in the sleeve *e*, beyond the rear end of which it projects sufficiently to permit it to be pressed forward by hand the requisite distance; and it is of such length that its front end rests on or in contact with the beveled or inclined inner front portion of the jaws D when the latter are closed on the tang. The pressure-cap can be held in position in the sleeve, and its range of movement therein can be limited by any suitable means known to the skilled mechanic. This result is obtained in the present instance by a pin or stud, *f*, in sleeve *e*, which projects into a slot, *g*, of proper length in the pressure-cap. The pressure-cap should automatically return to its normal position after being released from forward pressure, for which purpose any suitable retracting spring contrivance—such, for instance, as that employed in the “Automatic pencil”—can be used. In the present instance, however, the jaws D furnish all the

retractile spring power required. When the pressure-cap is pushed forward by hand, it forces the spring-closed jaws apart, as shown in Fig. 4, and thus releases the tang and permits the stem to drop forward to the extent permitted by the stop when the holder is held point downward. As soon, however, as hand-pressure is removed from the cap, the jaws D at once close, and in so doing cause the pressure-cap to return to its original position.

Having now described my improvement, what I claim as new and of my invention is—

1. The combination of the handle, the longitudinally-movable freely-sliding stem, the stop, the spring-closed stem-holding device, and the longitudinally-movable spring-controlled pressure-cap operating, when pushed forward, to force open the said device and release the stem, substantially as hereinbefore set forth.

2. The combination of the handle, the longitudinally-movable freely-sliding stem, the stop, the spring-closed stem-holding jaws, and the longitudinally-movable pressure-cap sliding between said jaws, operating, when pushed forward, to force apart said jaws, and actuated by said jaws to return to its original position when released from hand-pressure, substantially as set forth.

3. The handle, the longitudinally-movable freely-sliding lead-holding stem, the rotatable screw compressing-sleeve mounted thereon, and the stop attached to said sleeve and engaging the handle, substantially as described, in combination with the rotatable sleeve *e*, the spring-closed stem-holding jaws, and the pressure-cap, substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 30th day of April, 1883.

CLAES W. BOMAN.

Witnesses:

C. S. BRAISTED,  
JOE W. SWAINE.