

(No Model.)

J. HOFFMAN.

PENCIL.

No. 270,567.

Patented Jan. 9, 1883.

Fig 1

Fig. 2.

Fig. 3.

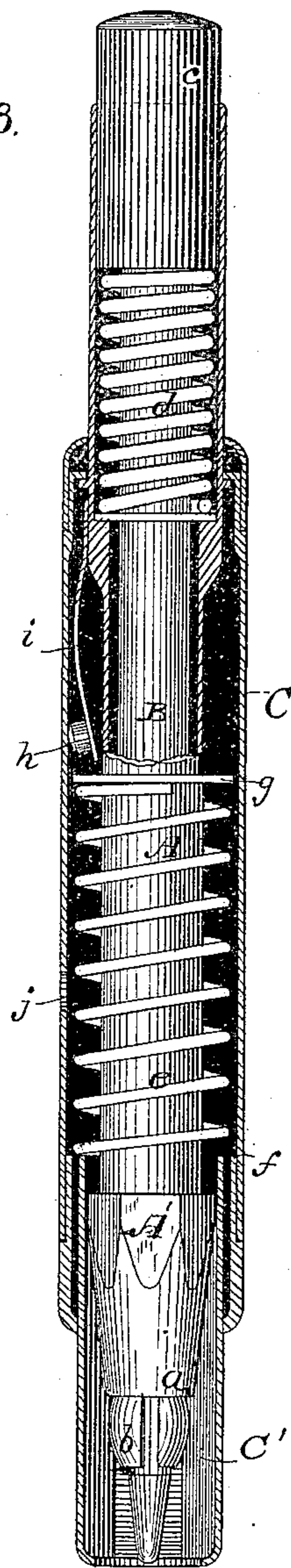
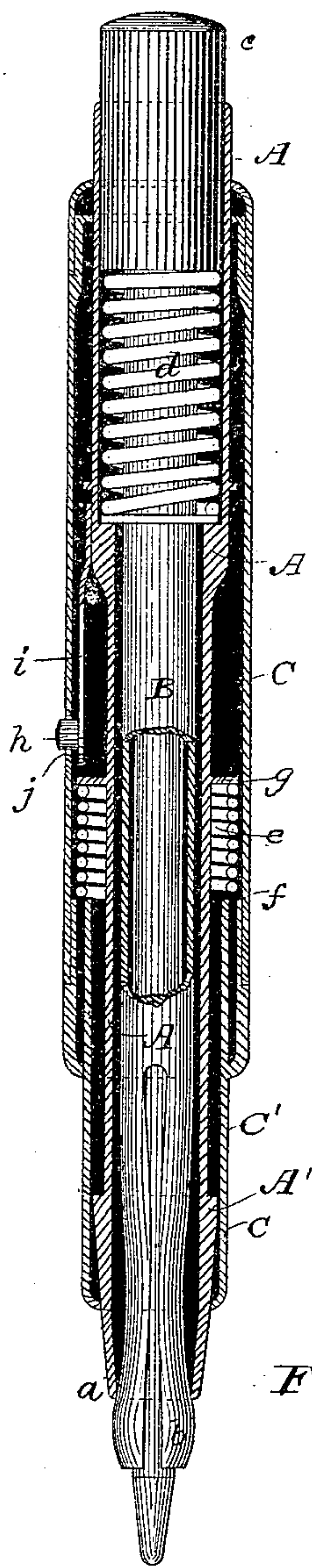
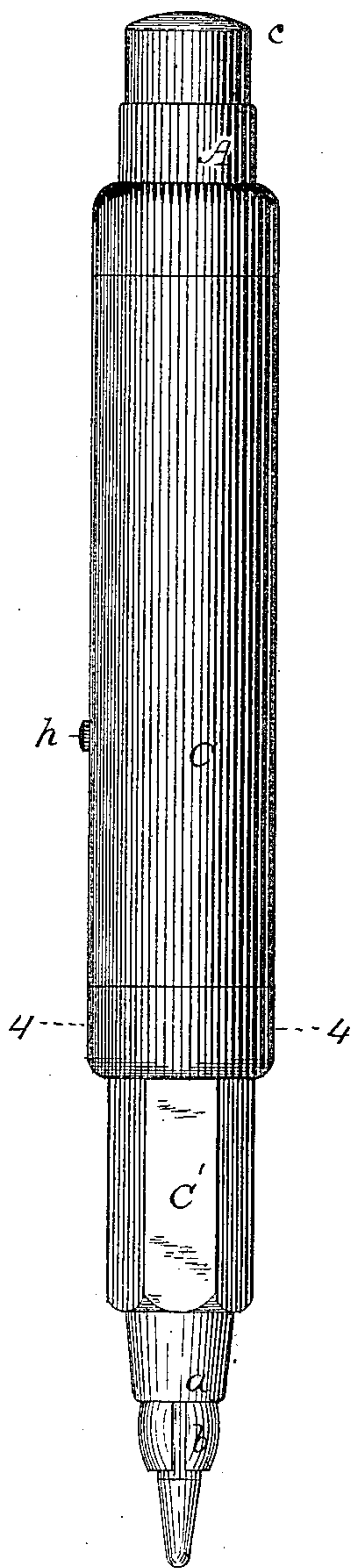
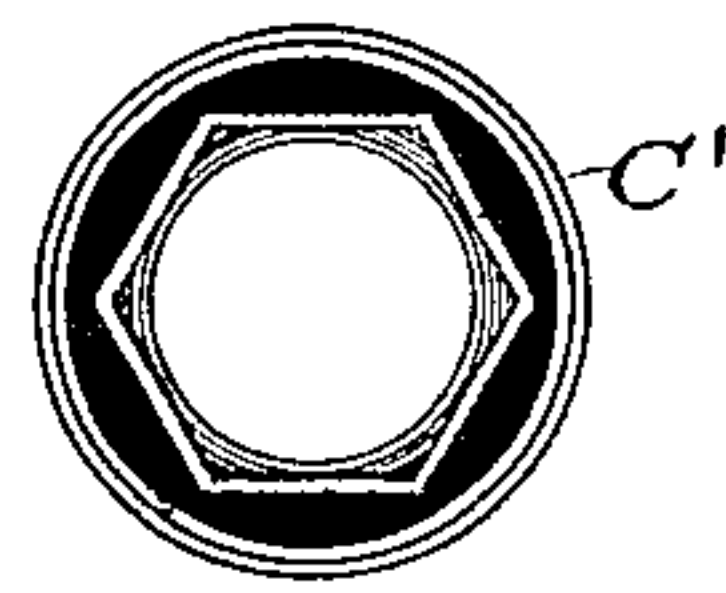


Fig 4



WITNESSES

*Wm A. Shirk.*  
*Edwin A. Newman.*

INVENTOR

*Joseph Hoffman*  
By *his* Attorneys *Marcellus Bailey*



# UNITED STATES PATENT OFFICE.

JOSEPH HOFFMAN, OF NEW YORK, N. Y., ASSIGNOR TO JOSEPH RECKENDORFER, OF SAME PLACE.

## PENCIL.

SPECIFICATION forming part of Letters Patent No. 270,567, dated January 9, 1883.

Application filed June 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH HOFFMAN, of the city, county, and State of New York, have invented certain new and useful Improvements in Pencils, of which the following is a specification.

My invention is characterized by the combination, in one instrument, of a point-protecting sleeve, a pencil of the so-called "Automatic" type—that is to say, a pencil having on its end a spring-controlled pressure-cap by which the lead-clamping device is operated to release the lead—these two elements being longitudinally movable with respect to one another so that the point of the instrument may be covered or uncovered, as desired, a spring operating to retract the pencil within the sleeve, and a lock or latch by which the pencil may be held in advanced position against the stress of the said spring.

Figure 1 is an elevation of the instrument representing the parts in the position when the point or tip of the pencil projects from the point-protecting sleeve. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a like section, with the parts in the position they assume when the point of the pencil is covered by the sleeve. Fig. 4 is a cross-section of the case on the line 4 4, Fig. 1.

A is the tubular sheath or case which surrounds the lead-tube B. The latter is longitudinally movable within the sheath, and carries at one end the usual lead-grasping jaws, *b*, and at the other end the pressure-cap *c*, between which and a shoulder in the sheath is interposed the retracting-spring *d*. The jaws are closed by being drawn by the spring against the contracted end of the tip or nozzle *a* of the sheath, and are released by pressing upon the pressure-cap. The device thus far is the same in principle and operation as the well-known automatic pencil described in Reissue Letters Patent No. 8,967, of November 18, 1879.

Surrounding the sheath is a point-protecting sleeve, C, which, in this instance, virtually constitutes the handle of the instrument, and can be made of any convenient or suitable material, size, and configuration. It is movable length-

wise with reference to the holder, and incloses a comparatively - light spring, *e*, which surrounds the sheath A, and is confined between a shoulder, *f*, in the sleeve at the front and a flange, *g*, on the sheath at the rear. This spring normally throws back the holder to the position indicated in Fig. 3, in which position the tip or point of the holder is covered by the sleeve. In order to uncover the tip or point, the holder is pushed forward by hand against the stress of the spring to the position indicated in Fig. 2, and to hold it in this position I make use of a lock or latch, which, in the present instance, consists of a rounded knob or button, *h*, carried on the end of a spring-strip, *i*, attached to the sheath A. In the sleeve C, at the proper point, is a hole, *j*, to receive the button or knob *h*. The latter is pressed outwardly by its spring *i*, so that when it comes opposite to the hole *j* it will at once enter therein, and thus lock the pencil in its forward position. The rounded knob projects far enough to permit it to be depressed like a thumb-button by hand whenever it is desired to unlock the holder, and when this is done the spring *e* at once throws back the holder to the position shown in Fig. 3.

With the special form of retainer or lock just described it is requisite, in order to maintain the button in line with the hole, that the sheath and sleeve should not be capable of rotating independently of one another. Various mechanical expedients for this purpose may be employed. One convenient means is to give a portion, C', of the sleeve a polygonal form in cross-section and to make that portion A' of the sheath which plays therethrough of a corresponding external form, as indicated in Fig. 3. The device represented in the drawings is a very convenient and desirable embodiment of my invention. The sleeve serves as a handle, and the pressure-cap is so placed as to project beyond the rear of the sleeve, even when the pencil is in its forward position. In this position the cap can be manipulated in the customary way, the button serving to hold the pencil in position against the pressure exerted on the cap. The pressure-cap, however, need

5 rarely be used, since, instead of opening the jaws and letting the lead drop back into the tube when the pencil is not required for use, it is only necessary to retract the pencil within the sleeve, which will cover and protect the lead point.

In the arrangement represented in the drawings the spring *e* should be lighter than the retracting-spring *d*.

10 In lieu of the lock or latch hereinbefore described, other forms of retaining mechanism can be employed. My invention is not restricted to the special retaining device shown.

What I claim as new and of my invention is—

15 The longitudinally-movable point-protecting sleeve and the automatic lead and crayon

holder arranged therein so that its spring-controlled pressure-cap shall project beyond the rear of said sleeve, in combination with a spring lighter or more yielding than the controlling-spring of the pressure-cap, and operating to retract the holder so that its point shall be within the sleeve, and a spring latch or lock for retaining the holder in the position to which it may be advanced against the stress 25 of the spring, substantially as set forth.

In testimony whereof I have hereunto set my hand this 9th day of June, A. D. 1882.

JOSEPH HOFFMAN.

Witnesses:

LEOPOLD ANSBACHER,  
JOE W. SWAINE.