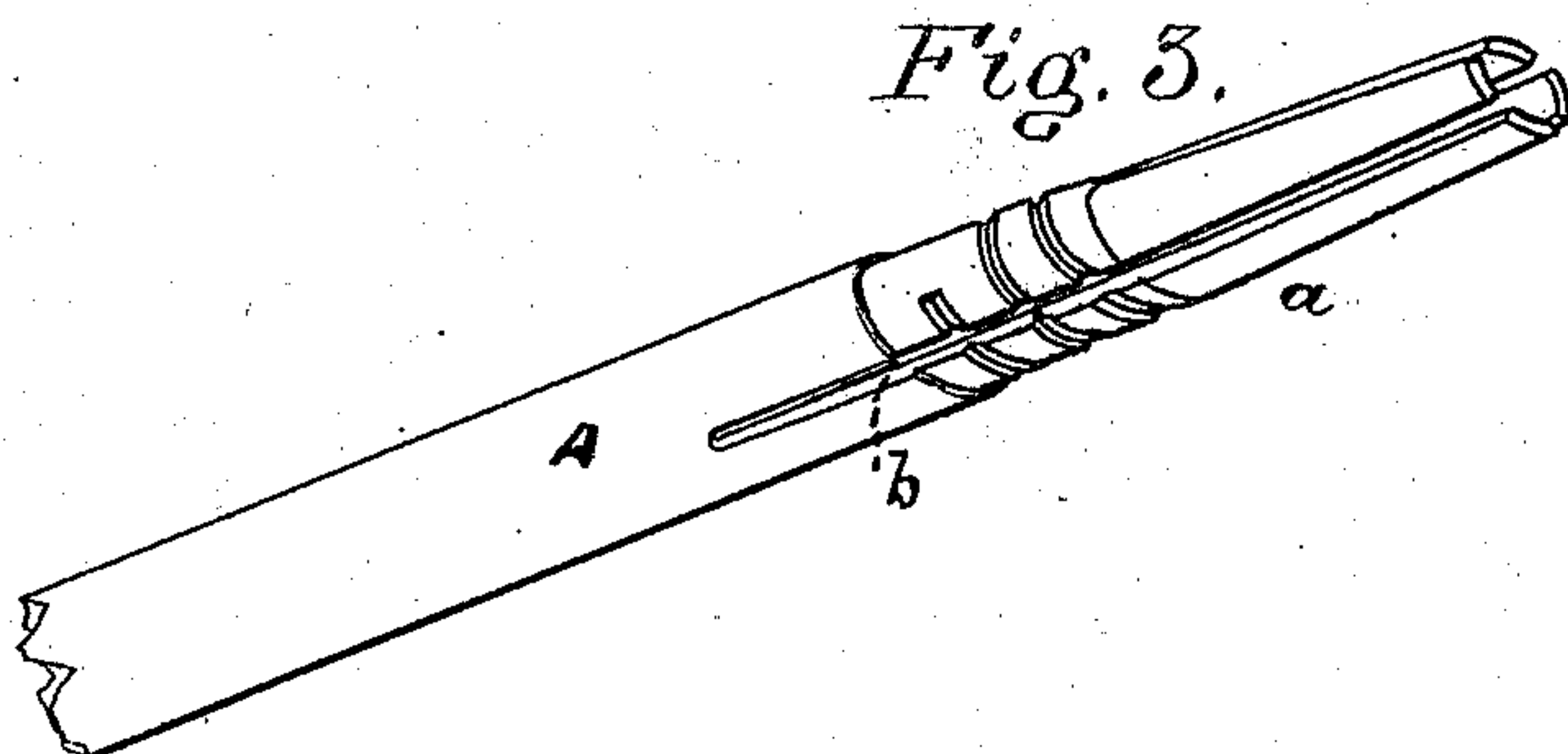
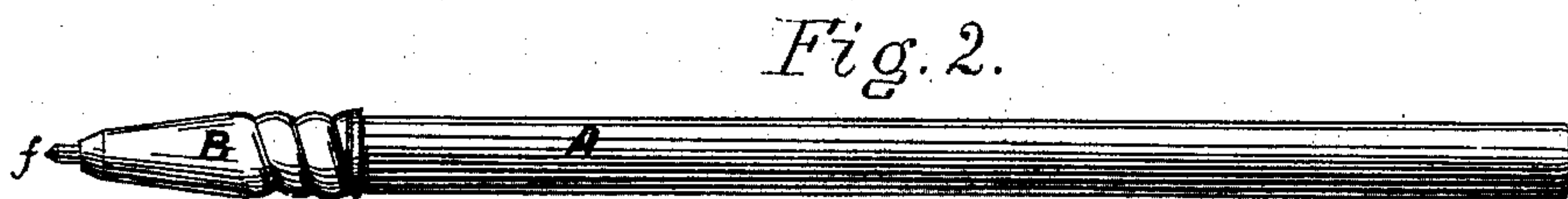


C. W. BOMAN.
Pencil-Holder.

No. 209,449.

Patented Oct. 29, 1878.



Witnesses:
M. Georgio
F. L. Farnham

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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN PENCIL-HOLDERS.

Specification forming part of Letters Patent No. **209,449**, dated October 29, 1878; application filed October 16, 1878.

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 Pencil-Holders, of which the following is a specification:

This invention relates to a pencil-holder of the kind described and shown in Letters Patent No. 114,893, dated May 16, 1871, a holder consisting of a wooden sheath having a conical slit and externally screw-threaded end, combined with a corresponding conical metallic screw-threaded sleeve, which serves to clamp upon the pencil-lead or crayon the jaws into which the end of the sheath is divided by the slits.

Trouble has been experienced in the manufacture of the article in question. The holder will not, in practice, work well, the lead being liable to slip in the jaws. These several parts, in order to be made economically, are made by machinery, and not unfrequently vary and have slight inequalities, which prevent their fitting one another with the needed accuracy. So great has been the trouble on this score, that the manufacture has been to a great extent, if not altogether, discontinued.

My invention is intended to furnish, and, in fact, does furnish, a complete remedy for the difficulties referred to.

It consists, first, in prolonging one or more of the slits, so as to extend into and preferably beyond that part of the sheath upon which the metal clamping-sleeve screws, thus giving the sheath increased capacity to adapt itself to the sleeve, and to take firm hold on the lead or crayon.

It consists, secondly, in combining with the jaws an expanding-spring, which acts against the pressure of the clamping-sleeve, and serves to distend the jaws when the clamping-pressure is removed, thus preventing them from becoming set and losing their resiliency, to which they are liable when confined in one position for any great length of time.

I prefer to use for the purpose a tubular or spiral spring, since this will at the same time constitute a bushing which serves as a guide for the lead inserted in the holder, and permits the lead to play more freely therein than would

be the case were the lead in contact with the wooden internal walls of the holder.

Either of the above-specified features may be employed in a pencil-holder independently of the other; but in my judgment the best results are obtained by their union in one holder.

In the accompanying drawings I have represented the manner in which my invention is or may be carried into effect.

Figure 1 is a vertical central section of a holder embodying my invention in its preferred form. Fig. 2 is an elevation of the same. Fig. 3 is a view of the sheath with the metallic clamping-sleeve removed.

A is a wooden tubular sheath, provided with the usual tapering or conical point *a*, which is externally screw-threaded and slit, as shown, to form jaws, which are designed to grasp the lead or crayon inserted in the holder.

The slits differ from those usually formed in the sheath, in that one or more of them are prolonged to extend back into and preferably beyond that part on which is formed the screw-thread which is engaged by the metallic screw-threaded clamping-sleeve B, the effect being to make this part of the sheath capable of yielding to the compressing action of the sleeve, which may thus be screwed down on the sheath as far as needed to effect the secure clamping of the jaws upon the lead.

For my purposes I prefer to so prolong two of the slits which are diametrically opposite one another, as shown at *b b*, the same being readily formed by making a single cut in the plane of the axis of the holder. Thus not only is the extreme front end of the holder divided into jaws, but the division is continued back through and preferably beyond the part on which is formed the screw-thread that engages the clamping-sleeve, and the sheath thus obtains a capacity for yielding to the clamping-pressure which it has not heretofore possessed.

The drawing also represents the preferred way of combining an expanding-spring with the jaws of the holder.

Within the bore of the sheath, near its point, is inserted a spiral spring, *c*, the bore being there preferably enlarged a little to form a recess to receive the spring, with a shoulder, *d*,

at the rear to prevent the spring from being pushed farther down in the bore beyond the jaws on which it is to act. This spring is inserted when the jaws are unclamped, and is of a size to fit the bore at that time snugly, bearing outwardly against the jaws.

When the clamping-sleeve is screwed on, the spring yields to its pressure; but whenever that pressure is removed the spring by its reaction presses outwardly the jaws to their normal position, thus supplying the elasticity and resiliency which the wood may lack.

The spiral spring also constitutes a bushing, which serves as a guide for the lead *f*, and furnishes a metal surface of contact for the lead, which allows the latter to be moved back and forth in the holder with greater facility than if it were guided by wooden surfaces, which are often rough and uneven.

The sheath may be made of other material than wood—as, for instance, paper or papier-maché; but I prefer wood.

Having described my invention, I state my claim as follows:

1. A pencil-holder consisting of a sheath formed with a conical slit end and an external screw-thread back of said conical end, one or more of the slits being continued back through and preferably beyond said screw-threaded part, in combination with a metallic clamping-

sleeve formed with a conical end to fit and compress the conical slit end of the sheath, and with a screw-thread to engage the screw upon the screw-threaded part of the sheath, as and for the purposes set forth.

2. A pencil-holder provided with lead or crayon clamping jaws, in combination with an expanding-spring, substantially as set forth.

3. The combination, substantially as hereinbefore set forth, of the sheath and its jaws, the clamping-sleeve, and an expanding-spring, which acts on the jaws against the pressure of the clamping-sleeve.

4. The combination, with the sheath, of a tubular expanding-spring guide, substantially as and for the purposes set forth.

5. The combination of the clamping-sleeve, the sheath provided with a conical or tapering slit and screw-threaded end, with one or more of said slits prolonged, as described, and the expanding-spring, these elements being for operation substantially as hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 14th day of October, 1878.

CLAES W. BOMAN.

Witnesses:

C. S. BRAISTED,
JOE W. SWAINE.